Forcefield®
Operators Manual

P/N MAUSER-TS9100 • REV 21 • ISS 13 NOV 2020

Manufacturer Carrier Fire & Security Australia Pty Ltd
10 Ferntree Place
Notting Hill, Victoria, 3168, Australia

ACMA compliance  N4131

Contact information For contact information, see www.aritech.com.au

Content

Important information

This is the Forcefield® Security Management System Operators Manual. This document includes an overview of the product and detailed instructions explaining:

- How to program the Forcefield system
- How to use Forcefield to control a Challenger® & Network Access Controller security system
- How to maintain the Forcefield system

There is also information describing how to contact technical support if you have questions or concerns.

To use this document effectively, you should have the following minimum qualifications:

- A basic knowledge of security systems
- A basic knowledge of security system management software such as Forcefield

Note: Some of the tasks and programming options described in this manual are to be used only by Forcefield technicians who have been trained and assessed in relevant integration and programming.

This manual covers Challenger V8, Challenger10, ChallengerPlus, and Network Access Controller systems. The terms “Challenger10” or “Challenger Series” covers Challenger10, ChallengerPlus, ChallengerLE, and ChallengerLEPlus systems, unless otherwise noted.

Read these instructions and all ancillary documentation entirely before installing or operating this product. The most current versions of this and related documentation may be found on our website at www.aritech.com.au.

Command convention

Forcefield provides both graphical and keyboard options for operating the system:

- Graphical operation means that you use a pointing device such as a mouse or touch-screen to select and execute commands.
- Keyboard operation means that you use a keyboard to select and execute commands

Note: 100% graphical operation requires operators to log in using the Forcefield software keyboard (see Figure 10 on page 23) or by using a proximity card (Tecom 27-bit or Wiegand 26-bit).

Graphical commands include clicking on the Forcefield Speed Bar buttons, tool bar buttons, or additional buttons that may be provided on various forms. For example, see Figure 23 on page 35 for a screen that has both tool bar buttons

and additional buttons. Notice that many of the buttons have labels that list the relevant keyboard shortcuts that apply when the window has focus.

For example:

- The Close button is labelled ‘ESC’ to indicate that pressing the ESC key on the keyboard provides the same action as clicking the Close button with the mouse.
- The Text Resp (text response) button is labelled ‘Text Resp’ (with the T underlined) to indicate that pressing the ALT key and the T key on the keyboard simultaneously provides the same action as clicking the Text Resp button with the mouse.

In describing the command menu structure in this document, the symbol > is used to indicate sub-menus. For example, ‘Select Users > Access > Generate IUM Data’, means the same as ‘From the main menu, click Users, click Access, and then click Generate IUM Data’.

This manual uses the classic menu locations of commands. A Forcefield 6 system can use either the Forcefield 6 menu structure or the classic menu structure. See “Configuring login options” on page 267 for details.

Limitation of liability

To the maximum extent permitted by applicable law, in no event will Aritech be liable for any lost profits or business opportunities, loss of use, business interruption, loss of data, or any other indirect, special, incidental, or consequential damages under any theory of liability, whether based in contract, tort, negligence, product liability, or otherwise. Because some jurisdictions do not allow the exclusion or limitation of liability for consequential or incidental damages the preceding limitation may not apply to you. In any event the total liability of Aritech shall not exceed the purchase price of the product. The foregoing limitation will apply to the maximum extent permitted by applicable law, regardless of whether Aritech has been advised of the possibility of such damages and regardless of whether any remedy fails of its essential purpose.

Installation in accordance with this manual, applicable codes, and the instructions of the authority having jurisdiction is mandatory.

While every precaution has been taken during the preparation of this manual to ensure the accuracy of its contents, Aritech assumes no responsibility for errors or omissions.

Chapter 1
Introduction

Summary

This is the *Forcefield Security Management System Operators Manual*. This document includes an overview of the product and detailed instructions explaining:

- How to program the Forcefield system
- How to use Forcefield to control a Challenger security system
- How to maintain the Forcefield system

Content

Audience

This manual is for use by trained Forcefield installation technicians and operators. It provides the following information:

- Introduction to key Forcefield concepts, see Chapter 2 “Forcefield overview” on page 3.
- Using the Forcefield operator interface, see Chapter 3 “Operator interface” on page 15.
- Descriptions of tasks typically performed by Forcefield operators, see Chapter 4 “Forcefield tasks” on page 41.
- Forcefield command reference, see Chapter 5 “Forcefield commands” on page 85.
- Challenger programming reference, see Appendix A “Challenger programming” on page 297.

Scope of this manual

This manual is a supplement to the Forcefield online help and is intended only as an offline reference and a guide to using Forcefield.

It is not an exhaustive guide to every field on every screen that exists within Forcefield (most fields have context-sensitive online help).

Related documents

Refer to the *Forcefield Installation and Setup Manual* for setting up the Forcefield server computer and installing Forcefield client on Windows computers. It includes Installer reference sections, and is for use by trained Forcefield installation technicians.

Refer to the *Forcefield External Interfaces Manual* for reference material for setting up external interfaces such as CCTV, duress, intercom, paging, email, Smart Card Programmer, Card Layout Editor, and photo ID. It is for use by trained Forcefield integration technicians and Forcefield operators.

Refer to the *Challenger Programming Manual* for details about Challenger programming. To set up IP communications:

- For Challenger10, ChallengerSE, or ChallengerLE panels, refer to the *Challenger Series Programming Manual*.
- For Challenger V8 panels, refer to the *TS0099 Enhanced Challenger TCP/IP Interface Installation and Programming Guide*.

Chapter 2
Forcefield overview

Summary

Forcefield uses a number of key concepts to manage Challenger data and to enable operators to work as efficiently as possible. This chapter describes key Forcefield concepts and features added in this release.

Content

Key Forcefield concepts

What is Forcefield?

Forcefield is multi-operator, multi-tasking, network-enabled software designed to control Challenger panels and other high-level interfaces such as CCTV switchers, intercom systems, and more.

The Forcefield operator interface is provided via the Forcefield Client application running on Microsoft Windows computers, connected to Forcefield nodes via LAN/WAN or dial-up. Forcefield Enterprise may also have an operator interface connected directly to a node.

Up to 1,000,000 user records (with customised database fields) can be programmed in the Forcefield system, while thousands of Forcefield operators can be supported with defined levels of menu access.

Depending on version, add-on license modules provide enhanced functionality such as:

- Multi-node capability (Forcefield standard edition requires a multi-node license)
- Offsite redundancy capability (requires both a multi-node license, if applicable, and offsite redundancy license)

This manual refers to the Forcefield server as a node, except where server functionality is being described.

Nodes and workstations

Forcefield standard edition

Standard hardware (Figure 1 on page 5) is used for the primary controlling node (and optionally the backup controlling node). The user interface is provided via the Forcefield Client application on Windows computers.

Forcefield Enterprise edition

Rack-mount workstation hardware (Figure 1 on page 5) is used for the primary controlling node (and optionally the backup controlling node). Non-controlling nodes can use either standard or Enterprise hardware. Enterprise hardware can connect with more Challenger panels than standard hardware. The user interface is provided via the Forcefield Client application on Windows computers.

Figure 1: Forcefield hardware examples (images may not match actual product)

The Forcefield server application runs on computers (nodes) using the QNX operating system. Subject to licensing, a Forcefield primary controlling node or non-controlling node can connect with the following:

- Challenger panels via serial RS-232, local area network (LAN), wide area network (WAN), leased line, dial-up modem, etc.
- Forcefield clients via LAN/WAN or via dial-up
- CCTV switchers, Digital Video Recorders (DVR), associated CCTV video cameras, and to Teleste Video Surveillance systems
- Intercom systems
- Duress/Paging system
- Serial, parallel, or network printers
- Smart Card Programmer

The Forcefield Client application runs on Microsoft Windows personal computers.

Each Forcefield client can:

- Print to Windows system printers.
- Connect with a Smart Card Programmer.
- Operate the Forcefield Client Card Layout Editor, which enables the operator to design user card layouts and to print photo ID cards on a (Windows system) card printer.

Watch house functionality

Forcefield workstations can be used as watch house workstations (or *pods*), when Forcefield is running in watch house mode.

In watch house mode one workstation is designated as a “night switch workstation”. As operators log onto other watch house workstations, the members handled at each workstation are removed from the members of the night switch workstation. Any workstations not designated as watch house workstations operate in standard mode.

When no operator is logged into a watch house workstation, all the workstation's members are transferred to the night switch workstation. When an operator logs back into a watch house workstation, the workstation's members are transferred back to the workstation. Each watch house workstation operator is assigned all members because members are controlled at the workstation level instead of the operator level.

Refer to "Configuration" on page 263 for details about selecting watch house mode and specifying the master control (night switch) node.

Refer to "Workstations" on page 194 for details about designating specific workstations as watch house workstations.

Challenger programming

Subject to authorisation levels, Forcefield operators can remotely configure Challenger programming options, which eliminate the need to program individual Challenger panels on-site. The complete programming details of every Challenger panel are maintained and backed up on the server in the Forcefield databases.

Managing data integrity

When Forcefield is used to program a Challenger panel, or used to upload a panel's programming, the Forcefield system becomes the *primary* location for the panel's data, and the panel becomes the *secondary* location. It is vital that future programming is done only via Forcefield and not via a remote arming station (RAS), or via other management software connected to the panel.

Programming by any means other than Forcefield may result in a loss of data, errors in data, or uncertainty about the validity of data.

Members and member groups

The Forcefield concept of *member* restricts the operator from viewing records, and controlling and receiving events that are not within their authority (member group). The Forcefield database can therefore be partitioned into virtual sub-systems. At the same time a privileged operator may be given "all members" for global system control and monitoring.

The terms members and member groups have particular meanings in Forcefield:

- 'Member' is the term (that you define) which is used to identify field equipment or user records.
- 'Member group' is a group of members, which is then assigned to Forcefield resources such as operators and workstations. One member group is assigned to each operator.

Linking members to Forcefield records

Does the operator assign a member to a user—or assign a user to a member? Which one 'belongs' to the other? In fact, it doesn't matter how you look at it. To take user records as an example, a user record is linked to a member via the member field on the User Setup screen.

See Figure 2 on page 8 for an example of a User Setup window where the user is linked to a member named 'Building C'.

Using members to organise records

Forcefield records are linked to members in order to filter (restrict) the way the records are used. For example, all the records for a particular Challenger (the Forcefield records for a Challenger and its doors, floors, areas, etc.) can be linked to the member that you've named 'Factory'. In this manner, it's quick to search for the appropriate Forcefield records if you filter the search by the member name.

User records can also be linked to the 'Factory' member, or you can create new members specifically to keep user records together (e.g. a member named 'Users at 100 High St.').

Using member groups to assign records to operators

A member group is a group of members. A member group is linked to Forcefield resources such as operators, workstations, printers, etc., in order to determine which members are visible to the resource.

For example, a building located at 100 High St. uses two Challenger panels, where each has its respective Forcefield records linked to members named '01 Devices' and '02 Devices'. In addition, all staff working at the location are linked to a member named 'Users at 100 High St.'.

A member group named '100 High St.' is made up of the members:

- '01 Devices'
- '02 Devices'
- 'Users at 100 High St.'

The member group '100 High St.' is linked to a Forcefield operator controlling the building's security system. This allows the operator to see all the equipment and user records pertaining to the building, without having to deal with unneeded data (Forcefield can hold up to 1,000,000 user records). By restricting the operator to the three members in the operator's member group, we therefore prevent the operator from accessing all other records in the Forcefield system.

Using member's extra data fields

Member records have a particular function in regards to user records and user reports. The members screen has ten optional user fields, which, if completed, appear as labels on the User Setup form (for users linked to that member name), and are included in User reports.

To see how this information appears in Forcefield, see Figure 2 below for an example of a Members screen where one of ten user data field labels are defined, and then displayed in the respective User Setup window.

Figure 2: Members programming window (note populated Data 1 field)

Clusters

Clusters are a means of grouping together field equipment records of the same type, which enables a single operation to affect all the elements in the cluster. For example, a group of doors may be clustered to ‘Fire Doors’. The operator may then open all the fire doors in a single operation.

A cluster may be defined for Doors, Inputs, Areas, Relays, Floors, RASs, DGPs, Lifts, or Challenger panels. A device may be connected up to 32 clusters. For example, Door 19 could be in the ‘Fire Door’ cluster and the ‘Front Fire Door’ cluster and the ‘Office Door’ cluster, and so on.

See “Program Clusters” on page 210 for additional details.

User profile

A user profile is a collection of user information such as member, date range, position, department, card type, trace, long access, card only, privileged options, and Challenger access.

Profiles can be defined and used to manage user records in bulk and for a specified time. For example, a profile granting Challenger access to a group of users may be set to expire at a pre-set time and date, after which a specified alternative profile takes effect.

User records may be updated in bulk by making changes to a shared profile and then using the Sync to Profile operation to update the user records to the new user profile data.

See “Program Profile” on page 168 for additional details.

Forcefield Client

The Forcefield graphical interface may be operated from a Microsoft Windows computer via TCP/IP using the Forcefield Client application. Forcefield Client also provides Photo ID (which is not available on nodes (QNX computers).

Monitoring background processes

Forcefield monitors its background processes. If a background process terminates abnormally, an alarm will be generated to alert the operator.

Offsite redundancy facility

A Forcefield primary controlling node (server) can be configured to use a mirror node. If the primary controlling node fails, then the mirror node becomes active and operates as node 1.

Notes:

- All Challenger V8 panels connected to the primary controlling node must be upgraded to firmware version V8-C-MFx.8106 (or later). Failure to upgrade the panel firmware may result in very slow event reporting.
- In cases where the primary and backup controlling nodes are connected to the security system or other high-level interface (HLI) via serial connections, suitable serial port monitoring and switching equipment would be required to

cater for the situation where the primary controlling node fails and the backup controlling node takes control. Forcefield will use the equivalent ports on the backup controlling node as on the primary controlling node. Such switching equipment must be provided by the customer.

Incidents

An incident is a series of events that begin with an alarm event and belong to one member.

The use of incidents is optional and configured in “Configuration” on page 263. If used, Forcefield can be configured for incidents to be either automatically generated by Forcefield or manually generated by operators from the alarm screen.

An automatically generated incident is started when an event causes an alarm and there is not already an incident for that member. All events coming in (that belong to the same member as the initiating event) are included in the incident. The incident ends when the operator removes it via the alarm screen.

Forcefield desktop

Refer to “Main screen” on page 16 for images of the Forcefield desktop.

Activity Icons

Activity icons on the Forcefield desktop indicate when reports, backups, Challenger downloads and uploads are active, or automatic processes are scheduled. Refer to “Screen icons” on page 17 for details.

Colours

The colour of the desktop background and the colours of the data entry fields on the various screens are configurable on a workstation basis.

Background

A background image may be displayed on the desktop of the Forcefield server. The image file must be placed in the correct directory using operating system-level tools (there is no Forcefield configuration tool for this purpose).

Tip: Use of this feature may slow screen updates.

System time

The system time can be set by double-clicking the clock display on the alarm line.

Menu

The menu may be hidden, leaving the Forcefield desktop free for applications.

Remote computer connectivity

Forcefield can allow remote computers to access the Forcefield directories on an individual read/write basis using NFS (Network File System) facilities.

Forcefield can connect to external storage devices allowing backups to be written to remote computer systems by using either:

- NFS, or
- CIFS (Common Internet File System)

Data entry screens (forms)

Searchable fields have a down arrow next to the field, clicking this icon performs the same function as the F4 key or right-click.

‘Go to’ fields are indicated by a crosshatched background when the field is in focus.

Event window

The Forcefield event window is now member aware. It will only display events that are linked to the workstation and/or operator member group.

Door lock override

Door Lock Override allows the operator to specify time periods when a door should be unlocked, together with optional areas that should be disarmed.

Door monitor

A Door Monitor allows selected doors to be monitored and controlled (opened) on a workstation basis.

When a user access event occurs, the event details and user image (if any) will be displayed and user details may be retrieved from the door monitor.

History and database backups

Backups may now be performed across the network to NFS or CIFS mounted directories on remote computers.

Forcefield can be set up to automatically backup databases and history at a set time. History events are generated for backup initiation and successful completion, and Forcefield can be set up to check for these events.

History export

Forcefield history may now be exported as CSV (comma separated value) files. Forcefield can be set up to automatically export history at a set time.

Graphics

- Forcefield supports up to 65,535 maps.
- There are 10 levels of maps allowed for a Live Animation Point (LAP), and a LAP report is available.
- Printers and computers (nodes) can be placed on maps.
- Doors may be represented by the traditional line icon or by a symbol.

Reports

All reports have the Forcefield License Site ID displayed in the report title.

Guard tour

A guard tour is a defined series of checkpoints at which a security guard must check in, within specified time intervals. Failure to check in on time triggers an alarm or other event.

Users

Forcefield can have up to 1,000,000 user records (Challenger limitations still apply). The Forcefield user number is not necessarily the Challenger user number. For example, Forcefield user 3 may be:

- User 5 in Challenger 1
- User 56 in Challenger 123
- User 12345 in Challenger 45, etc.

See “Show Ch. User Number” on page 183 for details.

Photo ID

Photo ID and Card generation facilities are provided by Forcefield client. Refer to the *Forcefield External Interfaces Manual* for details.

User import and export

Manual or automatic import and export of user data is provided. Refer to “Import User Data” on page 183 and to “Export User Data” on page 182.

User profile

See “User profile” on page 9 or “Program Profile” on page 168 for additional details.

User access groups

Challenger Access Groups will only be visible to an operator if every component of that group is in the operator’s or workstation’s member group (e.g. a door group will show only if every door in the group has members accessible to the operator).

Interface to DVR

A Forcefield system may interface via Ethernet (IP) connections to Digital Video Recorders (DVR), associated CCTV video cameras, and to Teleste Video Surveillance systems.

Authorised operators can:

- Access live and recorded video footage from maps.
- Program Forcefield to activate a camera and to record footage in response to events such as an alarm or by someone using a reader.
- Find recorded footage by searching the DVR by text tags or by time (see “History > Show DVR Footage menu” on page 141).
- Display up to 16 images of DVR video on a single screen using multi-view (see “Multiview” on page 227).

Refer to the *Forcefield External Interfaces Manual* for details of integrating a DVR or Teleste system into Forcefield.

Interface to third-party systems

Forcefield can be integrated with third-party devices, so that it can send event data to, and receive messages from, external systems. Third-party integration enables Forcefield to perform actions via the event triggering system.

See “Databases > Third Party menu” on page 218 and *Forcefield External Interfaces Manual* for details.

What’s new in this release

Forcefield 8.0 provides the following new functionality (major changes only):

- Support for Extended mode NAC panel type
- Support for Direct mode NAC panel type
- Support for ChallengerPlus panel type
- Support for following DGP models and modes on ChallengerPlus panel:
    1. TS1066: 4 door and 8 door classic & extended modes
    2. TS1066-4: 4 door classic & extended modes
    3. TS1067: 4 door and 8 door classic & extended modes
    4. TS1067-4: 4 door classic & extended modes
    5. TS1061: as DGP on ChallengerPlus as well as sub-DGP for NAC.
- Support for Standard Doors and Standard Lifts programming on ChallengerPlus panel.
- Control NAC doors, readers, sub-DGPs and sub-RASs from Panel control & Graphics maps
- Forcefield Triggering supports events from NACs and its sub-devices
- Support for User Licencing (max. 5 licences per user with individual expiry dates)
- Support for High security users (HSU) in 'User setup' form
- User import and export support HSU flags.
  Note: When users are imported to Forcefield 8 using export files without HSU flag, by default users will not have HSU flag set.
- Support for User licence import and export
- NAC panel copy (can now copy direct-connect NAC panel types)
- Door Status (from Door Monitor) supports 'open door' on direct-connect NAC doors and classic NAC doors.
- Forcefield downloads and uploads now support all NAC entities (controller options, scheduled actions, sub-DGPs, sub-RASs, input & output mapping, macros, region configuration, alarm control levels etc.). Forms to support these in place.
- TS0866 & TS0867 DGPs on ChallengerPlus panel can be migrated to NAC (using Migrate to NAC button in DGP form)
- COS events supported for the new panel types: NAC Direct mode, NAC Extended mode, ChallengerPlus
- Comms supports strict sequence numbering for NAC and ChallengerPlus panels.
- Option to clear panel data before upload when uploading panel
- Enable V8 numbering now available when upgrading from V8 panels.

Chapter 3
Operator interface

Summary

This chapter describes the Forcefield workspace.

The Forcefield application runs in the QNX operating system on each node. The Forcefield Client application runs in the Windows operating system on standard personal computers and effectively provides a remote user interface to the Forcefield application.

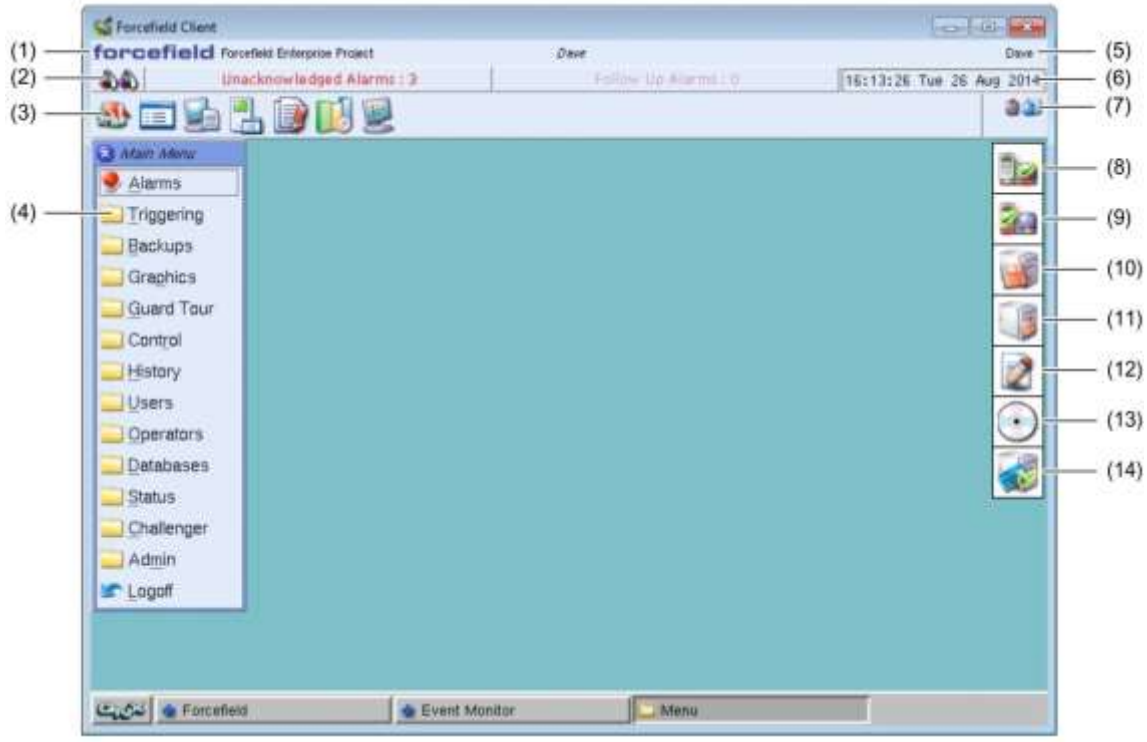
In this manual, Forcefield Client is used for screen examples because Forcefield Client screens are typically identical to Forcefield screens.

Content

Main screen

After the operator logs in to Forcefield, the main Forcefield screen displays the Speed Bar, shortcuts to alarm screens (when alarms are present), alarm line, date and time, workstation ID, and operator name.

Figure 3: Forcefield main window with default Speed Bar buttons



(1) Forcefield title bar
(2) Alarm line
(3) Home button in Forcefield Speed Bar
(4) Click a folder to open sub-menus
(5) Logged in operator
(6) Forcefield system time and date
(7) Scheduled or automatic activity icons
(8) Download activity icon
(9) Upload activity icon
(10) Backup activity icon
(11) Restore activity icon
(12) Report activity icon
(13) Process activity icon
(14) A learn reader is assigned to this workstation

The Forcefield client may be configured to display alarm priority details in place of the Unacknowledged Alarms and the Follow Up Alarms buttons. See “Using the alarm line priority details” on page 37 for details.

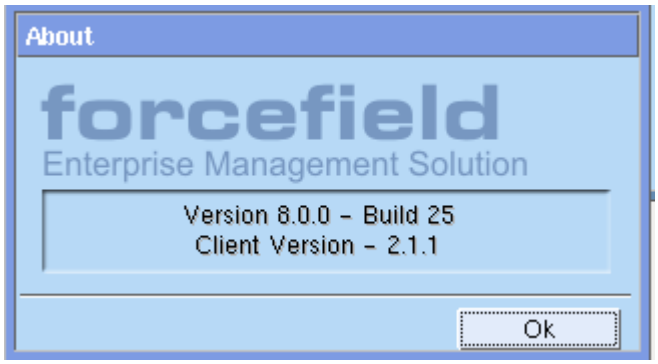
Hold the cursor over a button or an automatic activity indicator to display the name or function (Figure 4 on page 17)

Figure 4: Popup help example

Forcefield title bar

Double-click “Forcefield” in the title bar to open the About box.

Figure 5: Forcefield About box



The About box displays details about the Forcefield software version currently installed on the node and the client.

Screen icons

The Forcefield desktop may display animated and still icons to indicate various background processes and scheduled activities.

Activity icons

Activity icons on the Forcefield desktop (Figure 3 on page 16, items 8 to 14) indicate when reports, backups, Challenger downloads and uploads are active. These allow the operator to easily determine what background tasks are running and the ability to individually terminate those tasks.

Automatic activity icons

The Forcefield main window may display icons (Figure 3 on page 16, item 7) to indicate scheduled or automatic activities. Hold the cursor over an automatic activity icon to display details in a pop-up window.

The scheduled or automatic tasks are:

- **Auto database backup**—pop-up message indicates the scheduled time and destination) of a currently active scheduled backup (see “Auto Database Backup” on page 96).
- **Auto history backup**—pop-up message indicates the scheduled time, destination, and settings) of a currently active scheduled backup (see “Auto History Backup” on page 97).
- **Auto history export**—pop-up message indicates the scheduled time, destination, and settings) of a currently active scheduled export (see “Auto History Export” on page 98).
- **Auto user import**—pop-up message indicates the user data source when Import User Data is set to automatic (see “Import User Data” on page 183).
- **Auto user export**—pop-up message indicates the user data destination when Export User Data is set to automatic (see “Export User Data” on page 182).

Forcefield Speed Bar

The configurable Forcefield Speed Bar on the main window can be used to quickly open and close Forcefield screens and to execute commands. The Speed Bar can be configured—images changed, buttons added, and so on.

The functions of the default Forcefield Speed Bar buttons are shown in Figure 6 below.

Figure 6: Default Forcefield Speed Bar

(1) Forcefield Menu, displays the main menu

(2) Toggle Events Window, displays or hides the Events window

(3) Computer Status, displays the Computer Status/License Information window

(4) Challenger Status Report, displays the Challenger Device Status Report window

(5) Abnormal Status Report, displays the Abnormal Challenger State Report window

(6) History Statistics, displays the History Statistics window

(7) Alarm Map, Displays the Alarm Map window for the highest-priority alarm (the cursor automatically points to the alarm). If there is more than one alarm with the same priority, the map with the oldest alarm displays.

See “Speed Bar Configuration” on page 286 for details about configuring the Forcefield Speed Bar.

Command shortcuts

Keyboard shortcuts and tool bar buttons are provided for most Forcefield commands.

Figure 7: Example of a Forcefield window toolbar

Throughout the operator interface, there are typically several methods by which the operator can execute commands—typically by using the keyboard or by using a pointing device to click a screen element such as a tool bar button.

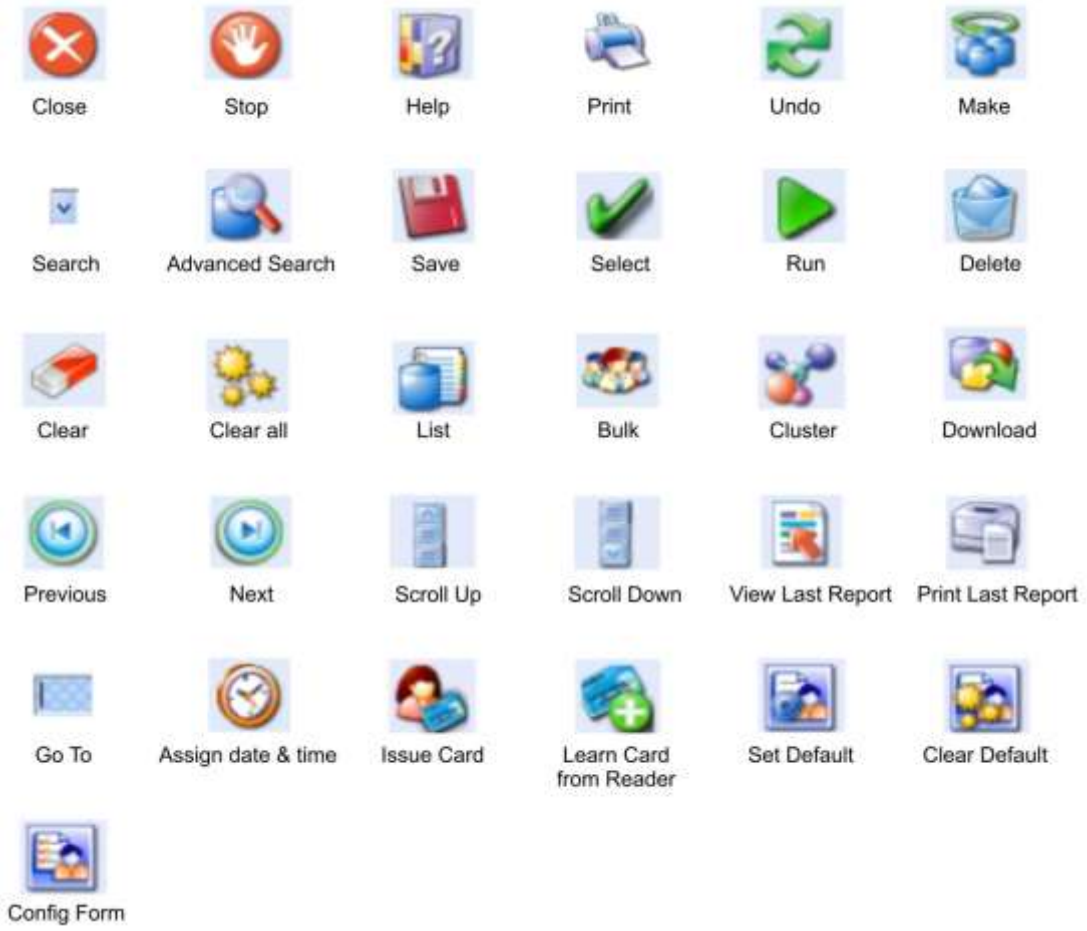
In addition to these two main methods of operation, there are often further alternatives such as right-click or double-click commands. Table 1 below is a list of keyboard shortcuts and Figure 8 on page 21 shows corresponding tool bar buttons.

Table 1: Forcefield Shortcuts (some are window-specific)

Key	Name	Function
Tab	n/a	Use the Tab key to move the focus forward to different fields or buttons.
Shift+Tab	n/a	Use the Shift+Tab key combination to move the focus backwards to different fields or buttons.
Ctrl+Tab	n/a	Use the Ctrl+Tab key combination to move the focus to the first field.
ESC	Close	Close the current window or menu.
ESC	Stop	Stops the current process.
F1	Help	Displays on line help for the selected field.
Shift+F1	Print	Sends the current form to the workstation's default printer. In order to display this button, the workstation must have a default printer assigned and have printing enabled in Workstation Options.
F2	Undo	Restores values to their saved values (not applicable to deleted records).
F3	Make	Creates a new record using the data displayed in the associated field. Alternatively, double-click the field to create the new record.
F4	Search	Used for searching or listing of options. Alternatively, right-click the data field to search.
Shift+F4	Advanced Search	Used for searches on selected screens.
F5	Save	Used for storing the values that have been entered in a field or form.
F5	Select	Selects the displayed record.
F6	Run	Used to start processing the current function.
F8	Delete	Delete a selected record from a Forcefield database or de-activate a timed automatic function (for example, auto-database backup).

Key	Name	Function
F9	Clear	Clears the selected field.
F10	Default	Sets a selected field to the default value (where applicable)
F11	Clear all	Clears all fields in the current form. Depending on the particular application, the F11 button may populate the fields with default data.
F12	List	Used to list the components and sub-components of a group.
Alt+B	Bulk	Initiates bulk processing of user records.
Alt+C	Cluster	Open the Cluster screen (from screens that either program or control Doors, Inputs, Areas, Relays, Floors, RASs, DGPs, Lifts, or Challenger panels).
Alt+D	Download	Transfers data from Forcefield to a Challenger panel.
Alt+M	Menu	Opens the main menu. Alternatively, press Enter to open a selected main menu item.
Page Up	Previous	Displays the previous record.
Page Down	Next	Displays the next record.
Ctrl+↑	Scroll Up	Displays the previous page in a list.
Ctrl+↓	Scroll Down	Displays the next page in a list.
n/a	View Last Report	Displays the most recently-run unprinted report by the current operator at this workstation.
n/a	Print Last Report	Prints the most recently-run unprinted report by the current operator at this workstation.
n/a	Go To	‘Go to’ fields are indicated by a crosshatched background when the field is in focus. Double-click the field (or press F3) to go to the associated form. Alternatively, right-click the data field to search.
n/a	Assign date & time	Automatically populates date and time fields with values from, for example, today, yesterday, etc.
n/a	Issue Card	Click Issue Card on the User Card Data window to open the Issue User Card window.
n/a	Learn Card from Reader	Click Learn Card from Reader on the User Card Data window to enable card data to be read from the system’s TS0862RAW card reader or from a designated IUM Learn Reader.
n/a	Set Default	Click Set Default on the User Setup window to save the currently-displayed data as a template, or to load a previously-saved template.
n/a	Clear Default	Click Clear Default on the User Setup window (in default data mode) to remove the current template.
n/a	Config Form	Click Config Form on the User Setup window to open the Maintenance Config window, to specify which fields on the User Setup window are to be read-only (not editable). See “Show PIN Code” on page 159 for details.

Figure 8: Forcefield tool bar buttons



Background task indicators appear from time to time in the main window. These are described in “Monitoring background processes” on page 9.

Main menu

If the main menu is not displayed, click the Forcefield Menu button to open it (alternatively, use the keyboard shortcut ALT+M).

The top level of the old Forcefield menu structure is displayed in Figure 3 on page 16 and in Figure 83 on page 268.

Applicable to Forcefield 6 and later, the main menu structure is configurable via “Configuring login options” on page 267. The organisation of this manual and all menu images are based on the classic menu structure. Command names are the same regardless of the menu structure, and are contained in the Index for quick reference, regardless of the structure used.

Menu items have underlined characters to indicate hot-key functionality (only when the menu is in focus). For example, press the ALT key and the T key simultaneously to open the triggering menu.

The Forcefield menu is configurable at the operator level, and does not typically display all the menu options.

Navigating Forcefield

This section describes common tasks that Forcefield operators need to be familiar with. The actual tasks that various types of operators and installation technicians will perform will vary depending on the job requirements.

This section describes:

- System start-up
- Logging in
- Logging off
- Automatic shutdown
- Initial Forcefield screen
- Data entry and searching
- Generating reports
- Alarm handling process

System start-up

When the Forcefield controlling node is started or restarted (and a user interface is connected to the controlling node), a message may appear briefly indicating that the computer's "boot agent cannot continue", and then Forcefield starts normally. You may ignore the message.

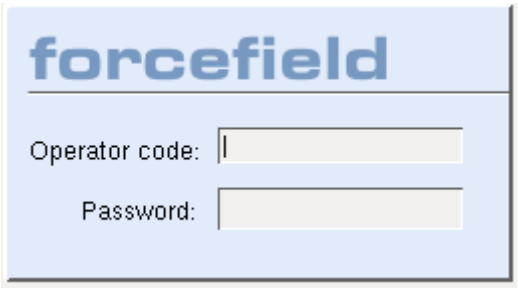
Logging in

An operator must log in to start a Forcefield session. Depending on the configuration of the Forcefield system, login may be done by entering your operator code or by badging a proximity card using the TS0862RAW interface connected to the Forcefield computer (Refer to the *Forcefield Installation and Setup Manual* for details).

The login access rights of each operator are defined in the Operators > Access menu.

The following procedure describes the use of the Forcefield login screen Figure 9 on page 23.

Figure 9: Login screen



Use the following procedure to log in:

1. Type your operator code and press Enter.
2. Type your Password and press Enter. The password is case-sensitive (for example, the password ‘THX1138 is not the same as ‘thx1138). The password characters display as * for your security.

A Forcefield workstation may be configured for strictly graphical operation (where a physical keyboard is not provided). Such workstations use the Forcefield software keyboard for login (Figure 10 below) or by using a proximity card (proximity card login is not available for Forcefield clients).

Figure 10: Software keyboard used for login on workstations without a physical keyboard

The use of the software keyboard is defined in “Workstation options—login” on page 196.

Logging off

To log off, select Logoff from the speedbar or press ALT-CTRL-SHIFT-L. Alternatively, select Logout from the Alarm map screen if the workstation is defined as a graphical login. Forcefield displays the Login screen for the next operator.

Automatic shutdown

In certain situations, Forcefield automatically shuts down to protect the integrity of the system. In each case, a message is displayed explaining the action that is being taken. Forcefield will automatically shut down following detection of any of the following conditions:

- The server has less than 2 MB of free RAM.
- The server has less than 2 MB unused space remaining (on any hard disk that is being monitored for space).

Initial Forcefield screen

After logging in, the Forcefield desktop operates in one of two modes:

Menu mode: Click Forcefield MENU on the Speed Bar to display the main menu (the Speed Bar is depicted in Figure 6 on page 18).

Graphic mode: Similar to menu mode except that the Alarm Map window is constantly open (the Logout button replaces the Quit button). In graphic mode, Logoff is not a main menu option.

The login mode for the workstation is defined in “Workstation options—login” on page 196.

Data entry and searching

Data-entry fields in Forcefield enable the operator to quickly search for existing data, or to create new data, if needed. For example, see Figure 11 *on page 25*, the User Profiles window has data entry fields including:

- Position—Linked to User Position data.
- Department—Linked to User Department data.

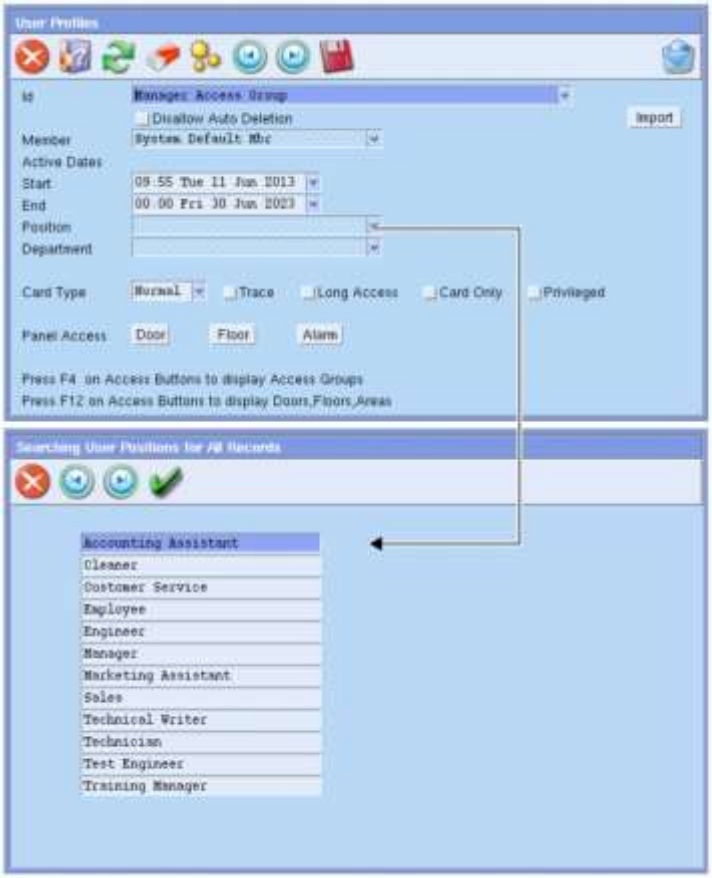
When either of these fields is active (has focus), the field’s background displays a cross-hatch pattern to indicate the linking to another form.

Notice how some of the fields have search arrows. Click the field’s search arrow to select from a list.

Notes:

- Search arrows are used extensively in Forcefield to indicate fields that may be completed using existing data. Click the arrow to select from the list.
- When entering dates, right-click in the date field and select the date via the Calendar widget (“Using the calendar widget” on page 28).

Figure 11: Typical search operation



Click the search arrow (or press F4) to search for existing data.

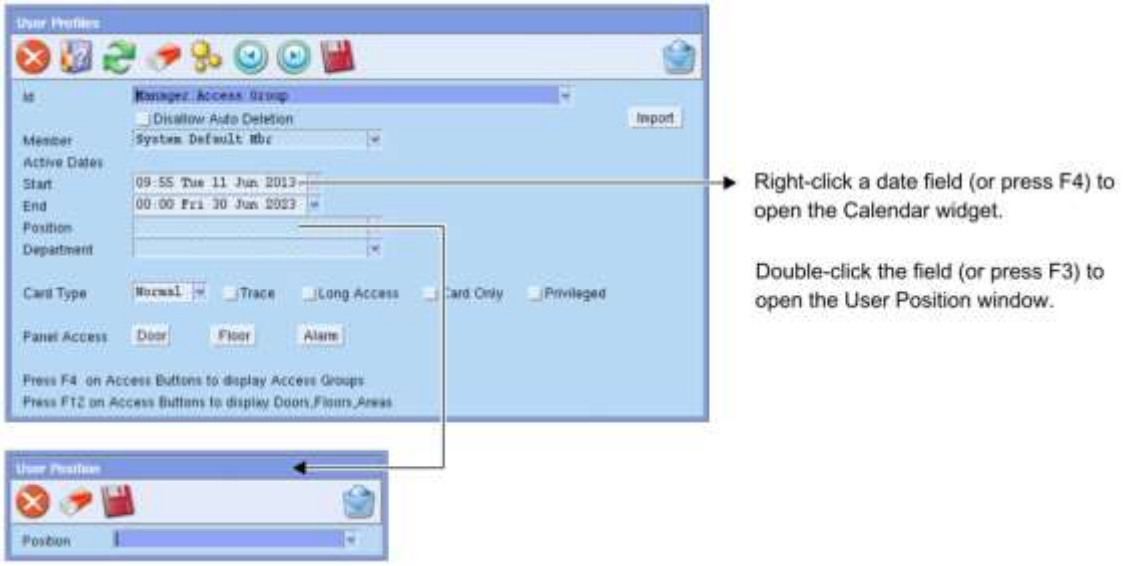
Results of search (all records displayed).

If the letters "TE" were entered before searching, only the records starting with "TE" would be displayed.

If the user position you wish to use does not exist, you have two alternatives after returning to the User Profiles window:

- Type the new user position into the Position field and save the record. The data entered and saved will not be added to the list of user positions.
- Double-click the Position field (or press F3) to go to the User Position window, and then type the new user position into the Position field and save the record. The data entered will be added to the list of user positions so that you can select it next time you need it without retyping.

Figure 12: Typical ‘Go To’ operation



Cross-hatch field backgrounds are used in Forcefield to indicate fields that are linked to other windows. Double-click the field to open the related window.

Narrowing the search

An unfiltered list of options can be very long (Forcefield can hold up to 1,000,000 user records), so Forcefield provides several ways in which to narrow or ‘filter’ a search. These include:

- Using members and/or member groups to limit the data that the operator sees. See “Members and member groups” on page 6 for details.
- Using a text string in a data field before searching. See “Using a text string” below for details.
- Selecting a restricting value before searching. See “Selecting a restricting value” on page 27 for details.

Using a text string

For an example of using a text string, see Figure 11 on page 25 where the Position field is empty prior to searching. The search result contains every existing record. Here is what would happen if some text were added to the Position field prior to searching:

- Type ‘Te’ or ‘te’ (search strings are not case-sensitive) and then search—the search results would contain only ‘Technical Writer’, ‘Technician’, and ‘Test Engineer’.
- Type ‘tec’ and then search—the search results would contain only ‘Technical Writer’ and ‘Technician’.
- Type ‘m’ and then search—the search results would contain only ‘Manager’ and ‘Marketing Assistant’.

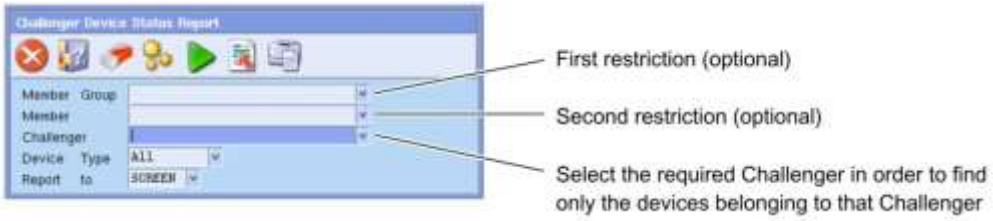
- Type ‘b’ and then search—Forcefield displays a message indicating that no matching data was found.
- If there is an exact match for the text string, you will see the matching record listed, and you can use the Page Up and Page Down buttons to find other records.
- You can use a pair of % characters to do a wildcard search for any string of text in users’ names. For example, type “%JO%”and then press F4, and Forcefield will find all user names where either the first or last names contain JO, such as Jodie Smith or Marie Johnston.

Selecting a restricting value

‘Restricting value’ means to make a selection that restricts the next selection to a smaller amount of data. For example, if the operator selects a member group, the list of members available for searching will be restricted to the members that are part of the member group.

The use of restricting values to limit the size of the search results list is optional—it is provided to speed the operator’s work flow when large numbers of records make it slow to find the correct entry. In the examples shown here, it would be quicker to search for the correct Challenger without using the member group and member fields.

Figure 13: Search screen with no restricting values selected



With no restricting values, a search on the Challenger field displays all Challenger panels for all members and member groups.

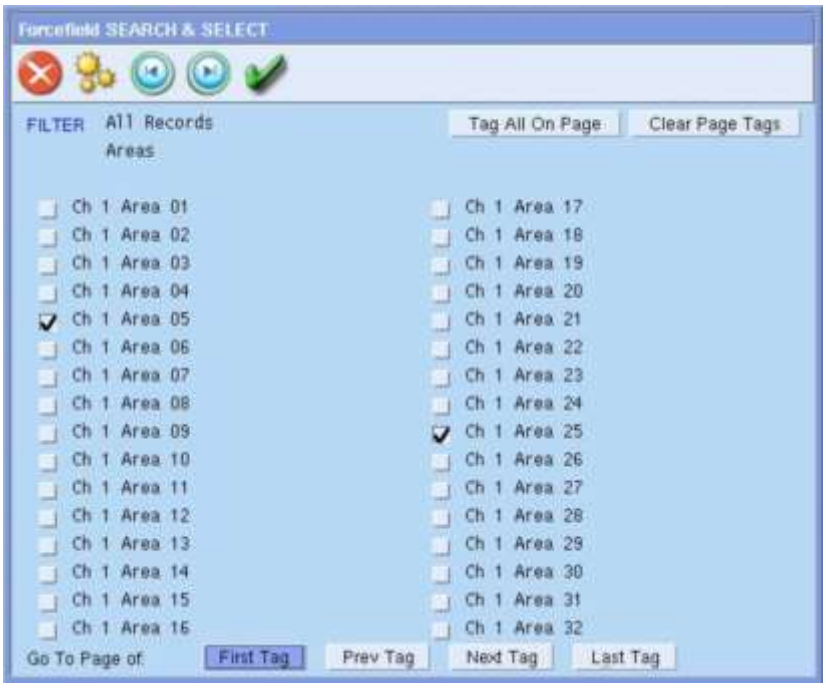
The operator can specify a member group to limit the display of members (and Challenger panels) to only those associated with the member group. Alternatively, the operator can specify a member group and/or a member to limit the display of Challenger panels to only those associated with the member.

Note: You can select a member group in order to restrict the list of available members, but not the other way around (you can’t select a member in order to restrict the list of available member groups).

Using Search & Select

Some fields are linked to the Forcefield Search & Select window. Click the field’s arrow (or press F4) to open the Search & Select window (Figure 14 on page 28).

Figure 14: Forcefield Search & Select window



Click the “Tag All On Page” button to tag (check) all check boxes on the page. Click the “Clear Page Tags” to clear all check boxes on the page.

There may be many pages of items listed in the Search & Select window. If you’ve already tagged (checked) items, then you can use the “First Tag”, “Prev Tag”, “Next Tag”, or “Last Tag” buttons to find tagged items on other pages.

Using the calendar widget

There are many locations in Forcefield where you need to enter a time and date, for example, to define the start time and date for a user profile (Figure 12 on page 26).

When entering dates, right-click in the date field and select the date via the Calendar widget (Figure 15 below).

Figure 15: Calendar widget

Generating reports

Many of the reports in Forcefield are generated using a window similar to Figure 13 on page 27. Some reports use a simpler window, such as the LAP Report window pictured below.

Figure 16: Typical report window

Map Search. Click the arrow to search for and select one or more maps. Alternatively, leave the field blank to report on all maps.

Report To. Click the arrow to select the destination for the report:

- Screen—displays the report to the screen you are operating from.
- Printer—prints the report to a specified printer.
- Disk—writes the report to a specified storage device.
- Email—sends the report via email. An email server must be configured in “Configuration” on page 263.

If you select printer and a default printer has been assigned to the workstation, this printer will be automatically selected (however, you can select another printer if required). If you select disk, you’ll need to further select the device where the report is to be written.

Some reporting options invoke a Report Finished dialog.

Figure 17: Report Finished dialog enables you to preview the results before printing

Select View to display the report on screen, alternatively select Don’t View to exit.

The report is kept on the system and is available for later viewing or printing until it is replaced by the same operator at the same workstation generating the report again, or the report has been deleted because it has been on the system longer than the time specified in Forcefield Configuration (default is 7 days). See “Configuring report options” on page 268.

Report templates

Some reports have a Template button. Click to either create a template of the current data on the screen or to retrieve data from a previously saved report template.

Figure 18: Report template dialog

Id. Select a template ID and then:

- Press Save to save a copy of the current data on the report form to the selected template ID.
- Press Run to retrieve the information from the selected template and populate the report form.

Alarm handling process

The process of responding to alarms varies depending on whether the operator uses the Unacknowledged Alarm window or the Alarm Map window as the point of entry. In addition, a workstation may be configured to display one alarm per member (see “Unacknowledged alarms” on page 32 for details).

In graphic mode (see “Initial Forcefield screen” on page 24), the operator may choose to quickly respond to an alarm indicated by a flashing red background on the Alarm Map window. Whichever the mode (graphic or menu), operators can choose the alarm handling process that best suits their needs.

Alarm handling in menu mode

To handle alarms via the Unacknowledged Alarm window:

1. Select Alarms from the main menu, or click the Alarm Screen button at the top of the main window (see “Unacknowledged alarms” on page 32).

   The Unacknowledged Alarms window displays a list of alarms in priority order. Highest priority alarms are at the top of the list and new alarms are marked with an asterisk ‘*’ (see Figure 19 on page 32).
2. Click the required alarm to open the Alarm Detail window for the alarm.
3. Respond to the alarm by selecting from pre-defined responses or by typing a text response.
4. Click the Ack Alarm button to acknowledge the alarm.

If the alarm point has reset or the alarm condition restored, the alarm is removed from the system. If the alarm has not been reset or restored, it is moved to the Follow Up Alarms window. **Note:** The device in alarm may be assigned a computer category programmed to require an acknowledgement after a restoral in order to remove the alarm.

5. If required, open the Follow Up Alarms window by clicking the Follow Up Alarms button at the top of the main screen (see Figure 3 on page 16).
6. Click the required alarm to open the Alarm Detail window for the alarm. The Alarm Detail window contains information about the state of the alarm to assist in follow-up.

Alarm handling in graphic mode

To handle alarms via the Alarm Map window:

1. In the Alarm Map window, click the device in alarm condition (indicated by a flashing red background) to open its pop-up menu. See Figure 19 on page 32 for an example of a pop-up menu (the flashing red background is hidden by the pop-up menu).

   The workstation may be configured via the Bypass Menu if LAP in Alarm setting to immediately open the Alarm Detail window for the alarm when the operator clicks the LAP. If the alarm does not appear on the map, you can use the Unacknowledged Alarm window for alarm handling (see “Alarm handling in menu mode” on page 30).
2. Select Alarm from the pop-up menu to open the Alarm Detail window for the alarm.
3. Respond to the alarm by selecting from pre-defined responses or by typing a text response.
4. Click the Ack Alarm button to acknowledge the alarm.

   If the alarm point has reset or the alarm condition restored, the alarm is removed from the system and the device is indicated without a coloured background. If the alarm has not been reset or restored, it is indicated by a purple background.

   Note: The device in alarm may be assigned a computer category programmed to require an acknowledgement after a restoral in order to remove the alarm.
5. If required, click the device in follow-up alarm condition (indicated by a purple background) to open its pop-up menu. See Figure 19 on page 32.
6. Select Alarm from the pop-up menu to open the Alarm Detail window for the follow-up alarm. The Alarm Detail window contains information about the state of the alarm to assist in follow-up.

Figure 19: Alarm Map window pop-up menu for a selected device in alarm

Using the alarm windows

Unacknowledged alarms

The Unacknowledged Alarms window lists all the unacknowledged alarms that are linked to members contained in the operator's and workstation's member groups.

Figure 20: Unacknowledged Alarms window

(1) Toggle Alarm Type button. Toggles (switches) the display between the Unacknowledged alarm window and the Followup alarm window.

(2) Toggle Alarm Order button. Toggles the alarm display order between time order and priority order. In priority order, the highest priority alarms (lowest number) appear at the top of the list. In time order, the oldest alarms appear at the top of the list. Whichever order is selected (time or priority) is maintained when switching between the Unacknowledged Alarms window and the Follow-up Alarms window.

(3) Silence Beeper button. Turns off the beeper until a new alarm arrives or five minutes elapses.

(4) Silence Beeper (Permanent) button. Turns off the beeper.

(5) Priority Silence button. Turns off the beeper until an alarm with a higher priority (lower priority number) than any alarm currently in the system is received.

(6) Set Filter button. Click Set Filter to open the Set Alarm Filtering window.

(7) Clear Filter button. Click Clear Filter to remove alarm filters.

(8) Begin Incident button. Manually begin an incident for the member linked to the currently-selected alarm. An Incident Report button is added to the window for an alarm that has an active incident.

(9) End Incident button. Manually end the incident for the member linked to the currently-selected alarm.

(10) Click an alarm to open the Alarm Details window

If the workstation is configured to display one alarm per member, a 1 Unacknowledged Alarm per Member window opens. Each alarm on this window represents a member: click an alarm to view all the alarms for the member, and then click an alarm to open the Alarm Details window.

To configure the workstation to display 1 alarm per member, see “Workstation options—alarms” on page 198.

The Unacknowledged Alarms window contains the following columns:

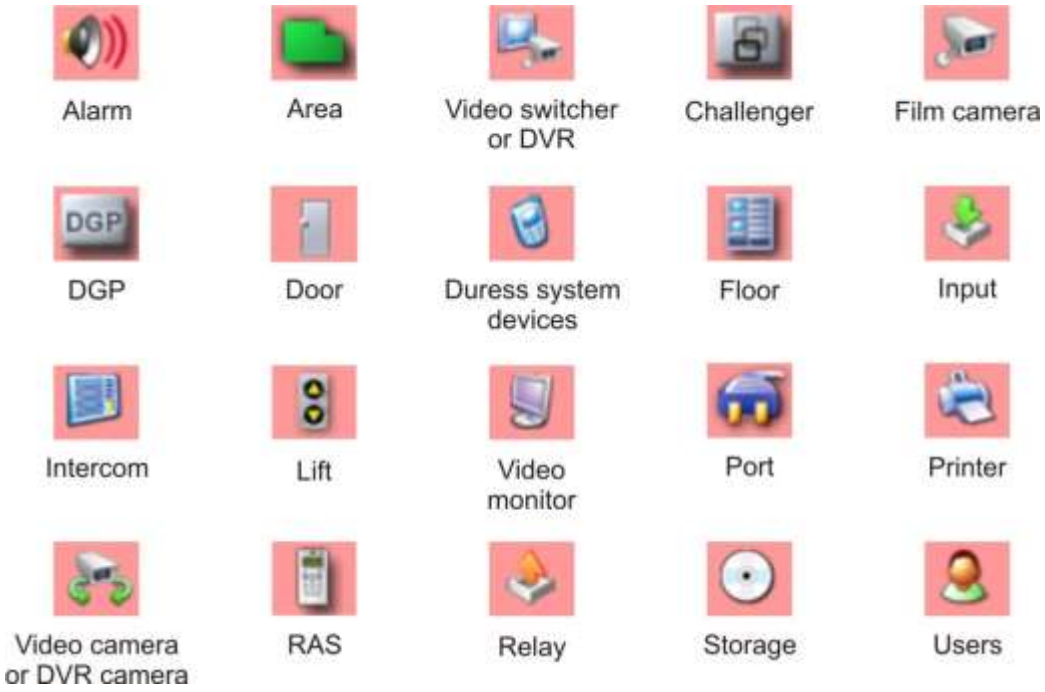
- Type—see Figure 21 on page 34 for details of alarm type icons.
- Pr (Priority)—when initially opened the *Unacknowledged Alarms* window displays in priority order. Priority numbers 0 through 5 are colour-coded: 0 red, 1 orange, 2 pink, 3 yellow, 4 light yellow, 5 light blue. An asterisk (*) indicates new unacknowledged alarms.
- Time/Date—the time and date on which the event was received or generated by the Forcefield system.
- Event—displays the alarm ID on the first line followed by the reason.

The Alarm screen tool bar has several buttons not used on other screens.

The Unacknowledged Alarms and Follow-up Alarms buttons at the top of the main window (see Figure 3 on page 16) allow the operator to quickly switch between the Unacknowledged and Follow Up windows. Alternatively, use the Toggle Alarm Type button to switch between the Unacknowledged and Follow Up windows.

The icon at the left of the Alarm screen indicates the type of alarm: these are listed in Figure 21 below.

Figure 21: Alarm type icons



Setting alarm filters

Click Set Filter (Figure 20 on page 33, item 6) to open the Set Alarm Filtering window (Figure 22 below).

Figure 22: Set Alarm Filtering window

You can apply alarm filters to limit the display of alarms as defined in the following fields:

- **Alarms From**. Click the arrow to choose a type of system, such as Challenger panels, intercom systems, third-party systems, video systems, duress systems, sector alarms, Forcefield, and user link systems.

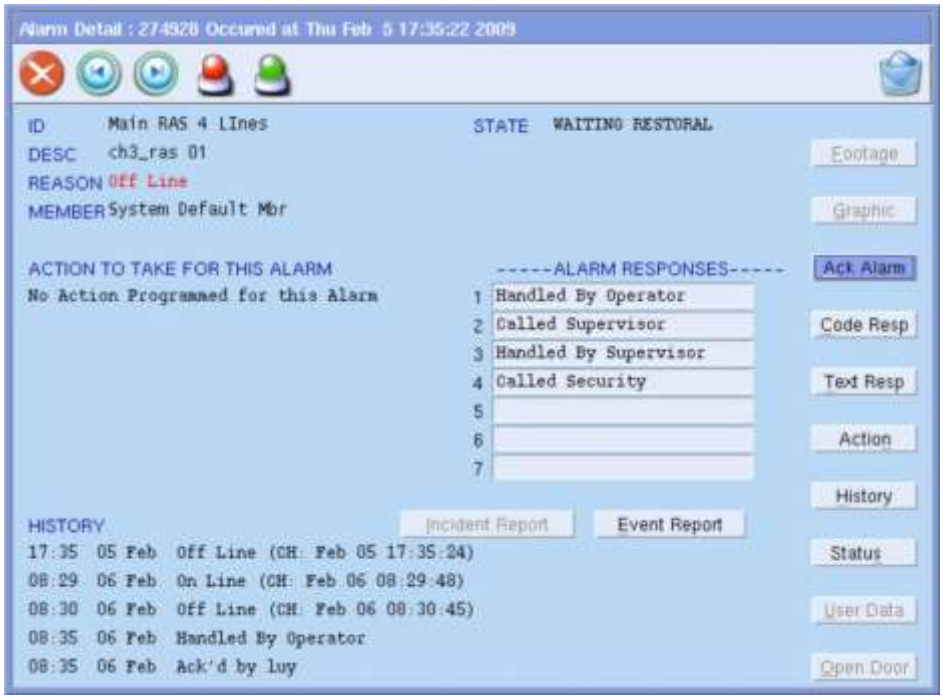
After designating a system type, use the field to the right to select the particular system (for example, a particular Challenger panel).

- **Device Type**. Click the arrow to choose a type of device (for example, doors). After designating a device type, use the field to the right to select the particular device (for example, a particular door).
- **Event type**. Click the arrow to limit the display of alarms to only a particular event (for example, input tampers).
- **Member**. Click the arrow to limit the display of alarms to only a particular member (such as a building).

Alarm Details

To act on an alarm, the operator opens the Alarm Detail window by clicking the alarm (see Figure 23 below). The operator then enters a response by typing the response, or by assigning a pre-programmed response to the alarm.

Figure 23: Sample Alarm Detail window



The Alarm Detail window provides information about the alarm, and multiple ways for the operator to respond.

For many operators, the quickest way to respond to an alarm is to click the required response in the ALARM RESPONSES list. The response is added to the History section.

In addition to the ALARM RESPONSES list, the Alarm Detail window displays buttons (with associated keyboard shortcuts) that are relevant to the alarm:

- **Footage** button. The operator may click the Footage button (or use the keyboard shortcut Alt+F) to display live CCTV footage from a camera associated with the alarm. When the alarm is a sector (perimeter) alarm the live CCTV footage displays automatically, so the Footage button isn't used.
- **Graphic** button (displayed only if the alarm point is defined to a graphic map). The operator may click the Graphic button (or use the keyboard shortcut Alt+G) to jump to the dynamic graphics (map) screen to handle the alarm. Depending on the setting in Databases > Computer Equipment > Workstations > Workstation Options, the Graphic button or shortcut opens either the first or last defined map.
- **Ack Alarm** button. After responding to the alarm, the operator clicks the Ack Alarm (acknowledge) button. The acknowledgement is added to the History section. If the alarm point has reset or the alarm condition restored, the alarm is removed from the system. If the alarm has not been reset or restored, it is moved to the Follow Up window.
- **Code Resp** button. Click to open the Alarm Response (Code) window from which the operator can select a response. The response is added to the History section. Coded responses are set up in Databases > Alarm Reponses.
- **Text Resp** button. Click to open the Alarm Response (entered by operator) window from which the operator can enter a text response. The response is added to the History section.
- **Action** button. Click to display suggested actions for the operator to follow (if actions have been programmed for the alarm). The same actions are displayed in the Action To Take For This Alarm section of the window. See "Programming alarm action text" on page 60 for details.
- **History** button. Click to view the entire history of the alarm.
- **Status** button. Click to receive information about the state of the item in alarm.
- **User Data** button (user alarms only). Click to view user details including image (if available) for the user associated with the alarm.
- **Open Door** button. Opens the door.
- **Event Report** button. Click to generate a report of the alarm details.
- **Incident Report** button (displayed only when an incident is active)—use to create a report about the events that comprise the incident to which this alarm belongs.

Follow-up alarms

From the Follow Up window the operator is able to monitor the alarm condition, view details of the alarm and response messages, and enter additional responses as required. When the alarm point resets or the condition restores, the alarm is automatically removed from the Follow Up window.

Note: The device in alarm may be assigned a computer category programmed to require an acknowledgement after a restoral in order to remove the alarm.

Figure 24: Follow Up window displaying alarms in priority (Pr) order

If there is no keyboard or mouse activity for a specified time, Forcefield automatically reverts to the Unacknowledged Alarms window.

Using the alarm map window

Refer to Figure 19 on page 32 for an example of an Alarm Map window.

In graphic mode (see “Initial Forcefield screen” on page 24), a specified Alarm Map window opens by default.

Use the Forcefield Speed Bar button to display the Alarm Map window for the highest-priority alarm (the cursor automatically points to the alarm). Depending on the setting in Workstation Options, the Speed Bar button opens either the first or last defined map (see “Workstation options—graphics” on page 196).

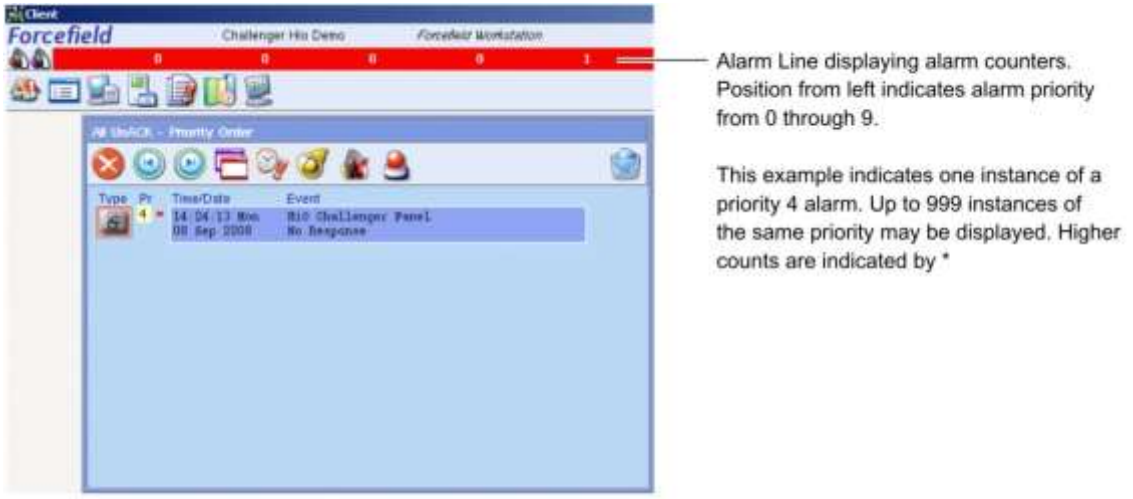
If there is more than one alarm with the same priority, the map with the oldest alarm displays.

Using the alarm line priority details

The Workstation may be configured to display a coloured bar with alarm priority details on the Alarm Line:

- A red Alarm Line indicates that there are one or more unacknowledged alarms.
- A purple Alarm Line indicates that there are one or more follow-up alarms (but only when there are no unacknowledged alarms).
- The numbers displayed in the Alarm Line indicate the total number of alarms (both unacknowledged and follow-up alarms).

Figure 25: Workstation configured for displaying alarm line priority details



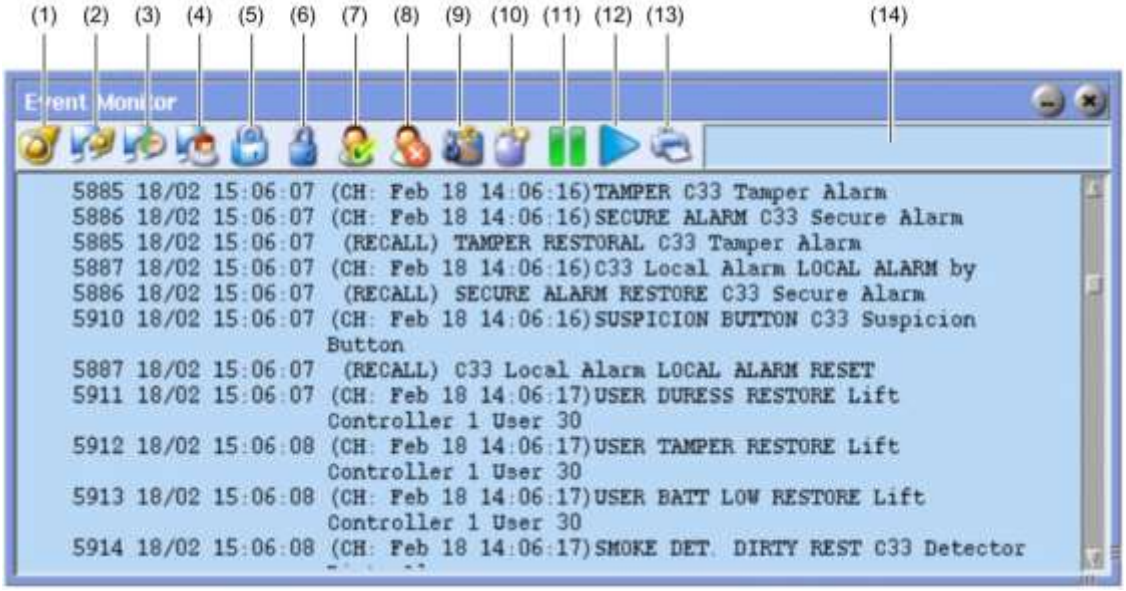
The use of priority details on the Alarm Line is defined in the Workstation Options menu (see Display Alarm Line Priority Details on page 198).

Using the Event Monitor window

Every time an event occurs, it is logged, and becomes part of the system history (for example, an operator enters new information, switches cameras, changes a database entry, responds to an alarm, or an input or output is registered by Forcefield). Whenever the Event Monitor window is open, these actions are listed. Each event is allocated a number which appears at the beginning of each event line in the list.

Note: Only events belonging to members within the member group of the operator and the workstation are displayed.

Figure 26: Event Monitor window tool bar buttons



(1) Alarms button. Click to display (or trace) only Alarm events.

(2) Door Alarms button. Click to display (or trace) only Door Alarm events.

(3) Door Activity button. Click to display (or trace) only Door Activity events.

(4) Door User Activity button. Click to display (or trace) only Door User Activity events.

(5) Door Locks button. Click to display (or trace) only Door Locked events.

(6) Door Unlocks button. Click to display (or trace) only Door Unlocked events.

(7) Access Granted button. Click to display (or trace) only User Access Granted events.

(8) Invalid Badge button. Click to display (or trace) only User Invalid Badge events.

(9) Set Filters button. Click to open the Event (or Trace) Monitor Filter Setup window.

(10) Clear Filters button. Click to remove all current filters.

(11) Pause button. Click to freeze the display of events for the number of seconds programmed in “Workstation options—other” on page 199.

(12) Resume button. Click to immediately resume the display of events.

(13) Print button. Click to send the currently-displayed list to the printer.

(14) Status message area. Displays the name of the current filter, displays “Filtered” for multiple filters, and displays “Paused” when the display is temporarily paused.

Use the tool bar buttons to apply filters to the events that are displayed and to pause the flow of events on the window.

The first eight tool bar buttons (from left) are shortcuts to populating the Event Monitor Filter Setup window with single event types. Refer to “Using multiple event filters” below for details about using additional filtering options.

Using multiple event filters

Click the Set Filters button (Figure 26 above) to add to a filter currently in place, or to define an event filter from scratch. The Event Monitor Filter Setup window opens.

Figure 27: Event Monitor Filter Setup window

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow. Leaving fields blank indicates no restriction on that field when matching for events: the Event Monitor displays all events; the Trace Monitor displays no events.

Different field types 'AND' together; similar fields 'OR' together. For example, you may select a specific input, AND if it generated an alarm. Alternatively, if you selected multiple inputs (points), the search would 'OR' the inputs before ANDing the other fields.

- **Operator.** Select operators to search on to create the match criteria.
- **User.** Select users to search on to create the match criteria.
- **Event Types.** Select an event type or even group for matching. Double-click the field (or press F3) to create a new event group.
- **Points.** Select the relevant points (devices) to include in the match criteria.

Displaying user details in the Event Monitor

The Event Monitor can display additional details about users when a user-related event occurs. These details include things like job titles, department name, phone numbers, and so on, as recorded in the User Setup window.

To configure this functionality, use the Event Monitor Information button to configure what data fields to use and optionally to provide a text prefix to help explain the purpose (for example, a prefix of “PH” to display in front of the telephone number). See “Configuring user options” on page 269 for details.

Note: Additional user details are displayed only in the Event Monitor. They are not recorded in event history.

Chapter 4
Forcefield tasks

Summary

This chapter describes the tasks that are routinely performed by all Forcefield operators, senior operators, and trained Forcefield installation technicians.

Content

Overview

This section describes the tasks that are typically performed by:

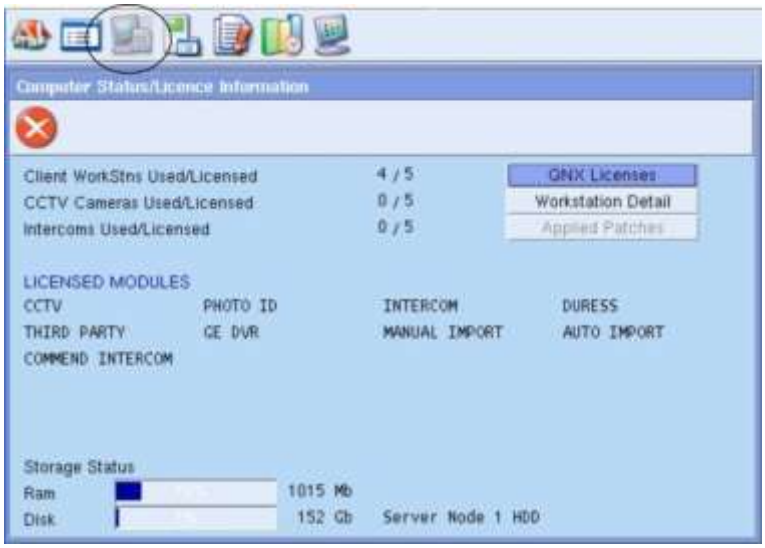
- Operators
- Senior Operators
- Trained Forcefield installation technicians

Tasks relating to installing a Forcefield system and related hardware are described in the *Forcefield Installation and Setup Manual*.

Note: Some tasks depend on Forcefield features that are subject to licensing and must be licensed before their associated menus become visible.

Click the Computer Status button (circled below) on the Forcefield Speed Bar to check the status of your Forcefield system license. Licensed Forcefield modules are listed on the bottom.

Figure 28: Computer Status window



Modules are listed after they have been purchased and installed.

Summary of operator tasks:

- Login to Forcefield, see “Logging in” on page 22
- Logout of Forcefield, see “Logging off” on page 23.
- Navigate Forcefield windows and menus; see “Navigating Forcefield” on page 22.
- Respond to and manage alarms, see “Alarm handling process” on page 30.
- Record an operator-added event; see “Add Event” on page 135.
- Control the security system remotely; see “Controlling the security system remotely” on page 44.
- Create user records; see “Maintenance” on page 147.

- Manage user records; see “User-related tasks” on page 46.
- Print card user reports; see “Card (User) Report” on page 174.
- Print Forcefield history reports; see “History Report” on page 139.
- Print Forcefield system status reports; see “Print Forcefield system status reports” on page 45.
- Monitor Forcefield event trigger operations, see “Report and review Forcefield trigger operations” on page 45.

Summary of senior operator tasks:

- Manage operator logins; see “Operator Setup” on page 185.
- Manage operators’ Forcefield menu accesses; see “Operator Menu Permissions” on page 185.
- Manually delete excess history files, see “Clear history (manually)” on page 65.
- Automate the archiving and purging of history data from Forcefield, see “Clear history (automatically)” on page 65.
- Program User Profiles; see “Program Profile” on page 168.
- Set system date and time, see “Set Date/Time” on page 263.
- Reset a locked-out operator; see “Reset Operator Lockout” on page 263.
- Send an operator message; see “Send Operator Message” on page 263.
- Program the number of login attempts, see “Login Attempts” on page 260.
- Program the automatic logoff time, see “Workstation options—other” on page 199.
- Enable or disable a Forcefield node or workstation, see “Disable/Enable Workstation” on page 260.

Summary of installation technician tasks:

- Program Forcefield system equipment databases, see “Databases > Computer Equipment menu” on page 189.
- Program Forcefield operator accesses; see “Operator Permissions” on page 184.
- Program Forcefield workstation accesses; see “Workstation Permissions” on page 193.
- Program Forcefield alarm computer categories; see “Computer Categories” on page 212.
- Program alarm action text, see “Programming alarm action text” on page 60.
- Program Challenger databases, see Appendix A “Challenger programming” on page 297 (see also “Challenger-related tasks” on page 66).
- Program holidays, see “Holiday-related tasks” on page 79.

- Program time zones; see “Timezone-related tasks” on page 81.
- Program node-wide Forcefield settings; see “Configuration” on page 263.
- Program Forcefield clusters; see “Program Clusters” on page 210.
- Program triggering, see “Triggering menu” on page 87.
- Create and modify Forcefield maps, see “Graphics menu” on page 105.
- Optimise Forcefield operation and provide maintenance, see “Admin menu” on page 259.
- Print Forcefield system status reports; see “Print Forcefield system status reports” on page 45.
- Configure the Forcefield Speed Bar; see “Speed Bar Configuration” on page 286.

Alternatively, some installer tasks may be performed by authorised operators, as determined by the customer.

Operator-related tasks

Controlling the security system remotely

The control menu allows authorised operators to perform actions on the Challenger field equipment remotely. You may wish to open doors, isolate inputs, access areas, set relays (outputs), etc.

When a system contains a large number of items, use one or more of members, member groups, and/or clusters to restrict your selection.

- Select member groups and members to restrict the item selection list as described in “Selecting a restricting value” on page 27.
- Click the Cluster button to select a cluster (a defined list of elements). The cluster restricts the item selection list to the items contained in the cluster. See “Program Clusters” on page 210 for details.

If you do not restrict your selection (and therefore the control of items) and no item is selected, an action will be performed on every item that the operator has access to. To avoid the possibility of controlling unwanted items, take care when selecting items to control.

Note: In large systems, omitting all fields or using just member group or member fields without the ID field, is not recommended unless the operator is fully familiar with the items contained in each group.

Figure 29: Remote Control window (note cluster name “Fire Doors”)

When a cluster is used to select items (in this case the doors contained in the cluster named ‘Fire Doors’), the cluster name displays in the title bar.

Control menu options typically include an Operator Notes field to provide the operator with an opportunity to enter a short description of why the action was taken. This is entered into the system log (history) for reference. It also may be compulsory depending on how Forcefield is configured.

Print Forcefield system status reports

Authorised operators may need to select Forcefield system data criteria and print reports based upon on the Forcefield and Challenger system. These reports are available from:

- Status > System Status menu. See “System Status Report” on page 242.
- Status > Abnormal Status Report menu or from the Forcefield Speed Bar. See “Abnormal Panel State Report” on page 234.
- Status > Alarm Panel Status menu or from the Forcefield Speed Bar. See “Panel Device Status Report” on page 236.

Report and review Forcefield trigger operations

Authorised operators may need to monitor the event and time triggers programmed by the Forcefield installation technician to ensure the triggers are operational.

The operator will not have an understanding of every event/timer/pager type triggers that the installer has programmed unless informed. The following reports will provide the operator with the programmed settings of each event trigger. It is important the operator checks regularly that the event triggers are working as intended.

Event triggers operation can be monitored by:

- Printing or viewing reports on the configuration of each trigger, via the Triggering > Event Trigger Report. See “Event Trigger Report” on page 95.

- Automating the printed report by programming a history report template, and then setting the report to print (time trigger) periodically.
- Reviewing the history and determining that the trigger is operating correctly.

User-related tasks

Learning IUM card data

Use a card reader to learn IUM card data in order to add an unknown card to the Forcefield database.

The process is in three parts, described in the following section. The following steps assume that a suitable reader is currently available and connected to the Challenger LAN.

Part A—procedure to designate an IUM Learn Reader:

1. Open the Challenger Programming window for the required Challenger panel.
2. Click the Programming button (see **Error! Reference source not found. Error! Bookmark not defined.**).
3. Click Doors & Lifts to open the Door/Lift programming window (see Figure 94 on page 335).
4. Select the required door. The Programming button becomes active.
5. Click the Programming button to display the Door/Lift Menu window (see Figure 95 on page 336).
6. Click Door Access to display the Door Access programming window.
7. Right-click to check the IUM Learn Reader check box.
8. Press F5 to save.

Part B—procedure to assign a designated IUM Learn Reader to a workstation:

1. Select Users > Select Learn Reader to open the Learn Reader Select window.
2. Click the IUM Learn Reader arrow, and then select the IUM learn reader.

   A workstation can use only one IUM learn reader at a time.
3. Click Run. Forcefield displays a learn reader activity icon on the desktop.

   
4. To end the IUM learn session, do one of the following:
   - Log out of Forcefield.

- Clear the selection in the Learn Reader Select window, and then click Run.
- Double-click the learn reader activity icon, select the reader, and then click Stop.

Part C—procedure to learn unknown card data:

1. When the learn reader activity icon is displayed on the desktop, open the User Setup window for the applicable user (see Figure 61 on page 147).
2. Click the Card Data button to display the User Card Data window.
3. Badge the card at the designated IUM learn reader. Badging the card has no effect if the card data is already assigned to a user.
4. When Forcefield receives a ‘User not in IUM’ event from the Challenger panel, the card data is displayed in the Learn IUM User window.

5. Press F5 to save the card data to the current user record. Alternatively, click the Select a User for this card arrow, and then select a different user before saving.

Generating IUM data

Use the Generate IUM Data option to change a Challenger V8 panel’s user data from non-IUM format into IUM format. Generate IUM Data creates raw card data for each user record in the database.

The Challenger V8 panels to which this card data will be downloaded are determined by:

- The card category
- The user’s access groups
- The user’s status (data is not downloaded for expired, lost, or void cards)

This operation does not need to be repeated each time IUM is added to a non-IUM Challenger V8 panel. However, it would need to be repeated to create IUM data for a different card category.

To generate IUM data:

1. Select Users > Access > Generate IUM Data.

2. Click the Card Category arrow, and then select a Card Category to identify the Challenger V8 panels with IUM.
3. Select the Card Format.
4. Type the card site code number in the Site Code field.
5. Check the Overwrite Existing Data selection box to create raw card data for all cards, replacing any exiting raw card data.

   If the selection box is cleared, raw card data will be created only for cards that do not already have raw card data.
6. Press F6 to execute.

Creating users in bulk

Authorised Forcefield operators may use the Bulk Add option to add a number of user records based on an existing user record. The record displayed is used as a template to quickly add a number of users with the same properties as the original user (in particular the user's member).

Example: You require 15 extra cleaning staff for the week over Christmas, and they all need the same properties. Add these new users quickly with the Bulk User option.

Note: If you create new records and there are already user records in the range you're creating, the old records are left untouched. The event history will list which new user numbers have been created.

To add new user records in bulk:

1. From the main menu select Users > Maintenance. The User Setup window opens (see Figure 61 on page 147).
2. Select a user record to use as a template.
3. On the User Setup window, click the Bulk button to display the Type of Bulk Processing window.

4. Click Create. The Bulk User Create window opens.

5. Type the start and end numbers for the new range of users in the in range and to fields. If a user record already exists within the selected range, then that user record is not changed. An entry is placed into history indicating a user record could not be created for that user number.
6. Type a new user name (for example, new cleaners) in the “with Name” field, and this will appear on every new record. This name is prefixed to the user number (for example, if the user is 1234 and the name is “cleaner”, the new record name is “cleaner 1234”).
7. Click Save (or press F5) to save the new records. To stop the process after it starts, click ESC. When you stop the process, no more new records are created.

Modifying users in bulk

Authorised Forcefield operators may use the Bulk Modify option to change details such as start and end dates, user type, user status, and lockout time for a range of users.

Note: When modifying large numbers of records, updating the database may take some time.

To modify user records in bulk:

1. From the main menu select Users > Maintenance. The User Setup window opens (see Figure 61 on page 147).
2. Select a user record to use as a template.
3. On the User Setup window, click the Bulk button to display the Type of Bulk Processing window.
4. Click Modify. The Bulk User Modify window opens.

5. Type the range of the records you wish to modify in the in Number Range and to fields.
6. Type the data to be modified, as applicable, in the remaining fields.
7. Click Save (or press F5) to save the new records. To stop the process after it starts, click ESC. When you stop the process, no more records are modified. Any records already modified stay modified.

Deleting users in bulk

Authorised Forcefield operators may use the Bulk Delete option to delete a range of user records belonging to a member.

To delete user records in bulk:

1. From the main menu select Users > Maintenance. The User Setup window opens (see Figure 61 on page 147).
2. Select a user record to use as a template.
3. On the User Setup window, click the Bulk button to display the Type of Bulk Processing window.
4. Click Delete. The Bulk User Delete window opens.

5. Type the range of the users you wish to delete.
6. Press F8 to delete the records. Confirm that you wish to delete the records. To stop the process after it starts, click ESC. When you stop the process, no more records are deleted. Any records already deleted stay deleted.

Auto-allocating user numbers

Authorised Forcefield operators may use this option to automatically assign the lowest available user number in the user database.

To program Forcefield to allocate user numbers:

1. From the main menu select: Admin > Configuration > Configuration.
2. Click User. The User Config window opens.
3. Right-click to check the Allow Auto User Number Allocation check box.
4. Press F5 to save.

The next time you create a new user record (in Users > Maintenance), there's no need to search for an unused user number—Forcefield automatically finds and allocates the new user record to the lowest available user number.

Allocating PIN codes for users 1001 to 65,535

Authorised Forcefield operators may use this option to nominate a user's personal identification number (PIN) to a number in the range from 1001 to 65,535 for non-IUM Challenger V8 systems.

Note: The user number in non-IUM Challenger V8 panels must be less than 1001, and so an 'offset' is used to reconcile the difference. Refer to the *Challenger V8 & V9 Programming Manual* for information on how to set a user offset.

To program Forcefield for manual PIN codes:

1. From the main menu select Admin > Configuration > Configuration. The Forcefield Configuration window opens.
2. In the Global section, double-click User. The User Config window opens.
3. Right-click to check the Manual PIN Code for Users above 1000 check box.
4. Press F5 to save the change.

Timed user access

Timed user access enables Forcefield to start a timer when a user enters or exits a site.

The types of timed user access are:

- From on site: The time interval begins when a card is badged to enter the site. The card may be used to exit the site, but it cannot be used for re-entry until the time interval expires.
- From off site: The time interval begins when a card is badged to exit the site. The card cannot be used for re-entry until the time interval expires.

Example: A wholesale market wants to ensure only genuine wholesale buyers (authorised users) are in the market during certain hours, and prevent unauthorised users from using cards assigned to authorised users (for example, if an authorised user leaves the site and gives the card to someone else). By adding an offsite lockout time limit to a user's card, the card cannot be reused to enter the site until the time limit elapses (for example, 60 minutes).

Notes:

- Timed regions are associated by user, not by region.
- The use of this option alters the start date of the user record when the system applies the time restriction. This will affect some Forcefield reports.
- See also the Lockout field description in "Maintenance" on page 147.

To program timed user access:

1. From the main menu, select Users > Maintenance, the User Setup window opens.

2. Find the required user.
3. Click the Lockout arrow, and then select one of the lockout time options:
   - Not timed — default setting
   - From on site — the time interval begins when a card is badged to enter the site. The card may be used to exit the site, but it cannot be used for re-entry until the time interval expires.
   - From off site — the time interval begins when a card is badged to exit the site. The card cannot be used for re-entry until the time interval expires.
4. If applicable, type the number of minutes required for the lockout time in the range of 1 minute to 65,000 minutes (45 days).
5. Press F5 to save the change.

Time allowed in region

Authorised operators may use this option to create an alarm for a user when the user has been in a region too long.

Example: Workers in a freezer room (set up as a region) risk their health if they stay inside too long. Setting the time limit for each region creates an alarm event if a user stays in the region too long.

To program time allowed in region:

1. From the main menu select Challenger > Challenger Programming.
2. Type the number of the Challenger controlling the region, and press Enter to display the Challenger record.
3. Click the Programming button to display the Challenger Programming selection window.
4. Select Regions from the list, and the Region window opens.
5. Type the region number and press Enter. The name of the region appears. If the name of the region doesn’t appear you’ll be prompted to type a name of an existing Challenger region. Alternatively, press F4 for a list of regions.
6. Type the number of minutes to set the maximum Time Allowed in Region. The minimum is 15 minutes and the maximum is 65,535 minutes.

Set users offsite

Authorised Forcefield operators may use this option to change the status of a user or users belonging to a member or a member group to offsite. This is typically used to permit re-entry when anti-passback is active and users leave the site without badging their cards. Under anti-passback access, re-entry is not permitted because the users still have the status of onsite.

You can change the status for a single user to offsite. See “Change Status of User” on page 166 for details.

Example 1: An emergency evacuation requires all users to exit the site through emergency exits without badging out. The Set Users Offsite command is used to change each user’s status to offsite, so that the users can badge in later.

Example 2: At a wholesale market the main door is intentionally left open in the late morning after main trading has completed. Users, who earlier badged their cards to get in, can now leave without badging. Next morning they find they can’t re-enter unless the operator manually changes the on-site status to off-site.

To change the status of a member or member group to off-site:

1. From the main menu select Users > Modify Status > Set Users Offsite. The Set Users Offsite window opens.

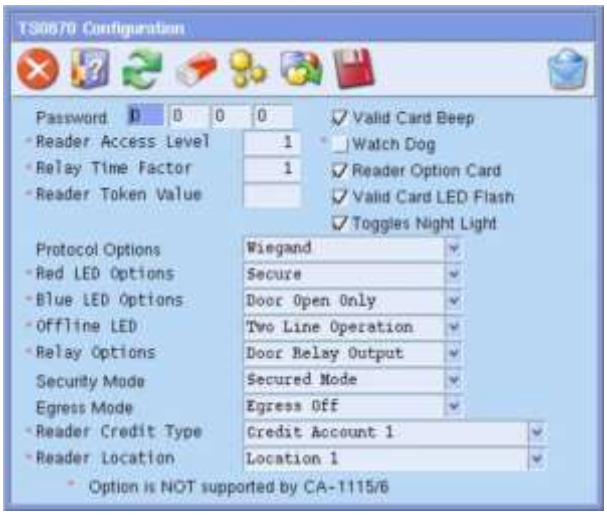
2. Optional—Right-click the Users Currently in Region field and select the region to which the on-site status currently applies. If no region is specified then all users who are currently onsite will set to offsite.
3. Optional—Right-click the member group or the member fields to select the required member group or member.
4. Press F6 to change the status to offsite for the selected users.
5. Press F5 to save the change. This sets the status of all users who were listed as being in the region and belonging to the member or member group from ‘onsite’ to ‘offsite’.

Note: Only users belonging to members contained in the operator's member group will be set offsite.

Programming smart card options

If the RAS is a smart card reader, click Smart Card Options on the Challenger’s RAS programming window to program the reader. The TS0870 Configuration window opens.

Figure 30: TS0870 Smart Card Reader Configuration window



Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow. Also see the note in “Panel programming” on page 249.

Password. If the reader (and associated cards) is to be used in secured mode, enter the 4-byte password (values from 0 through 127).

Note: Do not use the password fields if you’ve purchased the special high-security TS0870PSC Configuration Card. In this instance you must initially program the smart card reader by using the TS0870PSC Configuration Card.

Valid Card Beep (optional). When checked, the reader will beep once when valid Smart Card is badged at the reader (in addition to any other beeps).

Watch Dog (optional). When checked, the reader automatically sends a signal periodically to indicate that it’s connected and working. This option can be used only if the reader is configured as a Wiegand device.

Reader Option Card (optional). When checked, the reader accepts a configuration card more than once. If not selected, the reader can only be configured with a reader configuration card one time only to prevent unauthorised reprogramming of the reader. Any future changes must be made via the RAS keypad or by first un-flagging this option via the RAS keypad.

Valid Card LED Flash (optional). When checked, the reader’s LED gives a short flash when a valid card is badged.

Toggles Night Light (optional). When checked, the blue LED remains lit, with low intensity, at all times regardless of whether the red LED is on or off.

Reader Access Level (used for credit functionality). Enter a number in the range of 1 through 16 to identify the reader’s access level.

Example: A Smart Card reader at a photocopier has an access level of 4 (which permits operation by users with access levels of 4 through 16). If a user has a card with access level 5, then they can use the photocopier.

Another user with a card with credit access level of 2 cannot use the photocopier.

Relay Time Factor. Enter a number in the range of 1 through 256 to specify the relay time factor. The relay time factor modifies the pulse width output of the Credit Pulsed option or the energised time for the Credit Timed option (whichever is defined in Relay Options).

The pulse width for the Credit Pulsed option is the relay time factor multiplied by .01 seconds (10 milliseconds). This gives a pulse width from 0.01 through 2.56 seconds.

The activation time for the Credit Timed option is the relay time factor multiplied by the token value of the reader. This gives a range of between 1 second and around 193 days.

Reader Token Value (used for credit functionality). Type a number in the range of 1 to 65534 to specify the reader's token value.

The reader token value determines how many credits are deducted for each token when a card is badged.

Example: On a photocopier, one token equals two credits (one credit equals 10 cents). Each time an A4 copy is made with the card, one token is deducted (two credits or 20 cents).

Protocol Options. Select the required protocol (Refer to the *TS0870x-series Installation & Programming Guide* R4.0 or later for details):

- Wiegand
- Magnetic Stripe

Note: Do not select Tecom Smart Card protocol because it is not implemented in the Challenger.

Red LED Options. Select one of the following online red LED options (the reader is said to be 'online' when it is configured as a LAN device either on the Challenger LAN or the Intelligent Door/Lift Controller sub-LAN):

- Secure—the red LED is on when the area associated with the door is secure.
- Secure & Door open—the red LED is on when the area associated with the door is secure, and the red LED flashes whilst the door lock relay is active.

Blue LED Options. Select one of the following online blue LED options (the reader is said to be 'online' when it is configured as a LAN device either on the Challenger LAN or the Intelligent Door/Lift Controller sub-LAN):

- Door Open Only—the blue LED will normally be off, and will flash whilst the door lock relay is active.
- Access & door open—the blue LED is on when the alarm area associated with the door is in access, and will flash whilst the door lock relay is active.

Offline LED. Select one of the following Offline LED options (LEDs are classed as offline when the reader is attached to a Wiegand or magnetic stripe interface):

- One Line Operation—both the blue and red LEDs are controlled by the brown wire.
- Two Line Operation—the red LED is controlled by the brown wire and the blue LED is controlled by the yellow wire.

Relay Options. Select one of the following relay options:

- Door relay output—the relay output (violet wire) will operate as a door relay control output (active low) when ‘online’ only.
- Tamper output—the relay output activates when RAS tamper occurs (active low) in both the ‘online’ and ‘offline’ modes.
- Card present output—indicates to a third-party magnetic stripe reader interface that the card is being swiped. The relay output activates when the card data is sent to the host device (active low) but only when the card reader is in the ‘offline’ mode. When the transaction is complete, the relay output returns to high.
- Credit pulsed—the relay output will operate as a pulsed output (active low) when the reader is configured to operate as a credit activated device, and a credit transaction is completed. The pulse width is configurable from 10 milliseconds to 2.55 seconds.
- Credit timed—the relay output operates as a timed output (active low) when the reader is configured to operate as a credit activated device, and a credit transaction is completed. The time is configurable from 1 to 65535 seconds, multiplied by the relay time factor.
- Credit latched—the relay output operates as a latched output if the reader is configured to operate as a credit activated device. When a Smart Card with valid credit data is badged and the transaction is successfully completed, the relay output is turned on. The relay output is turned off when a valid Smart Card is badged next, with or without credits.

Security Mode. Select one of the following security mode options:

- Secured Mode—the reader sees programmed Smart Cards and user-defined cards (the 4-byte security password is used).
- Unsecured Mode—the reader only sees blank (un-programmed) cards with a unique serial number and user-defined cards (the 4-byte security password is not used).

Egress Mode. Select one of the following egress (request to exit, or RTE) mode options:

- Egress off—Egress functionality is not used.
- Standard Egress—Egress functionality is used. This option requires a simple normally open push button to be connected. The smart card

reader's open collector output controls a door relay. A press of the button will release the door lock relay.

- Egress and Arm/disarm—Egress functionality is used, along with alarm control. This option requires a TS0064 Expanded Button Interface to be connected. The smart card reader's open collector output controls a door relay. A press of the TS0064's In button will release the door lock relay and disarm the area. A press of the TS0064's Out button will release the door lock relay and arm the area.

Reader Credit Type (used for credit functionality). Select one of four credit accounts to apply to the reader. Cards may be used that have the same credit account.

Reader Location (used for credit functionality). Select one of four location names to apply to the reader. Cards may be used that have the same location name.

Converting to prohibit shared profiles mode

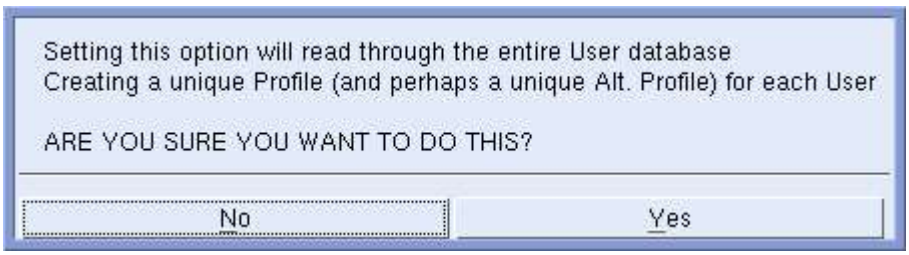
Prohibit shared profiles mode causes user profiles (and alternative user profiles) to be locked to user records. For example, user 1 can have only "User 1 Profile|" and optionally "User 1 Alt Profile|".

When prohibit shared profiles mode is selected Forcefield converts the entire user database and creates a profile (and an alternate profile, if required) for each user. This conversion may take considerable time, depending on the number of users.

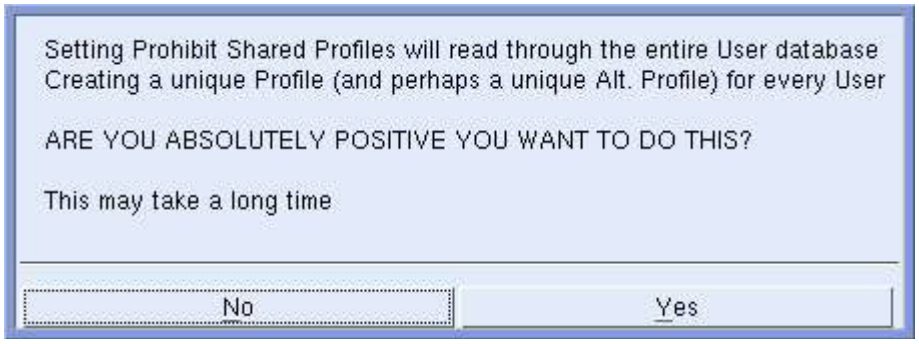
Note: No User Setup operations may be carried out while the conversion process is active.

To enable prohibit shared profiles mode, and to convert the user database:

1. Backup the database.
2. If enabled, disable Auto Logoff on the workstation where the conversion will take place (see "Workstation options—other" on page 199).
3. Log out from that workstation.
4. Log back in with a login that has all privileges.
5. Select Admin > Configuration > Configuration, and then click User (see "Configuring user options" on page 269).
6. Select Prohibit Shared Profiles. A selection dialogue box opens.



7. Select Yes, and then click Save. A second selection dialogue box opens.



8. Select Yes. A Creating User Profiles message displays. The conversion could take several hours depending on how many user records are in the database.
9. When finished a completion dialogue box opens.

10. Click Continue, and then close the Configuration windows.
11. Re-enable Auto Logoff (if previously enabled), see step 2.
12. Backup the database (do not overwrite the previous backup from step 1).
13. Shut down the entire system.
14. Restart the system.

Importing user profile data

The User Profiles programming window (Figure 69 on page 168) displays an Import button for a saved profile, which allows a profile's contents to be copied from another profile. Import allows "template" profiles to be created, from which panel access may be assigned to other profiles when Forcefield is operating in prohibit shared profiles mode.

To import profile data into a new profile from a different profile:

1. Select Users > Profiles > Program Profile.
2. Create a new profile (or select a saved profile). A profile can be saved with just an ID, and it will be given the system default member, date starting from creation time, and a normal card type.
3. Click Import to open the User Profile Import window.

4. Click the Select Source Profile arrow and find the profile that you want to copy (in the example above, the profile “User 15 Profile |” is selected.
5. Click Execute. A selection dialogue box displays.

6. Select either Panel Access data or All data.

Configuring the User Setup window

Forcefield operators can specify which fields on the User Setup window are to be read-only (not editable). This allows operators to bypass fields that they do not commonly use in order to save time when adding users.

Refer to “Maintenance Config” on page 157.

Using templates to populate new user data

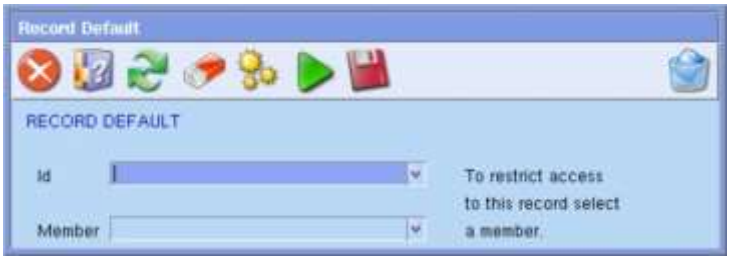
The User Setup window (Figure 61 on page 147) has a template function that lets you:

- Define default user data that will be common across multiple users.
- Save the data as a template.
- Run the template to add new users in default data mode. The default data automatically populates the new user record, but can still be edited if desired.

To create a template for new user records:

1. Open the User Setup window.
2. Edit the details that you want to be common for new users (alternatively, open a user record that contains the details that you want to be common for new users).
3. Click the Set Default button. The Record Default window opens.

Figure 31: Record Default programming window



4. Type a name (without spaces) in the ID field.

5. Optionally, select a member if you want to restrict access to this record.
6. Save the record.

To use a template to populate new user records:

1. Open the User Setup window.
2. Click the Set Default button. The Record Default window opens (Figure 31 on page 59).
3. Click the ID arrow, and then select the required template.
4. Click the Run button. The User Setup window opens with the template name displayed in the title bar (Figure 32 below).

Figure 32: User Setup window's title bar in default data mode

Each time you create a new user record the common fields will be populated from the template.

To remove the current template (exit from default data mode):

1. Open the User Setup window.
2. Click the Clear Default button.

Alarm-related tasks

Programming alarm action text

This section describes the process of programming text for the Action To Take For This Alarm section and the Action button on an Alarm Detail window (Figure 23 on page 35).

To create alarm action text (input example):

1. Open the Challenger programming window for the required Challenger input device. See "Inputs" on page 300 for details.

2. Double-click the Help field. The Alarm Action Help window opens.

3. Click the Help Response arrow to select an existing help response file, or type a name for new action help.
4. Type a description for the action help in the Description field.
5. Click the Event arrow, and then select the event state (for example, Alarm, Tamper, etc.) for which the text applies. (The event named ~COMMON HELP~ is used to give help text that will be displayed regardless of the event that caused the alarm.)
6. Type the text to be displayed for the alarm in the remaining fields.
7. Save the alarm action help file.

Activating screen overrides with alarm events

Trained Forcefield installation technicians may alter alarm event behaviour such that predetermined events ‘override’ (display in front of) all other Forcefield screens (windows). Once activated, the alarm displayed on the override screen must be handled by the operator before any other Forcefield function can be used.

Figure 33: Example of an override screen

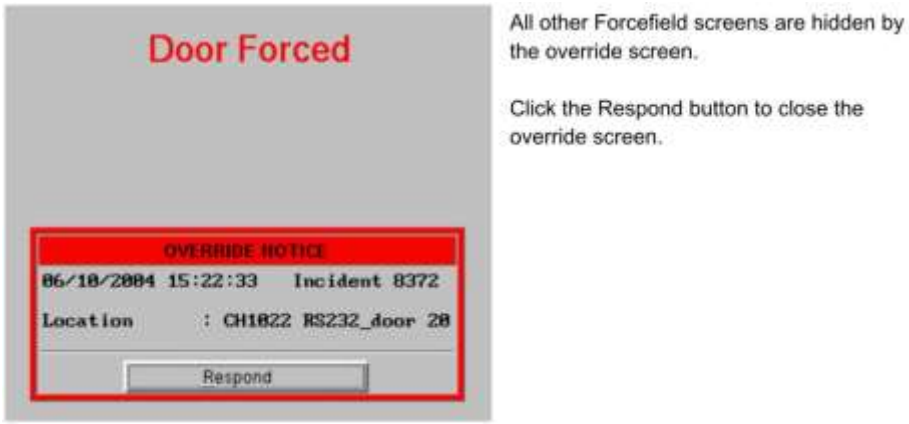
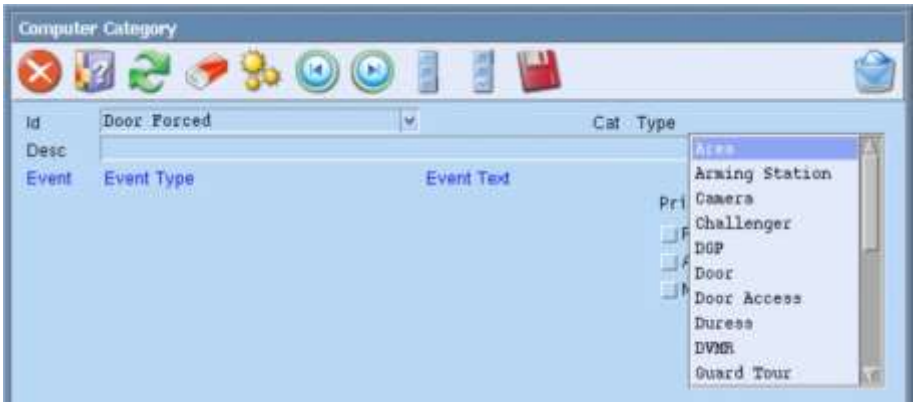


Figure 34: Example of a Go to Override Map Speed Bar button (icons may differ)

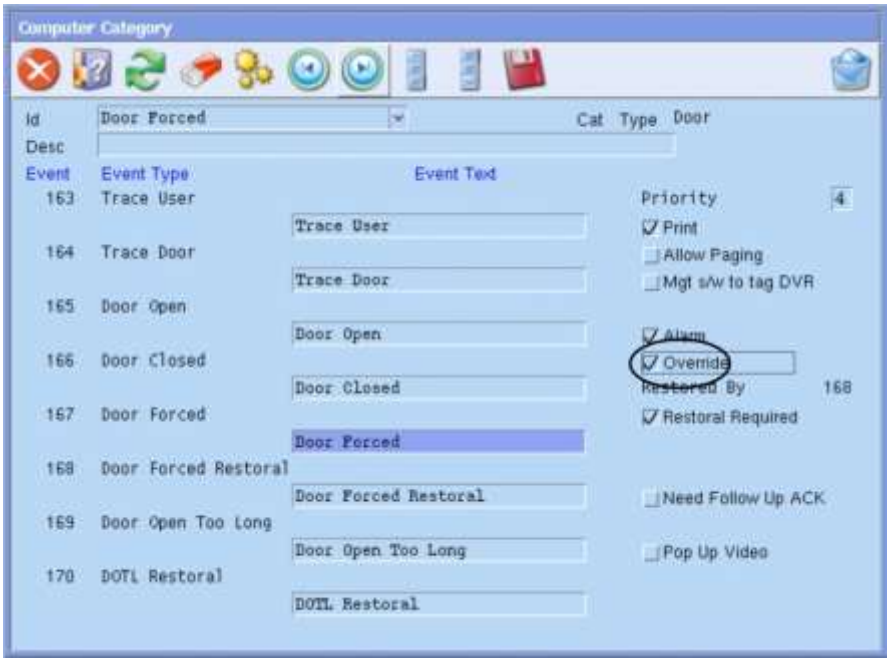
To set up a screen override for an event:

1. From the main menu select Databases > Management Software > Computer Categories > Computer Categories. The Computer Category window opens.
2. Click the Id field, type a new name for the Computer Category, and then and press Enter. Forcefield displays a Category type selection list.



3. Select the required Category Type from the list.
4. Type a description for the new category in the description field.

5. In the Event Text list, select an event type (for example, Door Forced) for which you want to program a screen override.



6. Right-click the Override button to activate (check) it.
7. Repeat the previous two steps for additional event types, if required.
8. Press F5 to save the change.
9. Open the Challenger programming record for the device that you want to assign the screen override alarm event setting (Challenger > Challenger Programming).
10. Click the Computer Cat field and select the new screen override computer category.
11. Press F5 to save the change.
12. Add the ‘Go To Override Map’ button to the Forcefield Speed Bar. This button flashes when the operator responds to the Override screen. When selected, the Go To Override Map button opens the map where the alarm is indicated.

Configuring the Forcefield Speed Bar is described in “Speed Bar Configuration” on page 286.

Display highest priority alarm text

Alarm text for the highest priority alarm (lowest number) is displayed for a device that has multiple simultaneous alarm conditions of different priorities.

If more than one system alarm condition exists (for example, a low battery alarm and a tamper alarm) for a device, the highest priority alarm condition is displayed in the Unacknowledged Alarm window. Click the alarm to display the alarm details: the multiple conditions are displayed in the History section.

If a new, higher priority, alarm condition occurs, the new alarm condition automatically replaces any lower priority alarm condition. For example Figure 35 below displays a priority 1 alarm. If an alarm occurs that has greater priority (priority 0 alarm), it will be displayed in place of a priority 1 (or lower priority) alarm.

Figure 35: Alarm list displaying a priority 1 alarm

History file-related tasks

Unless regularly cleaned up, Forcefield stores events until they are purged or deleted. Purging events can affect Forcefield's performance, so automatic deletion of old records might be a better option for some systems.

Automatic purging and deletion is based on two types of settings:

- "History Config" on page 136 lets you define whether auto purge (based on the number of records) is permitted, and how many records it takes to trigger the auto purge (the 'Auto Purge At' limit).

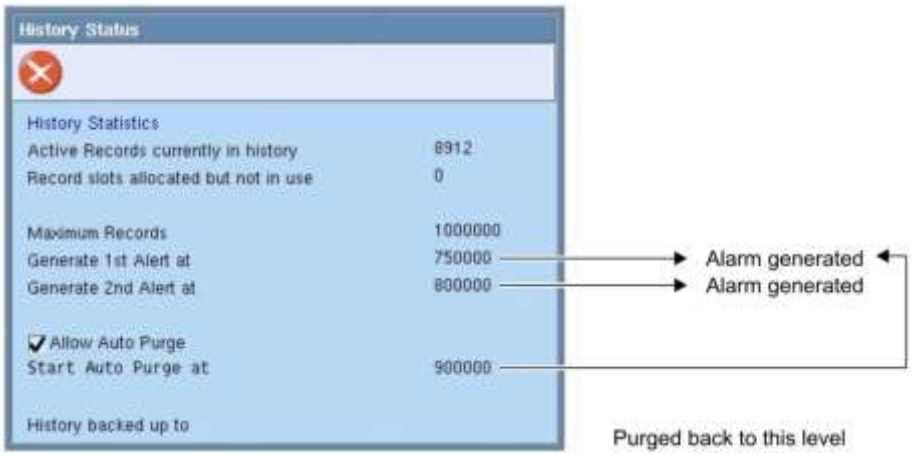
  If auto purge is allowed, and the defined 'Auto Purge At' limit is reached, Forcefield begins to automatically purge history records until the 1st alert level is reached.

  If auto purge is turned off, and the 'Auto Purge At' limit is reached, then Forcefield automatically deletes the oldest record each time a new record is added.

- "Auto History Backup" on page 97 lets you automate the archiving and purging of history data (based on the age of the records). If you want to only archive (backup) data without purging, then clear the Days field.

Click the History Statistics button (see "Forcefield Speed Bar" on page 18) or use the History > Statistics option to view the current history status and date of the most recent backup

Figure 36: History Status window



You may delete history records before the Auto Purge At limit is reached in order to prevent this automatic purging and related decrease in performance. There are two ways to delete history records:

- Use the Clear History option to delete all records. See “Clear history (manually)” below.
- Use the Clear option in “Auto History Backup” on page 97 or “Auto History Export” on page 98 to automatically delete records according to the Purge Type selection on these windows.

Clear history (manually)

Authorised Forcefield operators may use the Clear History option to delete history records.

Note: Backup your history files if they might be needed later.

To manually delete all history records:

1. From the main menu, select History > Clear History. The Clear History window opens.
2. Type your password, and confirm you wish to clear the history. All history files are deleted. There is no undo available.

Clear history (automatically)

Use Backups > Auto History Backup to automate the archiving and purging of history data from Forcefield. This command is described in “Auto History Backup” on page 97.

Challenger-related tasks

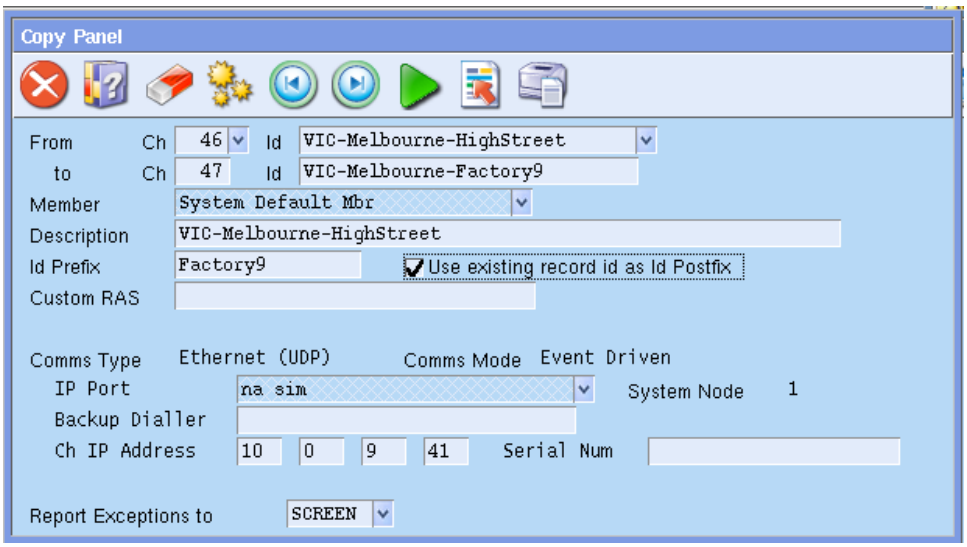
Copy Challenger

Use the Copy Panel function to create a new Challenger record in Forcefield based on an existing Challenger record in Forcefield.

If you want to transfer a database from a Challenger to Forcefield, see “Upload Challenger” on page 69.

To create a new Challenger based on an existing Challenger:

1. From the main menu select Panels > Copy Panel.



2. In the ‘From Ch’ field select the Challenger to copy. Select by Challenger number or ID (Challenger name).
3. Type a number in ‘to Ch’ field and complete the ID field to create a new Challenger number and ID. You must create details for a new Challenger panel, that is, one that doesn’t already exist. You can’t copy over an existing Challenger panel.
4. Use the member field to define the member ID for the new Challenger devices (Inputs, Areas, etc.). If left blank, the member IDs of the original Challenger devices will be copied.
5. Type a description (for example, “Level 1, South West Corner”) in the Description field.
6. Optionally, specify an Id_Prefix to use for devices on the new Challenger panel. See “Using ID prefix” on page 67 for details.
7. Optionally, select to Use Existing Record ID as ID postfix. See “Using existing record ID as ID postfix” on page 68 for details.

8. In the ‘Custom_RAS’ field, type a custom message to display on each Remote Arming Station (RAS). If left blank, it will copy the Custom RAS display information from the existing Challenger (optional).
9. In the ‘Port’ field, select the Challenger communications port if different to the existing Challenger panel, for example, serial port 1 on the controlling node (optional).
10. In ‘Backup Dialler’ field type the command (modem string) for Forcefield to dial Challenger (optional).
11. Ignore the following three fields that cannot be changed here:
    - Comms_Type displays the communication type, such as Serial, TS0898 or Dialler.
    - Comms_Mode displays the communication mode, such as polled or event driven.
    - Forcefield_Computer displays the node number that the Challenger is connected to.
12. Press F5 to save changes.

Default record IDs

When you create a new Challenger based on an existing Challenger panel, Forcefield by default creates record IDs in the format chxx_device yy, where:

- chxx is called a prefix, and it identifies the number of the new Challenger panel.
- device yy is called a postfix, and it identifies the device type and number.
- An underscore character ‘_’ separates the prefix from the postfix.
- The maximum number of characters (including spaces) is 30.

For example, Forcefield creates the record ID ‘ch35_input 1’ to represent Challenger 35, input 1—regardless of what record ID was used in the existing Challenger panel.

In order to make the new record IDs more meaningful, the Copy Challenger window has an ID Prefix field and a Use Existing Record ID as ID postfix selection. The following sections describe how to use these controls.

Using ID prefix

Type a string of text in the ID Prefix field to enable Forcefield to replace the record ID default characters chxx (see “Default record IDs” above) with the specified text string. For example, in the case of Challenger 35, instead of using the default prefix ‘ch35’, you could have a prefix ‘Factory 9’.

Using existing record ID as ID postfix

Select Use Existing Record ID as ID Postfix to reuse part of the existing Challenger record ID. For example, instead of using the default postfix such as ‘input 1’, you could have a postfix ‘East Ceiling PIR’.

As described in “Default record IDs” on page 67, Forcefield uses an underscore character when creating record IDs. This is significant when the existing Challenger record ID also uses underscore characters, because specific rules apply to how Forcefield creates the new ID.

- If the existing Challenger record ID did not use any underscore characters, then Forcefield uses the entire record ID as the new ID postfix.
- If the existing Challenger record ID uses one or more underscore characters, then Forcefield looks for the last underscore in the ID and copies all of the text after the last underscore (the underscore is not included). Forcefield then uses this text as the new ID postfix.

The following three examples are provided to help you predict the results of using the ID Prefix field and the Use Existing Record ID as ID postfix selection, for various types of existing Challenger record IDs. They are not meant as recommendations.

Example 1—Challenger 35, input 1, where the existing record ID is ‘Factory 5 East Ceiling PIR”. See Table 2 below.

Table 2: No underscore used in existing record ID

ID Prefix text	ID Postfix selection	Result (30 character limit)
blank	cleared	ch35_input 1
blank	selected	ch35_Factory 5 East Ceiling PI
Factory 9	cleared	Factory 9_input 1
Factory 9	selected	Factory 9_Factory 5 East Ceili

Example 2—Challenger 35, input 1, where the existing record ID is ‘Factory 5_East Ceiling PIR”. See Table 3 below.

Table 3: One underscore used in existing record ID

ID Prefix text	ID Postfix selection	Result (30 character limit)
blank	cleared	ch35_input 1
blank	selected	ch35_East Ceiling PIR
Factory 9	cleared	Factory 9_input 1
Factory 9	selected	Factory 9_East Ceiling PIR

Example 3—Challenger 35, input 1, where the existing record ID is ‘Factory_5_East_Ceiling_PIR’. See Table 4 on page 69.

Table 4: Multiple underscores used in existing record ID

ID Prefix text	ID Postfix selection	Result (30 character limit)
blank	cleared	ch35_input 1
blank	selected	ch35_PIR
Factory 9	cleared	Factory 9_input 1
Factory 9	selected	Factory 9_PIR

Upload Challenger

Use the Upload Challenger function to transfer database records from an online Challenger panel to an existing Challenger record in Forcefield.

Notes:

- The Challenger record must already exist in the Forcefield database. At the end of the upload process Forcefield reports detected errors (if any) and displays a window allowing the operator to view the exception report.
- This function does not delete database records unless ‘Clear Panel Data Before Upload’ is ticked. Database records that are created in the panel via a RAS will be added to the Forcefield database; however, database records that are deleted in the panel via a RAS will not be deleted from the Forcefield database.
- Clear Panel Data Before Upload option will delete all panel data except comms records before the upload commences. Panel uploads do not remove data from the Forcefield database so remnants may be left behind if those records are no longer present in the panel. This option has the consequence that all new records will be given default computer categories and member information. Video information will be lost. Leaving the database in place before the upload allows Forcefield to allocate the existing Computer Categories, Members and Video information.
- For Challenger10 and ChallengerPlus panels if the System Option "Use V8 Numbering" in the panel does not match what is in Forcefield, a delete of current panel data will be automatically performed.
- This function does not upload the user database, so you will need to manually enter all user data into Forcefield, or use the Import User Data function (see “Import User Data” on page 183).

Check the Challenger’s database record in Forcefield after an upload to ensure that the details are correct. Examples include (but are not limited to) the following:

- During the upload, a panel reports a DGP as being a four-door Controller but the corresponding Forcefield record is for a standard DGP or a 4-Lift Controller. In this case, the upload will generate an exception report listing the error. You would need to remove the incorrect Forcefield record and then reprogram it in Forcefield.

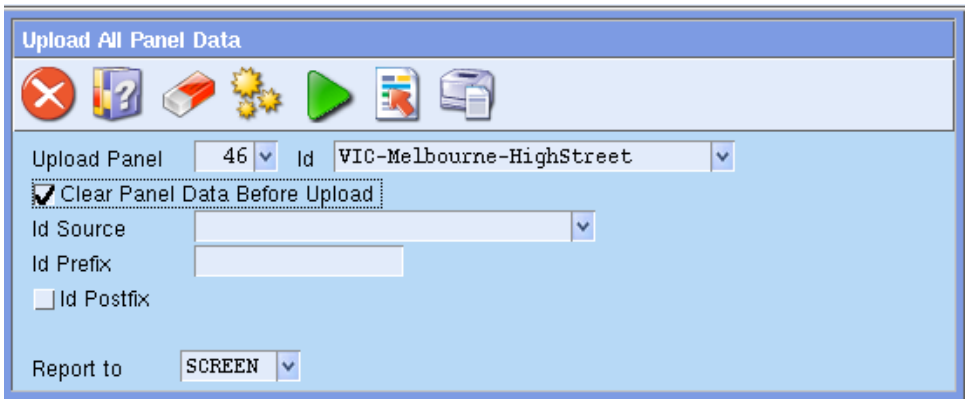
- After an upload there are input records in Forcefield that do not exist in the panel. You would need to remove the incorrect Forcefield records from the database.

If you made any changes to the Challenger's database record in Forcefield after an upload, you may perform a download to ensure that the data in both Forcefield and the panel are the same (see "Download All" on page 257).

See also "Managing data integrity" on page 6.

To upload data from a Challenger:

1. From the main menu select Panels > Upload All Panel Data



2. In the 'Ch' field select the Challenger which you want to upload the database from. If you wish to use the default device ID naming, go to step 6. Steps 3, 4, and 5 are options for device ID naming.
3. Optionally, select 'Clear Panel Data Before Upload'. This clears the panel data (except extended mode NAC DGP records) before panel upload.
3. Optionally, select an ID Source. The ID Source is the location for device ID names. See "Using ID source files" on page 71 for details.
4. Optionally, type an ID Prefix. See "Using ID prefix" on page 67 for details.
5. Optionally, select ID Postfix. See "Using existing record ID as ID postfix" on page 68 for details.
6. Press F6 to upload the database from an active (online) Challenger into Forcefield.

Device ID names

When Forcefield uploads a database from a Challenger panel, a conversion process takes place because a Challenger database and a Forcefield database use different formats. Part of the conversion process involves the naming of devices uploaded from the Challenger panel.

The Upload Challenger function provides several options for naming device IDs in Forcefield (steps 3, 4, and 5 above). If no options are selected, Forcefield

automatically assigns default device ID names, based on the format chx_device y, where:

- **ch** represents Challenger
- **x** represents the Challenger number, for example, 7
- **device** represents the device type, for example, input
- **y** represents the device number, for example, 1

Example: ch7_input 1

Steps 4 and 5 above refer to the optional use of ID prefix and ID postfix values to add meaning to the device ID names when uploading a database. This process is similar to the one described in “Default record IDs” on page 67.

The specified ID prefix and ID postfix values are used only if the resulting device ID names are unique (they don’t already exist in the Forcefield database). If a device ID is already used, the Upload Challenger function uses the default naming convention.

Using ID source files

Step 3 on page 70 refers to the optional use of device ID name files located in the ‘ID Source’.

The external files (one for each device type) are lists of device names and numbers (up to 30 characters) in .csv (comma separated value) format that Forcefield applies to device ID names when uploading a database from a Challenger panel.

The external files must be named exactly as listed in Table 5 below, and are case-sensitive.

Table 5: Device ID external file names

File name	Device
alrmgrp.csv	Alarm Group
area.csv	Area
contrlrm.csv	Door/Lift Controller macro logic
door.csv	Door
doorgrp.csv	Door Group
evntdsc.csv	Event Flag
floor.csv	Floor
floorgrp.csv	Floor Group
holiday.csv	Holiday
inptshnt.csv	Input Shunt
inputs.csv	Input
lifts.csv	Lift
mcrlogic.csv	Challenger Macro logic

File name	Device
ras.csv	RAS
region.csv	Region
relaymap.csv	Relay
timezone.csv	Timezone
usrcat.csv	User Category

The following sections “CSV file format (except macro logic)” below and “CSV file format for macro logic” below describe the two file formats for the device ID name files. These files are used independently, that is, you can use any combination of files—you don’t need to create .csv files for the entire set of devices.

The device ID files are used in the Upload Challenger function (see step 3 on page 70).

Note: A utility file ForcefieldTitanDesExtract.exe is provided on the Forcefield Installation CD or USB device (in the Install folder), which can be used to create ID source files to help move databases (but not the user database) from TITAN to Forcefield.

CSV file format (except macro logic)

The file format for all types of device (except Door/Lift Controller Macro Logic) is:

“Num”, “Device Id”

For example, a device ID file for door groups 112 and 117 would be named **doorgrp.csv** and would contain the following lines:

“112”, “Factory Rear Doors”

“117”, “Warehouse Entry Doors”

Note: It is not necessary to specify intermediate names (for example, for door groups 113 through 116 in the above example). Forcefield applies default names as described in “Device ID names” on page 70 when valid data cannot be found.

CSV file format for macro logic

The file format for Door/Lift Controller Macro Logic is:

“((DGPNum –1) * 48) + Macro Num” , “Macro Logic Id”

For example, a device ID file for door controller 1 macro 1 and door controller 2 macro 5 records would be named **contrlrm.csv** and would contain the following lines:

“1”, “Dgp 1 Macro 1”

“53”, “Dgp 2 Macro 5”

Migrating older Challenger versions to Challenger10

From the Challenger menu, use the Convert to Challenger10 option to migrate a Challenger panel's data from Challenger V8 or Challenger10 pre-V10-06 format to Challenger10 format.

Notes:

- In the current release, a serial connection to a Challenger10 panel can be made only via the panel's RS-232 port (J15). See Comm Devices Setup - Serial tab for details.
- If the Challenger V8 system includes any Intelligent Access Controllers, you must update the controllers' firmware to a Challenger10-compatible version.

To convert a Challenger V8 record to Challenger10:

1. Connect Forcefield to the Challenger V8 panel.
2. Enable communications via the Control Panel record, and then save to set the panel to online.
3. From the Panel menu, select Upload All Panel Data to backup the data, if needed.

   If the Challenger V8 panel has IP connections to management software, IP Receiver, and so on, record the IP addresses and configuration details for reuse later in the appropriate communications paths.
4. Disable communications via the Control Panel record, and then save to set the panel to offline.
5. From the Panel menu, select Convert Panel type.
6. In the Convert Panel Type window, click the "Convert from Panel Type of" arrow, and then select "V8 Challenger".
7. Search by either the Num field or Id field to select the Challenger V8 panel to be converted.
8. If the Challenger V8 is not an IUM panel, search the IUM Card Cat list for the card format to be used after conversion to Challenger10.
9. Click Run to begin the conversion.

Notes:

- The Challenger V8 default alarm groups from 4 to 6 (if used) will need to be migrated to Challenger10 manually. These alarm group numbers are not applicable for Challenger10.
- Refer to "Forcefield to Panel IP Settings (Challenger10)" on page 369 to configure Forcefield to communicate with the Challenger panel.

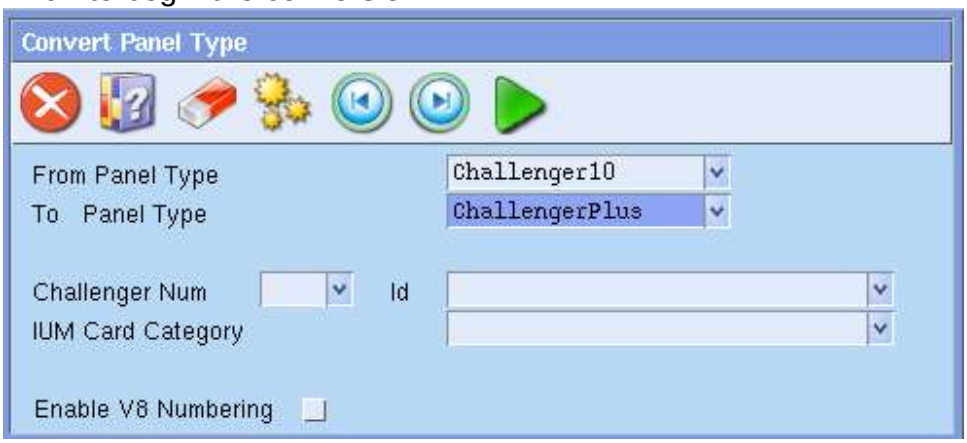
For more information refer to "Connecting to Challenger panels" in the *Forcefield Installation and Setup Manual*.

To convert a Challenger10 (pre-V10-06) record to Challenger10:

1. Connect Forcefield to the Challenger10 (pre-V10-06) panel.
2. Enable communications via the Control Panel record, and then save to set the panel to online.
3. From the Panel menu, select Upload All Panel Data to backup the data, if needed.
4. Disable communications via the Control Panel record, and then save to set the panel to offline.
5. From the Panel menu, select Convert Panel type.
6. In the Convert Panel Type window, click the “Convert from Panel Type of” arrow, and then select “Challenger10 PreV6”.
7. Search by either the Num field or Id field to select the Challenger10 panel to be converted.
8. Click Run to begin the conversion.

To convert a Challenger10 record to ChallengerPlus:

1. Connect Forcefield to the Challenger10 panel.
2. Enable communications via the Control Panel record, and then save to set the panel to online.
3. From the Panel menu, select Upload All Panel Data to back-up the data, if needed.
4. Disable communications via the Control Panel record, and then save to set the panel to offline.
5. From the Panel menu, select Convert Panel type.
6. In the Convert Panel Type window, click the “Convert from Panel Type of” arrow, and then select “Challenger10”.
7. Search by either the Num field or Id field to select the Challenger10 panel to be converted.
8. Click Run to begin the conversion.



Note:

Enable V8 Numbering option, when ticked enables input numbering which mimics the V8 limitations. The intention of this feature is to reduce the time spent migrating a panel on site due to changes in input numbering between V8 and Challenger10 / ChallengerPlus panels. Enabling this option means that the installer may not need to relabel DGPs or provide a new input list to the control room.

V8 input numbering provides a maximum of 16 inputs per DGP (compared to Challenger10 and ChallengerPlus providing 32 inputs per DGP). In total, the 15 DGPs each with 16 inputs plus the Challenger panel's 16 inputs makes up a total of 256 inputs on COMMS 1, which is equal to the total number of inputs available on the V8 panel.

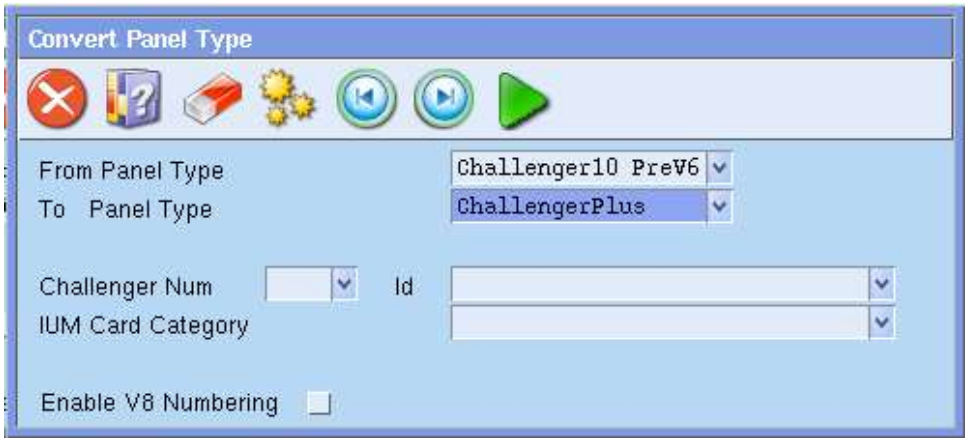
On a Challenger10 and ChallengerPlus panel, the COMMS 2 bus may still be used after conversion to expand the system further, resulting in a Challenger10 or ChallengerPlus panel with the following input numbering:
COMMS 1 - Inputs 1 - 256
COMMS 2 - Inputs 257 – 512

This option may only be selected during the conversion, and once a conversion has been performed, this option may not be toggled again.

To convert a Challenger10 (pre-V10-06) record to ChallengerPlus:

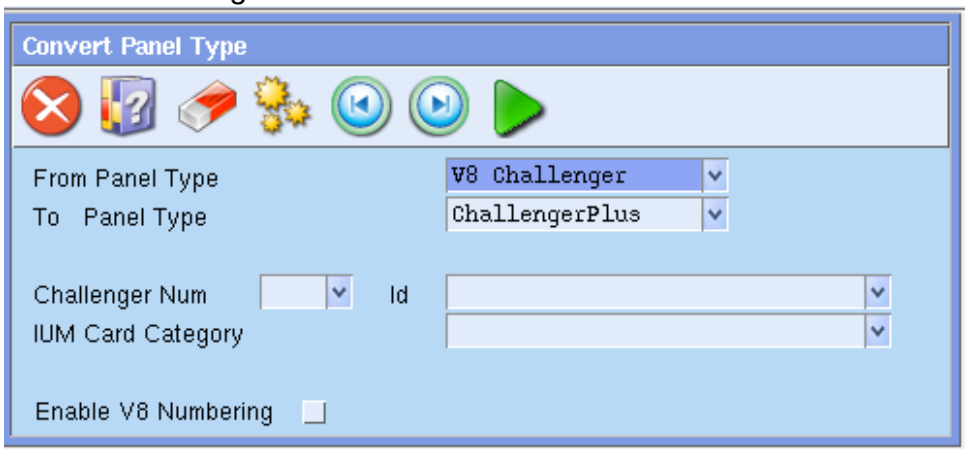
1. Connect Forcefield to the Challenger10 (pre-V10-06) panel.
2. Enable communications via the Control Panel record, and then save to set the panel to online.
3. From the Panel menu, select Upload All Panel Data to back-up the data, if needed.
4. Disable communications via the Control Panel record, and then save to set the panel to offline.
5. From the Panel menu, select Convert Panel type.
6. In the Convert Panel Type window, click the "Convert from Panel Type of" arrow, and then select "Challenger10 (pre V6)".
7. Search by either the Num field or Id field to select the Challenger10 (Pre V6) panel to be converted.
8. Optionally, tick 'Enable V8 numbering' option to enable input numbering in V8 style

9.Click Run to begin the conversion.



To convert a Challenger V8 record to ChallengerPlus:

1. Connect Forcefield to the Challenger V8 panel.
2. Enable communications via the Control Panel record, and then save to set the panel to online.
3. From the Panel menu, select Upload All Panel Data to back-up the data, if needed.
4. Disable communications via the Control Panel record, and then save to set the panel to offline.
5. From the Panel menu, select Convert Panel type.
6. In the Convert Panel Type window, click the “Convert from Panel Type of” arrow, and then select “V8 Challenger”.
7. Search by either the Num field or Id field to select the Challenger10 panel to be converted.
8. Optionally, tick ‘Enable V8 numbering’ option to enable input numbering in V8 style
9. Click Run to begin the conversion.



Using area search

Area search is a process by which a person must ensure that a facility is safe as part of the disarming process. The person's alarm group must have area search enabled, and an area search time zone must be specified in system options.

Note: The area search time zone must not be a 24-hr time zone because the functionality depends on the time zone changing from valid to invalid to reset the functionality for the next time it is needed. Either soft or hard time zones may be used.

Two summary event flags can be used to indicate the state of the area search process:

- Area Search Running
- Area Search Done

The area search process has two modes of operation, depending on whether the Challenger system is configured as a financial institution in System Options or a standard system.

Area search procedure for standard systems (not financial institutions)

The process of disarming via area search is:

1. The person enters the premises when the area search time zone is valid, and disarms the area (or areas). The area search timer starts. During the area search procedure "Area Search" is displayed via LCD RAS.
2. The person searches the premises to determine that there are no threats, and then exits and rearms the premises.

Assuming that the person searched the area, and then exits and rearms the premises between the minimum and maximum area search times, then the premises is deemed to be safe to disarm and enter (open for business).

If rearming occurs before the specified minimum area search time, then an "Area Search Early" alarm is generated (CID 140, point ID 421).

If the area has not been rearmed before the area search timer expires (maximum area search time), then an "Area Search Timeout" alarm is generated (CID 140, point ID 422). The RAS text "Area Search" is replaced with, "..," until the next time the area is armed or disarmed. After arming or disarming, a "Reset Area Search Failed" message is logged in history.

Area search procedure for financial institutions

The process of disarming via area search is:

1. The person enters the premises when the area search time zone is valid, and disarms the area (or areas). The area search timer starts. During the area search procedure "Morning Check x mins" is displayed via LCD RAS (where x is a countdown of the time remaining starting from the maximum area search

time). The area cannot be rearmed until the minimum area search time expires.

2. The person searches the premises to determine that there are no threats, and then exits and rearms the premises.

Assuming that the person searched the area, and then exits and rearms the premises between the minimum and maximum area search times, then the premises is deemed to be safe to disarm and enter (open for business).

If the area has not been rearmed before the area search timer expires (maximum area search time), then an “Area Search Timeout” alarm is generated (CID 140, point ID 422). The RAS text “Morning Check x mins” is replaced with, “..,” until the next time the area is armed or disarmed. After arming or disarming, a “Reset Area Search Failed” message is logged in history.

Using timed input testing

Various options for testing security devices (inputs) are described in the *Challenger Series Administrators Manual*. This section describes the programming required to configure the Challenger panel to use timed input testing.

Past versions of Challenger panels allowed inputs to be tested (typically unsealed and then resealed) in the following situations:

- On an ad hoc basis when a device appears to be faulty
- During an access test (a timed interval that starts when areas are disarmed)
- During a secure test (a timed interval that starts when areas are armed)

In addition to the above options, Challenger panels with firmware version V10-02.3605 (or later) allow inputs to be tested during normal operation within a specified number of days and will report an alarm for inputs that haven’t been tested.

For example, a sensor that is normally activated on a daily basis would be considered to be successfully tested in normal operations. However, a sensor in a room that gets little traffic could be programmed to be tested within seven days so that if a week passes without the sensor being activated, then an input test failed message (CID 307 ‘Self-test failure’) is generated for the input number.

During access tests and secure tests, the Challenger panel’s LCD RASs lists all untested inputs, and removes inputs from the list as they are tested. The list includes inputs that are programmed for timed input testing, and removes these from the list, even if tested during normal operation (outside of access or secure tests).

Inputs that are programmed for timed input testing have a testing interval timer (for example, 30 days). The timer is reset and the input is considered as untested each time the testing interval expires.

To program timed input testing:

1. Enable “Enable Expanded Test Report” in “System Options” on page 316.
2. For each input to be timed, select the test type “Test During Access & Secure” in “Inputs” on page 300.
3. For each input to be timed, specify the testing interval in “Test within no. of days” in “Inputs” on page 300.
4. If you need to time only on certain days of the week (defined by a time zone), then assign the time zone via “Decrement Test Days Time Zone” in “System Options” on page 316.
5. Optional: After programming time input testing, reset the timer to 0 before handing over to the customer (this is a RAS-only option).
6. Optional: Enable “Expanded Test Success Report” in “System Options” on page 316 to send a test success message for the input number when an input is tested within its specified number of days.

Holiday-related tasks

Holiday is only used for Challenger time zones. Forcefield does not use the holiday indication.

A holiday is a specified date (or range of dates for Challenger10) during which users are denied access during times that they would normally be permitted access. For example, a user may be able to disarm the system and unlock a door during working hours except on defined holidays.

Some users may require access during holidays. This functionality is provided via a time zone in the users' alarm group that allows access during any holidays (V8) or during holidays that have matching holiday types (V10).

Assigning an existing holiday to a Challenger

To assign an existing holiday to a Challenger panel:

1. Open the holiday programming window for the Challenger (see “Holidays” on page 355).
2. Select the first available holiday, and then click the arrow to display the holiday search window.
3. Select the required holiday, and then click Select to assign it to the Challenger panel.
4. When finished, click Save on the holiday programming window.

Assigning a new holiday to a Challenger

To create a new holiday and assign it to a Challenger:

1. Open the holiday programming window for the Challenger (see “Holidays” on page 355).
2. Double-click the first available holiday field to open the Program Holiday window.
3. Type the name of the holiday and specify the date.
4. Click Save.
5. Close the Program Holiday window. Forcefield displays the new holiday in the holiday programming window.
6. When finished, click Save on the holiday programming window for the Challenger panel.

Removing a holiday from a Challenger

To remove a time zone from a Challenger panel:

1. Open the holiday programming window for the Challenger (see “Holidays” on page 355).
2. Select the holiday to be removed, and then click Clear.
3. Click Save.

Note: This does not remove the holiday record from the holiday database; it only removes it from the current Challenger panel.

Deleting a holiday

To delete a holiday from the holiday database:

1. Open the holiday programming window for the Challenger (see “Holidays” on page 355).
2. Double-click the holiday to be deleted, to open the Program Holiday window.
3. Press F8.

Note: It is not possible to delete a holiday record from the holiday database if it is in use.

Naming holiday types

Challenger10 panels have eight holiday types to provide greater flexibility in controlling access for users who need to use the Challenger system during holidays.

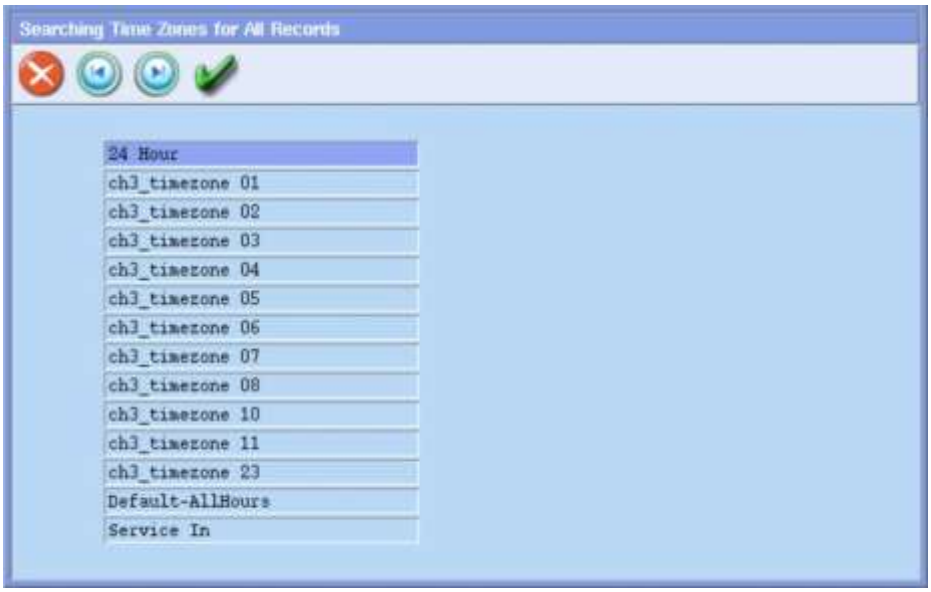
You can optionally assign names to the eight holiday types to indicate their purpose. See “Holiday Types” on page 356.

Timezone-related tasks

Assigning an existing time zone to a Challenger

To assign an existing time zone to a Challenger panel:

1. Open the time zone programming window for the Challenger (see “Time Zones” on page 334).
2. Select the first available time zone, and then click the time zone arrow to display the time zone search window.



3. Select the required time zone, and then click Select to assign it to the Challenger panel.
4. When finished, click Save on the time zone programming window for the Challenger panel.

Assigning a new time zone to a Challenger

To create a new time zone and assign it to a Challenger panel:

1. Open the time zone programming window for the Challenger (see “Time Zones” on page 334).
2. Double-click the first available time zone field to open the Program Timezone window.
3. Program the new time zone as described in “Time Zones” on page 334.

4. Close the Program Timezone window. Forcefield displays the new time zone in the time zone programming window.
5. When finished, click Save on the time zone programming window for the Challenger panel.

Removing a time zone from a Challenger

To remove a time zone from a Challenger panel:

1. Open the time zone programming window for the Challenger (see “Time Zones” on page 334).
2. Select the time zone to be removed, and then click Clear.
3. Click Save.

Note: This does not remove the time zone record from the time zone database; it merely removes it from the current Challenger panel. Time zones 0 (24 Hour) and 25 (Service In) cannot be removed from the current Challenger panel.

Deleting a time zone

To delete a time zone from the time zone database:

1. Open the time zone programming window for the Challenger (see “Time Zones” on page 334).
2. Double-click the time zone to be deleted, to open the Program Timezone window.
3. Press F8.

Note: It is not possible to delete a time zone record from the time zone database if it is in use. Print a Time Zone report to see where a time zone is in use (see “Time Zone Report” on page 222).

Assigning a soft time zone to a Challenger

Soft time zones are also known as ‘Time zones to follow relays’. These are time zones that are active only when a relay is active (time zones based on events instead of on time).

To assign an existing soft time zone to a Challenger panel:

1. Select the Challenger programming option Time zones To Follow Relays to open the soft time zone programming window (see “Time Zones to Follow Relays” on page 358).
2. Select the first available soft time zone, and then click the arrow to display the relay search window.

3. Select the required relay, and then click Select to assign it to the Challenger panel.
4. When finished, click Save on the soft time zone programming window for the Challenger panel.

Removing a soft time zone from a Challenger

To remove a soft time zone to a Challenger:

1. Select the Challenger programming option Time zones To Follow Relays to open the soft time zone programming window (see “Time Zones to Follow Relays” on page 358).
2. Select the soft time zone to be removed, and then click Clear.
3. When finished, click Save on the soft time zone programming window for the Challenger panel.

Chapter 5
Forcefield commands

Summary

This chapter describes all Forcefield command that can be accessed via the menu system (with no menu restrictions in place). Forcefield has two menu types: classic and Forcefield 6. The menu type is selected in “Configuring login options” on page 267.

Content

Introduction

The Forcefield commands listed in this chapter are listed in the order they appear in the classic Forcefield menu. See also Appendix C “Forcefield 6 menu reference” on page 393 for a list of commands in the order they appear in the Forcefield 6 menu.

Menu items displayed for an individual operator are determined by the access rights assigned to the operator (or to the workstation), and so Forcefield will typically display only a portion of the commands described in this reference.

The following sections may include the “>” character to indicate sub-menus. For example, the heading ‘Users > Access menu’ indicates that Users is the top-level menu and Access is a sub-menu.

Note: Forcefield may be configured to display the Forcefield 6 menu structure. If your Forcefield commands do not display in the same order as shown in this chapter, use the index to find specific menu options. Menu options are listed in the index in the same case as on the user interface, followed by the word “option”, for example “Logoff option“, followed by the page number.

Main menu

The following sections describe the two main menu commands (Alarm and Logoff) that do not open sub-menus.

Alarms

The Alarms option opens the Unacknowledged Alarms window. See “Unacknowledged alarms” on page 32 for details.

Logoff

The Logoff option logs off the current operator and displays the Forcefield Login window.

Triggering menu

Event Check

Use the Event Check option to program Forcefield to check whether an event has occurred at a specific time, and to do some action if the event has or hasn’t occurred. This is done by scanning the history backwards from the time of the check for the selected period.

Figure 37: Event Check programming window

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Id. Type a unique ID (name) to identify this record. The ID will be written to history when the action is triggered.

Node. Select the Forcefield node (the name may differ from that shown).

Type. Select the required frequency for the event.

- Once Only, Delete: Triggers will be removed from the database once they have been executed.
- Once Only, Keep: Triggers will become inactive, but will be kept in the database so that they can be reactivated at a later time.
- Every Day
- Day of Week
- Day of Month
- Week Days
- Weekend Days

Time of Next. Use the calendar widget to specify the hour, minute, date, month, and year at which the check is to be performed. The time specified will be the time at the selected node (Forcefield computer).

Check back for. Type a value to suit the selected minutes, hours, or days. Select the minutes, hours, or days, as needed. For example, if the check has been programmed to occur at 4:00 p.m. and the Check back for field is set to 10 minutes, then Forcefield will check if the event has occurred anywhere between 3:50 p.m. and 4:00 p.m.

Initiate Actions if Event. Select either Occurred or Did Not Occur, as needed.

Desc. Type a description (optional).

Event. Select the required event. Once an event is selected, other fields will appear depending on the event selected. Enter or select data accordingly.

Note that entering data for a device, for example, will mean that only events generated by that device will initiate triggering in Forcefield.

Actions. Click the Actions button to program the actions that will be performed. The fields available on the Action window depend on the type selected.

Event check actions

Click the Action button on the Event Check window to open a Check for Event Action window. Use the Check for Event Action window to program an action that will take place when triggered. Multiple actions can be programmed for the one event.

The fields displayed on the Check for Event Action window vary to suit the selected action type. Refer to the following sections for details of each type of action:

- “Challenger control” below
- “Video control” below
- “Auto report” on page 90
- “Generate alarm” on page 90
- “Output data to port” on page 90
- “Execute process” on page 90

Challenger control

Id. Type a unique ID (name) to identify this record. As you are able to have more than one action for each trigger, each action ID must be different. The ID will be written to history when the action is triggered.

Type. When the selected action type is Challenger control, you must also select a Challenger device.

Video control

Id. Type a unique ID (name) to identify this record. As you are able to have more than one action for each trigger, each action ID must be different. The ID will be written to history when the action is triggered.

Type. When the selected action type is Video control, you must also select a Video control action:

- Camera To Monitor
- Camera To Preset
- Trigger Video Alarm
- Reset Video Alarm
- Trigger Video Macro
- Reset Video Macro
- Set Multi View

- Recording - Start
- Recording - Stop

Note: If the Video control action is “Trigger Video Alarm”, additional fields display for entering alarm codes and data, as applicable.

Auto report

Id. Type a unique ID (name) to identify this record. As you are able to have more than one action for each trigger, each action ID must be different. The ID will be written to history when the action is triggered.

Type. When the selected action type is Auto report, you must also select an output target and a report type.

Generate alarm

Id. Type a unique ID (name) to identify this record. As you are able to have more than one action for each trigger, each action ID must be different. The ID will be written to history when the action is triggered.

Type. When the selected action type is Generate alarm, you must also enter the appropriate alarm text.

Output data to port

Id. Type a unique ID (name) to identify this record. As you are able to have more than one action for each trigger, each action ID must be different. The ID will be written to history when the action is triggered.

Type. When the selected action type is Output data to port, you must also select the required format:

- ASCII—any ASCII text characters
- HEX—data must be in hexadecimal format, for example, 01345a7f (spaces are not allowed, and the data must contain an even number of characters).

Execute process

Id. Type a unique ID (name) to identify this record. As you are able to have more than one action for each trigger, each action ID must be different. The ID will be written to history when the action is triggered.

Type. When the selected action type is Execute process, you must also select the node and specify a script.

Notes:

- The process may be any binary or executable script, which will be run in the environment of the Forcefield background trigger action process.
- The process may not contain redirection, piping or other shell constructs. If these are required, create a script and run that instead.

- No error checking is performed to determine if the process was successfully executed.

Event Paging

Use the Event Paging option to program paging or e-mail actions to be activated by the notification of a Forcefield event.

Email support is built in. The email server to which aresmail will send the mail for processing must be set up by your system administrator in Forcefield Configuration. The message itself is automatically composed by Forcefield according to the event type and the Computer Category for the triggering point.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Id. Type a unique ID (name) to identify this record. Alternatively, search for existing records to view or edit.

Description. Type a short description for this paging trigger.

Page on Event. Select an event that this trigger will use to activate actions. Once an event is selected, certain other fields will appear depending on the event selected. Enter data accordingly. Note that entering data for a device, for example, will mean that only events generated by that device will initiate triggering in Forcefield.

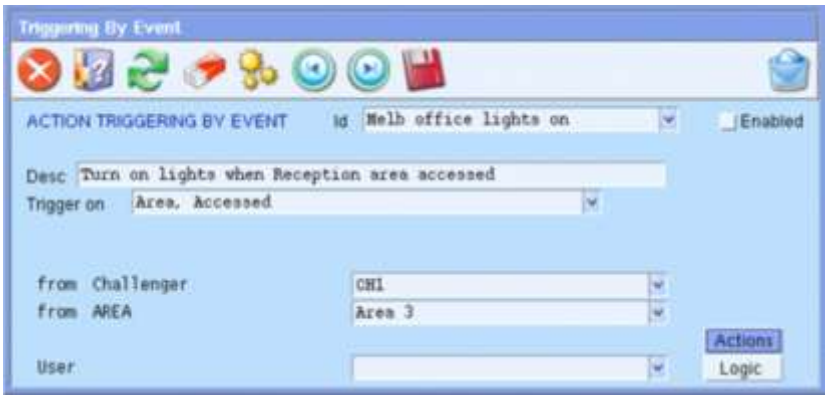
Note: This event must also be flagged as Allow Paging in the relevant computer category record. See Figure 74 on page 213.

Click the Destinations button to open the Paging Destination window where you can program one of the paging actions (either ASCOM Duress or E-mail) that will take place when the trigger fires. Multiple actions can be programmed for the one event.

Event Trigger

Use the Event Trigger option to program actions to be activated by the notification of a Forcefield event. After the Event Trigger has been defined and saved, the Actions button displays.

Figure 38: Triggering By Event programming window



Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Id. Type a unique ID (name) to identify this record. Alternatively, search for existing records to view or edit.

Enabled. Select the Enabled check box to enable this trigger.

Description. Type a short description for this paging trigger.

Trigger on. Select an event that this trigger will use to activate actions. Leave blank to generate the trigger for all alarms that the operator responds to or acknowledges.

For Event Task Alarm Response and Event Task Alarm Acknowledged events you may select the device that caused the alarm.

Sector (if displayed). A sector number enables Forcefield to link the event to external events such as a Teleste alarm code.

Device (if displayed). Select an item or device. The type of item or device available will depend on the event chosen. Leaving blank will match the event from all devices. Note that entering data for a device, for example, will mean that only events generated by that device will initiate triggering in Forcefield.

Actions button. Click Actions to program the actions that will be performed. The fields available on the Action window depend on the type selected.

Logic button. Click Logic to program up to eight conditions that must be satisfied in order for this trigger to function.

The Trigger Actions windows and commands are similar to the Check Actions windows described in “Event check actions” on page 89.

Time Trigger

Use the Time Trigger option to program actions to be activated at a particular time.

Figure 39: Triggering By Time programming window

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Id. Type a unique ID (name) to identify this record. The ID will be written to history when the action is triggered.

Node. The node at which the event is to be initiated. Note that the time at which the event is triggered will be from the selected node (Forcefield computer). This is important as each node may be in a different time zone.

Enabled. Select the Enabled check box to enable this trigger.

Description. Type a short description of this trigger.

Type. Select the required frequency for the event:

- Once Only, Delete (triggers will be removed from the database once they have been executed)
- Once Only, Keep (triggers will become inactive, but will be kept in the database so that they can be reactivated at a later time)
- Every Day
- Day of Week
- Day of Month
- Week Days
- Weekend Days

Time of Next. Use the calendar widget to specify the hour, minute, date, month, and year at which the check is to be performed. The time specified will be the time at the selected node (Forcefield computer).

After the time trigger has been defined and saved, the Actions button appears.

Actions button. Click Actions to program the actions that will be performed. The fields available on the Action window depend on the type selected.

The Trigger Actions windows are similar to those described in “Event check actions” on page 89. Triggering by time does not include a Generate Alarm action, but there are two additional actions that can be triggered by time:

- “User data export” below
- “User photo export” below

Logic button. Click Logic to program up to eight conditions that must be satisfied in order for this trigger to function.

User data export

The “user data export” timed trigger action provides the following functionality:

- When the action type is once only, then Forcefield exports the full user data in CSV format, starting at the designated time, similar to manually exporting user data (see “Export User Data” on page 182).

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Id. Type a unique ID (name) to identify this record. As you are able to have more than one action for each trigger, each action ID must be different. The ID will be written to history when the action is triggered.

Type. When the selected action type is User Data Export, you must also specify an export destination (report storage device), typically a SMB (CIFS) location.

User photo export

When the action type is once only, then Forcefield exports all user photos, starting at the designated time.

When the action type is recurring or periodic (such as every day), then Forcefield exports only the data that has been added or changed in the past week (for example).

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Id. Type a unique ID (name) to identify this record. As you are able to have more than one action for each trigger, each action ID must be different. The ID will be written to history when the action is triggered.

Type. When the selected action type is User Photo Export, you must also specify an export destination (report storage device), typically a SMB (CIFS) location.

Event Check Report

Use the Event Check Report option to generate reports listing programmed event checks and associated actions.

Refer to “Generating reports” on page 29, and the following details about this report.

Trigger Id. Leave this field blank to generate a report for all records or select one or more triggers.

Event Paging Report

Use the Event Paging Report option to generate reports listing programmed paging events and associated actions.

Refer to “Generating reports” on page 29, and the following details about this report.

Trigger Id. Leave this field blank to generate a report for all records or select one or more triggers.

Event Trigger Report

Use the Event Trigger Report option to generate reports listing programmed event triggers and associated actions.

Refer to “Generating reports” on page 29, and the following details about this report.

Trigger Id. Leave this field blank to generate a report for all records or select one or more triggers.

Time Trigger Report

Use the Time Trigger Report option to generate reports listing programmed time triggers and associated actions.

Refer to “Generating reports” on page 29, and the following details about this report.

Trigger Id. Leave this field blank to generate a report for all records or select one or more triggers.

Backups menu

The Backups options are described on the following pages:

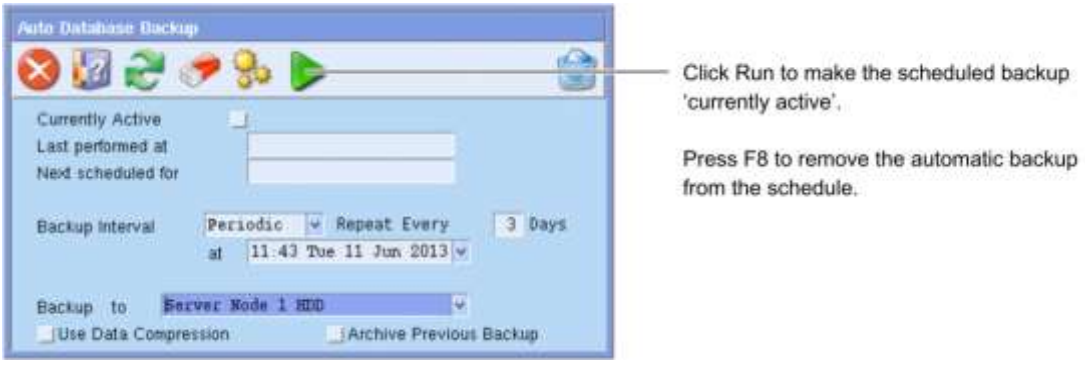
- Use “Auto Database Backup” on page 96 to automate the archiving of Forcefield databases.
- Use “Auto History Backup” on page 97 to automate the archiving and purging of history data from Forcefield.
- Use “Auto History Export” on page 98 to protect Forcefield databases and/or configuration data.
- Use “System Backup” on page 99 to automate the archiving and purging of history data from Forcefield in CSV format.

- Use “Backup History” on page 100 to protect Forcefield history.
- Use “Convert 4.5.x Database” on page 101 to convert an ARES 4.5.x backup database into a Forcefield database.
- Use “Delete Database Archive” on page 101 to remove a database archive that has previously been created when a database backup has been performed.
- Use “Delete History Archive” on page 102 to remove a history archive that has previously been created when a history backup has been performed.
- Use “Export History” on page 102 to export history data from Forcefield in CSV format.
- Use “Export History Archive” on page 103 to create a CSV file from a history archive that has previously been created when a history backup has been performed.
- Use “Format Disk” on page 103 to prepare a storage device such as an IBM-formatted disk for use in QNX. This option is available only on Forcefield Enterprise nodes.
- Use “Purge History” on page 103 to delete selected history from the hard disk.
- Use “System Restore” on page 104 to restore the system’s database to the last backup date.

Auto Database Backup

Use the Auto Database Backup option to automate the archiving of Forcefield databases.

Figure 40: Auto Database Backup programming window



Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Backup Type. Select the desired frequency of archiving:

- Daily
- Weekly

- Monthly
- Periodic (and then specify the number of days)

Use the calendar widget to specify the time and date of the next backup.

Backup To. Select the required storage device for the backup (backing up to remote storage is recommended). The archives are available for reporting and backing up to offline media, and each archive is created in a separate directory. Selecting the Forcefield server hard disk allows for archiving of previous history backups.

Note: The 'Backup to' storage device must be available at the specified backup time and the entire backup must fit onto one device because there is no provision for operator intervention for auto backups.

Use Data Compression. If selected, Forcefield will compress the backup data. This will take longer to achieve than an uncompressed back up. It will also temporarily use hard disk space while compressing data for storage.

Note: In the event of a defect in the storage medium, uncompressed data is typically easier to recover than compressed data.

Archive Previous Backup. This field is visible only when the Forcefield server hard disk is selected in the Backup To field. Right-click to copy the existing archive, if any, to a dated archive. The archive is available for later restoral if required.

When a scheduled backup is 'currently active', an icon displays on the main window (see "Automatic activity icons" on page 17).

Auto History Backup

Use the Auto History Backup & Purge option to automate the archiving and purging of history data from Forcefield.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Backup Interval. Select the desired interval of archiving history data:

- Daily
- Weekly
- Monthly
- Periodic (and then specify the number of days)

Only the selected interval will be backed up. For example, if the interval is weekly, then history records for the past week will be backed up.

Backup Starting at. Use the calendar widget to specify the time and date of the next backup.

Backup From. Optionally specify a number of days or weeks before the start of the interval to allow for overlapping backup data by adjusting the start date of

the export data by the time specified. For example, if the interval is daily and you specify 1 month, then the backup will contain data from the month before the specified interval, plus the day's data.

Backup To. Select the required storage device for the backup (backing up to remote storage is recommended). The archives are available for reporting and backing up to offline media, and each archive is created in a separate directory. Selecting the Forcefield server hard disk or a SMB (CIFS) location allows for archiving of previous history backups.

Note: The 'Backup to' storage device must be available at the specified backup time and the entire backup must fit onto one device because there is no provision for operator intervention for auto-backups.

Backup Type. Select the required storage device for the backup.

- Append—adds history to a previous backup.
- Overwrite—any current backup is deleted. Selecting Archive Previous Backup automatically selects Overwrite.

Archive Previous Backup. This field is visible only when backing up to the Forcefield server hard disk or a SMB (CIFS) location). Right-click to copy the existing archive, if any, to a dated archive. The archive is available for later restoral if required. Selecting this option makes the Backup Type Overwrite.

Purge Type. Select Older Than or All.

- Select Older Than and then specify a number of days to remove only records older than the record age. For example, if number of days is 90, then the purging process will delete all records older than 90 days (from the date that the purging operation is performed).

  Note: Set the Days field to blank in order to disable purging of older records. If you want to also disable auto purge when the purge limit is reached, then the Allow Auto Purge check box must be cleared in "History Config" on page 136.

- Select All to purge (delete) all history records.

If you wish to purge all history records without backing up history data, select a Purge Type of All and leave the Backup To field blank. Otherwise, the specified history data will be backed up prior to being purged.

When a scheduled backup is 'currently active', an icon displays on the main window (see "Automatic activity icons" on page 17).

Auto History Export

Use the Auto History Export option to automate the archiving and purging of history data from Forcefield in CSV format.

Common window elements are described in Section 3. Descriptions of window-specific elements follow.

Export Interval. Select the desired interval of archiving history data:

- Daily
- Weekly
- Monthly
- Periodic (and then specify the number of days)

Export Interval Starting at. Use the calendar widget to specify the time and date of the next export.

Only the selected interval will be exported. For example, if the interval is weekly, then history records for the past week will be exported.

Export From. Optionally specify a number of days or weeks before the start of the interval to allow for overlapping export data by adjusting the start date of the export data by the time specified. For example, if the interval is monthly and you specify 1 day, then the export will contain data from the day before the specified date, plus the month's data.

Export to. Select the required storage device onto which the history records will be exported. Leave the Export To field blank if you want to purge history records without backing up history data.

Note: The 'Export to' storage device must be available at the specified export time and the entire export must fit onto one device because there is no provision for operator intervention for auto export.

In format. Select, as required:

- CSV – Raw: all data in the specified records 'as is', with date and time data not in human-readable format.
- CSV – Formatted: Type a selection of data, with date and time data converted to human-readable format.

Purge Type. Select Older Than or All.

- Select Older Than and then specify a number of days to remove only records older than the record age. For example, if number of days is 90, then the purging process will delete all records older than 90 days (from the date that the purging operation is performed).
- Select All to purge (delete) all history records.

When a scheduled export is 'currently active', an icon displays on the main window (see "Automatic activity icons" on page 17).

System Backup

Use the System Backup option to protect Forcefield databases and/or configuration data.

Common window elements are described in Section 3. Descriptions of window-specific elements follow.

BACKUP. Select the type of backup you wish to perform:

- Databases—typically includes Forcefield databases, graphics and user files.
- Hardware Config—typically includes Forcefield hardware related files, such as netmap files, TCP/IP config files.

  The selection of backup files is configurable by the Forcefield system administrator.

Use Data Compression. If selected, Forcefield will compress the backup data. This will take longer to achieve than an un-compressed back up. It will also temporarily use hard disk space while compressing data for storage.

Note: In the event of a defect in the storage medium, uncompressed data is typically easier to recover than compressed data.

Backup To. Select the required storage device for the backup (backing up to remote storage is recommended). Selecting the Forcefield server hard disk allows for archiving of previous history backups.

Note: Backup Data will automatically delete any previous backups (file names BU_DB*) in the selected storage device. Move or rename previous backup files if you want to keep them.

Archive Previous Backup. This field is visible only when the Forcefield server hard disk is selected in the Backup To field. Right-click to copy the existing archive, if any, to a dated archive. The archive is available for later restoral if required.

Backup History

Every action that Forcefield encounters is stored as history. The history created between two dates can be backed up for future reference. Backing up requires that the information in history be copied to a storage device.

Use the Backup History option to protect Forcefield history.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

From. Use the calendar widget to specify the day, month, and year that defines the beginning of the interval that you want to back up. The interval begins on the specified date at the time 00:00:00.

To. Use the calendar widget to specify the day, month, and year that defines the end of the interval that you want to back up. The interval ends on the specified date at the time 23:59:59.

Backup To. Select the required storage device for the backup (backing up to remote storage is recommended). The archives are available for reporting and backing up to offline media, and each archive is created in a separate directory. Selecting the Forcefield server hard disk or a SMB (CIFS) location allows for archiving of previous history backups.

Archive Previous Backup. This field is visible only when backing up to the Forcefield server hard disk or a SMB (CIFS) location). Right-click to copy the existing archive, if any, to a dated archive for later restoral, for use in Offline History reports, or for backing up to offline storage media by using the Backup History Archive function.

Convert 4.5.x Database

Use the Convert 4.5.x Database option to convert an Ares 4.5.x database backup into a Forcefield database (overwriting the existing Forcefield database).

Transfer the 4.5.x database backup to the Forcefield client computer by one of the following methods:

- Use a sufficiently-large ZIP drive so that the database fits on a single media.
- Use FTP to transfer the backup database from Ares 4.5.x to the Forcefield client computer.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

From Storage. Select the storage device where the backup is stored.

Profile Option. Select the appropriate profile option for the conversion:

- Common group access. The conversion program tries to match all the users that have the same access and create a single profile for these users. The profile ID is automatically generated by the conversion program, such as “User Profile 1”, “User Profile 2”, and so on.
- One profile per user: The conversion program assigns each user an individual profile. The profile ID is automatically generated by the conversion program, such as “User Profile 1” for user 1, “User Profile 2” for user 2, and so on.
- Don’t create profile: The conversion program assigns each user with the default profile, “No Access Profile~”.

Ignore User Department. If selected, the department field will be blank for all the users after the conversion.

Delete Database Archive

Use the Delete Database Archive option to remove a database archive that has previously been created when a database backup has been performed.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Type. Select the type of backup you wish to perform (Forcefield databases or Hardware Config):

- Forcefield databases typically includes Forcefield databases, graphics and user files
- Hardware Config typically includes Forcefield hardware related files, such as netmap files and TCP/IP config files.

From. Select the device where the archive is stored. The archives contained on the device will be listed along with the date the archive was made. Select the one you wish to delete.

Delete History Archive

Use the Delete History Archive option to remove a history archive that has previously been created when a history backup has been performed.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

From. Select the device where the archive is stored. The archives contained on the device will be listed along with the date the archive was made. Select the one you wish to delete.

Export History

Use the Export History option to export history data from Forcefield in CSV format.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Note: This command performs the same function as running a History report, but provides no filtering: all records in the selected range will be exported.

From. Use the calendar widget to specify the day, month, and year that defines the beginning of the interval that you want to back up. The interval begins on the specified date at the time 00:00:00.

To. Use the calendar widget to specify the day, month, and year that defines the end of the interval that you want to back up. The interval ends on the specified date at the time 23:59:59.

Export to. Select the required storage device onto which the history records will be exported.

In Format. Select, as required:

- CSV – Raw: All data in the specified records ‘as is’, with date and time data not in human-readable format.
- CSV – Formatted: A selection of data, with date and time data converted to human-readable format.

Export History Archive

Use the Export History Archive option to create a CSV file from a history archive that has previously been created when a history backup has been performed.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

From. Select the device where the archive is stored. The archives contained on the device will be listed. Forcefield will display the date the archive was made. Select the one you wish to delete.

To. Select the required storage device onto which the history records will be exported.

In format. Select, as required:

- CSV – Raw: All data in the specified records ‘as is’, with date and time data not in human-readable format.
- CSV – Formatted: A selection of data, with date and time data converted to human-readable format.

Delete Archive on Completion. Select this check box to remove the selected history archive after the export has been performed.

Format Disk

Use the Format Disk option to prepare a selected device (e.g. an IBM-formatted disk) for use in QNX for backup, storage, etc. This command is available only on a Forcefield Enterprise node’s user interface.

The command removes all data on the specified device.

Purge History

Use the Purge History option to delete selected history from the hard disk.

Purge History deletes all of the history from the system hard disk between the requested dates.

Note: Before performing a purge, ensure that you have backed up the selected range of history you wish to purge.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

From. Use the calendar widget to specify the day, month, and year that defines the beginning of the interval that you want to back up. The interval begins on the specified date at the time 00:00:00.

To. Use the calendar widget to specify the day, month, and year that defines the end of the interval that you want to back up. The interval ends on the specified date at the time 23:59:59.

If history in this date range has not been previously backed up, you will be prompted to confirm that the purge should continue.

System Restore

Use the System Restore option to restore the system's database to the last backup date. This is where the storage devices selected during Backup Database are used, so it is important to properly number and date backed-up information. Restoring the database should only be used after consulting your Installation Company.

Running this process will restore previously backed up data. After copying the data to the system disk, the restore will shutdown and restart Forcefield.

Note: Restore Data should only be used as a recovery if the Forcefield computer has crashed or there has been a system failure. You will need the Forcefield License CD or USB device in order to complete this process.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Restore. Select the type of backup you wish to restore:

- Databases—typically includes Forcefield databases, graphics files, user photos, user notes, user card design layouts, alarm help files, report templates, and backup configurations.
- Hardware Config—typically includes the QNX system configuration files, such as netmap files, TCP/IP config files. The files restored include all the files in the following directories:

  /etc

  /etc/ppp

  /etc/config

  /etc/config/trap

Only to Node. Select the required node.

From. Select the device where the archive is stored. The archives contained on the device will be listed. Forcefield will display the date the archive was made. Select the archive from which you want to restore.

Graphics menu

Overview

Use the Graphics menu options to create Forcefield maps: interactive graphical interfaces by which an operator can monitor alarms and control the security system.

Note: Door inputs do not have to be placed on graphic maps. Forcefield internally redirects input events to door events for any input associated with a door. Placing these inputs onto the map clutters the map and unnecessarily takes one of the allowed LAP slots allowed per map.

A Forcefield map consists of a background drawing (either created or imported) plus one or more of the following elements:

- **Single LAP (Live Animation Point).** Indicates position and status of a single device under control of Forcefield.
- **Multiple LAPs.** Indicates alarm status of one or many devices under control of Forcefield. Multiples LAPs display only when in an alarm state.
- **Jump Zones.** A shortcut to another map.
- **Alarm Zones.** An alarm zone is typically used on a top-level map (e.g. a city map). The alarm zone is not visible until one of the points associated with the alarm zone is in alarm. Then, clicking on the (now visible) alarm zone opens the particular map (e.g. a building) that displays the alarm. If more than one of the points associated with the alarm zone is in alarm, clicking on the alarm zone opens the map with the highest priority alarm.
- **Event Macro.** Clicking on an Event Macro icon causes an event, which Forcefield can use to perform event triggering. There are a possible 256 event macros.
- **Event Macro with Confirmation.** Similar to Event Macro except that confirmation is required before issuing the trigger.

Note: A maximum of 100 LAPs can exist on a map. Any item can only be placed on up to 10 maps.

Different icons on the maps are used to indicate the position of doors, PIR detectors, arming stations, readers, etc. The various states of alarms, isolates, tampers or seals are displayed on the maps by changing the colour of the icon to indicate the condition of the point:

- **Flashing Red** indicates that an alarm has occurred, but has not been acknowledged or restored.
- **Steady Red** indicates that an area is armed.
- **Flashing Green** indicates that an alarm has been reset, but has not been handled by the operator.
- **Steady Green** indicates that an area is disarmed or a door is unlocked.

- **Dark Orange** indicates that a door is disabled.
- **Purple** indicates that an alarm has been acknowledged and is waiting to be restored.
- **Yellow** indicates that a point has been isolated.
- **Blue** indicates that a relay is active, or intercom audio is being monitored.
- **Flashing Pink** indicates that an intercom call is waiting to be answered.
- **Steady Pink** indicates that an intercom call is connected (audio channel opened).

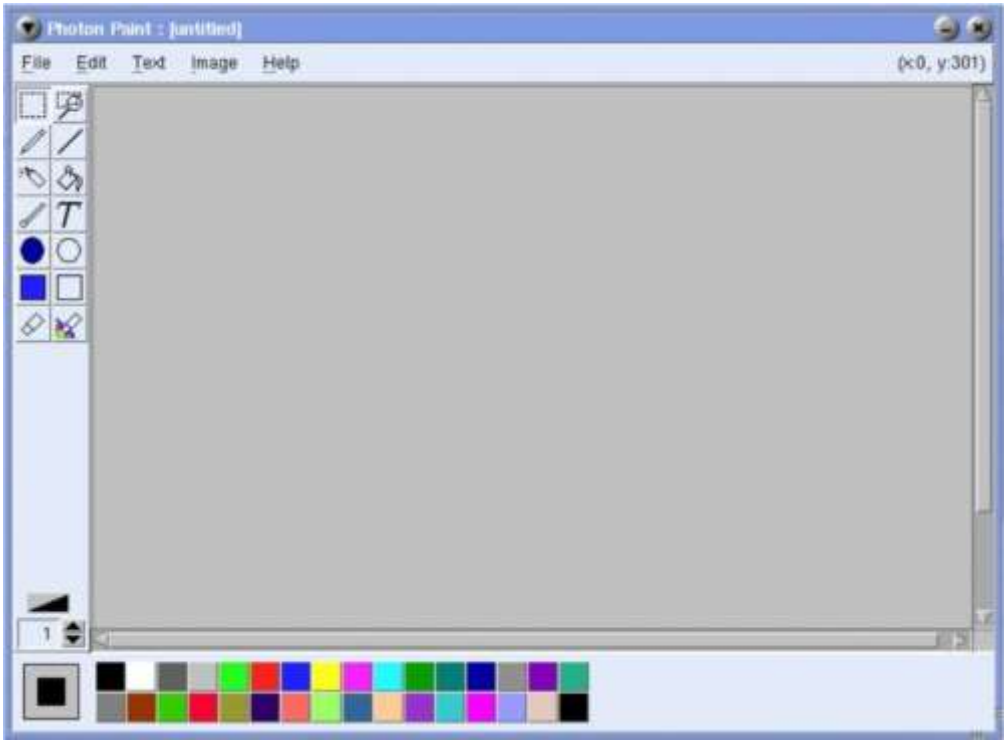
The overall process of creating Forcefield maps is:

1. Draw or import a map background. The background for a Forcefield map must be a Windows picture file (.bmp), and may be created using the following methods:
    - Use Background Editor to draw a picture.
    - Use Convert DXF to Map to create a background from a .dxf format file created in a drawing application such as AutoCAD (version 12 or below).
2. Use Map Database to add the map background to the Forcefield map database.
3. Use LAP Editor to add LAPs to the map.

Background Editor

Use the Background Editor option to draw a map’s background (available on the Forcefield server only).

Figure 41: Background Editor window



Save the map as a .bmp file in the folder /usr/ares/graphics/ using a unique number from 1 to 65535. The .bmp file name will correspond to the map number in the database, e.g. the background file ‘45.bmp’ corresponds to map 45.

Note: In Forcefield, maps numbers 1, 01, 001, and so on are considered the same map number. In previous Forcefield versions, maps 1 and 01 could both exist as separate maps.

The file must be added to the map database before it can be used in Forcefield. See “Map Database” on page 116.

Convert DXF to Map

Use the Convert DXF to Map option to create a background from a .dxf format file created in a drawing application such as AutoCAD (version 12 or lower).

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

To enter the map into the Forcefield database:

1. In the Id field select the device where Forcefield will search for the .dxf files to convert.
2. Click Run, and then select the required .dxf file. Forcefield converts the .dxf file to a .bmp file. Forcefield displays a dialog box.
3. Enter the required map number. The .bmp file name will correspond to the map number in the database, e.g. the background file ‘45.bmp’ corresponds

to map 45. Forcefield stores the .bmp file and displays the Map Database programming screen.

4. Enter a map description and then click Run.

Display Map

Use the Display Map option to display the map designated as the default map for the workstation (see “Workstation options—graphics” on page 196).

Figure 42: Display map window (example map only)

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Maps have buttons at the top of the window:

- Click Quit to close the map window.
- Click Map to select a different map
- Click Refresh to reload the map.

Security devices are represented by LAPs or graphic images on the map. Click a LAP to view the available menu for the LAP. See Figure 19 on page 32 for an example of a LAP menu.

Listed alphabetically, LAP menu options may include:

Alarm. Opens the Alarm Details window for the device in alarm.

Door Lock Override. Allows the operator to specify time periods when the door should be unlocked, together with optional areas that should be disarmed. This allows Forcefield to override the normal override time zone programming that controls when the door is normally locked or unlocked. Multiple overrides may be specified for a door. See “Door Lock Override” on page 122 for details.

Floor Status. Provides details of the current status of a floor.

Last User. Provides the identity of the last user to access the door, along with the time and date of access.

Next. Allows the operator to zoom in to the next map level of the selected point. If another level of map has been programmed to this point, the screen will zoom to the next map.

Remote. Allows the operator to quickly perform system functions on the selected point. The actual functions that are displayed will vary depending on the type of point selected (e.g. Input, Door, Area, RAS, DGP, etc.) and upon the operator’s permissions.

Previous. Allows the operator to zoom out to the next map level of the selected point. If another level of map has been programmed to this point, the screen will zoom to the previous map.

Status. Provides details of the current status registered on the Forcefield system of a selected point on the graphics map. A display will appear that shows the current status of the point. Click OK to clear the status window.

Unlock Times. Provides details of the current lock, unlock, or unlock times of a door.

Update Status. Allows the operator to send a status request to the appropriate Challenger, in order to receive an update on the status of a selected point. A request is sent to the selected point to return its current status to Forcefield. It does not result in any information being returned to the operator. (Not applicable to dialler connected Challenger panels.)

User Activity. Provides details of the user access (or attempted access) for the door in the current day, past 24 hours, or past week.

Video. Depending on the type of equipment represented by the LAP:

- A device camera—switches the video camera assigned to the equipment represented by the LAP, to the workstation’s first Spot Monitor (which is associated to the same video switcher as the camera).
- Intercom—switches the video camera assigned to the intercom to the workstation’s intercom monitor.
- Video Camera—clicking on it will display a selection list of the workstation’s monitors (the list is not used if there is only one monitor). Selecting the monitor will then switch the video from the camera to the selected monitor.
- DVR Camera—click to select live footage or recorded footage for today, the past 24 hours, or the past 7 days.

- Video Service DVR—click to display the status of the DVR.
- Video Service camera—click to display shortcuts for live view, live view from presets, time search, tagged video, and status.

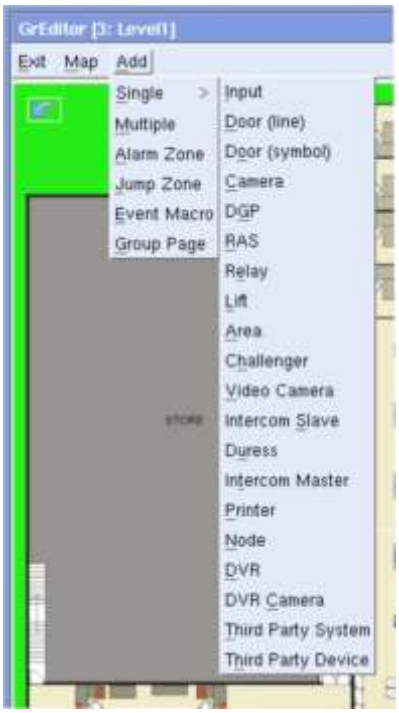
Edit Map

Use the Edit Map option to create Forcefield maps by adding points.

The Edit Map window has the following buttons at the top:

- Click Exit to close the map window.
- Click Map to:
  - Open a map.
  - Save an edited map.
  - Refresh (reload) the map.
- Click Add to place a LAP image on the map and assign functions to it (see the Add menu in Figure 43 *below*).

Figure 43: Map edit window (adding a 'single' type of LAP)



Right-click a LAP to view the LAP menu. LAP menu options are:

- Properties. Opens the Properties window for the LAP so that you can edit the properties, or add and remove points from multiple icons.
- Copy. Quickly place another point of the same type on the map.
- Erase. Remove the LAP from the map.

- To Back. Change the order in which LAPs appear on the map.

Adding a single point

Use the Add > Single option to add new icons to a graphics map.

To add an individual point:

1. Click Add, click Single, and then select the required point type (see Figure 43 on page 110).
2. If the Symbols window shown below displays a suitable image, select the LAP image required and click OK. If you don't see the image you need, use LAP Editor to create a new image.

3. Click the map to insert the LAP (you can move it later). If the point is an area, click the map with the mouse to define up to nine corners of the area (ending up at the first corner). The Properties window displays.

4. In the Properties window, select the required Challenger panel.

   The selection list for the device will display only the devices available for selection (devices already assigned to this map are not shown). Each point can be included in up to 10 maps. Any other maps that this point already appears on will be indicated by map number(s) in the map allocation list. The position of the map number indicates the map order (or zoom level) specified for each map. To allocate the point to the current map, type in the map order number for the point on this particular map and click OK.

5. Click Map > Save to save the edited map.

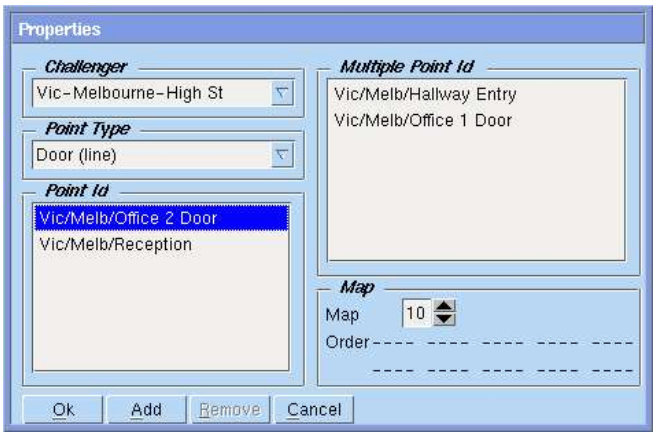
Adding a multiple point

Use the Add > Multiple option to create an icon on the graphics map that represents multiple points, e.g. where a map of a large area (state, city, large site, etc.) is used as the highest map level.

Multiple icons can represent all the points in a particular site or building. Represented on the map by a coloured circle or square, the multiple icon displays only when one or more of the points defined to the multiple icon is in alarm.

To add a multiple point:

1. Click Add, click Multiple, and then click the map to insert the multiple icon (you can move it later). The Properties window displays.



2. In the Properties window, select the required Challenger panel.

   The selection list for the device will display only the devices available for selection (devices already assigned to this map are not shown). Each point can be included in up to four maps. Any other maps that this point already appears on will be indicated by map number(s) in the map allocation list. The position of the map number indicates the map order (or zoom level) specified for each map. To allocate the point to the current map displayed, type in the map order number for the point on this particular map,

3. Select a Point ID and click Add. Forcefield moves the Point ID to the Multiple Point ID list.
4. Repeat the selection of Challenger, Point Type, and Point ID, to add points to the Multiple Point ID list.
5. When finished click OK.
6. Click Map > Save to save the edited map.

Import Bitmap File

Use the Import Bitmap File option to create a background from a .bmp format file.

Common window elements are described in Section 3. Descriptions of window-specific elements follow.

To import a bitmap file:

1. In the Id field select the device where Forcefield will search for .bmp files.

   To create a storage location on the client computer, refer to the “Setting up an export/import folder on a Windows computer” section in the *Forcefield External Interfaces Manual*.

2. After selecting the device, click Run. Forcefield displays a File Selector window.
3. On the File Selector, select the required .bmp file, and then click Import. Forcefield displays the Map Database window.
4. Enter the required map number and ID. The .bmp file name will correspond to the map number in the database, e.g. the background file ‘45.bmp’ corresponds to map 45. Forcefield stores the .bmp file and displays the File Selector window to import additional .bmp files, if required.
5. When finished importing .bmp files, click Cancel on the File Selector window to close the window.

Import LAP Icon

Use the Import LAP Icon option to import symbols for use on Forcefield maps. Refer to “Edit Map” on page 110 for details about how to add a LAP icon to a map. In order to be available for graphics display, imported LAP icons must be stored in the default directory /usr/ares/graphics/symbols/.

Common window elements are described in Section 3. Descriptions of window-specific elements follow.

To import a LAP icon:

1. In the Id field select the device where Forcefield will search for .bmp files (52 x 52 pixels or smaller).

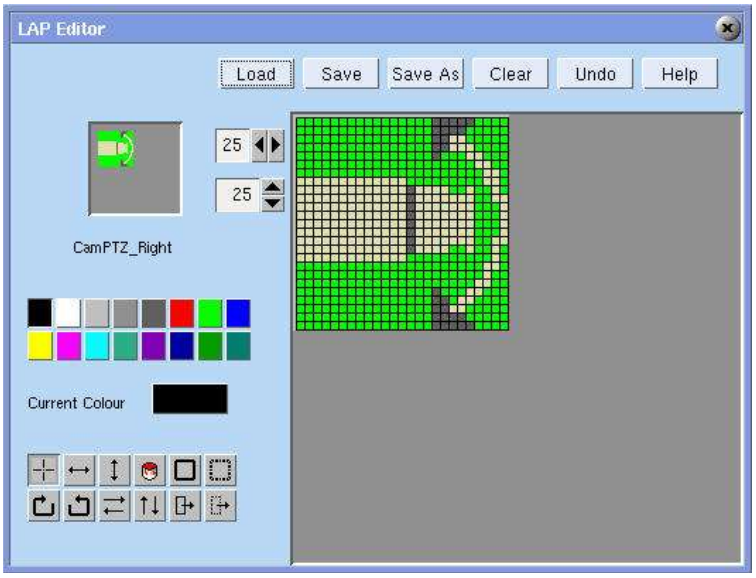
   To create a storage location on the client computer, refer to the “Setting up an export/import folder on a Windows computer” section in *Forcefield External Interfaces Manual*.

2. After selecting the device, click Run. Forcefield displays a File Selector window.
3. On the File Selector, select the required .bmp file, and then click Import.
4. Forcefield stores the .bmp file and displays the File Selector window to import additional .bmp files, if required.
5. When finished importing .bmp files, click Cancel on the File Selector window to close the window.

LAP Editor

Use the LAP Editor option to modify or create symbols for use on Forcefield maps.

Figure 44: LAP Editor window



Symbols created with this editor can be any size from 2 x 2 to 52 x 52 pixels. They are actually created 2 pixels larger than selected, with a 1 pixel transparent border to allow for the various status colours to be displayed on the LAPs.

The default directory for these symbols is /usr/ares/graphics/symbols/. This location may be altered in the Save and Save As options but they will not be available for graphics display if they are not in the default directory.

The screen shows six function buttons, a work area, a display area, two size selection widgets, colour and tool selection buttons. The function buttons are:

- **Load**. Opens the file selection screen and loads the symbol from the selected file. No checking is done for unsaved data. This operation will overwrite any current data in the work area.
- **Save**. Saves the current symbol from the work area using the current filename. If there is no current filename the operation does nothing.
- **Save As**. Saves the current symbol from the work area using the filename selected from the file selection screen or a new filename entered.
- **Clear**. Clears the work and display areas.
- **Undo**. Goes back one drawing operation.
- **Help**. Displays the LAP Editor help.

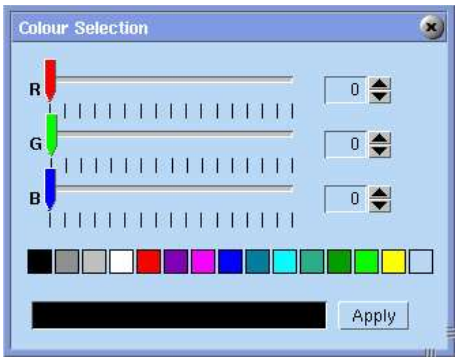
Size selection

Select the required row and column sizes by entering the value or by clicking the up/down buttons. Remember that the final symbol size will be 2 pixels larger in each direction for the transparent border.

Colour selection

The default colour palette is two rows of buttons representing the default colours. To select a non-default colour, Click the Current Colour button to bring up the colour selection widget.

Figure 45: LAP Editor window (colour selection)



To make a pixel transparent use the right mouse button in pencil mode.

Drawing Tools

Hold the cursor above a button to display the name of the button. Twelve buttons select the drawing options:

Pencil: Replaces the colour of the pixel under the cursor with the current colour for left click, transparent for right click.

Horizontal Line: Replaces the colour of the entire row under the cursor with the current colour.

Vertical Line: Replaces the colour of the entire column under the cursor with the current colour.

Paint: Replaces the colour of all pixels having the colour of the pixel under the cursor with the current colour.

Add Rectangle: Drag a rectangle, upon release the rectangle is drawn in the current colour.

Cut Rectangle: Drag a rectangle, upon release the rectangle is set to transparent the other drawing tools select operations on the current symbol.

Rotate Clockwise: The symbol is rotated 90 degrees clockwise around its centre.

Rotate Anti-clockwise: The symbol is rotated 90 degrees anti-clockwise around its centre.

Flip Horizontal: The symbol is mirror image reversed around the vertical axis.

Flip Vertical: The symbol is mirror image reversed around the horizontal axis.

Copy and Move: First an area is selected with a drag operation, and then the upper left hand corner of the destination is chosen. The original area is copied to the destination.

Cut and Move: First an area is selected with a drag operation, and then the upper left hand corner of the destination is chosen. The original area is made transparent and the original area is drawn to the destination.

Map Database

Use the Map Database option to add a map to the map database. All maps used by Forcefield must be entered in the map database.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

No.. Enter the map number for the .bmp file. The .bmp file name will correspond to the map number in the database, e.g. the background file ‘45.bmp’ corresponds to map 45.

Id. Enter a name for the map. The name does not have to be unique as the map is identified by its number.

To delete a map, select the map and press F8 (Delete). Forcefield deletes the map and all its LAPs.

LAP Report

Use the LAP Report option to view an analysis of selected maps.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

For each map, the information reported includes:

- Point IDs
- Point type
- Order assigned
- Symbol assigned
- Jump Zones (links) to other maps

Guard Tour menu

Overview

A guard tour is a defined series of checkpoints at which a security guard must check in within specified time intervals. An alarm or other event is triggered if the guard fails to check in on time.

Forcefield allows the programming of 1000 guard tours. Each guard tour contains a list of up to 1000 checkpoints (events) that a user must generate within time restrictions. Alarms will be generated (depending on the computer category) when a checkpoint event arrives late or early. The behaviour of the tour depends on its type.

A guard tour may be started by:

- A Forcefield operator who assigns a specific user to the tour.
- An event trigger, such as a guard badging a specified reader. See “Event Trigger” on page 91 for details.

Guard Tour Control

Use the Guard Tour Control option to control guard tours for a specified user.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Click List to view the status of all running guard tours.

Id. Select the required guard tour. A tour that is already running may not be selected again.

User. Select the user who will be performing this guard tour. A user already conducting a tour may not be selected for another tour.

Check Points button. Click to list the checkpoints for this guard tour.

Refresh button. Click to update the status field.

Start button. Click to start the tour.

Stop button. Click to stop the tour.

Pause button. Click to pause the tour. The tour will pause, waiting for an operator to either resume or restart it.

Resume button. Click to resume the tour from where it was paused.

Restart button. Click to restart the tour from the beginning.

Guard Tour Program

Use the Guard Tour Program option to program guard tours.

Figure 46: Guard Tour programming window (sequence order tour)

Figure 47: Guard Tour programming window (random order tour)

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Tour Id. Choose an appropriate name for the guard tour. This name will be reported in history and in any alarms generated by the tour.

Check Points button. Once a guard tour record is selected, pressing this button takes you to the Check Points programming window (see Figure 48 on page 119 and Figure 49 on page 119).

Description. Type a short description of the tour. This description will appear on any alarm detail generated by the tour.

Member. Select a member for this guard tour. An operator without access to this member will not be able to initiate, control or view this tour.

Computer Cat. Select the category suitable for the tour.

Help. Specify instructions for any alarm generated by the tour.

Type. There are two types of guard tours:

- Sequence order (Figure 46 above). The checkpoints must occur in the order specified. An early event will generate an alarm and the tour will continue. A late event will generate an alarm and the tour will pause, waiting for the late event. It will then continue.
- Random order (Figure 47 above). The checkpoint events can take place in any order. All checkpoint events must be completed within the times specified. A late or early event will cause the tour to generate an alarm

and abort. For Random type Guard tours, additional fields display for programming the minimum and maximum completion times.

Programming check points

On the Guard Tour programming windows (see Figure 46 on page 118 and Figure 47 on page 118) click the Check Points button to program the guard tour check points.

Figure 48: Check Points programming window for sequence order guard tour

Figure 49: Check Points programming window for random guard tour

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Sequence. Each checkpoint must be assigned a number. For sequential tours the events must be in this order, for random tours the number is still required, but the events may occur in any order.

Id. This is the ID that will be displayed in history and guard tour alarms.

Type. Select the type of event required for this check point.

Challenger. Select the Challenger to filter the selection of devices.

Device Id. Select the device for the check point, this cannot be blank.

Event. Select the event for the checkpoint. This will depend on the type of device selected.

Note: When selecting events for guard tour checkpoints, be aware that not all Challenger events identify the user (e.g. input unsealed event). In order to check the identity of the person passing a checkpoint ensure that only user-specific events are selected (e.g. door access granted). Events that require that a card or PIN to be used are typically user-specific events.

Minimum Interval Time field (for sequence order guard tours). This is the minimum allowed time for this checkpoint. The time starts from the arrival of the previous event or the start of the tour.

Maximum Interval Time field (for sequence order guard tours). This is the maximum allowed time for this checkpoint. The time starts from the arrival of the previous event or the start of the tour.

Guard Tour Report

Use the Guard Tour Report option to create reports about programmed guard tours.

Refer to “Generating reports” on page 29 for details.

Control menu

The control menu allows authorised operators to perform actions on the Challenger field equipment remotely. See “Controlling the security system remotely” on page 44 for additional details.

New Alarm or Call

The New Alarm or Call command is typically added to the Speed Bar as a button.

The New Alarm or Call Speed Bar button flashes when either an alarm occurs or when an intercom call arrives. Click the button to open the alarm screen or intercom window, for whichever item has the highest priority. For items of equal priority, the oldest is opened first.

Area

Areas can be remotely controlled according to time zones, user access and so on, but often it is necessary for alterations due to unusual work procedures. Use the Area option to perform remote control actions.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Action. Actions performed on one ore more areas include:

- Secure—To arm the intrusion detection devices in the selected areas.

- Access—To disarm the intrusion detection devices in the selected areas and allow users to gain access without activating alarms.
- Update Status—a request is sent to the selected item to return its current status to Forcefield. If the Update Status command fails, Forcefield displays an error message.

Operator Notes. Type a short description of why the action was taken. This is entered into the system log (history) for reference.

Door

This command allows the operator to remotely lock or unlock doors (or perform other actions described below). Use the Door option to perform remote control actions.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Action. Actions performed on doors include:

- Open Door. Open doors for the Challenger panel’s door unlock time.
- Open Door for a Time. Open doors for a time period set by the operator.
- Unlock Door. Unlock doors until a lock command occurs.
- Lock Door. Lock doors until an unlock command occurs.
- Disable Door. Holds doors disabled (unable to respond to commands) until the Enable Door command is used.
- Enable Door. Re-enable doors and allow them to be controlled.
- Default Lock State. Sets doors to the defined default state (locked or unlocked).
- Update Door Status. Sends a request to the selected item to return its current status to Forcefield. If the Update Status command fails, Forcefield displays an error message.

Time Period. Specify the amount of time in minutes or seconds you want the selected action to run (must be from 1 to 255). Select the time mode in minutes or seconds.

Operator Notes. Type a short description of why the action was taken. This is entered into the system log (history) for reference.

Door Lock Override

The Door Lock Override option allows the operator to specify time periods when a door should be unlocked, together with optional areas that should be disarmed. This allows Forcefield to override the normal override time zone programming (as determined by the door controller Override Timezone settings) that controls when the door is normally locked and unlocked. Multiple overrides may be specified for a door.

For example, a door may normally lock at 6:30 pm. Door Lock Override is used to unlock the door between 7:00 pm and 10:30 pm and disarm the appropriate area. Forcefield creates the time triggers necessary to accomplish this unlocking. Multiple overrides may be entered for a particular door.

An event trigger is also created that will cause any lock events to immediately cause an unlock of the door if any lock events are reported for the door during the override time.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Unlock and Lock time fields. Use the calendar widget to specify the times to unlock and lock. If the Challenger is in a different time zone to the node to which it is connected, the time difference will be have to taken into account when entering the time data. The time entered will be the time at which the node will fire the triggers. For example, add two hours if the node is in Melbourne and the Challenger is in Perth.

Areas to Arm/Disarm fields. Select any areas that need to be disarmed. At the lock time the same areas will be re-armed.

Click List (or press F12) to display:

- All the current door overrides (if no door is selected)
- All the overrides for a door (if a door is selected)

Sync Alarm Panel Time

The Sync Alarm Panel Time option allows the operator to synchronise the time of one or more selected Challenger panels (or a cluster containing Challenger panels) to Forcefield’s time (adjusted for locality and daylight saving time differences).

Note: This action does not apply to dialler panels.

Common window elements are described in Section 3. Descriptions of window-specific elements follow.

Operator Notes. Type a short description of why the action was taken. This is entered into the system log (history) for reference.

Control > Alarm Panel

Challenger

A Challenger may need to be isolated (separated from the system) without causing alarms when repairs are performed, and then later de-isolated so that system alarms can again be generated. Use the Challenger option to perform remote control actions.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Action. Actions performed on Challenger panels include:

- Isolate. Isolates Challenger panels to prevent any system alarms from being generated on fault and tamper conditions.
- De-Isolate. De-isolates Challenger panels so that system alarms will be generated on the fault and tamper conditions.
- Battery Test. Isolates Challenger panels from mains power for a pre-set interval in order to test the battery.
- Cancel Battery Test. Cancels the battery test being performed on Challenger panels.
- Untimed Battery Test. Isolates Challenger panels from mains power for an unlimited period to test the batteries, until Cancel Battery Test is selected.
- Update Status. Sends a request to the selected item to return its current status to Forcefield. If the Update Status command fails, Forcefield displays an error message.

Time Period. Specify the amount of time in minutes or seconds you want the selected action to run (must be from 1 to 255).

Operator Notes. Type a short description of why the action was taken. This is entered into the system log (history) for reference.

DGP

Repairs can require that a DGP be isolated (separated from the system) without causing alarms. Use the DGP option to perform remote control actions.

Common window elements are described in Section 3. Descriptions of window-specific elements follow.

Action. Actions performed on DGPs include:

- Isolate. Isolates DGPs to prevent any system alarms from being generated on fault and tamper conditions. This feature might be used to remove a DGP Siren Fail or DGP Offline message from the system when a unit has been tampered with or has stopped communicating. After the fault is reported, the DGP may be isolated while awaiting service.

- De-Isolate. De-isolates DGPs so that system alarms will be generated on the fault and tamper conditions.
- Battery Test. Isolates DGPs from mains power for a pre-set interval in order to test the batteries.
- Cancel Battery Test. Cancels the battery test being performed on DGPs.
- Untimed Battery Test. Isolates DGPs from mains power for an unlimited period to test the battery, until the Cancel Battery Test function is selected.
- Update Status. Sends a request to the selected item to return its current status to Forcefield. If the Update Status command fails, Forcefield displays an error message.

Time Period. Specify the amount of time in minutes or seconds you want the selected action to run (must be from 1 to 255).

Operator Notes. Type a short description of why the action was taken. This is entered into the system log (history) for reference.

Floor

The Floor option allows the operator to remotely enable or disable floors and to give free access (no card required) or secure access (card required) to a floor in specific lifts.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Action. Actions performed on floors include:

- Secure Floor sets floors in the specified lift to require a valid card/PIN code to gain access.
- Access Floor allows floors in the specified lift to have free access (no card/code required) to gain access.
- Disable Floor sets floors into non-operation mode. It is unable to accept user cards, PIN codes, etc., even though their access level allows them to.
- Enable Floor allows floors to function normally. That is, allows users to present their cards, PIN codes etc., and gain access, providing that their access level allows them.

Operator Notes. Type a short description of why the action was taken. This is entered into the system log (history) for reference.

Floors. Select the required floors. Use the action Update Lift Floors Status for the lift if you want to update floor status. See “Lift” on page 125.

Note: The floors displayed for the selected lift are calculated using the Starting Floor to Activate a Relay and the Last Floor to Activate a Relay settings in lift options. See “Lift Options” on page 342 for details.

Input

Use the Input option to perform remote control actions on an input.

Control of an input allows an operator to perform a number of functions on a piece of security equipment. Repairs, for example, will often require a device to be out of action for a time. Being able to control that input means that repairs can be done without generating alarms. Once the repair is done the input can be de-isolated.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Action. Actions performed on inputs include:

- Isolate. Disables inputs from functioning (to ignore).
- De-Isolate. Re-enables inputs to function normally.
- Reset. Resets inputs if the inputs in alarm have been returned to sealed condition.
- Reset/Ack. Resets inputs immediately if the inputs in alarm have been returned to sealed condition. If not sealed, the inputs will reset when returned to sealed condition.
- Update Status. Sends a request to the selected item to return its current status to Forcefield. If the Update Status command fails, Forcefield displays an error message.

Operator Notes. Type a short description of why the action was taken. This is entered into the system log (history) for reference.

Lift

Use the Lift option to remotely enable and disable lifts.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Action. Actions performed on lifts include:

- Disable. Sets lifts into non-operation mode. Lifts are unable to accept user cards, PIN codes, etc., even though their access level allows them to.
- Enable. Allows lifts to function normally. That is, allows users to present their cards, PIN codes etc., and gain access to specific floors, providing their access level allows them.
- Update Lift Floors Status. Sends a request to the selected item to return its current status to Forcefield. If the Update Status command fails, Forcefield displays an error message.

Operator Notes. Type a short description of why the action was taken. This is entered into the system log (history) for reference.

RAS

Use the RAS option to remotely perform remote arming station (RAS) actions.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Action. Actions performed on RASs include:

- Isolate. Isolates RASs to prevent any system alarms from being generated on RAS fault and tamper conditions. This feature might be used to remove a RAS Offline message from the system when a unit has stopped communicating. After the fault is reported, the RAS may be isolated while awaiting service.
- De-Isolate. De-isolates RASs so that system alarms will be generated on RAS fault and tamper conditions.
- Open Door. Opens the door for the Challenger panel’s door unlock time.
- Update Status. Sends a request to the selected item to return its current status to Forcefield. If the Update Status command fails, Forcefield displays an error message.

Operator Notes. Type a short description of why the action was taken. This is entered into the system log (history) for reference.

Relay

Use the Relay option to remotely perform relay actions.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Action. Actions performed on relays include:

- Set. Activates relays.
- Reset. Deactivates relays.
- Default. Sets relays to the defined default state.
- Update Status. Sends a request to the selected item to return its current status to Forcefield. If the Update Status command fails, Forcefield displays an error message.

Operator Notes. Type a short description of why the action was taken. This is entered into the system log (history) for reference.

Control > Intercoms

Intercom Calls

Use the Intercom Calls option to display a list of waiting and connected calls (IP intercom systems only). Use the toolbar buttons to toggle the display between waiting and connected calls, and to order the calls list by time or priority.

Intercom

Use the Intercom option to control the intercom's local master music channels, and to control the volume of music and calls (if applicable). You can also select a specific intercom, and then perform control tasks via the following buttons:

Open Call. Click to send an intercom call request.

Answer Call. Click to respond to an intercom call request.

Close Call. Click to close an intercom call.

Graphic. Click to display the map associated with the intercom.

Monitoring On. Click to open a listen-only channel (may require additional hardware).

Monitoring Off. Click to close the listen-only channel.

Isolate. Click to isolate the intercom. The specified intercom cannot send or respond to calls when isolated.

Enable. Click to de-isolate.

Open Door. Click to open the intercom's associated door and close the intercom call (you will need to select Yes from a confirmation window, if configured).

Show Video. Click to open the intercom's associated video view, even if the call is not answered.

Control > Video

Camera Control

Use the Camera Control option to control CCTV cameras and monitors.

Note: This command applies only to video cameras connected to Forcefield via a video switcher (referred to as CCTV cameras). This command does not apply to video cameras connected to Forcefield via a legacy DVR (such as DVMRe, SymDec, and SymSafe) or via a Video Service.

For DVR cameras, see "Show DVR Video" on page 130 or "Show Video Console" on page 131.

Figure 50: Camera Control window

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Camera. To control a PTZ (pan tilt zoom) camera, select the camera and then click Control Camera to open the PTZ controls (if a monitor is also selected, the camera is also switched to the monitor). If you select a camera, the selection will filter the list of monitors.

Monitor. To switch a camera to a monitor, you must select both the camera and the monitor, and then click Camera to Monitor. If you select a monitor, the selection will filter the list of cameras.

Control Camera button. Use a pointing device, such as a mouse, to operate the camera control functions. Click and hold to repeat the action, release to stop (except when a preset is used).

Figure 51: CCTV Camera Control window

(1) Tilt up
(2) Pan left
(3) Pan right
(4) Tilt down
(5) Clean lens (if supported by the camera)
(6) Zoom in
(7) Zoom out
(8) Focus near
(9) Focus far
(10) Increase iris
(11) Reduce iris
(12) Click to move the camera to the view defined in the preset record displayed in the Preset and ID fields
(13) Click to program the preset view record to match the camera's current view. The preset record displayed in the Preset and ID fields will be changed. This programming button does not display on the CCTV Camera Control window when the window is opened from a map

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Preset and ID fields. Select a preset. Alternatively, double-click the Preset or ID fields to create a new preset.

Action Speed. Enter a speed from 0 to 10 (where 1 is lowest speed and 10 is highest speed and 0 is stop). This field is only applied if the cameras connected to the CCTV switcher have variable PTZ speed.

If the camera is a pan-tilt-zoom (PTZ) camera, you can use the controls in CCTV Camera Control as described in Figure 51 above. Click and hold buttons for continuous change.

Display MultiView

This command applies to video cameras connected to Forcefield via a legacy DVR (such as DVMRe, SymDec, and SymSafe). Refer to "Show Video Console" on page 131 for cameras connected to Forcefield via a video service.

Use the Display MultiView option to select a multiview display or to change the current multiview display. Multiview records are programmed in "Multiview" on page 227.

Note: Only cameras within the operator's and workstation's member group will be displayed. Displaying multiple images of DVR video on a single screen requires a large amount of processing power, memory, and specific video card(s) to be used in the Forcefield Client computer. Do not select a multiview display that cannot be used with your hardware. Refer to the *Forcefield External Interfaces Manual* for details.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

MultiView. Click the arrow, and then select the required multiview record. Click Run to open the multiview window.

The multiview window may hide part or the entire Forcefield window. Use Alt + Tab to move between open windows. We recommend that you add a Speed Bar button for the function 'Close Multiview'.

Show DVR Video

Use the Show DVR Video option to select a DVR camera from which to view the current video on a Forcefield client workstation, where the Allow Video Popup selection is set for the workstation ("Workstation options—other" on page 199).

Video cameras connected to a DVR may also be used:

- Via LAPs on graphics maps
- From the menu item History > Show DVR Footage

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Member. Click the Member arrow, and then select a member to filter the camera search by member. Leave this field blank to search for all DVR cameras in the operator's member group.

Camera. Click the Camera arrow, and then select a camera.

Click Run to view the live video feed from the selected camera.

Video Playback Control

This command applies to video cameras connected to Forcefield via a legacy DVR (such as DVMRe, SymDec, and SymSafe).

Note: This command does not apply to video cameras connected via a video switcher (referred to as CCTV cameras) or via a Video Service. For CCTV cameras, see "Camera Control" on page 127. For cameras connected via a video service, see "Show Video Console" on page 131.

When a video player is active, you can use the following buttons on the Video Playback Control window to navigate the recorded video:

- Rewind button. Rewind to the beginning of the footage.

- Skip back button.
- Play forward button.
- Skip forward button.
- Pause button.
- Stop button. Stop playback and close the Video Playback Control window.

Hold the cursor over a button to display the name.

Note: Playback control is specific to the footage being displayed when the Video Playback Control window is opened. If you need to control playback for footage from a different event, then you must close and then reopen the Video Playback Control window.

Show Video Console

Use the Show Video Console option to open the Video Console to display and control DVRs and video cameras connected to Forcefield via a video service.

Note: The Show Video Console option does not apply to video cameras connected to Forcefield via a legacy DVR (such as DVMRe, SymDec, and SymSafe) or via a video switcher.

- For legacy DVR cameras, see “Show DVR Video” on page 130.
- For video switcher (CCTV) cameras, see “Camera Control” on page 127.

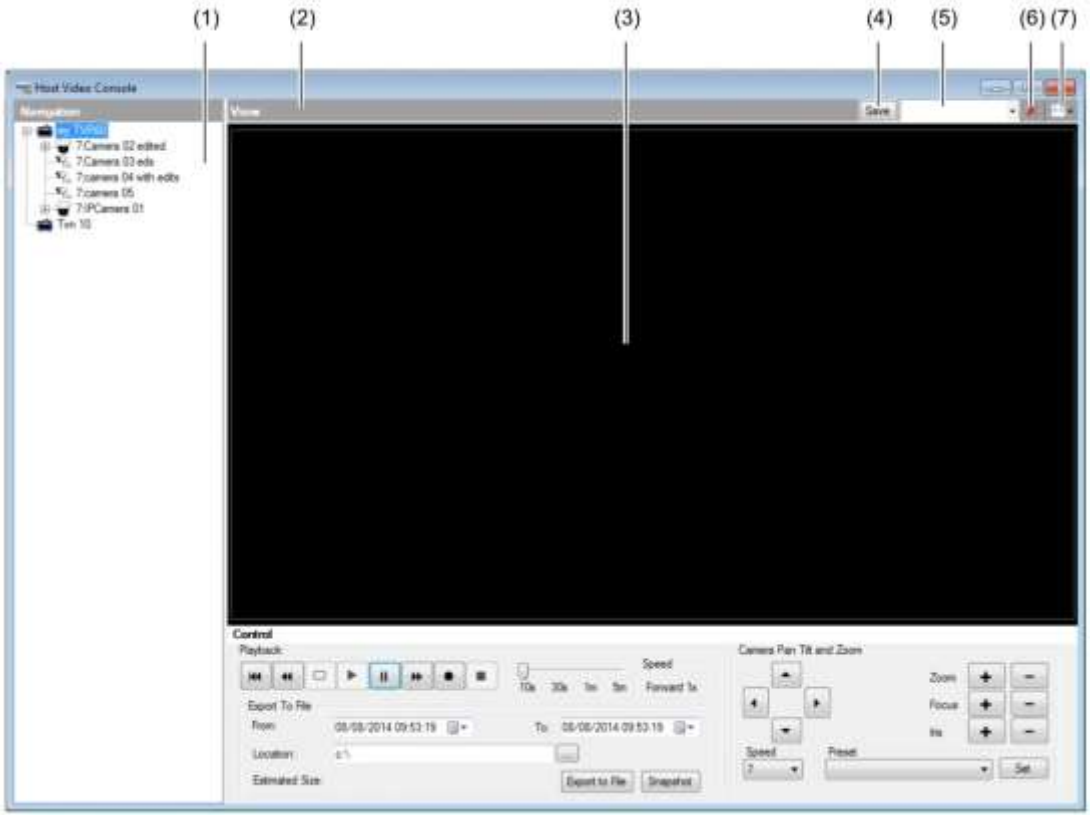
In addition to the Show Video Console option, Video Console can be launched in the following ways:

- Automatically, in response to events.
- From the History > Show DVR Footage menu
- From a custom Speed Bar button.
- From a Live Animation Point (LAP) on a map.
- By double-clicking a view in Video Console to launch a new instance of Video Console showing only that view.

Refer to *Forcefield External Interfaces Manual* REV 11 (or later) for details.

The Video Console has a Navigation panel on the left that lists all enabled DVRs and their cameras. Refer to Figure 52 on page 132 and to Figure 53 on page 133.

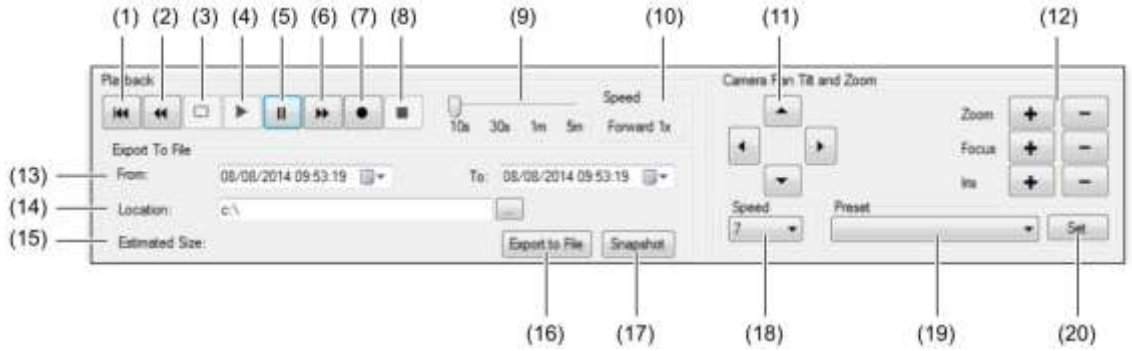
Figure 52: Video Console (initial view)



(1) Navigation panel
(2) View panel title bar (double-click to toggle full-screen view and normal view)
(3) View panel
(4) Tile layout Save button
(5) Tile layout name field
(6) Delete tile layout button
(7) Tile layout selection

Refer to Figure 53 on page 133 for details of the lower portion of the Video Console.

Figure 53: Video Console (control details)



(1) Jump back by 10 s, 30 s, 1 m, or 5 m, as set by the jump back interval slider *
(2) Rewind (if supported by the DVR) *
(3) Restart recorded video *
(4) Play (if paused)
(5) Pause
(6) Play forward (click again to increase speed) *
(7) Record (to computer)
(8) Stop recording (to computer)
(9) Jump back interval slider *
(10) Play forward speed indicator *
(11) Pan and tilt controls
(12) Zoom, focus, iris controls
(13) Footage export date and time selections
(14) File export destination (click … to change location)
(15) Footage export estimated size
(16) Footage export to file button
(17) Snapshot (single image) button
(18) Speed selector for pan and tilt controls
(19) Preset selection list
(20) Save changes to selected preset

* **Note:** Applicable only to recorded footage

Using the Navigation panel

The Navigation panel (Figure 52 on page 132, item 1) allows you to select cameras and presets from a list of DVRs.

The navigation panel lists DVRs, cameras, and (where applicable), preset views. Hidden items are indicated by a + box.

- Click the + box to expand the list (the + box changes to a – box).
- Click the – box to collapse the list.

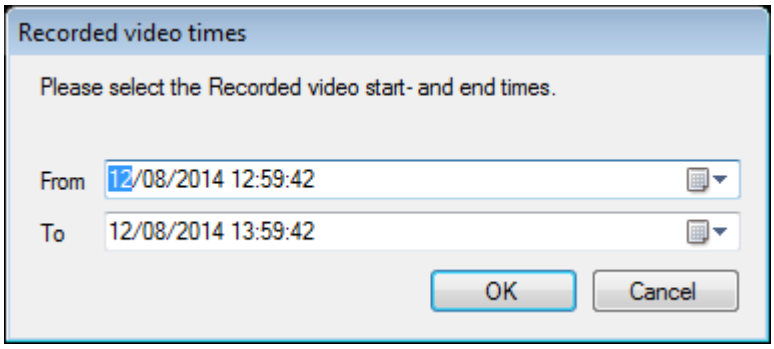
Alternatively, double-click items to expand or collapse their lists.

Drag cameras or presets from the Navigation panel onto tiles to display the current live view (or the preset live view).

Camera listed in the Navigation panel have the following right-click shortcuts:

- Show Live Video—displays the current live view in an empty tile.
- Show Recorded Video—displays Recorded video times dialogue (Figure 54 on page 134), from which you can specify the start and end dates and times to display the recorded footage.

Figure 54: Recorded video times dialogue



Note: When you reach the end of the recorded video selection, or if there is no recorded footage at the selected the start and end dates and times, then the current live view is displayed.

Using the View panel

The View panel (Figure 52 on page 132, item 3) can display footage from up to 16 cameras via pre-defined tile layouts containing 1, 2, 4, 9 or 16 views. Specific arrangements of cameras and layouts can be saved for reuse.

The view panel has two types of double-click commands:

- Double-click the View panel title bar (Figure 52 on page 132, item 2) to toggle between full-screen view and normal view.
- When a live or recorded view is displayed in the View panel (Figure 52 on page 132, item 3), you can double-click a view to open a new instance of Video Console displaying only the view you double-clicked. Take care to close the new instance when you no longer need it to avoid having many instances of Video Console open simultaneously.

To select a tile layout:

1. Click the Tile Layout arrow (Figure 52 on page 132, item 7).
2. Click the required layout of 1, 2, 4, 9 or 16 tiles.
3. Drag cameras or presets from the Navigation panel onto tiles to display the current live view.

To save the current tile layout (populated with camera views):

1. Type a name in the Tile layout name field (Figure 52 on page 132, item 5).
2. Click Save (item 4).

After saving a populated tile layout, you can later click the Tile layout name arrow, and then select the saved tile layout from the list.

To delete a saved tile layout, select the layout and then click Delete tile layout button (item 6).

Advanced control options

Subject to plug-in support, when live footage from PTZ cameras is displayed, you can click and hold the mouse button over the image stream and move the camera as if using a joystick. Different PTZ operations such as zoom can be performed with different mouse buttons.

Substream video selection

Subject to plug-in support, when live footage is displayed, you can right-click an image stream, and then click the “Is Substream video” option to display a low-bandwidth stream from the DVR.

Exporting footage and saving snapshots

Video Console has controls shown in Figure 53 on page 133 by which you can save video files or still images to your computer:

- The Record button (item 7) allows you to save an exported file to your designated location.
- The Snapshot button (item 17) saves a .bmp format file to your designated location.

History menu

Add Event

Use the Add Event option to add text notes describing events into Forcefield history. The entry replaces the running log sheet or incident log sheet. At least one of the fields must contain text.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Type. Text entered in this field is used as the history type. This could be a heading for the type of entry, for example, “Security Alert”.

Location. Text entered in this field is used as the history point. Enter any desired text, for example, “Car Park”.

Notes. Text entered in this field is used as the history text. Enter any desired text, for example, “Found suspicious parcel”.

Tip: To find an existing Operator Added Event, run a history report with the event type set to “Oper-Initiated, Operator Incident”. Optionally, filter by operator and/or dates.

Backup History

See “Backup History” on page 100.

Clear History

See “Clear history (manually)” on page 65.

Export History

See “Export History” on page 102.

Purge History

See “Purge History” on page 103.

Statistics

The History Statistics report dynamically displays the total number of history records the system can hold, the number currently being stored, and the number of deleted history records (these remain on file but are deleted by replacing the record with a new one). An alarm can be generated at a certain level or number of history records in the system. Purge can also be set to occur when the number of history records reaches a certain level.

See “History file-related tasks” on page 64 for details.

History Config

Use the History Config option to program how Forcefield dynamically manages history records.

Figure 55: Configure History window

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Maximum Records. This is the maximum number of records that will be stored in the online history database. Note that each record consumes approximately 800 bytes of disk space. Note also that when records are deleted from the

database that the disk space used by those records is NOT returned, but is marked as deleted and used to store new records.

The only ways to recover disk space used by history is by the following processes:

- Delete history records; see “Clear history (manually)” on page 65.
- Use the purge all option from the commands “Auto History Backup” on page 97 or “Auto History Export” on page 98.

Generate 1st Alert at. When the history becomes this full, Forcefield alerts the operator. This is also the level to which the history will be deleted if a purge is initiated because the record count reaches the purge level.

Generate 2nd Alert at. When the history becomes this full, Forcefield alerts the operator a second time.

Allow Auto Purge check box. Select the check box to allow Forcefield to purge all excess history records back to the 1st Alert Level, after the purge level is reached. If not checked, then Forcefield deletes the oldest record each time a new record is added, after the purge level is reached.

Note: If you do not want history purging to occur at any time, then the Allow Auto Purge check box must be cleared, and purging must be disabled (days set to blank) in “Auto History Backup” on page 97.

Start Auto Purge at. When the history becomes this full, the History Manager will start purging records, oldest to newest, until the history database record count is down to the 1st Alert Level.

Door/Lift Activity

Use the Door/Lift Activity option to create reports about door/lift activity.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Start and End fields. Use the calendar widget to define the report’s time window.

Door/Lift Id. Select the desired doors or lifts or leave blank to report on all doors and lifts.

Format. Select the report format required:

- TEXT–Event Screen Format provides a layout similar to the Forcefield Event Windows (this is the preferred format for printed reports).
- TEXT–Single Line Format provides a report with 1 text line per event usually used to export the report text to another system for processing.
- CSV–Raw provides all data in the specified records ‘as is’, with date and time data not in human-readable format.
- CSV–Formatted provides a selection of data, with date and time data converted to human-readable format.

Door/Lift User Activity

Use the Door/Lift User Activity option to create reports about door/lift user activity, in particular access granted and access denied user events.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Start and End fields. Use the calendar widget to define the report's interval).

Challenger Time selection. Leave clear to use Forcefield time. Select to use Challenger time (the time that the event happened in the Challenger). The times may be different, for example, a dialler-Challenger may not report events to Forcefield until a much later time.

Door/Lift Id. Select the desired doors or lifts or leave blank to report on all doors and lifts.

Format. Select the report format required:

- TEXT–Event Screen Format provides a layout similar to the Forcefield Event Windows (this is the preferred format for printed reports).
- TEXT–Single Line Format provides a report with 1 text line per event usually used to export the report text to another system for processing.
- CSV–Raw provides all data in the specified records 'as is', with date and time data not in human-readable format.
- CSV–Formatted provides a selection of data, with date and time data converted to human-readable format.

Event Report

Use the Event Report option to show all the activity relating to one event number.

Forcefield uses event numbers to group a sequence of events by number. For example, if an input goes into alarm, an event number is generated by Forcefield and it is stored to event history. Subsequent operator responses, multi-breaking by the input, and the restoral event will all have the same event number. Once the alarm is cleared, the event is closed.

Refer to "Generating reports" on page 29, and the following details about this report.

Tip: To find existing events, run a history report, using date or device, etc. to find an event number. Then use the event number to run the event report, which will list all the events with the event number.

History Report

The History Report option allows reports to be generated on any item in the Forcefield system. The operator can use as many of the event parameter fields as they wish in order to define exactly what information the report will provide. If no restrictions are specified and the report is executed, all system and user history will be printed (subject to the operator's access permissions, see "Operator Permissions" on page 184).

The report uses only current events in the history. For archived events, refer to "Offline History" on page 140.

Note: History reports for large Forcefield systems may take considerable time to run. Off-line history reports typically run much more quickly.

Common window elements are described in Section 3. Descriptions of window-specific elements follow.

Leaving fields blank indicates no restriction on that field when searching for events.

Different field types 'AND' together; similar fields 'OR' together. For example, you may select a specific input, AND an event. Alternatively, if you selected multiple inputs, the search would 'OR' the inputs before ANDing the other fields.

Start and End fields. Use the calendar widget to define the report's interval.

Challenger Time selection box. Right-click the Challenger Time selection box to place a check mark in the box. When checked, the time and date selections pertain to the Challenger panel time and events and not to the Forcefield system time and events. Only Challenger panel events are reported and not Forcefield events.

Event Type fields. Select an event type for the search string. You can enter two different events or event groups at the same time. To create a new event group, enter the new ID and press F3 to go to the Event Type window (see "Events" on page 217).

Current Points. Select the relevant points (devices) to include for the search string.

Don't Match Point ID Changes. Select the check box to prevent matching new point IDs with previous IDs. By default, Forcefield displays search results showing the current ID (for example, "Ch 1 Area 2" has been renamed "Challenger 1 Factory Floor").

Deleted Point. A deleted record cannot be selected by searching. If you want to run a history report that includes a deleted record, enter the point ID here.

Sort Order. Select the required report sort order:

- Date/Time
- Incident Number
- Point ID

- Operator/User
- Event Type

Format. Select the required report format:

- TEXT–Event Screen Format provides a layout similar to the Forcefield Event Windows (this is the preferred format for printed reports).
- TEXT–Single Line Format provides a report with 1 text line per event usually used to export the report text to another system for processing.
- CSV–Raw provides all data in the specified records ‘as is’, with date and time data not in human-readable format.
- CSV–Formatted provides a selection of data, with date and time data converted to human-readable format.

Incident Report

Use the Incident Report option to generate history reports for particular incident (a series of events belonging to one member). See “Incidents” on page 10.

Refer to “Generating reports” on page 29, and the following details about this report.

Report for Incident. The incident number is taken from the initiating event. Any event (for the same member) that occurs after an incident is created belongs to the same incident until the incident is closed from the Alarm Details window.

Tip: To find existing incidents, run a history report with the event type set to “Computer Event, Incident Begin” or “Computer Event, Incident End”. Use the found event number as the incident number. The report will list all events considered part of the incident.

Offline History

Use the Offline History option to perform the same functionality as the History Report (see “History Report” on page 139). However, the data comes from a storage device onto which history has previously been archived. Once the device has been selected, the date range of the history archived on the device will be displayed.

Common window elements are described in Section 3. Descriptions of window-specific elements follow.

History Type. Click the History Type arrow, and then select from the list:

- Select Single Backup and then select a backup archive to run the report from. Once the backup archive has been selected, the date range of the history in the archive will be displayed.

- Select Date Range and Forcefield will determine which backup archives to run the report from, based on the date ranges entered. **Note:** This option may attempt to generate excessively large reports. The Challenger Time selection does not apply to this type.

History From. Click the History From arrow, and then select the storage device onto which history has previously been archived. **Note:** If the History Report is being initiated on a mirror server, there are extra selection options. See “Off line history reporting” on page 391.

Start and End fields. Use the calendar widget to define the report’s interval.

Challenger Time selection box. If the history type is “Single Backup” you can right-click the Challenger Time selection box to place a check mark in the box. When checked, the time and date selections pertain to the Challenger panel time and events and not to the Forcefield system time and events. Only Challenger panel events are reported and not Forcefield events.

History > Show DVR Footage menu

A Forcefield system may interface via Ethernet (IP) connection to DVRs and video cameras connected to Forcefield via a video service.

Legacy equipment such as DVMRe, SymDec, and SymSafe are supported natively in Forcefield and do not use add-on video service applications.

Refer to the *Forcefield External Interfaces Manual* for details about integrating a DVR and viewing CCTV footage from a DVR.

Show DVR Tagged Footage

Use the Show DVR Tagged Footage option to search for event text tags (or text tags from other devices) recorded with the digital video.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

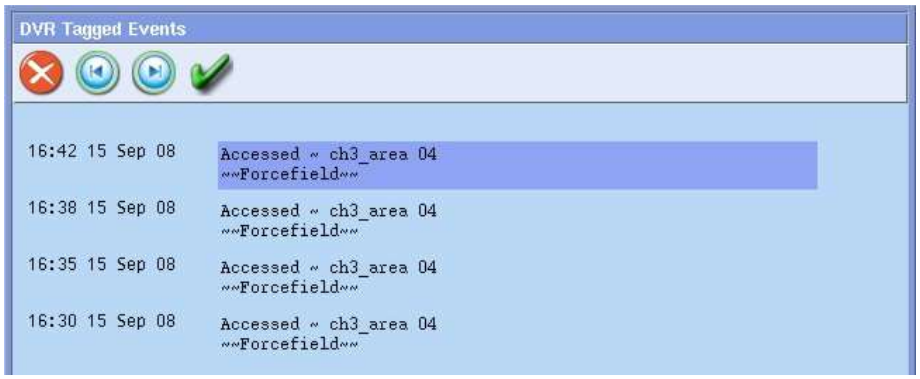
Use the calendar widget to specify the start and end times and dates.

Specify any filtering options needed to help define the search.

Show in Point Order selection. Leave clear to display the list of event text tags in chronological order. Select to display the list of event text tags ordered by the point (door, PIR, etc.).

Click Run to display the DVR Tagged Events list.

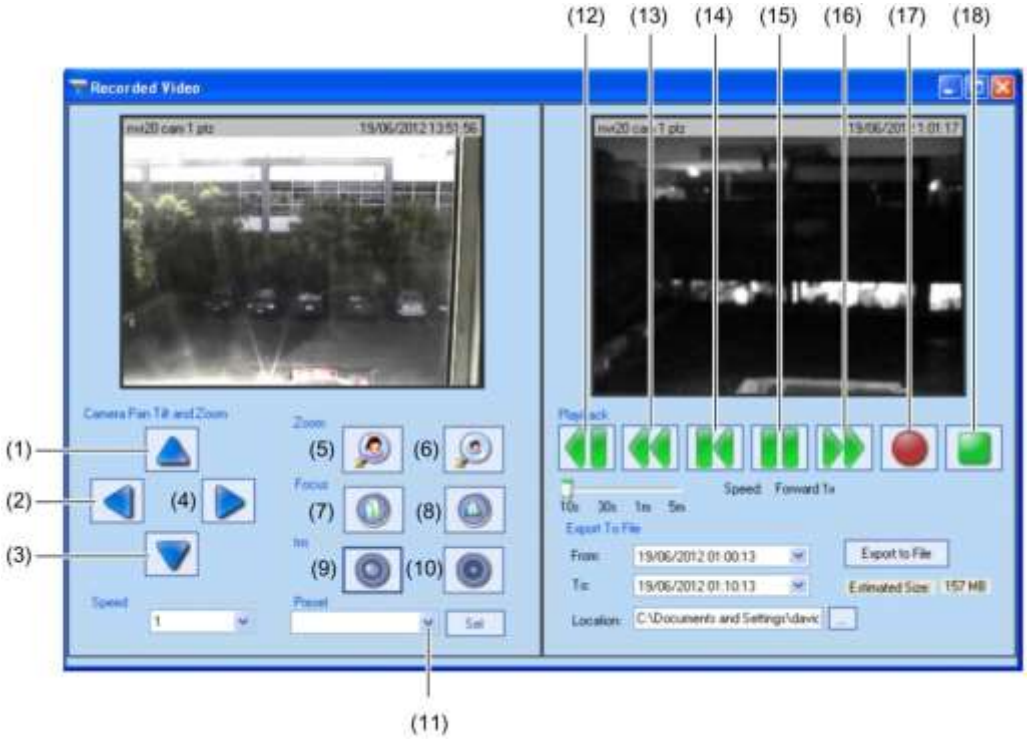
Figure 56: DVR Tagged Events list



Click event text to display recorded video (depending on the type of video used):

- In the case of DVRs and video cameras connected to Forcefield via a video service, the Video Console will be launched to display the recorded video. Refer to “Show Video Console” on page 131 for details.
- In the case of legacy equipment, refer to the Recorded Video window (Figure 57 on page 143).

Figure 57: Recorded Video window (via legacy DVR)



(1) Tilt up
(2) Pan left
(3) Tilt down
(4) Pan right
(5) Zoom in
(6) Zoom out
(7) Focus near
(8) Focus far
(9) Increase iris
(10) Reduce iris
(11) Click the arrow to select a preset view from the list
(12) Jump back by 10 s, 30 s, 1 m, or 5 m, as set by the jump interval slider.
(13) Rewind (applicable to SymDVRs only)
(14) Rewind to the beginning of the event
—or—
(14) Pause (when paused, the Play forward button displays)
(15) Play forward (when playing, the Pause button displays)
(16) Play fast forward by the multiplier displayed below the button (for example 2x)
(17) Mark the start of footage segment to export (the operator must have edit permissions on the Show DVR Footage functions)
(18) Mark the stop of recorded footage to export, and then to select a storage location for the file.

The Recorded Video window displays the recorded footage associated with the selected event on the right-hand side (above the VCR-style buttons). The live image from the same camera is displayed on the left.

If the camera is a pan-tilt-zoom (PTZ) camera, you can use the controls (items 1 to 10) to control the view in the left-hand side of the Recorded Video window.

Use the VCR buttons (items 12 to 18) to rewind, play backward, play forward, and pause (stop).

The Export to File button or the Stop button allows you to select a storage location and to save an exported file.

Show DVR Time Footage

Use the Show DVR Time Footage option to search for recorded video from a specific camera starting at a specific time and date.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

DVR. Select the DVR to which the camera is connected.

Camera. Select the camera.

Starting at. Use the calendar widget to specify the start time and date from which you want to begin viewing footage or searching for tag text

Click the Time Window arrow, and then select a value to limit the search (10 minutes to 1 day).

Optionally, type some text in the Tag Text field to search the DVR for instances of the tag text within the defined time interval (not supported by TruVision DVRs).

Click Run to display recorded video (depending on the type of video used):

- In the case of DVRs and video cameras connected to Forcefield via a video service, the Video Console will be launched to display the recorded video. Refer to “Show Video Console” on page 131 for details.
- In the case of legacy equipment, refer to the Recorded Video window (Figure 57 on page 143).

Users menu

Design Card Layout

Use the Design Card Layout option on a Forcefield client to create or modify the design of user cards.

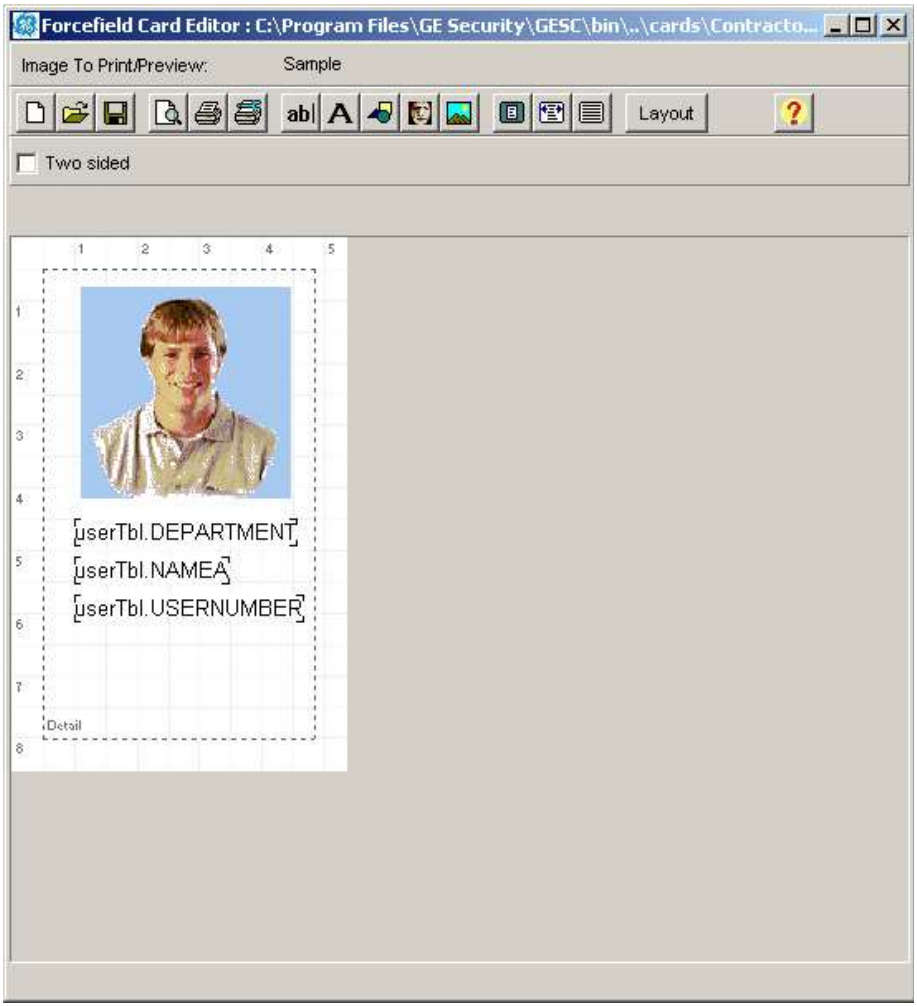
Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

For Department. Click the arrow to select the required department (card layouts are created on a per-department basis).

Note: If you need to create a department, open the User Profiles window or the User Setup window, and then double-click the Department field.

Design button. Click to open the Forcefield Client Card Editor (see Figure 58 on page 145).

Figure 58: Forcefield Client Card Layout Editor window



Refer to the *Forcefield External Interfaces Manual* for details.

Delete Unused Data

Use the Delete Unused Data option to remove data that is not used in any user records.

Select one or more of the following data types, and then click Run:

- Select Departments to remove any unused department records.
- Select Positions to remove any unused position records.
- Select *aaaa* to remove any unused user defined data records, where *aaaa* is the configurable title of the user defined data field programmed in “Configuring user options” on page 269. The default value is ‘Reference’.
- Select Profiles to remove any unused profile records. If the case of Profiles, the message in Figure 59 on page 146 displays.

Figure 59: Delete Unused Profiles dialogue box

Note: Select No if you have any profiles that you want to use as templates and are not assigned to any users. See “Importing user profile data” on page 58 for details.

Download User

Use the Download User option to send a single user record to a single Challenger.

Select the user and Challenger, then click Run to initiate the download. If the user does not have any access groups for the selected Challenger, an error message is displayed and the download does not happen.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

User Num. Click the arrow to select a user from the list. The name displays automatically.

Challenger. Select a Challenger either by its number or by its ID.

Select Learn Reader

Use the Learn Reader option to designate an IUM learn reader near the workstation to be used to add an unknown card to a user’s record.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

IUM Learn Reader. Click the arrow to select a reader from the list. Only one reader may be selected at a time for the exclusive use by the workstation.

Click Run. Forcefield displays a learn reader activity icon on the desktop.

Figure 60: Learn Reader activity icon

There are two ways to stop the IUM learn process:

- Clear the selection and then click Run.
- Double-click the learn reader activity icon on the desktop, and then click Stop.

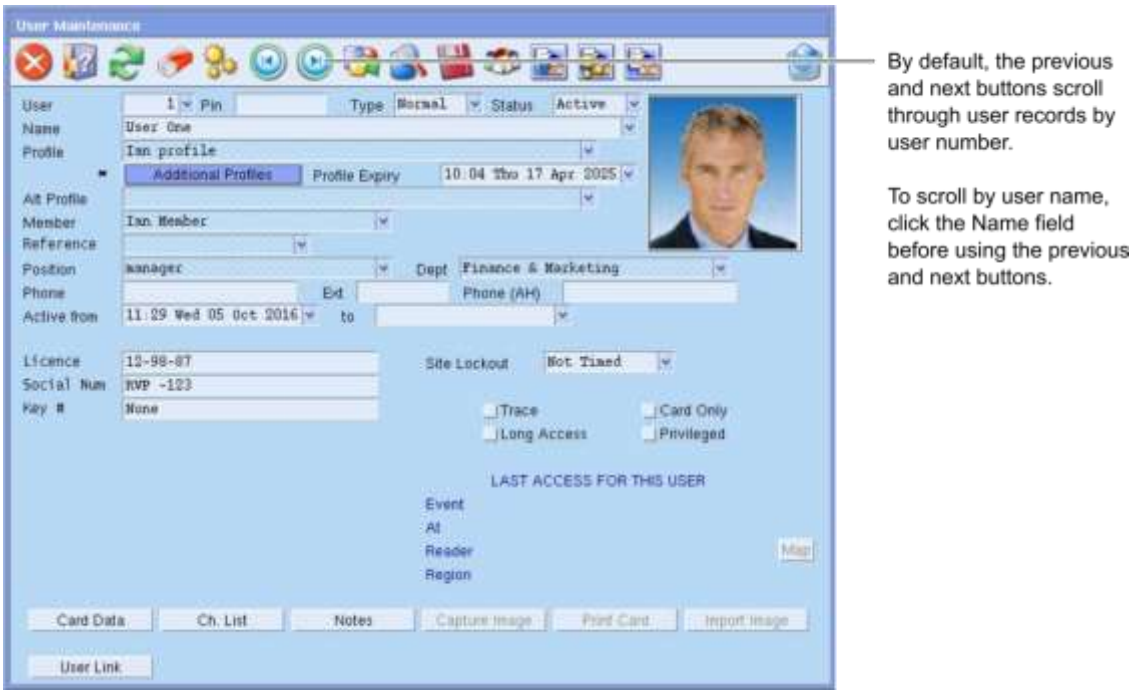
Refer to “Learning IUM card data” on page 46 for additional details.

Maintenance

Use the Maintenance option to add, edit, or delete user information.

Forcefield operators can specify which fields on the User Setup window are to be read-only (not editable). This allows operators to bypass fields that they do not commonly use in order to save time when adding users. Refer to “Maintenance Config” on page 157 for details.

Figure 61: User Setup window



Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow. See also “Creating new users in Unique Profile Per User mode” on page 157.

User. Forcefield stores all users in the system by a unique number.

- For non-IUM Challenger V8 panels, the user number is also the card number.
- For IUM Challenger panels, the user number Forcefield assigns to a user is not necessarily the user number in the Challenger(s). To find the Challenger user numbers for a user press the Ch. List button.

PIN. A 4- to 10-digit number given to, or selected by a user. It is necessary to enter a PIN on the Challenger keypad as a pre-requisite to perform most Challenger functions.

Status. The status field is used to indicate to the card’s current status:

- Active—Access allowed.
- Inactive—Access is denied; INACTIVE CARD BADGED alarm is generated.

- Void—Access is denied; VOID CARD BADGED alarm is generated.
- Lost—Access is denied; LOST CARD BADGED alarm is generated.
- Expired—Access is denied; EXPIRED CARD BADGED alarm is generated.

When the user record is saved the system checks the start date and time to determine whether the record should be active, inactive or expired.

- The user is active if the start date and time is the present.
- The user is inactive if the start date and time is set for the future.
- The user is expired if the end date and time is set in the past.

Forcefield automatically changes the status from inactive to active when the Begin date becomes the present, and from active to expired when the End date becomes the present.

When a card is reported lost by a user the card status should be changed from active to lost. Should the card be used an alarm will be activated. Operators with restricted access may use the change status of user command (see “Change Status of User” on page 166).

Name. Enter the user’s full name.

Surname or first name should be entered consistently to ensure proper searching and card printing. Pressing F4 on the Name field will find all users with that name or sub-name.

For example, type “Adam” and then press F4, and Forcefield will find all user names starting with Adam, such as Adam Smith, Adamson Brian, Adamstone Kerry, etc. You can use a pair of % characters to do a wildcard search for any string of text in users’ names. For example, type “%JO%”and then press F4, and Forcefield will find all user names where either the first or last names contain JO, such as Jodie Smith or Marie Johnston.

Note: First name - last name order (for importing or exporting user data) is determined by the Surname Order value. See “Configuring user options” on page 269.

Type. Select the card type (the use of Visitor, Guard, and Dual types pertain to systems with Intelligent Access Controller doors numbered in the range 17 to 64 and 81 to 128).

- Normal—Standard card and PIN operation.
- Visitor—A visitor can only unlock the door if escorted by a guard, e.g. both the visitor and the guard must badge their card or enter their PIN to unlock the door.
- Guard—Is used with a Visitor type user to allow escorting through the premises.
- Dual—Two cards must be badged or two PIN(s) must be entered to unlock the door.

Profile. The profile determines the user's Challenger access and other common data, such as member, dates, position, department, card type, and card options. The profile may be given an expiry date so that when the date is reached, the user is switched automatically to the alternative profile (for Challenger access only).

Notes:

- An expired profile is indicated by two red asterisks ** next to the profile field.
- The user's member might be different to the profile's member. If the operator's member group contains the user's member, then the operator will be able to see the user record. But if the operator's member group does not also contain the profile's member, then the operator is not permitted to copy that user record to create another user record (either singularly or in bulk).

Additional Profiles button. Click to assign additional profiles to the user. See "Additional profiles" on page 151.

Note: A user that has additional profiles assigned will have an asterisk to the left of the Additional Profiles button.

Profile Expiry. The time at which a user is switched to an alternate profile. Leaving the expiry date/time blank will mean the profile never expires. Use the calendar widget to define the date.

Alt Profile. The profile determines the user's Challenger access and other common data, such as member, dates, position, department, card type, card options. This profile is only applied if the user record has a profile with an expired date.

Member. The user must be allocated to a member to determine where events associated with this user are to be directed. The member also controls which user defined fields are displayed. The titles of these fields vary depending on the user's member. This allows different sets of data to be allocated to each user depending on the member they belong to.

Reference. By default, the name of this field is "Reference". However, it can be changed by the setting of the User Defined Field Title value. See "Configuring user options" on page 269. This data is searchable and may be entered into the database by double-clicking the field.

Position. Allows the entry of the user's position, for example, Manager. This data is searchable and may be entered into the database by double-clicking the field.

Dept. Allows the entry of the user's department, for example, Sales. This data is searchable and may be entered into the database by double-clicking the field. **Note:** Do not use a space or any of the following characters in the department name \ / : * ? " < > |.

Active From and To. Use the calendar widget to define the From and To dates. Each user must be within a valid date range to have access to the Challenger(s). A user that is programmed with the present date and time is downloaded to the Challenger(s) when the user record is saved (except for dialler Challenger panels). When a user is programmed with a future date and time the user record is not downloaded immediately. Forcefield automatically downloads the user on the date it becomes active. The end date and time is used to automatically remove the user's record from the Challenger(s). The user record is not deleted from Forcefield, just made expired.

Note: Automatically generated card data for a user programmed with a future start date will be downloaded only to Challenger panels where system default IUM card categories are assigned to the panel, and the panel has a programmed Site Code A.

Notes fields. Displays the free format text notes relating to the user.

Lockout. Inactivates the user in one of the following conditions:

- From on site—the time interval begins when a card is badged to enter the site. The card may be used to exit the site, but it cannot be used for re-entry until the time interval expires.
- From off site—the time interval begins when a card is badged to exit the site. The card cannot be used for re-entry until the time interval expires.

The timing for on site or off site user access is determined by the number of lockout minutes specified on the user record. Forcefield resets the user's Active From time so that the user status becomes inactive until the time is reached. As a result of this, the operator can open the user's record and see when the lockout time is set to expire (the Active From time will appear to be in the future).

If needed (for example, to allow re-entry sooner than the expiry of the lockout time), the operator may alter the user's Active From time to the current time and then save the record. Forcefield reactivates the user record and permits access (allow up to five minutes for processing to occur).

Note: The user is deactivated in all Challenger panels associated with their access groups. Also note that the use of this option alters the start date in the user database (this will affect some reporting functions). This feature will only operate if Challenger/Door Controller is programmed to report regions.

Trace. When checked, all alarm and access functions performed by the user at Intelligent Access Controller doors 17 to 64 (plus doors 81 to 128 for Challenger 10) will cause a trace message to be sent to Forcefield.

Card Only. When checked, the user will not be able to use a PIN code. This allows the PIN code field to be used to program cards on formats not normally compatible with the Challenger system when a special reader is used.

Long Access. When checked, the user will be allowed extended door access times at Intelligent Access Controller doors 17 to 64 (plus doors 81 to 128 for Challenger 10).

Privileged. When checked, the user's code or card will override any anti-passback restrictions or reader disabled functions in place on Intelligent Access Controller doors 17 to 64 (plus doors 81 to 128 for Challenger 10). Privileged does not override a door disabled function.

Last Access for this user. Displays the event type (such as door access granted), time and date that a card assigned to the user was last badged at a reader, the reader ID, and the region (if applicable). Click the Map button to view the reader's location on a map (if the reader is assigned to a map).

Card Data button. Click to program IUM card data for this user. See "User card data" on page 153 for details.

Note: For IUM Challenger panels, this associates an access card with the user. Card data must be entered for all the card types for all Challenger panels for that user. Failure to enter the card data will result in the user not being downloaded to Challenger panels using that card type. For non-IUM Challenger V8 panels, the card number is the user number and this data is not required.

Ch. List (Challenger Number List) button. Click to display what user number this user is in the Challenger panels to which they have been downloaded. The Forcefield user number is not necessarily the user number in the Challenger. For example, user 5 in Forcefield may be user 1 in Challenger 5 and user 5437 in Challenger 17.

Notes button. Allows for entry of free format text notes relating to the user. A separate text file is kept for every user.

Capture Image button (available only on Forcefield clients). Click to run the User Image Capture process on the Forcefield client. Refer to the "Using Capture" section in the *Forcefield External Interfaces Manual* for details.

Print Card button (available only on Forcefield clients). Click to print the user card on the default printer.

Import Image button (available only on Forcefield clients). Click to run the User Image Import process on the Forcefield client. Refer to the "Using Import" section in the *Forcefield External Interfaces Manual* for details.

User Link button. Click to program the external system profiles for this user (see "User Link Profiles" on page 209).

Additional profiles

A user may have up to nine additional profiles assigned as well as their primary profile. Only the Challenger access details from the additional profiles are used.

To assign these profiles to the user, click the Additional Profiles button to bring up the Additional Profile Assignment window.

Figure 62: Additional Profile Assignment window

Profiles may only be assigned if they do not contain access from common Challenger panels. When a profile is selected to be added here, Forcefield will check if there are any Challenger access clashes and prevent the profile from being added if a clash exists. The operator is given the opportunity of listing the clashing access groups.

The buttons at the bottom of the window show the access groups or access group devices of the combined profiles, but only after the form data has been saved.

Note: When a user has been assigned additional profiles, their primary profile may not be changed without first removing all the additional profile assignments.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Primary Profile. The user's primary profile.

Primary Expiry. The user's primary profile expiry details.

Note: Additional profiles are only assigned to the user while their primary profile has not expired. If the primary profile expires, then all the access granted by the additional profiles will also expire.

Additional Profiles. Nine additional profiles may be added.

Profile Id. Select the profile name of the additional profile to apply.

Date Range Restriction. Each additional profile may be assigned a date restriction if appropriate. The date restriction can have a start date and/or an end date, or neither. Forcefield will add or remove Challenger access at the selected dates.

If start and end dates are not selected, the dates that apply will be the valid dates of the user and their primary and alternate profiles, and any dated access within the profile.

Note: In all cases, the most restrictive date range will apply.

Door Groups button. Click to list all door groups from the profiles.

Doors button. Click to list all doors from the profiles.

Alarm Groups button. Click to list all alarm groups from the profiles.

Areas button. Click to list all areas from the profiles.

Floor Groups button. Click to list all floor groups from the profiles.

Floors button. Click to list all floors from the profiles.

User card data

Click the Card Data button to program unique IUM card data for this user.

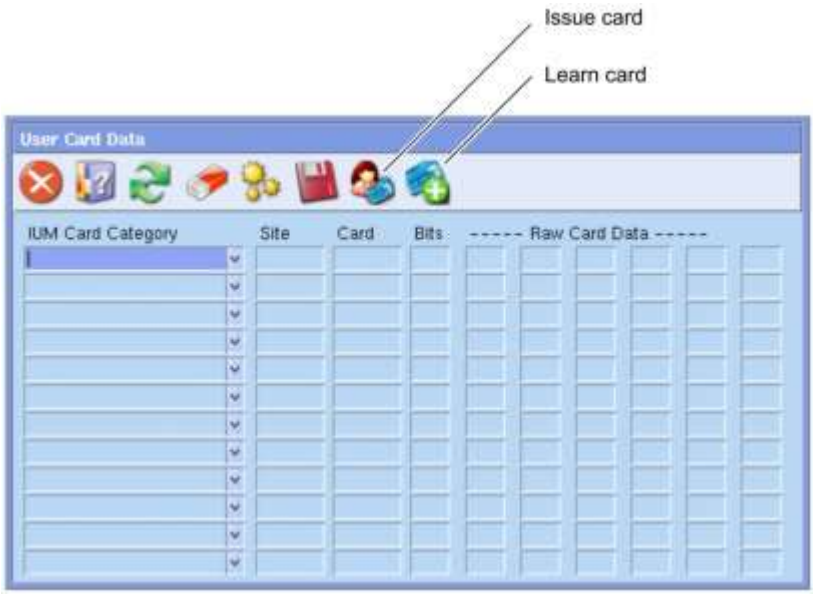
Users can have up to 12 sets of card data (IUM card categories), which link the user to IUM Challenger panels having the same card categories. This link tells Forcefield what card data to download to each Challenger.

Card data may be programmed using the following methods:

- Data for all available card formats may be entered by typing the data into the User Card Data window (see “Learning IUM card data” on page 46).
- Data for all available card formats may be entered by badging the unknown card at a designated IUM Learn Reader. See “Learning IUM card data” on page 46 for details.
- Data for standard-format (Tecom 27-bit or Wiegand 26-bit) cards may be entered by badging the unknown card at the system’s TS0862RAW card reader.

Note: A connected and enabled Smart Card Programmer is required for the Issue Card button to display and a specified card learn port (connected to a TS0862RAW card reader) is required for the Learn Card From Reader button to display. The card reader port is programmed in “Serial & Parallel Ports” on page 191. The card learn port is programmed in “Workstations” on page 194.

Figure 63: User Card Data window



Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

IUM Card Category. Click the IUM Card Category arrow, and then select the required card category. Card categories are programmed from Challenger > IUM Card Categories (see “IUM Card Categories” on page 256). Selecting a default category (e.g. Tecom 27 bit or Wiegand 26 bit) will cause the raw card data fields to become inaccessible. For these types of card, enter the site code and card number, and Forcefield will calculate the raw card data. Selecting a non-default card category will allow only raw card data to be entered (either by typing or using an IUM Learn Reader (see “Learning IUM card data” on page 46).

Site. Contains the card’s site code.

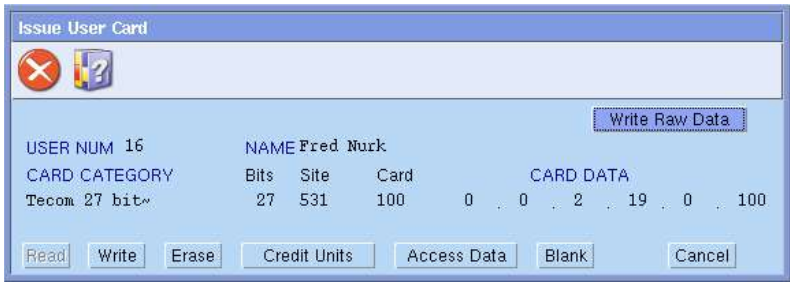
Card. Contains the card’s number (card number is not necessarily the user number).

Bits. Contains the number of bits of card data used by this card type.

Raw Card Data. Contains the raw card data for access cards. The card data is up to 48 bits and is associated by Forcefield to the card type. This is used to identify the user in the Challenger panels that have been programmed with that card type. Each user may have a different card for different Challenger panels.

Issue Card button. Click to open the Issue User Card window. This button displays only after the Smart Card Programmer is connected and enabled.

Figure 64: Issue User Card window



Learn Card from Reader button. Click the Learn Card from Reader button, and then present the card to the system's TS0862RAW card reader within five seconds to have Forcefield read the card data from the card. Alternatively, see "Learning IUM card data" on page 46 for details about using other card readers to learn IUM card data.

Programming User Licences

User Licenses are a new feature in Forcefield 8.0, which allows the user to hold up to 5 different licenses, each with their own unique details and expiration date. The purpose of this feature is to ensure that a user maintains the licenses required to have full access to the site(s), and to automatically remove that user's access in the event that any of the licenses expire. Forcefield has the ability to generate alarms prior to a license expiring so that action may be taken to prompt the operator to renew a license, and/or update the relevant details to ensure the user remains active.

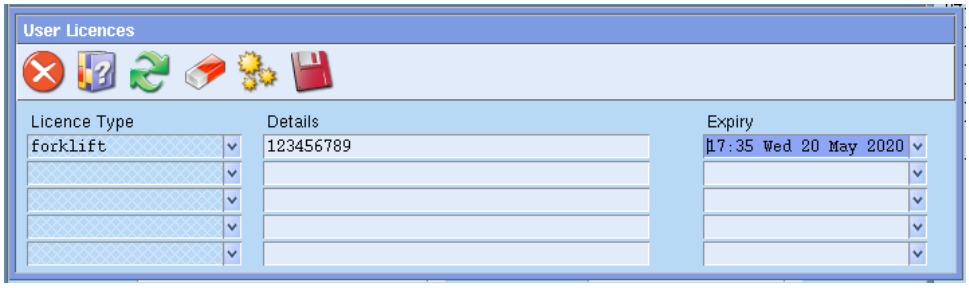
Up to a maximum of five user licences can be assigned to each user in Forcefield. If any of the assigned licences expire, the user record will automatically change to 'Expired' status and the user will lose all panel access. Forcefield will generate a 'USER LICENCE EXPIRED' alarm with details of the user and the licence type.

Forcefield will generate a "USER LICENCE ABOUT TO EXPIRE" alarm if the User licence Reminder (days) value is set in the User settings in Admin/Configuration/Configuration/User Settings. This will occur at the expiry date/time less the User licence Reminder value (days).

If any of the licences on the form have an expiry date in the past, no licence updates will be done at all. In this case, the Operator can either remove the expired licences or modify it with a future expiry date.

When a set of valid licences is saved, if the user is currently expired, the user will be made Inactive. Forcefield will then reactivate the user during the next round of automatic user add/delete handling which continuously happens in the background (occurring every minute).

To remove all licences for a user, the operator can perform a Clear All (F11) in the form and save.



Complex user search

On the User Setup window click the Advanced Search button to open the User Search Selection window.

Complex user search is performed by selecting values on only the fields that are to be matched. For example, to find all users named ‘Matt’, ‘Matthew’, etc. with active cards and who work in Engineering:

1. Type ‘Matt’ into the Name field.
2. Select Status of ‘Active’.
3. Type ‘Engineering’ into the Department field.
4. Leave all other fields blank.
5. Click Run.

If any matching users are found, this process switches to Search Mode (the title bar displays “User Setup - SEARCH MODE”) and you can use the Next and Previous buttons to see all the found users. To return to normal mode click Search. Whilst in search mode, any operations will present only users matching the search criteria.

Note: Performing a search in this manner may require Forcefield to search the entire user database. This may take some time, especially if the operator has a restricted member group.

Search for. Enable searching for corresponding values that are either on or off.
To use trace for example:

- Search for = ON, Trace = ON, Forcefield will search for users with trace enabled.
- Search for = ON, Trace = OFF, Forcefield will search for users with trace disabled.
- Search for = OFF, Forcefield will not search for any trace values.

User Defined fields—Five user defined fields are provided by which you may search for users having the corresponding data.

Note: If you use multiple user defined fields, the fields are ANDed, which means only records containing all the data entered will be found. User defined fields may be created from “Members” on page 215.

Tip: The search process may be accelerated when the option “Alpha-Num by Member” is selected in “Configuring user options” on page 269.

Bulk user operations

Click the Bulk button on the User Setup window (see Figure 61 *on page 147*) to perform the following bulk operations:

- Bulk Create is used to create multiple user records based on an existing user or based on a member and profile as a template. This function is described in “Creating users in bulk” on page 48.
- Bulk Modify is used to modify various data for multiple user records. The data that can be modified is date range, card state, card type, and lockout data. **Note:** Any data entered on this screen will be placed into all user records in the requested member and user number range. This function is described in “Modifying users in bulk” on page 49.
- Bulk Delete is used to delete multiple user records. This function is described in “Deleting users in bulk” on page 50.

Creating new users in Unique Profile Per User mode

Unique Profile Per User mode (see “Configuring user options” on page 269) causes user profiles (and alternative user profiles) to be locked to user records. As a result, when Forcefield is in unique profile per user mode, the new user window does not display search fields for either Profile or Alt Profile.

When a user record is saved for a new user, a new profile is automatically created and named according to the user number. For example, user 1 can have only “User 1 Profile|” and optionally “User 1 Alt Profile|”. The created profile will be given the member of the user record.

Note: The only data required to create a new user record is the user name and the member (if Allow Auto User Number Allocation is enabled in “Configuring user options” on page 269).

This new profile record will have no access. To assign access data, press F3 from the profile field to go into the profile record. The new profile may be populated with data from another profile by importing some or all of the profile data. See “Importing user profile data” on page 58 for details.

Using templates to create new users with default data

Refer to “Using templates to populate new user data” on page 59 for details.

Maintenance Config

Use the Maintenance Config option to create records that specify which fields on the User Setup window are to be read-only (not editable). This allows operators to bypass fields that they do not commonly use in order to save time when adding users. An operator can create multiple User Setup Field Control records

(different sites may have different needs). Only one record can be active at a time.

User Setup Field Control records are operator-specific, so if more than one operator needs to add users, then each operator would need to create their own records.

Once an operator creates a User Setup Field Control record and makes it active, the record is in effect each time that operator logs in.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

ID. Type a name to identify the User Setup Field Control record. An operator can create multiple records to suit multiple sites with different needs for recording user details.

Field selections. Check the required field check boxes to make the corresponding fields on the User Setup window read only. When creating a new user record, the read-only fields are skipped over when using the Tab key to move between fields.

Activate Field Control. Click to apply this record to the current session and for future sessions by the operator. When activated, the This record is currently active check box is populated.

Deactivate Active Record. Click to deactivate this record. When deactivated, the This record is currently active check box is cleared.

Modify User Data

Use Modify User Data to update (or delete) users' data contained in one or more of the following fields:

- The configurable user field (the default field title is "Reference")
- Department
- Position

Optionally, specify a Member or Member group to limit the modification to a subset of all users.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Old value. If you want to specify a particular value (text string) of Reference, Department, or Position to change in user records, either type it into the From field, or click the From arrow and then select the value.

All. If you want to apply the new data to all users (subject to Member or Member Group filtering), check the All check box.

New value. To apply a new value to user records, either type it into the To field or click the To arrow to select the value. Leave blank to delete the old Reference, Department, or Position data from user records.

Alter. Check the Alter check box to apply the changes when the Execute button is clicked.

Show PIN Code

Use the Show PIN Code option to display the PIN codes for a user. Two sets of PIN codes are displayed: for IUM and non-IUM Challenger V8 panels.

If a user has a user number over 1000 in a non-IUM Challenger V8 panel, the PIN code is generated by the door controller and is displayed here.

For user numbers under 1000, the PIN code is the one programmed to the user in Forcefield.

User Num. Type the user number and press Enter. The IUM PIN displays.

Non IUM Pins button. Click to see the list of Challenger V8 panels for this user and the applicable PIN code for each Challenger.

Users > Access menu

Alarm Groups (Challenger10)

Use the Alarm Groups option to define alarm functions to users and Challenger hardware. By selecting specific areas, alarm control options, RAS keypad menu options, and a time zone to an alarm group, you are controlling the level of authority for the user in that specific Challenger.

Note: You must be extremely careful when changing alarm groups. Both the functions performed by users with that alarm group, and the functions available at remote arming stations (and door readers) with that alarm group, will be affected.

Figure 65: Challenger10 Alarm Group programming window

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Group Number. The number and ID fields identify different alarm groups within a Challenger. To create a new alarm group, you must select a Challenger panel, and then enter a new alarm group number. Alternatively, you can enter the alarm group by an ID only. Forcefield will automatically allocate the next available number.

Alarm Group Name. This name is downloaded into the Challenger. The use of this field depends on the Challenger panel firmware version:

- For Challenger10 firmware V10-06 (or later), type a name to identify the alarm group. Up to 30 characters (including spaces) can be downloaded to the panel.
- For Challenger10 firmware prior to V10-06, the name to identify the alarm group comes from the Text Word library within the Challenger. To create a new word, enter the word and press F3.

Area assignment. Click the arrow and select Area or Area Group, and then type the number of the area or area group, as applicable.

If an area is assigned to the alarm group, then check boxes display for assigning permissions for arming, disarming, alarm reset, and timing.

Timezone. Determines the time zone applicable to this alarm group. Functions restricted/available via this alarm group will be applicable only for the periods allowed by the time zone.

Alternate Group. Each alarm group may have an alternative alarm group. A user is assigned an alarm group and, depending on the time zone restrictions, can have two alternative alarm groups, each with different functionality. The original and alternative alarm groups (which are programmed from the same menu) assigned to the user apply as follows:

- If the original alarm group is valid, it is used. If the original alarm group is not valid, then the first alternative alarm group is checked.
- If the first alternative alarm group is valid, it is used. If the first alarm group is not valid, then the second alternative alarm group is checked.
- If the second alternative alarm group is valid, it is used.

Refer to the *Challenger Programming Manual* for a more detailed explanation.

Menus button. Click to select the RAS keypad menus that you want the alarm group to have.

Options button. Click to select which functions and user categories the user or RAS will have for this alarm group. Each function must be selected for it to be available to the alarm group. **Note:** If you do not select User Alarm Group, then you will not be able to attach the alarm group to any user.

User categories 1 to 8 provide timing for an alarm group’s areas that are configured for timed disarming or for delayed arming (via vault programming).

System functionality can depend on the alarm group assigned to a user, and the alarm group assigned to a RAS. In these cases, the lowest common user

category number applies. For example, if a user has an alarm group containing user categories 3 and 4, and a RAS has an alarm group containing user categories 1, 2, 3, and 4, then only user category 3 would apply to that user at that RAS.

Refer to the *Challenger Programming Manual* for a more detailed explanation. See also “User Category Data” on page 350.

Enable Area Search. When checked, a user with this alarm group must perform an area search as part of the disarming process during the “Area Search TZ” specified in System Options). See “Using area search” on page 77 for details.

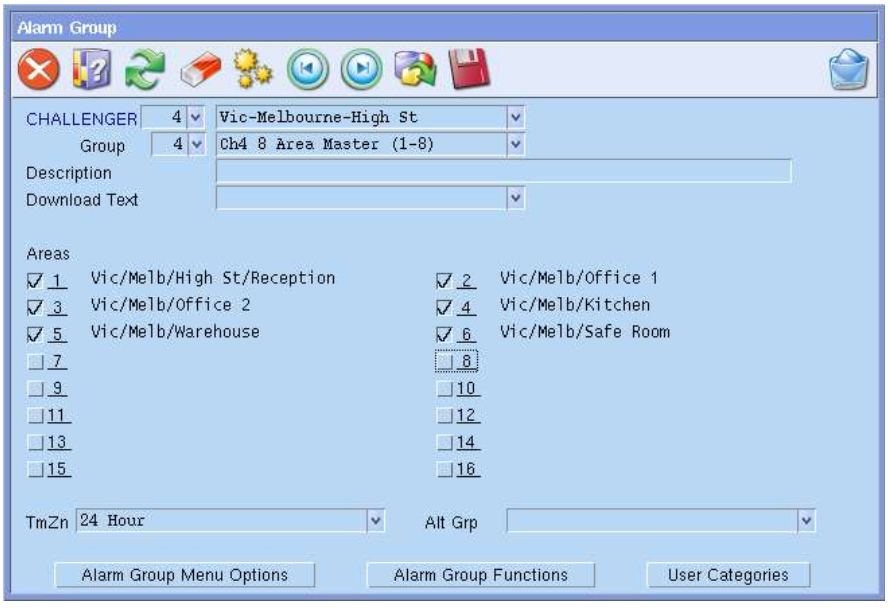
Note: This option is not supported in ChallengerLE.

Alarm Groups (Challenger V8)

Use the Alarm Groups option to define alarm functions to users and Challenger hardware. By selecting specific areas, alarm control options, RAS keypad menu options, and a time zone to an alarm group, you are controlling the level of authority for the user in that specific Challenger.

Note: You must be extremely careful when changing alarm groups. Both the functions performed by users with that alarm group, and the functions available at remote arming stations (and door readers) with that alarm group, will be affected.

Figure 66: Challenger V8 Alarm Group programming window



Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Group. The number and ID fields identify different alarm groups within a Challenger. To create a new alarm group, you must select a Challenger panel, and then enter a new alarm group number. Alternatively, you can enter

the alarm group by an ID only. Forcefield will automatically allocate the next available number.

Download Text. This name is downloaded into the Challenger. It comes from the Text Word library within the Challenger. It should reflect the function of the alarm group. To create a new word, enter the word and press F3.

Area assignment. Click to select one or more areas, as required. Areas can only be selected if they are listed. It is not possible to check an area box if the Area ID is empty.

TmZn. Determines the time zone applicable to this alarm group. Functions restricted/available via this alarm group will be applicable only for the periods allowed by the time zone.

Alt Grp. Each alarm group may have an alternative alarm group. A user is assigned an alarm group and, depending on the time zone restrictions, can have two alternative alarm groups, each with different functionality. The original and alternative alarm groups (which are programmed from the same menu) assigned to the user apply as follows:

- If the original alarm group is valid, it is used. If the original alarm group is not valid, then the first alternative alarm group is checked.
- If the first alternative alarm group is valid, it is used. If the first alarm group is not valid, then the second alternative alarm group is checked.
- If the second alternative alarm group is valid, it is used.

Refer to the *Challenger Programming Manual* for a more detailed explanation.

Alarm Group Menu Options button. Click to select the RAS keypad menus that you want the alarm group to have.

Alarm Group Functions button. Click to select which functions the user or RAS will have for this alarm group. Each function must be selected for it to be available to the alarm group. **Note:** If you do not select User Alarm Group, then you will not be able to attach the alarm group to any user.

User Categories button. Click to select the user categories to be used in this alarm group. If multiple user categories are assigned to an alarm group, then the lowest user category number applies.

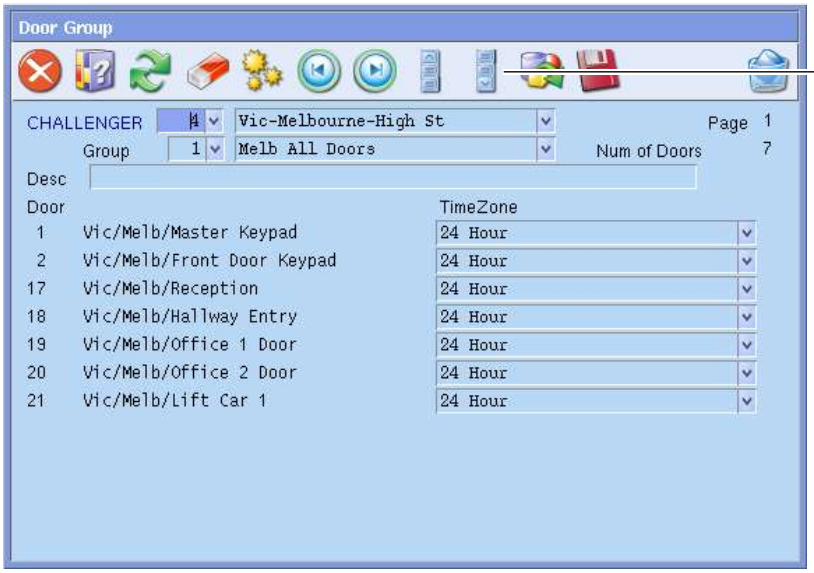
System functionality can depend on the alarm group assigned to a user, and the alarm group assigned to a RAS. In these cases, the lowest common user category number applies. For example, if a user has an alarm group containing user categories 3 and 4, and a RAS has an alarm group containing user categories 1, 2, 3, and 4, then only user category 3 would apply to that user at that RAS.

Refer to the *Challenger Programming Manual* for a more detailed explanation.
See also “User Category Data” on page 350.

Door Groups

Use the Door Groups option to allocate access levels to users. Door groups define which doors users are able to get access to and at what times they are able to use each door.

Figure 67: Challenger programming window for door groups



If the Challenger has more than 12 doors, use the scroll buttons to see more.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Group. Use the group number and name as follows:

- The number field represents the door group number in the Challenger. To create a new door group enter the new number of the door group. Select the time zones required for each door in the list shown on the form.
- The ID field represents the Door Group ID in Forcefield. To create a new door group enter the new ID of the door group (Forcefield will automatically add the Door Group number when saving). Select the time zones required for each door in the list shown on the form.

Note: A door group cannot be programmed unless a Challenger ID and a door group ID are entered.

Desc. describe the function of the door group.

Door fields. Once a Challenger has been selected, the doors programmed to that Challenger will be displayed in the door fields.

Note: Even though the door is listed, it is not part of the group until it has a time zone attached to it.

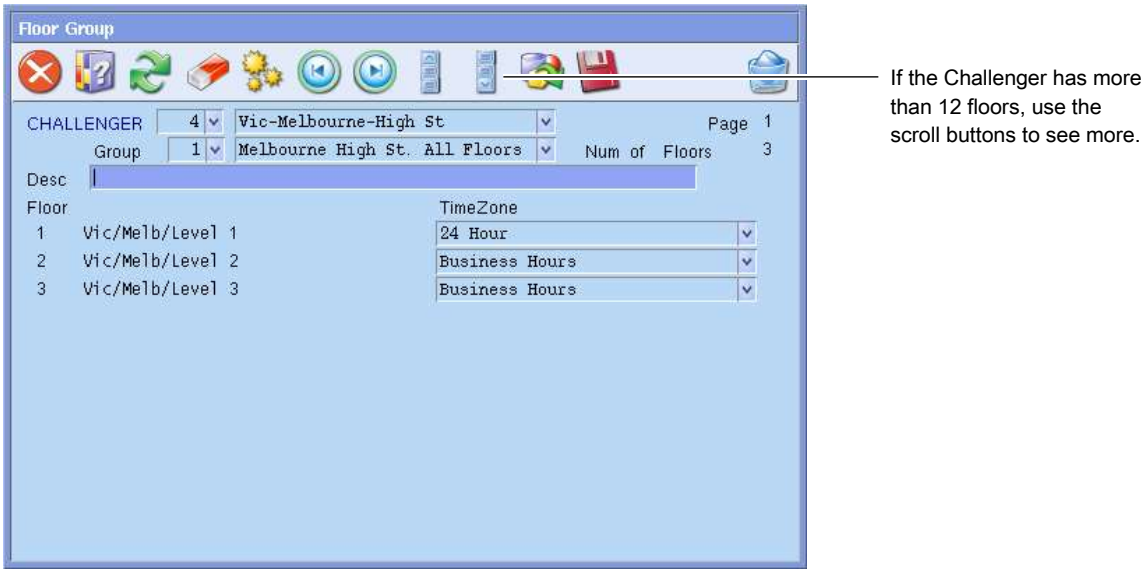
TimeZone fields. Select the time zone for the corresponding door. To create a new time zone, double-click the TimeZone field (or press F3), program the required time zone, and save. The time zone will be added to the list of time zones for this Challenger. (You must first enter a door group number and ID.)

Floor Groups

Use the Floor Groups option to allocate access levels to users. Floor groups define which floors users are able to get access to and at what times they are able to use each floor.

Note: For a user to be given access to a floor, they must be given a floor group and a door group. This is because the floor group determines what floors they can access and the door group determines what lifts they can use.

Figure 68: Challenger programming window for floor groups



Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Group. Use the group number and name as follows:

- The number field represents the floor group number in the Challenger. To create a new floor group, enter the new number of the floor group. Select the time zones required for each floor in the list shown on the form.
- The ID field represents the Floor Group ID in Forcefield. To create a new floor group enter the new ID of the floor group (Forcefield will automatically add the floor group number when saving). Select the time zones required for each floor in the list shown on the form.

  Note: A floor group cannot be programmed unless a Challenger ID and a floor group ID are entered.

Desc. Describe the function of the floor group.

Floor fields: Once a Challenger has been selected, the floors programmed to that Challenger will be displayed in the floor fields.

Note: Even though the floor is listed, it is not part of the group until it has a time zone attached to it.

TimeZone fields: Select the time zone for the corresponding floor. To create a new time zone, double-click the TimeZone field (or press F3), program the required time zone, and save. The time zone will be added to the list of time zones for this Challenger. (You must first enter a Floor Group number and ID.)

Generate IUM Data

See “Generating IUM data” on page 47.

Modify Profile Access

Use the Modify Profile Access option to add or delete up to three access groups (one each of alarm group, door group, and floor group) for selected user profiles. User profiles may be selected individually or by member.

Access groups can be from the same or from different Challenger panels. For example, the door group may be selected from one Challenger and the alarm group from a different Challenger.

A report is generated listing the affected users.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Action. Select to add or delete the specified access groups.

Selected Profiles. Select one or more profiles to which the modifications are to be made. Selecting a member without selecting individual user profiles will result in the changes being made to every user profile in the selected member.

Challenger and Access Group. In the rows for Alarm, Door, and Floor, select a Challenger or leave blank to list the group records for all Challenger panels. Next, select the alarm group, door group, and floor group to be added or deleted from the selected user profiles. Leave a field blank to skip it.

Refer to “Generating reports” on page 29.

Alarm Group Report

Use the Alarm Group Report option to print out the contents (such as areas, control options, menu options) of alarm group(s). You must select a Challenger for the report to run. Refer to “Generating reports” on page 29.

Door Group Report

Use the Door Group Report option to printout the contents (doors and the time zone for each door) of door group(s). You must select a Challenger for the report to run. Refer to “Generating reports” on page 29.

Floor Group Report

Use the Floor Group Report option to printout the contents (floors and the time zone for each floor) of floor group(s). You must select a Challenger for the report to run.

Refer to “Generating reports” on page 29.

Users By Alarm Group

Use the Users By Alarm Group option to list the alarm groups in ID order and lists the users who are allocated it. This can be done on one alarm group or all alarm groups in one Challenger. You must select a Challenger for the report to run.

Refer to “Generating reports” on page 29.

Users By Door Group

Use the Users By Door Group option to list the door groups in ID order and the users who are allocated it. This can be done on one Door Group or all Door Groups in one Challenger.

Refer to “Generating reports” on page 29.

Users By Floor Group

Use the Users By Floor Group option to list the floor groups in ID order and the users who are allocated it. This can be done on one Floor Group or all Floor Groups in one Challenger. You must select a Challenger for the report to run.

Refer to “Generating reports” on page 29.

Users > Modify Status menu

Change Status of User

Use the Change Status of User option to enable the operator to change a user’s card status. Although this can be achieved through User > Maintenance, the Change Status of User command allows the operator to only change the status, and so is suited to operators who do not have permission to modify user databases.

Note: Changing a user’s status can deny them access to alarm control and doors, so ensure that you have selected the correct user.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Change to. Select the new status type for the user:

- Lost—no longer able to access any part of the system. Will generate a ‘Lost Card’ alarm if the card is badged on the system.
- Void—no longer able to access any part of the system. Will generate a ‘Void Card’ alarm if the card is badged on the system.
- Lost & Log Offsite—as above, however now adds an event into history to log the user off site for various reports.
- Void & Log Offsite—as above, however now adds an event into history to log the user off site for various reports.
- Log Offsite—adds an event into history to log the user off site for various reports. This is used when the user is no longer on site, yet the system is indicating that the user still is. Normally due to the user not badging their card when leaving the premises.

Set users offsite

See “Set users offsite” on page 52 for details.

Users > Profiles menu

Assign Profile to Users

This option does not apply to Unique Profile Per User mode. See “Configuring user options” on page 269.

Use the Assign Profile to Users option to assign a previously-created profile to one or more users. The users to which the profile is to be assigned may be selected by user number or range of numbers, and filtered by member group and/or member.

Note: This command applies the profile to the selected users and changes the Challenger access for those users. Use the sync profile data command (see “Sync Profile Data” on page 171) to apply profile changes other than Challenger access.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

User Range from and to fields: If a user number range is selected, the profile will be assigned only to the users within the number range, regardless what other selection criteria have been used.

Profile. Select the profile be assigned to the selected user(s).

Profile Ends fields: If the profile is time-limited, enter the time and date that the profile expires. If blank, the profile will not expire. After the profile has expired,

the Profile field on the User Setup window is marked by red double-asterisks '**'. See "Maintenance" on page 147 for details.

Alt Profile. The profile to be applied when the primary profile expires. For example, a profile can be assigned to cleaners for special hours during a holiday, which expires at the end of the holiday. When the Alt profile expires, the cleaners' usual profile takes over.

Program Profile

Use the Program Profile option to create or modify user profiles.

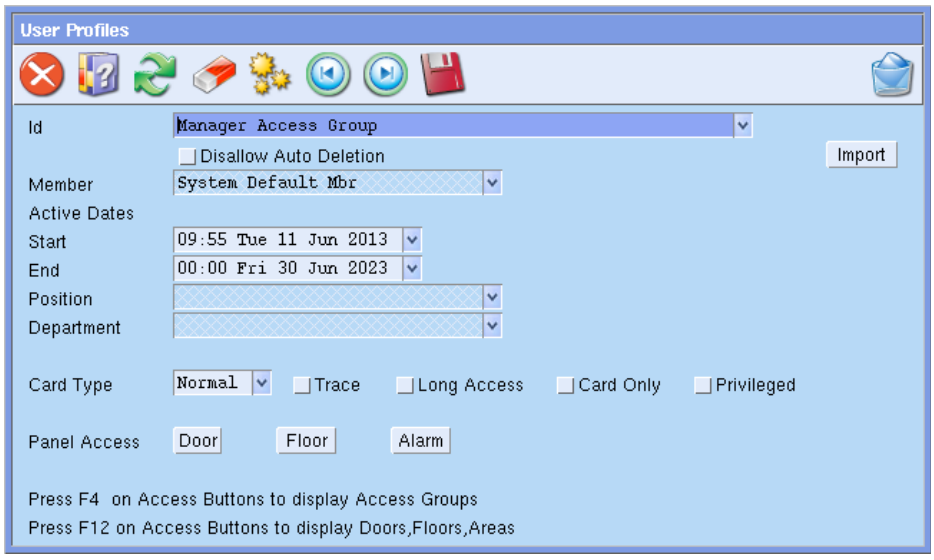
A profile is a collection of user information such as member, date range, position, department, card type, trace, long access, card only, privileged options, and Challenger access.

Changes to a profile's Challenger access data is automatically applied to previously-created user records attached to the profile; altering other profile data is not automatically applied. For example, if you change the dates in a profile, this change will not automatically be applied to previously-created user records attached to the profile (only users created after the profile change will get the new dates).

In order to update previously-attached user records with revised profile data use the sync profile data command (see "Sync Profile Data" on page 171).

Note: Altering or deleting a profile may affect many user records as all their access rights must be checked (and altered if necessary) and downloaded to Challenger panels.

Figure 69: User Profiles programming window



Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Disallow Auto Deletion. Select to prevent this record from being deleted when using the Delete Unused Data command if this record is not referenced by any user records. Select this option when creating template user profiles.

Import button (active only for a saved profile). Allows a profile's contents to be copied from another profile. A profile can be saved with just an Id, and it will be given the system default member, date starting from creation time, and a normal card type. See "Importing user profile data" on page 58 for details about using the Import button.

Member. The profile must be allocated a member ID to determine where events associated with users are to be directed. The member in the profile will also be the member of any users assigned to this profile (unless individually changed at the user record level).

Start. Use the calendar widget to select a date. Each user must have a start/end date-time to have access to the Challenger panels. A user that is programmed with the present date and time is downloaded to the Challenger(s) when the user record is saved (not dialler-connected Challenger panels). When a user is programmed with a future date-time the user record is not downloaded immediately. Forcefield automatically downloads the user on the date it becomes active.

End. Use the calendar widget to select a date. The end date and time is used to automatically remove the user's record from the Challenger(s). The user record is not deleted from Forcefield, just made expired.

Position. This field is described in "Maintenance" on page 147.

Department. This field is described in "Maintenance" on page 147.

Card Type field and user flag selections. These fields are described in "Maintenance" on page 147.

Door button. See "Programming Door Groups For a Profile" below.

Floor button. See "Programming Floor Groups For a Profile" on page 170.

Alarm button. See "Programming Alarm Groups For a Profile" on page 170.

Programming Door Groups For a Profile

Click the Door button on the User Profiles window to program, allocate and view the Challenger door groups for this profile.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Timed button. Click to program times and dates for a user with this profile to have this access group only during the time specified in the subsequent window. See "Programming timed access" on page 171 for details.

List button. Displays the profile's group IDs.

Expand button. Displays the profile's group IDs and their time zones.

Restore button. Restores the list of Challenger panels after the Find Ch button reduced the list.

Find Ch button. Opens a Challenger search window to enable rapid selection of a Challenger from the list.

Note: If you press F8 whilst using this screen, you will delete all of the Challenger Door Group access records that have been assigned to this profile.

Programming Floor Groups For a Profile

Click the Floor button on the User Profiles window to program, allocate and view the Challenger floor groups for this profile.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Timed button. Click to program times and dates for the access group to be active at a particular Challenger panel. See “Programming timed access” on page 171 for details.

List button. Displays the profile’s group IDs.

Expand button. Displays the profile’s group IDs and their time zones.

Restore button. Restores the list of Challenger panels after the Find Ch button reduced the list.

Find Ch button. Opens a Challenger search window to enable rapid selection of a Challenger from the list.

Note: If you press F8 whilst using this screen, you will delete all of the Challenger Floor Group access records that have been assigned to this profile.

Programming Alarm Groups For a Profile

Click the Alarm button on the User Profiles window to program, allocate and view the Challenger alarm groups for this profile.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Timed button. Click to program times and dates for the access group to be active at a particular Challenger panel. See “Programming timed access” on page 171 for details.

List button. Displays the profile’s group IDs.

Expand button. Displays the profile’s group IDs and their time zones.

Restore button. Restores the list of Challenger panels after the Find Ch button reduced the list.

Find Ch button. Opens a Challenger search window to enable rapid selection of a Challenger from the list.

Note: If you press F8 whilst using this screen, you will delete all of the Challenger Alarm Group access records that have been assigned to this profile.

Programming timed access

Access groups may have timed access programmed, which Forcefield uses to determine when the access applies to users of the profile. Timed access works as follows:

- If programmed, then the access is given to the user only during the time specified here, with the proviso that the time assigned to the user record is not extended by any times assigned to the access group at the profile level. Time access can only limit, not extend, the user's access.
- If not programmed, then the access is given to the user at all times the user is active.

Example 1: We have some users who we normally want to have access to particular doors. If we want these users to have alarm group access only during a particular time period, we would create a profile that has a door group with no timed access programmed, and an alarm group with timed access programmed for the particular time period.

Example 2: We have some users who need continuous access to Challenger A's doors and timed access to Challenger B's doors. The profile would therefore have two door groups: one door group assigned to Challenger A (without timed access), and the other door group assigned to Challenger B (with timed access).

For the particular door group, floor group, and/or alarm group, click the Timed button to program times and dates for the access group to be active for a particular Challenger panel. The timed access programming window displays.

Figure 70: Timed Access Window

Use the calendar widget to select start and end dates required for the profile to be active at the Challenger panel, and then click Close.

Sync Profile Data

Use the Sync Profile Data option to synchronise selected users or all users to the profile data after modifying a profile to ensure that users of the profile now have the same data as the profile. The users to which the profile is to be assigned may be selected by one or more user numbers, or by range of user numbers, and filtered by member group and/or member.

Note: This command is not required if only the Challenger access data has been changed. Challenger access data, if changed in the profile, is automatically applied to all users of the profile.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

User Range from and to fields. If a user number range is selected, the profile will be assigned only to the users within the number range, regardless what other selection criteria have been used.

Matching Profile

Use the Matching Profile option to list user profiles that match selected criteria. If multiple criteria are selected, the report shows the profiles that have all the criteria.

Refer to “Generating reports” on page 29, and the following details about this report.

Use the calendar widget to select start and end dates.

Date Match. Select Exact if you only what profiles that have the same start and end dates. Select In Range if you want all profiles with start and end dates that are contained within the selected start and end dates.

Options selections. Enables matching criteria for on or off settings of Trace, Card Only, Long Access, and Privileged access.

Profile Access Report

Use the Profile Access Report option to show door, alarm, and floor access groups associated with user profiles.

Refer to “Generating reports” on page 29, and the following details about this report.

Click the Detail arrow, and then select one of:

- Groups—to list Challenger access groups.
- Detail—to list Challenger access groups and profile details.
- C.S.V.—to list Challenger access groups in CSV format (profile ID, access group type, Challenger number, access group number, access group ID).

Profile Report

Use the Profile Report option to show information associated with user profiles as selected by the report type.

Refer to “Generating reports” on page 29, and the following details about this report.

Report Type. Select the required report type:

- Summary—lists Challenger access groups
- Detailed—lists Challenger access groups and their details

- Users—lists users belonging to the profile
- Mismatch—lists users belonging to the profile, but who do not have the Challenger access that the profile requires.

Users > Reports menu

Activation Report

Use the Activation Report option to list all users who will become active on a given date or date range.

Refer to “Generating reports” on page 29, and the following details about this report.

Date 1. Use the calendar widget to select a specific date, or a start date for a range.

Date 2. If you’ve selected a start date in Date 1, then use the calendar widget to select an end date for the range.

Format. Select the required format:

- Summary lists the user number and name.
- Detail lists user number and name, active date range, PIN indication, profile, department, and position.

Report formats are further divided into:

- Multi-line is the preferred format for sending the report to a printer. It formats the reports to fit the printer page and will generate a title header for each page of output.
- Single-line places all data for one user into a single line of text. There is only one title header. This format would be used for data input into an external package.
- CSV has no title header. It contains a user 0 (zero) that does not actually exist, but is generated to indicate the date-time range chosen for the report. Data in this format is typically used in a spread sheet or database application.

Sort Order. Select the required report sort order:

- Num. Sort by user number.
- Num by time. Sort by user number each time users became active.
- Name. Sort by user name.
- Name by time. Sort by user name each time users became active.

Area Control Report

Use the Area Control Report option to list the areas selected and displays the users with control to the areas.

Refer to “Generating reports” on page 29, and the following details about this report.

Report Type. Select the required type:

- Summary lists the user number and user name for each user having control on that area(s).
- Detailed lists all the user details as per the User Setup screen having control on that area(s).

Card (User) Report

Use the Card (User) Report option to list various details of one or more users.

Entering data in more than one field will restrict the report to users having the specified data from all the completed fields. For example, entering ‘Smith’ for a name and ‘Engineering’ for a department will report on names beginning with ‘Smith’ (including ‘Smithson’, ‘Smithers’, etc.) in Engineering.

Refer to “Generating reports” on page 29, and the following details about this report.

Report Type. Select the required type:

- Ch. Num. Lists user number and names, card status, begin and end dates, profile, position, and department, with the addition of the user’s number in each Challenger to which they have been downloaded.
- List - Multi Line. Lists user number and names card status, begin and end dates, profile, position, and department. This format is suitable for reports: each user’s data is formatted over possibly several text lines.
- List - Single Line. Lists user number and names card status, begin and end dates, profile, position, and department. Format suitable for importation into external packages: each user’s data is contained on one text line.
- List - CSV. Lists user number and names card status, begin and end dates, profile, position, and department. Data in this format is typically used in a spread sheet or database application.
- Summary. Lists the details from the User Setup window, including user notes, but not including the PIN (if used).
- Summary - CSV. Lists the details from the User Setup window, including a ‘PIN’ or ‘No PIN’ indication, but not including user notes. The format is suitable for exporting to external packages (such as Microsoft Excel) capable of reading CSV data.

- Detailed. Lists the details from the User Setup window, plus users' access groups.
- Expanded. Lists the details from the User Setup window, plus details of the contents of the access groups.
- Expired Profile - List. Lists only users whose primary profile has expired. This format is suitable for reports: each user's data is formatted over possibly several text lines.
- Expired Profile - CSV. Lists only users whose primary profile has expired. The format is suitable for exporting to external packages (such as Microsoft Excel) capable of reading CSV data. PIN codes are not shown, only an indication of whether the user has a PIN code.
- Expired Profile - Summary. Lists only users whose primary profile has expired. Lists the details from the User Setup window, including user notes, but not including the PIN (if used).

Sort by. Select the required report sort order:

- Num—sort by user number.
- Name—sort by user name.

PIN. Enter a user's PIN to generate a report on a single user.

Valid from and to. Use the calendar widget to define a date range for the users to be valid.

User Defined fields. Select a pre-defined title (defined in the associated Member form) and optional values upon which the report will be generated. Each additional user defined field further restricts the results.

Door Access Report

Use the Door Access Report option to list the doors selected and displays the users with access to those doors.

Refer to "Generating reports" on page 29, and the following details about this report.

Report Type. Select the required type:

- Summary lists the user number and user name for each user having access to the door(s)
- Detailed lists all the user details as per the User Setup screen having access to the door(s).

Expired Profile

Use the Expired Profile option to list all users whose profile will expire on a given date or date range.

Refer to “Generating reports” on page 29, and the following details about this report.

Date 1. Use the calendar widget to select a specific date, or a start date for a range.

Date 2. If you’ve selected a start date in Date 1, then use the calendar widget to select an end date for the range.

Format. Select either summary or detail:

- Summary lists the user number and name.
- Detail lists user number and name, active date range, PIN indication, profile, department, and position.

Report formats are further divided into:

- Multi-line: The preferred format for sending the report to a printer. It formats the reports to fit the printer page and will generate a title header for each page of output.
- Single-line: Places all data for one user into a single line of text. There is only one title header. This format would be used for data input into an external package.
- CSV: This format has no title header. It contains a user 0 (zero) that does not actually exist, but is generated to indicate the date-time range chosen for the report. Data in this format is typically used in a spread sheet or database application.

Sort Order. Select the required report sort order:

- Num—sort by user number.
- Num by time—sorts by user number each time users became active.
- Name—sort by user name.
- Name by time—sort by user name each time users became active.

Expiry Report

Use the Expiry Report option to list all users who will expire on a given date or date range, or users who don’t have an expiry date.

Refer to “Generating reports” on page 29, and the following details about this report.

Date 1. Use the calendar widget to specify a single date, the start of a date range, or leave blank for users who don’t have an expiry date.

Date 2. Use the calendar widget to specify the end of a date range, or leave blank for users who don’t have an expiry date.

Format. Select either summary or detail:

- Summary lists the user number and name.

- Detail lists user number and name, active date range, PIN indication, profile, department, and position.

Report formats are further divided into:

- Multi-line: The preferred format for sending the report to a printer. It formats the reports to fit the printer page and will generate a title header for each page of output.
- Single-line: Places all data for one user into a single line of text. There is only one title header. This format would be used for data input into an external package.
- CSV: This format has no title header. It contains a user 0 (zero) that does not actually exist, but is generated to indicate the date-time range chosen for the report. Data in this format is typically used in a spread sheet or database application.

Sort Order. Select the required report sort order:

- Num—sort by user number.
- Num by time—sorts by user number each time users became active.
- Name—sort by user name.
- Name by time—sort by user name each time users became active.

Floor Access Report

Use the Floor Access Report option to list the users with access to selected floors.

Refer to “Generating reports” on page 29, and the following details about this report.

Report Type. Select the required type:

- Summary lists the user number and user name for each user having access to the floor(s)
- Detailed lists all the user details as per the User Setup screen having access to the floor(s).

Idle User Report

Use the Idle User Report option to list all users who have not badged during the selected date range.

Refer to “Generating reports” on page 29, and the following details about this report.

Idle since. Use the calendar widget to select a specific date.

Show Access Outside Date Range. Check the box to report a user's last access details if they have not used the system during the specified date, but have accessed at another time.

Format. Select either summary or detail:

- Summary lists the user number and name.
- Detail lists user number and name, active date range, PIN indication, profile, department, and position.

Report formats are further divided into:

- Multi-line. The preferred format for sending the report to a printer. It formats the reports to fit the printer page and will generate a title header for each page of output.
- Single-line. Places all data for one user into a single line of text. There is only one title header. This format would be used for data input into an external package.
- CSV. This format has no title header. It contains a user 0 (zero) that does not actually exist, but is generated to indicate the date-time range chosen for the report. Data in this format is typically used in a spread sheet or database application.

Sort Order. Select the required report sort order:

- Num—sort by user number.
- Name—sort by user name.

Last Access By A User

Use the Last Access By A User option to list the last reader accessed by user(s). The following data is reported user number, user name, reader, time, and region.

Refer to "Generating reports" on page 29, and the following details about this report.

Sort Type. Select the required report sort order:

- Num—sort by user number.
- Name—sort by user name.

Formats. Select the required format:

- Multi-line. The preferred format for sending the report to a printer. It formats the reports to fit the printer page and will generate a title header for each page of output.
- Single-line. Places all data for one user into a single line of text. There is only one title header. This format would be used for data input into an external package.
- CSV. This format has no title header. It contains a user 0 (zero) that does not actually exist, but is generated to indicate the date-time range chosen

for the report. Data in this format is typically used in a spread sheet or database application.

Muster Report

Typically used for evacuation reports, use the Muster Report option to list on-site users who either:

- Are mustered.
- Are not mustered.

To be mustered, a user needs to have recently badged at a muster reader (recent in terms of when the report is run). How recent depends on the muster time defined in Forcefield configuration (default is 15 minutes). See “Configuring user options” on page 269 for details.

For a RAS or door to be a muster reader, the Muster Reader check box must be selected (see “Arming Stations” on page 306 or “Door Access” on page 338).

Refer to “Generating reports” on page 29, and the following details about this report.

Type. Select the required report type:

- Not Mustered—users who have not mustered within the muster time.
- Mustered—users who have mustered within the muster time.

Users who are off site will not appear in the report (region 0 is always considered as off site).

Sort by. Select the required report sort order:

- Num—sort by user number.
- Name—sort by user name.

The optional member group and member fields serve to restrict users who should be included in the report.

Unused Data Report

Use the Unused Data Report option to list user-related data that is no longer referenced in any records.

Refer to “Generating reports” on page 29, and the following details about this report.

Unused data types to report check boxes: Select one or more types of data for departments, positions, and user defined data, or user profiles.

Format. Select either printer or CSV. Data in CSV format is typically used in a spread sheet or database applications.

User Access Report

Use the User Access Report option to list access information for selected users, showing their current status, card start date, card end date and optionally their access groups depending on whether the group options are checked.

Refer to “Generating reports” on page 29, and the following details about this report.

Sort Order. Select the required report sort order:

- User number
- User name
- User number by department
- User name by department

Detail. Select the required level of detail:

- Groups lists the access groups.
- Detail lists the access groups as well as areas, doors, and floors.
- Groups-C.S.V. lists the access groups in a CSV format (refer to online help for details).

Door Group selection. Check this box if you want the report to include the user’s door groups.

Alarm Group selection. Check this box if you want the report to include the user’s alarm groups.

Floor Group selection. Check this box if you want the report to include the user’s floor groups.

User On-Site Report

Use the User On-Site Report option to report on the movements of users around the site. On site is considered to be a Challenger region other than region zero. If a user is considered to be still on site, the on site value will have an appended plus (+) sign.

Note: The date and time specified relates to the times logged into history from the door/reader at which the cards were badged. This has no bearing on your local computer time and time zone location. For example, if you are in Perth and you select the times for the search to be 09:00 to 17:00 on the same day, then the report will look for times 09:00 to 17:00 as reported by the Challenger panels irrespective of what time zone you are in.

Refer to “Generating reports” on page 29, and the following details about this report.

Start. Use the calendar widget to select the start date. If no start date is entered, the report will start from the first record found in the history.

End. Use the calendar widget to select the end date. If no end date is entered, the report will finish at the current date of your local computer.

Type. Select the required report type:

- Summary: Lists totals for each region visited by the user. A visit is considered to be active until the user enters region zero. Therefore, from the time the user is on site until the time the user is off site is considered a visit.
- Detailed: Lists all regions and durations each time the user enters and leaves that region, and then a total time for being on site during the date & time range.
- Totals: Lists only the total time on site without the region times.
- CSV Formatted Data: Data in this format is typically used in a spread sheet or database application that requires dates to be in human-readable format.
- CSV Raw Data: Data in this format is typically used in a spread sheet or database application that can interpret raw data. Dates are not in human-readable format.

Users By Region Report

Use the Users By Region Report option to list on-site users who are in or out of a specified region.

Only users who have accessed the system and are on site are reported. Thus users may be in the user database but not appear in this report. For this report to function, Challenger panels must be setup to report user access by region.

Refer to “Generating reports” on page 29, and the following details about this report.

Out of Region selection. Check this box if the report is to list users who are out of the selected region.

Sort by. Select the required report sort order:

- Num: Sort by user number.
- Name: Sort by user name.

Users > Smart Card Programmer menu

Display User Card

This command requires the use of a working Smart Card Programmer. Use the Display User Card option to display the data read from a user card.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

User Num. This field displays a list of users that the card data belongs to.

Read button. Place a card on the Smart Card Programmer and then click Read to read user card data. If card data read is successful, the card data is displayed on screen.

Cancel button. Click to cancel the read command.

Issue User Card

The Issue User Card option requires the use of a working Smart Card Programmer to program user cards. Refer to the *Forcefield External Interfaces Manual* for details.

Reader Config Card

The Reader Config Card option requires the use of a working Smart Card Programmer to program user cards. Refer to the *Forcefield External Interfaces Manual* for details.

Setup Programmer

The Setup Programmer option requires the use of a working Smart Card Programmer. Refer to the Forcefield External Interfaces Manual for details.

Users > Transfer User Data menu

Export User Data

Use the Export User Data option to export user data to a remote computer system, in either comma separated value (CSV) or tab separated value (TSV) format.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

User Num. Enter a user number to export only that user.

PIN. Enter a user's PIN to export only that user.

Name. Entering a name will export all USERS having matching names. Example; if 'smith' is entered, users such as 'smith', 'smithers', 'smithson', etc. will be exported.

Export to. Select the required storage device.

in Format. Select the required format:

- CSV—File created is userexp.csv. In this format there is 1 text line per user with data in double quotes separated by commas (e.g. "datafield1","datafield2","....", "datafield n").
- TSV—File created is userexp.tsv. In this format there is 1 text line per user with data separated by tabs (e.g. datafield1<Tab>datafield2<Tab>.. ..<Tab>datafield).

Refer to the *Forcefield External Interfaces Manual* for details on export file formats.

Note: Event triggering by time can be used to export all user data or photos, or to export only the records that have been changed since the last export. See “User data export” on page 94 and User photo export” on page 94.

Import User Data

Used the Import User Data option to initiate a manual importation of user data from an external source. A result report will be generated and sent to the selected report destination. Forcefield will attempt to read the file “user.imp” on the storage selected by the operator.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Import data from. Select the destination directory or device.

Refer to the *Forcefield External Interfaces Manual* for details on import file formats, and to related settings for Import User Data field on page 271.

Users > User Numbering menu

Show System User Number

Use the Show System User Number option to show what Forcefield system user number has been allocated to a Challenger user.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Enter the Challenger and the user number in that Challenger. Click Run (or press F6) to display the Forcefield user number assigned.

Show Ch. User Number

Use the Show Ch. User Number option to show the translation between the Forcefield user number and the corresponding user number downloaded to the Challenger panels.

For example, Forcefield user 3 may be:

- User 5 in Challenger 1
- User 56 in Challenger 123
- User 12345 in Challenger 45, etc.

Select a user by Forcefield number or name, and then click List (or press F12) to display the translation list.

Operators menu

Operator Permissions

Use the Operator Permissions option to control the level of authority an operator has to the Forcefield functions.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

See also “Workstation Permissions” on page 193.

Use the List button to look up records (such as operator or workstation records) that use the selected Computer Access record.

Id. A unique name for the Forcefield computer access record.

Functions. This is the ID of a record containing a list of Forcefield functions. These records determine the menu access granted to an operator. For a list of existing function records press F4. If the function required is not available, enter the new required ID and press F3. To edit an existing function record, enter the function ID and press F3. Deleting a function record is not allowed from this screen. It is performed from Operators > Functions.

Member Group. restrict which members the operator has access to. Therefore only certain alarms and control can be given to each operator.

Time Zone: Select a suitable time zone. If no time zone is suitable, enter a new time zone ID, press F3 and create a new one. This time frame validates when the operator can access the Forcefield system. **Note:** Forcefield does not use the holiday indication on time zones for determining operator access. If the operator attempts to log in and the time zone is not valid, and an alternative computer access level is given, the alternative access will be used if its time zone is valid. See Alternate field, below.

Alternate. Alternative access is used to give an operator a different set of menus and member access depending on the time of day and day of week. An operator can have three different sets of access levels which are assigned in the following order until a valid time zone is found:

1. The original access level.

2. The alternative access level.
3. The alternative access level of the previous alternative access level.

Operator Menu Permissions

Use the Operator Menu Permissions option to create, modify, or remove a computer functions record.

This can also be performed from “Operator Permissions” on page 184; however, doing it here allows function records to be created without having to first create Operator Permissions records.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Use the List button to look up records (such as operator or workstation records) that use the selected computer functions record. See also “Workstation Permissions” on page 193.

Id. This is the ID of a record containing a list of Forcefield functions (menus that an operator can use). For a list of existing function records press F4. If the function required is not available, enter the new required ID (for example, Alarm Monitoring) and press F3. To edit an existing function record, enter the function ID and press F3. To delete an existing function record, first press F12 to find any Computer Access records that use the selected function record (you cannot delete a functions record that is currently used).

Select a Computer Functions record, and then press F3 to display the programming window. This window is used in the same manner as described in “Workstation Permissions” on page 193.

Operator Setup

Use the Operator Setup option to add, modify, and delete operators. To add, modify or delete any operators you must have the same or higher computer access level than the operator record that you are attempting to add, modify or delete. You cannot create an operator with access to more functions than you have.

To find operators having a particular computer access level, use the Shift+F4 search function. Once in search mode, press the icon or press Shift+F4 to return to normal mode.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Login Code. A login code is required for the operator to log into Forcefield.

Password. A password is (by default) required for the operator to log into Forcefield. A minimum of 4 characters must be used. However, this may be altered by your System Administrator. The password is case sensitive (abcd is not the same as aBcd).

Forcefield Access. Click the arrow to select the Computer Access record for the operator. Alternatively, double-click the field to create a new Computer Access record. This access record is used to set the Forcefield functions an operator will be allowed to access. The workstation must have the function allowed as well, unless the operator access member group contains the “Override Member”, in which case a function allowed for the operator will be allowed regardless of the workstation settings.

Name. A name is required. This name is displayed at the top right hand corner of the screen when the operator is logged in.

Phone. Optional data for administration purposes only.

Other Data fields: Optional data for administration purposes only.

Do Not Alert When Changing Database Records. Selecting this option suppresses the warning that is given to the operator when they have altered some data on the data entry screen of a database record and they have pressed escape without first saving the record.

Card Num. Used for operators logging on to the system via an access card. Enter the access card number.

Card Site Code. Used for operators logging on to the system via an access card. Enter the access card site code.

Operator Password

Use the Operator Password option to alter an operator’s password. As a security precaution there is no search facility: you must know the login code.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Login Code. Enter your login code, press Enter. The password field will become active. Enter the old password. Upon successful entry of the old password, Forcefield will prompt for the new password. Forcefield will then prompt for confirmation of the new password. Forcefield will automatically save the new password upon its second entry.

The minimum number of password characters is configurable from “Configuring login options” on page 267.

Operator Report

Use the Operator Report option to generate reports listing details of one or more operators.

Refer to “Generating reports” on page 29, and the following details about this report.

Report Type. Select the required report type:

- Summary—displays the operators' details as they appear in the operator database (passwords are not shown).
- Detailed—displays the operators' details as they appear in the operator database (passwords are not shown), plus the Forcefield Access level.
- Expanded—displays the operators' details as they appear in the operator database (passwords are not shown), the Forcefield Access level, plus members and member groups, menu functions, time zone allocation, and the alternate access level.

Databases menu

Email Addresses

Use the Email Addresses option to store the email addresses of recipients you wish to contact via Forcefield Email Paging.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Id. Enter an ID for the recipient.

Address. Enter the full email address of the recipient, e.g. fredblogs@myplace.com.au.

Note: An email server address must be set up by an administrator. See "Configuration" on page 263.

Holidays

Use the Holidays option to program Challenger holiday records.

A holiday is a specified date (or range of dates for Challenger10) during which users are denied access during times that they would normally be permitted access. For example, a user may be able to disarm the system and unlock a door during working hours except on defined holidays.

Some users may require access during holidays. This functionality is provided via a time zone in the users' alarm group that allows access during any holidays (V8) or during holidays that have matching holiday types (V10).

If the holiday is attached to a Challenger, any changes made to the holiday record are automatically downloaded to the appropriate Challenger panels. Holiday is only used for Challenger time zones. Forcefield does not use the holiday indication.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Id. The name must be unique to each holiday.

Start. Specify the holiday's date (Challenger V8) or start date (Challenger10).

Finish. Specify the holiday's end date (Challenger10).

Recurring. Click to populate the check box if the holiday falls on the same dates each year (Challenger10).

Type. Click to assign one or more holiday types (Challenger10).

Location Time

Use the Location Time form to set up centralised time zone control for the Forcefield system, and thereby control the time used in Challenger or Network Access Controller panels and Forcefield clients, even if located in different time zones from the Forcefield server.

For example, the Forcefield server may be in Melbourne with Challenger panels connected to it that are located in Sydney and Perth. If a location has daylight saving time, then the start and end dates for daylight saving time must be entered. The time of switching between standard and daylight saving time is at 2 a.m. on the scheduled day.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Id. Enter an ID for the location time zone, e.g. Melbourne, Coober Pedy or even Fred's Location.

TimeZone. This is the time zone location, e.g. Australia–Central, Australia–East Coast, United Kingdom.

Has Daylight Saving. Check the box if the time zone has daylight saving time. Setting this flag will bring up the data entry fields for daylight savings data.

Daylight Savings Starts and Ends fields: Select the start and end times for daylight saving time (e.g. Last Sunday March).

Note: Daylight saving time is assumed to switch in and out at 2 a.m.. If going into daylight saving time, the time becomes 3 a.m.; going out of daylight saving time, the time becomes 1 a.m.

Databases > Computer Equipment menu

Use the Computer Equipment menu to program the items relating to computer hardware.

Node

Use the Node option to change the name of the Forcefield primary controlling node (server computer) and to create additional nodes (the use of additional nodes is subject to licensing).

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Node. Select the required node.

Id. Enter the unique computer ID.

Printer Permission

Use the Printer Permission option to create printer access records to control which events can be directed to a printer. An event can be directed to a printer only if the member of the event is in the member group of the printer's assigned access.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Id. The identifier given to this Printer Permission record.

Member Group. Select a member group that determines from which devices events will be printed. Only events from devices having a member in this group will be printed.

TimeZone. Select a time zone to determine when this record is valid. If this record is not valid because it is out of the time zone, any alternate record will be used if its time zone is valid. Thus a printer may be set to print all events from all devices during office hours but only events from a limited range of devices at other times.

Alternate Access. Allows the printer's access levels to change according to time of day. A printer can have three different sets of access levels which are assigned in the following order until a valid time zone is found:

- The original access level.
- The alternative access level.
- The alternative access level of the previous alternative access level.

Printers

If your Forcefield system requires a printer to view reports and/or print events, use the Printers option to create printer records.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Id. Enter a unique name for the printer.

Location. Type a short description of the location of the printer.

Desc. Type a short description of the function of the printer.

Printer Access. Printer Access is used for programming which members have access to the printer. For an event printer, only events from devices having a member in the Printer's Access will be printed. To create a new Printer Access, clear any text in this field, and then double-click the field.

Print Reports. Check this selection if the printer is to print reports.

Add Form Feed after Report. Check this selection to add a form feed at the end of a report (some printers require a form feed in order to print out the last page of a report).

Print Events. Check this selection if the printer is to print live events. An event can be directed to a printer only if the member of the event is in the member group of the printer's assigned access.

Note: When a report is to be printed and both Print Reports and Print Events are selected, Forcefield sets the printer to a new page, prints the report, sets the printer to a new page, and then resumes printing events from where it left off.

In Format. Select the format required for event reporting.

Paper Width. Sets the number of columns of text the printer will print. If this is blank Forcefield will default to 80 characters.

Paper Height. Sets the number of lines of text the printer will print. If this is blank Forcefield will default to 60 lines.

Type. Select the type of the printer. Options include:

- Serial (a field displays for specifying the port)
- Parallel (a field displays for specifying the port)
- Network (fields display for specifying the host, remote name, and print cap)
- Client (a field displays for specifying the workstation)

Port field (for serial or parallel printers): Select the port used to connect the printer to Forcefield. Double-click the field to define a new port.

Host (for network printers). Select a TCP/IP host used to connect the printer to Forcefield. Double-click the field to define a new TCP/IP host.

Remote Name (for network printers). This is the ID of the printer as known by the remote print server.

Print Cap Entry (for network printers). This is the ID of the print cap entry for this printer.

Workstation (for Forcefield Client printers). Select a workstation.

Computer Cat. Select the computer category. The computer category determines how Forcefield will handle an event from this printer.

Maps. Indicates any maps to which the printer has been added.

Help. User-programmable help screen. The help programmed here will be the help displayed as “action” on the alarm screen if this printer generates an alarm.

Serial & Parallel Ports

Use the Serial & Parallel Ports option to define serial or parallel port records. These are used for connecting external equipment to Forcefield. TCP/IP ports and addresses are handled separately.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Id. Enter a unique name for the port.

Type. Select the option applicable to the equipment to be connected. Challenger dialler and Technical Support type ports have associated processes that are automatically started when the port record is created. For example, adding a Challenger dialler type port causes a Challenger CommsDial process to be started.

Node. Select the required node.

Device. Used to connect the Forcefield software to the server hardware. This list is generated by the operating system and needs the node number field to be entered so Forcefield can interrogate the server hardware.

HandShake. Select the type of handshaking the device uses.

- NONE—No handshaking.
- H/W—Hardware handshaking.
- S/W—Software handshaking.

Baud Rate. Select the communication speed of the device.

Parity. Select the type of parity the device is using.

Data Bits. Select 7 or 8 data bits. The default data length is 8 bits.

TCP/IP Hosts

Use the TCP/IP Hosts option to define TCP/IP addresses (Forcefield assumes all hosts have static addresses). A TCP/IP host is typically used for:

- An NFS export destination (see “NFS Exports” on page 201)
- A DVR connection (see “DVRs” on page 224)
- Network printers (see “Printers” on page 190)
- For IP-connected Challenger panels.

See also “Network Configuration” on page 282.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Host Id. Enter a unique name for the TCP/IP Host.

Address. Enter the IP address, e.g. 128.37.28.1.

Node. Select the required node.

Connect Timeout in seconds. Specify the number of seconds that Forcefield will try to connect to the given IP address before it gives up.

TCP/IP Ports

Use the TCP/IP Ports option to define TCP/IP ports (used primarily for IP-connected Challenger panels). See also “Network Configuration” on page 282.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

IP Port. Enter a unique name for Forcefield to identify the TCP/IP port.

Number. Enter a valid port number, in the range 1024 to 65535.

Controlled by System Node. Select the required node.

UPS

Use the UPS option to configure the Uninterruptible Power Supply (UPS). The use of a UPS is strongly recommended.

The UPS window allows the operating condition of a UPS connected to the system to be monitored. In the event of mains and/or battery failure the system will be automatically shut down to protect its databases and files from corruption.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

UPS Monitoring for Node. Select the node the UPS is connected to.

Active. Check the box to enable the selected node to monitor its UPS.

UPS Detection Method. Select one of the following options:

- Watchdog card—requires the installation of a watchdog card into the Forcefield server computer. A watchdog card provides instant response.
- Serial port—Forcefield will periodically poll the selected serial port for UPS status. Mains level indication connects to the CTS pin of the port. Battery level indication connects to the CD pin of the port. Failure level is always low.

Serial Port. Select the serial port used to monitor the UPS Status. The port must be programmed as type “Serial (Other)”.

Monitor Mains Fail. Check the box to enable mains fail monitoring.

On Watchdog Input. Select the input number for the monitoring device.

Fail Level. Select the fail level (i.e. high or low). Low is typical.

Monitor Low Battery. Check the box to enable low battery monitoring.

Warning Repeat Interval. Enter the number of seconds delay before the next warning will be generated. The warnings will continue to be issued at this rate until either shutdown or the UPS is fully active again.

Workstation Permissions

Use the Workstation Permissions option to program which functions are allowed for the chosen workstation type. Functions that are not programmed to the workstation type will not be permitted regardless of operator or workstation access programming.

Note: Do not remove access to the workstation access function or you will never be able to change it again.

Type. Select the type of workstation.

After selecting the required workstation type, double-click the field to open the Menu Access Programming window, which is used to program the functions that may be used by the workstation type (see Figure 71 on page 194). Double-click a field to open the next level.

Figure 71: Menu Access Programming window—top level

The Menu Access Programming window enables you to define which Forcefield menu items are permitted and what permissions are allowed for those items. An asterisk (*) next to an item indicates that are sub-menus follow, press F3 or double-click to open a new window for the sub-menu.

To deny access to this function, delete the character in the item's field (make it blank). To change the permissions for an item, enter one of the following characters in the item's field:

- V—allows access but no modify rights (view).
- E—allows access and modify rights (edit).

Note: Each window (sub-menu) must be saved in order for changes to take place.

Workstations

Workstations are where an operator accesses the Forcefield system (see Figure 72 on page 195). Use the Workstations option to control the behaviour of Forcefield at a workstation level.

Note: If you change a workstation option, logout and then login to see the effect of the change.

Global options are changed from Admin > Configuration > Configuration (see "Configuration" on page 263).

Figure 72: Forcefield Workstation programming window

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Work Station. Enter a name to identify the workstation.

Type. Displays the type of workstation (Client or Server).

Watch House Workstation. Set if the selected workstation is a watch house pod or a night switch pod.

Location. Enter a short description of the location, e.g. “In Front Guard House”.

Location TZ. Select the location time zone for this workstation. If this field is left blank, the time zone used will be the one of the controlling node for this workstation.

Desc. Enter a short description, e.g. “Visitor Registration Workstation”.

Computer Access. Select a Forcefield Access Record. This determines what functions are available. This record is ignored if the logged on operator has “Override Access”, in which case the operator’s access determines the available functions. No matter what, any function not present in the list of functions for this type of workstation will not be allowed. See “Workstation Permissions” on page 193.

Controller Node. Displays the computer ID of the Forcefield node.

Station Key. Contains a Forcefield client’s security key that identifies that workstation. It must match the value set in Forcefield Client.

Card Login Port. Select the port to which will be connected a Smart Card Reader used for operator login by prox card.

Card Learn Port. Select a serial port to which will be connected an IUM Card Learn Reader. This is used in programming user records. The port type must be “Serial (Other)”.

Default Printer. Select the printer to be the default printer for this workstation.

Colours button. Click to access the colour selection programming. See “Workstation options—colours” on page 196 for details.

Login button. Click to access the workstation login programming. See “Workstation options—login” below for details.

Graphics button. Click to access the workstation graphics programming. See “Workstation options—graphics” below for details.

Video button. Click to access the workstation video programming. See “Workstation options—video” on page 197 for details.

Alarms button. Click to access the workstation alarms programming. See “Workstation options—alarms” on page 198 for details.

Other button. Click to access other workstation programming. See “Workstation options—other” on page 199 for details.

Workstation options—colours

Use the Colour Configuration window to customise the colours that Forcefield will use for this workstation.

Double-click a colour field (coloured rectangle) to open the Colour Selection window.

Drag the RGB selectors with the mouse to change the colour mix, alternatively click one of the 15 colours in the palette. The new colour is previewed at the bottom. Click Apply to select the new colour.

Workstation options—login

Use the Login window to control the behaviour of Forcefield on a selected workstation.

To. Select the process to be entered when the operator logs on. This can be the Forcefield menu or Forcefield graphics.

By Keyboard. When checked, the operator must key in a code to login.

By Prox. Card. When checked, the operator must badge an access card to login.

Password Required. When checked, a password is required to log in.

Badge. Select the required order of operation (applicable only if both login by keyboard and login by prox card are set).

Time between Card & Kbd. Enter a time in which both operations must be performed before a login attempt is aborted (applicable only if both login by keyboard and login by prox card are set).

Software Keyboard. When checked, Forcefield displays a graphical keyboard on the screen at login time (used in systems where there is no hardware keyboard).

Workstation options—graphics

Use the Graphics window to control the behaviour of Forcefield on a selected workstation.

Login Home Map. Enter the number of the map that will be displayed upon initial login (if login is set to graphics) or the first map displayed from Graphics > Display map.

Status retrieval timeout. Enter a value in seconds that the graphics will wait before aborting a status retrieval request.

Show Alarm On. Select either the first defined map or last defined map for the device in alarm. This applies to the map that the Alarm Screen or the Go To Alarm Map Speed Bar button will pick.

Don’t Show Map Selection List. When checked, Forcefield does not display a map selection list (you may want to force the operator to stay on particular maps).

Monitor is a Touch Screen. When checked, the workstation uses a touch screen. This affects the graphics and Alarm Screen interfaces, usually by adjusting the size of buttons.

Bypass Menu if LAP in Alarm. When checked, Forcefield immediately displays the Alarm Screen if a LAP of a unit in alarm is clicked, thus bypassing the usual menu selection dialog.

Auto Popup Control for PTZ. When checked, Forcefield immediately displays the Live Camera View window for a PTZ camera if a LAP of a unit in alarm is clicked, thus bypassing the usual LAP video menu selection dialog.

Workstation options—video

Use the Video Configuration window to control the behaviour of Forcefield on a selected workstation.

DVMR Multiview at Login. Select the multiview layout to be displayed when an operator logs in to the workstation.

Mon Group (1, 2, and 3) fields. Enter a title to be displayed on graphics maps for this monitor group, and then select the monitor group to be used. If the title is left blank, then the monitor group ID will be used. Footage for sector alarms is played back in the first three monitors of Monitor Group 1.

Intercom (1 and 2) fields. Enter a title to be displayed on graphics maps for this monitor, and then select the monitor to be used.

Alarm Spot fields. Enter a title to be displayed on graphics maps for this monitor, and then select the monitor to be used.

Show Monitor On Graphics Monitor List check boxes. For the intercom and alarm spot monitors, check the adjacent box to have the monitor appear on the video popup lists so that the operator can select them.

Video Command Priority. If required, enter a priority number for this workstation to enable commands from a higher priority workstation to override commands from a lower priority workstation.

Video Command Operator. If required, enter an identifier to allow access or control of the video system (for example, to enable a Forcefield operator to control a PTZ camera).

Forbid PTZ Control. Check this box to prevent PTZ controls from displaying in Forcefield (for example, if PTZ is controlled by another system).

Forbid CCTV Recording. Check this box to prevent the record option from displaying in Forcefield LAP menus.

Auto Popup Video Player Controls. Check this box to have Forcefield automatically open a control window for any video player started from, for example, the alarm screen. Alternatively, create a Speed Bar button to enable the operator to manually open a video player control window.

Workstation options—alarms

Use the Alarm Screen window to control the behaviour of Forcefield on a selected workstation.

Follow-up Timeout. Enter or accept the time that the Alarm screen will stay on the follow up screen, without operator activity, before reverting back to the unacknowledged screen.

Browse Timeout. Enter or accept the time that the Alarm screen will not display new alarms after operator activity. This allows the operator to browse around the Alarm screen without incoming alarms causing redisplays of the alarms.

Report Viewing of Alarm Detail. When checked, Forcefield generates an event when an operator views the details of an alarm. This can be used for event triggering.

Close Detail when Alarm Removed. When checked, the Alarm screen closes the detail screen if the alarm is removed. If this option is not selected, the Alarm Detail screen is blanked but remains open.

Select Response by Number. When checked, the operator can select an alarm response code by entering a number as well as by selecting with the mouse.

Switch Cam. to Mon. on Detail. When checked, Forcefield switches the camera to Spot Monitor 1 upon entering the Alarm Detail screen if the alarming point is associated to a CCTV camera.

Main Screen. 1 Alarm per Member. When checked, Forcefield displays only one alarm per member on the Summary Alarm screen. Normally all alarms are displayed. If this option is set, selecting an alarm will bring up another summary screen showing all alarms for that member.

Show Last Tagged Alarm Footage. When checked, Forcefield displays the most recent captured and tagged DVR video footage for a multi-event alarm, when the operator selects Video on the Alarm Detail window. If not set, Forcefield displays the earliest captured and tagged DVR video footage.

Display Alarm Line Priority Details. When checked, Forcefield displays a count for each alarm priority level. Not set causes Forcefield to display two buttons

on the alarm line with the total count displayed in each button. One is for unacknowledged alarms, the other for follow-up alarms. Click a button to open the alarm screen, initially displaying the type of alarms corresponding to the button.

Alarms Silent when Logged Out. When checked, the workstation will not beep if there are alarms and no one is logged on.

Report Alarm State. When checked, this workstation is to report when changes occur in the alarm line.

Disable Override Notice. When checked, this workstation is not to receive override notices.

Workstation options—other

Use the Miscellaneous window to control the behaviour of Forcefield on a selected workstation.

Notes Must be Entered. When checked, the operator must enter a note whenever a remote control function is initiated.

Disable CCTV Control. When checked, the workstation is not allowed to control CCTV equipment such as cameras and monitors.

User Card Capture. When checked, the workstation is allowed to do image capture.

User Card Import. When checked, the workstation is allowed to do image importing.

User Card Print. When checked, the workstation is allowed to print photo ID cards.

Allow Shutdown. When checked, the workstation is allowed to shut down the Forcefield server (Forcefield will be shutdown across all workstations).

Allow Video Popup. When checked, alarms programmed with video popup flag cause a video stream to be displayed on this client workstation. The member of the point in alarm must be in the operator’s and workstation’s member group.

Allow Screen Print. When checked, and a default printer is selected, all forms will have a button and a key shortcut of Shift+F1 which will print the contents of the form to the default printer.

Alarm/Call Event to Graphics. When checked, clicking the “New Alarm or Call” Speed Bar icon for an alarm displays the graphic of the alarming device instead of displaying the alarm screen. Similarly, clicking the “New Alarm or Call” Speed Bar icon for an intercom call displays the graphic of the calling intercom instead of displaying the intercom call screen.

Site Code. The site code selected here will be the default used when issuing smart cards from the Issue User Card screen. This value will override any value set in the global Forcefield configuration.

Card Format. The card format selected here will be the default used when issuing smart cards from the Issue User Card screen. This value will override any value set in the global Forcefield configuration.

Auto Logoff Time. Sets the amount of time an operator workstation may be inactive before the operator is automatically logged off (mouse clicks and keystrokes reset the log out timer, moving the mouse does not restart the timer). Enter 0 (zero) to disable auto logoff.

Event Monitor Browse Time. Enter the number of seconds that the pause command will apply to the Event Monitor window. The pause command may be invoked by using the pause button (Figure 26 on page 39) or by scrolling back to browse events in the list.

Trace Monitor Browse Time. Enter the number of seconds that the pause command will apply to the Trace Monitor window. The pause command may be invoked by using the pause button (Figure 26 on page 39) or by scrolling back to browse events in the list.

Equipment Report

Use the Equipment Report option to list the system's ports, workstations, printers, nodes, or storage.

Refer to "Generating reports" on page 29, and the following details about this report.

Equip Type. Select the type of equipment to report on (ports, workstations, printers, nodes, or storage).

Id. Select one or more items for the selected type.

Records per Page. Select to either fill the page or print one record per page.

Databases > Computer Equipment > Storage menu

All Storages

Use the All Storages option to quickly find various types of storage records created in:

- "Disk Storage" on page 201
- "NFS Storage" on page 203
- "SMB (CIFS)" on page 203

Optionally use the Node and Type selections to limit the search to the selected options.

When you find the required storage record, click Detail to open the related programming window.

Disk Storage

Use the Disk Storage option to create the database entry for storage devices installed on the Forcefield system.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Id. The storage device must have a unique name.

Node. Select the required node.

Type. Select the storage type:

- QNX
- FAT16
- FAT32
- CD-ROM (read-only)

Any removable storage device can be programmed for QNX as well as MS-DOS. If you want both, then two records must be created.

For example, for QNX: Node = 1, Id = ‘QNX formatted floppy’,

Type = QNX, Hardware = fd0

For MS-DOS: Node = 1, Id = ‘DOS formatted floppy’,

Type = FAT16 or FAT32, Hardware Id = fd0

Hardware. Select a hardware ID. All the devices listed here must already reside in the QNX device directory (/dev).

Monitor Space. When checked, Forcefield will monitor the space of this device. Alarms are generated if the device becomes over 80% full. It is not recommended to monitor removable storage devices. You can view the state of monitored disks using the Computer Status command (see page 240).

List NFS Storage

Use the List NFS Storage option to display a list of currently active NFS storage directories on the Forcefield node.

NFS Exports

Use the NFS Exports option to determine which Forcefield directories can be accessed by an external NFS mount. The directories are exported as read-only or read-write, as selected.

Tip: Use the Prev and Next buttons to view the entire list of Forcefield directories.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Node Num. Select the required node.

Export selections (not labelled). Check to allow this directory to be exported to external host(s).

r/w selections. Check to enable the directory for read-only or read/write by the external host(s).

Export to Host fields: Leave blank to allow exporting to all remote hosts. Alternatively, select up to 10 specific hosts per directory to limit the export to the selected hosts.

See also “List NFS Exports” on page 239.

Note: The host records must have already been set up (see “TCP/IP Hosts” on page 192).

NFS options

The following options are not usually required for NFS Exports, but if they are required, they must be set up by a Forcefield administrator. The Forcefield administrator must modify the Forcefield NFS Exports config file (/usr/ares/config/nfsexports.cfg).

If set, these options will apply to all directories selected in the NFS Exports window. The export options are listed in Table 6 below.

Table 6: Application of NFS exports options

-mask=*netmask* **-match=***network*	Restrict access to hosts belonging to subnet defined by *netmask* and *network*. By default, there’s no restriction. Access is determined by: *client_ip & netmask) = network*
-norsvd	Don’t check incoming requests, they’re from a reserved port. By default, NFS requests from ports greater than IPPROTO_RESERVED are replied to with EACCES.
-ro	Export the filesystem as read-only. By default, the filesystem is exported as read/write.
-root=*uid*	Map root’s uid (real user ID). By default, root is mapped to -2.

The NFS Exports config file nfsexports.cfg typically contains a single line. An example is:

-root=0

NFS Storage

Use the NFS Storage option to program the database entries for remotely mounted storage (storage on another computer accessed via an NFS link).

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Forcefield NFS Id. A unique name that identifies this record to Forcefield.

Node. Select the required node.

Remote Host. The IP address of the remote computer where the storage device actually exists.

Timeout. The amount of time, in seconds, that Forcefield will wait before aborting connection to the remote computer.

Mount Command. This is the command which NFS uses to mount the remote storage (for example, to mount a Microsoft Windows C:\maps directory (folder), enter “/c/maps” into this field.

SMB (CIFS)

SMB is open source software providing file and print services across various operating systems.

Use the SMB (CIFS) option to program storage records for Forcefield to use on remote computers using the Common Internet File System (CIFS), such as Windows clients. You can also use this facility to provide storage on computers using other operating systems, as long as the computers are SMB servers.

The process of setting up an export/import folder on a Windows 7 computer is described in the *Forcefield External Interfaces Manual* REV 12 (or later).

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

CIFS ID. Enter the ID that Forcefield will use for the storage device.

Node. Select the required node.

Check. The Forcefield node will periodically attempt to write a file to the share location at the defined interval in order to maintain the connection. If the node has more than one SMB storage record with different Check values, then the lowest (nonzero) value will be used for all records.

Machine. The network name of the remote computer, e.g. JWQWERTY or JWQWERTY:192.168.10.11. (Forcefield assumes static addressing.)

Share. The name of the share that we want to connect to on the remote computer, e.g. “public”. This share must have read and write access for the user nominated in the user field.

User. The user ID that is allowed to access the share on the remote computer.

Passwd. The password for the user ID that is allowed to access the share on the remote computer.

Databases > Duress menu

The following sections describe the Duress menu (for authorised operators) and subject to licensing before they can be used (see Figure 28 on page 42 for details about how to check the status of Forcefield licensing).

Integrating a duress system is described in *Forcefield External Interfaces Manual*.

Duress Locators

Use the Duress Locators option to program the ASCOM Duress System locators.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

System. Select the Duress System to which this locator belongs.

Address. Enter the hexadecimal address of the locator.

Id. Enter an identifier for Forcefield.

Desc. Enter a description.

Maps. Displays the map numbers of any maps that contain the locator.

Duress Stations

Use the Duress Stations option to program the ASCOM duress stations. A duress station is part of an ASCOM Nira Duress System, and communicates with Forcefield via an Ascom Serial Alarm Interface P940AI.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Num. Enter a number from 1 to 99 to identify this duress system.

Id. Enter an identifier for this duress system.

Enabled. Check to allow Forcefield to communicate with the station. This allows the programming of the duress system to be performed before Forcefield is connected to it.

Desc. Enter a description.

Protocol. Select the correct protocol for this duress system.

System ID. Enter the duress system ID provided by the supplier of the duress system.

Port. Select a communications port (the type must be “Duress”).

Member. Select a member.

Computer Cat. Select a computer category (the type must be “General”).

Duress Transmitters

Use the Duress Transmitters option to program the ASCOM Duress transmitters or transceivers. There are currently two types handled in Forcefield. The U970 which is purely a transmitter and the U922 which is a transceiver (it has two-way communication).

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

System. Select the duress system to which this transmitter or transceiver belongs.

Xmtr Identity. Enter identity of the transmitter. This value should be provided on the Ascom Nira worksheets.

Id. Enter a name to identify the transmitter or transceiver to Forcefield.

Type. Select the type of transmitter. If you select U922 (which has two-way communication), then call number fields are provided.

Call Numbers fields (type U922 only). Enter the transceiver’s call number (page number) for type

Member. Select a member.

Computer Cat. Select a computer category (the type must be “Duress”). **Note:** Do not use the standard computer category named “Duress”, create a new Duress type of computer category that does not require a restoral for an alarm event.

Help. Double-click or press F3 to program alarm help information.

Locator Report

Use the Locator Report option to list the duress locators used in an ASCOM Duress System.

Refer to “Generating reports” on page 29.

Station Report

Use the Station Report option to list the ASCOM Duress transmitters or transceivers.

Refer to “Generating reports” on page 29, and the following details about this report.

Report Type. Select the report type required:

- Summary—Basic details of the duress system.

- Detailed—As above, plus listing of locators and transmitters.
- Expanded—As above, plus details of each transmitter and locator.

Transmitter Report

Use the Transmitter Report option to list the duress transmitters used in an ASCOM Duress System.

Refer to “Generating reports” on page 29.

Databases > Intercoms menu

The following sections describe the Intercoms menu (for authorised operators) and subject to licensing before they can be used (see Figure 28 on page 42 for details about how to check the status of Forcefield licensing).

Integrating an intercom system is described in *Forcefield External Interfaces Manual*.

Intercom Master

Use the Intercom Master option to program the intercom system masters.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Num. Enter a number for the intercom.

Id. Enter an identifier for the intercom.

Desc. Enter a description for the intercom.

Protocol. Select the required protocol.

Tag (for Jacques protocol). Enter the tag of the intercom hardware.

Jacques Port Num (for Jacques protocol). Enter the number of the master link interface port to which the Intercom is connected.

Call No. (for Commend ICX protocol). Enter the call number of the subscriber.

Master Level. Select the master level. A master level 2 is connected to Forcefield. A master level 1 is connected to a master level 2.

IP Port (for master level 2). Enter the IP port number used to connect the Commend intercom master level 2 to Forcefield.

Enable. When checked, Forcefield can communicate with this intercom master. This is useful to allow the intercom system to be programmed before connection to Forcefield.

Minimum Call Digits (for Commend ICX protocol). Enter the number of digits (numerals) that the underlying protocol uses as a minimum.

The Forcefield-Commend protocol uses eight-digit station numbers, and automatically adds the letter “F” as a prefix to any call numbers that have fewer than eight digits. As a result, a call number “123” would be sent to Commend as “FFFFF123”.

The minimum call digits value provides the ability to insert leading zeros in place of the letter F, where needed. For example, if the minimum call digits value is 5, a call number “123” would be sent to Commend as “FFF00123”.

Comms Port/Host (for master level 2). Select the intercom port or TCP/IP host that connects Forcefield to the intercom system.

Higher Master (for master level 1). Select the intercom master level 2 that connects this intercom master to Forcefield.

Audio Workstn. Select the Forcefield workstation that is to handle audio from this master.

Background Music. When checked, the master is to have background music.

Computer Cat. Intercom is selected by default.

Help. Select or create Alarm Action Help. See “Programming alarm action text” on page 60 for details.

Maps. Displays the map numbers of any maps containing the Intercom system master.

Intercom Slave

Use the Intercom Slave option to program the intercom system slaves.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Master. Select the intercom master to which this intercom slave is connected.

Slave Number. Enter a number to identify the slave to Forcefield.

Slave Id. Enter an identifier to identify the slave to Forcefield.

Tag. Enter the tag of the intercom hardware.

Desc. Enter a description for the intercom.

Door. If this is a slave intercom associated with a door, enter the door ID.

Camera 1. Select the primary camera that will be used to view the intercom position.

Camera 1 View. Select the primary camera view (video preset) that will be used to view the intercom position. Camera views are programmed in “Presets” on page 231).

Camera 2. Select the second camera that will be used to view the intercom position (for example, to view the reverse of the door when camera 1 views the front of the door).

Confirm Door Open. When checked, confirmation is required before Forcefield will open the door.

Background Music. When checked, the intercom is to have music.

Call Button Control. When checked, the operator can remove or add call button control for this intercom.

Mobile Phone Detect. Check this option if the intercom has the ability to detect the presence of a mobile phone.

PA Only. When checked, this slave is to be used only for public address (it cannot open a call).

Computer Cat. Intercom is selected by default.

Help. Select or create Alarm Action Help. See “Programming alarm action text” on page 60 for details.

Maps. Displays the map numbers of any maps containing the Intercom slave.

Master Report

Use the Master Report option to list details of the intercom system.

Refer to “Generating reports” on page 29, and the following details about this report.

Report Type. Select the report type required:

- Summary—This will report on the details of the Master Intercom.
- Detailed—As above, plus listing of the slave intercoms attached to the master.
- Expanded—As above, plus details of each slave intercom attached to the master.

Slave Report

Use the Slave Report option to list details of the slave intercoms attached to the master.

Refer to “Generating reports” on page 29.

Databases > User Link Systems menu

A user link system is effectively a bridge between Forcefield users and access to various resources such as what floors a user can access in a lift, what lockers a

user can open, and so on. This bridging is accomplished via a third-party user link control system (ULCS), and the options programmed in this section.

User Link Profiles

Use the User Link Profiles option to define a profile (name) for the ULCS to use when determining what access a user will have.

User Link Service. Select a record previously-defined in “User Link Service” below.

Profile. Select a previously-defined profile name, or define a new one.

User Link Profile Import

Use the User Link Profile Import option to import a text file named “userlink.imp” containing user link profile IDs from a storage location. The text file must contain on profile ID per line, and no line may exceed 40 characters.

User Link Service. Select a record previously-defined in “User Link Service” below.

Import from. Select the storage location of the “userlink.imp” file. If the file is placed on the Forcefield server file system, it must be located in the folder /usr/ares/userlink/import.

Delete Existing Profiles. Leave the check box clear if you want to add new profile IDs to the current ones. Populate the check box to remove all current profile IDs and user references to the profile IDs.

User Link Service

Use the User Link Service option to configure communications between Forcefield and the ULCS.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Num. Enter a number for the user link server.

Id. Enter an identifier for the user link server.

Desc. Enter a description for the user link server.

Enable. When checked, Forcefield can communicate with this user link server. This is useful to allow the user link server to be programmed before connection to Forcefield.

Address. Select the TCP/IP host to be used for the user link server.

Heartbeat Interval. Type the number of seconds that Forcefield will send heartbeat messages to the user link server. If no heartbeat response is received within the defined time Forcefield will close the connection.

Help. Type a message to be displayed on the alarm screen if this user link server generates an alarm.

Databases > Management Software menu

Alarm Responses

Use the Alarm Reponses option to add response codes to the system. These codes can be used by operators when attending to alarms. It is designed to speed up the process of an operator entering text by having predefined responses.

The response codes are member related. When a member record is created, Forcefield will create default response codes for that member. The default records created are defined in the file /usr/ares/tools/config/AlarmRespDef.dat.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Member. Select the member for the response code you are programming.

Code. All code responses are unique by their number. Each member can have 9999 responses.

Text. Enter the text for the response.

Databases > Management Software > Clusters menu

Program Clusters

Clusters are a means of grouping together field equipment of the same type, which enables a single remote control operation to affect all the elements in the cluster. For example, a group of doors may be clustered to ‘Fire Doors’. The operator may then open all the fire doors in a single operation.

Use the Program Clusters option to define clusters for doors, inputs, areas, relays, floors, RASs, DGPs, lifts, or Challenger panels. A device may be connected up to 32 clusters. For example, Door 19 could be in the ‘Fire Door’ cluster and the ‘Front Fire Door’ cluster and the ‘Office Door’ cluster, and so on.

See “Controlling the security system remotely” on page 44 for additional details.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Elements. Click the arrow to select elements for the cluster, or click List to view the elements already selected.

Cluster Report

Use the Cluster Report option to generate a report about Forcefield cluster records.

Refer to “Generating reports” on page 29, and the following details about this report.

Cluster Type. Select the required cluster type or select All to report on all cluster types.

Cluster Id. Select the required cluster or leave blank to report on all clusters.

Cluster Usage Report

Use the Cluster Usage Report option to generate a report about records where the selected clusters are referenced.

Refer to “Generating reports” on page 29, and the following details about this report.

Cluster Type. Select the required cluster type or select All to report on all cluster types.

Cluster Id. Select the required cluster or leave blank to report on all clusters.

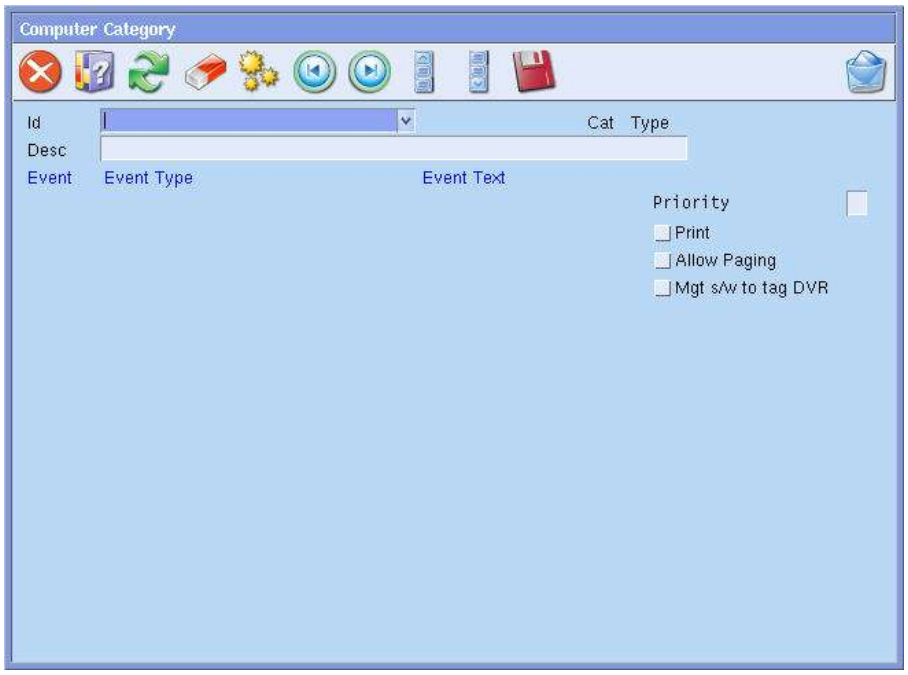
Databases > Management Software > Computer Categories

Computer Categories

Use the Computer Categories option to tell Forcefield how to handle events.

The computer category window initially opens with no events listed (see Figure 73 below). Click the Id arrow, and then select a computer category to populate the window.

Figure 73: Blank Computer Category record

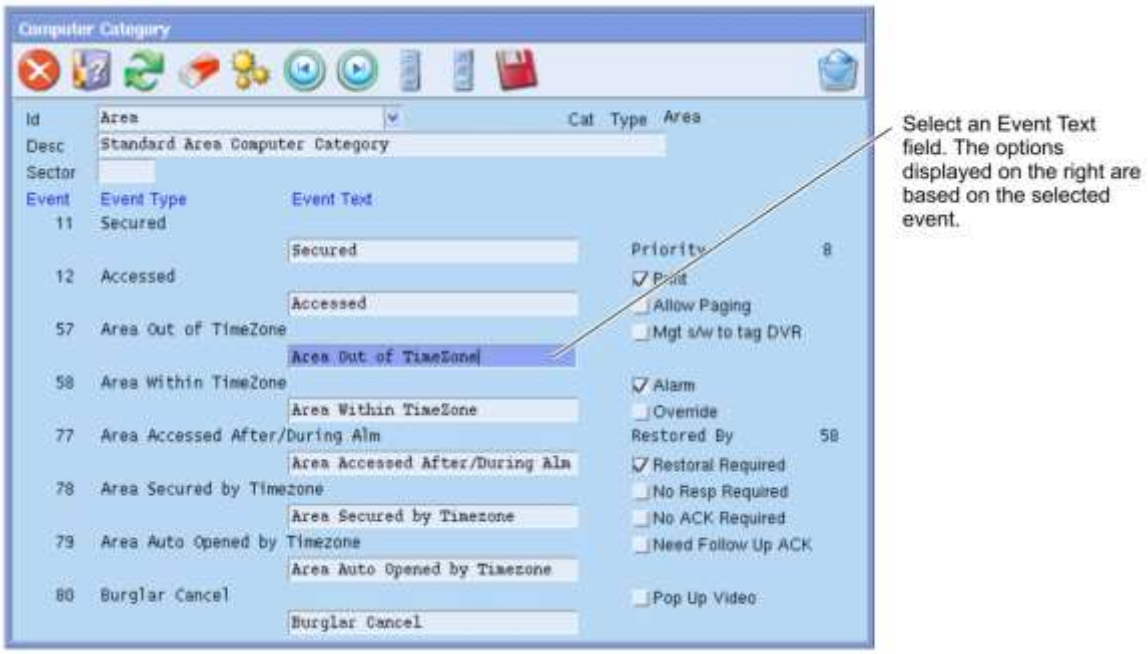


There are a number of standard read-only computer category records provided for use as ‘templates’. These standard records cannot be modified or deleted, and it is recommended that these standard records are not used (except as templates).

Define a computer category in order to program a set of behaviours and assign them to a type of device. By doing so, you can automatically update all the devices that use the computer category by updating only the computer category.

Note: Isolation events will not generate alarms even though you may alter a computer category to do so, because there is an overriding system functionality to ignore alarm generation. This applies to Input Isolate, DGP Isolate, RAS Isolate, DOTL Isolate, Egress Isolate, and Forced Isolate.

Figure 74: Selecting options for an event within a computer category



Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Id. This is the name of the computer category which will be used by Forcefield components, e.g. an input may have a computer category of “Front Door PIRs”.

To create a computer category, type a new ID and then press Enter. Forcefield displays a category type selection list. Select the required category type, and then Forcefield displays the events and options for the type. The options for each event may be modified and the computer category saved.

Desc. Type a description for a new computer category. A computer category with a description beginning with the word ‘Standard’ is typically one of the default, read-only computer categories supplied with Forcefield.

Sector. A sector number enables Forcefield to use the computer category to group alarm inputs together, or to link the computer category to external events such as a Teleste alarm code. If using Teleste, you need to know the specific Teleste alarm code to be used (e.g. 3301). When a sector number is used, Forcefield generates events in the following manner:

- “Alarm” becomes “Sector Alarm” or “Sector Alarm Increase”
- “Alarm ACK” becomes “Sector Alarm ACK”
- “Alarm Restoral” becomes “Sector Alarm Reset” or “Sector Alarm Decrease”

Event Text. The text that will be displayed and stored in history by Forcefield if this event occurs. To change the event text, edit the Event Text field. When the cursor is in the Event Text field, the list to the right are the event options (programming options for that event).

Note: If the computer category has more than eight events, use the Ctrl+up button and Ctrl+down button to select other events for that category.

The event options cannot be changed for standard computer categories, you need to create a new computer category before you can change the options.

Typical functions (some events do not have every function) of the event options are:

- Priority. Set the priority to be assigned to the event (1 is the highest 9 the lowest).
- Print. Select if the event is to be allowed to print to an event printer.
- Allow Paging. Select if the event is to be allowed to initiate paging. This has to also be programmed at Triggering > Event Paging.
- Mgt s/w to tag DVR. Select if Forcefield is to send text to a DVR to be recorded as a tag for the event.
- Alarm. Select if the event is to generate an alarm. **Note**: Forcefield's status for the associated device is updated only if the Restoral Required option is also set.
- Override. Select if the event is to generate an override notice.
- Restored By. Select if the event is to be restored by the numbered event.
- Restoral Required. Some device's alarm events also have restoral events. Select this option if you want the device's restoral event to restore the alarm in Forcefield and to update Forcefield's status of the device. **Note**: Do not select this option for devices that do not send restorals, or the alarm can never be removed.
- No Response Required. Select if this event does not require the operator to enter a response. **Note:** If the event causes an alarm but has no restoral event, both this flag and the "No ACK" flag cannot be set simultaneously (there must be some way of telling Forcefield when to delete the alarm).
- No ACK Required. Select if this event does not require the operator to enter a ACK. **Note:** If the event causes an alarm but has no restoral event, both this flag and the "No Response" flag cannot be set simultaneously (there must be some way of telling Forcefield when to delete the alarm).
- Need Follow Up ACK. Select if this event requires an acknowledgement after a restoral to remove the alarm.
- Reset Input on ACK. Select if input should be sent a Reset command when the operator acknowledges the alarm.
- Pop Up Video. Select if you want the event to cause a video stream to be displayed on a client workstation. The workstation record must also have Allow Video Popup enabled (see "Workstation options—other" on page 199).

Computer Category Report

Use the Computer Category Report option to list all the event options for one or more computer categories.

Refer to “Generating reports” on page 29.

Computer Category Usage

Use the Computer Category Usage Report option to list all records where the selected computer categories are referenced.

Refer to “Generating reports” on page 29, and the following details about this report.

Type. Select a type to limit the report to a single computer category, or use the default setting of All.

Databases > Management Software > Members menu

Members

Use the Members option to program member records. The Forcefield concept of member restricts the operator from viewing records, and controlling and receiving events, that are not within their authority (member group). The Forcefield database can therefore be partitioned into virtual sub-systems. At the same time a privileged operator may be given “all members” for global system control and monitoring.

Member records also provide Forcefield with the means of defining 10 user-defined data fields, which appear as field titles on the User Setup window for users assigned to the member. See Figure 2 on page 8 for an example.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Id. Each member ID must be unique and cannot be the same as a member group ID.

Name (optional). The name of the person responsible for the member.

Address (optional). The address of the person responsible for the member.

State (optional). The state of the person responsible for the member.

PostCode (optional). The post code of the person responsible for the member.

Location (optional). The location of the person responsible for the member, e.g. General Administration Office.

Contact (optional). Additional information of further persons responsible for the member.

Nightswitch Workstation Keep Member (applies to watch house mode). Tick this option to keep this member active on the night switch workstation even if a logged-in pod workstation has this member in its member group. For example, master intercoms use this setting so that master-to-master calls can be made from the night switch workstation to pod workstations.

Data 1 to Data 10 (optional). These fields are used for displaying information on the User Setup window for users assigned to the member.

Member Groups

Use the Member Groups option to program member group records. A member group is a group of members, which is then assigned to Forcefield resources such as operators, workstations, and printers.

The member group restricts the records and events that are visible to operators, workstations, and printers. Conversely, the member group also determines the destination of events to particular operators, workstations, and printers.

Id. The name must be unique to each member group and cannot be the same as any member. To create a new member group record, first enter the ID, and then double-click the field (or click Make). The member selection screen opens.

In the member selection screen place a check in the box next to the members required for this member group. Press Select to save the record.

Member Report

Use the Member Report option to list the details of one or more members.

Refer to “Generating reports” on page 29, and the following details about this report.

Member Id. Select a member for a report on an individual member. Leaving the field blank will report all members in the current operator’s member group.

Member Group Report

Use the Member Group Report option to list the members allocated to one or more member groups.

Refer to “Generating reports” on page 29, and the following details about this report.

Report Type. Select the report type required:

- Summary—lists all the members allocated to the member group.

- Detailed—lists all the members allocated to the member group and the details of each of those members.

Member Group Id. Enter the ID here to generate a report on a selected member group. Leaving the ID blank generates a report for all member groups accessible by the current operator.

Member Usage

Use the Member Usage Report option to list all records where the selected members are referenced, and is useful to check before attempting to delete a member record.

Refer to “Generating reports” on page 29, and the following details about this report.

Member Id. Select a member to generate a report on the member. Leaving the field blank generates a report for all members accessible by the current operator.

Member Group Usage

Use the Member Group Usage Report option to list all records where the selected member groups are referenced.

Refer to “Generating reports” on page 29, and the following details about this report.

Member Group Id. Select a member group to generate a report on the member group. Leaving the field blank generates a report for all member groups accessible by the current operator.

Databases > Management Software > System Events menu

Events

Use the Events option to program groups of event records. Event groups are used in history reporting for event matching.

Figure 75: Forcefield Event Group programming window

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Event. Enter or search for an ID that will represent a group of events. For example, to search on any one of five different events, create a new event type here and allocate the specific five events to it. Then, generate a History report for this new event type.

To create a new event type, enter the name of the event then press Save.

To enter which events make up the group, select the Events field and press F4. You can filter which events are presented by keying in a text prefix before pressing F4 (for example, to only see RAS events, enter ‘arm’ (for Arming Station) before pressing F4).

Events. If the event selected (or created) in the event field is a group, then the Events field displays. Right-click a check box to select (or deselect) events for this group.

Event Group Report

Use the Event Group Report option to see what event groups have been defined and what they contain.

Refer to “Generating reports” on page 29.

Databases > Third Party menu

Forcefield version 5.1.0 and later can be integrated with third-party devices, so that it can send event data to, and receive messages from, external systems. Third-party integration enables Forcefield to perform actions via the event triggering system (see “Event Trigger” on page 91).

Refer to the *Forcefield External Interfaces Manual* for details of integrating third-party devices into the Forcefield system.

Third-party integration is subject to licensing and must be licensed before the associated menus become visible.

Devices

Use the Devices option to define third-party devices to be used by Forcefield. Before you can program a device, you must first program the:

- Third-party system type (see “System Types” on page 221)
- Third-party system (see “System” on page 220)
- Device type (see “Device Types” on page 220).

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

System. Select the third-party system to which this device is connected.

Number. Specify a number for this device. The maximum number is determined by the type of device.

Id. Specify a unique device ID to be used by Forcefield to identify the device.

Device Type. Select the type of device. Device types are programmed in “Device Types” on page 220.

Desc. Type an optional short description (e.g. Front Lawn Sprinkler).

Location. Type an optional location description (e.g. At front of building).

Video Cam. Select the video camera associated with this input.

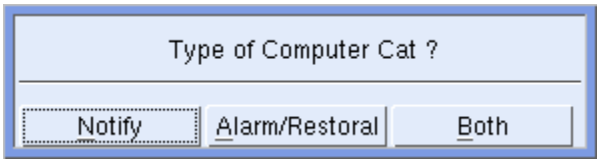
View. Selects the preset view for the video camera. If this field left blank, the video camera, if a PTZ camera, will switch to preset 1.

Member. The member controls event reporting and operator control in Forcefield.

Computer Cat. Click the arrow to select a computer category. Forcefield displays a type selection dialogue Figure 76 below). Select, as required:

- Notify—The computer category ‘Notify’ contains 64 notify events that may be set as alarm events (there will be no restoral events).
- Alarm Response—The computer category ‘Alarm and Restoral’ contains 32 groups of alarm and restore events.
- Both (notify and alarm response)—The computer category ‘Notify, Alarm and Restoral’ contains 16 groups of alarm, restore, and notify events

Figure 76: Computer Category Type selection dialogue



Each device can have a different computer category. The category determines how Forcefield will handle an event from this device. The default computer category names can be used, but they are standard (read-only) Forcefield computer category and cannot be modified. See “Computer Categories” on page 212 for details.

Help. Double-click or press F3 to program alarm help information for this item. The help programmed here will be displayed as an action on the alarm screen when alarms are generated.

Maps. Displays the map numbers of any maps containing the device ID.

Device Types

Use the Device Types option to define third-party device types to be used by Forcefield. Before you can program a device type, you must first program the system type (see “System Types” on page 221).

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

System Type. Select the third-party system type to which this device will be connected. System types are programmed in “System Types” on page 221.

Device Type. Specify a number for this device type. There may be up to 99 device types per system type.

Id. Type a unique name to identify the device type.

System

Use the System option to program a third-party system into Forcefield. Before you can program a system, you must first program the system type (see “System Types” on page 221).

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Num. Specify a number for this system. There may be up to nine third-party systems in Forcefield.

Id. Type a unique name to identify the third-party system.

Type. Select the system type. System types are programmed in “System Types” on page 221.

Sub Type. Select the sub type of system if required. System sub types are programmed in “System Sub Types” on page 221.

Time Sync. Select whether Forcefield or the third-party system is allowed to set the time of the other, or no time synchronisation is to occur.

Locality. Select the time zone location of the third-party system (e.g. Adelaide).

Description. Type a short description to describe the purpose of the system.

Location. Type a short description to describe the physical location of the system.

Channel Type. Select RS-232 or TCP/UDP communications, as required

Port. Select a comms port. Only one system is allowed per comms channel.

ACK Timeout. Enter a value in seconds that Forcefield should wait for an acknowledgement from the system before attempting to resend the event data.

Retry Attempts. Enter a value for how many times Forcefield should attempt to send event data before discarding the event.

Heartbeat. Enter a value, in minutes, for the time between heartbeat pulses from Forcefield to the system. Heartbeats are only sent when there has been no other comms activity for the specified time. This is used by Forcefield to ensure the third-party system is still online.

Sends Events check box: When checked, Challenger sends events to Forcefield. The event sent will be an index into the computer category selected for one of the third-party system devices (see “Devices” on page 218).

Receives Events check box: When checked, Challenger receives events from Forcefield.

in Format. Select the type of event format that the system will receive (short form binary, history CSV, or history raw).

For Access. Select the access. This controls which events the system will receive. It is based on the member or member group of the event. The access records are the same records used by printers (see “Printer Permission” on page 189).

Member. Select a member.

Computer Cat. Select a computer category (the type must be “General”).

Help. Double-click or press F3 to program alarm help information for this item. The help programmed here will be displayed as an action on the alarm screen when alarms are generated.

Maps. Displays the map numbers of any maps containing the system.

System Sub Types

Use the System Sub Types option to assign an optional sub type to a third-party system. Before you can program a sub type, you must first program the system type (see “System Types” below).

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

System Type. Select the third-party system type for this sub type. System types are programmed in “System Types” below.

Sub Type. Specify a number for this sub type. There may be up to 99 sub types per system type.

Id. Type a unique name to identify the sub type.

System Types

Use the System Types option to assign a system type to each third-party system.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Num. Specify a number for this system type. There may be up to 99 types of third-party systems.

Id. Type a unique name to identify the system type.

Databases > Timezones menu

Time Zones

Use the Time Zones option to define time zones for both Challenger and Forcefield functions. Each time zone consists of one to eight segments for Challenger10, or consists of one to four segments for Challenger V8. If the first segment is not active, the next is checked, and so on. A start time and end time must be programmed for at least the first sub time zone.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Timezone. Type a unique time zone name.

Desc. Type a name that indicates the time zone's purpose.

Start Time. For at least one segment, enter the time in hours and minutes hour that the time zone is to become active. 0:0 is a valid minimum start time.

End Time. For at least one segment, enter the time in hours and minutes hour that the time zone is to become inactive. 24:0 is a valid maximum end time.

Sun, Mon, ... Sat. For each segment, set if the time zone is to active on this day.

H. If the check box in column H is selected, the sub time zone will be valid on holidays (for Challenger V8).

Holiday Types (1 to 8). If one or more check boxes are checked, the sub time zone will be valid on holidays that share the holiday types (for Challenger10).

Note: Holidays or holiday types are only used for Challenger time zones. Forcefield does not use the holiday or holiday types indication.

Time Zone Report

Use the Time Zone Report option to list the details of one or more time zones.

Refer to “Generating reports” on page 29, and the following details about this report.

Timezone. This function is used generate a report on the contents of the time zones. If left blank, all time zones will be included.

Time zone Usage Report

Use the Timezone Usage Report option to list where time zone records are referenced. This will be Challenger panels, Computer Access and Printer Access records. Within the Challenger records, the individual items (e.g. Areas, etc.) are not listed.

Refer to “Generating reports” on page 29, and the following details about this report.

TimeZone Id. Click the arrow (or press F4) to open the Search & Select window to select time zones for the report (see “Using Search & Select” on page 27). Select the time zone or time zones you want to generate a report for. Leaving this field blank will result in a report for all time zones.

You may type text into the TimeZone Id field in order to restrict the search; however, you must use the Search & Select screen to select time zones for the report.

Databases > Video menu

The following sections describe the Video menu (for authorised operators) and subject to licensing before they can be used (see Figure 28 on page 42 for details about how to check the status of Forcefield licensing).

Video Service

Use the Video Service option to program a video service that Forcefield will use to communicate with various types of DVRs.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Type. Click the Type arrow and select Aritech.

Address. Double-click the Address field, and then select or create a TCP/IP host port for the video service connection.

Port. Type the port number (default is 9300) that the Video Status Manager service will use to send data to Forcefield. Do not use the same port number as used for the Video Presentation Client (VPC). See “Configuring CCTV/intercom options” on page 266.

Session ID. Type a unique name by which the video service logs into Forcefield.

Connection Retry Interval. Type the number of seconds in the range 10 to 60 that Forcefield will attempt to connect to enabled DVRs that use this record.

Heartbeat Interval. Type the number of seconds that Forcefield will send heartbeat messages to the video service. If no heartbeat response is received within 30 seconds Forcefield will close the connection.

Member. Determines which operators are allowed to control the device and receive events.

Help. Assign or create an alarm action help message to be displayed on the alarm screen if this video service generates an alarm.

Computer Cat. Click the arrow to select from the list of computer categories (the list is restricted to show only the correct type of computer category).

Note: The video service's custom computer category must have the Restoral Required check box cleared for all events.

Databases > Video > DVR Video menu

DVRs

Use the DVRs option to program the DVRs that Forcefield will use.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Num. Enter a number that is not already used in this system for the DVR.

Id. Enter a unique name to identify the DVR. Note that cameras, presets, and DVR are kept in the same database, so the name must be unique across all of these devices.

Enabled. Check the box to have Forcefield start a driver for this DVR. Leave unchecked to program the DVR, cameras, and presets before connecting the equipment to the Forcefield system.

Location. Type a short description of the physical location of the DVR.

Desc. Type a short description of what it does.

Locality. Select the time zone locality in which the DVR resides. The Locality Time Zone consists of a name (for example "Melbourne"), a time zone (for example, "Australia – East Coast", and a Daylight Saving option.

Type. Click the arrow, and then select the type of DVR used, or select "Video Service" for video service DVRs.

Password (displays for certain types). Type the password that Forcefield will use to connect with a DVR.

IP Address. Click the arrow, and then select the TCP/IP Host to be used for the (non-Video Service) DVR. See "TCP/IP Hosts" on page 192.

Server (displays if the type is "Video Service"). Click the arrow, and then select the Video Service to be used for the DVR. See "Video Service" on page 223.

Note: At least one (video service) DVR must be enabled before the video service can connect to the video server.

Member. Determines which operators are allowed to control the device and receive events.

Maps. Displays the map numbers of maps containing the device.

Get Cameras From DVR button. When connected to the DVR, click to perform a camera discovery. The DVR's cameras will be used to create or update Forcefield's DVR Camera records.

Note: If a DVR Camera was previously created and has a different "DVR Cam Id", then a new record will be created by the camera discovery. Configuration details such as maps and triggers associated with the old record will not automatically apply to the new record.

Update Camera Title button. Click to update the SymDVR with the text from the CamTitle fields for all cameras that are associated with the DVR. See "DVR Cameras" below. This option is not supported by TruVision DVRs.

Video Service DVR Configuration Data

The following data is used by the video service to connect to the DVR and is displayed only when the type selection is Video Service.

Model. Select the DVR type from the list of currently-supported types.

IP Address. Type the IP address of the DVR.

Port. Type the IP port of the DVR.

Protocol. Select either TCP or UDP for the IP protocol required by the DVR.

Timeout. Type the number of seconds that the video service should wait for an acknowledgement from the DVR before generating an alarm.

Username. Type the name of the DVR user authorised to open a connection to the DVR.

Password. Type the password required to open a connection to the DVR.

Other. Type additional parameters as required by the device type. For example, with TruVision DVRs, you must specify the type via the model name (such as "Type=TVR60").

DVR Cameras

Use the DVR Cameras option to program the video cameras that Forcefield will use.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

DVR. Select the DVR to which this camera is connected (see "DVRs" on page 224).

Cam. Num. Select the number that the selected DVR uses to communicate with the camera (e.g. if this is camera 6 on the DVR, enter 6 here).

Note: DVRs that support both analogue and IP cameras may use an offset. For example, a TVR60 that supports 16 analogue cameras and 8 IP cameras numbers the analogue cameras 1 to 16 and numbers the IP cameras 17 to 24.

Has PTZ Control. Check the box for cameras with pan/tilt/zoom control.

Id. Enter a unique name to identify the camera. Note that cameras, monitors, presets and DVRs are kept in the same database, so the name must be unique across all of these devices.

DVR Cam Id. This unique identifier is typically populated via the Get Cameras From DVR button on the DVR window (camera discovery).

Note: The DVR Cam Id can be entered or modified by an operator, but if a camera discovery is later used, and there are any differences to the data from the DVR, then a new record will be created by the camera discovery. Configuration details such as maps and triggers associated with the old record will not automatically apply to the new record.

CamTitle. Type the text overlay that will be displayed onscreen for the camera's video. In the associated DVR programming window, click the Update Camera Title button to send the text to the DVR. See "DVRs" on page 224.

Desc. Type a short description of what it does.

Member. Determines which operators are allowed to control the device and receive events.

Help. Assign or create an alarm action help message to be displayed on the alarm screen if this camera generates an alarm.

Computer Cat. Click the arrow to select from the list of computer categories (the list is restricted to show only the correct type of computer category).

Each camera can have a different computer category. The category determines how Forcefield will handle an event from this camera. The computer category "Video Camera" can be used, but is a standard (read-only) Forcefield computer category and cannot be modified. See "Computer Categories" on page 212 for details.

Note: The camera's custom computer category must have the Restoral Required check box cleared for all events.

Maps. Displays the map numbers of any maps containing the camera ID.

DVR Presets

Use the DVR Presets option to program the video presets (predefined views for PTZ cameras) that Forcefield will use.

Note: A DVR camera must be programmed before you use this command.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Preset for Camera. Select a PTZ camera.

Num. Enter a preset number for a new view.

Id. Enter a unique name to identify the preset (e.g. West Wing Front Door View). Note that cameras, monitors, presets and DVRs are kept in the same database, so the name must be unique across all of these devices. TIP: The name that you assign to a preset is added to the camera's pop-up menu on maps displaying the camera.

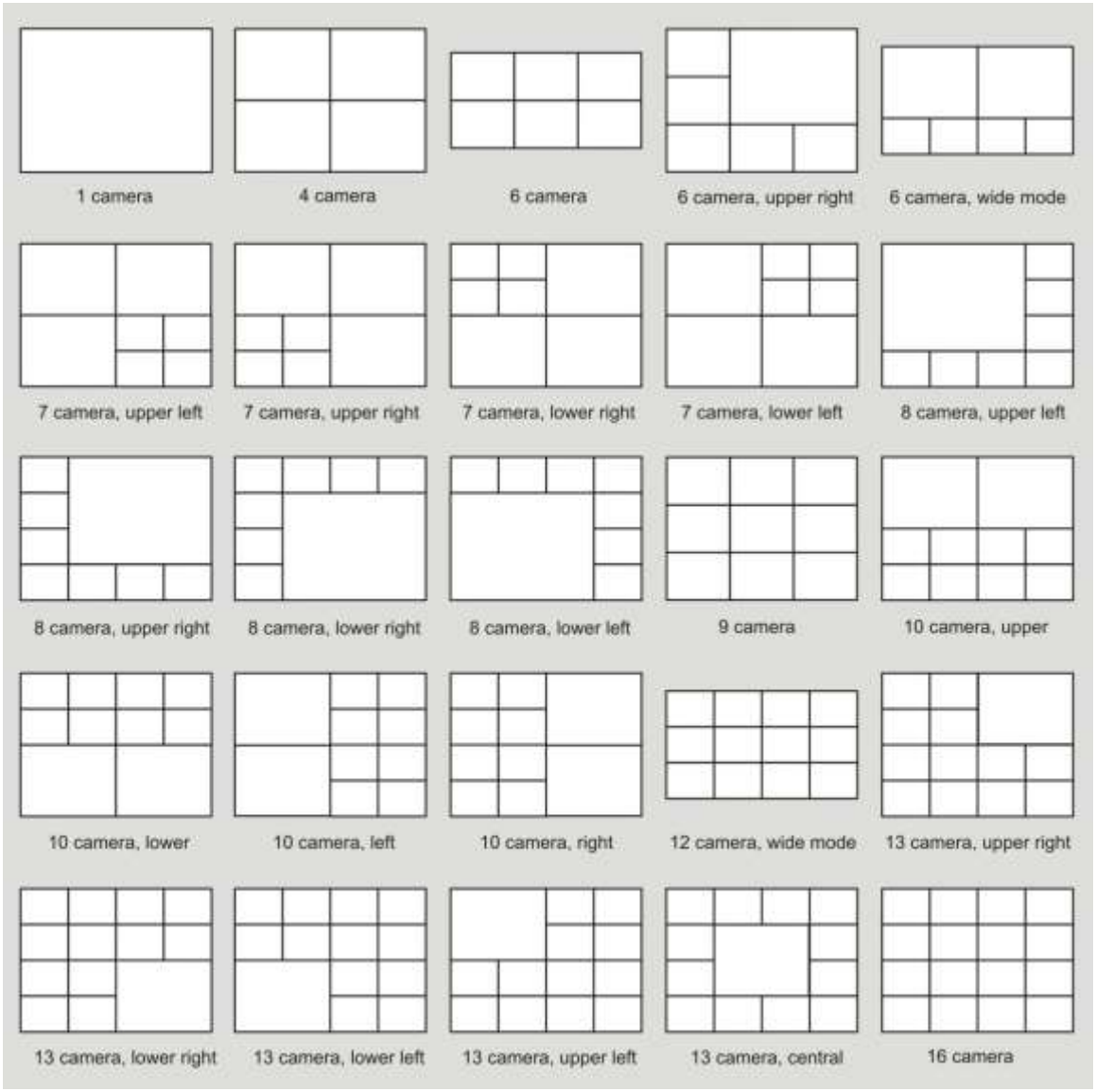
Desc. Enter a more detailed description of the preset's purpose, etc.

Multiview

This command applies to video cameras connected to Forcefield via a legacy DVR (such as DVMRe, SymDec, and SymSafe). Refer to "Show Video Console" on page 131 for cameras connected to Forcefield via a video service.

Use the MultiView option to define a group of cameras (and optional preset views for PTZ cameras) for displaying up to 16 images of DVR video on a single screen. Figure 77 on page 228 depicts the range of options available for displaying camera views.

Figure 77: Multi-view screen layout options



These records may be associated with a workstation, in which case the multi-view will be initiated when the operator logs in (see “Workstations” on page 194). After logging in, the operator can select a different multi-view (see “Display MultiView” on page 129).

Note: Displaying multiple images of DVR video on a single screen requires a large amount of processing power, memory, and specific video card(s) to be used in the Forcefield Client computer. Multiview records programmed here might not be usable by Forcefield Client computers that do not have the required hardware. Refer to the *Forcefield External Interfaces Manual* for details.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Multi-View. Select or specify a name to identify the multi-view record.

Desc. Select type a description for the multi-view. This description will be displayed on the multi-view selection screen.

Member. Select a member. Only multiviews within an operator and workstation member group may be selected. The individual camera members are also checked when initiating multi-view action. Cameras not within the current member group will not be displayed.

Monitor number. Select from the list of monitors (applicable only to computers with multi-monitor video adaptors).

View Layout. Select from the list of view layouts. Figure 77 on page 228 depicts the range of options available for displaying camera views.

All views for a multi-view must be of the same layout. The selected layout is depicted to the right of the selection field. Once a multi-view record has been created, its layout may not be altered.

Video Quality. Select either high or low quality, as appropriate to the abilities of your network. High quality video requires more bandwidth. Select high to use the main stream video options configured for this camera within the DVR. Select low to use the sub-stream video options configured for this camera within the DVR.

Dwell. Specify the amount of time that view will be displayed before the next view is displayed. It is not possible to create a camera list without first entering a dwell time.

Detail. After specifying a dwell time, save the record, and then click the corresponding View button to select cameras for the selected view layout. The Multi View Camera Detail programming window displays the required number of camera selection fields (Figure 78 below).

Figure 78: Multi View Camera Detail programming window

Camera fields (quantity varies to suit selected layout). Click a camera arrow to select a camera. The camera's position in the selected layout is depicted to the right of the selection field.

View. Click the View arrow, and then select a preset view for a PTZ camera. See "DVR Presets" on page 226 for details.

Camera Report

Use the Camera Report option to generate a report about DVR camera records. Details include the information programmed on the DVR Camera window.

Refer to "Generating reports" on page 29.

DVR Report

Use the DVR Report option to generate a report about DVR records. Details include the information programmed on the DVR window.

Refer to “Generating reports” on page 29.

Preset Report

Use the Preset Report option to generate a report about DVR camera preset records. Details include the information programmed on the DVR Presets window.

Refer to “Generating reports” on page 29.

Databases > Video > Matrix Video menu

Cameras

Use the Video Cameras option to program the video cameras that Forcefield will use.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Switcher. Select the video switcher to which this camera is connected (see “Switchers” on page 232).

Cam. Num. Select the number that the selected switcher uses to communicate with the camera (e.g. if this is camera 6 on the switcher, enter 6 here).

Has PTZ Control. Check the box for cameras with pan/tilt/zoom control.

Id. Enter a unique name to identify the camera. Note that cameras, monitors, presets and switchers are kept in the same database, so the name must be unique across all of these devices.

Teleste Camera Id (for Teleste switchers). Enter the ID that the video system uses to identify the camera.

Desc. Type a short description of what it does.

Member. This field determines which operators are allowed to control the device and receive events.

Maps. Displays the map numbers of maps containing the device.

Monitors

Use the Monitors option to program the video monitors that Forcefield will use.

Note: Depending on the video system, “monitor” can mean a physical monitor or a picture tile on a display.

A video switcher must be programmed before you use this command.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Switcher. Select the video switcher to which this monitor is connected (see “Switchers” on page 232).

Monitor Num. Enter the number that the switcher uses to communicate with the monitor (e.g. if this is monitor 4 on the switcher, enter 4 here).

Id. Enter a unique name to identify the monitor. Note that cameras, monitors, presets and switchers are kept in the same database, so the name must be unique across all of these devices.

Teleste Monitor Id (for Teleste switchers only). Enter the ID that the video system uses to identify the monitor.

Recorder Monitor. Check this box to indicate to the video system that the video feed to this monitor can be recorded. This enables recording actions to be performed via Forcefield map icons.

Desc. Type a short description of what it does.

Member. This field determines which operators are allowed to control the device and receive events.

Monitor Groups

Monitor Groups are used by Forcefield to assign video monitors to workstations. This is to enable tidier handling of video monitors on the maps.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Physical Layout. When creating a new group select the physical layout of the monitors within the group.

Monitor Assignment. Click to open the screen to assign video monitors to the group.

Presets

Use the Video Presets option to program the video presets (predefined views for PTZ cameras) that Forcefield will use.

A video camera must be programmed before you use this command.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Preset for Camera. Select a PTZ camera.

Num. Enter a preset number for a new view.

Id. Enter a unique name to identify the preset (e.g. West Wing Front Door View). Note that cameras, monitors, presets and switchers are kept in the same database, so the name must be unique across all of these devices. TIP: The name that you assign to a preset is added to the camera's pop-up menu on maps displaying the camera.

Desc. Type a detailed description of the preset's purpose, etc.

Teleste Name (for Teleste systems only). Enter the video system's Position name correctly (case-sensitive).

Switchers

Use the Switchers option to program the video camera (CCTV) switchers that Forcefield will use.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Num. Enter a unique number for a new switcher.

Id. Enter a unique name to identify the switcher. Note that cameras, monitors, presets and switchers are kept in the same database, so the name must be unique across all of these devices.

Enabled. Check the box to have Forcefield start a driver for this switcher. Leave unchecked to program the switcher, cameras, monitors and presets before actually physically connecting the equipment to the Forcefield system.

Location. Type a short description of the physical location of the switcher.

Desc. Type a short description of what it does.

Protocol. Select the switcher protocol. Additional fields may display, depending on the selected protocol.

IP Address. Enter the name of the TCP ID Host record that Forcefield will use to connect with the switcher.

IP Port. Enter the number of the TCP/IP port that Forcefield will use to connect with the switcher.

Port. Enter the ID of the port that the switcher uses to communicate with Forcefield.

Locality (DVRs only). Select the time zone locality of the DVR to enable the most efficient searching.

Default Command Operator. If required, enter a name to identify commands sent to the switcher.

User Code. Enter the login name required to communicate with the switcher.

Pwd. If prompted, enter the password for the user code.

License Key. Enter the license details (from Teleste) required to communicate with the switcher.

Hash Key. Enter the details (from Teleste) required to communicate with the switcher.

Member. This field determines which operators are allowed to control the device and receive events.

PIN. Depending on the selected protocol, a PIN field may display. Enter the PIN code that Forcefield is to emulate in order to communicate with the switcher:

- Pacom 2030 protocol—PIN is typically 9999
- Panasonic550 protocol—PIN is typically 12345

Keyboard (for Maxpro protocol). Type the keyboard number (typically 32) that Forcefield is to emulate in order to communicate with the switcher.

Camera Report

Use the Camera Report option to generate a report about Forcefield video camera records. Details include the information programmed on the Video Camera window.

Refer to “Generating reports” on page 29.

Monitor Report

Use the Monitor Report option to generate a report about Forcefield video monitor records. Details include the information programmed on the Video Monitors window.

Refer to “Generating reports” on page 29.

Preset Report

Use the Preset Report option to generate a report about Forcefield PTZ camera preset records. Details include the information programmed on the Video Presets window.

Refer to “Generating reports” on page 29.

Switcher Report

Use the Switcher Report option to generate a report about Forcefield video camera switcher records.

Refer to “Generating reports” on page 29, and the following details about this report.

Report Type. Select the required report type:

- Summary—displays the details of the switcher.
- Detailed—displays the details of the switcher, and lists the monitor and cameras attached to the switcher.
- Expanded—displays the details of the switcher, and lists the details of the monitor and cameras attached to the switcher.

Status menu

Trace Monitor

Use the Trace Monitor option to set up tracing and then to display the results of trace monitoring. The Trace monitor will beep whenever one of the traced events is detected.

The Trace Monitor is similar to the Events Monitor. Click a tool bar button to set up tracing for one or more events (tool bar buttons are described in “Using the Event Monitor window” on page 38).

Refer to “Using multiple event filters” on page 39 for details about using multiple filters.

Leaving fields blank indicates no restriction on that field when matching for events: The Event Monitor displays all events; the Trace Monitor displays no events.

Status > Panel Status menu

Abnormal Panel State Report

Use the Abnormal Panel State Report option to list alarms and/or abnormal states in the Challenger or NAC systems.

Refer to “Generating reports” on page 29, and the following details about this report.

Report Type. Select the report type required:

- Alarms Only—the report contains items that are currently in alarm.
- Alarms and Abnormal Conditions—the report contains items that are in alarm and items that are not in their normal state.

The normal states of various items are:

- Input—sealed
- Area—secured

- Door—closed and locked
- Relay—reset (not active)
- Floor—secured
- DGP—online and polled
- RAS—online and polled

Automation Zone Status

Use the Automation Zone Status option to display the state of a selected Challenger/NAC panel's automation zone.

The display is not dynamic, so click Refresh Status to update the display.

Panel Comms Status

Use the Panel Comms Status option to display the connection state of a node's Challenger or NAC panel.

Challenger/NAC panels are listed by number and have a coloured indicator:

- Grey means that the panel is not enabled in Forcefield.
- Green means that communications between the Challenger/NAC panel and Forcefield is active.
- Red means that communications between the Challenger/NAC panel and Forcefield is not active.

Double-click a Challenger/NAC panel's number to display details of the communications.

Panel Comms Report

Use the Panel Comms Report option to generate a report about Challenger/NAC panel's communications activity over a defined interval.

Refer to "Generating reports" on page 29, and the following details about this report.

Start. Use the calendar widget to select the start date. If no start date is entered, the report will start from the first record found in the history.

End. Use the calendar widget to select the end date. If no end date is entered, the report will finish at the current date of your local computer.

Format. Select the report format required:

- TEXT–Event Screen Format provides a layout similar to the Forcefield Event Windows (this is the preferred format for printed reports).
- TEXT–Single Line Format provides a report with 1 text line per event usually used to export the report text to another system for processing.

- CSV–Raw provides all data in the specified records ‘as is’, with date and time data not in human-readable format.
- CSV–Formatted provides a selection of data, with date and time data converted to human-readable format.

Item Status Report

Use the Item Status Report option to list the current state of a selected Challenger/NAC item or a group of items.

Refer to “Generating reports” on page 29, and the following details about this report.

Device Type. Select the required device type or select All to report on all device types.

Panel Device Status Report

Use the Panel Device Status Report to list the current state of a selected item or a group of items.

Refer to “Generating reports” on page 29.

Items in State Report

Use the Items in State Report option to list all items of a particular type that are in a specified state in the Forcefield status file (for example, to list all isolated inputs for a given member group). Items that have been offline may not be current.

Refer to “Generating reports” on page 29.

Status > Door Status menu

Door Monitor

Use the Door Monitor option to display the user image, if any, and the transaction details of the last door access event for selected doors. Only the last received event is displayed.

The door access events that will be monitored are set up as a Forcefield Event Group record, specifically the Door Monitor record. If there is no such record, all the events in the Door Access computer category will be monitored. These events are global to the entire Forcefield network. See “Events” on page 217 for details of setting up Forcefield event groups.

Figure 79: Door Monitor window (user detail example)

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Setup button. Click to enter the screen to setup which doors are to be monitored.

Open Door button. Click to open the door shown in the transaction detail.

User Detail button. Click to display details of the user shown in the transaction detail.

Door Open Close Times

Doors controlled via a Door controllers (door numbers 17 through 64 on LAN1, door numbers 81 through 128 on LAN2) and Standard RAS doors (1-16 on LAN1 and 65-80 on LAN2) can be programmed with automatic lock and unlock times. This is effectively the override time zone in the doors' access options.

Use the Door Open Close Times option to show the automatic lock and unlock times for such doors, listed by Challenger/NAC. It provides a quick way to view the times that a door becomes unlocked.

Refer to "Generating reports" on page 29, and the following details about this report.

Sort Type. Select the required sort order:

- Door ID
- Door number (Panel door number)
- Door number by member
- Door ID by member
- Door ID by Panel number
- Door ID by Panel ID

Door Override Report

Use the Door Override Report option to create reports about programmed door lock overrides.

Refer to “Generating reports” on page 29, and the following details about this report.

Sort Type. Select the required sort order:

- Door ID
- Door number (Panel door number)
- Door number by member
- Door ID by member
- Door ID by Panel number
- Door ID by Panel ID

Status > Equipment Status menu

Printer Status

Use the Printer Status option to display the state of all printers.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Printer. Double-click a Printer field to display a detail and control screen for the printer. This screen shows the number of events and reports waiting to be printed. It also allows the operator to stop/start the printing, or remove events queued for printing and cancel a report waiting to be printed.

Cancel Report button. Click the report to be removed, and then click the Cancel Report button to stop a report from being printed.

Resume button. Click to resume printing at this printer.

Stop button. Click to stop printing at this printer.

Delete Events button. Click to remove all events currently queued for printing. The screen updates dynamically.

Report. Select a single report to cancel.

Serial Port Status

Use the Serial Port Status option to display the state of a selected port for a selected node.

The Serial Port Monitor displays the process name and the PID (process identifier) for the process using the port. Also displayed are various parameters, plus the state (green for high, grey for low) for:

- DTR (Data Terminal Ready)
- RTS (Request to Send)
- BRK (Break)
- CTS (Clear to Send)
- DSR (Data Set Ready)
- RI (Ring Indicator)
- CD (Carrier Detect)
- TX (Transmit)
- RX (Receive)

List NFS Exports

Use the List NFS Exports option to display a list of directories on the Forcefield node, as defined using the command “NFS Exports” on page 201.

Up to ten specific hosts (IP addresses) per directory may be specified, in which case the IP addresses for each directory are displayed.

List NFS Storage

See “List NFS Storage” on page 201.

Status > System Status menu

Check Log Report

Use the Checklog Report option to list the contents of the Forcefield progress log. It may be requested by support staff.

Refer to “Generating reports” on page 29, and the following details about this report.

Node. Select the required Forcefield node.

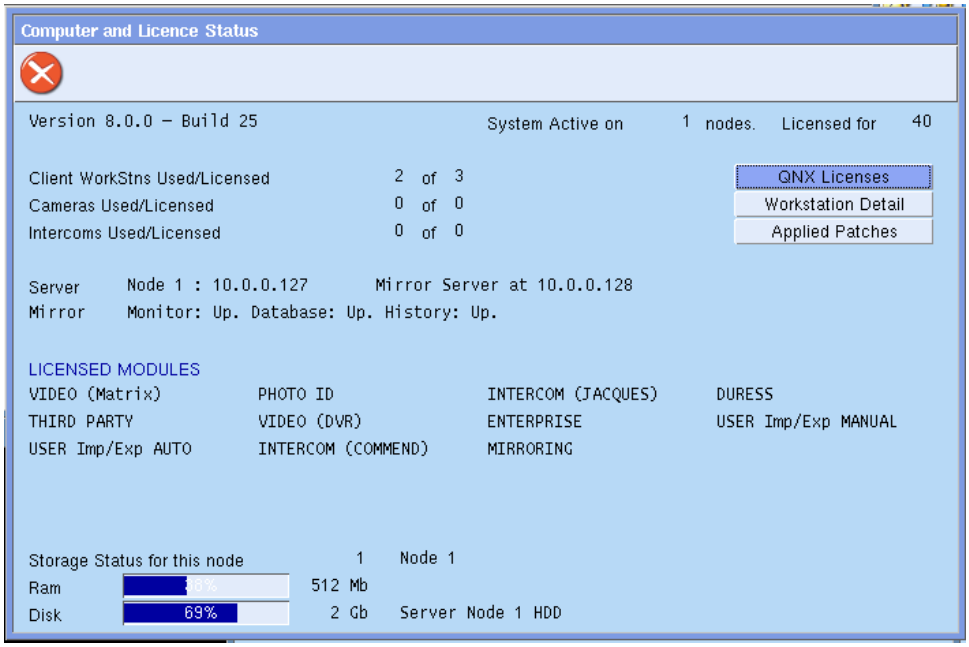
Click the Report to arrow, and then select a destination. In addition to the standard reporting destinations, the Checklog report may be e-mailed to a recipient from the address book (see “Email Addresses” on page 187).

Computer and Licence Status

Use the Computer Status option to list the system's:

- Number of nodes and remote workstations used and licensing detail.
- Whether the primary or backup server node is currently the controlling node (if applicable)
- RAM usage and capacity (for the controlling node).
- Hard disk usage and capacity (for the controlling node).
- Licensed modules, such as CCTV or Intercom.

Figure 80: Computer Status and License Information window (single node example)



QNX Licenses button. Click to view details of QNX licenses for:

- Phindows (phin)
- Photon runtime (phrt)
- QNX (qnx)
- QNX TCP/IP runtime (tcprt)

  Each line displays in the format used/total licenses and, where applicable, the node numbers on which the item is being used.

Workstation Detail button. Click to view details of the system, including the status of each workstation and the version number of the Forcefield software currently installed (for the controlling node and active clients only).

Applied Patches button. Click to view the numbers of any service packs that have been installed (see "Service Forcefield" on page 285).

Debug File Report

Use the Debug File Report option to list the contents of the Forcefield debug file. It may be requested by support staff. The Forcefield debug file is a log kept by Forcefield containing debugging information.

Refer to “Generating reports” on page 29, and the following details about this report.

Node. Select the required Forcefield node. Leave blank to generate for all nodes.

Click the Report to arrow, and then select a destination. In addition to the standard reporting destinations, the Debug File Report may be e-mailed to a recipient from the address book (see “Email Addresses” on page 187).

Queue Configurationon page 285Generating reportson page 29Email Addresseson page 187Report Status

The report activity icon (Figure 3 on page 16, item 12) shows when most reports are active. Not all reports trigger the report activity icon. For example, the System Check Report can be active without visible indication.

Use the Report Status option to list currently active reports, and to display details of reports.

The upper portion of the Report Status window displays four tallies:

- Total number of active reports
- The number of reports initiated by the current operator
- The number of reports running on the workstation’s node
- The number of reports for the current operator’s member group

Subject to the operator’s member permissions, the lower portion of the Report Status window displays the type of report, the start time, the node and operating system process id (number) of the report, who ran it, and from where.

Note: The display is not dynamic. Click Refresh to load the current status.

System Device Status

The System Device Status option allows the operator to list or report the current device settings for a selected node and shows the Forcefield process that is using the device. It is most useful for showing the usage of serial, parallel and IP Ports. The IP Port option shows the same information as the netstat utility with the additional information of what process is using the device.

Refer to “Generating reports” on page 29, and the following details about this report.

Node. Select the required Forcefield node.

Device. Click the Device arrow, and then select a device, or all devices, for the selected node. Select from serial, parallel, photon, console, ditto, pseudo, and TCP (UDP)/IP devices. The display updates dynamically upon selection.

Click the Report to arrow, and then select a destination. In addition to the standard reporting destinations, the report may be e-mailed to a recipient from the address book (see “Email Addresses” on page 187).

System Scale Report

The System Scale Report gives count of the Forcefield database records in a CSV format. First column gives the type e.g., “Panel”. Second column gives the sub-type and count in format subtype:count e.g., “DGPs:2”.

System Status Report

Use the System Status Report option to list the status of the Forcefield system at the operating system level. It runs various utilities three times at five-second intervals to evaluate how the system status changes over time.

Refer to “Generating reports” on page 29, and the following details about this report.

Node. Select the required Forcefield nodes.

Click the Report to arrow, and then select a destination. In addition to the standard reporting destinations, the System Status report may be e-mailed to a recipient from the address book (see “Email Addresses” on page 187).

System Check Report

The System Check Report option reports the status of the Forcefield system at the operating system level. It may be requested by support staff. It is similar to “System Status Report” above, with the following differences:

- Node selection is not required (it is preset to the initiating node).
- The destination is preset to the `usr/ares-nds/reports` folder. No more than 1,000 numbered reports will be saved, after which the oldest files will be overwritten.
- After the Start Reporting button is pressed to begin reporting, the process restarts every five minutes (or restarts immediately if the Start Reporting button is pressed again).
- The process runs until the Stop Reporting button is pressed.

Note: This option is a diagnostic tool for use under instruction from Technical Support. To allow data collection over time, the process continues even if the Forcefield operator logs out. There is no user indication that the process is running (other than new files being added to the report destination). Use Report Status on page 241 to see whether System Check is active.

Refer to Forcefield help for additional options.

Status > System Status > Server Processes menu

The options in the Server Processes menu allows the operator to view or print the servers' client process table information, check whether the information is valid, and remove invalid client table data.

Note: These options are for diagnostic and repair purposes and should only be used under instruction from technical support.

Some Forcefield server processes have tables of information to keep track of related client processes. (In this context ‘client’ means a process executing on the Forcefield hardware that is using services provided by another process executing on the Forcefield hardware: It is not a Forcefield Client running on a Windows PC.)

The information in these tables is normally removed when the client process terminates. However, under heavy system load in a multi-node environment, it is possible that the client process termination message is lost and information is not removed for clients that are no longer active (“invalid client”). This can result in the server tables becoming full, which results in the server preventing further client processes from connecting.

Workstation Status

The Client Workstation Status option allows the operator to list or report the state of a selected node’s Client WS Server table, and to identify and remove invalid client table data. The option also lists the suite of processes involved in connecting a Forcefield Client computer (the Windows PC) to Forcefield.

Refer to “Generating reports” on page 29, and the following details about this report.

Node of Process. Select the required Forcefield node.

Status button. Click to display the listen port number and state of the Client WS Server table for the selected node.

Show All Clients button. Click to display the connection details of currently logged-in clients for the selected node.

Show Invalid Clients button. Click to display any invalid client records for the selected node.

Remove Invalid Clients button. Click to remove invalid client records for the selected node.

Click the Report to arrow, and then select a destination. In addition to the standard reporting destinations, the report may be e-mailed to a recipient from the address book (see “Email Addresses” on page 187).

DBMS Process Status

The DBMS Process Status option allows the operator to list or report the state of the DBMS Client table, and to identify and remove invalid client table data.

Refer to “Generating reports” on page 29, and the following details about this report.

Status button. Click to display the state of the DBMS Client table.

Show All Clients button. Click to display the usage details of the DBMS Client table.

Show Invalid Clients button. Click to display any invalid client records.

Remove Invalid Clients button. Click to remove invalid client records.

Click the Report to arrow, and then select a destination. In addition to the standard reporting destinations, the report may be e-mailed to a recipient from the address book (see “Email Addresses” on page 187).

Download Server Status

The Download Server Status option allows the operator to list or report the state of the Download Server Client table, and to identify and remove invalid client table data.

Refer to “Generating reports” on page 29, and the following details about this report.

Status button. Click to display the state of the Download Server Client table.

Show All Clients button. Click to display the usage details of the Download Server Client table.

Show Invalid Clients button. Click to display any invalid client records.

Remove Invalid Clients button. Click to remove invalid client records.

Click the Report to arrow, and then select a destination. In addition to the standard reporting destinations, the report may be e-mailed to a recipient from the address book (see “Email Addresses” on page 187).

File Sync Status

The File Sync Status option allows the operator to list or report the state of the File Synchroniser Client table, and to identify and remove invalid client table data.

Refer to “Generating reports” on page 29, and the following details about this report.

Status button. Click to display the state of the File Synchroniser Client table.

Show All Clients button. Click to display the usage details of the File Synchroniser Client table.

Show Invalid Clients button. Click to display any invalid client records.

Remove Invalid Clients button. Click to remove invalid client records.

Click the Report to arrow, and then select a destination. In addition to the standard reporting destinations, the report may be e-mailed to a recipient from the address book (see “Email Addresses” on page 187).

History Server Status

The History Server Status option allows the operator to list or report the state of the History Server Client table, and to identify and remove invalid client table data.

Refer to “Generating reports” on page 29, and the following details about this report.

Status button. Click to display the state of the History Server Client table.

Show All Clients button. Click to display the usage details of the History Server Client table.

Show Invalid Clients button. Click to display any invalid client records.

Remove Invalid Clients button. Click to remove invalid client records.

Click the Report to arrow, and then select a destination. In addition to the standard reporting destinations, the report may be e-mailed to a recipient from the address book (see “Email Addresses” on page 187).

History Reader Status

The History Reader Status option allows the operator to list or report the state of the History Reader Client table, and to identify and remove invalid client table data.

Refer to “Generating reports” on page 29, and the following details about this report.

Status button. Click to display the state of the History Reader Client table.

Show All Clients button. Click to display the usage details of the History Reader Client table.

Show Invalid Clients button. Click to display any invalid client records.

Remove Invalid Clients button. Click to remove invalid client records.

Click the Report to arrow, and then select a destination. In addition to the standard reporting destinations, the report may be e-mailed to a recipient from the address book (see “Email Addresses” on page 187).

Mount Server Status

The Mount Server Status option allows the operator to list or report the state of a selected node’s Mount Server Client table, and to identify and remove invalid client table data.

Refer to “Generating reports” on page 29, and the following details about this report.

Node of Process. Select the required Forcefield node.

Status button. Click to display the state of the Mount Server Client table.

Show All Clients button. Click to display the usage details of the Mount Server Client table.

Show Invalid Clients button. Click to display any invalid client records.

Remove Invalid Clients button. Click to remove invalid client records.

Click the Report to arrow, and then select a destination. In addition to the standard reporting destinations, the report may be e-mailed to a recipient from the address book (see “Email Addresses” on page 187).

Queue Status

The Queue Status option allows the operator to list or report the configuration settings for a node’s queues. Queue settings are configured in “Queue Configuration” on page 273.

Refer to “Generating reports” on page 31, and the following details about this report.

Node of Process. Select the required Forcefield node.

Status button. Click to display a list of queues and their current settings for the selected node.

Click the Report to arrow, and then select a destination. In addition to the standard reporting destinations, the report may be e-mailed to a recipient from the address book (see “Email Addresses” on page 185).

Time Server Status

The time server (TimeSvr) is the process responsible for managing time delays on behalf of the other (client) processes. There is a TimeSvr running on each Forcefield Node.

This form also lists the process PID, type, name and a time of delay expiry time of all processes currently waiting for a time delay to expire together with the number of 20ms ticks left to expire.

Time Trigger Server Status

The Time Trigger Server Status form shows the time of next trigger for the selected node, together with the actions to be performed.

User Access Status

The User Access Status option allows the operator to list or report the state of the User Access Client table, and to identify and remove invalid client table data.

Refer to “Generating reports” on page 29, and the following details about this report.

Status button. Click to display the state of the User Access Client table.

Show All Clients button. Click to display the usage details of the User Access Client table.

Show Invalid Clients button. Click to display any invalid client records.

Remove Invalid Clients button. Click to remove invalid client records.

Click the Report to arrow, and then select a destination. In addition to the standard reporting destinations, the report may be e-mailed to a recipient from the address book (see “Email Addresses” on page 187).

Status > Video Status menu

Video Switcher Status

Use the Video Switcher Status option to select a DVR or a matrix switcher and then display the current state of the selected device, alarm status, and driver activity.

Click the Refresh Display button to update the alarm status display (it does not update dynamically.

Click the Show Driver Activity button to display the activity of the device’s driver. You may optionally also log the activity to Forcefield's Debug file. When the activity screen is closed, logging to the Debug file is also stopped. To close the activity screen press <CTRL E> followed by a lower case ‘q’.

Video Service Status

Use the Video Service Status option to select a video service and then display the current state of the selected service, alarm status, supported plugins, and driver activity.

Click the Refresh Display button to update the alarm status display (it does not update dynamically.

Click the Show Driver Activity button to display the activity of the device's driver. You may optionally also log the activity to Forcefield's Debug file. When the activity screen is closed, logging to the Debug file is also stopped. To close the activity screen press <CTRL E> followed by a lower case 'q'.

Panel menu

Panel Device ID Alteration

Use the Panel Device ID Alteration option to bulk rename Challenger/NAC record identifiers. Only records within the operator's member group will be renamed.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Ch field and Id. Select which Challenger will have its points renamed.

Record Type. Select the type of record to rename.

Alter to Member. Select a member if you want the record member altered. Leave blank to skip.

Id Source. Select a source file (see "Using ID source files" on page 71). Only records identified by number in the source file will be renamed, according to the ID in the source file. If no source file is selected, then records will be renamed by applying the prefix and postfix rules described in "Default record IDs" on page 67.

Id Prefix. Optionally specify an ID prefix. For example, in the case of Challenger 35, instead of using the default prefix 'ch35', you could have a prefix 'Factory 9'. See "Using ID prefix" on page 67 for details. Use this option only if there is no ID source file or if using an ID source file results in an error.

Id Postfix. Optionally check the check box and then select a Challenger in order to reuse part of the existing Challenger record ID. For example, instead of using the default postfix such as 'input 1', you could have a postfix 'East Ceiling PIR'. The new ID will be truncated to 30 characters. See "Using existing record ID as ID postfix" on page 68 for details. Use this option only if there is no ID source file or if using an ID source file results in an error.

Panel programming

Panel programming form allows operators to program Challenger Panels and Network Access Controller panels connected in DIRECT and EXTENDED modes.

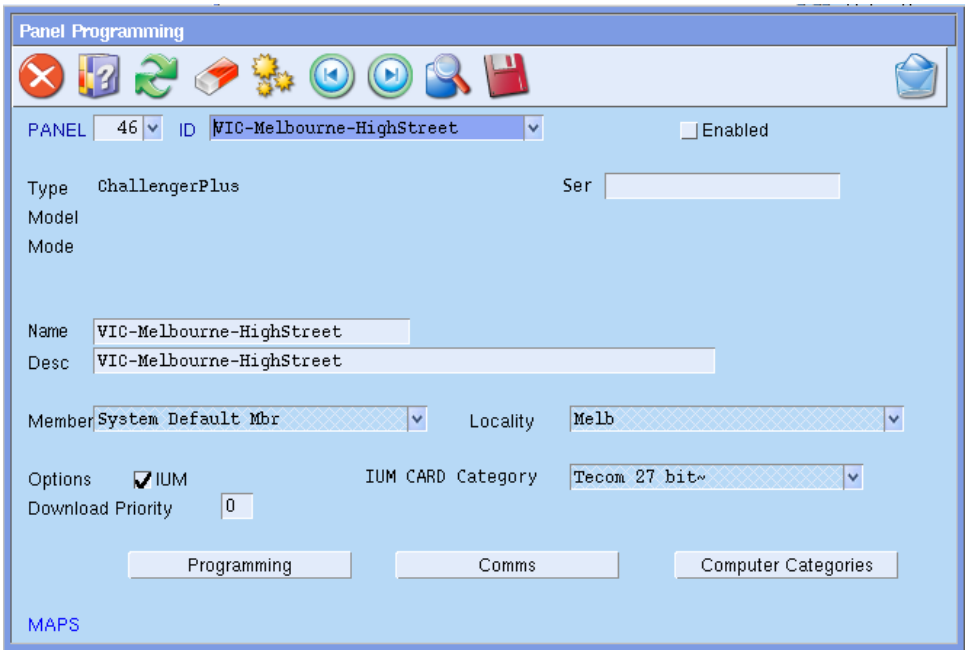
Challenger panel programming

A Challenger panel must initially be programmed via a RAS keypad to enable communications with Forcefield.

Note: It is a requirement that Forcefield operators or Technicians using this section are familiar with the details of Challenger programming as described in the *Challenger Programming Manual* and the field-level Forcefield online help.

Use the Challenger Programming option to remotely program the Challenger options that would otherwise need to be programmed locally via a RAS keypad.

Figure 81: ChallengerPlus panel form



Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

PANEL: This number uniquely identifies the Challenger Panel to Forcefield. It must also match the computer address in the panel's programming.

ID: Enter a unique name for the Challenger.

Enabled: When checked, the Challenger panel can communicate with Forcefield. If a Challenger is not active, then the Challenger and all its field equipment will be greyed out on any graphics maps on which they appear.

Type: Select one of the following:

- “TS Challenger” for a V8 Challenger panel.
- “V8 Extended” for a V8 Challenger panel with support for extra door groups, floor groups, alarm groups and time zones (requires panel firmware version 8.128 or later).
- “Challenger10 (pre V10-06)” for a Challenger10 panel with firmware prior to V10-06.
- “Challenger10” for a Challenger10 panel with firmware V10-06.
- “ChallengerPlus” for a ChallengerPlus panel with firmware V10-07.

Serial Number: The Challenger10 or ChallengerPlus panel’s unique serial number is required for connection via TCP/IP, i.e. when the comms type is “Ethernet (TCP)”. The panel’s serial number is displayed via RAS in Install menu option 11-Version, option 1-Chall.

Name: Applies to “Challenger10” and “ChallengerPlus” panel types. Enter a name for the Challenger panel. The name will be downloaded to Challenger Series panels that have firmware version V10-06 (or later).

Description: Optional field to describe the panel, such as “In Cabinet behind Guard room door”.

Member: The member determines which operator can control (and/or see events from) this Challenger.

Locality: This field determines the time zone in which the Challenger is located. The Challenger’s clock is referenced to this location and controlled by Forcefield.

ChallengerLE: This check box is displayed only when the panel type “Challenger10” or “ChallengerPlus” is selected for a new panel. Populate the check box when creating a new ChallengerLE panel in order to create only 16 areas instead of 99 areas. This field is not editable after the Challenger record is saved.

IUM: All Challenger10 and ChallengerPlus panels are IUM panels. When checked, the Challenger V8 panel uses one of the following types of IUM:

- Software IUM (using a TS0882 1 Meg Memory chip)
- 4 MB IUM (TS0883) module
- 8 MB IUM (TS0884) module

If this flag is set and the Challenger V8 panel does not have the module fitted, or vice-versa, the comms process will adjust the Forcefield database record for the Challenger and will remove all entries for that Challenger from the download buffers.

Software IUM: Applies only to Challenger V8 panels that are not fitted with an IUM module, and when IUM is selected. When checked, the Challenger panel

is converted to software IUM mode (requires panel firmware version 8.128 or later, as well as a TS0882 1 Meg Memory chip).

Note: All users will be deleted and user 50 will be replaced with the default master user.

IUM Card Category: Select a card category type for IUM enabled panels. This enables Forcefield to determine which user records belong to this Challenger.

Forcefield Node: Enter the Forcefield node number to which this Challenger panel is connected.

Download Priority: Enter a value in the range 0 (highest priority) to 30 (lowest priority). The priority is used to determine the order in which downloads occur after the value programmed in “Maximum Concurrent Panel Downloads” is reached. See “Configuring Challenger panel communications options” on page 276.

Click the Programming button to open the Challenger programming window. For details of Challenger programming, refer to the *Challenger Programming Manual*, or see Appendix A *“*Challenger programming*”* on page 297.

Comms Type: Select the connection type used for the particular Challenger panels.

Notes:

- TCP/IP mode “Ethernet (TCP)” offers better reliability over wide area networks (WANs) such as 3G networks. Unlike UPD/IP mode, the Challenger panel’s IP address is not required for a TCP/IP connection.
- If the dialler option is selected, Challenger connects via modem and only communicates with Forcefield when initiated by the operator (a remote control command), by Forcefield or by the Challenger. The communication link disconnects when there is no data to send or receive.

Comms Mode: Depending on Comms Type, select the required communication mode (polled or event-driven).

Port/IP Host/Command: For a dialler connection the entry contains the string sent to the modem. For other connection types the field contains the ID of the comms channel (depending on the comms type).

Backup Dialler: This entry is the string sent to a dialler modem if the primary Challenger communications link goes down. This will only work if dialler modem ports are set up for the node at which the Challenger is connected (see “Serial & Parallel Ports” on page 191).

Note: When a Challenger is using a backup dialler, only alarm events will be sent.

Computer Categories and Help fields: each Challenger has four computer category types, which determine how Forcefield will handle events from this Challenger:

- Challenger

- Special
- Line Activity
- Challenger Comms Errors

These computer category names are the standard (read-only) Forcefield computer categories. If you use any of these names, bear in mind that you cannot change any details (such as behaviours). In actual use, you should create new (and therefore editable) computer categories with different names. See “Computer Categories” on page 212 for details.

In each of the four Computer Categories fields, click the arrow to select from the list (the list is restricted to show only the correct types of computer category).

The four computer categories (see **Error! Reference source not found. Error! Bookmark not defined.**) have associated Help fields to the right. In each of the four associated Help fields, double-click or press F3 to program alarm help information for the category.

Maps: Displays the map numbers of any maps containing the Challenger.

Network Access Controller (NAC) programming

A Network Access Controller must initially be programmed via configuration software to enable communications with Forcefield. This can be achieved by connection the NAC to software such as CTPlus via the on-board USB connection, and configuring a comms path for IP back to Forcefield.

This form also allows the following Models and Modes for NAC Panels:

Type: Network Access Controller

Model:

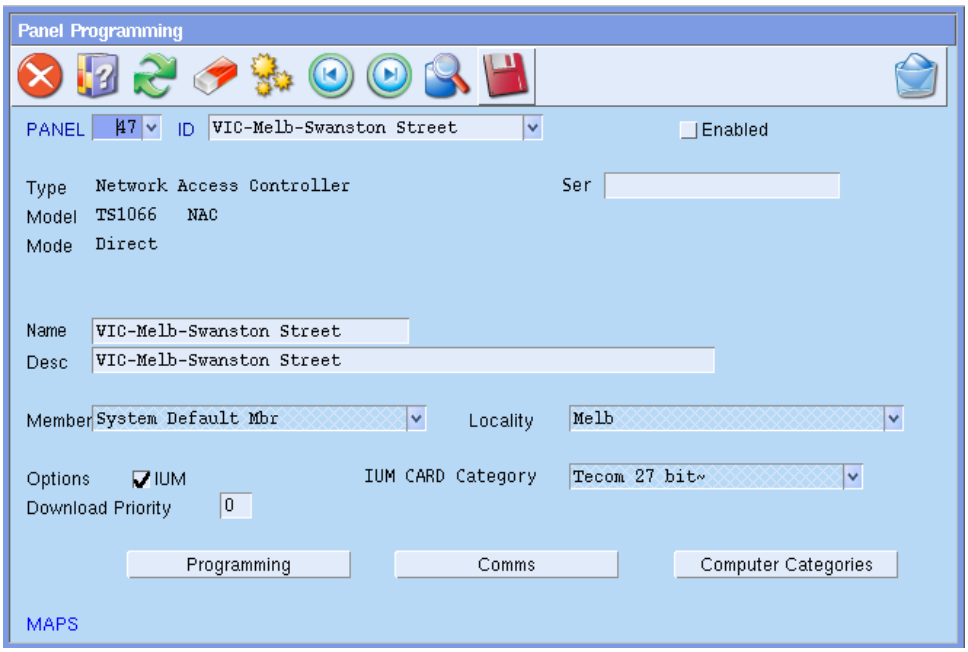
- TS1066 NAC
- TS1066-4 4Door NAC

Mode:

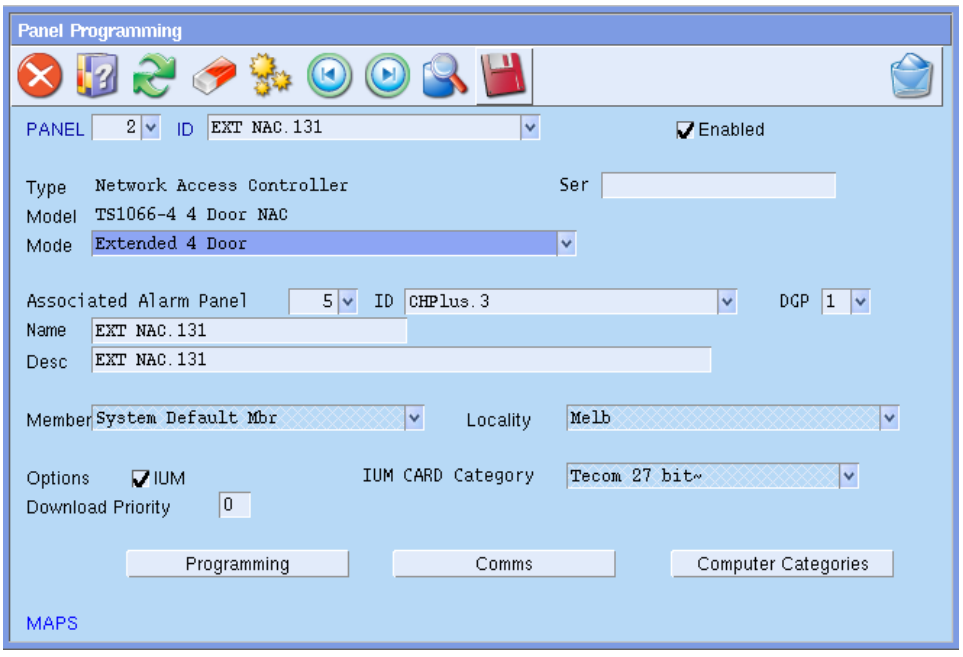
- Direct
- Extended 4 Door
- Extended 8 Door

Note: it is a requirement that Forcefield operators or Technicians using this section to program NAC panels in Forcefield must be familiar with the details of NAC programming as described in *NAC Programming Manual.*

Direct mode Network Access Controller panel form:



Extended mode Network Access Controller form:



Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

PANEL: This number uniquely identifies the Panel to Forcefield. It must also match the computer address in the panel's programming.

ID: Enter a unique name for the Network Access Controller.

Enabled: When checked, the Challenger/NAC panel can communicate with Forcefield. If a Challenger/NAC is not active, then the Challenger/NAC and all its field equipment will be greyed out on any graphics maps on which they appear.

Type: Select the following:

- “Network Access Controller” for a direct-connect NAC panels (in Direct or Extended mode)

Model: Select one of the following for Network Access Controller panels:

- TS1066 NAC
- TS1066-4 4Door NAC

Mode: Select one of the following for Network Access Controller panels:

- Direct
- Extended 4 Door
- Extended 8 Door

Note: Exceptions to this selection are a) an 8-Door Mode cannot be selected if Model is a 4-Door NAC e.g., “Extended 8 Door” Mode is not allowed if operator selected TS1066-4 model.

Serial Number: The NAC’s unique serial number is required for connection via TCP/IP, i.e. when the comms type is “Ethernet (TCP)”. The serial number can be found either on the product label, or when connected via CTPlus software.

Name: Type a name for the Network Access Controller. The name will be downloaded to the panel.

Description: Optional field to describe the panel, such as “In Cabinet behind Guard room door”.

Member: The member determines which operator can control (and/or see events from) this NAC.

Locality: This field determines the time zone in which the Network Access Controller is located. The NAC’s clock is referenced to this location and controlled by Forcefield.

IUM Card Category: Select a card category type for Network Access Controller. This enables Forcefield to determine which user records belong to this panel.

Forcefield Node: Enter the Forcefield node number to which this NAC panel is connected.

Download Priority: Enter a value in the range 0 (highest priority) to 30 (lowest priority). The priority is used to determine the order in which downloads occur after the value programmed in “Maximum Concurrent Panel Downloads” is reached. See “Configuring Challenger panel communications options” on page 276.

Click the Programming button to open the NAC programming window. For details of NAC programming, refer to Appendix D “NAC programming”.

Comms Type: Select the connection type used for the particular Network Access Controller panels.

Notes:

- TCP/IP mode “Ethernet (TCP)” offers better reliability over wide area networks (WANs) such as 3G networks. Unlike UPD/IP mode, the NAC’s IP address is not required for a TCP/IP connection.

Comms Mode: Depending on Comms Type, select the required communication mode (polled or event-driven).

Computer Categories and Help fields—each NAC has four computer category types, which determine how Forcefield will handle events from this Network Access Controller:

- NAC
- NAC Special
- Line Activity
- Challenger Comms Errors

The computer category names listed above are the standard (read-only) Forcefield computer categories. If you use any of these names, bear in mind that you cannot change any details (such as behaviours). In actual use, you should create new (and therefore editable) computer categories with different names. See “Computer Categories” on page 212 for details.

In each of the four Computer Categories fields, click the arrow to select from the list (the list is restricted to show only the correct types of computer category).

The four computer categories (see **Error! Reference source not found. Error! Bookmark not defined.**) have associated Help fields to the right. In each of the four associated Help fields, double-click or press F3 to program alarm help information for the category.

Maps: Displays the map numbers of any maps containing the Network Access Controller.

Convert Panel Type

Use the Convert Panel Type option to migrate a Challenger panel’s data from Challenger V8 / Challenger10 formats to Challenger10 / ChallengerPlus formats.

The use of this command is described in “Migrating older Challenger versions to Challenger10” on page 73.

Copy Panel

Use the Copy Panel option to create a new Challenger record by duplicating the programming from another Challenger record.

User records are not copied. Any errors will be reported to a file which can be viewed the end of the copy.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

The use of this command is described in “Copy Challenger” on page 66.

Copy NAC Panel:

Use the 'Copy NAC Panel' option to create a new NAC panel record by duplicating the programming from another NAC record.

- User records are not copied
- Errors will be reported in a file which can be selected at the end of the copy

IUM Card Categories

Use the IUM Card Categories option to create records that link users to IUM-enabled Challenger panels.

User records will be downloaded only to IUM Challenger panels that have a matching card category, regardless of the access group programming. This is because the download process has to know what raw card data to send to the Challenger for the user.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Id. Type up to 20 characters of text (e.g. “Factory 4, 26-bit”) and then click Save to create a new card category. This card category may be applied to a user on the User Card Data window (see Figure 63 on page 154).

Upload Panel Data

Use the Upload Panel Data option to upload all relevant data from the selected Challenger/NAC Panel.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

The use of this command is described in “Upload Challenger” on page 69.

Panel Detail Report

Use the Panel Detail Report option to list the details of a Challenger / NAC panel.

Refer to “Generating reports” on page 29.

Panel Enabled Report

Use the Panel Enabled Report option to list all Challenger/NAC panels that have been set as “Enabled”.

Refer to “Generating reports” on page 29.

Panel Summary Report

Use the Panel Summary Report option to generate a report showing a summary of a Challenger/NAC panel.

Refer to “Generating reports” on page 29.

Use the Format selection to generate the report in either text or CSV formats.

Panel User Report

Use the Panel User Report option to list the users of a Challenger/ NAC panel.

Refer to “Generating reports” on page 29.

Challenger > Download Panel Data menu

Clear Download Buffer

This command is typically used for dialler panels or offline panels. Use the Delete Download Buffer option to remove from the download buffers all data for a selected Panel or all panels. Connected direct-connect Challenger or NAC panels are sent data when a record is saved, so there will usually be no data in their download buffers.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Challenger. Select a Challenger panel by its number or ID, or leave blank for all Challenger panels.

Download All

Use the Download All option to download all data for the selected Challenger/NAC panel. You may optionally choose to not download user data.

Any existing data in the download buffer for the selected Challenger will be removed before the addition of the new data.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Challenger. Select a Challenger panel by its number or ID.

Download Users. When checked, Forcefield downloads only user records to the Challenger. Clearing this flag will download all data to the Challenger except for user records.

Download Panel Users

Use the Download Panel Users option to download user data to a selected Challenger/NAC.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Challenger. Select a Challenger panel by its number or ID.

Download Changes

Use the Download Changes option to download data that is currently in the download buffer to the selected Challenger. Usually there will only be data for dialler Challenger panels because directly-connected and IP-connected Challenger panels are sent data when a record is saved.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Challenger. Select a Challenger panel by its number or ID.

Panel Download Status

Use the Panel Download Status option to view the current state of Panel download processes on the selected Node.

Download User

Use the Download User option to send a single user record to a single Challenger.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

User Num. Select the user.

Challenger. Select a Challenger panel by its number or ID.

Select the user and Challenger, then click Run (or press F6) to initiate the download.

If the user does not have any access groups for the selected Challenger, an error message is displayed and the download does not happen.

Sync. User Deletes

Use the Sync. User Deletes option to re-download user deletions that previously failed to be downloaded to the appropriate Challenger panels (for example, if an operator stopped the download or cleared the download buffers).

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Challenger. Select a Challenger panel by its number or ID. Leave blank for all panels.

Click the Re-Download User Deletes button to initiate the download.

Alternatively, click the Remove User Deletes button to remove unsent user deletions from Forcefield.

Note: The Remove User Deletes option may result in unneeded user records remaining in Challenger panels. After using this option, the only way to synchronise users between Forcefield and Challenger is to perform a full user download.

Admin menu

Forcefield Shutdown

Use the Forcefield Shutdown option to shut down Forcefield (subject to the workstation's Allow Shutdown setting, see “Workstation options—other” on page 199). A shutdown may also be initiated by holding ALT-CTRL-SHIFT-S.

Depending on setting of the Shutdown by Logged In Op Only field (see page 264), the initial Forcefield Shutdown window prompts for either:

- Operator code and password, or
- Password only.

Add Event

See “Add Event” on page 135.

Change Root Password

Use the Change Root Password option to change the QNX root password on the Forcefield server.

Forcefield is initially set up using a default QNX root password. This password must be changed to prevent unauthorised access to the QNX shell or to access the Forcefield server using the Forcefield Remote Configuration application (see the *Forcefield External Interfaces Manual* for details).

Type the new password and press Enter. Record the root password and keep it in a secure location.

Press Ctrl+C to close the Change Root Password window.

Disable/Enable Workstation

Use the Disable/Enable Workstation option to enable or disable a workstation login.

The Forcefield server cannot be disabled even though it appears in the list of available workstations.

To enable or disable a workstation login:

1. From the main menu select Admin > Disable/Enable Workstation.
2. Optional: Click the Node arrow, and then select the Forcefield server.
3. Optional: Click the Workstation arrow, and then select a Forcefield workstation to be disabled or enabled.

   If no workstations are selected, then the command will apply to all Forcefield workstations. If no node is selected and no workstation is selected, then the command will apply to all Forcefield workstations except the current one.
4. Click the Disable/Enable arrow, and then select the required action to be performed.
5. Optional: Type a message in the Message field (e.g. to indicate who disabled or enabled the node and when).

   If you leave this field blank, a default message such as “Forcefield Workstation Disabled” displays.
6. Click Run to execute.

Login Attempts

Use the Login Attempts option to keep track of the number of times in sequence that an operator (or another person using the operator’s login code) enters incorrect passwords, and to lock out the operator for a specified time.

The lock out period ends when administrator resets that login code, or when the optional Lock Out Time expires.

Track Login Attempts. When checked, login attempts are tracked.

Login Attempts Allowed. Enter the number of unsuccessful attempts allowed before the operator is locked out.

Lock Out Time. Enter the number of minutes for the lock-out time. Range is from 10 to 999. **Note:** If 999 is entered, the operator will be locked out of the system, until an administrator resets the login code (see “Reset Operator Lockout” on page 263).

Set Login Message

Use the Set Login Message option to create a message that will be displayed to operators when they next log in to Forcefield. The message will be added to any existing message. The operator has the option to delete or keep the message.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

For Operators having Access. Create a message for all operators having this computer access.

Or Operators in Member Grp. Create a message for all operators in this member group.

Or Operator. Create a message for this operator only.

Message. Enter the text of the message.

Mount Storage

Use the Mount Storage option to temporarily mount (make a connection with) a storage device, for example, if requested by Technical Support staff in order to check the connection to the storage device. The device will remain mounted as long as this window is active, and will be unmounted when the window is closed or you click Unmount.

This option replicates the test functionality when a storage record is saved. It provides a means of testing a storage device without opening the storage device’s programming window.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

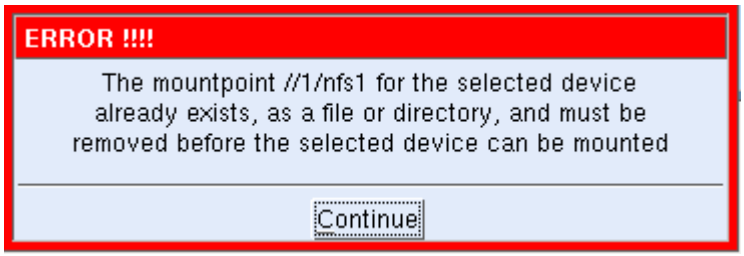
Id. Click the arrow to list all storage records. Click the storage device you want to test.

Mount button. Click to check the connection with a selected storage device.

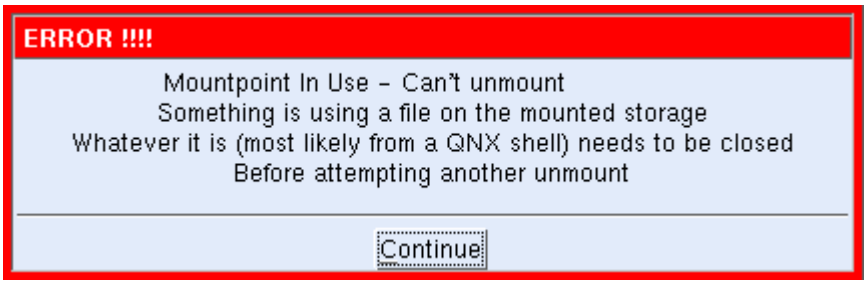
Unmount button. Click to end the connection with a selected storage device

(alternatively, close the window).

MountSvr (for NFS/CIFS mounting) now checks if the directory name exists (when it shouldn't) and returns the following error code to the calling process. In this case, the connection is not made.



The MountSvr on an unmount request now checks if the unmount failed (which it did before) but the difference now is if the only process on the list is the Mount Storage form, it assumes something has a file open on the mount-point and returns an error and does not close the connection.



Send Page Message

Use the Send Page Message option to send a message to either an ASCOM Nira Duress system or to an email address.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Message Type. Select the destination type (ASCOM Duress or email).

Beeps (ASCOM Duress only). Select the type of notification that the receiver should get.

Destination. Select the destination (e.g. an e-mail recipient).

Message. Enter the message to be sent.

QNX Shell

Use the QNX Shell option to open the QNX command line.

This function is for advanced system administration and should be used by qualified personnel only as it gives access to the QNX command line.

Type “exit” (in lower case), and then press Enter to close the QNX Shell window.

Note: The QNX Shell command opens a QNX shell with normal user privileges. At this level some system directories and commands are not accessible. Access at the superuser (root) level is password-protected and will require the operator to use the switch user command (su) and know the system root password. This information can be supplied by your Forcefield system administrator or technician.

See also “Change Root Password” on page 259.

Reset Operator Lockout

Use the Reset Operator Lockout option to reset an operator’s code after it has been locked out (see “Login Attempts” on page 260).

Descriptions of common window elements are in Chapter 3.

Send Operator Message

Use the Send Operator Message option to send messages to other workstations that have an operator logged on.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Send to Node. Select the required Forcefield node.

Work Station. Select a workstation to indicate where the message is to be delivered or leave blank for all workstations.

Message. Enter the message here. Click Run (or press F6) to send.

Set Date/Time

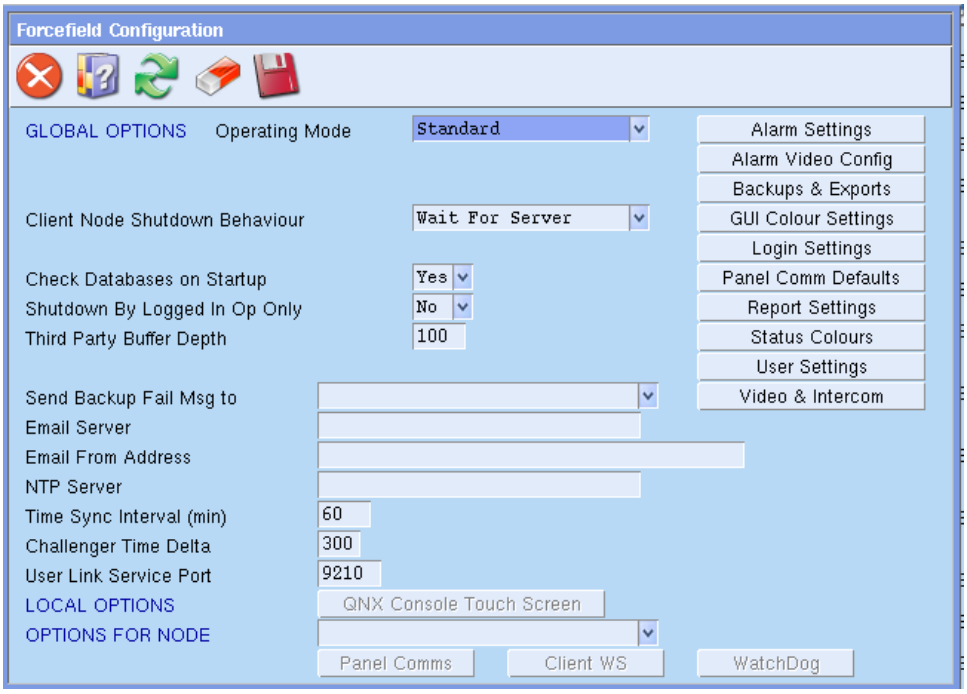
Use the Set Date/Time option to set the time and date for the Forcefield server. Use the calendar widget to select the time and date.

Admin > Configuration menu

Configuration

Use the Configuration option to control various settings for the Forcefield application.

Figure 82: Forcefield Configuration window



Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Operating Mode. Type a Forcefield computer can operate in two modes:

- Standard—Normal mode of operation.
- Watch House—A special mode of operation designed for watch houses.

Master Workstation field (displayed for watch house mode only). Select the workstation that is to be the master control (night switch) workstation. This is the workstation which will lose or gain members as other workstations are logged onto or off from. It is also the node to which intercom call control signals will be directed if Forcefield is controlling an intercom system.

Note: This option is displayed only when Forcefield is running in watch house mode. See “Watch house functionality” on page 5 for details.

Client Node Shutdown Behaviour. Select the Forcefield shutdown action required.

- Wait For Server—Client nodes will wait for an active server.
- Reboot—Node will reboot.
- Shutdown—Node will shutdown and not reboot.

Check Databases on Startup. Select Yes to have Forcefield check the databases at start-up time. Note that the action chosen here can be overridden by the operator at start-up time. Also note that a large database can take a long time to check.

Shutdown by Logged In Op Only. Select Yes to allow only the logged in operator to shut down Forcefield. The operator has to enter their password. Select No

to allow any operator to shutdown Forcefield. This requires the operator to enter both their login code and password.

Third Party Buffer Depth. Amount of events that will be held in the third-party event buffer. This value is global to all third-party systems used by Forcefield. Refer to the *Forcefield External Interfaces Manual* for details of integrating third-party devices into the Forcefield system.

Send Backup Fail Msg to. Select a workstation to receive messages from the Auto Backup processes if the backup fails. A desktop message will be sent to this workstation indicating the failure and the appropriate action to take. Leaving this field blank will result in no operator notification except via alarms.

Email Server. Enter the address of the email host that Forcefield will use to send emails. See “Event Paging” on page 91 and “System Status Report” on page 242 for uses of email. **Note:** This email host must accept unauthenticated mail.

Email From Address. Enter the domain part of the email address that Forcefield will uses for the ‘from’ address for Forcefield-generated emails. For example, enter “Fred.com” to generate emails that display a from address such as
“Forcefield E-mail.Pager@Fred.com”.

NTP Server. Specify the time server IP address here to allow Forcefield to synchronize its time to NTP (Network Time Protocol) server time.

Time Sync Interval. Enter a value in minutes to control how frequently Forcefield attempts to update the time in Challenger panels and other nodes in the system. **Note:** In order to update the time in Challenger panels, a non-zero heartbeat rate must be programmed for the IP connection, and it must be a smaller value than the time sync interval. For connection to Challenger10 panels, the heartbeat rate is programmed in “Forcefield to Panel IP Settings (Challenger10)” on page 369. For Challenger V8 panels, the heartbeat rate is programmed in Ethernet Configuration > Heartbeat Timeout.

Local Options. Select the node you wish to configure.

Options For Node. Select the node you wish to configure.

Video & Intercom button. Click to configure CCTV/Intercom parameters (see “Configuring CCTV/intercom options” on page 266).

Login Settings button. Click to configure Forcefield login options (see “Configuring login options” on page 267).

Report Settings button. Click to configure Forcefield report options (see “Configuring report options” on page 268).

User Settings button. Click to configure Forcefield user options (see “Configuring user options” on page 269).

Backups & Export button. Click to configure folder names for a USB, NFS or CIFS storage location (see “Configuring backup and export locations” on page 272).

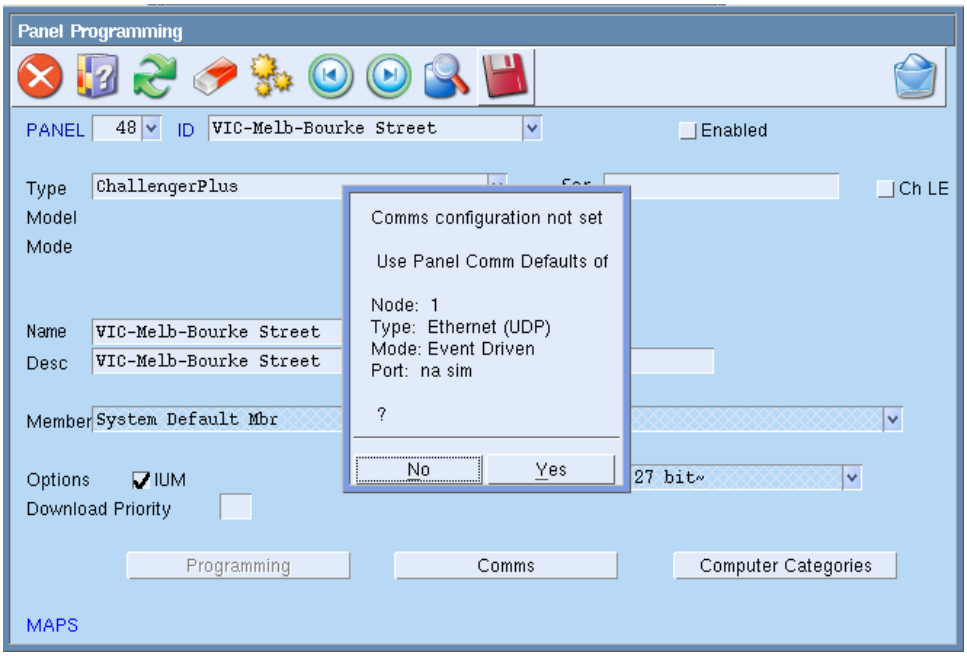
Status Colours button. Click to configure the colour and behaviour of Forcefield's maps, Speed Bar, and desktop titles (see "Configuring status colours" on page 273).

Alarm Settings button. Click to configure how Forcefield handles alarms (see "Configuring global alarm options" on page 274).

Alarm Video Config button. Click to configure how Forcefield handles alarm-activated video (see "Configuring alarm video options" on page 275).

GUI Colour Settings button. Click to select the workstation colouring scheme. Each workstation, once created, can be individually customised for colours. Changing the scheme will automatically change the icon colours to match. The icon settings can be individually altered once the scheme has been selected.

Panel Comm Defaults. In this form, the Operator can set the default Comms settings which are used when a new Panel is configured without Comms configuration set. Forcefield pops-up the below warning when saving a new Panel record in this scenario: Panel Comms button. Click to configure



Challenger communications options, such as poll rate (see "Configuring Challenger panel communications options" on page 276).

Client WS button. Click to configure the TCP/IP port numbers required for Forcefield client communication (see "Configuring client workstation options" on page 277).

WatchDog button. (see "Configuring watchdog options" on page 278).

Configuring CCTV/intercom options

On the Forcefield Configuration window (see

Figure 82 on page 264), click the CCTV/Intercom button to configure CCTV and Intercom options.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Door Open Blank Camera Delay. When the operator opens the door associated with an Intercom from the graphics, the video from the associated video camera is left connected to the intercom monitor for the time set here before the video is blanked.

Camera Number for Blank Video. This is the video camera number that will be used to select blank video. This may need to be specially set in the video switcher programming.

DVR: Tagging By Mgt. S/W Delay. This value is used when management software is tagging the DVR. The difference in time between the time the event was generated and the time the management software received the event must be less than the value specified here. If it is greater, no tagging will occur.

Multiview Minimum Dwell. Enter a value in seconds. This value will be the shortest time that can be programmed for a multiview dwell time when creating new camera multiview records, or updating existing records.

Isolated Intercom Alarm Period. This value is the amount of time that Forcefield uses to check to any isolated intercoms in the system. An alarm will be raised for each isolated intercom found.

Video Service VPC Port. Type the port number (for example, 9200) that the Video Presentation Client will use to listen for data. Do not use the same port number as used for the Video Status Manager (VSM). See “Video Service” on page 223.

Intercom Alarms Only to Intercom Workstations. Select this option to restrict intercom alarms to workstations that are audio workstations for master intercoms.

Configuring login options

On the Forcefield Configuration window (see

Figure 82 on page 264), click the Login button to configure Forcefield login options.

Forcefield 6 (and later) features a revised menu structure designed for rapid access to commands. However, operators familiar with navigating Ares or Forcefield (prior to version 6) may prefer to use the Classic menu structure. Both menu structures contain the same commands, so operators can choose the one that works best for them.

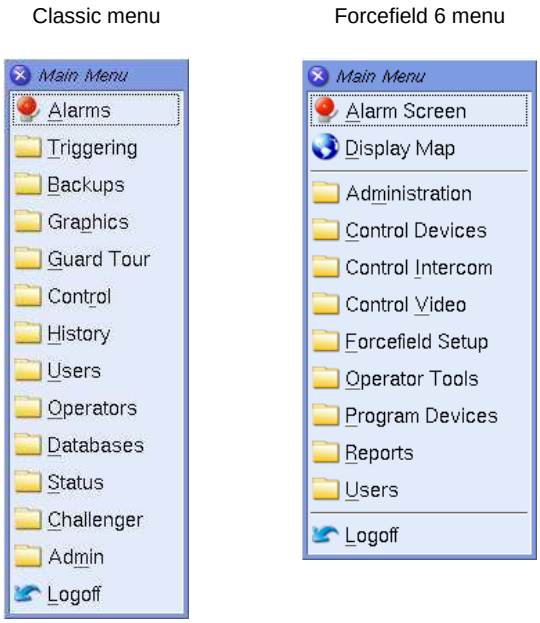
Minimum Password Length, Type a number from 4 through 12 to specify the password length.

Login Menu Structure. Select the required menu structure:

- Classic menu structure, as used in Ares or Forcefield (prior to version 6). This manual is based on the classic menu structure.
- Forcefield 6 menu structure, available only for Forcefield 6 and later. Refer to Appendix C “Forcefield 6 menu reference” on page 393 for details.

Click Save to apply the new menu structure at next login. The two menus (top level only) are shown in Figure 83 below.

Figure 83: Comparison of classic main menu to Forcefield 6 main menu



Configuring report options

On the Forcefield Configuration window (see

Figure 82 on page 264), click the Reports button to configure Forcefield report options.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Keep report files for. Enter the amount of time in days that Forcefield will allow report files to remain in the system before automatic deletion.

Configuring user options

On the Forcefield Configuration window (see

Figure 82 on page 264), click the User button to configure Forcefield user options.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Allow Auto User Number Allocation. When checked, Forcefield automatically allocates a user number when an attempt is made to create a user record without a user number. Forcefield searches from user 1 to find the lowest available user number.

Manual PIN Code for Users above 1000. When checked, Forcefield assigns PIN codes to users above 1000. Normally, if a user number is above 1000, Forcefield matches the PIN code automatically assigned by the door/lift controller. The user number downloaded to the Challenger must still be below 1000. Refer to “User Offset” in the Challenger programming (see “System Options” on page 316).

Prohibit Shared Profiles. When checked, Forcefield uses prohibit shared profiles mode. Prohibit shared profiles mode causes user profiles (and alternative user profiles) to be locked to user records. For example, user 1 can have only “User 1 Profile” and optionally “User 1 Alt Profile”.

Refer to “Converting to prohibit shared profiles mode” on page 57 before selecting this option.

Remove Unreferenced Profile on User Deletion. When checked, Forcefield prompts the operator to allow deletion of a profile when a user record has been removed and no other users refer to that profile. We recommend that this option is used when Forcefield is in prohibit shared profiles mode to help ensure that unused profiles are not left in the database and accidentally reused.

User Search Order. Select one of the following options:

- Alpha-Numeric By Member. This option typically provides rapid searching of user records sorted within the current operator’s members. This option has no effect for master operators because they have every member.
- Strict Alpha-Numeric. This option may be slow and the GUI may appear to be unresponsive if there are large numbers of user records and most of them don’t have members within the operator’s member group.

Surname Order. Select the name order. The User Setup window uses one field for a user’s name, and this option tells Forcefield whether the first word is the user’s surname or first name (see Figure 61 on page 147).

Muster Time. Specifies the time interval prior to generating a muster report that a user is considered mustered (see “Muster Report” on page 179). For example (where muster time is 15), all on-site users who badged at a muster reader within the past 15 minutes (of when the report is generated) are considered to be mustered. On-site users who have not badged at a muster reader within the past 15 minutes are considered to be not mustered.

User Defined Field Title. The value programmed here is used as the title of the user defined data field on the User Setup window (see Figure 61 on page 147, the default title is ‘Reference’). If the user defined data field is not needed, any data that has been previously saved can be removed with “Delete Unused Data” on page 145.

Smart Card Issue Site Code. Enter the default site code to be used when issuing smart cards.

Note: The default site code can be overwritten on an individual workstation basis.

Smart Card Issue Type. Select the default card type to be used when issuing smart cards.

Note: The default card type can be overwritten on an individual workstation basis.

Import User Data. This section relates to “Import User Data” on page 183. Select an option for Forcefield to import user data:

- No—Forcefield will not import user data.
- Manual—Forcefield will import user data when initiated by the operator.
- Auto—Forcefield will import user data automatically. When this option is selected, additional fields display to let you specify the scan time from 15 to 999 seconds. This is the amount of time Forcefield waits before scanning the import directory for an import file.

From. Select the source directory for automatically importing user data. This should be an NFS or CIFS connected device.

Report To. Select a printer where the import report will be printed.

Export User Data. Select an option:

- No—Forcefield will not export user data.
- Manual—Forcefield will export, must be Forcefield operator initiated.
- Auto—Forcefield will export without operator intervention. When this option is selected, additional fields display to let you specify the file format and destination.

In Format. Select an option:

- CSV—refer to the *Forcefield External Interfaces Manual* for details.
- TSV—refer to the *Forcefield External Interfaces Manual* for details.

To. Select an option:

- Local—this will be the local user export directory which will have to be NFS exported so the remote computer can access the data.
- Remote—a remote NFS directory for which Forcefield has write permission or a CIFS connection (e.g. a Windows share). If you selected

Remote, also select the destination directory for automatic exporting of user data. This should be an NFS/CIFS connected device.

Event Monitor Information button. Click to open the User Event Monitor Data window that you can use to select one or more types of user data to be displayed in the Event Monitor when a user-related event occurs.

For each type of user data selected, you can also add a prefix to be displayed. For example, if you select the Phone check box, then you could also add a prefix like “PH” to be displayed in front of the number.

Note: Additional user details are displayed only in the Event Monitor. They are not recorded in event history.

Configuring backup and export locations

This option applies to backing up or exporting files to a USB, NFS or CIFS storage location.

On the Forcefield Configuration window (see

Figure 82 on page 264), click the Backup/Export button to define the folder names where Forcefield will send the backup or export files. By default, history files are sent to a subfolder named “history” and database files are sent to a subfolder named “database”.

History. The default location on the storage is “history”. For example, if using a Windows share (CIFS) whose path is C:\Forcefield, then Forcefield places history backups into C:\Forcefield\history\histdb and history exports into C:\Forcefield\history\histexp. You can change the default folder name as required.

Database. The default location on the storage is “database”. For example, if using a Windows share (CIFS) whose path is C:\Forcefield, then Forcefield places database backups into C:\Forcefield\database\db and configuration backups into C:\Forcefield\database\config. You can change the default folder name as required.

Configuring status colours

On the Forcefield Configuration window (see

Figure 82 on page 264), click the Status Colour button to configure the colour and behaviour of Forcefield's maps, Speed Bar, and desktop titles.

Populate the Blink check box to make the colour blink.

Click Set to Default to restore all colours and blinking behaviour to the initial (default) state. **Note:** All programmed settings for this option will be reset.

Configuring global alarm options

On the Forcefield Configuration window (see

Figure 82 on page 264), click the Alarms button to configure how Forcefield handles alarms.

Incident Generation. Forcefield can group a member's events into incidents. An incident is a series of events (starting with an alarm event) belonging to a member.

- None—incident records are not used.
- Auto—Forcefield automatically initiates incident records starting with an alarm event.
- Manual—operators must manually initiate incident records from the Alarm screen by clicking the Begin Incident button on the Alarm window (see Figure 20 on page 33, item 8).

Deny ACK For Unrestored Sector Alarms. If set to Yes, alarms originating from a device with a sector number in its computer category cannot be acknowledged until restored.

Alarm Screen Sector Alarm Msg Name. If Deny ACK For Unrestored Sector Alarms is set to Yes, and the operator tries to acknowledge an unrestored alarm, Forcefield displays an error message such as "Can't ACK. Sector Alarm Not Restored". You can change the name "Sector" in the error message as required.

Delay Override Alarm Response. This setting controls how alarm responses are handled for devices that do not require a restoral (as set by the device's computer category). When set to Yes, the alarm response is delayed until the operator clicks Respond on the override notice, and acknowledges the alarm. When set to No, the alarm response is generated when the operator clicks Respond on the override notice.

Override Alarm Delivery Order. This setting controls the order in which override alarms are presented to operators. Select Time to present override alarms in chronological order. Select Priority to present alarms in order of their assigned priority number. For example, a higher priority 2 alarm will displace a lower priority 5 alarm.

Configuring alarm video options

On the Forcefield Configuration window (see

Figure 82 on page 264), click the Alarm Video button to configure how Forcefield will play video triggered by alarms. Two types of behaviours can be configured to suit normal alarms and sector (perimeter) alarms.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Recorded Footage options:

Display. Set to Yes to display video when an alarm occurs from a device that is configured with a camera in the Forcefield database.

Display Method. When set to Manual, the operator has to press the footage button in the alarm detail screen to view the video. When set to Auto, the video will play automatically when the alarm detail is opened in the alarm screen.

Number of Display Streams. Enter 1 for normal (non-sector) alarms. For a sector alarm, enter the number of display streams to be displayed. If multiple streams are to be displayed, the Monitors to Use should be set to one of the monitor groups.

Monitors to Use. Select AlarmSpot to use the monitor set as the alarm spot monitor for the Forcefield workstation video. Select MonitorGroup (1 to 3) to use the list of monitors configured as monitor groups in Forcefield workstation video. The monitors used will be taken from the monitor group in order (for example, if two streams are required, then the first two monitors from the monitor group will be used.

Synchronised Playback. Set to Yes to attempt to synchronise the viewing of multiple video streams (depending on the capabilities of the recording DVRs).

Search and Play options:

from Time Before Event. Enter the number of seconds before the alarm event that footage should be recorded for searching and replaying (depending on the capabilities of the recording DVR).

to Time After Event. Enter the number of seconds after the alarm event that footage should be recorded for searching and replaying (depending on the capabilities of the recording DVR).

Configuring Challenger panel communications options

On the Forcefield Configuration window (see

Figure 82 on page 264), click the Panel Comms button to configure communications options.

The poll rate is used for poll/response Challenger panels. As the Challenger is a poll/response device, specifying a longer value here means that Forcefield will take longer to find out what is happening in the field equipment. Specifying a shorter time will increase the bandwidth required. This may be important if you are using a shared network (TCP/IP).

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Maximum Concurrent Panel Downloads. Enter the maximum number of simultaneous download processes that can be run. If more simultaneous downloads are required, then panel downloads will be performed according to the panels' download priority values. See "Panel programming" on page 249.

Direct Connect, poll every. The time in milliseconds of the delay between successive polls of a direct connect Challenger.

TCP/IP, poll every. The time in milliseconds of the delay between successive polls of a TCP/IP-connected Challenger (e.g. a serial Challenger connected via a terminal server such as an MSS-1).

Dialler, poll every. The time in milliseconds of the delay between successive polls of a dialler connected Challenger.

Recalls of Status, poll every. The time in milliseconds of the delay between successive recalls of Challenger status.

Check Panel Time Every. At the number of minutes specified Forcefield sends a heartbeat probe to event-driven Challenger10 panels to ensure they are still online. **Note:** Heartbeat timeout for event-driven Challenger V8 panels uses the value programmed in "Heartbeat Timeout" on page 367.

Challenger10 TCP Port. Enter the port number that Forcefield uses to listen for incoming Challenger10 TCP/IP connection attempts.

Configuring client workstation options

On the Forcefield Configuration window (see

Figure 82 on page 264), click the Client WS button to configure the Forcefield Client options.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Control Port. Enter the TCP/IP port number used for remote workstation identifier message transfer.

Transfer Port. Enter the TCP/IP port number used for remote workstation file transfer.

Note: Port 4868 is always required and is not configurable here. Port 4868 must always be available for Forcefield.

Configuring watchdog options

Forcefield Enterprise hardware can integrate with watchdog cards to detect mains failure, low battery, and system lockups.

On the Forcefield Configuration window (see

Figure 82 on page 264), click the Watchdog button to configure the watchdog options. The Watchdog button is enabled only when the Forcefield hardware supports it.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

WatchDog Active. Check to indicate there is a watchdog card installed on this node.

Type. Select the type of watchdog card installed (WD501-P type is selected by default).

Reset Period. Enter the time in seconds that the watchdog card will wait for a pulse from Forcefield before it resets the system (if the watchdog reset line is wired to the computer's reset line). If the watchdog card does not get a pulse from Forcefield every x seconds, it will reset the system. The minimum value is 9 seconds and the default value is 60 seconds.

IRQ. Enter the IRQ (interrupt request) value the card is set for.

- If the card is an ISA bus card the address is set by jumpers on the card.
- If the card is a PCI bus card use the show_pci -v command to determine the I/O address and interrupt that the computer BIOS has assigned to the card.

I/O Address. Enter the I/O address of the card.

- If the card is an ISA bus card the address is set by jumpers on the card.
- If the card is a PCI bus card use the show_pci -v command to determine the I/O address and interrupt that the computer BIOS has assigned to the card.

Change Site ID

Use the Change Site ID option to change the name displayed at the top of the Forcefield desktop.

The Forcefield license disk contains the site ID, which is displayed at the top of the Forcefield desktop. In order to change the name displayed at the top of the Forcefield desktop both the old and new license disks are required.

The Change Site ID command uses the current license disk to confirm the site identification, and then it uses the new license disk to install the new site ID.

Change Dialup Password

Use the Change Dialup Password option to enable the Forcefield Client Point-to-Point Protocol (PPP) dialup password to be changed.

Enter the new Forcefield Client PPP dialup password, enter it a second time to confirm, and then click Save.

Event Read Delay

Use the Event Read Delay option to adjust Forcefield's internal time delay for reading events (default is 5 milliseconds) during this session.

Common window elements are described in Section 3. Descriptions of window-specific elements follow.

Node. Select the node to be adjusted.

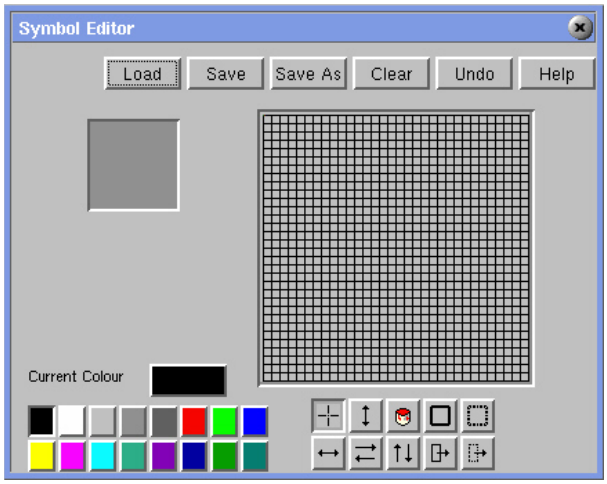
Change to. Enter a value in the range 1 to 40 (ms). A value below 5 will result in faster event processing but may make the GUI less responsive.

Note: The value is set to default each time Forcefield is started.

Icon Editor

Use the Icon Editor option to modify or create icons for use on Forcefield Speed Bar and Alarm Screens.

Figure 84: Forcefield Icon Editor window



Icons are fixed size symbols (31 x 25 pixels), and the icon files are required to be located in /usr/ares/config/symbols/.

The symbol editor has six function buttons, a work area, a display area, two size selection widgets, and colour and tool selection buttons.

This location may be altered in the Save and Save As options but they will not be available for graphics display if they are not in the default directory.

Function buttons

The symbol editor's function buttons are:

- **Load**. Opens the file selection screen and loads the symbol from the selected file. No checking is done for unsaved data. This operation will overwrite any current data in the work area.
- **Save**. Saves the current symbol from the work area using the current filename. If there is no current filename the operation does nothing.

- **Clear**. Clears the work and display areas.
- **Save As**. Save the current symbol from the work area using the filename selected from the file selection screen or a new filename entered.
- **Undo**. Goes back ONE drawing operation.
- **Help**. Displays the Icon Editor help.

Colour selection

The default colour palette is two rows of buttons representing the default colours. To select a non-default colour, click the Current Colour button to bring up the colour selection widget.

To make a pixel transparent use the right mouse button in pencil mode.

Drawing tools

Ten buttons select the drawing options:

- **Pencil**. Tool replaces the colour of the pixel under the cursor with the current colour for left click, transparent for right click.
- **Horizontal Line**. Tool replaces the colour of the entire row under the cursor with the current colour.
- **Vertical Line**. Tool replaces the colour of the entire column under the cursor with the current colour.
- **Paint**. Tool replaces the colour of all pixels having the colour of the pixel under the cursor with the current colour.
- **Add Rectangle.** Drag a rectangle, upon release the rectangle is drawn in the current colour.
- **Cut Rectangle**. Drag a rectangle, upon release the rectangle is set to transparent the other drawing tools select operations on the current symbol.
- **Flip Horizontal.** The symbol is mirror image reversed around the vertical axis.
- **Flip Vertical**. The symbol is mirror image reversed around the horizontal axis.
- **Copy and Move**. First an area is selected with a drag operation, and then the upper left hand corner of the destination is chosen. The original area is copied to the destination
- **Cut and Move**. First an area is selected with a drag operation, and then the upper left hand corner of the destination is chosen. The original area is made transparent and the original area is drawn to the destination.

Tip: Hold the cursor above a button to display the name of the button.

Modify License

Use the Modify License option to add licensed modules, or install additional node licenses. The Forcefield license disk contains the details of the licensed modules (such as CCTV). In order to add licensed modules, or install additional node licenses, a new license disk is required.

Insert the new Forcefield license disk, and then click Continue to update the license.

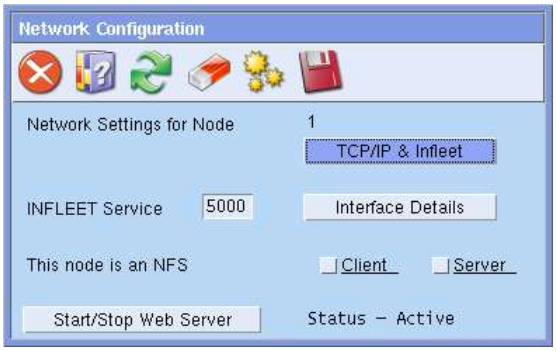
Note: Restart the Forcefield server after installing the new or modified license.

Network Configuration

Use the Network Configuration option to configure the Forcefield system network.

Note: After any details are altered, the Forcefield system will have to be shut down and rebooted for the new settings to take effect.

Figure 85: Network Configuration window



Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

TCP/IP & Infleet button (multi-node systems only). Click to configure IP addresses and infleet nodes. See “Configuring TCP/IP addresses and infleet nodes” on page 283 for details.

Infleet is required where nodes are to communicate using infleet (TCP/IP) instead of FLEET (QNX MAC)—this requires TCP/IP be set for the selected nodes. Infleet configuration is required only if TCP/IP (not QNX FLEET) internode communication is required.

TCP/IP configuration is required only if:

- Forcefield clients are being used from the node.
- IP-connected Challenger panels are connected to the node.
- Infleet internode communication is required.
- Forcefield triggering is set to send packets to UDP/IP devices.
- Any third party equipment requiring TCP/IP is connected.

- NFS or CIFS facilities are required.

Note: Communication between nodes over a WAN is not recommended due to network performance considerations. All nodes including the primary and backup servers should be on the same network segment and will usually be connected to switches, so there will be no effect on other general network performance.

Interface Details button. Click to configure the network details for the this node. See “Configuring network details” on page 284 for details.

Each interface corresponds to a logical LAN running on a particular Network Interface Card (NIC). The particular NIC is referenced by the -I argument to the Net.driver, e.g. Net.ether1000 -I3 would refer to LAN 3 and would be interface 3 in this utility. Normally only 1 interface is required and is capable of carrying both QNX MAC and TCP/IP traffic.

Infleet Service. The starting number for the infleet service in /etc/services. This is usually 5000; it must be identical on all nodes. Forcefield will use up to 20 consecutive values depending on the version of Forcefield and how many infleet nodes are required.

Client. When checked, the Forcefield client can be an NFS client and can use NFS mounted storage on other IP hosts as though it is local storage. See “NFS Storage” on page 203 for details.

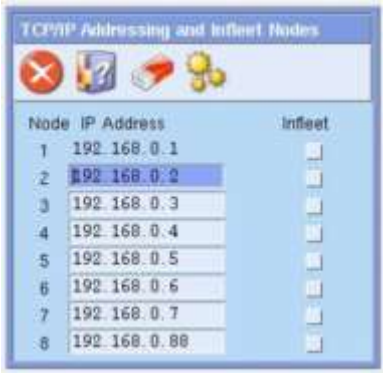
Server. When checked, the Forcefield server can be an NFS server and can export Forcefield directories to (allowed) ‘other’ IP hosts. See “NFS Exports” on page 201 for details.

Start/Stop Web Server button. Click to toggle the state of the Forcefield server’s onboard Web server. The Web server allows Forcefield Client software to be installed via an IP connection instead of from CD or USB device. The Web server should be stopped (inactive) if it is not in use, and is inactive by default each time the Forcefield server is restarted.

Configuring TCP/IP addresses and infleet nodes (multi-node systems only)

The TCP/IP Addressing and Infleet Nodes window displays node numbers followed by IP Address fields and an Infleet check box. Figure 86 below indicates a non-Enterprise Forcefield system with up to 8 nodes.

Figure 86: Network Configuration window (TCP/IP & Infleet)



Set the check box for the required node to enable TCP/IP addressing, and then program the TCP/IP address used by the default interface for that node. It is not possible to set the check box for the local node.

QNX normally operates on a LAN that has no routers (QNX packets are not routable).

QNX 4 uses the following Ethernet protocol:

- Ethernet 2.0 based on the DIX (Digital, Intel, Xerox) 2.0 specification
- QNX 4 has an assigned ethertype of 0x8203

To use FLEET (which is the recommended method), the network should be straight cable or routers or switches capable of passing the 0x8203 packets. If this is not possible, the FLEET packets must be encapsulated into TCP/IP.

Configuring network details

From the Network Configuration window (Figure 85 on page 282), click the Interface Details button to configure the network settings for this node.

Figure 87: Interface Details window (example IP address used)

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Address fields. Enter the IP address of the Forcefield server (refer to your system administrator).

Gateway fields. Enter the gateway address of the Forcefield server (refer to your system administrator). Any gateway address set for the default interface will be the default gateway for the Forcefield server's IP traffic (i.e. any traffic to an unknown host will be routed to this gateway).

Netmask fields. Enter the netmask required for the Forcefield server (refer to your system administrator).

Broadcast fields. Enter the broadcast address (refer to your system administrator). A broadcast address is not normally required.

Queue Configuration

Use the Queue Configuration option to configure Forcefield's memory-based queues. This enables the system administrator to fine tune how events are to be handled by Forcefield. The queues are:

- AlarmQue (Challenger panel alarm events)
- CosQue (Challenger panel change of state events, such as door access)
- ComputerQue* (events generated by Forcefield)
- AddedAtChQue (new records added via Challenger RAS, such as a new user)
- IntercomQue* (intercom events)
- DuressQue* (external duress system events)
- UserExportQue* (events generated by Forcefield when auto exporting user data)

* Default values recommended.

Normally, only the AlarmQue and CosQue would be modified to hold a small number of entries (to ensure only a small number of panel events are lost if Forcefield is abnormally terminated) and to not "Spill to Disk".

Tip: Use "**Error! Reference source not found.**" **Error! Bookmark not defined.** to list the configuration settings for a node's queues.

Common window elements are described in Section 3. Descriptions of window-specific elements follow.

Queue Name. Select the required queue from the list.

MaxEntries. Enter a value for the size of the memory queue.

Spill to Disk On Overflow. When checked, once the memory queue is full, any further entries are written to disk. If this option is not checked, the queue manager will return a queue full message to whatever is placing the entry on the queue.

Spill to Disk On Shutdown. When checked, any unprocessed entries on the queue will be written to disk when Forcefield shuts down. If this option is not checked, any entries on the queue will be lost when Forcefield shuts down.

Service Forcefield

From time to time, we may issue service pack files for Forcefield (for example, for a product enhancement). Use the Service System option to select and run a service file.

To run a service file:

1. From the main menu select Admin > Configuration > Service System.

2. Click the Service System from arrow, and then select the storage location containing the service file.
3. Select the storage location containing the service file.
4. Click Run to execute. Forcefield displays a File Selector window
5. Select the service file and then click Update. A QNX window opens containing instructions.
6. Follow the instructions in the QNX window to complete the procedure. The Service Forcefield window displays a progress bar during the update process.

Set Node Server Locale

Use the Set Node Server Locale option to define the time zone that the Forcefield node resides in.

If the Forcefield node is in a location that uses daylight saving time, the start and end dates must be entered. The time of switching in or out of daylight saving time is 2 a.m.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Timezone & Daylight Saving Data for Node. Select the required node.

Location. Select the time zone location required for the Forcefield node, e.g. Australia - Central, New Zealand, etc.

Has Daylight Saving. Check the box to indicate that the location uses daylight savings. Setting this option will bring up the day of week, week of month, month of year entry fields.

Speed Bar Configuration

Use the Speed Bar Configuration option to edit the Forcefield Speed Bar for a particular workstation (see Figure 6 on page 18).

After editing or adding a button, logout and then login again to see the new button. Some operators may not see new buttons because of the operator's access levels.

There are two types of Speed Bar buttons that may be added:

- Event Macro. Activates a Forcefield 'Event Macro' which can trigger numerous devices (see "Event Trigger" on page 91).
- A Forcefield menu item. Opens menu option, rather than having to navigate through the menus.

To see (and select) a current Speed Bar button, click List (or press F12).

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Macro. Check the box to indicate that a macro function is required. When checked, the Function list displays macros.

Icon. Select an icon to use on the Speed Bar button. To create a new icon, see “Icon Editor” on page 280.

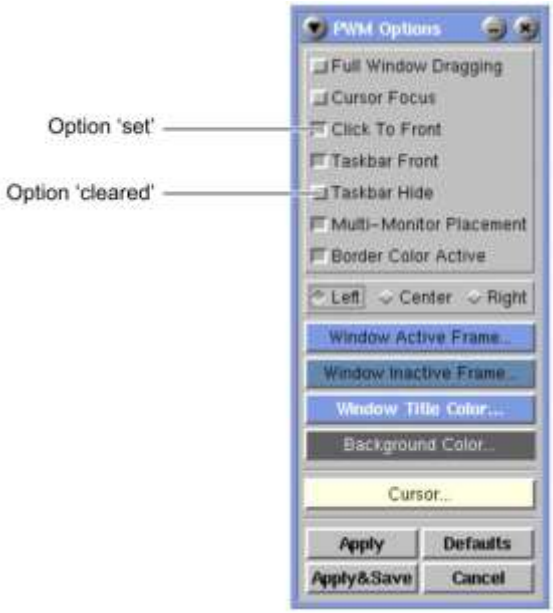
Function. Select the required function or macro.

Help String. Enter the text to be displayed when your mouse moves over the Speed Bar button.

Windows Manager Options

Use Windows Manager Options to control the appearance and behaviour of Forcefield windows, including move, resize, minimize, maximize, raise, lower, and close. It provides common window frame borders that can be customized based on the requirements of the specific application. It also creates and manages the Taskbar.

Figure 88: Windows Manager Options window



The Windows Manager Options settings for the Forcefield user workspace are as follows:

- **Full Window Dragging** selection. If set, windows are continuously redrawn as they are dragged/moved around the screen. If cleared, only an outline of the window frame is dragged and the window is redrawn at its final position. This is useful for Forcefield Client.
- **Cursor Focus** selection. If set, focus is given to the window under the cursor. If cleared, focus remains with the current focus window regardless of cursor location. The focus window is the one that receives all keystrokes.

- **Click to Front** selection. If set, a click in any part of the window will bring it to the front. If cleared, only clicking in the title bar will bring a window to the front.
- **Taskbar Front** selection. If set, the taskbar is the topmost window. If cleared, the focus window appears on top of all other windows on your workspace.
- **Taskbar Hide** selection. If set, the taskbar is hidden. If cleared, the taskbar always appears at the bottom of your workspace.
- **Multi-Monitor Placement** selection. In a multi-monitor environment, several monitors make up a single workspace, so you may want the new windows to open relative to the entire group of monitors, rather than just the current monitor. If set, new windows open relative to the entire group of monitors, rather than just the current monitor. If cleared, new windows appear on your current monitor.
- **Border Colour Active** selection. If set, applies the window active frame colour to the border.
- **Left, Centre, Right** selections. Sets the alignment of the window title.
- **Window Active Frame...** button. Enables a different colour to be selected for this item.
- **Window Inactive Frame...** button. Enables a different colour to be selected for this item.
- **Window Title Colour...** button. Enables a different colour to be selected for this item.
- **Background Colour...** button. Enables a different colour to be selected for this item (not applicable for Forcefield Client).
- **Cursor...** button. Enables a different style and colour to be selected for this item (not applicable for Forcefield Client).
- **Apply/Revert** button. Click to apply changes and save them to the configuration file. The text on the button changes to Revert. Click the Revert button to apply changes without saving them to the configuration file. Click the Revert button again (without making any more changes), to revert to the original settings. This is useful to test the behaviour of a user interface against a variety of operating paradigms without the need for saving and relaunching the configuration window.
- **Apply and Save** button. Click to save any modified options. This will write the options to the user configuration file as well as instruct Windows Manager to reconfigure itself to the new options.
- **Defaults** button. Click to restore options to their defaults. The default options are Full Window Dragging, Click To Front, and Centre title alignment. The colour defaults for the window are window green when active and medium grey when inactive.

- **Cancel** button. Click to quit the options configuration program without saving any changes. You can also cancel by closing the window from the menu or pressing the Esc key.

Admin > Data Mirroring menu

Checkpoint History

This option is displayed only for the mirror site.

Checkpoint History Mirror. This option is used to archive the history received from the primary site at the mirror site. The archive file, identified with the date and the suffix “-prim”, can be used to generate reports via the Offline History option.

For more information on mirrored history, see “Mirrored history” on page 390.

Mirror Setup

Use the Mirror Setup option to configure Forcefield’s data mirroring system for offsite redundancy.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

The Mirror Setup window differs depending on the setting of the Primary or Mirror Site field. See “Mirror Setup window for the primary site” below and “Mirror Setup window for the mirror site” on page 291.

For detailed information on setting up offsite redundancy, see “Setting up offsite redundancy” on page 373.

Mirror Setup window for the primary site

Primary or Mirror Site. Select Primary.

Mirror Address. Enter the IP address of the mirror site.

Comms Base Port. Enter the number of the mirror computer’s port for monitoring. Note that three consecutive ports are used for monitoring, data transfer and history transfer, respectively, starting with the number entered here. Monitoring uses UDP/IP while data and history transfer use TCP/IP. The same port must be entered in the Mirror Setup window for the mirror site.

Note: Port 21 (FTP) will also be used for initial data synchronisation.

Monitor Secondary Server. When set to Yes on the primary site, Forcefield monitors the mirror site and can generate a Failure of Mirror Site alarm. This setting will not cause data and history transfer between the two sites (data and history transfer are set separately).

Heartbeat. Enter the maximum number of seconds allowed between monitoring heartbeat messages between primary and mirror sites.

Note: The heartbeat time on the mirror site should be higher than the value selected for the primary site. Failure to ensure this will result in the mirror site generating heartbeat timeout events.

Max Miss. Enter the number of consecutive missed monitoring heartbeats before the primary site assumes the mirror site is not available. Forcefield will start without mirror monitoring if this number of missing heartbeats is exceeded.

Comms Down Delay. Optionally, enter a delay time from the detection of a lost connection to the mirror site and the instigation of loss of mirror actions (i.e. takeover by the mirror site and optional shutdown of the primary site). If heartbeats are received during this delay period, normal operation will continue and no loss of mirror actions will occur.

Start Forcefield After. When Monitor Secondary Server is set to Yes, enter the number of failed connection attempts before the primary site assumes the mirror site is not available. Forcefield will start without mirror monitoring if this number of failed connection attempts is exceeded.

Shutdown on Loss of Mirror. When Shutdown on Loss of Mirror is set to Yes, a lost connection to the mirror site will cause the primary site to do a controlled shutdown. If set to No, the primary site will continue operating. Note that the mirror site may have taken over as the controlling server so that there are two controlling servers running.

Transfer Data. Select Yes if data is to be dynamically transferred from the primary to mirror site. This setting will cause buffering and transmission to the mirror site of any data changes.

Transfer Data Heartbeat. When Transfer Data is set to Yes, enter the maximum number of seconds allowed between data transfer heartbeat messages between live and mirror sites.

Note: The heartbeat time on the mirror site should be higher than the value selected for the primary site. Failure to ensure this will result in the mirror site generating heartbeat timeout events.

Transfer Data Max Miss. Enter the number of consecutive missed data transfer heartbeats before an alarm is generated.

Transfer Data Buffer Alert. Enter the maximum number of transactions allowed in the primary site data buffer before an alarm is generated. The data buffer can hold approximately 450,000 records.

Note: Failure to address why the limit has been exceeded will eventually result in a full buffer and dynamic data transfer will fail.

Transfer History. Select Yes if history is to be dynamically transferred from the primary to mirror site. This setting will cause buffering and transmission to the mirror site of any history changes.

Transfer History Heartbeat. When Transfer History is set to Yes, enter the maximum number of seconds allowed between history transfer heartbeat messages between live and mirror sites.

Note: The heartbeat time on the mirror site should be higher than the value selected for the primary site. Failure to ensure this will result in the mirror site generating heartbeat timeout events.

Transfer History Max Miss. Enter the number of consecutive missed history transfer heartbeats before an alarm is generated.

Transfer History Buffer Alert. Enter the maximum allowed number of transactions allowed in the primary site history buffer before an alarm is generated. The data buffer can hold approximately 3 million records.

Note: Failure to address why the limit has been exceeded will eventually result in a full buffer and dynamic history transfer will fail.

V8 Panel Management Software Address to Use. When the primary site connects to a V8 Challenger panel, Forcefield will set the panel's software management addresses from the panel's Ethernet configuration record. This setting will set the addresses in the order shown in that record (option 1) or swapped (option 2). This field is usually set to 1 on the primary site.

Mirror Setup window for the mirror site

Caution: If the mirror site is currently in active mirror mode (i.e. it is the controlling server) then saving the Mirror Setup configuration will return the mirror site to Backup Mirror mode at the next reboot.

Primary or Mirror Site. Select Mirror.

Primary Address. Enter the IP address of the primary site.

Comms Base Port. Enter the number of the primary computer's port for monitoring. Note that three consecutive ports are used for monitoring, data transfer and history transfer, respectively, starting with the number entered here. Monitoring uses UDP/IP while data and history transfer use TCP/IP. The same port must be entered in the Primary Setup window for the primary site.

Note: Port 21 (FTP) will also be used for initial data synchronisation.

Monitor Primary Server. When set to Yes on the mirror site, Forcefield monitors the primary site and can take over if the primary site fails. This setting will not cause data and history transfer between the two sites (data and history transfer are set separately).

Heartbeat. Enter the maximum number of seconds allowed between monitoring heartbeat messages between live and mirror sites.

Note: The heartbeat time on the mirror site should be higher than the value selected for the primary site. Failure to ensure this will result in the mirror site generating heartbeat timeout events.

Max Miss. If the start-up action is set to “Become Server”, enter the number of consecutive missed monitoring heartbeats before Forcefield starts as an active mirror site.

Comms Down Delay. Optionally, enter a delay time from the detection of a lost connection to the primary site and takeover by the mirror site. If heartbeats are received during this delay period, normal operation will continue.

Set Time From Primary. Set to Yes to synchronise the time of the mirror site from the primary site.

Takeover As Primary After. When Monitor Primary Server is set to Yes, enter the number of failed connection attempts that will trigger the mirror site to take over (if the Startup Action is set to Become Server).

Startup History Archive Action. Select what to do with the primary site's history when the mirror site starts. Select New to create a new primary site history archive. Alternatively, select Append to add to the current primary site history archive. In either case, a new working archive is created when the current working archive becomes full.

Note: No reporting is possible from the working archive. In order to report on the latest primary site history it is necessary to create a dated archive (see “Checkpoint History” on page 289).

Local Operations. Select the manner in which the mirror site operates. Select Mirror Only to restrict the Forcefield menu to setting up mirror operation only. Alternatively, select Read Only Forcefield to enable an operator to perform most functionality, except for data saving operations.

Takeover Mode. Specify how the mirror site takes over Forcefield. Select Instantly to reconfigure and reboot as the active server site as soon as failure of the primary site is detected. Select Time Delay to reconfigure and reboot as the active server site after a configurable delay. This allows the operator at the mirror site to abort the takeover by shutting down. Select Manual to stop monitoring of the primary site, with no further action by Forcefield. A manual reconfigure and shutdown/reboot will be required to take over as the active server site.

If the takeover mode is Time Delay, specify the number of minutes or seconds of delay time, and then select either minutes or seconds.

Startup Action. Specify the behaviour required on the mirror at start-up. Select Wait for Primary if you want the mirror to wait without limit for the primary site (the operator can abort waiting). Select Become Server if you want the mirror to take over as the server node.

Transfer Data. Select Yes if data is to be dynamically transferred from the primary to mirror site. This setting will cause buffering and transmission to the mirror site of any data changes.

Transfer Data Heartbeat. When Transfer Data is set to Yes, enter the maximum number of seconds allowed between data transfer heartbeat messages between live and mirror sites.

Note: The heartbeat time on the mirror site should be higher than the value selected for the primary site. Failure to ensure this will result in the mirror site generating heartbeat timeout events.

Transfer Data Max Miss. Enter the number of consecutive missed data transfer heartbeats before an alarm is generated.

Transfer History. Select Yes if history is to be dynamically transferred from the primary to mirror site. This setting will cause buffering and transmission to the mirror site of any history changes.

Transfer History Heartbeat. When Transfer History is set to Yes, enter the maximum number of seconds allowed between history transfer heartbeat messages between live and mirror sites.

Note: The heartbeat time on the mirror site should be higher than the value selected for the primary site. Failure to ensure this will result in the mirror site generating heartbeat timeout events.

Transfer History Max Miss. Enter the number of consecutive missed history transfer heartbeats before an alarm is generated.

V8 Panel Management Software Address to Use. When the primary site connects to a V8 Challenger panel, Forcefield will set the panel's software management addresses from the panel's Ethernet configuration record. This setting will set the addresses in the order shown in that record (option 1) or swapped (option 2). This field is usually set to 2 on the mirror site.

Mirror Status

Use the Mirror Status option to view details of mirroring.

Click the Monitor, Data or History buttons to see summaries of:

- Whether mirroring is selected
- Heartbeats
- Transactions

Admin > Tools menu

Event Simulator

Use the Event Simulator option to simulate most events that can occur in a Forcefield system. For example, event simulator can be used to test event triggering.

Event simulator is used to create the same outcomes as you would expect to see generated by actual equipment. You need to know what outcome to expect in order to use this tool.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow (the titles of the data entry fields depend upon the selected event).

Event. Select the event to be simulated (you can type some characters to filter the selection).

From Challenger. Select an existing Challenger, or type a Challenger number for an existing or non-existing Challenger.

From XX field (where XX depends on the selected event). Select an existing device or type a number for an existing or non-existing device.

User field (for user events). Select an existing user or type a number for an existing or non-existing user.

Click Run to simulate the event.

aca Panel Event Analyzer

Use the aca Panel Event Analyzer option to run the Forcefield communication analyser.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Click the Start aca by arrow, and then select one of the following options:

- Challenger. Show event activities for a specific Challenger panel.
- Serial Port. Show event activities for Challenger panels connected by direct serial or dialler connections.
- TCP/IP Port. Show event activities for all event-driven IP Challenger panels that are using the IP port.
- TCP/IP Host. Show event activities for polled IP Challenger panels that are using the IP host (the IP address). This includes any Challenger panels connected via terminal server.

COS Injector

Use the COS Injector option to simulate a COS event from a panel and/or create an .aca file. The event, if injected, will be added to the history, preceeded by a SIMULATED EVENT event.

QNX Shell

See “QNX Shell” on page 262.

Status File Utility

Use the Status File Utility option to read the existing status of a point, and optionally to update the status of a point.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Type. Select the type of point required (area, computer, DGP, etc.).

Point. Select the point required (only points for the selected type are displayed). The status is automatically read and displayed in the Status File Utility window.

- Click Run to re-read the status of the same point.
- Click Save to change the contents of the status file to the values set on the screen.

Alarm Status. Read-only, it is not updated on a save.

System Information

Technical support staff may use the System Information option to diagnose faults and to ensure correct system operation.

Appendix A
Challenger programming

Summary

This appendix describes how to use the Forcefield user interface to program Challenger panels connected to the system.

Content

Introduction

A Challenger panel must initially be programmed via a RAS keypad to enable communications with Forcefield.

It is a requirement that Forcefield operators or Technicians using this section are familiar with the details of Challenger programming as described in the *Challenger Programming Manual* and the field-level Forcefield online help.

Note: The term “Challenger10” covers Challenger10, ChallengerSE, and ChallengerLE control panels. Refer to the *Challenger Series Programming Manual* for details.

Use the Challenger Programming options to remotely program the Challenger options that would otherwise need to be programmed locally via a RAS keypad.

Refer to “Panel programming” on page 249 for details of using the Control Panel window.

Click the Programming button to open the appropriate Challenger programming window (either Figure 89 below or Figure 90 on page 300), and then click a programming item. Challenger programming items are described in the following sections (options displayed depend on panel type and communication type).

Figure 89: Challenger10 Programming window

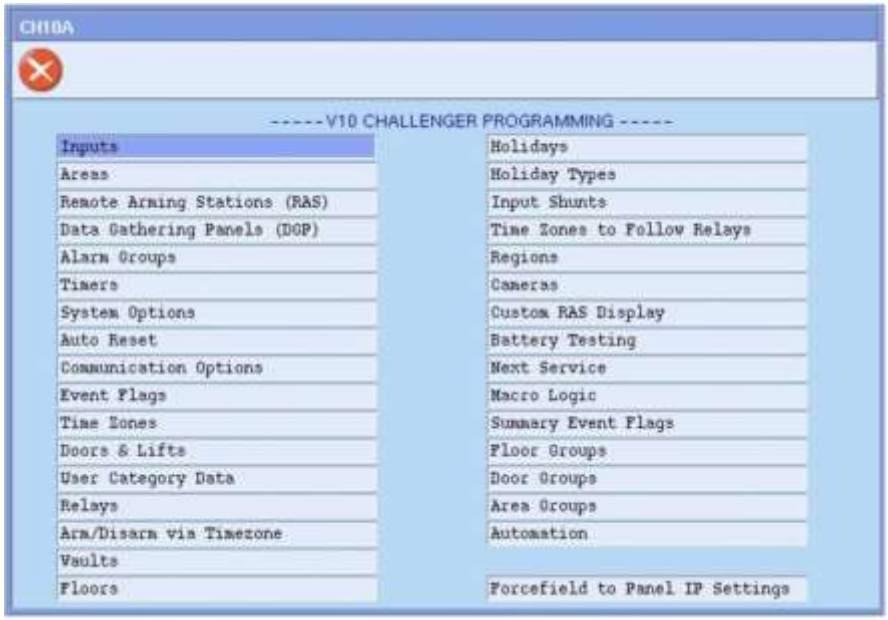
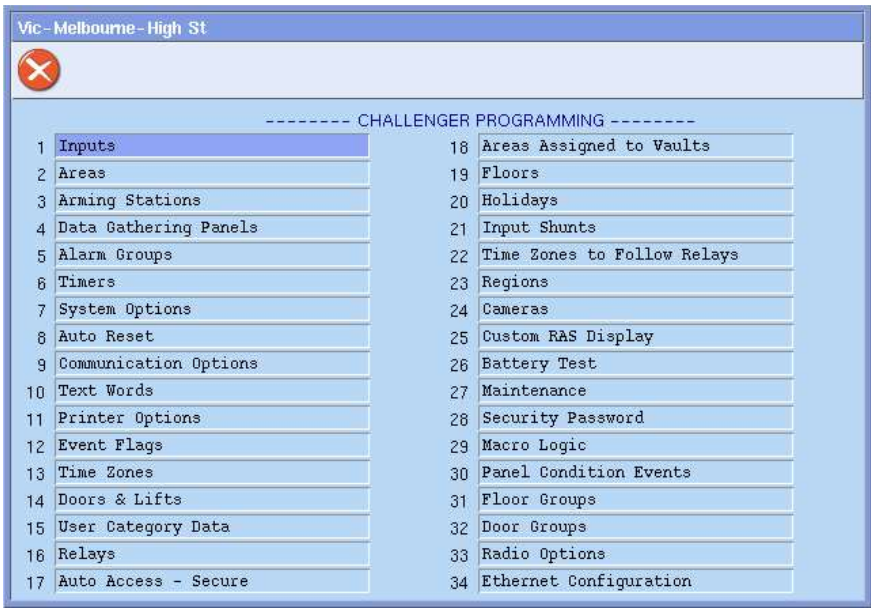


Figure 90: Challenger V8 Programming window



Inputs

This function is used to program an individual input for a Challenger panel.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Num. Enter the same number as programmed in the Challenger panel for the input.

Id. The Input ID (name) is used by Forcefield to identify the input. The name must be unique (it is not possible to have “Input 1” in Challenger x and “Input 1” in Challenger y).

Description. Type a short description of the input.

Name button. The input name will appear on the Challenger display during many Challenger user functions. The use of this field depends on the Challenger panel firmware version:

- For Challenger10 firmware V10-06 (or later), type a description to identify the input. Up to 30 characters (including spaces) can be downloaded to the panel.
- For Challenger V8 and Challenger10 firmware prior to V10-06, click to open the Text Phrase window, used to program the input name. Double-click or press F3 to program the name.

  For Challenger V8 and Challenger10 firmware prior to V10-06, use the Text Phrase window to:

  - Select pre-defined text words from the Challenger word library or the user-defined word library.

- Add new text words to the user-defined word library.
- Create phrases by combining text words with text variables.

The input name should enable easy recognition of that input. The name consists of a combination of:

- Up to four words (called text words).
- A text word may be accompanied by a numeral in the range 1 to 255 (called a text variable). Text variables enable you to use the same text words to describe more than one input.

For example, a text word ‘Building’ may be followed by a text variable ‘1’ to enable the input to be displayed as “Building 1” where another input can be displayed as “Building 2” by using the text variable ‘2’ for that input. Some other examples are:

- Office 4 Door 1 Contact
- Workshop PIR 6
- Building 6 Area 4 Room 1 Door 6

An input name can be up to 36 characters, consisting of four text words, each of which may be followed by a text variable.

Type. The input type determines exactly how the input will function in given circumstances. Each input type has been given a name and reference number. The input type selected here will also determine whether the input will function using areas or an alarm group. The appropriate option is displayed when programming the remainder of the input record.

Note: The input type is significant and influences much of the remaining programming and functions of the system. Careful attention should be given to the explanation of input types in *Challenger Programming Manual.*

Area assignment. Challenger10 application—Click the Areas Assigned arrow and select Area or Area Group, and then type the number of the area or area group, as applicable. Challenger V8 application—Click to select one or more areas, as required.

Except for input type 9 (reset delayed inputs), and area control input types 6, 31, 34 and 35, that require an Alarm Group, assign one or more areas to the input. The interaction between the input and the areas assigned to it will depend on the input type programmed for the input. It is not possible to reset an alarm on an input without an area assigned.

Alarm Group. Click the Alarm Group arrow, and then select an alarm group to assign to an input. It will be displayed instead of area for input type 9 (reset delayed inputs), and input types 6, 31, 34 and 35 (area control). The function of the alarm group will depend on the input type programmed for the input. These input types would be used for key switches, and so on, to arm/disarm areas (it causes the input to act like a user entering an alarm control code).

Contact Id. Program a Contact ID code (or click the arrow, and then select a Contact ID classification) if the panel reports to a remote monitoring station using Contact ID or Tecom direct line formats.

Print When Unsealed. When checked, the panel prints an event indicating the input is unsealed any time the input changes from sealed to unsealed. The event is sent to the Challenger's printer (if a printer is connected).

Event. Select a custom event flag, or a pre-defined event flag, to be activated any time an alarm is generated by the input. The selected event flag is used in addition to any pre-defined event flags programmed for this input.

2nd Event. Assign an optional second event flag to be triggered when the input is unsealed, isolated, or in alarm (as determined by the "2nd EF" options).

Event Active On Unsealed (displays only when the Event field is populated). When checked, the event specified in the Event field is triggered when the input changes from sealed to unsealed, regardless of the status of the area assigned to the input. This selection is not applicable for input types 0, 6, 9, 10, 12, 17, 19, 23, 24, 25, 26, 31, 33, 34, 35, 36, 37, 38 or 39.

Test Type. This function determines the testing procedure for the input. It relates to the access and secure tests and does not affect manual tests on individual inputs. This record will not be valid unless the test mode is programmed appropriately (see "System Options" on page 316).

Test Within. Enter the number of days for the input's testing timer. Inputs that are programmed as "Test During Access+Secure" test type, can be assigned a timer (number of days). If the input hasn't been tested within the specified number of days, then the input reports a 'Self-test failure' alarm. The input may be tested during an access test, a secure test, or as the result of normal operation outside of the test times. See "Using timed input testing" on page 78 for details.

Siren event flag. When checked, the siren event flag specified in the area database is activated when the input generates an alarm, and all the areas assigned to the input are armed. Program the siren event flag number in the area database for each of the areas that activate sirens and that are assigned to the input.

Console event flag. When checked, any time an alarm is generated by the input, the buzzers on all RASs that have the area in which the input is assigned will sound.

Camera event flag. When checked, the event flag will be activated at any time an alarm is generated by the input. Program the camera event flag number in the area database for each of the areas that have cameras and are assigned to the input.

Secure Alarm (event flags 2, 3, 4, 5, 9, 10, and 11). When checked, the event flag will be activated when an alarm is generated by the input, and all the areas assigned to the input are armed.

Access Alarm (event flags 6, 7, and 13). When checked, the event flag will be activated when an alarm is generated by the input, and one or more of the areas assigned to the input is disarmed.

24-hr Alarm (event flag 8). When checked, event flag 8 will be activated at any time an alarm is generated by the input, regardless whether the areas that the input is assigned to are armed or disarmed.

2nd EF Unseal. When enabled, the event flag programmed in “2nd Event” above is triggered when this input is unsealed. This selection is not applicable for input types 0, 6, 9, 10, 12, 17, 19, 23, 24, 25, 26, 31, 33, 34, 35, 36, 37, 38 or 39.

2nd EF Isolate. When enabled, the event flag programmed in “2nd Event” above is triggered when this input is isolated.

2nd EF Alarm. When enabled, the event flag programmed in “2nd Event” above is triggered when this input is in alarm.

Event Flags 24-Hr. When checked, this option converts all access/secure events to 24 hour events for this input. That is, all secure alarm events and access alarm events become 24 hour events. So, if the input is in alarm the event flags that have been set to yes will activate.

Video Cam. Selects the video camera associated with this input. This option is used when operator selects the video option on the graphics window. When programming this option, the video camera is identified as being controlled by a DVR or by a switcher.

- Select DVR if the camera is controlled by a DVR. Refer to the *Forcefield External Interfaces Manual* for details.
- Select Switcher if the camera is controlled by a video switcher. In this instance, selecting the video option on the graphics window will switch this camera to the selected view. The view for this camera can be selected in the View field.

Note: Sector alarm inputs have their CCTV functionality controlled by a computer category, which is assigned a sector number. As a result, the Video Cam field is not used.

View. Selects the preset view for the video camera. If this field left blank, the video camera, if a PTZ camera, will switch to preset 1.

Note: Sector alarm inputs have their CCTV functionality controlled by a computer category, which is assigned a sector number. As a result, the View field is not used.

Member. The member controls event reporting and operator control in Forcefield.

Computer Cat. Click the arrow to select from the list of computer categories (the list is restricted to show only the correct type of computer category).

Each input can have a different computer category. The category determines how Forcefield will handle an event from this input. The computer category “Input” can be used, but is a standard (read-only) Forcefield computer category and cannot be modified. See “Computer Categories” on page 212 for details.

Help. Double-click or press F3 to program alarm help information for this item. The help programmed here will be displayed as an action on the alarm window when alarm are generated.

Maps. Displays the map numbers of any maps containing the input ID.

Areas

This function is used to program an individual area for a Challenger panel.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Num. Enter the same number as programmed in Challenger for the area.

Id. The Area ID (name) is used by Forcefield to identify the area. The name must be unique (it is not possible to have “Kitchen” in Challenger x and “Kitchen” in Challenger y).

Name (Challenger10). Type a name to identify the area. Up to 30 characters (including spaces) can be downloaded to the panel.

Name (Challenger10 firmware prior to V10-06) or Text (Challenger V8). Click the arrow to select a pre-defined text words from the Challenger word library or the user-defined word library. Double-click the field to create a new user-defined word.

Area Linking. Challenger10 application—Click the Area Link arrow and select Area or Area Group, and then type the number of the area or area group, as applicable. Challenger V8 application—Click to select one or more areas, as required.

Perimeter Area (Challenger10). This option applies only to “internal” areas that contain inputs programmed as handover input types 4 or 14, where you want the internal area to have a designated perimeter area. Enter the number of the area that contains entry/exit inputs on the perimeter of the premises.

Note: The perimeter area must have longer entry and exit times than any of the internal areas.

Out of Hours Time Zone. Enter a time zone number if you want to report an out of hours access alarm if the area is in access (disarmed) outside of the specified time zone.

Event Flag fields: Select the event flags to be assigned to the area.

Entry and Exit time fields: Determine the amount of time allowed between entry to an area and disarming of that area and, between exit from an area and

arming of that area. If the programmed time is exceeded, an alarm will be activated.

Area Disarm. The user category timer will use the time programmed here as the disarm time instead of the user category time.

CID Account Code (Challenger10). CID reporting account numbers are four digits long, and are used for reporting via Contact ID Modem format and for reporting via IP Receiver. Program area account numbers as follows:

- If the system has account numbers for each area, program the account number for each area on which you want to report alarms.
- If the system has only one account number, program 0000 for each area on which you want to report alarms.

Note: In a communication path that will be used for reporting, set "Area account codes" to Yes to enable this path to use the area account code.

Video Cam. Select the video camera associated with this area. This option is used when operator selects the video option on the graphics window. When programming this option, the video camera is identified as being controlled by a DVR or by a switcher.

- Select DVR if the camera is controlled by a DVR. Refer to the *Forcefield External Interfaces Manual* for details.
- Select Switcher if the camera is controlled by a video switcher. In this instance, selecting the video option on the graphics window will switch this camera to the selected view. The view for this camera can be selected in the View field.

View. Selects the preset view for the video camera. If this field left blank, the video camera (if a PTZ camera) will switch to preset 1.

Member. The member controls event reporting and operator control in Forcefield.

Computer Cat. Click the arrow to select from the list of computer categories (the list is restricted to show only the correct type of computer category).

Each area can have a different computer category. The category determines how Forcefield will handle an event from this area. The computer category name “Area” can be used, but is a standard (read-only) Forcefield computer category and cannot be modified. See “Computer Categories” on page 212 for details.

Help. Double-click or press F3 to program alarm help information for this item. The help programmed here will be displayed as an action on the alarm window when alarm are generated.

Maps. Displays the map numbers of any maps containing the area.

Arming Stations

This function is used to program an individual remote arming station (RAS) for a Challenger panel.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Num. Enter the same number as programmed in Challenger for the RAS.

Id. The RAS ID (name) is used by Forcefield to identify the RAS. The name must be unique (it is not possible to have “Front Door” in Challenger x and “Front Door” in Challenger y).

Polled. When checked, the Challenger panel polls this RAS.

Name. Type a name to identify the arming station. Up to 30 characters (including spaces) can be downloaded to the panel.

Note: The RAS name is also used when programming via RAS instead of Forcefield in Install menu “Option 40. Door & Lift Setup”.

Desc. Type a short description.

Smart Card Reader. When checked, the RAS is designated as a smart card reader. The Smart Card Options button is active for designated smart card readers, refer to “Programming smart card options” on page 53 for details.

Area Alarm Group. Select an alarm group to determine the areas that can be controlled via this RAS, the functions which can be performed, and so on. **Note:** Both the alarm group of the RAS and the alarm group of the user performing the functions must permit the action.

Menu Alarm Group. This alarm group is valid only when a user is performing user menu functions which require information to be displayed for areas other than those controlled by this RAS. The menu alarm group allows these areas to be displayed in status reports but they cannot be controlled via the RAS. If the menu alarm group is programmed for “No Access”, then the RAS will use the same alarm group for menu access as programmed in area alarm group.

Door Event. The event flag entered here is used to program this RAS to open a door. The event flag will be activated when a valid code is entered at this RAS. The event flag is active for the time programmed in Timer (option 6) “Door Open”.

Door Event 2. The second door event flag enables this arming station to be used as a trigger in automation zone programming. See “Automation (Challenger10)” on page 364.

Note: If programming via RAS instead of management software, this value is entered in Install menu option 40 Door & Lift Setup.

Time to Trigger. Enter a value in the range 0 (not timed) to 65,535 seconds for the second door event flag to be active.

Note: If programming via RAS instead of management software, this value is entered in Install menu option 40 Door & Lift Setup.

Relay Group (Challenger V8). Enter the number of the relay control group. This relay control group can then be used to drive relays on the RAS. (Refer to the appropriate Arming Station Installation Guide.)

Relay (Challenger10). The RAS's output can have any relay number assigned to it. Enter the relay number that will drive the relay or output on this arming station, and then press [ENTER].

Note: Use a value of 0 for TS0004 and TS0210 RASs.

LED Mapping (Challenger10). By default, the RAS's area LEDs are mapped to areas 1 to 16. Click the LED Mapping button to change the area assignment.

Door Event for All Codes. When checked, the door event flag will operate (unlock the door) for either a valid alarm code or a valid door code. When not selected, the door event flag will operate (unlock the door) only for a valid door code.

Note: Door codes must be at least four digits and are determined by the value of the Alarm Prefix Digits (see "System Options" on page 316).

LCD Arming Station. When checked, identifies this reader as an LCD arming station.

One Key Arm/Disarm (used for keypad RASs). When checked, a user can enter their user code, and then arm or disarm single-digit areas by entering the number of the area without pressing [Enter].

Note: This option is only available for single-digit areas (1 to 9). If an LCD arming station is used as master; and "Arm Using One Key" is set to YES, the system must be programmed so that areas 10 and above can never be armed.

Toggle Keyboard Control (used for keypad RASs). When checked, the [ON] and [OFF] keys lose their function. For arm control the user must enter the user code followed by [ON], [OFF], or [Enter]. If a list of areas appears, pressing the area number and [Enter] toggles the status of the area. If no list appears, the status of the areas is toggled immediately.

Display Shunting on LCD (used for LCD RASs). When checked, and an input is shunted, the text 'Input Shunted' is displayed on the LCD.

3 Badge Arm. When checked, the assigned areas will arm with three badges of a valid card within ten seconds (if Cards Auto Disarm is selected).

Note: Applies to RAS models with card reader. This option requires Challenger V8 panel firmware version 8.79 or later.

Card And PIN Always. When checked, both a card and PIN must be used within the RAS card and PIN time to access RAS menus (see "Timers" on page 315). If not checked, then only a PIN is required.

Reset from RAS without code (use for LCD keypad RASs only). When checked, a user can reset alarms by pressing [Enter] [Enter] (show alarms) followed by 0 [Enter]. The areas in alarm must be assigned to the RAS's alarm group. When not checked, the user's alarm code is required to reset alarms.

Cards Auto Disarm (used for card reader RASs). When checked, cards can disarm areas without using the [OFF] key. When not checked, only the door is unlocked, except if Card Always Arms/Disarms is set to YES or the [ON]/[OFF] key is used.

Card Always Arms/Disarms (used for card reader RASs). When checked, allows cards to arm/disarm alarm groups without using the [ON]/[OFF] keys. Toggle Keyboard Control must also be set to YES.

Note: The card user's alarm group and the arming station's (reader's) alarm group must both allow arm and/or disarm functions before a card can be used to arm/disarm.

Enter Key Opens Door Only (used for keypad RASs). When checked, the [Enter] key unlocks the door but the [ON] and [OFF] keys are used for alarm control. When not selected, the [Enter] key unlocks the door, provides alarm control, and resets alarms. Select this option for the best user interface on LCD arming stations.

Note: This option cannot be used in conjunction with keypad duress functionality.

Restricted User Category to Disarm. When checked, users with a user category can only disarm or delay automatic arming (cannot be used for user categories with arm and reset).

Muster Reader. When checked, the reader is a muster reader. For more information, see "Muster Report" on page 179. **Note:** Muster Reader is a Forcefield function and has nothing to do with RAS programming.

Video Cam. Selects the video camera associated with this RAS or door. This option is used when operator selects the video option on the graphics window. When programming this option, the video camera is identified as being controlled by a DVR or by a switcher.

- Select DVR if the camera is controlled by a DVR. Refer to the *Forcefield External Interfaces Manual* for details.
- Select Switcher if the camera is controlled by a video switcher. In this instance, selecting the video option on the graphics window will switch this camera to the selected view. The view for this camera can be selected in the View field.

View. Selects the preset view for the video camera. If this field left blank, the video camera, if a PTZ camera, will switch to preset 1.

Member. The member controls event reporting and operator control in Forcefield.

Computer Cat-RAS. Click the arrow to select from the list of computer categories (the list is restricted to show only the correct type of computer category).

Each RAS can have a different computer category. The category determines how Forcefield will handle an event, such as off line or tamper, from this RAS. The computer category name “RAS” can be used, but is a standard (read only) Forcefield computer category and cannot be modified. See “Computer Categories” on page 212 for details.

Computer Cat-Access. If the RAS is used as an access control device, such as a door reader, click the arrow to select from the list of computer categories (the list is restricted to show only the correct type of computer category).

Each RAS can have a different access computer category. The category determines how Forcefield will handle an access event, such as invalid PIN or entry granted, from this RAS. The computer category name “Door Access” can be used, but is a standard (read only) Forcefield computer category and cannot be modified. See “Computer Categories” on page 212 for details.

Help. Double-click or press F3 to program alarm help information for this item. The help programmed here will be displayed as an action on the alarm window when alarm are generated. The RAS-specific help text enables Forcefield to display text on the alarm window (for alarms from the RAS) in a customised manner (that is, different from another RAS).

Maps. Displays the map numbers of any maps containing the RAS.

Data Gathering Panels

This function is used to program an individual Data Gathering Panel (DGP) for a Challenger.

Figure 91: DGP programming window

Common window elements are described in Section 3. Descriptions of window-specific elements follow.

Num. Enter the same number as programmed in Challenger for the DGP.

- Challenger V8 can have DGPs numbered 1 to 15. Intelligent Access Controllers can be numbered 1 to 12.

- Challenger10 and ChallengerSE can have DGPs numbered 1 to 15 and 17 to 32. Intelligent Access Controllers can be numbered 1 to 12 and 17 to 28.
- ChallengerLE can have DGP 1 (no Intelligent Access Controllers).

Id. The DGP ID (name) is used by Forcefield to identify the DGP. The name must be unique (it is not possible to have “Level 1” in Challenger x and “Level 1” in Challenger y).

Name (for Challenger10 firmware V10-06, or later). Type a name to identify the DGP. Up to 30 characters (including spaces) can be downloaded to the panel.

Type. Click the arrow to select:

- Standard DGP
- Door Controller (refer to “Programming a door controller or a lift controller” below). Door Controllers are not supported in ChallengerLE.
- Lift Controller (refer to “Programming a door controller or a lift controller” below). Lift Controllers are not supported in ChallengerLE.
- Inovonics DGP (refer to “Programming an Inovonics DGP” on page 313).

Polled. When checked, the Challenger panel polls this DGP.

Location. Enter the DGP’s location details.

Member. The member controls event reporting and operator control in Forcefield.

Computer Cat. Click the arrow to select from the list of computer categories (the list is restricted to show only the correct type of computer category).

Each DGP can have a different computer category. The category determines how Forcefield will handle an event from this DGP. The computer category name “DGP” can be used, but is a standard (read-only) Forcefield computer category and cannot be modified. See “Computer Categories” on page 212 for details.

Help. Double-click or press F3 to program alarm help information for this item. The help programmed here will be displayed as an action on the alarm screen when alarm are generated.

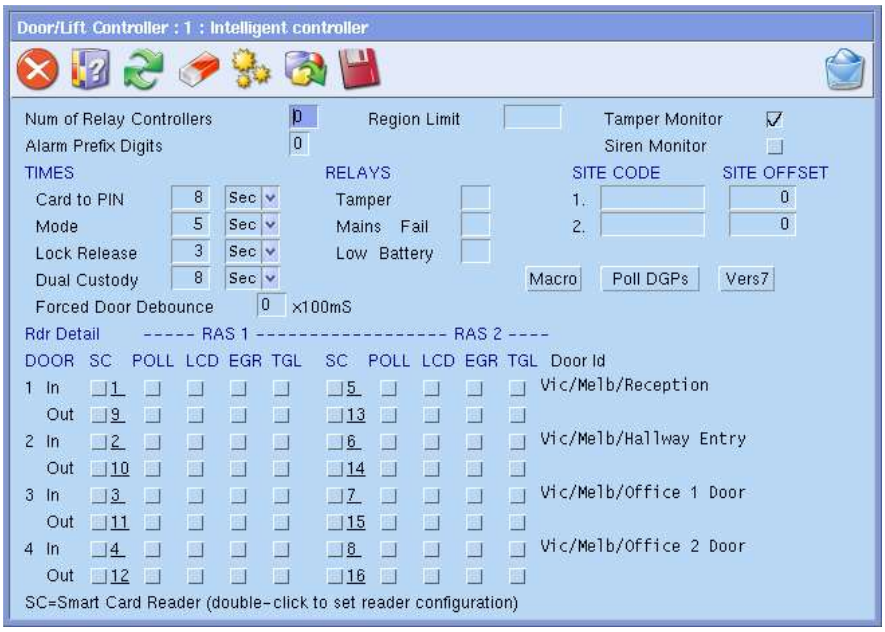
Maps. Displays the map numbers of any maps containing the DGP.

Programming a door controller or a lift controller

In the Challenger programming window for a door controller or a lift controller (see Figure 91 on page 309), click the Programming button to open the Door/Lift Controller programming window.

Note: Door and lift controllers (Intelligent Access Controllers) are not supported in ChallengerLE.

Figure 92: Door/Lift Controller programming window



Common window elements are described in Section 3. Descriptions of window-specific elements follow.

Num of Relay Controllers. Records the number of relay controllers fitted to the Intelligent controller. Maximum is 32 (255 relays).

Region Limit. Specify the maximum number of personnel permitted to occupy the controller's "in" region.

Tamper Monitor. When checked, the Intelligent Controller inputs are monitored for tamper alarm. If set, the inputs are monitored for four states (alarm, seal, open, and short). If not set, The inputs are monitored for two states (alarm, and seal). Should be set to the same function as set in "System Options" on page 316.

Alarm Prefix Digits. Records the difference between the number of digits in an alarm control code and the number of digits in a door control code. The complete user code is the alarm control code, and the prefix is omitted to make the door control code.

Times. Select the correct time intervals and scales for each option.

Relays. For each relay, enter a number in the range 1 to 16. These are the physical relays on the door/lift controller.

Site Code fields (also called facility code). Records the first site identification number used in cards. Each system has a unique site ID. Two site code numbers and associated card offsets can be programmed in order for the system to be used with two sets of cards with different site codes. For example, when a system has been commissioned, one set of cards (on loan) can be used while awaiting delivery of a second set of customised cards.

Site Offset. Specifies a number that is added to, or subtracted from the actual card ID number, for cards on Site Code A. The resulting card ID after

processing is the number which is used when programming users; and which is reported to the printer and computer.

Rdr Detail sections: Select the required functionality for each RAS connected to the Intelligent Controller. The 16 RASs that can be polled relate to specific doors on the controller; and the reader direction, where readers are mounted on both sides of the same door.

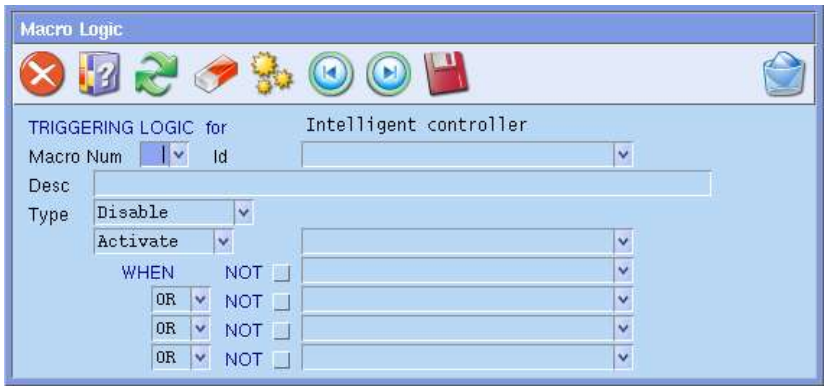
- **SC**. Check this selection to designate the reader as a Smart Card reader. Double-click a checked selection box to open the TS0870 Configuration window (see “Programming smart card options” on page 53 for details).
- **Poll**. The arming stations listed here will be polled by the controller. PIN code readers, mag card readers, and single Wiegand interface units are polled as arming stations. Polling allows the arming station to transfer data to the Intelligent Controller.
- **LCD**. RASs that have an LCD (Liquid Crystal Display) fitted.
- **EGR**. records the address of any RASs being polled that require the egress button to be wired to the IN or EGRESS terminal on the RAS. **Note:** Since this connection point does not provide fault monitoring, it is preferable to wire any egress buttons to inputs on the four-door Controller.
- **TGL**. This option is used if any RASs on the controller LAN are enabled to function in a 'Toggle Mode'.

Macro button. Click to program macros (see Figure 93 below).

Poll DGPs button. Click to select DGPs to be polled.

Vers7 button. Click to program Challenger version 7 options.

Figure 93: DGP Macro Logic Programming window



The DGP Macro Logic programming window is used to program Intelligent Controller events to be generated under specific logic conditions. Only events relating to the controller that you are programming can be used. About half the events available can be input or output events in the macro logic, while the rest can only be input events.

Macro Num. Records the number of the macro logic program (48 programs are available).

Id. Macro identification information for Forcefield.

Desc. Macro description and associated information.

Type. Selects the function of the event flag or input when activated.

- Disabled—Macro logic program disabled.
- Non Timed—Follows the result of the logic equation only.
- On Pulse—Activates for the programmed time or the active period of the logic result, whichever is the shortest.
- On Timed—Activates for the programmed time regardless of the logic result.
- On Delay—Activates after the programmed time period unless logic result is no longer active.
- Off Delay—Follows the result of the logic equation, but remains active for the time programmed after the logic result is no longer active.
- Latched—Activates on any of the first three inputs in the logic equation and is reset by the fourth input (AND / OR function not used).

Time. Records a time period which is used when any of the timed functions are selected. A value of 2 or greater should be used. When programming 1 to 4 minute periods, program in seconds (i.e. 60, 120, 180 or 240 seconds).

Activate or Deactivate. Select whether to activate or deactivate the selected output event.

Output field (not labelled). Select the event flag to be activated.

Logic Equation fields: The logic connecting the four inputs can be programmed for AND or OR functions. A NAND or NOR function can be achieved by inverting the logic of the particular input. Set the NOT box to invert the logic of the input.

When all conditions of the logic equation are met, the result is active and the output event programmed in the previous step will be activated (depending on any timing function programmed).

Note: Any unused inputs must be left as OR functions.

Programming an Inovonics DGP

The TS0825 wireless DGP is integrated with an Inovonics receiver. TS0825 can receive signals from Inovonics transmitters, providing up to 32 virtual inputs and 2048 duress inputs.

In the Challenger programming window for an Inovonics DGP (see Figure 91 on page 309), click the Programming button to open the TS0825 programming window.

Common window elements are described in Section 3. Descriptions of window-specific elements follow.

Site Code A. Enter the site A number in the range 1 through 511. A value of 0 disables reception.

User Offset A. Enter a positive user offset number for site A. When a duress message is sent to the Challenger, the Inovonics transmitter's duress number is added to the user offset (a sum greater than 65,535 is rolled over past zero).

Site Code B. Enter the site B number in the range 1 through 511. A value of 0 disables reception.

User Offset B. Enter a positive user offset number for site B. When a duress message is sent to the Challenger, the Inovonics transmitter's duress number is added to the user offset (a sum greater than 65,535 is rolled over past zero).

Supervision Time. Click the Time arrow, and then select a value in the range from 10 minutes through 150 hours.

Inovonics transmitters can be programmed to check-in to the DGP every 60 seconds or 5 minutes, therefore the DGP requires a wide tolerance on the time it checks for the existence of each transmitter device that is programmed to check in.

As a general rule, a small number of devices will function normally with a 60-second check-in time and a 10-minute supervision time (per formed by the DGP). However, as the number of devices increase, temporary supervision failures may be experienced. In this event, the DGP supervision time may be increased , or the transmitter devices may be reprogrammed to a 5-minute check-in time.

Points fields: Click the arrow for the required inputs 1 through 32 and select:

- Enabled, where the input is always enabled.
- Disabled, where the input is always disabled.
- Relay, where the input is controlled by the first relay assigned to the DGP.

Note: The TS0825E Inovonics EchoStream Wireless DGP is not supported in Forcefield and must be programmed via a RAS. Refer to the *TS0825E Wireless Data Gathering Panel Installation & Programming Guide* for details.

Alarm Groups

See "Alarm Groups (Challenger10)" on page 159 or "Alarm Groups (Challenger V8)" on page 161.

Timers

This function is used to program time values applicable to timed system functions for a Challenger.

Common window elements are described in Section 3. Descriptions of window-specific elements follow.

Notes:

- Timers will time for +/- 1 of the value entered, so avoid using values of 1 second or 1 minute. If any timer is set to 0, the timer will never time out when activated.
- If set to “0”, the areas will not rearm automatically. The user category time will be overridden by the area disarmed time (if programmed) in the area database.

User Category 1 to 7 fields: Program times (0 to 255 minutes) for user categories 1 through 7 for the time they are disarmed. The user categories have to be programmed for timing and must be assigned to an alarm group before the time is programmed.

User Category 8. Challenger V8 panels ignore any value entered for user category 8. For Challenger10, if user category 8 has been programmed to time any areas, then enter a time in the range of 2 to 255 minutes.

Individual Test. Enter the maximum time (0 to 255 minutes) to perform a test on an individual input, using User menu 12, Test Input.

Suspicion. Enter the time (0 to 255 seconds) that a camera continues to operate after a suspicion input type has switched to sealed state. **Note:** Suspicion time is available for input types 7, 40, and 47.

Access Test. Enter the time to perform the access test (0 to 255 minutes).

Secure Test. Enter the time to perform the secure test (0 to 255 minutes).

Warning. When user categories are used and areas are programmed for timed disarm, a warning will sound (if a warning time is programmed) indicating the areas are about to alarm. Enter the time this warning will sound (0 to 255 minutes). **Note:** The warning time must always be set for a shorter time than any user category disarmed time. The warning time must always be shorter than the shortest user category time and should be at least 2 minutes.

Delayed Holdup. Enter the delay time (0 to 255 seconds) before an alarm from a delayed disarmed alarm is reported to the remote monitoring company (the delay time is ignored if another delayed input type has already been activated).

Local Alarm Reminder. Enter the time (0 to 255 minutes) that can elapse between acknowledging a local alarm and a re-alarm occurring, including the audible alert.

Service. User menu 17 can be used to give access to service technicians. The alarm group for the technician needs time zone 25 to be assigned. When a

user enables the service technician, time zone 25 will be valid during the service time. Enter the service time (0 to 255 minutes).

Tester Event. Enter the time (0 to 255 seconds) that the tester event flag is triggered to activate devices in order to perform a secure test. **Note:** The event flag will only be triggered for half the programmed time; the remaining time is used to allow the device to switch back to sealed state. The event flag used is preset to 16.

Door Open. Enter the time (0 to 255 seconds) that doors will unlock (using the door event flag) to allow doors to be opened. **Note:** This time value is common for all door event flags from RASs connected to the control panel. “Intelligent” doors connected to Intelligent Access Controllers are individually programmed via the Intelligent Access Controller.

Mains Fail. Enter the delay time (0 to 255 minutes) before a mains fail alarm is reported to the remote monitoring company. Enter a value of “0” for no delay.

Siren. Enter the time (0 to 255 minutes) that the onboard internal siren drivers activate.

RAS Card & PIN Time. If Card And PIN Always is selected in “Arming Stations” on page 306, enter the time (0 to 255 seconds) in which the entire badging and PIN entry must be completed.

Min Area Search Time. Enter the smallest amount of time (2 to 255 minutes) in which an area search may be completed. See “Using area search” on page 77 for details.

Note: This option is not supported in ChallengerLE.

Max Area Search Time. Enter the largest amount of time (2 to 255 minutes) in which an area search may be completed. See “Using area search” on page 77 for details.

Note: This option is not supported in ChallengerLE.

System Options

This function is used to program the options that are common to the whole system for a Challenger.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Event Text. Click the arrow to select a pre-defined text words from the Challenger word library or the user-defined word library. Double-click the field to create a new user-defined word.

Test Mode. Click the Test Mode arrow, and then select a test mode option (enable auto test, manual access/auto secure, or auto access only). The test mode determines if, or when, arm or disarm tests will be performed. The test mode option selected does not affect manual testing of any individual input.

Relay Controllers. Enter a number from 1 to 32 for the number of output controllers that are fitted to the main control panel (do not enter values for output controllers fitted to DGPs). Enter 0 if there is no output controller fitted, or if there is one 4-way relay fitted.

Alarm Prefix Digits. Enter 1 to use an alarm code prefix length of one digit (see note below). The alarm code prefix enables users to enter a door code (a shorter PIN) for access control. For example, if a user's full PIN is five digits (for example, 12345), and the alarm code prefix digits value is 1, then the first digit is removed for access control and the user can operate doors by entering only the last four digits of the PIN (2345).

Note: Forcefield can use an alarm code prefix length of one digit only. Challenger Series panels can use alarm code prefix lengths of one to four digits. Challenger V8 panels can use alarm code prefix lengths of two to four digits. Alarm code prefix lengths greater than one are not supported in Forcefield to determine PIN code clashes when creating or amending a user's PIN.

Film Low Level. Enter the frame count number used to indicate low film.

Film Out Level. Enter the frame count number used to indicate no film.

User Offset. This offset is used for management software packages. The number entered here will be added to the user number in the Challenger and sent to the management software. This can be used in conjunction with card offsets.

For example, the user has a proximity card with site code of 000688 and a card number of 250. The offset values are as follows:

- The site code offset is -150.
- The user offset is 75.

The Challenger will see user 100 (card number 250 adjusted by the site code offset of -150). The management software will see user 175 (user 100 in the Challenger, adjusted by the user offset of 75).

Site Code A. Records the site identification number (up to six digits) used in cards. Each system has a unique site ID. Two site code numbers and associated card offsets can be programmed in order for the system to be used with two sets of cards with different site codes. For example, when a system has been commissioned, one set of cards (on loan) can be used while awaiting delivery of a second set of customised cards.

Card Offset Site A. Specifies a number that is added to, or subtracted from the actual card ID number, for cards on site code A. The resultant card ID after processing is the number which is used when programming users; and which is reported to the printer and computer.

Site Code B. Specifies a number that is added to, or subtracted from the actual card ID number for cards on site code B.

Card Offset Site B. Specifies a number (up to six digits) that is added to, or subtracted from the actual card ID number for cards on site code B.

Display Rotate Delay. Specifies the period before LCD text begins to rotate to be altered.

Display Rotate Speed. Specifies the rotation speed of LCD text to be altered.

Areas To Total Disarm. Use this option to program an area (or an area group) to have overriding control over the alarm functionality for designated inputs in another area.

Challenger10 application—Click the Total Area Disarm arrow and select Area or Area Group, and then type the number of the area or area group, as applicable. **Note:** This option is not supported in ChallengerLE.

Challenger V8 application—Click to select one or more areas, as required.

EOL Resistor (Challenger10). Challenger systems normally use the default 10 kΩ end-of-line (EOL) resistor value to detect the electrical states of input circuits. To apply a special EOL resistor value, click the arrow and select the new value from the list.

Location Time Zone (Challenger10). Challenger10 panels that report via IP receivers may be located in various remote regions. The time zone setting is used to indicate regional time zone (and DST combinations) when events are reported to the central monitoring station. To select a time zone, click the arrow and select the time zone from the list.

Area Search Time Zone (Challenger10). If Area Search functionality is required, enter the number of the soft or hard time zone that will be used to trigger area search. See “Using area search” on page 77. **Note:** This option is not supported in ChallengerLE.

Decrement Test Days Time Zone (Challenger10). When using timed input testing you can assign a time zone in order to specify which days the system uses to check whether inputs have been tested. The default is time zone 0 (always valid).

Card Learn RAS (Challenger10). A card reader RAS can be used to enter a user’s card data (card bits) into the Challenger system by presenting (badging) the card at the reader during the user creation process via RAS, not via management software. Select the card reader’s RAS address in the range 1 to 16 or 65 to 80.

Latch System Alarms. When checked, makes system alarms latching.

Auto De-Isolate. When checked, inputs that are sealed and isolated are automatically de-isolated if any of the areas assigned to the inputs are disarmed.

Delay Holdup Lockup (only applicable to latching delayed hold-up buttons). When checked, and a delayed hold-up button is pressed, it must be reset first before it can trigger again. Therefore, a latching delay hold-up button is locked out until the physical button is taken out of its latched state (reset).

Disable Flashing LEDs. When checked, disables area LEDs from flashing when an alarm occurs.

Disable Camera Reset. When checked, 0 [ENTER] cannot be used to stop cameras operating after an alarm has occurred. The cameras continue to operate until an authorized user resets them.

Display User Flags. When checked, enables the special user flags to be displayed when programming users via a RAS.

Name File. When checked, and users are programmed via an LCD RAS, the display prompts for programming a user name when programming users.

Siren Testing. When checked, the panel's sirens are tested for three seconds when the secure test is started (test mode 1 or 2).

Disable PIN Display. When checked, disables PIN code from being displayed when programming users.

Dual Custody. When checked, specifies use of two valid codes to access "Program Users".

Financial Institution. When checked, enables system options generally applicable to financial institutions. These are:

- Film counters are enabled during the access test mode.
- User Category 2 or User Category 6 disables Delayed Holdup inputs (not applicable to Challenger10).
- Minimum PIN length is set to five digits.
- The area search procedure for financial institutions applies. See "Using area search" on page 77.

Note: This option is not supported in ChallengerLE.

Tamper Monitoring. When checked, all inputs function in four-state mode (sealed, unsealed, short, and tamper). If not selected, all inputs function in two-state mode (sealed and unsealed).

Disable Area LEDs (Challenger V8 only). When checked, disables area LEDs that are not recorded as areas to report open/close.

Skip Access Test for Service. When checked, enables the User menu option 17. Enable Service Tech to be used when the system is armed.

Sirens Only After Report Fail. When checked, alarms will only activate sirens if Challenger fails to report to monitoring company.

Display Alarms Instantly. When checked, enables alarm details to be displayed instantly on the LCD RAS.

Stop Auto Category Insert. When checked, disables the ability to treat areas as vaults.

Siren & Strobe on Tamper. When checked, panel or DGP tamper inputs activate siren and strobe.

Show Inputs 1 at a Time. When checked, one input at a time is displayed on the LCD RAS even though there may be more than one in the list of inputs to be displayed (the user must scroll through the inputs).

Enable Exit Fault Report. When checked, enables exit fault reporting to indicate to the alarm reporting centre that an unsealed input has gone into “exit error alarm” (CID 374) by being unsealed when the exit timer is running. This is typically caused by a user arming the system when inputs are not sealed, as permitted by the user's Alarm Group option “Forced arming when inputs unsealed”. The exit timer suppresses alarms from entry/exit input types (3, 4, 13, 14, 41, and 42) but does not suppress alarms from other inputs.

When unchecked, or if the input is still unsealed after the exit timer expires, then the input's programmed CID code is reported.

Enable V8 Multibreak (Challenger10 only). By default, Challenger10 reports multi-break input alarms as CID 139 Burglar alarm, Intrusion verifier. If the “Multi Break Alarms” option is set to YES for any Comm path, you can choose to report multi-break alarms in the same manner as a Challenger V8 panel (as a multi-break event on the input’s programmed CID code).

Enable Expanded Test Report (Challenger10 only). When checked, enables the use of the “Test Input Within No. of Days” (timed input testing) functionality, which is programmed individually for inputs. This option provides system-wide control over this functionality.

Expanded Test Success Report (Challenger10 only). If timed input testing is used (Expanded Test Reporting is enabled), and an input is tested within its specified number of days, enable this option to send a test success message (CID 611 ‘Point tested OK’) for the input number.

Auto Reset

This function is used to program the Challenger to automatically reset alarms.

The alarms are for selected areas (determined by an alarm group) and are reset after a programmed pre-determined time.

Note: It may be necessary to program a special alarm group for this function.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Time Before Reset. Enter the time in minutes between the alarm occurring and the automatic reset.

Alarm Group. Enter the alarm group number.

Id. Enter the alarm group ID. To program a new alarm group enter an ID and press F3.

Communications (Challenger10)

This function is used to record details of the communications links between the Challenger panel and external devices such as management software computers, the remote monitoring company, and so on. Refer to the following sections:

- “Onboard hardware” below
- “Expander hardware” on page 322
- “Communication paths” on page 322

Onboard hardware

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Baud Rate. If you are connecting to the Challenger panel via J15 (STU) select the baud rate (default is 57600).

Parity. If you are connecting to the Challenger panel via J15 (STU) select the parity (default is none).

Stop Bits. If you are connecting to the Challenger panel via J15 (STU) select the number of stop bits (default is 1).

Monitor Ring. When this option is checked, the Challenger panel watches for ringing at the onboard modem. When the programmed number of rings and number of calls are met, then the modem can connect.

Line Fault Monitoring. When this option is checked, the Challenger panel watches for a fault on the line, such as voltage lost. If a fault is detected, then a line monitor fail alarm is triggered.

New Zealand Dialling. When this option is checked, the Challenger panel’s modem uses dial tones compatible with New Zealand standards.

Ethernet. When this option is checked, the Challenger panel can communicate via its onboard Ethernet port.

Enable Ping Reception. When this option is checked, the Challenger panel can respond to ping requests. Ping should only be enabled as an aid to configuring the system, and disabled at other times.

Address. If connecting to the Challenger panel via Ethernet, use the panel’s default IP address, or a custom IP address assigned by the site’s network administrator, as required.

Gateway. If connecting to the Challenger panel via Ethernet, you may need to enter a gateway address assigned by the site’s network administrator.

Netmask. If connecting to the Challenger panel via Ethernet, use the default subnet mask, or a mask assigned by the site’s network administrator.

USB. If connecting to the Challenger panel via USB, select the required option (the default setting is recommended).

Expander hardware

Various devices can be mounted in the panel's three expander slots, and the programming options vary. Refer to the device's installation instructions for set up instructions.

Communication paths

This function is used to configure 10 communications paths from the Challenger panel to external devices such as management software computers, the remote monitoring company, and so on.

Path main settings

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Comms Path. Click the Comms Path arrow to select the path you wish to edit (or use the Previous and Next buttons).

Name. Displays the name of the selected path.

Enabled. When this option is checked, this path can be used for a connection.

Desc. Optionally describe the purpose of the path (in addition to the name).

Location. Select the location (onboard or expander) for this path's hardware.

Device. Select the type of communication hardware (none, RS232-STU, Ethernet, Modem, USB, GSM, Wi-Fi, and so on).

Priority. If the path uses the onboard modem (dialler), click the arrow, and then select a priority number in the range 1 to 10 (the highest priority being 1), or 0 for no priority assignment.

Path to Backup. Enter the number of the path that this path backs up. Enter 0 if this path does not back up another path.

Data Format. Select the path's communications format (none, Contact ID Modem, Computer Polled, Computer Event, C-Bus, DVMRe Time Stamp, IP Receiver, IP Receiver with Names, Securitel STU, Printer, and Mobile).

Sub Format. Certain data formats have sub formats. For example, the Printer format displays a sub-format menu by which you can select HP Laser or Epson printers.

Account. The account code is used in two ways, depending of what this path is used for. If connecting to a management software computer, type a number in the range 1 to 1024 to match the computer address. If reporting to central station via DTMF dialler, type the four-digit account number provided by that

monitoring company that identifies your system to the monitoring company. If not used, enter 0000.

Security Pwd. The Challenger system requires a security password before granting access to a remote computer. Security passwords are always 10 digits. The default is 0000000000.

Note: The management software computer can always connect to the control panel with the default password except when connecting via the dynamic computer address option (see “Dynamic Computer Address” on page 327), in which case, a non-zero password is required.

Use the buttons at the bottom of the window to configure this path’s settings (as needed) for:

- “Connection Control” below
- “Filters” on page 324
- “Test Calls” on page 325
- “Dial Settings” on page 326
- “IP Settings” on page 326
- “Encryption” on page 327
- “Advanced Settings” on page 327

Connection Control

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Connect Always. When checked, the path remains constantly connected. In the case of a dialler path, the panel will only disconnect if a path programmed with a higher priority (such as CID reporting) needs to make a connection via dialler. When the higher priority task is finished, this path will reconnect.

Connect On Event. When checked, the path initiates a connection when an alarm event or an access event triggers it.

Connect On Service. This option must be checked in order to dial the telephone number recorded in “Phone 1” on page 326 when requested via User menu 7 Service Menu.

Stay Connected on Empty Buffer. When checked, the path maintains connection after all events have been sent. The panel will only disconnect if a path programmed with a higher priority (such as CID reporting) needs to make a connection.

Control Command. When checked, the path can be used to control Challenger devices via a remote computer (for example, to open a door).

Connect When Buffer 80% Full. When checked, the path connection is triggered when the events buffer is 80% full.

Trigger Comms Fail to RAS. Select this option to trigger the report fail event flag, and report via RAS, if this path fails.

Use Area Account Code. When checked, the path uses the area account code that is programmed for an area when reporting to central station.

Heartbeat Fail Triggers Path. When selected, this path is triggered to connect when an Ethernet heartbeat fail condition is detected.

Isolated Inputs Trigger Path. When selected, isolating inputs will trigger the path to report. If not selected, then isolated inputs will be reported when the next alarm function triggers the path.

Note: “Report alarm events” must be enabled for this option to work.

Filters

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Filter to area or area group. Optionally specify an area or area group by which events will be filtered (restricted). If no area or area group is selected, the events from all areas are reported on this path.

Timezone. Optionally specify a hard time zone or a soft time zone, during which this path can report events.

Send Events Outside of Timezone. If a time zone is specified, select this option to report event only when the time zone is invalid.

Remove Unsent Events. Select this option if you want to ignore events when they are not being reported due to time zone settings. Events that are not reported will be discarded (not stored in the path's queue). If not selected, then the unsent events are stored in the path's queue. When the time zone allows reporting, then the events from the queue are sent (along with any new events).

Multi Break Alarm Timer. If the “Multibreak alarms” option is set to YES, you can define a time (0 to 255 seconds) to prevent ‘old’ multibreak input alarms from being reported. For example, if you program a value of 30 seconds, then only multi break alarms that are less than 30 seconds old will be reported.

Note: This option does not apply if “Enable V8 multi break” is set in system options.

Report Alarm Events. Select this option to enable the path to report alarm events.

Report Access Events. Select this option to enable the path to report access events.

Report Connect Event. Select this option to generate a “computer connected” event when a remote computer has connected to the panel via this path. This event can then be reported via your central station reporting path.

Note: Do not select this option if this path is used for reporting to a central station or an IP Receiver.

Report System Alarms. Select this option to enable the path to report system alarm events. System alarms include all alarm events that are not associated with an area.

Note: “Report alarm events” must be enabled for this option to work.

Multibreak Alarms. Select this option to report each alarm when an input alarms more than once before being reset by a user.

Multibreak Restorals. Select this option to report each alarm restoral when an input alarm is restored more than once before being reset by a user.

Common Open/Close. When selected (and Report Open/Close is selected), this option causes the path to report open when the first reporting area is disarmed, and closed when the last reporting area is armed. In both cases, the lowest reporting area number (circuit number) is used, regardless of when that area was disarmed or armed. If not selected, but Report Open/Close is selected, then this path will report open or close whenever a programmed area is armed or disarmed.

Note: “Report alarm events” must be enabled for this option to work.

Report Open/Close. Select this option to report when all areas (or areas specified in “Filter event to area”) open and close (are disarmed and armed).

Note: “Report alarm events” must be enabled for this option to work.

Test Calls

Test calls determines whether the Challenger panel activates test calls to the monitoring company and, if so, how often. Test calls may only be needed if there have been no events to initiate a call since the last test call.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Click the arrow and select the test call frequency from the list. Options include:

- None
- Once A Day (and then enter the time of the first test call)
- Once A Week (and then enter the time and day of the first test call)
- Once A Day If No Event (and then enter the time of the first test call)
- Once A Week If No Event (and then enter the time and day of the first test call)
- Four Hourly (and then enter the time of the first test call)
- Four Hourly If No Event (and then enter the time of the first test call)
- Hourly (and then enter the time of the first test call)
- Hourly If No Event (and then enter the time of the first test call)

Dial Settings

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Auto answer. When checked, the path can answer incoming calls after the number of rings and the number of calls are met.

Call back. When checked, the path can dial the telephone number of a remote computer when it detects a call-back trigger. Program the telephone number as “Phone 1” (this path’s first telephone number).

DTMF. When checked, the path can use DTMF tone dialling. If not checked, then decadic dialling will be used.

PABX. If required, enter a PABX access code (for example, if you must dial 9 to get an outside line). Other uses for this field include area code for STD telephone numbers, and satellite access code for remote locations.

Phone 1. Enter the first telephone number that the system will attempt to call (by the value programmed in “Redial Count”) in response to, for example, an alarm event.

Phone 2. Enter the second telephone number that the system will attempt to call in response to, for example, an alarm event, if it fails to report via the first phone number.

Rings Before Call Detected. Enter the number of rings that are required before a call is detected. A telephone ring tone that consists of a double tone (brrr-brrr) is counted as two rings.

Num Calls Before Answering. Enter the number of detected calls that are required before the system answers or initiates a call back.

Redial Count. Enter the number of redial attempts that the system will make when the initial dialling attempt has failed. If connection is not made after the programmed number of redials on all phone numbers, then this path’s nominated backup path is triggered.

IP Settings

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

IP Type. Select the type of IP communications require. Use UDP for if you want the Challenger panel to communicate in event-driven mode with management software, as well as to SecureStream. Use TCP if you want the Challenger panel to communicate in polled mode with management software.

Listen Port. Enter the port number (for example, 3001) that will be used for receiving requests from other devices.

Send Port. Enter the port number (for example, 3001) that will be used for sending data to other devices.

Send Address. Enter the IP address of the remote computer.

Dynamic Computer Address. When checked, this path will allow an IP connection from a computer at any IP address where the connection request is received via the correct port number and the path's (non-zero) computer password is correct.

Client. When checked, this path operates as a TCP/IP client for TCP/IP auto-enrol functionality. Otherwise, the path operates as a TCP/IP server.

Encryption

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Encryption type. Select the required type:

- None (encryption disabled)
- TwoFish (128 Bit) if the Twofish encryption algorithm is required for connection to management software. This option has a 16-character limit on the key length.
- AES (128 Bit) if the AES 128-bit encryption algorithm is required for connection to an IP receiver. This option has a 16-character limit on the key length.
- AES (256 Bit) if the AES 256-bit encryption algorithm is required for connection to an IP receiver. This option has a 32-character limit on the key length.

Encryption Key Length. Select the number of bytes required (16 or 32).

Encryption Key (firmware versions V10-06 or later). The encryption key is an alphanumeric string. The maximum key length is determined by the encryption type: 16 characters for Twofish or AES 128-bit; or 32 characters for AES 256-bit.

Encryption Data (firmware versions prior to V10-06). Type a password in the range of 0 to 255 in each of the 16 or 32 fields (as appropriate to the encryption type).

Advanced Settings

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Computer Attempts. Enter the number of consecutive failed password attempts (in the range 1 to 255) that are permitted before the panel prohibits further attempts. For example, if the number of attempts is set to 3 and the computer has failed to connect 3 times to the Challenger panel, then it will not be able to connect. To re-enable communication with the Challenger panel, you will have to use a Challenger system RAS to open this path's Advanced Settings menu, and then exit.

Message ACK Timeout. Enter the number of milliseconds that the Challenger panel should wait for an acknowledgement to be received before making

another attempt. The length of time that the panel waits is subject to the path's communication format and the programmed number of retries.

The default value displayed via RAS is 0000 ms (milliseconds), however, there are other (background) values that determine how long the panel will wait for an acknowledgement to be received. As a result of these background values, you might not need to program a value in the Message ACK Timeout field.

If the path uses format 1 CID Modem, then the length of time that the panel waits for an acknowledgement is a minimum of 1250 ms (this value is compatible with reporting CID via a satellite communications path). If you require a timeout value greater than 1250 ms, then enter the number of milliseconds in the Message ACK Timeout field.

For other applicable communication formats, the length of time that the panel waits for an acknowledgement to be received is comprised of the sum of two values:

- The value of the Message ACK Timeout field, and
- Either 3,000 or 5,000 ms. 3,000 ms is used for the first and second retries; 5,000 ms is used for any further retries.

For example, if the value of the Message ACK Timeout field is 60, and this is the first retry, then the total time that the Challenger panel waits for an acknowledgement to be received is 3,060 ms (3.06 seconds). If you require a timeout value greater than 3,000 or 5,000 ms, then enter the additional number of milliseconds in the Message ACK Timeout field.

Message Retries. Enter the number of attempts allowed for this path to send an event when the connection is established.

Connect Timeout. Enter the time in seconds the panel waits before terminating the connection attempt (0 means wait indefinitely for a connection).

Connect Retries. Enter the number of times this path is to attempt to reconnect after the initial attempt fails.

Note: If this path is used for IP connection, and a non-zero heartbeat timeout is programmed, then a new connection attempt (if programmed) will be made after the heartbeat timeout expires.

Heartbeart Timeout. Heartbeat rate is optionally used for IP or GSM (3G) paths to detect a connection failure. When used, the Challenger panel logs an Ethernet Heart Beat fail message to history (and then an Ethernet Heart Beat restore message when reconnected).

Wait Time Before Next Connect. Enter the number of seconds (1 to 255) that the Challenger panel should wait to retry a connection when events are queued.

Communications (Challenger V8)

This function is used to record details of the communications link between the Challenger and the remote monitoring company.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

PABX. Enter the number used by the company where the installation is located to obtain an outside line via their switchboard. This field is optional and may be omitted if the system is not connected via the switchboard. In the case of STD telephone numbers, the area code may be entered in this option, or in some remote areas, the satellite access code etc. It is recommended to include one or two pauses after the PABX access code. A pause in the dialling sequence is indicated by P and can be inserted anywhere, e.g. after the PABX access code.

Phone 1. Enter the telephone number that the system will use to communicate. Up to 10 digits can be entered for each record. The area code may be included in the telephone number entry if the total length is still 10 digits or less.

Phone 2. Enter the secondary telephone number that the system will use to communicate (if applicable). If the initial dial attempt fails, the system will dial the first number again twice and if connection is not made on either occasion, the second number will be dialled three times. If connection is still not made, the attempt ceases. Time between dial attempts: 30 seconds, 60 seconds, 5 minutes, 5 minutes, 5 minutes.

Service Ph. Enter the telephone number that will be dialled by the system if the Dial For Service option is selected. Used to connect to a remote computer for programming. Used in conjunction with User menu option 7 - Service Menu.

Note: If the Challenger is reporting in a direct line format, the reporting format must be disabled and the line lead temporarily connected to a dialler line for the service connection to be made.

CallBack. Enter the telephone number that will be dialled by the system when it detects a call-back trigger. Used to connect to a remote computer for programming. If a call back number is programmed, “No of Calls” and “No of Rings” must also be programmed. A callback number must not be programmed if you wish to dial into the panel for direct connection.

Computer. The telephone number of the Forcefield computer’s modem that will be dialled by the Challenger’s modem if the option “Computer is Via Dialler” is set to yes. For example, in the event of a Challenger Ethernet failure, the Challenger may dial into the Forcefield computer’s modem (the modem must be on the same node as used for the Ethernet connection).

Cct fields: These account numbers are only valid for dialler formats (the Securitel Hard ID is not programmed here). The number of digits required for the account number will vary depending on the communication format selected.

Rpt (Areas To Report Open/Close) selections. The function of this record will vary (as follows) depending on the setting of the Common Open Close option:

1. A report will be sent to the remote monitoring company whenever an area which is set here is armed or disarmed (provided that item 2 below is not functional). **Note:** If you do not want to report open/close, no areas should be programmed.
2. If Common Open Close is set, then a disarm report will be sent when the first disarm area occurs for any one of the areas set. No report will be sent when the remaining areas are disarmed. An arm report will be sent when all the areas set have been armed.

System. This is a unique number which identifies your system to the monitoring company when reporting in dialler formats and will be provided by that monitoring company.

Network. Type a network address is the Challenger identification number and identifies the client to the remote monitoring company. You must record a network address if the system is communicating to the monitoring station via a direct line. The Network address is the last digit or last 2 digits of the client number supplied by the remote monitoring company. Format 9-Tecom Direct Line requires only the last digit. **Note:** Set the Network address to zero if a direct line is not being used.

Computer. Type a computer address is the Challenger identification number and identifies the client to the access control/monitoring computer.

STU. Records a number between 0001 and 9999 which identifies the Securitel Interface Units.

Type. Select the required reporting format.

Test Call. This record determines whether The Challenger activates test calls to the monitoring company and if so, how often. The test call ensures that communications are operating correctly and can be programmed to only be made if there have been no events to initiate a call since the last test call. For “once a week” options, the test call will go through on the same day as the day on which the option was selected.

To specify a particular day for the “once a week” options, set the system clock to the day of the week on which you want the test call to occur, before selecting the option required (2 or 4). The system clock must then be reset to the correct time and date.

Hour. Enter the hour (24 hour format) that the test call will be made.

Minute. Enter the minute that the test call will be made.

Encryption. records a number between 0 and 255 which is used to encode data being sent to the remote monitoring company in the Direct Line format. The encryption key number will be provided by the monitoring company. (The same number must be entered for this unit at the monitoring station Direct Line receiver). Unless otherwise instructed by the monitoring company it is

recommended to leave the encryption key at 0 until communication has been established.

Num Rings. Enter the number of rings that are required before a call is detected. **Note:** For Challenger panels used in New Zealand and configured to answer incoming calls, the minimum amount of rings before answering an incoming call shall be set to 4.

Num Calls. Enter the number of calls that are required before the system answers or initiates a call back.

Buff Size. Enter the number of events (0 to 255) that the Challenger panel will hold in its communications buffer.

Multibreak Alarms. When checked, and an individual input alarms more than once before being reset by a user, each alarm is reported to the remote monitoring company. This record controls the way in which multiple alarms from one input are reported to the remote monitoring company. **Note:** This record is not applicable if the reporting format type is High Speed Extended or High Speed Extended Checksummed.

Multibreak Restorals. When checked, and Multibreak Alarms is checked, and multiple alarms are reported to the monitoring station, this record causes a restoral message to be sent to the monitoring company each time the input is re-sealed.

600 Ohm Load. When checked, enables 600 Ohm load termination. This option is used when the Challenger panel is reporting to the monitoring station in Direct Line format, and is the only device on the end of the Direct Line connection from the monitoring station.

Network Command. When checked, and system communicates to the remote monitoring company via a direct line, this record enables that company to control certain functions in the system, such as arm/disarm the system, reset alarms, isolate inputs.

DTMF. When checked, DTMF Tone dialling is enabled in all dialler formats. If not checked decadic dialling is enabled in all dialler formats.

Dial Computer Alarms (applicable to a system reporting alarm events to a management computer via dialler). When checked, the system will dial an alarm event to the computer instantly when the alarm occurs, otherwise the system will wait until the communications buffer is full before dialling through the events to the computer.

Dial Events Via Port. When checked, the system will communicate to an access control/monitoring computer via a dial-up modem connected to the Computer Interface module fitted to the Challenger.

CID via Satellite Phone. When checked, enables delivery of CID alarm events to compatible receivers connected via a satellite communication path by extending the time that the panel waits for acknowledgement from the CID monitoring station. This option requires Challenger panel firmware 8.105 or above.

Disconnect Mgt SW on CID Event. When checked, the system will disconnect from the management software computer when it needs to send an event to the CID monitoring station.

Common Open Close. When checked, the panel reports open (disarmed) on the area circuit number of the first area disarmed from the Rpt selection and reports closed (armed) on the area circuit number that is armed last (all others armed) from the Rpt selection. If not set, reports open/close (disarmed/armed) on each area circuit number as specified in the Rpt selection.

Isolates Don't Trigger Dialler. When checked, isolating inputs will not trigger the dialler to report. Isolates will be reported when the next alarm function triggers the dialler.

Enable Line Fault Monitor. When checked, the Challenger panel will monitor the integrity of the dialler telephone line. If the line is cut it will be indicated immediately on the LCD RAS, and the Report Fail event flag will be activated to provide local indication and/or to enable a backup cellular phone interface. A Line Fail report will be generated for use with a backup cellular phone interface if used. If not set, Report Fail will only be generated after four failed dial attempts and no line fail message is generated for the backup cellular dialler. **Note:** Must always be set to NO in Version 7 Challenger panels.

Defeat Answering Machine. When checked, enables Forcefield to dial into a Challenger that shares a line with an answering machine. If set, after the required "Number of Calls" and "Number of Rings" has been met, the Challenger will answer instantly on the next call.

Computer Via Dialler. When checked, the Challenger panel can connect to the monitoring computer via a modem connection.

Dial Computer Accesses. When checked, and the Challenger panel is connected to the monitoring computer via modem, the system will dial an access event to the computer instantly when the event occurs. If not checked the system will wait until the communications buffer is full before dialling through the events to the computer.

Dial Events Via Onboard Modem. When checked, the Challenger panel communicates to an access control/monitoring computer running Forcefield or TITAN management software via the Challenger's on-board modem (the panel's normal dialler line connection). The line lead supplied with the panel is connected to a telephone socket as it would for a normal dialler reporting format.

Text Words

Note: Challenger10 panels using firmware version V10-06 (or later) do not use text words or the Challenger word library.

Text words in the Challenger standard text word library are identified by a reference number starting at 001. Challenger panels currently have 544 predefined text words.

Challenger10 panels with firmware prior to V10-06 can have 400 additional text words numbered from 600 to 999. Challenger V8 panels can have 100 additional text words numbered in the range 900 to 999.

Click the Number arrow to search for text words by number. Alternatively, click the Text arrow to search for text words by text.

The “Space remaining for” field displays how many additional words may be added to the Challenger panel.

Printer Options (Challenger V8)

Note: Challenger10 printer settings are defined at the communication path level.

This option records details of the printer output options. To obtain a printer output from the Challenger, a Serial Printer Interface or Serial Computer & Printer Interface must be fitted.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Real-Time Printing. When checked, enables the printer port on the Challenger to print each event as it happens (“Print History” may still be used if required). Typically not set when a printer is not connected or you do not require the printer to run in real time.

Print Alarm Events. When checked, enables all alarm events to be printed.

Print Access Control Events. When checked, enables all access control events to be printed.

Dump Events Occurring Outside Timezone. When checked, and a time zone is specified, the printer will only be active outside of that time zone (when the time zone is not valid). If not checked, the printer will only be active during the specified time zone.

Printer Port Connected to DVMR. When checked, the panel’s printer port is connected to a DVMR and will send tag events to the DVMR.

TimeZone. The printer will only be active during the time zone specified unless Dump Events Occurring Outside Timezone is set. The default time zone is Tz 0 (always valid).

Type. Select the type of printer.

Event Flags

Event flags are signals activated within the Challenger to indicate that particular conditions exist in the system. The event number is the event flag which will activate a relay.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Num. Event flags are numbered in the range 1 to 255 (1 to 100 for ChallengerLE).

ID. Enter a name to identify the event flag in Forcefield.

Name (for Challenger10 firmware V10-06, or later). Type a name to identify the DGP. Up to 30 characters (including spaces) can be downloaded to the panel.

Description. Describe the application of this event flag.

WARNING: Removing an event flag that is in use may cause system malfunction.

Before attempting to remove any event flag record, you must make sure it is not used in any of the following databases:

- Area
- Input
- Input Shunts
- Panel Condition Events
- RAS
- Relay
- Trigger Logic
- Event Number

Time Zones

Use the Challenger Timezones window to assign time zones to the Challenger panel.

Time zone numbers must be in the range 1 to 24 or 42 to 63. (Time zones 42 to 63 are not supported in ChallengerLE). Challenger V8 panels using firmware version 8.128 or later, and fitted with TS0882, TS0883, or TS0884 memory modules can use time zone numbers in the range 1 to 24 and 42 to 63. All versions have two default time zones (0 and 25).

When the Challenger panel type is Challenger10 or V8 Extended, the Extended Timezones button on Timezone programming window becomes active. Click the Extended Timezones button to assign time zones in the range 42 to 63.

Programming time zones

Double-click a time zone field in the Challenger Timezones window to open the Program Timezone window. Refer to “Time Zones” on page 222 for details.

Doors & Lifts

This function is used to program information relating to an individual Legacy 4 Door Controller door or lift for a Challenger panel.

Figure 94: Legacy 4 Door Controller Door or lift programming window

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Num. Enter the door or lift number. Doors 17 to 64 and 81 to 128 are used for door or lift numbers; these are connected to an Intelligent Controller (four-door or four-lift controller).

Id. Enter a name to identify the door to Forcefield. The name must be unique (it is not possible to have “Door 1” in Challenger x and “Door 1” in Challenger y).

Lift. Check the box to indicate a lift.

Description. Type a description of the door or lift.

Location. The location should contain details as to the type and location of the door or lift.

Video Cam. Selects the video camera associated with this input. This option is used when operator selects the video option on the graphics screen. When programming this option, the video camera is identified as being controlled by a DVR or by a switcher.

- Select DVR if the camera is controlled by a DVR. Refer to the *Forcefield External Interfaces Manual* for details.
- Select Switcher if the camera is controlled by a video switcher. In this instance, selecting the video option on the graphics screen will switch this camera to the selected view. The view for this camera can be selected in the View field.

View. Selects the preset view for the video camera. If this field left blank, the video camera, if a PTZ Camera, will switch to preset 1.

Member. The member controls event reporting and operator control in Forcefield.

Computer Cat. Click the arrow to select from the list of computer categories (the list is restricted to show only the correct type of computer category).

Each door or lift can have a different computer category. The category determines how Forcefield will handle an event from this door or lift. The computer category name “Door” can be used, but is a standard (read-only) Forcefield computer category and cannot be modified. See “Computer Categories” on page 212 for details.

Help. Double-click or press F3 to program alarm help information for this item. The help programmed here will be displayed as an action on the alarm screen when alarms are generated.

Maps. Displays the map numbers of any maps containing the door or lift.

Programming. Click to open the Door/Lift menu, which provides access to the door/lift programming screens, sorted by functionality.

- If Lift selection was not set, then the Door/Lift Menu for a door displays (see Figure 95 below).
- If Lift selection was set, then the Door/Lift Menu for a lift displays (see Figure 96 below).

Figure 95: Door/Lift Menu for a door

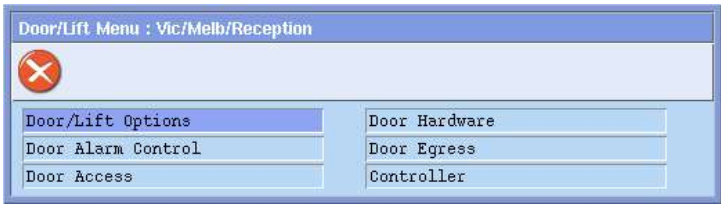
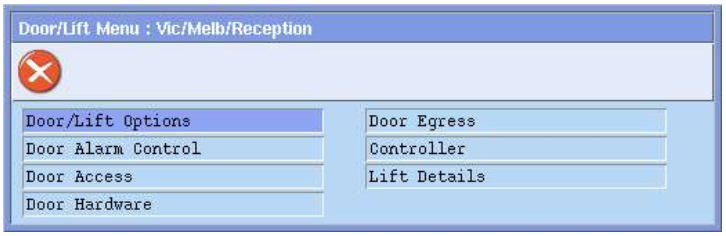


Figure 96: Door/lift menu for a lift (note the Lift Details option)



Click an option in the Door/Lift menu to program the details described in the following sections:

- “Door/Lift Options” on page 337
- “Door/Lift Alarm Control” on page 338
- “Door Access” on page 338

Door/Lift Options

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Card Format. Specifies the data format of the reader and card, key or token being used. Click the arrow, and then select the required card format.

LED. Specifies the status that the reader LEDs will indicate.

Override Timezone. This time zone controls the times when a door can be opened without the need to use a valid card or PIN. Free access is allowed when the time zone is valid.

Authorise RAS. Program a system RAS number (1 to 16 for Challenger V8 or 1 to 16 and 65 to 80 for Challenger10) for this Intelligent Access Controller's local RAS (reader) to ‘authorise’ the controller's reader to arm/disarm and select areas via the system RAS when a valid badge is presented at the controller's local reader (the reader must also have a keypad for area selection).

The local reader can no longer be used to open this door: it is dedicated to arming and disarming areas controlled by the nominated system RAS. The RAS on the system LAN that is selected for arm control must also have the option “Toggle Keyboard Control” set to Yes.

For example, the system's RAS 3 has been designated as an authorised RAS for this local reader. When a user badges their card on the controller's local reader, the Challenger system will treat the card as a valid PIN being entered on system RAS 3. The user then enters the areas to be armed or disarmed.

Random Event Percentage. Enter a percentage value between 0 and 100%. For example, if the value is 20%, the door random bit event would be generated an average of once every five times a valid card/code is used at the reader (this function is not currently enabled in Challenger).

Time & Attendance Reader. This function is not currently enabled in Challenger.

Door Input Holds Door Unlocked. When checked, the door lock will not operate to re-lock until the door is closed. This is used where the lock mechanism, when locked, will stop the door closing.

Inhibit Override Until User Enters. When checked, prevents the door from unlocking when the override time zone becomes active until a valid card/code is presented at the reader.

Report Door Open & Close. When checked, the system reports to printer and/or computer whenever the door is unsealed and re-sealed.

Report Forced Door. When checked, the system reports to printer and/or computer whenever the door is forced.

Report DOTL. When checked, the system reports to printer and/or computer whenever the door is in Door Open Too Long (DOTL) state.

Pulse Lock Unlock Relays. When checked, the system pulses the lock unlock relay.

Disable Duress. When checked, the system disables the duress PIN code from reporting a duress condition.

Hold Door Unlocked Until Door Open. When checked, the door will not lock until the door is opened.

Report (Un)Secured. When checked, the door will report secure and unsecure events.

2 Badge Unlock – 1 Badge Relock. As an alternative to dual custody, two badge unlock avoids unintended unlocking of a door if a user accidentally presents their card to a reader, for example, by brushing past the reader with the card in a pocket. When two badge unlock is enabled and two different cards are presented within the dual custody time (regardless whether dual custody is used), then the door is not unlocked and a door access denied message is generated.

Version 7 Options. Click to program Challenger Version 7 options.

Door/Lift Alarm Control

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Arm/Disarm Alarm Group. Assign an alarm group that specifies the alarm system control facilities relevant to the door.

Alarm Options. Choose from the method of alarm control required from the options.

Inhibit If Areas Secured (In). When checked, access at the IN reader is to be denied when the area(s) assigned to the door in “Door/Lift Hardware” on page 340 are secure.

Inhibit If Areas Secured (Out). When checked, access at the OUT reader is to be denied when the area(s) assigned to the door in “Door/Lift Hardware” on page 340 are secure.

Door Access

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Access. The amount of time that the door will unlock when a user enters a valid card or PIN on the door reader.

IUM Learn Reader. When checked, identifies this reader as an IUM card data learn reader. This is a Forcefield-only option, it does not form part of the door access record. See “Learning IUM card data” on page 46.

Muster Reader. When checked, identifies this reader to be a muster reader. This is a Forcefield-only option, it does not form part of the door access record. For more information, see “Muster Report” on page 179.

Extended Access. The amount of time that the door will unlock when a user with “LONG ACCESS” enters a valid card or PIN on the door reader.

Shunt Option. Determines the shunt options. Shunting is a procedure which stops an open door causing an alarm for a set period of time.

Shunt Time. The amount of time that the door can be opened before causing an alarm.

Shunt Until Door Closed. When checked, keeps shunting the door until it closes.

Extended Shunt. The amount of time that the door can be opened before causing an alarm when a user with “LONG ACCESS” enters a valid card or PIN at the door reader.

Cancel Shunt After Door Secures. When checked, cancels shunting after the door secures.

Shunt Warning. Determines the amount of time that a relay may be activated to sound a warning device before the “Shunt Time” or “Extended Shunt Time” expires.

Low Sec TZ. The low security time zone controls the times when just a valid card or PIN may be used to open the door. When the time zone is not valid and the “Card & PIN Code Reader” is Set, a valid card AND PIN must be entered to open the door.

Card & Pin (determines for IN and OUT readers what method will be used to open the door). When checked, enables the door to be opened by presenting a valid card to the reader AND entering a PIN on the reader keypad. If not checked, enables the door to be opened by presenting a valid card to the reader OR entering a PIN on the reader keypad.

Dual Custody (determines for IN and OUT readers whether two user cards or PINs are required to open the door). When checked, it is necessary to record two separate codes in succession in order to open the door (either two cards, two PINs, or a card and a PIN from two different users). If not checked, it is necessary to record only one card or PIN to open the door. Separate records are programmed for the IN and OUT readers of each door.

Disable PIN Only (for IN and OUT readers). Determines what method will be used to open the door during the low security time zone. If set, enables the door to be opened during the low security time zone only by presenting a valid card to the reader. If not set, enables the door to be opened during the

low security time zone by presenting a valid card to the reader or a valid code on the reader keypad. Timezone is programmed separately for the IN reader and OUT reader.

Inhibit Offsite Users (for IN and OUT readers). Deny access to any users designated as being in region 0.

In check boxes: When checked, defines the reader as an in reader for a region. When a valid card or PIN is entered at the door in reader, the region that the user is entering is recorded against the user code. The system is then able to report an anti-passback violation if the user attempts to use any reader that will allow them to enter the same region.

Out check boxes: When checked, defines the reader as an out reader for a region. When a valid card or PIN is entered at the door out reader, user code is cleared from the region that the user is exiting.

Anti-PassBack Type. Controls the operation of the reader if a card or PIN is used to enter the same region that the user is currently in.

Anti-PassBack Time. The amount of time that must elapse before a card or PIN may be used at the same door twice in succession without causing a Timed Anti-Passback violation.

Computer Cat. Click the arrow to select from the list of computer categories (the list is restricted to show only the correct type of computer category).

Each door can have a different computer category. The category determines how Forcefield will handle an event from this area. The computer category name “Door Access” can be used, but is a standard (read-only) Forcefield computer category and cannot be modified. See “Computer Categories” on page 212 for details.

Help. Double-click or press F3 to program alarm help information for this item. The help programmed here will be displayed as an action on the alarm screen when alarms are generated.

Version 7 Options. Click to program Challenger Version 7 options.

Door/Lift Hardware

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Lock Relay. This record specifies the relay to be activated when the door is accessed. Enter a number in the range 1 to 16. These are the physical relays on the door/lift controller.

Forced Relay. This record specifies the relay to be activated to indicate Forced Door. Enter a number in the range 1 to 16. These are the physical relays on the door/lift controller.

DOTL Relay. This record specifies the relay to be activated to indicate DOTL. Enter a number in the range 1 to 16. These are the physical relays on the door/lift controller.

Fault Relay. This record specifies the relay to be activated to indicate a lock or reader fault. Enter a number in the range 1 to 16. These are the physical relays on the door/lift controller.

Warning Relay. This record specifies the relay to be activated to indicate Shunt Time ending. Enter a number in the range 1 to 16. These are the physical relays on the door/lift controller.

DOTL Input. The input used to report DOTL to the Challenger.

Door Input. The door contact input.

Egress Input. The input that will activate the egress function for the door.

Monitor 2nd Door Input. When checked, enables the use of two inputs to monitor the door.

Assigned Areas selections. Specifies the areas assigned to this door that will control:

- the reader LEDs if “LED On when Area Armed” is selected.
- the “Access Denied if Area Armed” and “Egress Denied if Area Armed” functions.

It is recommended that only one area number be assigned to a door.

Note: This record does not specify areas for alarm control. Areas on which the reader can perform alarm control functions are specified in the alarm group assigned to the door.

Inputs Shunted By Door button. Click to program shunts.

Door Interlock Inputs button. Click to program interlocks.

Door/Lift Egress

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Egress TimeZone: This time zone control the times when an egress button (exit button) will unlock a door to allow exit. When the time zone is valid, a user can press the egress button and the door will unlock.

Egress Option: Select the correct option.

Egress Reporting. When checked, a door egress report is sent to the printer and computer when the egress input is used.

Inhibited If Areas Secure (In). When checked, the egress button will not unlock the door if any of the areas assigned to the door are armed.

Inhibited If Areas Secure (Out). When checked, the egress button will not unlock the door if any of the areas assigned to the door are armed.

Door/Lift Controller

See Figure 92 on page 311, and the details that follow, about programming a Legacy Door or Lift Controller.

Lift Options

If Lift selection was set on the Door/Lift window (see Figure 94 on page 335), then the Door/Lift Menu for a lift displays an additional Lift Details option.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Override Group. Records a floor group number. Each floor group is programmed with floor/s and a time zone. The lift override group determines the floor/s which can be freely accessed in the lift controls, and the times which they can be accessed, without using a valid card or PIN at the lift reader.

Security Group. Records a floor group number. Each floor group is programmed with floor/s and a time zone. The lift override group determines the floor/s which can be freely accessed in the lift controls, and the times which they can be accessed, provided that the security input (key switch) is turned on.

Security Input. Specifies the input on the Intelligent Controller that will control the security group (described above). **Note:** “Inputs Report as Floors” (below) must not be set if the Security Input is used.

Starting Floor to Activate a Relay. Records the first floor to be accessed by this lift. Forcefield uses this value to determine which floors can be remote controlled for this lift.

Last Floor to Activate a Relay. Records the last (top) floor to be accessed by this lift. Forcefield uses this value to determine which floors can be remote controlled for this lift.

First Relay to Use. Records the physical relay which will control access to the starting floor. Consecutive relays will match with consecutive floor, up to the last floor number. Only used on 4-lift versions.

First Input for Button Monitoring. The first physical input which will monitor floor selection. Used when “Inputs Report as Floors” (below) is selected. Only used on 4-lift versions.

Bank Number. used when the lift controller is connected to a high-level lift protocol controller.

Car Number. used when the lift controller is connected to a high-level lift protocol controller.

Total Floors. used when the lift controller is connected to a high-level lift protocol controller.

Inputs Report as Floors. When checked, enables controller inputs to monitor the floors selected, up to a maximum of 16 floors. If set, the controller inputs can

be used to monitor the floor selected, which will generate a report to the printer and computer. The Security Input field (above) cannot be used. If not set, inputs are used as normal system alarm inputs and the Security Input field (above) is enabled.

Monitor High Level Floor Landings. When checked, indicates that the lift controller is connected to a high-level lift protocol controller.

Wait For Floor Selection. When checked, enables one floor only operation. The floor is enabled after badge and floor selection. Normal operation is to enable all floors in the user's floor group.

Lift Computer Category. Click the arrow to select from the list of computer categories (the list is restricted to show only the correct type of computer category).

Each lift can have a different computer category. The category determines how Forcefield will handle an event from this lift. The computer category name “Lift” can be used, but is a standard (read-only) Forcefield computer category and cannot be modified. See “Computer Categories” on page 212 for details.

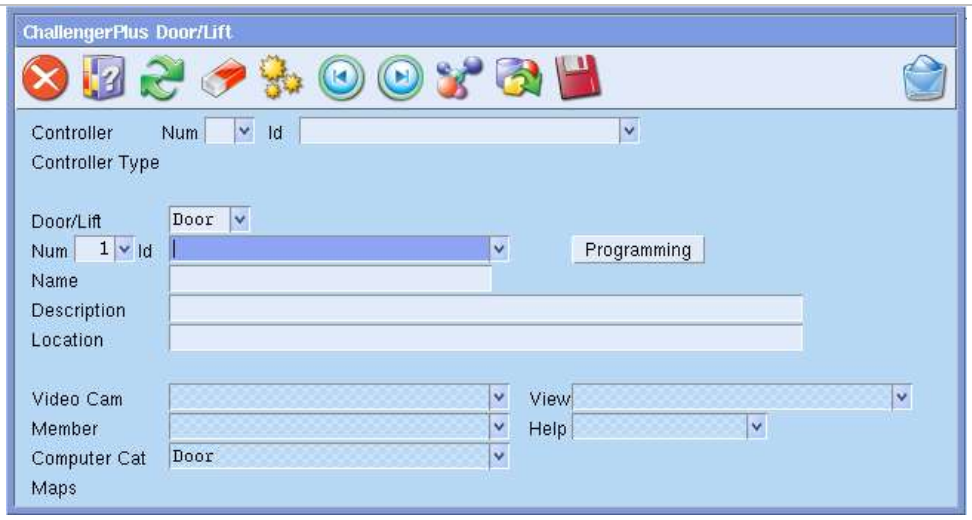
Lift Help Response. Double-click or press F3 to program alarm help information for this item. The help programmed here will be displayed as an action on the alarm screen when alarm are generated.

Landing Floors button. Used when the lift controller is connected to a high-level lift protocol controller. There are 64 possible floors, displayed 32 floors at a time. Use the PREV and NEXT buttons to display the first and second set of 32 floors.

Standard Door/Lift Programming

This function is used to program information relating to a Standard door or lift for a ChallengerPlus panel. ChallengerPlus standard doors may be numbered in the range 1 to 126, depending on whether a standard door is configured to use a RAS or DGP. Standard doors/lifts using RASs are numbered 1-16 on LAN1 and 65-80 on LAN2 in RAS Range. Standard doors/lifts using Dual Wiegand DGPs cab be configured on the first two door/lift slots of the Dual Wiegand DGP polled on ChallengerPlus panel. For instance, if a Dual Wiegand DGP is polled as DGP1 on ChallengerPlus panel, it can have Standard doors/lifts numbered 17 & 18. The maximum limit of Standard Lifts on ChallengerPlus panel is 2.

Standard Door/Lift programming window



Descriptions of window-specific elements are below.

Controller Number. Enter the Dual Wiegand DGP number to use for Standard door/Lift programming.

Controller ID. Forcefield populates the ID of Dual Wiegand DGP number that is entered above.

Door/Lift. Choose Door or Lift option from drop-down to create a Standard door/ standard lift.

Number. Enter the door/lift number to be created.

ID. Enter a name to identify the door/lift record in Forcefield.

Name. Enter a door name up to 30 characters, that gets programmed to the door/lift.

Description. Type a short description of this door/lift.

Location. Enter the door's location details.

Video Cam. Select the video camera associated with this door. This option is used when operator selects the video option on the graphics screen. When programming this option, the video camera is identified as being controlled by a DVR or by a switcher.

- Select DVR if the camera is controlled by a DVR. Refer to the *Forcefield External Interfaces Manual* for details.
- Select Switcher if the camera is controlled by a video switcher. In this instance, selecting the video option on the graphics screen will switch this camera to the selected view. The view for this camera can be selected in the View field.

View. Selects the preset view for the video camera. If this field left blank, the video camera, if a PTZ Camera, will switch to preset 1.

Member. The member controls event reporting and operator control in Forcefield.

Computer Cat. Click the arrow to select from the list of computer categories (the list is restricted to show only the correct type of computer category).

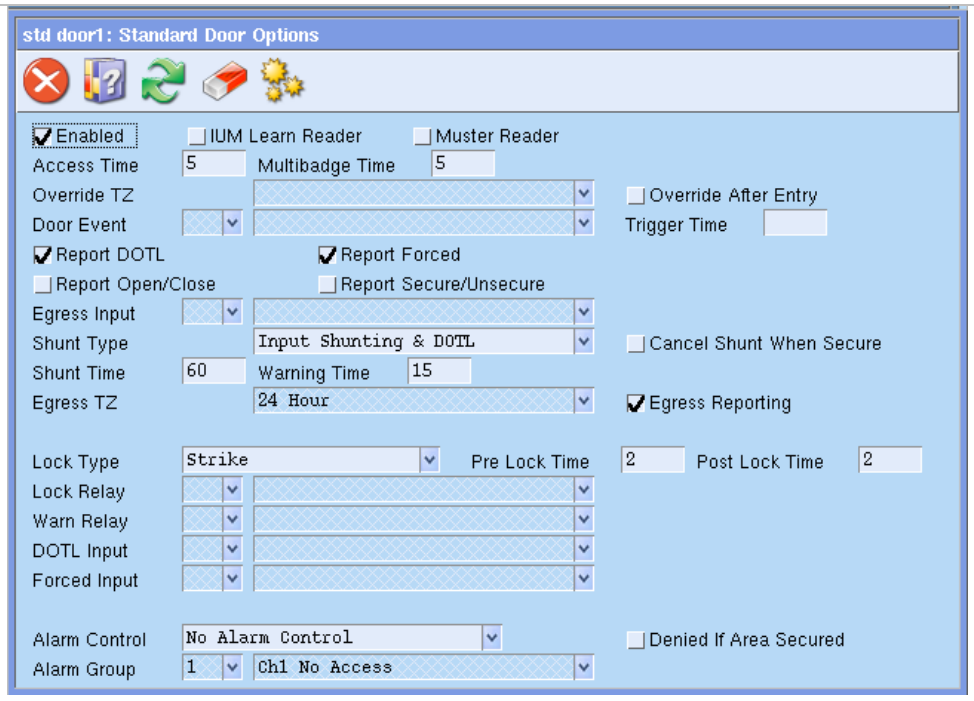
Each door or lift can have a different computer category. The category determines how Forcefield will handle an event from this door or lift. The computer category name “Door” can be used, but is a standard (read-only) Forcefield computer category and cannot be modified. See “Computer Categories” on page 210 for details.

Help. Double-click or press F3 to program alarm help information for this item. The help programmed here will be displayed as an action on the alarm screen when alarms are generated.

Maps. Displays the map numbers of any maps containing the door or lift.

Programming. Click to open the Standard Door/Lift menu, which provides access to the door/lift programming screens, sorted by functionality.

Standard Door Programming window



Descriptions of window-specific elements are below.

Enabled. Selecting this option will enable the standard door functionality for this record. If your Standard door is using RAS hardware, selecting this option will disable most options on the associated RAS record, and convert the RAS functionality to door functionality. In this mode, menus and typical PIN code arming are not possible on that RAS. You may untick this option at any time to restore standard RAS functionality.

Muster Reader. When checked, the reader is a muster reader. For more information, see “Muster Report” on page 177. **Note:** Muster Reader is a Forcefield function and has nothing to do with RAS programming.

IUM Learn Reader. When checked, identifies this reader as an IUM card data learn reader. This is a Forcefield-only option, it does not form part of the door access record. See “Learning IUM card data” on page 48.

Access time. Program the amount of time in seconds for the door to unlock when a user enters a valid card or PIN at the door reader. The user is then able to open the unlocked door during the access time.

Multibadge Time. The multi badge time is the amount of time allowed between the first and last presentation of the card. If the card is not presented within this time, then the user will need to commence the function again.

Report DOTL. Tick this option for the standard door to send a report to the printer/computer when a DOTL (Door Open Too Long) condition is detected. When Unticked, DOTL is not reported.

Report forced. Tick this option for the standard door to send a report to the printer/computer when the door is forced (i.e. input unsealed while the door is locked). When Unticked, forced door is not reported.

Report open/close. When this option is ticked, the door sends a report to the printer/computer if the input assigned to the door is unsealed and resealed. If the option is unticked, no message is sent unless the input is in alarm.

Report Secure/Unsecure. This option only functions when the hardware type is set to Maglock. It is intended to specifically report when a door is secured (closed, locked, and not shunted), as opposed to simply locked/unlocked, or opened/closed. When this option is ticked on the door, if a user badges their card and/or access is granted on a door, the door lock will unlock and send an "unsecured" message to the management software. When the door is locked, the door input is sealed, and shunting has expired (if configured), a "secured" message will be sent to the management software. If it is Unticked, door Secured and accessed events are not reported.

Override TZ. The override time zone controls the times when the door can be opened without the need to use a valid card or PIN. Free access is allowed when the time zone is valid. Enter a time zone number or select a linked time zone available to this ChallengerPlus panel.

Door event. This event flag triggers when a user opens the door and remains active for the Trigger duration (below). Select the event flag available on this panel by clicking function-key <F4> or create a new event flag from here by clicking function-key <F3>.

Trigger time. Trigger time defines the time for the Door event flag (above) to remain active. The range is 0 to 65,535 (0 means that it is not timed).

Override after entry. This field determines whether the override time zone (Override TZ above) takes effect immediately the time zone commences or after a user enters. When selected, the override time zone takes cannot unlock the door for the programmed times unless a user has entered.

Egress input. Specify the input number that activates the egress function for the door being programmed.

Shunt time. Program the amount of time that the door may be opened for without causing an alarm (shunted). This allows time for a user to pass through the door and shut it again.

Warning time. Program the amount of time for a relay to activate, to sound a warning device, before the Shunt time (above) expires.

Shunt type. Shunting is a procedure that stops an open door causing an alarm for a set time. This field defines shunt conditions that the standard door can have. The options are:

- No shunting – The door will not be shunted.
- Input shunting – The door will be shunted and will generate a forced door alarm if it is left open (i.e. Door input 1 is unsealed) longer than the programmed Shunt time (below).
- Input shunting & DOTL – The door will be shunted and will generate a DOTL (Door Open Too Long) alarm if it is left open (i.e. Door input 1 is unsealed) longer than the programmed Shunt time (below).
- Auto input shunting & DOTL – If the area assigned to the door is in access (disarmed), shunting of the door will commence when the door input is unsealed. (No PIN/card is required). A DOTL alarm is generated if it is left open longer than the programmed Shunt time (below). Forced Door & DOTL are reported on the door, as well as separate input numbers (if programmed).

Cancel shunt when Secure. For security reasons, it may be required to limit the shunt period as much as possible in order to detect the door being opened again during the shunt time (after the debounce time of approximately 2 seconds). Select this option to use the programmed Shunt time (above) to shunt Door input 1 (on the Hardware tab) and then to cancel the shunt when the door closes (i.e. the door input is resealed).

Egress time zone. The egress options define the operation of the egress button (exit button). The egress button is wired to the Egress input defined on the Hardware tab for the door. When the egress button is pressed, the door will unlock for the Access time programmed on the Access tab for the door. The egress time zone controls the times when an egress button will unlock a door to allow exit. When the time zone is valid, a user can press the egress button and the door will unlock. Enter a time zone number or select a linked time zone available to this ChallengerPlus panel.

Egress reporting. When selected, a report is sent to management software when the egress function is used. This is only a reporting function.

Lock type. To support simple programming of complex door operation, the ChallengerPlus panel has various lock types, with associated inputs, relays and timers. The lock type determines which inputs and relays are used and how they are used. Available lock types for standard doors are:

- Strike
- Maglock

Lock relay. Specify the relay number to be activated to unlock the door.

Forced input. Specify the input number used to indicate if the door is open or closed. This is usually the reed switch.

Warning relay. Specify the relay number to be activated during during the Warning time (programmed on the Access tab for the door) when the shunt timer is about to expire, e.g. may be used to activate a buzzer above a door to indicate the door needs to be closed.

DOTL input. Specify the input number that will report the DOTL (Door Open Too Long) alarm condition for the door being programmed.

Pre lock time. Once the door open input (Door input) has been sealed, the ChallengerPlus panel waits for the pre-lock time to expire before locking the door. If the door open input unseals during the pre-lock time, the door is deemed open and the pre-lock timer is cancelled. The shunt continues during the pre-lock time.

Post lock time. The post-lock time allows time for a lock to fully engage. After the post lock time has expired, the door is deemed secure, and the shunt is cancelled. If the door open input (Door input) unseals during the post-lock time, the door is deemed open and the post lock timer is cancelled. The shunt continues during the post-lock time.

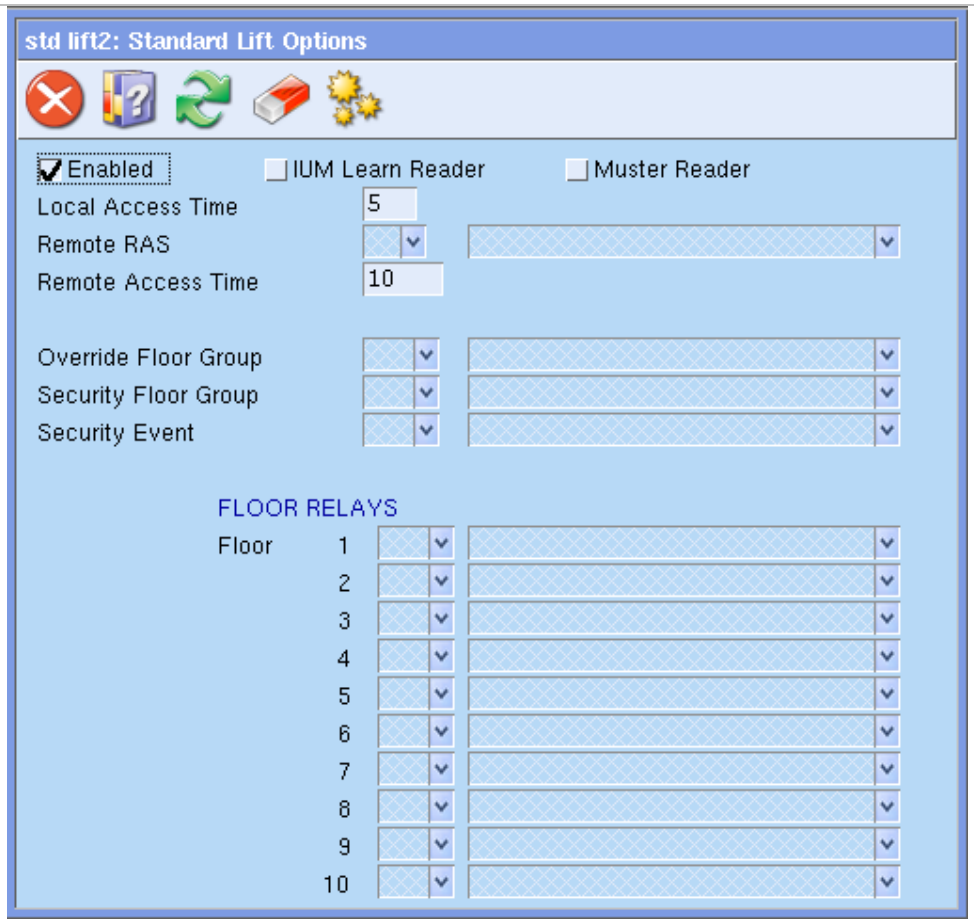
Alarm control. This field determines whether the door's reader can be used to control the alarm system (arm/disarm) and if so, the way in which it can be controlled:

- No Alarm control – It is not possible to arm/disarm via the reader.
- Alarm control on 1st badge – Presentation of a valid card at the reader will disarm the system on the first badge. (Three badges are still required to arm system).

Alarm group. An alarm group is assigned to a door to restrict alarm control from that door to the areas assigned in that alarm group. Restrictions on the level of alarm control available (e.g. disarm only) and the time period when the alarm control functions can be performed can also be specified in the alarm group. Select the alarm group available on the ChallengerPlus panel.

Denied if area secured. Stop a user opening a door using the reader when any of the areas assigned to the door are armed. When selected, a valid card or PIN will not open a door if any of the areas assigned to the door are armed.

Standard Lift Programming window



Descriptions of window-specific elements are below.

Standard lift enabled. Selecting this option will enable the standard lift functionality for this record. If your Standard lift is using RAS hardware, selecting this option will disable most options on the associated RAS record, and convert the RAS functionality to door functionality. In this mode, menus and typical PIN code arming are not possible on that RAS. You may untick this option at any time to restore standard RAS functionality.

Muster Reader. When checked, the reader is a muster reader. For more information, see “Muster Report” on page 177. **Note:** Muster Reader is a Forcefield function and has nothing to do with standard lift programming.

IUM Learn Reader. When checked, identifies this reader as an IUM card data learn reader. This is a Forcefield-only option, it does not form part of the door access record. See “Learning IUM card data” on page 48.

Local Access time. Enter the access time (1 to 255 seconds) for the lift access time from the local reader.

Remote RAS. Select the RAS to be the remote reader by clicking function key <F4>, or configure a new RAS by clicking function-key F3. The remote reader cannot be shared with another lift.

Remote Access time. Enter the access time (1 to 255 seconds) for the lift access time from the remote reader.

Override Floor Group. Select the designated floor group that determines the floors that may be freely accessed in the lift controls, and the times during

which they can be in access, without using a valid card or PIN at the lift reader.

Security Floor Group. Enter the floor group that determines the floors that may be freely accessed in the lift controls, and the times during which they can be in access, without using a valid card or PIN at the lift reader, provided that the security event flag is activated (see Security event above).

Security event. Select the security event flag from the list of available events flags on this ChallengerPlus panel. If the security event flag is activated then the lift security floor group (see Lift security group below) is activated.

Floor relays. A relay can be set for each of the ten floors for the lift. For each floor, select the relay by clicking function key F4 or configure a new relay by clicking function-key F3.

User Category Data

User category-specific functionality

User category 2 and user category 6 can be used for cleaners or tradespeople to suppress either a local alarm or an event flag from the following input types during access:

- Input type 44 (Access local/secure alarm) disabled by cleaners or trades
- Input type 45 (Access event flag/secure alarm) disabled by cleaners or trades

For example, you might want a fire door to indicate that it’s open during access hours by activating a local alarm (input type 44) or by activating an event flag (input type 45). However, you also might want to inhibit this indication when cleaners and/or tradespeople are working after hours.

User category 2 and user category 6 work the same as the others, except that they stop input types 44 and 45 from indicating their unsealed behaviour during access. Both user category 2 and user category 6 categories can be used simultaneously and with different user category times to accommodate users with different needs. For example, cleaners might need to access the area for 15 minutes, and trades might need 60 minutes. In each case, the user would need to enter their code upon entering, even if the area has already been disarmed.

User Category 7 is for security guards who need to check in at intervals. It works the same as the others, except that when the timer expires and the areas rearm, an “emergency” (guard failed to check in) message is reported to the remote monitoring company. The panel reports CID 102 (failed to check in) on point ID 375.

Challenger10 user categories

In Challenger10 application, user categories 1 to 8 provide timed functionality for this alarm group's areas that are configured for timed disarming or for timed arming (via Vault programming). The user category time is configured in Timers.

Figure 97: Challenger10 user category window

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Num. user categories may be numbered 1 to 8.

Id. Enter a name to identify the user category record to Forcefield.

Name. The user category name is displayed on an LCD RAS when the user category time is running. If left blank, then '' will be displayed on the RAS.

- For Challenger10 firmware prior to V10-06, click the arrow to select a pre-defined text words from the Challenger word library or the user-defined word library. Double-click the field to create a new user-defined word.
- For Challenger10 firmware V10-06 (or later) type a name to identify the user category. Up to 30 characters (including spaces) can be downloaded to the panel.

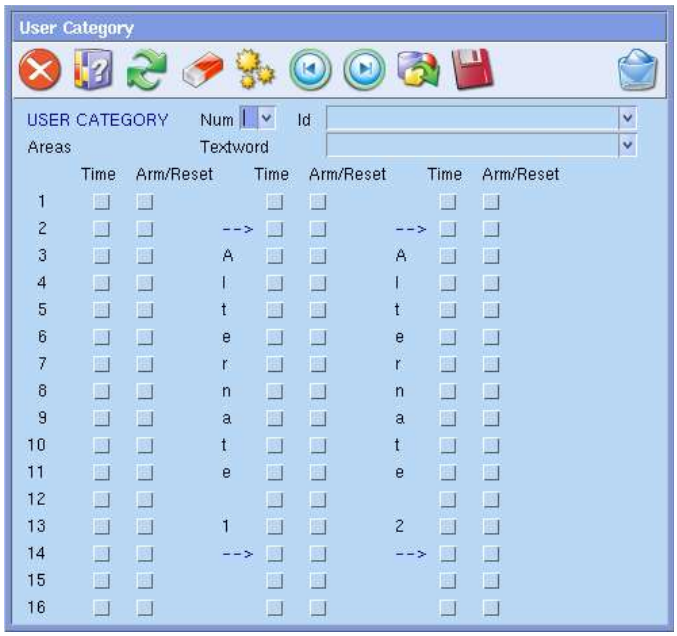
Challenger V8 user categories

In Challenger V8 application, a user category may be used when a user needs to control some or all of the areas in their alarm group (and for alternative alarm groups, if applicable) in a manner different to that specified in the alarm group. For example, to:

- Use the timed access function on certain areas.
- Restrict alarm control to Arm/Reset only on certain areas.
- Use the User Count for each area or Dead Man Alarm functions.

The areas listed in this option must also be listed in the alarm group that the user category is assigned to in order for the function to be enabled on those areas.

Figure 98: Challenger V8 user category window



Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Num. user categories may be numbered 1 to 8.

Id. Enter a name to identify the user category record to Forcefield.

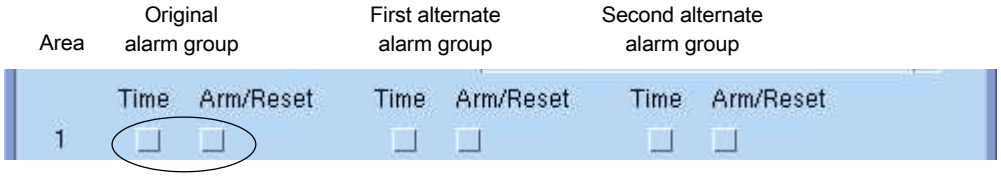
Textword. The user category name is displayed on an LCD RAS when the user category time is running. If left blank, then '' will be displayed on the RAS. Click the arrow to select a pre-defined text words from the Challenger word library or the user-defined word library. Double-click the field to create a new user-defined word.

Time and Arm/Reset selections for each area: Timed disarm and/or arm/reset programming for areas 1 through 16 is accomplished via the Time selection and the Arm/Reset selection to the right of each area number. The areas used in this option must also be listed in the alarm group that the user category is assigned to in order for the function to be enabled on those areas.

Additional selection boxes are provided to program timed disarm and/or arm/reset functionality for two alternative alarm groups (if used). Alternative alarm groups are described in “Alarm Groups (Challenger V8)” on page 161.

Figure 99 on page 353 indicates the Time and Arm/Reset check boxes (circled) for area 1. The check boxes to the right are the Time and Arm/Reset check boxes for alternate 1, and the check boxes to the right of those are for alternate alarm group 2.

Figure 99: Area number with Time and Arm/Reset settings



Time selection. Programs the area for time disarm. When a user enters a code, it disarms the area and starts a timer. When the time elapses, the area re-arms.

Arm/Reset selection. Programs the area for arm/reset. When a user enters a code, it will arm the area or reset alarms.

Relays

This function is used to program an individual output for a Challenger.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Relay Num. Relays are numbered from 1 to 512 for Challenger10 or ChallengerSE, 1 to 32 for ChallengerLE, or from 1 to 256 for Challenger V8.

Id. The relay ID (name) is used by Forcefield to identify the relay. The name must be unique (it is not possible to have “Lights” in Challenger x and “Lights” in Challenger y).

Name (for Challenger10 firmware V10-06, or later). Type a name to identify the relay. Up to 30 characters (including spaces) can be downloaded to the panel.

Event Flag fields: Select the event flag which will activate this relay. An event flag is a signal activated by an relay condition, area condition, system status or fault condition, door command (for RASs connected to the Challenger panel) or shunt timer condition. The relay will follow the logic of the event flags unless the time zone (if programmed) is valid.

TimeZone. The time zone number recorded will control the times that a relay is active/inactive. If a time zone is programmed, it will set the relay when the time is valid. The status of the event flag is irrelevant when the time zone is valid. When the time zone is not valid, the relay follows the logic of the event flag. If no time zone is programmed the relay follows the logic of the event flag.

Inactive During TimeZone. When checked, the relay will not activate when the time zone is valid regardless of the status of the event flag and provided the relay is not inverted. If the time zone is not valid, the relay follows the logic of the event flag.

Inverted. When checked, the logic controlling the relay is reversed. If the previous logic determines that the relay is to be ON, this would change it to OFF.

Member. This field determines which operators are allowed to control the device and receive events.

Computer Cat. Click the arrow to select from the list of computer categories (the list is restricted to show only the correct type of computer category).

Each relay can have a different computer category. The category determines how Forcefield will handle an event from this relay. The computer category name “Relay” can be used, but is a standard (read-only) Forcefield computer category and cannot be modified. See “Computer Categories” on page 212 for details.

Help. Double-click or press F3 to program alarm help information for this item. The help programmed here will be displayed as an action on the alarm screen when alarm are generated.

Maps. Displays the map numbers of any maps containing the relay.

Arm-Disarm Timers (Challenger10)

This option is described in “Auto Access–Secure (Challenger V8)” below.

Auto Access–Secure (Challenger V8)

This function is used to program an individual arm/disarm timer for a Challenger.

An arm/disarm timer is used when you wish to ensure that areas are armed and/or disarmed at a particular time without the need to enter a user code. This function is used to relate a time zone and alarm groups to the arm/disarm functions. When this is done, the areas assigned to the alarm group will arm/disarm in accordance with the time zone designations:

- When the specific time zone expires the areas will arm.
- When the specific time zone becomes valid the areas will disarm.

Common window elements are described in Section 3. Descriptions of window-specific elements follow.

Time Zone. Enter or select the time zone to be used for this arm/disarm program.

Alarm Group. Enter or select the alarm group to be used for this arm/disarm program.

Vaults (Challenger10)

This option is described in “Areas Assigned to Vaults (Challenger V8)” below.

Note: Vault programming is not applicable to ChallengerLE.

Areas Assigned to Vaults (Challenger V8)

This function is used to define areas as part of a *vault*.

When a non-vault area is linked to a vault area, the non-vault area can be automatically armed following the arming the vault. When all of the vault’s areas are armed, a timer starts. When the time expires, the linked non-vault area also arms.

Common window elements are described in Section 3. Descriptions of window-specific elements follow.

Areas Assign To Vaults selections. Select the areas that are to be treated as vaults, and then click Save.

Floors

This function is used to record information relating to an individual floor. These are the floors that can be used in Floor Groups.

Common window elements are described in Section 3. Descriptions of window-specific elements follow.

Num. Floors are numbered from 1 to 64.

Id. The Input ID (name) is used by Forcefield to identify the floor. The name must be unique (it is not possible to have “Floor 1” in Challenger x and “Floor 1” in Challenger y).

Description. Type a short description of the floor.

Member. The member controls event reporting and operator control in Forcefield.

Holidays

Holidays are available globally from the holiday database (see “Holidays” on page 187). See “Holiday-related tasks” on page 79 for additional details.

Holiday Types (Challenger10)

Challenger10 panels use eight holiday types. Holiday types provide the ability to grant access for users on some holidays and not others. For example:

- We want cleaning staff to have access during school holidays, but not on public holidays.
- We want maintenance staff to have access during both school and public holidays.
- School holidays can be designated H1 type, and cleaning staff time zone must contain H1 type.
- Public holidays can be designated H2 type, and maintenance staff time zone must contain H1 and H2 types.

For each holiday type, enter a description of what the type is used for (for example, “School Holidays”).

Input Shunts

This function is used to program details of a shunt timer which controls a shunt procedure. A shunt procedure inhibits an input from being activated when in an unsealed condition and for a set time period, e.g., a shunt stops a door generating an alarm when it is opened. Each shunt procedure is controlled by a shunt timer and each shunt timer must be individually programmed.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Num. Records the number of the shunt timer (there can be 16 shunt timers for Challenger V8 or ChallengerLE; and 32 shunt timers for Challenger10 or ChallengerSE).

Note: On a Challenger V8 panel, where a keypad is used to start the timer, the shunt timer number must be the same as the arming station number (1 to 16).

Id. The name used by Forcefield to identify the shunt. The name must be unique (it is not possible to have “Shunt 1” in Challenger x and “Shunt 1” in Challenger y).

Desc. Input shunt description.

Shunted Input. Records the number of the input which is to be shunted. An input cannot be assigned to more than one shunt timer.

Shunt Time. Records the amount of time that the input will be shunted.

If the time expires and the input remains unsealed, an “input active” condition will be processed (for example, an alarm condition will occur, but the actual result depends on the input type).

If the value entered is less than 128, the time is in seconds (1 to 127 seconds). To set the time in minutes, enter 128 plus the time required in minutes. For example, to program 30 minutes enter 158 (128 + 30 = 158). A value of 128 is invalid and cannot be used. For accurate timing of 1 or 2 minute periods, set the time in seconds (60 or 120 seconds).

Notes:

- For Challenger V8, do not use a time of 0 seconds, unless used for doors and the "cancel door event flag" is set to YES. The input could otherwise be shunted indefinitely.
- For Challenger10 a time of 0 seconds produces a shunt time of 1 second.

Relay. The number of the relay which is connected to the shunt timer. The relay condition controls whether the input remains shunted or not. If the relay is active, the input is always shunted. When the relay de-activates, the shunt timer continues to run for the programmed "shunt time".

Relay Id. The name of the relay which is connected to the shunt timer. Allows the option of recording the number of the relay which is connected to the shunt timer.

Shunt Event. The number of the event flag which will be activated when the shunt timer is running.

Shunt Event Id. The name of the event flag which will be activated when the shunt timer is running.

Warning Event. Records the number of the event flag which will be activated when the shunt warning time is active.

Warning Event Id. Records the ID of the event flag which will be activated when the shunt warning time is active.

Warning Time. Records the amount of time before the shunt expires that the shunt warning event will be active. If the shunt time is in seconds, then the warning time is also in seconds. If the shunt time is in minutes, then the warning time is also in minutes.

Door Command Starts Shunt. When checked, a keypad or shunt relay is required to start the shunt timer. If a keypad is used, the user must have a valid door group assigned. If not set, then the condition of the input (sealed to unsealed) triggers the timer.

Cancel Door Event. When checked, as soon as the input allocated to the shunt timer is active (unsealed) and then sealed, it cancels the door unlock event and cancels the shunt timer.

Entry/Exit Shunting. When checked, a code is required to be entered to start the shunting or if it is not then it must be entered before the shunting expires or an alarm will be activated. **Note:** If this option is set, the Door Open Command must not be set.

Shunt In Access. When checked, the door shunt procedure operates when one or more of the areas assigned to the shunted input, is in access.

Hold Door Event (used for doors with magnetic locks and drop bolts). When checked, allows time for a door to be properly closed, there is a 2 second delay after the input seals and before it cancels the door event and shunt timer.

Report Open/Close. When checked, will cause the input to report to the printer each time it changes from sealed to unsealed and visa versa. **Note:** If “Print Input When Unsealed” is set in the Input Database, for the input assigned to the Shunt timer, a Door Open message will be sent twice.

Shunt In Secure. When checked, the door shunt procedure operates when all the areas assigned to the shunted input are secure.

Time Zones to Follow Relays

Time zones to follow relays are also known as soft time zones, and are numbered 26 through 41. These time zones are active only when a relay is active (time zones based on events instead of on time).

See “Assigning a soft time zone to a Challenger” on page 82 for details about soft time zones.

Note: ~DISABLED RELAY xxxx indicates that a relay previously entered here has since been deleted from the relay database.

Relay. Click to select a relay.

Name (for Challenger10 firmware V10-06, or later). Type a name to identify the soft timezone. Up to 30 characters (including spaces) can be downloaded to the panel.

Regions

Regions are used in anti-passback programming and in muster reports.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Num. Enter the region number. Each Challenger may have up to 255 regions. Region 0 is considered to be “off site”.

Id. The region ID (name) is used by Forcefield to identify the region. The name must be unique (it is not possible to have “Reception” in Challenger x and “Reception” in Challenger y).

Description. Type a short description of the region.

User Allowed in Region for. Valid range is 15 to 65535 minutes (0 means there is no limit to how long a user may stay in the region). Forcefield uses this to

track how long a user has been in a region. If a user stays in the region over this time an alarm is generated. Moving to a new region restarts the timer.

Cameras

Cameras recorded here are the frame cameras connected to the Challenger.

To program video cameras (CCTV) for a licensed Forcefield system, see “Cameras” on page 230 (Databases > CCTV > Video Cameras).

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Num. Cameras are numbered from 1 to 8.

Id. The camera ID (name) is used by Forcefield to identify the camera and must be unique (it is not possible to have “Camera 1” in Challenger x and “Camera 1” in Challenger y).

Location. Type a short description of the camera’s location.

Member. The member controls event reporting and operator control in Forcefield.

Computer Cat. Click the arrow to select from the list of computer categories (the list is restricted to show only the correct type of computer category).

Each camera can have a different computer category. The category determines how Forcefield will handle an event from this relay. The computer category name “Camera” can be used, but is a standard (read-only) Forcefield computer category and cannot be modified. See “Computer Categories” on page 212 for details.

Help. Double-click or press F3 to program alarm help information for this item. The help programmed here will be displayed as an action on the alarm screen when alarm are generated.

Maps. Displays the map numbers of any maps containing the camera.

Custom RAS Display

Custom LCD display allows you to modify the text displayed on the LCD RASs connected to the panel. You will only see this text displayed on the RASs if there are no alarms, system or fault messages.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Display Text. You may enter up to 32 characters for this text.

Battery Testing (Challenger10)

This option is described in “Battery Test (Challenger V8)” below.

Battery Test (Challenger V8)

Battery test records the details of the automatic battery test procedure and enables a manual battery test to be started. For the period of the battery test, the panel and/or DGPs and all auxiliary driven devices will be powered from the battery.

The start of the battery test for each of the devices to be tested is staggered, so that all devices don't switch to battery test at once.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Frequency. Records how often the automatic battery test will occur.

Start Time. Records the hour and minute that the battery test will start.

Run Time. Records the period, in minutes, that the automatic battery test will run for. If a battery test on any device fails, that device will immediately restore AC power.

Next Service (Challenger10)

This option is described in “Maintenance (Challenger V8)” below.

Maintenance (Challenger V8)

Sets the date and RAS message to be displayed when the next service is due.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Date. Records the day, month, and year on which the next routine service call is due.

Text. Records a 32-character word of customised text which will be displayed on the LCD arming stations on the date specified as the maintenance date.

Security Password (Challenger V8)

Note: Challenger10 security passwords are defined at the communication path level.

Records the 10-digit security password required to access the Challenger via the upload/download software.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Password. The default password is 0000000000; it allows all computer connections.

Attempts. Enter the number of failed connection attempts allowed until the connection is locked out.

Macro Logic

This function is used to activate an event flag or an input under specific logic conditions. Up to four relays or event flags can be included in the logic equation. Each relay or event flag in the logic equation can be programmed as an AND or OR function and can also be programmed to invert the logic. Programming options are provided so that the event flag or input will pulse, time, on delay, off delay or latch when activated.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Num. Records the number of the macro logic program.

Id. macro identification information for Forcefield.

Name (for Challenger10 firmware V10-06, or later). Type a name to identify the macro logic program. Up to 30 characters (including spaces) can be downloaded to the panel.

Desc. Macro description and associated information.

Type. Selects the function of the event flag or input when activated.

- Disabled—macro logic program disabled.
- Non Timed—follows the result of the logic equation only.
- On Pulse—activates for the programmed time or the active period of the logic result, whichever is the shortest.
- On Timed—activates for the programmed time regardless of the logic result.
- On Delay—activates after the programmed time period unless logic result is no longer active.

- Off Delay—follows the result of the logic equation, but remains active for the time programmed after the logic result is no longer active.
- Latched—activates on any of the first three inputs in the logic equation and is reset by the fourth input (AND / OR function not used).

Time. Records a time period which is used when any of the timed functions are selected. A value of 2 or greater should be used. When programming 1 to 4 minute periods, program in seconds (i.e. 60, 120, 180 or 240 seconds).

Activate or Deactivate. Select whether to activate or deactivate the selected event or input.

Event or Input field (not labelled). Select whether an event flag or an input is to be activated.

Output field (not labelled). Select the ID of the event flag or Input to be activated. The programmed event flag or Input will be activated when the result of the logic equation is active and any timing conditions are met.

Logic Equation fields: Program up to four logic inputs, which can be event flags or relays. The logic connecting the four inputs can be programmed for AND or OR functions. A NAND or NOR function can be achieved by inverting the logic of the particular input. Select "Inactive" to invert the logic of the input

When all conditions of the logic equation are met, the result is active and the output Event programmed in the previous step will be activated (depending on any timing function programmed).

Any unused inputs must be left as an OR function.

Summary Event Flags (Challenger10)

This option is described in “Panel Condition Events (Challenger V8)” below.

Panel Condition Events (Challenger V8)

These summary event flags can be assigned to system functions and system alarm/fault conditions. These event flags are activated when any of the conditions specified exist in the system. Default setting is “No event”.

The system alarm/fault event flags will be latching if “Latch System Alarms” is set in system options (see “System Options” on page 316).

Note: Do not to assign event flag numbers which have been assigned by the Installer in the input database, area database, RAS database, or shunt timers.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Mains Failure. This event flag is activated when a mains fail condition is detected on the Challenger or a DGP.

Low Battery. This event flag is activated when a low battery condition is detected on the Challenger or a DGP.

Fuse Failure. This event flag is activated when a fuse fail condition is detected on the Challenger or a DGP.

Tamper. This event flag is activated when a panel tamper condition is detected on the Challenger or a DGP.

Siren Failure. This event flag is activated when a siren fail condition is detected on the Challenger or a DGP.

DGP Isolated. This event flag is activated when a DGP has been isolated.

DGP Failure. This event flag is activated when a DGP which is programmed to be polled, is not replying to polling.

RAS Off-line. This event flag is activated when a RAS which is programmed to be polled, is not replying to polling.

Duress. This event flag is activated when a keyboard duress alarm occurs.

Film Out. This event flag is activated when the film count for a camera exceeds the programmed “Film Out” level.

Report Failure. This event flag is activated when the Challenger fails to report to the remote monitoring company.

Test Mode. This event flag is activated when the Challenger is in test mode.

All Secured. This event flag is activated when no areas are in access, there are no alarm conditions, and no entry/exit timers are running. See also Rpt “Areas to report Open/Close” on page 330.

Console Triggered. When the event flag specified here is activated, the console warning beepers are activated. The event flag also has to be assigned to the events that you want the console warning to sound on.

Area Search Active. Select an unused event flag number to be activated when an area search is active. See “Using area search” on page 77. **Note:** This option is not supported in ChallengerLE.

Area Search Done. Select an unused event flag number to be activated when an area search ends, and to be deactivated with the area search time zone becomes invalid. See “Using area search” on page 77. **Note:** This option is not supported in ChallengerLE.

Floor Groups

See “Floor Groups” on page 164.

Door Groups

See “Door Groups” on page 163.

Area Groups (Challenger10)

A Challenger10 system can have 99 areas (16 areas for ChallengerLE). To help manage areas, one or more areas can be incorporated into area groups. There can be 255 area groups (32 area groups for ChallengerLE).

Each area in an area group must be configured to allow certain users (as specified by the user’s alarm group) to have permissions for arming, disarming, alarm reset, and timing.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Area Group. Area Groups are numbered from 1 to 255 (1 to 32 for ChallengerLE).

Id. The area group ID (name) is used by Forcefield to identify the area group and must be unique (it is not possible to have “Area Group 1” in Challenger x and “Area Group 1” in Challenger y).

Name (for Challenger10 firmware V10-06, or later). Type a name to identify the area group. Up to 30 characters (including spaces) can be downloaded to the panel.

Area numbers. Use the Scroll Up and Scroll Down buttons to navigate the list of configured areas.

Assigned check boxes. Check the box to assign the area to the area group.

Arm, Disarm, Reset, and Timed check boxes. Check the boxes to add permissions for arming, disarming, alarm reset, and timing.

Automation (Challenger10)

An automation zone is one or more building devices (including C-Bus® devices) that can be controlled via the Challenger panel.

The automation zone record enables control to (and optionally feedback from) one or more devices in a C-Bus group. This section refers to such devices as an ‘automation zone’ even if it applies to a C-Bus group.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Num. Enter an automation zone number in the range 1 to 100 (1 to 20 for ChallengerLE).

ID. Enter a unique Forcefield name to identify the automation zone.

Name. Enter a name to identify the automation zone in the panel. The name may contain up to 30 characters (including spaces).

Desc. Enter a Forcefield description to further explain the automation zone.

Event Flag to Trigger Zone. If an event flag is used to trigger the automation zone, then click the arrow to select or define the event flag.

Zone RAS. Enter a value in the range 0 (all RASs) or a single RAS at address 1 to 16 or 65 to 80 to specify which LCD RASs can be used to control the automation zone from User menu 24 Automation Control or via quick control.

Note: Automation zones can be controlled from any LCD RAS via Install menu Option 43. Automation Status.

Enable Zone check box. Check the box to allow the Challenger panel to interact with this zone.

Enable Quick Control check box. Use this option to enable quick control via supported RAS models.

Note: Quick control does not require user authentication via PIN. We recommend that control be assigned to a specific RAS (in a secure area) in order to prevent unauthorised use.

Enable Logging check box. Check the box to log the automation zone's C-Bus events to the panel's history.

Enable Manual Control check box. Check the box to enable control via User menu 24-Automation Control and to allow users to activate (trigger) the automation zone (installers can manually activate the automation zone via Install menu option 43- Automation Status without this option being enabled).

Manual On Control check box. Check the box to enable installers and users to turn the automation zone on immediately at 100% until turned off or triggered (in which case the zone's programming will turn it off).

Manual Off Control check box. Check the box to enable installers and users to turn the automation zone off (reset) immediately.

Invert Trigger check box. Check the box to trigger the automation zone when the nominated event flag is inactive.

Type. The type determines the behaviour of the automation zone. Click the Type arrow and select the required type (only "C-Bus" and "C-Bus with Feedback" are currently supported).

Network. This option applies to the "C-Bus" and "C-Bus with Feedback" zone types. Enter the C-Bus network number in the range 0 to 255 that the zone uses. This value is typically set to 0 if a C-bus network bridge is not used.

Group. This option applies to the "C-Bus" and "C-Bus with Feedback" zone types. The group number associates this automation zone record with a C-Bus group for monitoring and controlling. Enter a number in the range 0 to 255.

App. This option applies to the “C-Bus” and “C-Bus with Feedback” zone types. The C-Bus application address is used to filter the devices in the C-Bus group. Enter a number in the range 0 to 255.

Ramp Rate. Click the Ramp Rate arrow to specify the rate (speed) of change when the automation zone changes between on and off values.

When Zone Reset, set level to %. Enter a value in the range 0 (off) to 100 (on) to determine the automation zone’s minimum value (such as the brightness of lights) when reset (turned off) by the Challenger panel.

When Zone Triggered, set level to %. Enter a value in the range 0 (off) to 100 (on) to determine the automation zone’s maximum value (such as the brightness of lights) when triggered (turned on) by the Challenger panel.

When Triggered, Zone On For. Enter a value in the range 0 (not timed) to 65,535 seconds to determine the duration that the automation zone will be at maximum value (including ramp time) when triggered by the Challenger panel.

Timezone to Disable Trigger. To nominate a hard or soft time zone in which the event flag cannot trigger the automation zone, then click the arrow to select or define the time zone.

Timezone to Trigger Zone. To nominate a hard or soft time zone to trigger the automation zone (regardless of an event flag), then click the arrow to select or define the time zone.

Zone Activates Event Flag. This option applies only to the “C-Bus with Feedback” zone type. If an event flag is to be activated when the automation zone is activated, then click the arrow to select or define the event flag.

Reset Event Flag at Level. If the automation zone's type is “C-Bus with Feedback”, then you can reset (deactivate) the associated Challenger event flag when the C-Bus zone reaches a specified dimming level. For example, you may want to reset the event flag when the automation zone reaches 30% brightness.

Set Event Flag at Level. If the automation zone's type is “C-Bus with Feedback”, then you can set (activate) the associated Challenger event flag when the C-Bus zone reaches a specified dimming level. For example, you may want to set the event flag when the automation zone reaches 90% brightness.

Note: Forcefield supports the programming of a Challenger panel’s automation zones but does not support control of automation zones.

Radio Options (Challenger V8)

The radio service used in this option is no longer supported. Do not use.

Ethernet Configuration (Challenger V8)

Note: Challenger10 Ethernet connections are configured at the communication hardware and communication path levels.

This record programs an IP-connected Challenger panel's Ethernet communications. The appearance of the window depends on whether the communication mode is event-driven or polled.

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Challenger IP. Enter the IP address of the Challenger panel's IP interface.

N/W IP. If applicable, enter the IP address that the external world sees as the Challenger's IP address, for example, in the case of the Challenger being behind a network address translation (NAT) firewall. This field is typically left blank, in which case the Challenger IP field is used.

Port. Displays the IP port programmed for the Challenger (see "Panel programming" on page 249). This value must be entered into the Challenger via a RAS keypad to enable communications.

Host Bits. Enter a number from 2 to 24 to set the number of host bits (assigned by a Network Administrator).

Extended Protocol. This setting refers to the communications mode programmed for the Challenger V8 panel's TS0898 or TS0099 Ethernet Interface. When Extended Protocol is checked, the panel communicates via event-driven mode. When cleared, the panel communicates via polled mode. This field allows you to remotely change this setting in the Ethernet Interface from Forcefield (without access to a Challenger RAS).

Note: If you change the Extended Protocol setting you must also change the Comms Mode setting on the panel's programming window to match. (If the Extended Protocol check box is ticked, then set the Comms Mode to Event Driven. If the Extended Protocol check box is cleared, then set the Comms Mode to Polled.) After changing the settings on both windows, disable and re-enable the panel communication to apply the new comms mode.

Gateway IP. Enter the IP Address of the Gateway that the Challenger panel's IP interface communicates through.

Heartbeat Timeout fields. Enter the time and units that will be used for heartbeats. If no data packet is seen within the timeout period, the Challenger will go into dialler backup mode.

Notes:

- In order for Forcefield to update the time in a Challenger panel, a non-zero heartbeat timeout must be programmed for the IP connection, and it must be a smaller value than the Forcefield's Time Sync Interval. See "Time Sync Interval" on page 265.

- For Forcefield 6.1 (or later), communicating with event-driven Challenger panels, enter a value of 10 or greater. The heartbeat interval is calculated in seconds (the units specified is ignored) minus 5 seconds, with a minimum result of 5 seconds. For example, enter a value of 30 to program a heartbeat timeout value of 25 seconds. At the calculated value, Forcefield will send a heartbeat probe to the Challenger to check whether it is still online.

Event ACK Timeout. Enter the time the Challenger should wait for an acknowledgement to be received. Do not use the value 0 as it will cause the Challenger to timeout on every command sent to it.

Station 1. Enter the IP address of the first contact ID station (SecureStream 1).

Station 2. Enter the IP address of the second contact ID station (SecureStream 2).

Station 3. Enter the IP address of the third contact ID station (SecureStream 3).

Encryption Key fields: The 16 encryption key fields are used to encrypt communications between the Challenger and Forcefield (or SecureStream).

Primary. Enter the IP address of the first management software site (Forcefield node).

Secondary. Enter the IP address of the second management software site (Forcefield node).

Suppress Failure Report. When checked, stops “report fail” from appearing on the RAS after communication from CID site 1 is lost.

Enable Telnet. When checked, select to enable the Telnet protocol for Challenger V8 panels using firmware version 8.112 or later, and fitted with a TS0898 Ethernet Interface. This option does not apply to the newer TS0099 Enhanced Challenger TCP/IP Interface.

Link Failure. Select the event flag that will be set if the Ethernet Link has failed and will be reset if the link is active.

Heartbeat Failure. Select the event flag that will be set if the Heartbeat has failed and will be reset if the Heartbeat is restored.

Contact ID Site Fail. Select the event flag that will be set if the CID station fails and will be reset if the CID station is restored.

Hardware Failure. Select the event flag that will be set if the Ethernet hardware has failed and will be reset if restored.

Forcefield to Panel IP Settings (Challenger10)

This record programs the settings for Forcefield's Ethernet connection with a Challenger Series panel.

Forcefield can connect with Challenger10 panels via "Ethernet (TCP)" communications type (see "Panel programming" on page 249). TCP/IP mode offers better reliability over wide area networks (WANs) such as 3G networks. Unlike UPD/IP mode, the Challenger panel's IP address is not required for a TCP/IP connection.

The appearance of the window depends on whether the panel's comms mode is set to UDP/IP for event-driven mode; or TCP/IP for polled mode:

- For UDP/IP mode, refer to Figure 100 below.
- For TCP/IP mode, refer to Figure 101 below.

Figure 100: IP Configuration window (in UDP/IP mode)

Figure 101: IP Configuration window (in TCP/IP mode)

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

Address of Challenger (applies only to UDP/IP mode). Enter the Challenger panel's IP address.

Port. Displays the IP port number assigned to the Challenger record (for example, 3001).

Security Pwd. Enter the computer password used in the communications path. The default is 0000000000.

Heartbeat Rate. Enter the time interval at which Forcefield will heartbeat the Challenger panel.

Note: In order for Forcefield to update the time in a Challenger panel, a non-zero heartbeat rate must be programmed for the IP connection, and it must be a smaller value than the Forcefield's Time Sync Interval. See "Time Sync Interval" on page 265.

Forcefield to Panel Write Timeout. Enter the maximum time in seconds that Forcefield should wait when sending data via TCP/IP panel. If the send takes longer than the programmed time, then the send is aborted and the TCP/IP connection to the panel is closed.

Encryption Type. Click the arrow to select the encryption type. The encryption key length is assigned according to the type.

Encryption Key/Encryption Key Binary. The communication path's encryption key for Challenger Series panels with firmware version V10-06 (or later) is an alphanumeric string. The encryption key for earlier Challenger panels consists of numerals in the range of 0 to 255 in each of the 16 or 32 fields, as appropriate. The old encryption key format may not be compatible with the new format.

Note: When you upgrade an earlier version (pre-V10-06) of panel firmware to version V10-06 (or later), the path's encryption keys fields (if used) may not be migrated to the new encryption key format, in which case we recommend that they be reprogrammed.

Appendix B
Using offsite redundancy

Summary

Offsite redundancy (data mirroring) replaces DiskShadow redundancy used in Forcefield 6.1. If upgrading from Forcefield 6.1 be aware that new licensing is required for this functionality.

Content

Overview

When using data mirroring, both the primary and mirror sites (identical Forcefield hardware) are considered to be node 1. Unless running as the active mirror (having taken over from the primary site) the mirror site cannot be used as a normal Forcefield workstation; it can be used only to configure mirror functionality (Mirror Only mode) or for limited read-only functionality (Read Only Forcefield mode).

The primary and mirror sites synchronise databases at start and monitor each other thereafter. If monitoring fails (and the mirror is configured to do so) the mirror will reconfigure itself as the active mirror, and then restart.

After takeover, all (IP-connected) peripheral devices that were managed by the primary site are managed by the active mirror. Recovery from takeover is achieved by manually creating a backup of the active mirror database and then restoring it to the primary.

Setting up offsite redundancy

Use the following steps to add a mirror site:

1. Set up a Forcefield server computer and licence it as the primary site (normal server setup process).
2. Set up a second Forcefield server computer and licence it for offsite redundancy (mirror site).
3. Record the IP address of the mirror site.
4. Restart Forcefield on the primary controlling site.
5. On the primary controlling site, configure the primary site options. See “Mirror Setup window for the primary site” on page 289.
6. On the mirror site, configure the mirror site options. See “Mirror Setup window for the mirror site” on page 291. Set the startup action to “Wait For Primary”.
7. Restart the mirror site, and then restart the primary site.

After the primary site starts, it will connect to the mirror site and synchronise the database. This process is covered in “Starting up mirroring” on page 374.

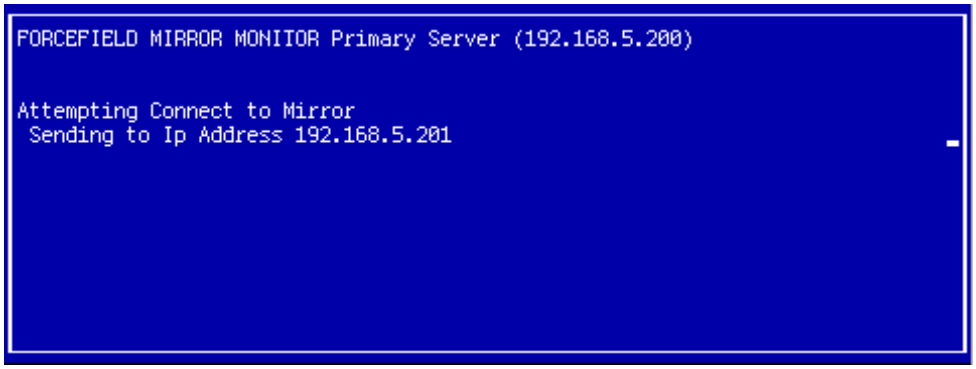
Note: Both servers must be started up simultaneously (within the timeout and maximum missing heartbeat configuration settings).

Starting up mirroring

Startup on the Primary Server

Upon starting up the primary server, the following screen will appear:

Figure 102: Mirroring startup on primary server



If a heartbeat timeout occurs, the following screen is displayed:

Figure 103: Heartbeat timeout on primary server

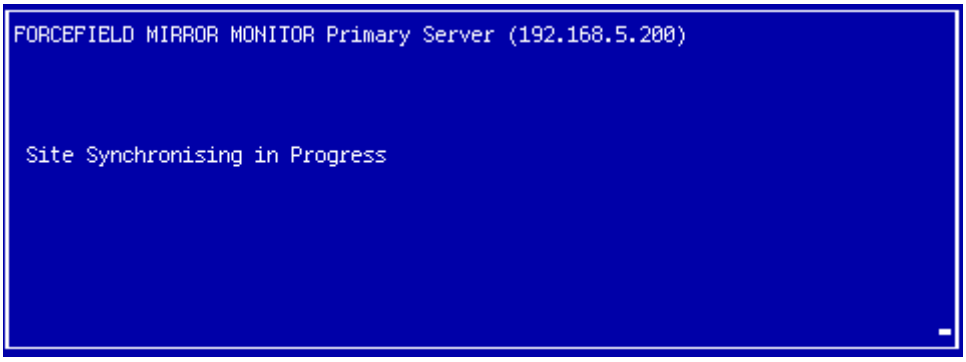
At this stage, the operator may:

- Let the connection attempts to the mirror server continue and perhaps eventually timeout, or
- Elect to start Forcefield without mirroring (in which case a Mirror Failure alarm will be generated), or
- Abort Forcefield startup altogether.

Note: If the operator selects an action, the current connection attempt must time out before the action is performed.

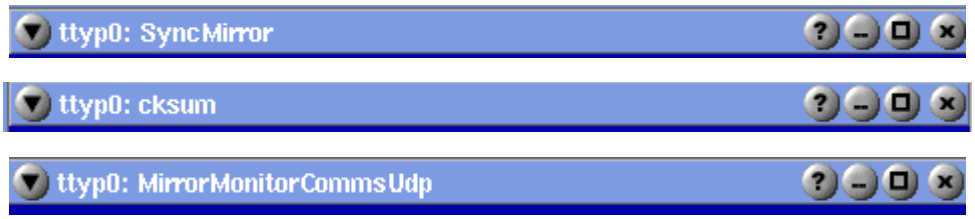
Once a successful connection is made to the mirror server, the primary server will check for data file differences and build a list of files that are to be transferred. The following screen will show during this process:

Figure 104: Site synchronisation in progress



The screen titles will continually rotate, showing that activity is happening:

Figure 105: Rotating screen titles for site synchronisation



Once the list of files to be transferred has been built, the primary server will transfer the files by FTP to the mirror server. The screen title will indicate that FTP is being run:

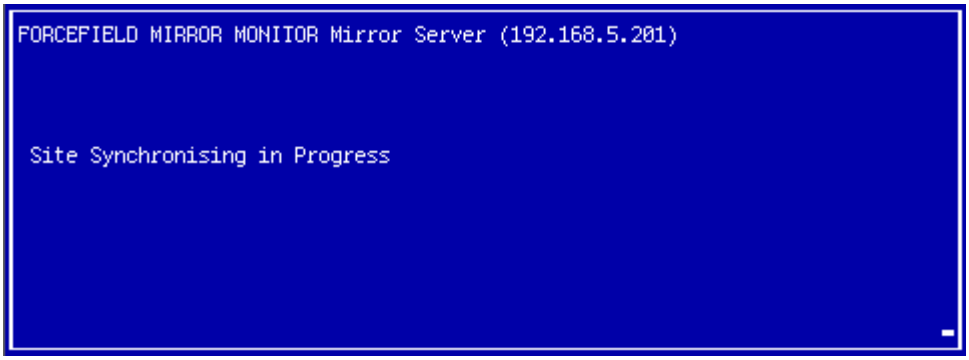
Figure 106: Screen title indicating FTP

When the FTP file transfer has finished Forcefield will load and start running on the primary server.

Startup on the Mirror Server

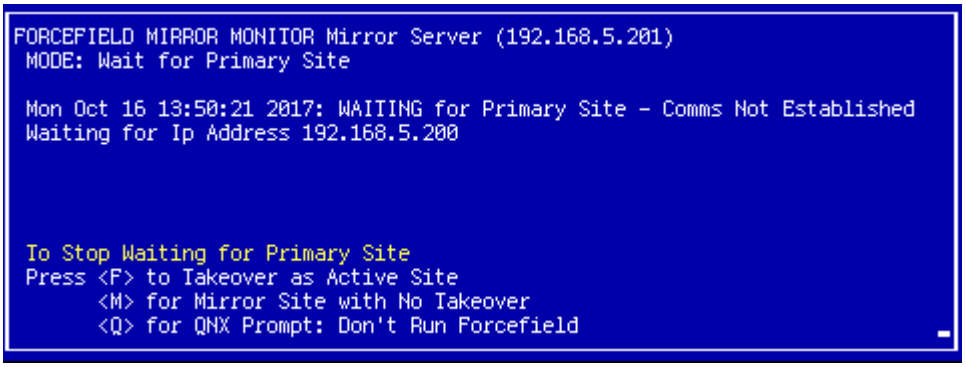
Upon starting up the mirror server, a screen similar to the initial primary server screen will appear:

Figure 107: Site synchronisation in progress



If a heartbeat timeout occurs, the following screen is displayed:

Figure 108: Heartbeat timeout on mirror server

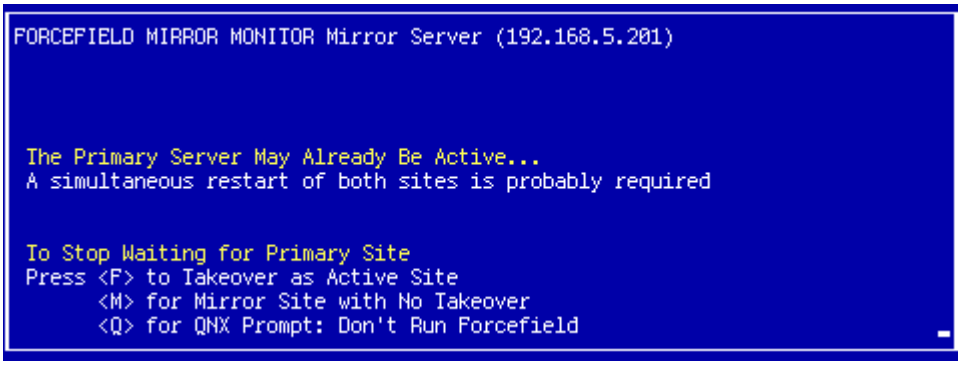


The mirror server will, depending on the configuration, either wait for the primary server, or timeout and become the controlling server in active mirror mode. The operator may also elect to let the server come up as the active server or as a mirror server that has no monitoring of the primary, most likely to allow it to be reconfigured manually.

Note: If the operator selects an action, the current connection attempt must time out before the action is performed.

If the mirror server detects that the primary server is already active and is not waiting for the mirror server, then the mirror server was started too late after the primary server was started. In this case, the following screen is displayed:

Figure 109: Primary server already active



If mirroring is required at this time, both servers will need to be shut down and started up simultaneously (within the timeout and maximum missing heartbeat configuration settings).

There is no corresponding screen at the primary server. The primary server will come up and operate normally. A mirroring failure alarm will be generated at the primary server.

Aborting startup of mirroring

It is safe to turn off either of the servers at any time before the message “Site Synchronising In Progress” appears. After this time, the data at the mirror may become corrupted or inconsistent if the startup process is aborted.

Shutting down mirroring

A controlled shutdown of mirroring is normally performed from the primary server. This will let the mirror server know that a shutdown is happening. The mirror server will generate a Mirror Shutdown Alarm.

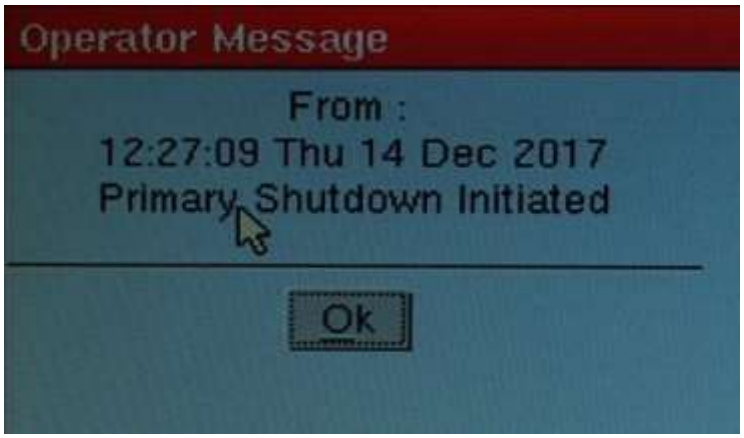
Figure 110: Mirror shutdown alarm when primary server performs controlled shutdown

Note: If the mirror server is shut down first, the data transfer components will be shut down at the primary server and a Mirror Monitor Shutdown alarm will be generated.

When data or history is being mirrored and the shutdown takes longer than the heartbeat timeouts, communication alarms will still be generated. e.g. missing heartbeats.

When the primary server indicates it is shutting down, a full screen message informing of the primary server shutdown is momentarily displayed on the mirror server.

Figure 111: Primary shutdown message on mirror server



The mirror server then shuts down normal operation and goes into Waiting for Primary Server mode.

Mirror takeover

When Mirror Monitoring is set to active and the mirror server fails to receive monitoring heartbeats, the mirror server will do one of the following actions depending on how the Takeover Mode has been configured:

- **Instant automatic takeover**

In this mode, Forcefield will instantly automatically reconfigure the mirror server to become the primary server and the mirroring functions will be deactivated.

- **Time delayed automatic takeover**

  In this mode, Forcefield will wait a predetermined amount of time before automatically reconfiguring and restarting. This allows an operator to abort the takeover. For example, the primary server may still be active, but for some reason the connection between the two servers is lost

- **Manual takeover**

  In this mode, operator intervention is required for takeover to occur. The monitoring process ceases to run but no other action is taken by Forcefield.

  The operator must reconfigure the mirror server, via the Mirror Setup Menu, to be the non-mirror server and to deactivate all mirroring functions.

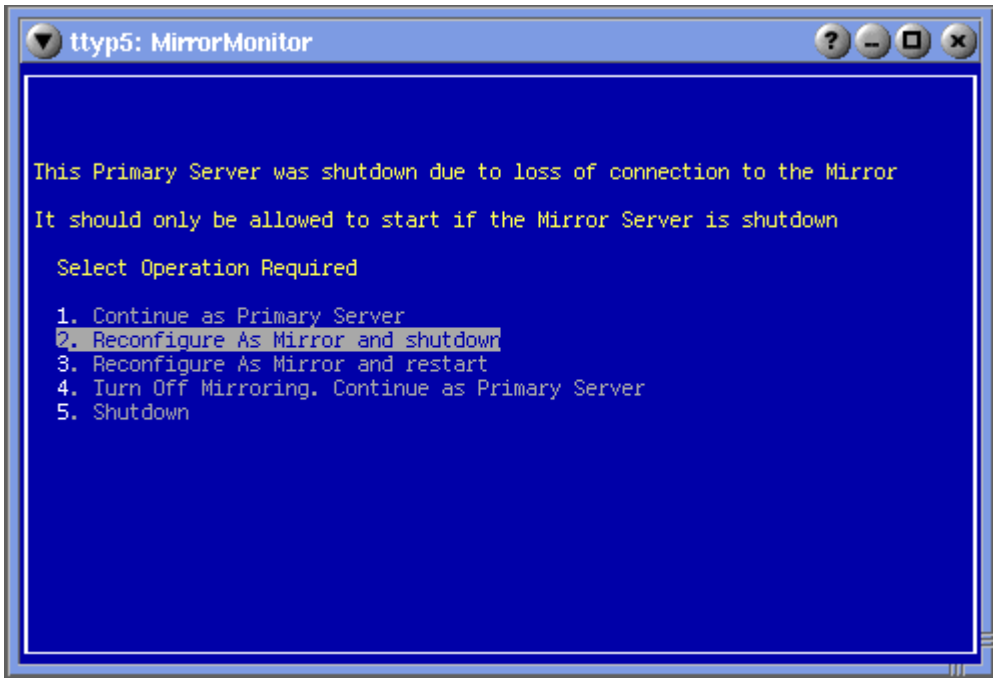
  Manual removal of all alarms should also be undertaken as any alarms on the current mirror do not relate to the operation that was occurring on the current primary server.

When a takeover occurs, all alarms currently existing on the mirror server, except for the Mirror Shutdown Alarm, will be removed as these alarms do not relate to the primary server.

Loss of mirror

If the primary server has been configured to be shut down when the connection to the mirror server is lost, the following menu will be displayed on the next restart:

Figure 112: Loss of mirror menu

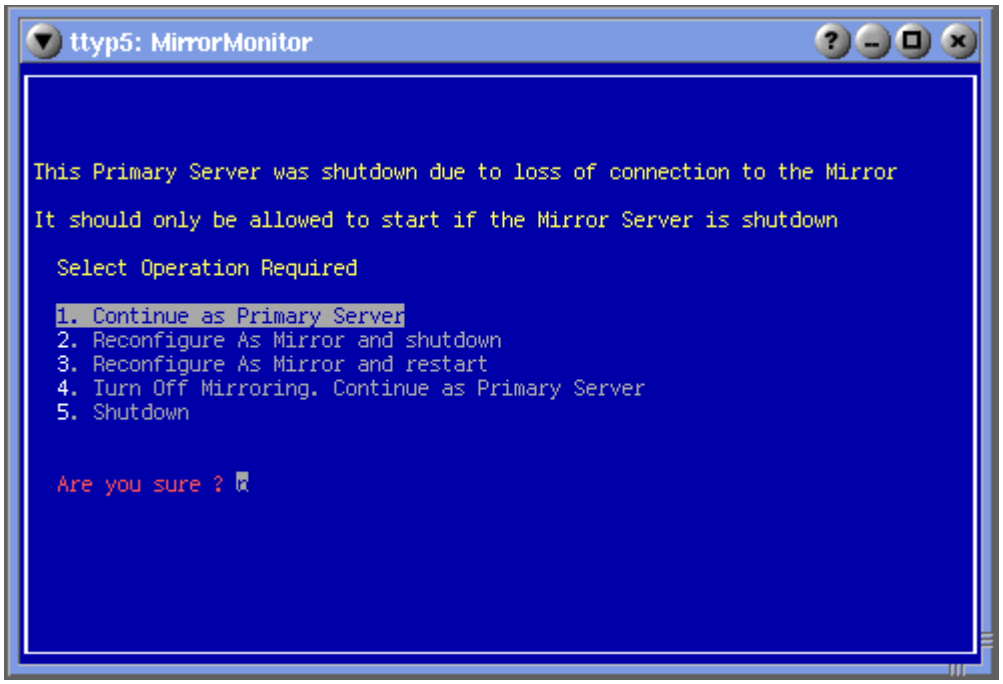


Select the appropriate action. The actions are covered in the following sections.

Continue as primary server

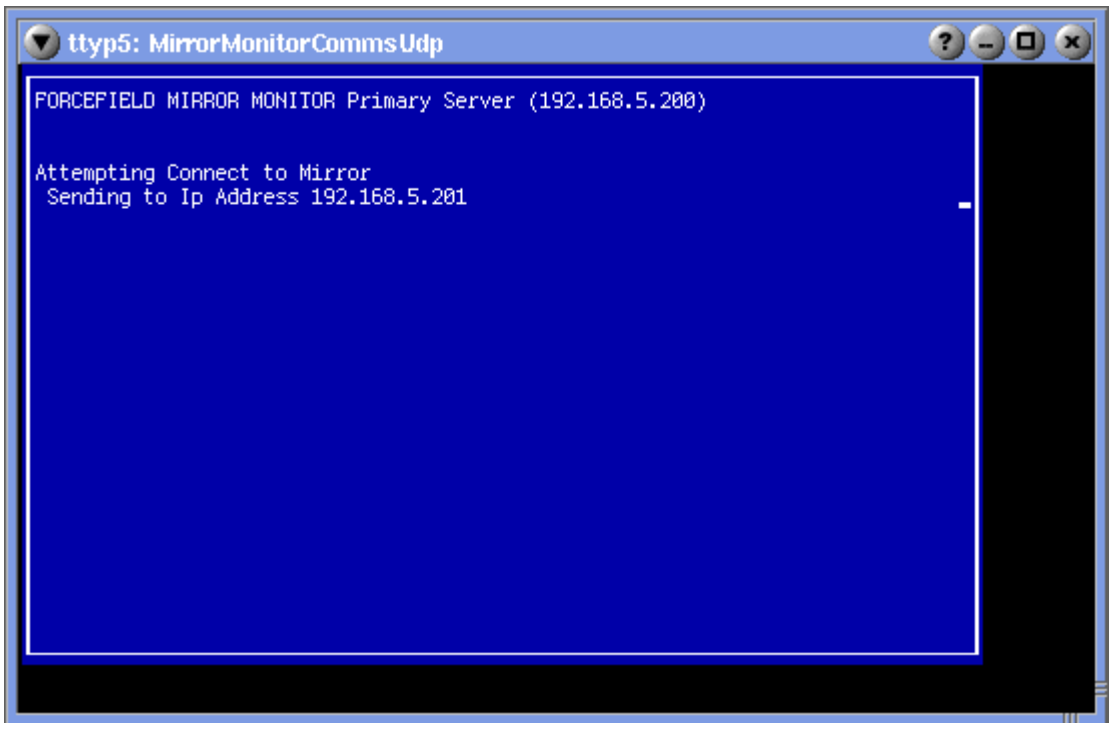
To continue as primary server with mirroring enabled, select menu item 1. If you are sure, confirm your selection with a “y” and press Enter:

Figure 113: Continue as primary server with mirroring enabled



The primary server will attempt to connect to the mirror server:

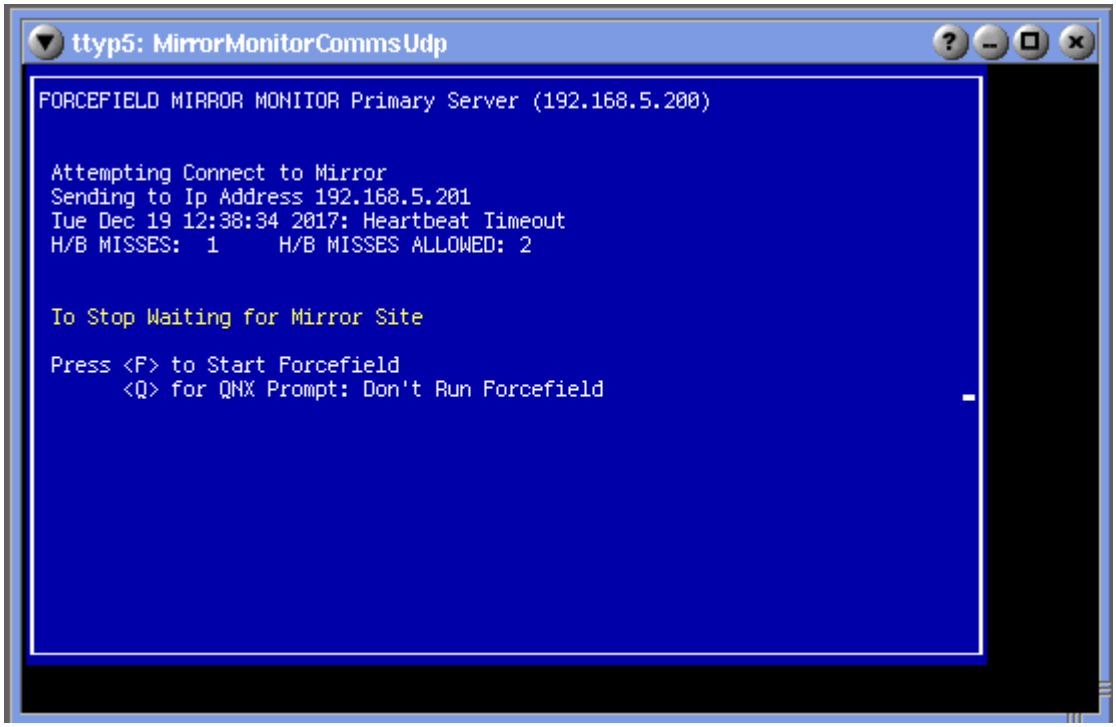
Figure 114: Primary server attempting mirror server connection



If the mirror server is available, normal startup will proceed.

Otherwise, the following screen will be displayed:

Figure 115: Mirror server timeout

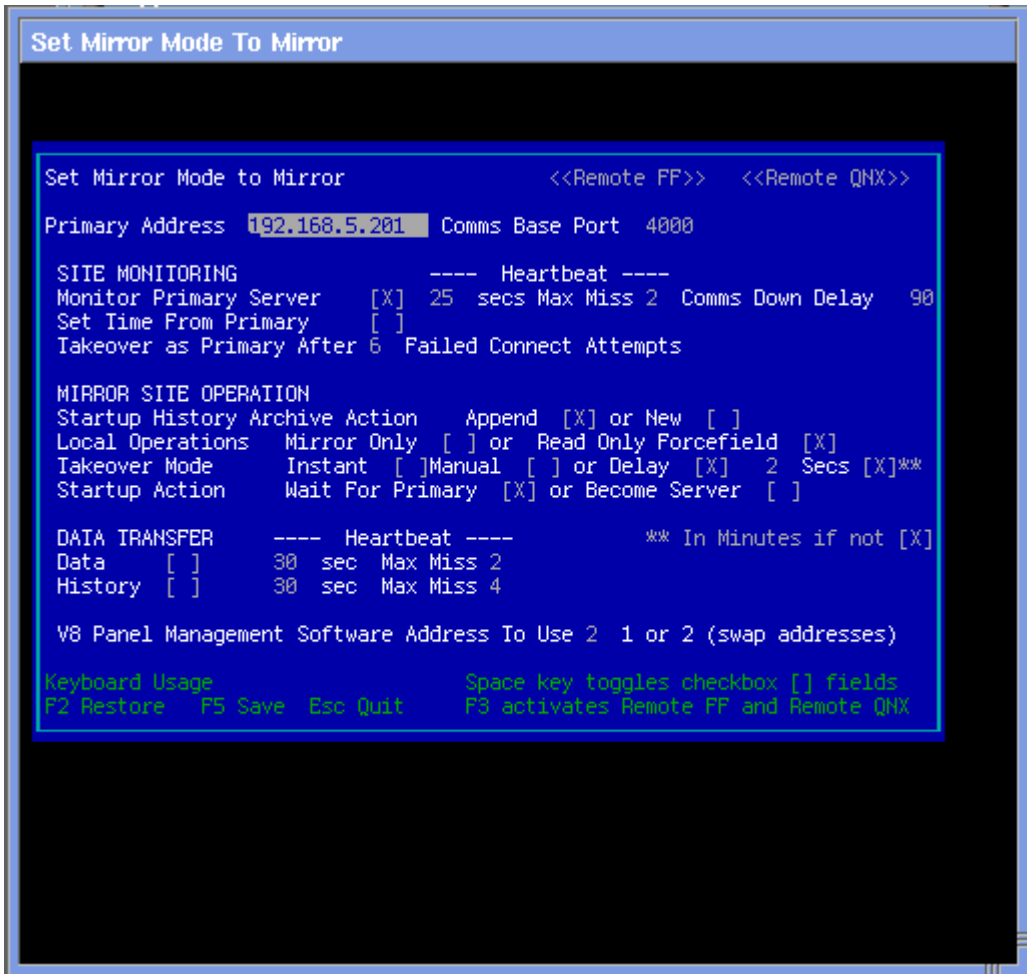


This will eventually time out and Forcefield will start as the primary server. Press F to start Forcefield without waiting for the timeout. Press Q to stop Forcefield loading, but get a QNX prompt.

Reconfigure as mirror and shut down

To reconfigure the primary server as a mirror and shut down the server, select menu item 2. The following configuration screen will appear:

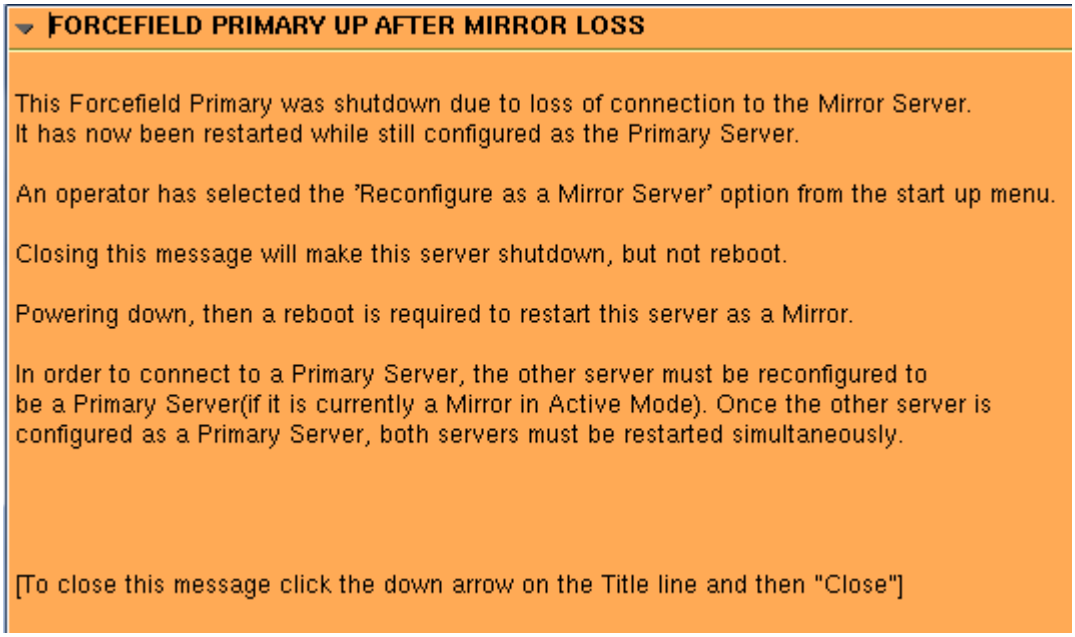
Figure 116: Reconfigure as mirror and shut down



Set the mirror configuration values as required (see “Mirror Setup window for the mirror site” on page 291 for information on mirror site configuration). Press F5 to save the configuration or press Esc to quit back to the loss of mirror menu.

Upon saving the configuration, the following message will be displayed:

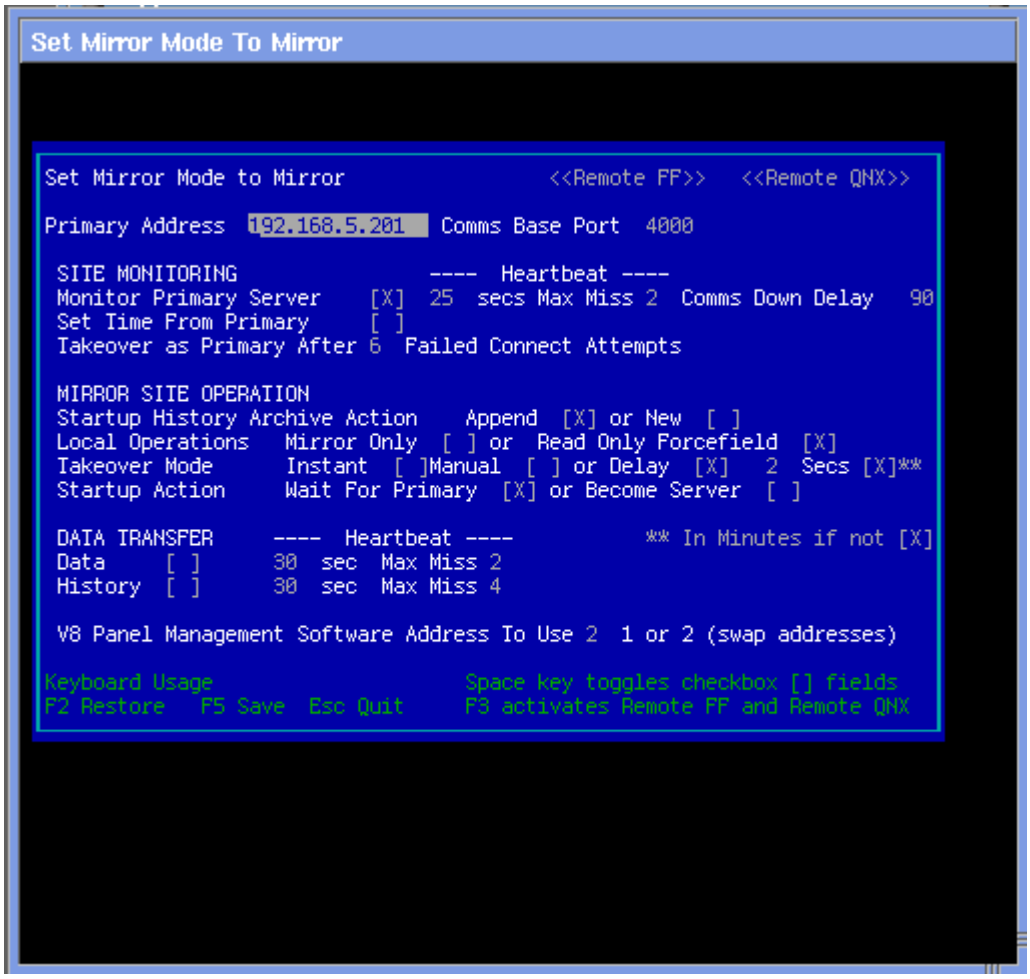
Figure 117: Primary server up after mirror loss



Reconfigure as mirror and restart

To reconfigure the primary server as a mirror and restart the server, select menu item 3. The following configuration screen will appear:

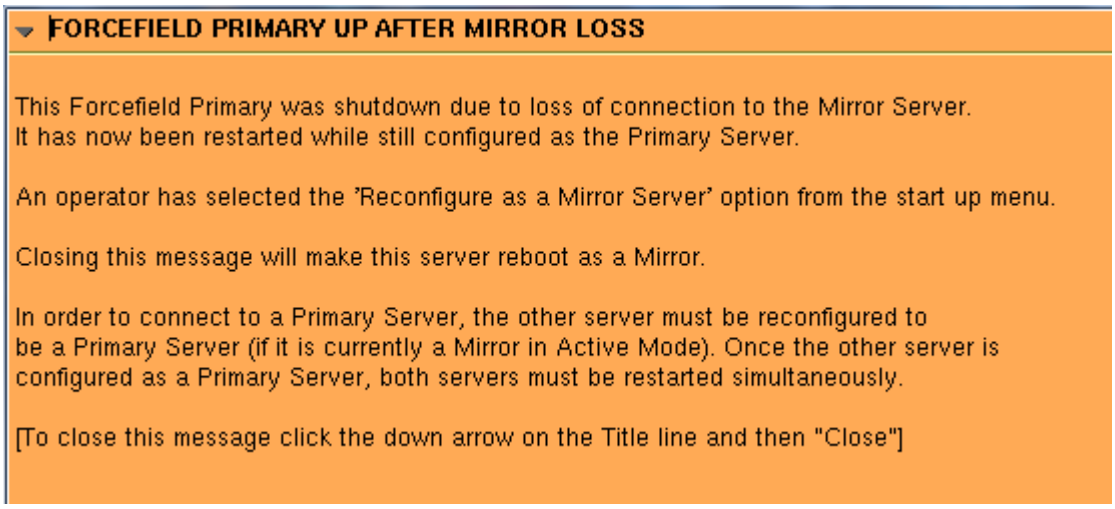
Figure 118: Reconfigure as mirror and restart



Set the mirror configuration values as required (see “Mirror Setup window for the mirror site” on page 291 for information on mirror site configuration). Press F5 to save the configuration or press Esc to quit back to the loss of mirror menu.

Upon saving the configuration, the following message will be displayed:

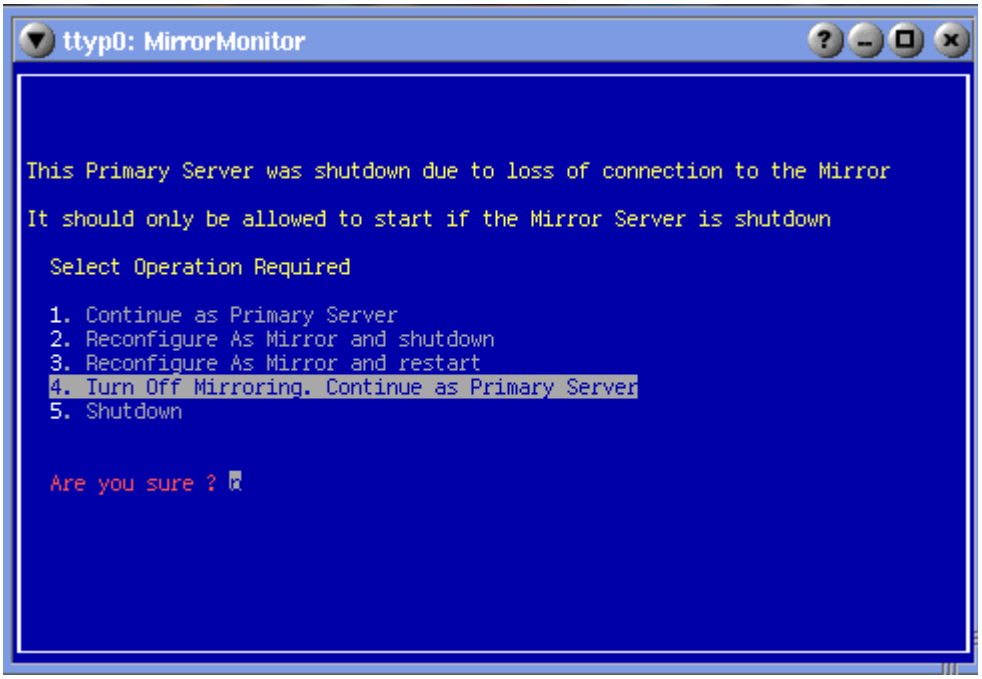
Figure 119: Primary server up after mirror loss



Turn off mirroring. Continue as primary server

To continue as primary server with mirroring disabled, select menu item 4. If you are sure, confirm your selection with a “y” and press Enter:

Figure 120: Continue as primary server with mirroring disabled

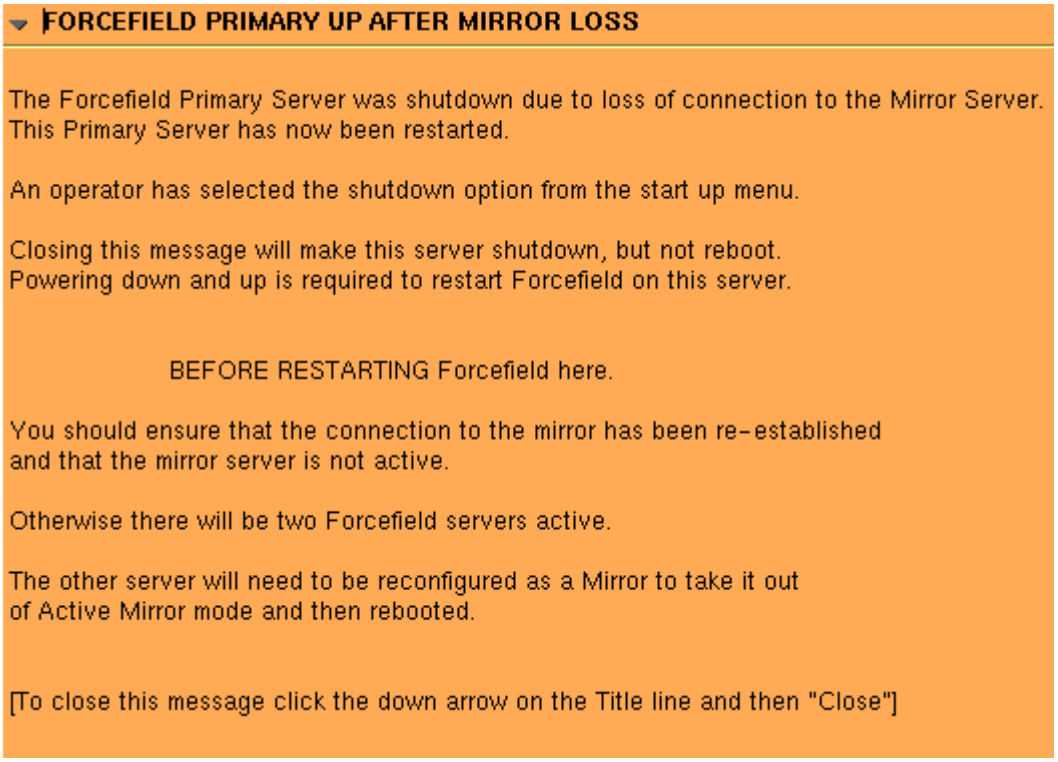


Forcefield will start up as a normal server with mirroring disabled.

Shut down

To shut down the primary server, select menu item 5. The following message will be displayed:

Figure 121: Primary server up after mirror loss



No reconfiguration has been done. A subsequent reboot will bring up the mirror loss menu again.

Recovering from failover

To recover from a failover you need to:

- Correct the fault that caused the failover to occur.
- Transfer the data from the active mirror to the primary site. There are two methods for doing this:
  - Manually back up the database from the active mirror to external storage and restore the database to the primary site.
  - Use the mirroring system to do the data transfer by reconfiguring the original primary site as the mirror site and the original mirror site as the primary site (i.e. reverse to normal).
- Reconfigure the mirror site from being the active mirror to being the backup mirror.
- Restart the primary and mirror sites to activate synchronisation.

The methods are outlined below.

Manual database backup and restore

Use the following steps to recover from a failover using manual backup and restore:

1. Set up the recovered or replaced Forcefield server computer and licence it as the primary site. **Note:** Do not connect the Forcefield server computer to the network at this stage.
2. Disable mirroring on the primary site if it configured.
3. If the primary site's hardware was changed, use the Network Configuration option to change the primary Forcefield server's TCP/IP address from the default IP address to the actual IP address.
4. On the active mirror site, use the Manual System Backup option to back up the databases to a previously-configured external storage (CIFS) location. Additionally, back up the history to the external storage.
5. Check the Event Monitor to verify that the backup has completed. Check the 'Off-line History' to ensure that the history has been backed up.
6. If the primary site's hardware was changed, then the new license must also be installed on the active mirror site before it is reconfigured to be the backup mirror. On the active mirror site, use the Modify License option to relicense the mirror site.
7. On the active mirror site, use the Mirror Setup option to reconfigure the mirror site from being the active mirror to being the backup mirror.

   Set Primary or Mirror Site to "Mirror"; set Monitor Primary Server to "Yes"; set Transfer Data to "Yes", set Transfer History to "Yes", set Startup Action to "Wait for Primary", and then save the record.
8. On the active mirror site, use the Activate Shutdown option to restart. The mirror site will restart and then wait indefinitely for the primary site to initiate synchronisation.
9. On the primary site, reconnect the Forcefield server computer to the network.
10. On the primary site, create a storage record (CIFS) to the computer where the database backup file resides.
11. On the primary site, use the System Restore option to restore the databases. The site restarts when the database is restored.
12. On the primary site, use the Mirror Setup option to configure the mirroring options as required (prior to failover).
13. On the primary site, use the Activate Shutdown option to restart the site.

Upon restart, the primary site should connect and synchronise with the mirror site, and both sites should load Forcefield. All peripherals are now managed by the primary site again.

Use the mirroring system to do the data transfer

Use the following steps to recover from a failover using the mirroring system to do the data transfer:

1. Set up the recovered or replaced Forcefield server computer and licence it as the primary site. **Note:** Do not connect the Forcefield server computer to the network at this stage.
2. Disable mirroring on the primary site if it configured.
3. If the primary site's hardware was changed, use the Network Configuration option to change the primary Forcefield server's TCP/IP address from the default IP address to the actual IP address.
4. Optionally, on the active mirror site, use the Manual System Backup option to back up the databases to a previously-configured external storage (CIFS) location. Additionally, back up the history to the external storage. Check the Event Monitor to verify that the backup has completed. Check the 'Off-line History' to ensure that the history has been backed up.
5. If the primary site's hardware was changed, then the new license must also be installed on the active mirror site before it is reconfigured to be the backup mirror. On the active mirror site, use the Modify License option to relicense the mirror site.
6. On the active mirror site, use the Mirror Setup option to reconfigure the mirror site as the primary site, i.e. the reverse to the normal mirror configuration.
7. On the primary site, use the Mirror Setup option to reconfigure the primary site as the mirror site, i.e. the reverse to the normal mirror configuration.
8. On the original primary site (current mirror), reconnect the Forcefield server computer to the network.
9. On the original primary site (current mirror), use the Activate Shutdown option to restart. The original primary site will restart and then wait indefinitely for the original mirror site (current primary) to initiate synchronisation.
10. On the original mirror site (current primary), use the Activate Shutdown option to restart the site.
11. Automatic data synchronisation will take place which will transfer data from the original mirror site to the original primary site.
12. When data synchronisation is complete, configure the original primary as the primary and the original mirror as the mirror, i.e. return the sites to their normal mirror configuration.
13. Shutdown and restart both servers.

Upon restart, the primary site should connect and synchronise with the mirror site, and both sites should load Forcefield. All peripherals are now managed by the primary site again.

Mirrored history

The mirrored primary server history does not become part of the history of the mirror server. The mirror and primary have separate histories.

The mirroring system creates a dated archive for the primary server history in the same way that a history backup creates an archive.

The source of history archives is indicated by the suffix of the archive folder name as shown below:

Table 7: Sources of history archives

Suffix	Source of history
-prim	History from primary server archived by the mirror server
-Mir	History from primary server archived by the mirror server (Forcefield prior to version 7.2.2)
-bmir	History of the mirror server when in backup mode
-amir	History of the mirror server when in active mode
	No suffix indicates primary server history

Note: Do **not** rename the history archive folders. The offline history reporting, for date ranges, depends on the correct naming.

Archiving of mirrored history

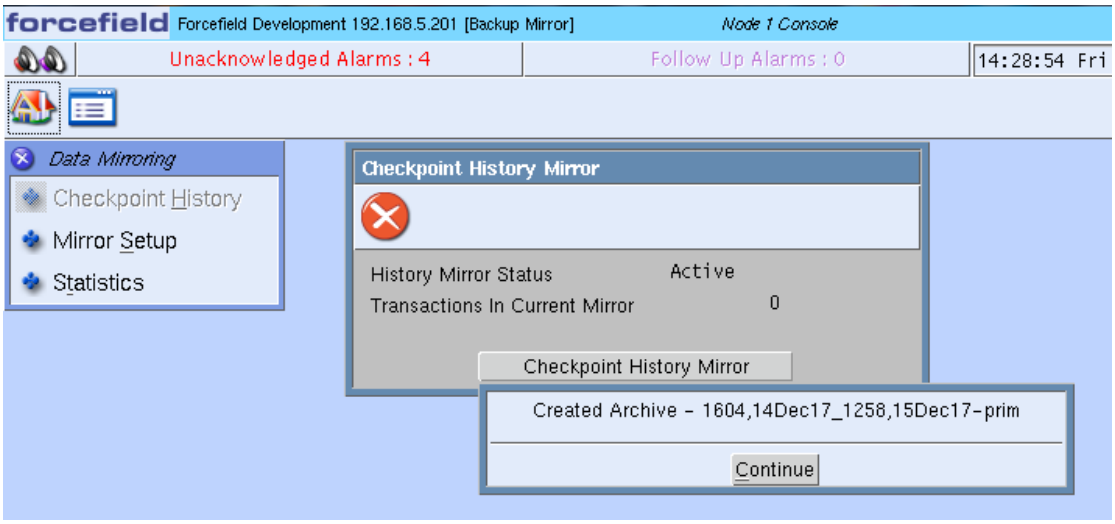
On the mirror server, the mirrored history may be transferred (check-pointed) to a dated archive any time there are records in the history reception buffer. This is achieved from Admin > Data Mirroring > Checkpoint History. See “Checkpoint History” on page 289.

Primary server history transferred to the mirror server is not available for reporting until it has been checkpointed to an archive. If the history buffer on the mirror server becomes full, an automatic checkpoint operation occurs.

Figure 122: Checkpoint history

The history is check-pointed by pressing the “Checkpoint History Mirror” button. A pop up message will indicate the name of the archive that is created. This information is also placed into the mirror server’s history.

Figure 123: Checkpoint history archive created



Off line history reporting

For more information on Off Line History reporting, see “Offline History” on page 140.

When an Off Line History report is initiated on the mirror server, there are extra selections available for the “History From” field as shown below:

- Single Backup—creates a report from one selected archive only.
- Date Range [Primary History]—creates a date range report from the history of the primary server.
- Date Range [Mirrored Primary History]—creates a date range report from the history of the primary server which was mirrored to the mirror server.
- Date Range [Backup Mirror History]—creates a date range report only from history generated at the mirror server when it was operating in backup mirror mode.
- Date Range [Active Mirror History]—creates a date range report only from history generated at the mirror server when it was operating in active mirror mode (i.e. in Takeover mode).

In all instances the report will indicate it has been generated at the mirror server by showing [Mirror] after the Server Id in the report.

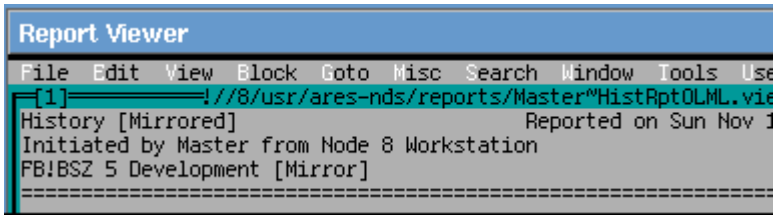
The report will also indicate if it is mirrored history by the text shown after “History” in the top line:

- [Mirrored] indicates history that has been mirrored from the primary server.

- [Backup Mirror] indicates history generated at the mirror when in backup mode.
- [Active Mirror] indicates history generated at the mirror when in active (takeover) mode.

The following example shows the start of a report generated at the mirror server on history that has been mirrored from the primary server:

Figure 124: Off Line History report on mirror server



Other data subsystems

Note: The following components are not involved in server monitoring or data transfer. These settings control how fast and how many events Forcefield will buffer on the primary server.

In order to minimise loss of data in the event of loss of the primary server, it is possible to control how many events can be placed on the event queues and how fast Forcefield will read from those queues.

Event queues

Challenger event queues have been split into two queues, one for alarm events and the other for every other type of event. Additional event queues such as for internal events or external devices (e.g. intercoms) may also be configured.

Forcefield will read from the alarm queue until it is empty before reading from other queues to ensure the timely processing of alarm events.

Each queue may be separately configured as to how many events it will accept and whether it spills to disk when full.

The rate at which events are read from the queues is configurable globally across all queues per server.

Note: Increasing the rate at which events are read from the event queues may impact on the responsiveness of the Forcefield GUI.

Appendix C
Forcefield 6 menu reference

Summary

The Forcefield menu structure may be configured to display in the classic format or the Forcefield 6 format. See “Configuring login options” on page 267 for details.

This appendix lists the Forcefield menu options in the order of the Forcefield 6 menu structure. Headings represent menu folders, and each menu option is represented by a cross-references link to the topic in this manual.

Main menu

- See “Alarms” on page 87
- See “Display Map” on page 108
- See “Logoff” on page 87

Administration

Administrator Tools

- See “Forcefield Shutdown” on page 259
- See “Change Root Password” on page 259
- See “Configuration” on page 263
- See “Event Read Delay” on page 280
- See “Disable/Enable Workstation” on page 260
- See “Login Attempts” on page 260
- See “Network Configuration” on page 282
- See “Queue Configuration” on page 285
- See “COS Injector

Use the COS Injector option to simulate a COS event from a panel and/or create an .aca file. The event, if injected, will be added to the history, preceeded by a SIMULATED EVENT event.
QNX Shell” on page 294
- See “Mount Storage” on page 261
- See “Reset Operator Lockout” on page 263
- See “Set Date/Time” on page 263

Database Tools

- See “Auto Database Backup” on page 96
- See “Convert 4.5.x Database” on page 101
- See “Delete Database Archive” on page 101
- See “System Backup” on page 99
- See “System Restore” on page 104

Database Tools > User Link Systems

- See “User Link Profiles” on page 209
- See “User Link Profile Import” on page 209
- See “User Link Service” on page 209

Data Mirroring

- See “Mirror Setup” on page 289
- See “Mirror Status” on page 293

Diagnostics

- See “aca ” on page 294
- See “Computer and Licence Status” on page 240
- See “Event Simulator” on page 293

- See “COS Injector

Use the COS Injector option to simulate a COS event from a panel and/or create an .aca file. The event, if injected, will be added to the history, preceeded by a SIMULATED EVENT event.
QNX Shell” on page 294
- See “List NFS Exports” on page 239
- See “List NFS Storage” on page 201
- See “Printer Status” on page 238
- See “**Error! Reference source not found.**” **Error! Bookmark not defined.**
- See “Report Status” on page 241
- See “Serial Port Status” on page 238
- See “System Device Status” on page 241
- See “Status File Utility” on page 295
- See “System Information” on page 295
- See “System Status Report” on page 242
- See “System Check Report” on page 242

Diagnostics > Server Processes

- See “Workstation Status” on page 243
- See “DBMS Process Status” on page 244
- See “Download Server Status” on page 244
- See “File Sync Status” on page 244
- See “History Server Status” on page 245
- See “History Reader Status” on page 245
- See “Mount Server Status” on page 246
- See “User Access Status” on page 247

Diagnostics > Video Status

- See “Video Switcher Status” on page 247.
- See “Video Service Status” on page 248.

History

- See “Auto History Backup” on page 97
- See “Auto History Export” on page 98
- See “Backup History” on page 100
- Clear History, see “Clear history (manually)” on page 65
- See “Delete Database Archive” on page 101
- See “Export History” on page 102
- See “History Config” on page 136
- See “Purge History” on page 136
- See “Statistics” on page 136

Operators & Permissions

- See “Operator Menu Permissions” on page 185
- See “Operator Password” on page 186
- See “Operator Permissions” on page 184

- See “Operator Setup” on page 185
- See “Printer Permission” on page 189
- See “Workstation Permissions” on page 193

Time zones

- See “Location Time” on page 188
- See “Holidays” on page 187
- See “Set Node Server Locale” on page 286
- See “Time Zones” on page 222

Control Devices

- See “New Alarm or Call” on page 120
- See “Area” on page 120
- See “Challenger” on page 123
- See “DGP” on page 123
- See “Door” on page 121
- See “Door Lock Override” on page 122
- See “Sync Alarm Panel Time” on page 122
- See “Floor” on page 124
- See “Input” on page 125
- See “Lift” on page 125
- See “RAS” on page 126
- See “Relay” on page 126

Control Intercom

- See “Intercom Calls” on page 127
- See “Intercom” on page 127

Control Video

- See “Display MultiView” on page 129
- See “Show DVR Tagged Footage” on page 141
- See “Show DVR Time Footage” on page 144
- See “Show DVR Video” on page 130
- See “Camera Control” on page 127
- See “Video Playback Control” on page 130

Forcefield Setup

- See “Alarm Responses” on page 210
- See “Computer Categories” on page 212
- See “Members” on page 215
- See “Member Groups” on page 216
- See “Workstations” on page 194

Forcefield Setup > Communications

- See “Email Addresses” on page 187
- See “Serial & Parallel Ports” on page 191
- See “TCP/IP Hosts” on page 192
- See “TCP/IP Ports” on page 192

Forcefield Setup > Graphics

- See “Convert DXF to Map” on page 107
- See “Edit Map” on page 110
- See “Import Bitmap File” on page 112
- See “Import LAP Icon” on page 113
- See “LAP Editor” on page 114
- See “Map Database” on page 116

Forcefield Setup > Installer Tools

- See “Change Dialup Password” on page 279
- See “Change Site ID” on page 279
- See “**Error! Reference source not found.**” **Error! Bookmark not defined.**
- See “**Error! Reference source not found.**” **Error! Bookmark not defined.**
- See “Icon Editor” on page 280
- See “Modify License” on page 282
- See “Network Configuration” on page 282
- See “COS Injector

Use the COS Injector option to simulate a COS event from a panel and/or create an .aca file. The event, if injected, will be added to the history, preceeded by a SIMULATED EVENT event.
QNX Shell” on page 294

- See “Service Forcefield” on page 285

Forcefield Setup > Management

- See “Program Clusters” on page 210
- See “Events” on page 217
- See “Guard Tour Program” on page 118
- Trigger Event Check, see “Event Check” on page 87
- Trigger Event Paging, see “Event Paging” on page 91
- Trigger Event Trigger, see “Event Trigger” on page 91
- Trigger Time Trigger, see “Time Trigger” on page 93

Forcefield Setup > Preferences

- See “Set Login Message” on page 261
- See “Speed Bar Configuration” on page 286
- See “Windows Manager Options” on page 287

Forcefield Setup > Storage & Devices

- See “All Storages” on page 200
- See “Disk Storage” on page 201

- See “List NFS Storage” on page 201
- See “NFS Exports” on page 201
- See “NFS Storage” on page 203
- See “SMB (CIFS)” on page 203
- See “Node” on page 189
- See “Printers” on page 190
- See “UPS” on page 192

Operator Tools

- See “Add Event” on page 135
- See “Door Monitor” on page 236
- See “Guard Tour Control” on page 117
- See “Send Page Message” on page 262
- See “Send Operator Message” on page 263
- See “Trace Monitor” on page 234

Program Devices

Program Devices > Challenger

- See “Panel Device ID Alteration” on page 248
- See “Panel programming” on page 249
- See “Convert ” on page 255
- See “

Copy Panel” on page 256
- See “IUM Card Categories” on page 256
- See “Upload Panel Data” on page 256

Program Devices > Challenger > Download

- See “Clear Download Buffer” on page 257
- See “Download All” on page 257
- See “Download Panel Users” on page 258
- See “Download Changes” on page 258
- See “Download User” on page 258
- See “Sync. User Deletes” on page 259

Duress

- See “Duress Locators” on page 204
- See “Duress Stations” on page 204
- See “Duress Transmitters” on page 205

Intercom

- See “Intercom Master” on page 206
- See “Intercom Slave” on page 207

Third Party

- See “Devices” on page 218
- See “Device Types” on page 220
- See “System” on page 220
- See “System Sub Types” on page 221
- See “System Types” on page 221

Video

- See “Video Service” on page 223

Video > DVR Video

- See “DVRs” on page 224
- See “DVR Cameras” on page 225
- See “DVR Presets” on page 226
- See “Multiview” on page 227
- See “DVR Report” on page 230
- DVR Camera Report, see “Camera Report” on page 229
- DVR Preset Report, see “Preset Report” on page 230

Video > Matrix Video

- Video Cameras, see “Cameras” on page 230
- Video Monitors, see “Monitors” on page 230
- Video Monitor Groups, see “Monitor Groups” on page 231
- Video Presets, see “Presets” on page 231
- Video Switchers, see “Switchers” on page 232
- CCTV Camera Report, see “Camera Report” on page 233
- CCTV Monitor Report, see “Monitor Report” on page 233
- CCTV Preset Report, see “Preset Report” on page 233
- CCTV Switcher Report, see “Switcher Report” on page 233

Reports

Reports > Access Control Reports

- See “Alarm Group Report” on page 165
- See “Door Group Report” on page 165
- See “Floor Group Report” on page 166
- See “Users By Alarm Group” on page 166
- See “Users By Door Group” on page 166
- See “Users By Floor Group” on page 166
- See “Door Open Close Times” on page 237
- See “Door Override Report” on page 238

Reports > CCTV Reports

- DVR Camera Report, see “Camera Report” on page 229
- See “DVR Report” on page 230
- DVR Preset Report, see “Preset Report” on page 230

- CCTV Camera Report, see “Camera Report” on page 233
- CCTV Monitor Report, see “Monitor Report” on page 233
- CCTV Preset Report, see “Preset Report” on page 233
- CCTV Switcher Report, see “Switcher Report” on page 233

Reports > Challenger Reports

- Challenger Report, Detail, see “**Error! Reference source not found.**” **Error! Bookmark not defined.**
- Challenger Report, Enabled, see “**Error! Reference source not found.**” **Error! Bookmark not defined.**
- Challenger Report, Summary, see “**Error! Reference source not found.**” **Error! Bookmark not defined.**
- Challenger Report, User, see “Panel User Report” on page 257

Reports > Challenger Status Reports

- See “Abnormal Panel State Report” on page 234
- See “Automation Zone Status” on page 235
- See “Panel Comms Status” on page 235
- See “Panel Device Status Report” on page 236
- See “Items in State Report” on page 236

Reports > Duress System Reports

- See “Locator Report” on page 205
- See “Station Report” on page 205
- See “Transmitter Report” on page 206

Reports > History Reports

- See “Door/Lift Activity” on page 137
- See “Door/Lift User Activity” on page 138
- See “Event Report” on page 138
- See “History Report” on page 139
- See “Incident Report” on page 140
- See “Offline History” on page 140

Reports > Intercom System Reports

- See “Master Report” on page 208
- See “Slave Report” on page 208

Reports > Management Software Reports

- See “Cluster Report” on page 211
- See “Cluster Usage Report” on page 211
- See “Computer Category Report” on page 215
- See “Computer Category Usage” on page 215
- See “Member Report” on page 216
- See “Member Group Report” on page 216
- See “Member Usage” on page 217

- See “Member Group Usage” on page 217
- See “Time Zone Report” on page 222
- See “Time zone Usage Report” on page 223
- See “Check Log Report” on page 239
- See “Debug File Report” on page 241
- See “Event Group Report” on page 218

Reports > Other Reports

- See “Equipment Report” on page 200
- See “Guard Tour Report” on page 120
- See “LAP Report” on page 116
- See “Operator Report” on page 186

Reports > Trigger Reports

- See “Event Check Report” on page 94
- See “Event Paging Report” on page 95
- See “Event Trigger Report” on page 95
- See “Time Trigger Report” on page 95

Reports > User Profile Reports

- See “Matching Profile” on page 172
- See “Profile Access Report” on page 172
- See “Profile Report” on page 172

Reports > User Reports

- See “Activation Report” on page 173
- See “Area Control Report” on page 174
- See “Card (User) Report” on page 174
- See “Door Access Report” on page 175
- See “Expired Profile” on page 175
- See “Expiry Report” on page 176
- See “Floor Access Report” on page 177
- See “Idle User Report” on page 177
- See “Last Access By A User” on page 178
- See “Muster Report” on page 179
- See “Unused Data Report” on page 179
- See “User Access Report” on page 180
- See “User On-Site Report” on page 180
- See “Users By Region Report” on page 181

Users

- See “Download User” on page 146
- See “Program Profile” on page 168
- User Setup, see “Maintenance” on page 147
- See “Modify User Data” on page 158

Users > Access Groups

- See “Alarm Groups (Challenger10)” on page 159 or “Alarm Groups (Challenger V8)” on page 161
- See “Door Groups” on page 163
- See “Floor Groups” on page 164

Users > Card Administration

- See “Design Card Layout” on page 144
- See “Select Learn Reader” on page 146

Users > Card Administration > Smart Card Programmer

- See “Display User Card” on page 181
- See “Issue User Card” on page 182
- See “Reader Config Card” on page 182
- See “Setup Programmer” on page 182

Users > Profile Administration

- See “Assign Profile to Users” on page 167
- See “Modify Profile Access” on page 165
- See “Sync Profile Data” on page 171

Users > User Administration

- See “Delete Unused Data” on page 145
- See “Generate IUM Data” on page 165
- See “Maintenance Config” on page 157
- See “Show System User Number” on page 183
- See “Show PIN Code” on page 159
- See “Show Ch. User Number” on page 183
- See “Export User Data” on page 182
- See “Import User Data” on page 183

Users > User Status

- See “Change Status of User” on page 166
- See “Set users offsite” on page 167

Appendix D
NAC programming

Summary

This appendix describes how to use the Forcefield user interface to program NAC panels connected to the system.

Content

Introduction

A Network Access Controller panel must initially be programmed via a management software e.g., CTPLUS to enable communications with Forcefield.

Forcefield can communicate to Network Access Controller panels in

1) Direct Mode

2) Extended Mode

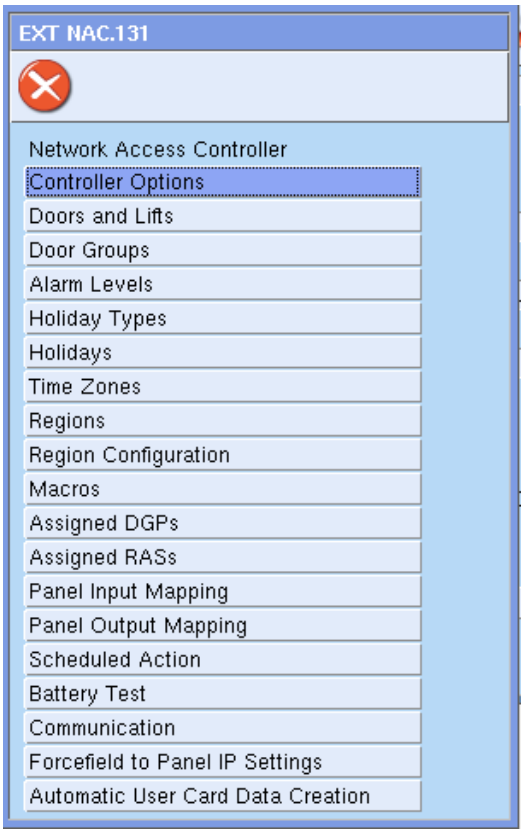
It is a requirement that Forcefield operators or Technicians using this section are familiar with the details of NAC programming as described in the *NAC Programming Manual* and the field-level Forcefield online help.

Note: The term “Network Access Controller” OR “NAC” covers TS1066, TS1067, TS1066-4 and TS1067-4 NAC models. Refer to the *NAC Programming Manual* for details.

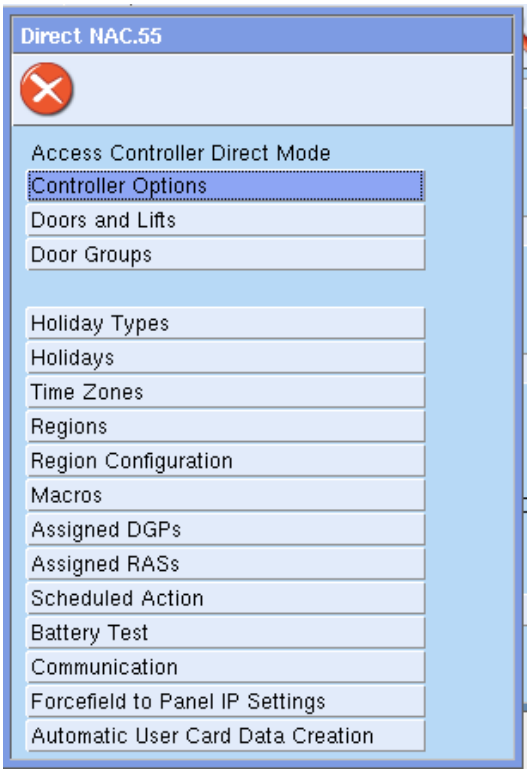
Use the NAC Programming options to remotely program the NAC options that would otherwise need to be programmed via another management software e.g., CTPlus

Click the Programming button to open the appropriate NAC programming window, and then click a programming item. NAC programming items are described in the following sections (options displayed depend on NAC mode).

EXTENDED Mode NAC Programming window



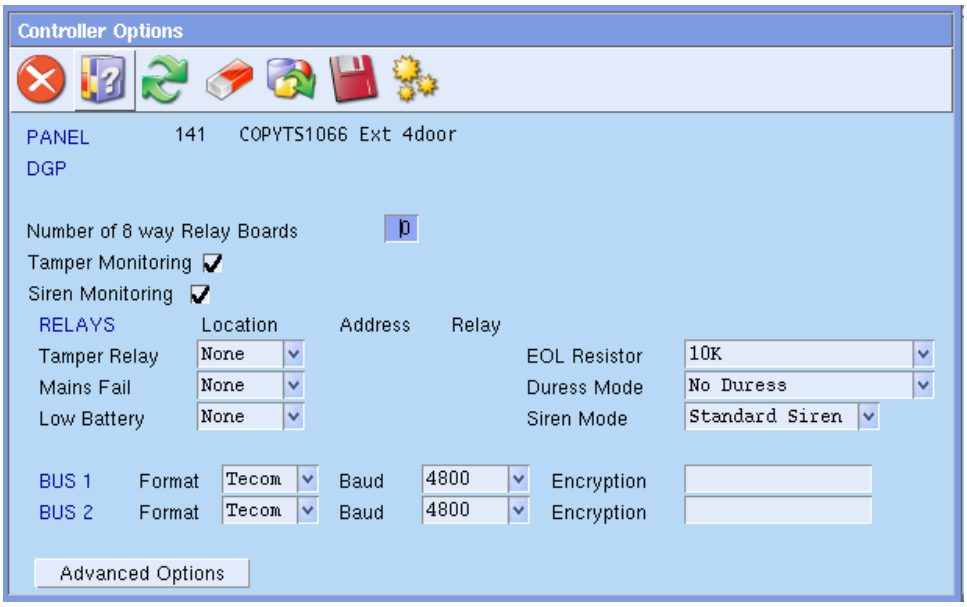
DIRECT Mode NAC Programming window



Controller Options

This function is used to program NAC's Controller Options.

Controller Options programming window for NAC



Advanced Options programming window for NAC

Descriptions of window specific elements are as follows:

Number of 8 Way Relay Boards: Enter a value in the range 1 to 8 in order to use TS0841 or TS0842 clocked relay expansion cards. Alternatively, enter 0 (disabled) to use a TS0840 4-Way Relay Card, or for no relay expansion.

Use a value that represents groups of eight clocked relays or open collectors. For example:

- Enter a value of 1 if one 8-way relay card is used (TS0841).
- Enter a value of 2 if one 16-way open collector card is used (TS0842).
- Enter a value of 4 if four 8-way relay cards are used (TS0841)

Tamper Monitoring: If the ChallengerPlus panel monitors input circuits for tamper conditions, then the NAC must do the same. When enabled, the system can detect sealed, unsealed, and fault (open and short circuit) states. When disabled, the system can detect sealed and unsealed states only. Open and short circuit states are detected as unsealed.

Siren Monitoring: The use of a siren on a controller is optional and siren monitoring is disabled by default. The siren circuit is not monitored for fault conditions unless siren monitoring is enabled.

Tamper relay: Program the relay to be activated when a "Cabinet Tamper" or a "Siren Fault" condition exists on the NAC. Select the relay location from the following options.

- None - The Relay is not used.
- Onboard – The Relay is connected directly to the NAC’s Onboard terminals (or a relay on an attached relay controller). Enter the relay’s number in the Relay number field.
- DGP – The relay is connected to a DGP that is connected to one of NAC’s buses. Enter the address of DGP in address field. Enter the relay’s number in relay number field. The DGP must be assigned to the NAC and polled on the bus.
- RAS – The relay is connected to a RAS that is connected to one of NAC’s buses. Enter the address of RAS in address field. Enter the relay’s number in relay number field. The RAS must be assigned to the NAC and polled on the bus.

EOL resistor: The EOL (end of line) resistor is used to detect the electrical states of input circuits. Select the end-of-line resistor value from drop-down list.

Note: Panel systems normally use the default 10K value.

Mains fail relay: Program the relay to be activated when a "Mains Fail" condition exists on the NAC. Select the relay location from the following options.

- None - The Relay is not used.
- Onboard – The Relay is connected directly to the NAC’s Onboard terminals (or a relay on an attached relay controller). Enter the relay’s number in the Relay number field.
- DGP – The relay is connected to a DGP that is connected to one of NAC’s buses. Enter the address of DGP in address field. Enter the relay’s number in relay number field. The DGP must be assigned to the NAC and polled on the bus.

- RAS – The relay is connected to a RAS that is connected to one of NAC's buses. Enter the address of RAS in address field. Enter the relay's number in relay number field. The RAS must be assigned to the NAC and polled on the bus

Duress mode: Duress mode allows a user to signal a duress condition (for example, a holdup) by entering a special duress code on a keypad RAS instead of their usual door code. The system will behave as if the user's PIN was entered (for example, to open a door), and it will initiate a duress alarm. The duress alarm can be reset (cancelled) by entering the normal PIN.

Select the duress mode from the following options:

- No duress – Duress codes are not supported by the NAC.
- Increment last digit – The duress code is the user's PIN with the last digit incremented by 1. For example, if the user's PIN is 1234, then the duress code is 1235. If the user's PIN is 1239, then the duress code is 1230.
- Add last digit – The duress code is the user's PIN with an extra 5 appended. For example, if the user's PIN is 1239, then the duress code is 12395. This option is not compatible with 10 digit PINs.
- Add first digit – The duress code is the user's PIN with an extra 5 prepended. For example, if the user's PIN is 1239, then the duress code is 51239. This option is not compatible with 10 digit PINs.

Low battery relay: Program the relay to be activated when a "Low Battery" condition exists on the Intelligent Controller. Select the relay location from the following options.

- None - The Relay is not used.
- Onboard – The Relay is connected directly to the NAC's Onboard terminals (or a relay on an attached relay controller). Enter the relay's number in the Relay number field.
- DGP – The relay is connected to a DGP that is connected to one of NAC's buses. Enter the address of DGP in address field. Enter the relay's number in relay number field. The DGP must be assigned to the NAC and polled on the bus.
- RAS – The relay is connected to a RAS that is connected to one of NAC's buses. Enter the address of RAS in address field. Enter the relay's number in relay number field. The RAS must be assigned to the NAC and polled on the bus

Siren mode: The onboard siren output can be configured for use with a standard 8 Ω siren, or for use with an integrated siren/strobe unit that requires a 12 Volt DC supply. Alternatively, the 12 V DC output can be used for a device that requires 12 Volt DC power when the NAC's siren relay is active.

Bus Format: There are two RS-485 buses on the NAC. Each bus can have up to 16 RAS devices. Bus 1 can have up to 15 DGP devices and Bus 2 can have up to 16 DGP devices. Each bus can have devices other than Tecom devices. Each bus supports the OSDP (Open Supervised Device Protocol),

SALLIS (by SALTO Systems), and Aperio protocols. Each bus can use one protocol at a time, but the two buses can use different protocols.

Each bus format may be one of:

- Tecom – Tecom protocol for adding devices from the Tecom family of products
- Aperio – Aperio protocol
- SALLIS (SALTO) – SALLIS protocol by SALTO systems
- OSDP – Open Supervised Device Protocol version 2

Bus baud rate: If the Bus format is not set to Tecom, the baud rate on the bus can be configured to be one of the following:

- 4800 baud
- 9600 baud
- 19200 baud
- 38400 baud
- 57600 baud
- 115200 baud

If the Bus format is set to OSDP, then set the baud rate to 9600 baud.
If the Bus format is set to Aperio, then set the baud rate to 19200 baud.
If the Bus format is set to SALLIS (SALTO), then set the baud rate to 38400 baud.

Note: If the Bus format is set to Tecom, then the baud rate is fixed at 4800 baud.

Bus encryption: To use encryption with OSDP readers, set the 128-bit AES encryption key for the bus. This option has a 16-character limit on the key length. The encryption key will be set on each OSDP reader attached to the bus once the encryption key is defined.

Note: Once set, the encryption key on an OSDP reader cannot be changed by changing the encryption key for the bus. To reset the encryption key used by an OSDP reader, the reader must be re-programmed with the appropriate configuration card.

Interlock Delay for Ext I/Ps (mS): Program the timer to be activated to stop two or more door from being opened at the same time. This timer specifically applies for doors on other devices which use external inputs.

Transformer size: Specify the size of the transformer being used by the NAC. This is required to handle correct power output when using either the supplied NAC transformer, or an alternative.

Battery size: The size of the batteries being used by the Network Access Controller can be set as either Small (7AH) or Large (12AH). This will ensure the NAC is best optimised to use the type of batteries connected to it.

Long access motor delay(0.1S): Set the delay (in 0.1 second increments) before engaging the relay on a door opener for users who have a long access flag.

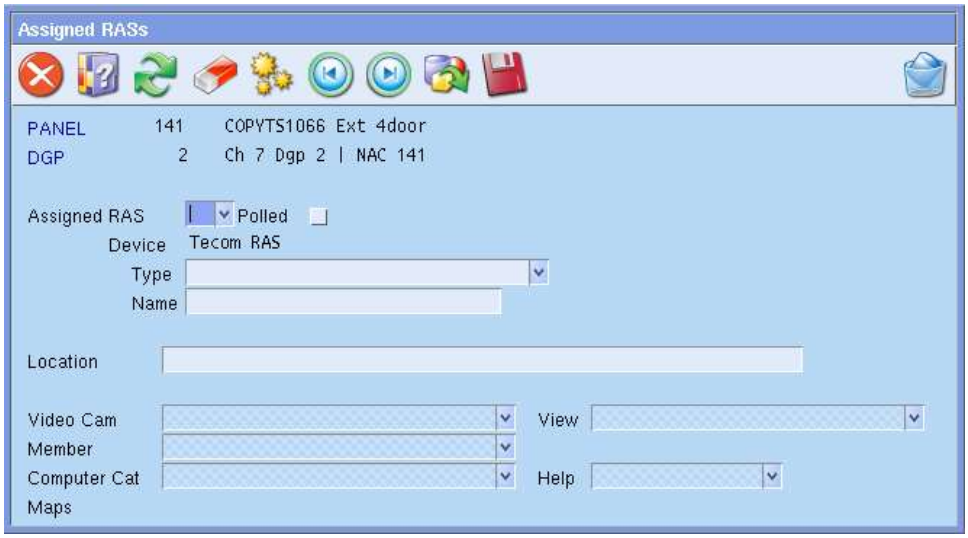
This is useful to ensure that the door is first unlocked before activating the motorised door opener.

Arm by pressing ENTER 3 times: Tick this option if you want to arm a related area by entering your PIN code and pressing the "Enter" key 3 times in quick succession. This option will only function when the NAC is connected to a ChallengerPlus panel (extended mode).

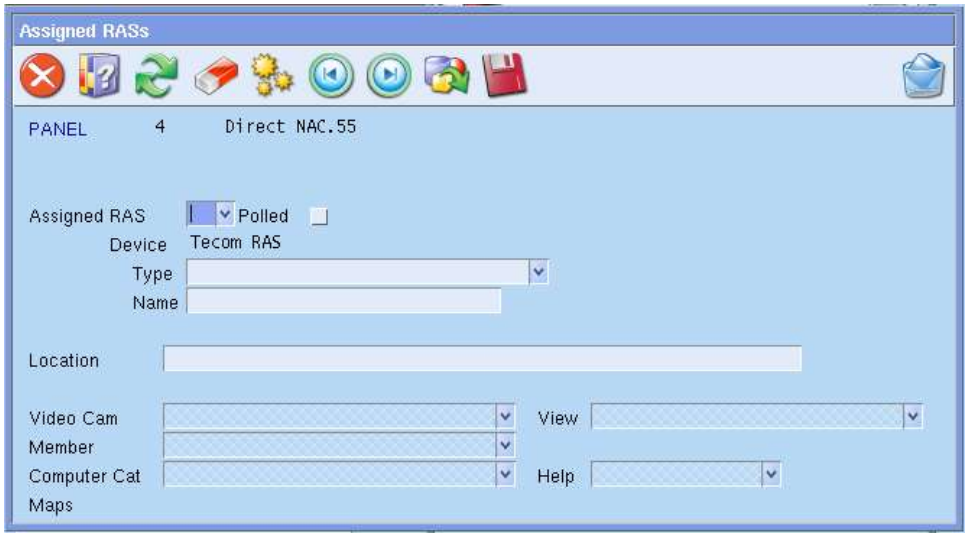
Assigned RASs

This function is used to program an individual Assigned RAS for a NAC.

Assigned RAS programming window for EXTENDED NAC



Assigned RAS programming window for DIRECT NAC



Descriptions of window-specific elements are as follows.

Assigned RAS: Enter the Assigned RAS number (1-16 on sub-LAN1 & 17-32 on sub-LAN2) to be programmed for the NAC.

Polled: When checked, the NAC panel polls this Assigned RAS.

Device: Forcefield auto-populates a value for Device field from ‘BUS format’ programmed in “Controller Options” form. This can be any of the following four formats. Forcefield decides the Device value depending on the LAN to which Assigned RAS number belongs:

- Tecom
- Aperio
- SALTO
- OSDP

Note: When BUS Format is set to ‘Aperio’ in “Controller Options” form, Forcefield auto-populates the Device field to ‘Aperio’ and Type to ‘Aperio Generic’ respectively. Similarly, when BUS Format is ‘OSDP’, Device is ‘OSDP’ and Type is ‘OSDP Generic’. When BUS Format is ‘Sallis’, Device is Sallis' and Type is Sallis Generic’.

Type: Click the arrow to select any of the following RAS types. NAC Supports the following RAS types for Tecom Device format:

- No Model Programmed
- CA1110 2 line no reader
- CA1111 4 line no reader
- CA1115 2 line with reader
- CA1116 4 line with reader
- TS0003 3 / 4 LED keypad
- TS0004 4 LED arming station
- TS0006 Heavy Duty keypad
- TS0007 Mag swipe reader with keypad
- TS0008 Mag swipe reader
- TS0801 8 Area RAS
- TS0804 16 Area RAS
- TS0862 Single Door Controller
- TS0870 Smart card reader range
- TS0870H Smart card reader range
- TS0870D Smart card reader range
- TS1001 Touch Screen RAS
- TS1162 3 LED Arming Station

Name: Type a name to identify the Assigned RAS. Up to 30 characters (including spaces) can be downloaded to the panel.

Location: Enter the Assigned RAS’s location details.

Member: The member controls event reporting and operator control in Forcefield.

Computer Cat: Click the arrow to select from the list of computer categories (the

list is restricted to show only the correct type of computer category).

Each Assigned RAS can have a different computer category. The category determines how Forcefield will handle an event from this RAS. The computer category name “NAC RAS” can be used, but is a standard (read-only) Forcefield computer category and cannot be modified.

Help: Double-click or press F3 to program alarm help information for this item. The help programmed here will be displayed as an action on the alarm screen when alarm is generated.

Maps: Displays the map numbers of any maps containing the Assigned DGP.

Options: Click on options to program DGP-options for this assigned DGP like in the figure below. DGP Options is applicable only to TS1020 and TS1061 DGP types:

Assigned DGPs

This function is used to program an Assigned DGP for a NAC.

Assigned DGP programming window for EXTENDED NAC

Assigned DGP programming window for DIRECT NAC

Descriptions of window-specific elements follow.

Assigned DGP: Enter the Assigned DGP number (1-15 on sub-LAN1 & 17-32 on sub-LAN2) to be programmed for the NAC.

Polled: When checked, the NAC panel polls this Assigned DGP.

Type: Click the arrow to select any of the following DGP types. NAC Supports the following DGP types:

- No Model Programmed
- TS0820 V8 Standard DGP
- TS1020 Challenger10 DGP
- TS1061 Dual Wiegand Interface

Name: Type a name to identify the Assigned DGP. Up to 30 characters (including spaces) can be downloaded to the panel.

Location: Enter the Assigned DGP's location details.

Member: The member controls event reporting and operator control in Forcefield.

Computer Cat: Click the arrow to select from the list of computer categories (the list is restricted to show only the correct type of computer category).

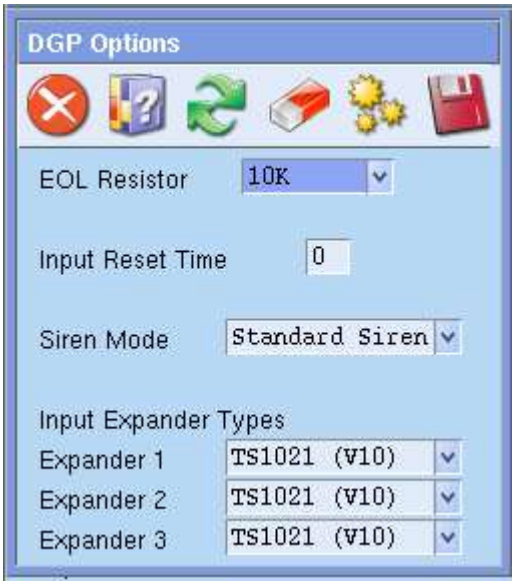
Each Assigned DGP can have a different computer category. The category determines how Forcefield will handle an event from this DGP. The computer category name "NAC DGP" can be used, but is a standard (read-only) Forcefield computer category and cannot be modified.

Help: Double-click or press F3 to program alarm help information for this item. The help programmed here will be displayed as an action on the alarm screen when alarms are generated.

Maps: Displays the map numbers of any maps containing the Assigned DGP.

Options: Click on options to program DGP-options for this assigned DGP like in the figure below. DGP Options is applicable only to TS1020 and TS1061 DGP types:

Assigned DGP Options



EOL Resistor: Select the EOL Resistor value. The EOL (end of line) resistor is used to detect the electrical states of input circuits. Select the end-of-line resistor value from drop-down list. **Note:** Panel systems normally use the default 10K value.

Input Reset Time: Certain input devices can bounce upon resealing which might generated unwanted sealed and unsealed change-of-state events. This value sets a pause time for the DGP to wait before reporting inputs as reset via the reset timer.

Siren Mode: The onboard siren output can be configured for use with a standard

8 Ω siren, or for use with an integrated siren/strobe unit that requires a 12 Volt DC supply. Alternatively, the 12 V DC output can be used for a device that requires 12 Volt DC power when the NAC's siren relay is active.

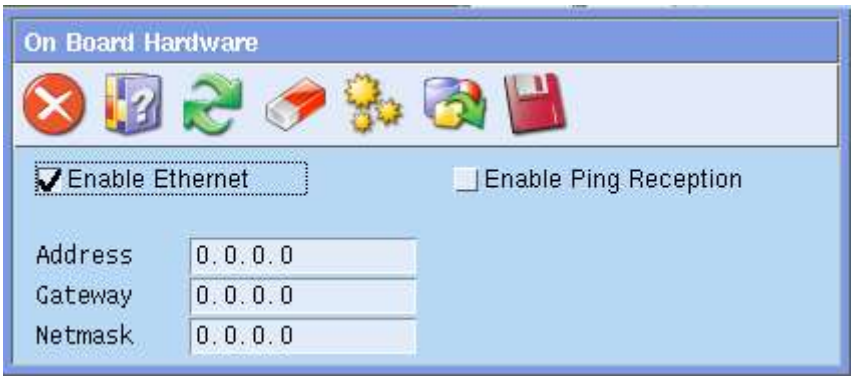
Input Expander Types: If the DGP has one or more 8-input expansion modules connected, choose the type of input expansion module from the drop-down list.

Communication Options

Communication Hardware

This function is used to program Onboard Communication Hardware for a NAC panel.

Communication Hardware programming window



Descriptions of window-specific elements are below.

Enable Ethernet: Set this option if you are connecting to the NAC via Ethernet. Setting this option will make the Ethernet config fields visilble.

Enable Ping Reception: Ping should only be enabled as an aid to configuring the system and disabled at other times.

Address: If you are connecting to the Panel via Ethernet, use the Panel's default IPv4 initially or a custom IPv4 address assigned by the site's administrator, as required

Gateway: If you are connecting to the Panel via Ethernet, you may need to enter a gateway address assigned by the site's network administrator.

Netmask: If you are connecting to the Panel via Ethernet, use the default subnet mask or a mask assigned by the site's network administrator.

Communication paths

This function is used to configure communications paths from the NAC panel to external devices such as management software computers, the remote monitoring company, and so on. **Note:** By default, NAC's Path1 & Paths 4-9 are SPARE paths. Path2 is set to USB path and Path3 is set to Management Software path. NAC can connect to Management software only via USB or Ethernet comms path. All other comms path types are not applicable for NAC.

Path main settings

Descriptions of window-specific elements are below.

Comms Path. Click the Comms Path arrow to select the path you wish to edit (or

use the Previous and Next buttons).

Name. Displays the name of the selected path.

Enabled. When this option is checked, this path can be used for a connection.

Desc. Optionally describe the purpose of the path (in addition to the name).

Location. Select the location (onboard) for this path's hardware. For NAC, Location – Expander is not applicable.

Interface Port. Select the type of communication hardware (none, Ethernet or USB).

Priority. Not applicable for NAC communication paths as DIALLER paths are not applicable for NAC.

Path to Backup. Enter the number of the path that this path backs up. Enter 0 if this path does not back up another path.

Data Format. Select the path's communications format (none, Computer Polled or Computer Event are applicable for NACs).

Account Code. The account code is used in two ways, depending of what this path is used for. If connecting to a management software computer, type a number in the range 1 to 1024 to match the computer address.

Security Password. The NAC system requires a security password before granting access to a remote computer. Security passwords are always 10 digits. The default password is 0000000000.

Note: The management software computer can always connect to the control panel with the default password except when connecting via the dynamic computer address option (see "Dynamic Computer Address" on page 315), in which case, a non-zero password is required.

Use the buttons at the bottom of the window to configure this path's settings (as needed) for:

- Connection Control
- Filters on page
- Test Calls (Not Applicable for NAC Panels)
- Dial Settings (Not Applicable for NAC Panels)
- IP Settings
- Encryption
- Advanced Settings

Connection Control

Descriptions of window-specific elements are below.

Connect Always. When checked, the path remains constantly connected. In the case of a dialler path, the panel will only disconnect if a path programmed with a higher priority (such as CID reporting) needs to make a connection via dialler. When the higher priority task is finished, this path will reconnect.

Connect On Event. When checked, the path initiates a connection when an alarm event or an access event triggers it.

Connect On Service. This option must be checked in order to dial the telephone number recorded in “Phone 1” on page 314 when requested via User menu 7 Service Menu.

Stay Connected on Empty Buffer. When checked, the path maintains connection after all events have been sent. The panel will only disconnect if a path programmed with a higher priority (such as CID reporting) needs to make a connection.

Control Command. When checked, the path can be used to control NAC devices via a remote computer (for example, to open a door).

Connect When Buffer 80% Full. When checked, the path connection is triggered when the events buffer is 80% full.

Trigger Comms Fail to RAS. Select this option to trigger the report fail event flag, and report via RAS, if this path fails.

Use Area Account Code. When checked, the path uses the area account code that is programmed for an area when reporting to central station.

Heartbeat Fail Triggers Path. When selected, this path is triggered to connect when an Ethernet heartbeat fail condition is detected.

Isolated Inputs Trigger Path. When selected, isolating inputs will trigger the path to report. If not selected, then isolated inputs will be reported when the next alarm function triggers the path.

Note: “Report alarm events” must be enabled for this option to work.

Filters

Descriptions of window-specific elements are below.

Filter to area or area group. Optionally specify an area or area group by which events will be filtered (restricted). If no area or area group is selected, the events from all areas are reported on this path.

Timezone. Optionally specify a hard time zone or a soft time zone, during which this path can report events.

Send Events Outside of Timezone. If a time zone is specified, select this option to report event only when the time zone is invalid.

Remove Unsent Events. Select this option if you want to ignore events when they are not being reported due to time zone settings. Events that are not reported will be discarded (not stored in the path's queue). If not selected, then the unsent events are stored in the path's queue. When the time zone allows reporting, then the events from the queue are sent (along with any new events).

Multi Break Alarm Timer. If the “Multibreak alarms” option is set to YES, you can

define a time (0 to 255 seconds) to prevent ‘old’ multibreak input alarms from being reported. For example, if you program a value of 30 seconds, then only multi break alarms that are less than 30 seconds old will be reported.

Note: This option does not apply if “Enable V8 multi break” is set in system options.

Report Alarm Events. Select this option to enable the path to report alarm events.

Report Access Events. Select this option to enable the path to report access events.

Report Connect Event. Select this option to generate a “computer connected” event when a remote computer has connected to the panel via this path. This event can then be reported via your central station reporting path.

Note: Do not select this option if this path is used for reporting to a central station or an IP Receiver.

Report System Alarms. Select this option to enable the path to report system alarm events. System alarms include all alarm events that are not associated with an area.

Note: “Report alarm events” must be enabled for this option to work.

Multibreak Alarms. Select this option to report each alarm when an input alarms more than once before being reset by a user.

Multibreak Restorals. Select this option to report each alarm restoral when an input alarm is restored more than once before being reset by a user.

Common Open/Close. When selected (and Report Open/Close is selected), this option causes the path to report open when the first reporting area is disarmed, and closed when the last reporting area is armed. In both cases, the lowest reporting area number (circuit number) is used, regardless of when that area was disarmed or armed. If not selected, but Report Open/Close is selected, then this path will report open or close whenever a programmed area is armed or disarmed.

Note: “Report alarm events” must be enabled for this option to work.

Report Open/Close. Select this option to report when all areas (or areas specified in “Filter event to area”) open and close (are disarmed and armed).

Note: “Report alarm events” must be enabled for this option to work.

Note: Some of these options are not functional or applicable for NAC Panel’s ethernet connection paths.

Test Calls

Test calls determines whether the NAC panel activates test calls to the monitoring company and, if so, how often. Test calls may only be needed if there have been no events to initiate a call since the last test call.

Descriptions of window-specific elements are below.

Click the arrow and select the test call frequency from the list. Options include:

- None
- Once A Day (and then enter the time of the first test call)
- Once A Week (and then enter the time and day of the first test call)
- Once A Day If No Event (and then enter the time of the first test call)
- Once A Week If No Event (and then enter the time and day of the first test call)
- Four Hourly (and then enter the time of the first test call)
- Four Hourly If No Event (and then enter the time of the first test call)
- Hourly (and then enter the time of the first test call)
- Hourly If No Event (and then enter the time of the first test call)

Dial Settings

Dial Settings are not applicable for NAC panels and hence the ‘Dial Settings’ button is greyed-out in Forcefield.

IP Settings

Descriptions of common window elements are in Chapter 3. Descriptions of window-specific elements follow.

IP Type. Select the type of IP communications require. Use UDP for if you want the NAC panel to communicate in event-driven mode with management software, as well as to SecureStream. Use TCP if you want the NAC panel to communicate in polled mode with management software.

Listen Port. Enter the port number (for example, 3001) that will be used for receiving requests from other devices.

Send Port. Enter the port number (for example, 3001) that will be used for sending data to other devices.

Send Address. Enter the IP address of the remote computer.

Dynamic Computer Address. When checked, this path will allow an IP connection from a computer at any IP address where the connection request is received via the correct port number and the path’s (non-zero) computer password is correct.

Client. When checked, this path operates as a TCP/IP client for TCP/IP auto-enrol functionality. Otherwise, the path operates as a TCP/IP server.

Encryption

Descriptions of window-specific elements are below.

Encryption type. Select the required type:

- None (encryption disabled)
- TwoFish (128 Bit) if the Twofish encryption algorithm is required for connection to management software. This option has a 16-character limit on the key length.
- AES (128 Bit) if the AES 128-bit encryption algorithm is required for connection to an IP receiver. This option has a 16-character limit on the key length.
- AES (256 Bit) if the AES 256-bit encryption algorithm is required for connection to an IP receiver. This option has a 32-character limit on the key length.

Encryption Key Length. Select the number of bytes required (16 or 32).

Encryption Key (firmware versions V10-06 or later). The encryption key is an alphanumeric string. The maximum key length is determined by the encryption type: 16 characters for Twofish or AES 128-bit; or 32 characters for AES 256-bit.

Encryption Data (firmware versions prior to V10-06). Type a password in the range of 0 to 255 in each of the 16 or 32 fields (as appropriate to the encryption type).

Advanced Settings

Descriptions of window-specific elements are below.

Computer Attempts. Enter the number of consecutive failed password attempts (in the range 1 to 255) that are permitted before the panel prohibits further attempts. For example, if the number of attempts is set to 3 and the computer has failed to connect 3 times to the NAC panel, then it will not be able to connect.

Message ACK Timeout. Enter the number of milliseconds that the NAC panel should wait for an acknowledgement to be received before making another attempt. The length of time that the panel waits is subject to the path's communication format and the programmed number of retries.

The default value displayed via RAS is 0000 ms (milliseconds), however, there are other (background) values that determine how long the panel will wait for an acknowledgement to be received. As a result of these background values, you might not need to program a value in the Message ACK Timeout field.

If the path uses format 1 CID Modem, then the length of time that the panel waits for an acknowledgement is a minimum of 1250 ms (this value is compatible with reporting CID via a satellite communications path). If you require a timeout value greater than 1250 ms, then enter the number of milliseconds in the Message ACK Timeout field.

For other applicable communication formats, the length of time that the panel waits for an acknowledgement to be received is comprised of the sum of two values:

- The value of the Message ACK Timeout field, and
- Either 3,000 or 5,000 ms. 3,000 ms is used for the first and second retries; 5,000 ms is used for any further retries.

For example, if the value of the Message ACK Timeout field is 60, and this is the first retry, then the total time that the panel waits for an acknowledgement to be received is 3,060 ms (3.06 seconds). If you require a timeout value greater than 3,000 or 5,000 ms, then enter the additional number of milliseconds in the Message ACK Timeout field.

Message Retries. Enter the number of attempts allowed for this path to send an event when the connection is established.

Connect Timeout. Enter the time in seconds the panel waits before terminating the connection attempt (0 means wait indefinitely for a connection).

Connect Retries. Enter the number of times this path is to attempt to reconnect after the initial attempt fails.

Note: If this path is used for IP connection, and a non-zero heartbeat timeout is programmed, then a new connection attempt (if programmed) will be made after the heartbeat timeout expires.

Heartbeart Timeout. Heartbeat rate is optionally used for IP or GSM (3G) paths to detect a connection failure. When used, the NAC panel logs an Ethernet Heart Beat fail message to history (and then an Ethernet Heart Beat restore message when reconnected).

Wait Time Before Next Connect. Enter the number of seconds (1 to 255) that the panel should wait to retry a connection when events are queued.

Time Zones

Forcefield uses a common pool of Time Zone records. Those records must be associated (linked) with the NAC to be utilised in this Network Access Controller Panel. This function creates the links and also allows acess to the Time Zone record creation form.

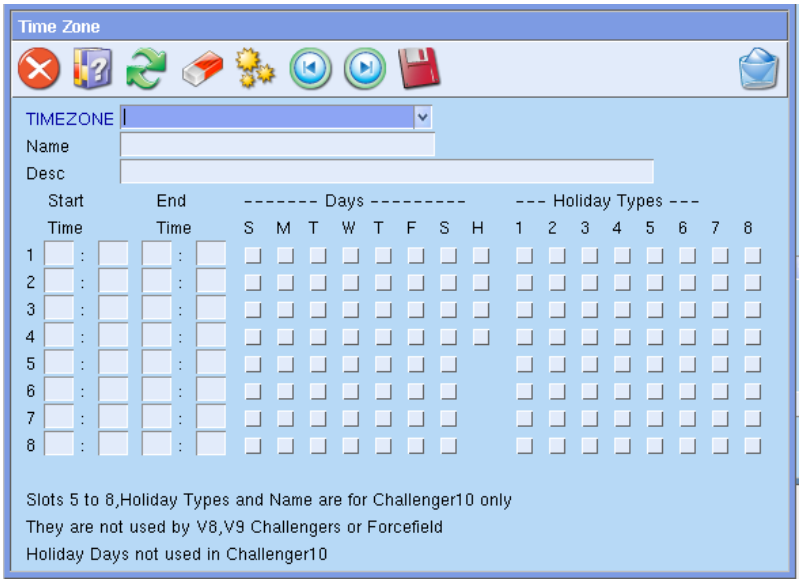
Time Zone link Programming window

Description of common window specific elements are below:

Time Zone Index: This is the Time Zone number in the NAC. Enter a number here to bring up a time zone that is linked to the NAC already, or to create a new link with that number. If the link already exists, the time zone record ID will be displayed. To display a list of existing time zone links for this NAC, press F4 on this field.

Global Time Zone: This is the Time Zone ID of the common pool time zone record. To select from existing Time Zone pools, either search using F4 or enter the time zone detail form by using F3 or double-clicking the Global Time Zone field, that opens a configuration form as below.

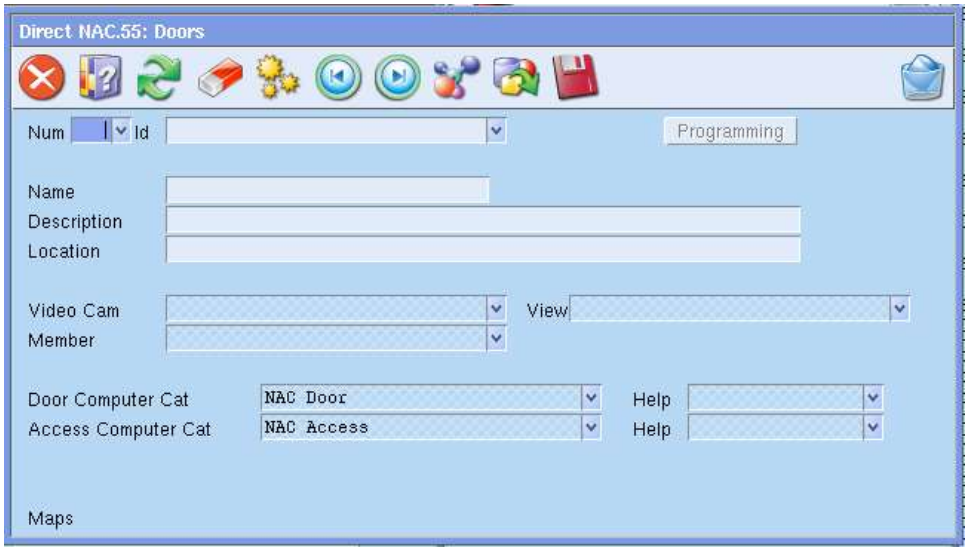
Global Time Zone Programming window



NAC Door Programming

When a NAC Panel is created in Forcefield, Forcefield creates default door records. Use the NAC Door form or sub-forms to create, delete or modify the door configuration.

Direct Mode NAC Door Programming window



Descriptions of window-specific elements are below.

Num: Enter the NAC Door number.

- Doors on a NAC in Direct mode are numbered in the range 1 to 8.
- Doors on a NAC in IP Extended mode are numbered in the range 1 to 4 or 1 to 8 depending on the NAC Mode.

Id: Enter a unique name for the NAC Door.

Name: Type a name for the NAC Door which can be upto 30characters long. The name gets downloaded to the NAC upon saving the NAC Door record.

Description: Optional field to describe the Door, such as “In Cabinet behind Guard room door”.

Location: Optional field to describe the Location of the door, such as ‘Front office Reception”.

Video Cam: Selects the video camera associated with this input. This option is used when operator selects the video option on the graphics screen. When programming this option, the video camera is identified as being controlled by a DVR or by a switcher.

- Select DVR if the camera is controlled by a DVR. Refer to the Forcefield External Interfaces Manual for details.
- Select Switcher if the camera is controlled by a video switcher. In this

instance, selecting the video option on the graphics screen will switch this camera to the selected view. The view for this camera can be selected in the View field.

View: Selects the preset view for the video camera. If this field left blank, the video camera, if a PTZ Camera, will switch to preset 1.

Member: The member controls event reporting and operator control in Forcefield. By default, Forcefield assigns ‘System Default Member’ member to NAC Doors.

Door Computer Cat: Click the arrow to select from the list of computer categories (the list is restricted to show only the correct type of computer category). Each door or lift can have a different computer category. The category determines how Forcefield will handle an event from this door or lift. The computer category name “NAC Door” can be used, but is a standard (read-only) Forcefield computer category and cannot be modified. See “Computer Categories” on page 210 for details.

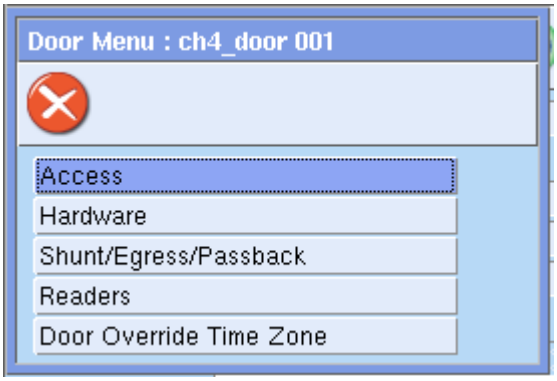
Access Computer Cat: Open the list to select from the list of access computer categories. The access computer category controls how Forcefield will handle an access event from the NAC Door.

Help: Double-click or press F3 to program alarm help information for this item. The help programmed here will be displayed as an action on the alarm screen when alarms are generated.

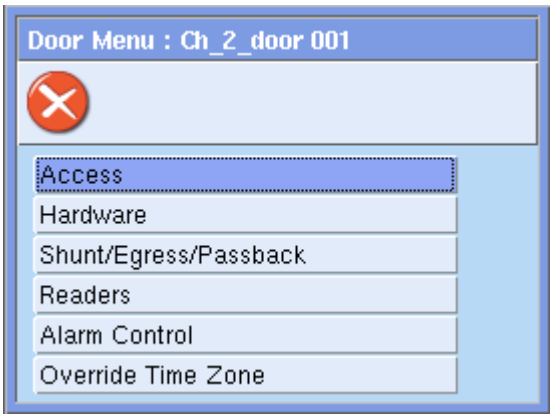
Maps: Displays the map numbers of any maps containing the door.

Programming. Click to open the Door/Lift menu, which provides access to the door/lift programming screens, sorted by functionality.

Direct Mode NAC Door Programming options



EXTENDED Mode NAC Door Programming options

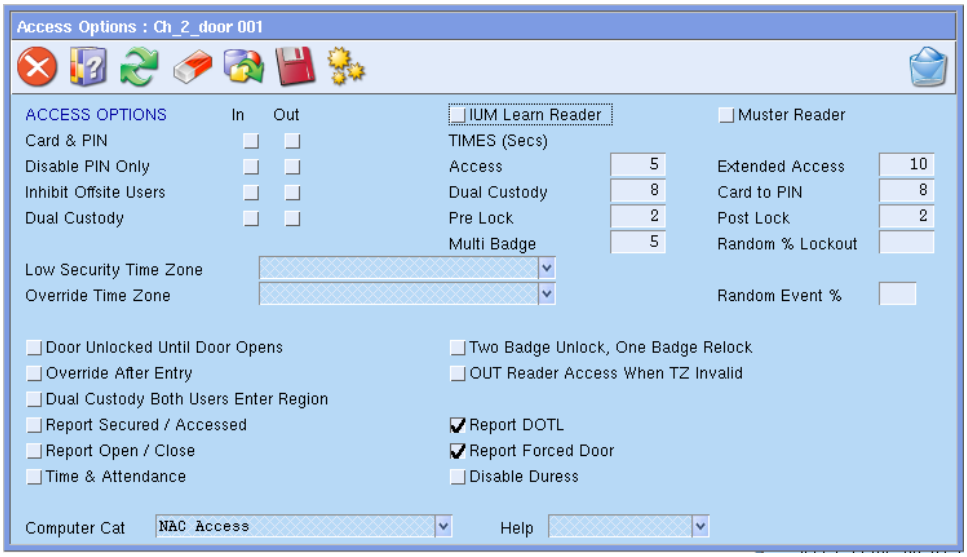


Click an option in the NAC Door Programming menu to program the details described in the following sections:

- Access Options
- Hardware Options
- Shunt/Egress/Passback
- Readers
- Alarm control (not applicable for DIRECT Mode NACs)
- Override Time Zone

Access Options

NAC Door Access options window



Descriptions of window-specific elements are below.

Access Time. The amount of time that the door will unlock when a user enters a valid card or PIN on the door reader.

IUM Learn Reader. When checked, identifies this reader as an IUM card data learn reader. This is a Forcefield-only option, it does not form part of the door access record. See “Learning IUM card data” on page 48.

Muster Reader. When checked, identifies this reader to be a muster reader. This is a Forcefield-only option, it does not form part of the door access record. For more information, see “Muster Report” on page 177.

Extended Access Time. The amount of time that the door will unlock when a user with “LONG ACCESS” enters a valid card or PIN on the door reader.

Low Sec TZ. The low security time zone controls the times when just a valid card or PIN may be used to open the door. When the time zone is not valid and the “Card & PIN Code Reader” is Set, a valid card AND PIN must be entered to open the door.

Card & Pin (determines for IN and OUT readers what method will be used to open the door). When checked, enables the door to be opened by presenting a valid card to the reader AND entering a PIN on the reader keypad. If not checked, enables the door to be opened by presenting a valid card to the reader OR entering a PIN on the reader keypad.

Dual Custody (determines for IN and OUT readers whether two user cards or PINs are required to open the door). When checked, it is necessary to record two separate codes in succession in order to open the door (either two cards, two PINs, or a card and a PIN from two different users). If not checked, it is

necessary to record only one card or PIN to open the door. Separate records are programmed for the IN and OUT readers of each door.

Disable PIN Only (for IN and OUT readers). Determines what method will be used to open the door during the low security time zone. If set, enables the door to be opened during the low security time zone only by presenting a valid card to the reader. If not set, enables the door to be opened during the low security time zone by presenting a valid card to the reader or a valid code on the reader keypad. Timezone is programmed separately for the IN reader and OUT reader.

Inhibit Offsite Users (for IN and OUT readers). Deny access to any users designated as being in region 0.

Override Time Zone: The override time zone controls the times when the door can be opened without the need to use a valid card or PIN. Free access is allowed when the time zone is valid.

Multi badge time: If two badge unlock is enabled for the door, then this field defines the amount of time permitted between the first and second badges. If the time expires, then the user will need to repeat the three badges in order to arm or disarm the area. See the 2 badge unlock, 1 badge re-lock field below. Additionally, if a reader's alarm control options specify three-badge alarm control for users who are authorised to arm and disarm areas, this field defines the amount of time permitted between the first and third badges. If the time expires, then the user will need to repeat the three badges in order to arm or disarm the area.

Note: Three-badge alarm control does not apply to the NAC in IP Direct mode.

Dual custody time: If dual custody functionality is used, you can define the amount of time permitted between a visitor and an accompanying guard badging their cards to open a door, or between the first and second instances of badging when two badge unlock is used. If the time expires before the second badging, then the door is not unlocked and the operation must be recommenced.

Note: In contrast to the V8 Four-Door Controller, dual custody time can be set per door on the NAC.

Card to PIN time: If card and PIN functionality is used, you can define the amount of time permitted between a user badging their card and entering their entire PIN. If the PIN is not completely entered before the time expires, then the user will need to repeat the door opening function.

Note: Card to PIN time can be set per door on the NAC

Pre lock time: Once the door open input (Door input 1) has been sealed, the NAC waits for the pre-lock time to expire before locking the door. If the door open input unseals during the pre-lock time, the door is deemed open and the pre-lock timer is cancelled. The shunt continues during the pre-lock time.

Post lock time: The post-lock time allows time for a lock to fully engage. After the post lock time has expired, the door is deemed secure, and the shunt is

cancelled. If the door open input (Door input 1) unseals during the post-lock time, the door is deemed open and the post lock timer is cancelled. The shunt continues during the post-lock time.

Random event %: The value defines the average percentage of the number of times that a valid card or PIN is presented to open the door that the door's Door Random Bit event will be activated.

The Door Random Bit event may then be used in the controller's macro logic programming to activate a relay or another event. For example, if the percentage value was set to 20, the Door Random Bit event would be activated an average of once every five times a card or PIN is successfully used at the reader.Alternatively, if the Random % lockout time field (below) has a value, then the Door Random Bit event locks out the door for the specified time. During this time, the door cannot be opened by any user.

Random % lockout time: When the Door Random Bit event triggers (as described in Random event % above), the door can be locked out for the amount of time specified in this field. During this time, the door cannot be opened by any user. Any LCD RAS attached to the door will display "Locked Out".

Time & Attendance Reader. When selected, the reader can be used as a time and attendance reader.

Report Open / Close. When checked, the system reports to printer and/or computer whenever the door is unsealed and re-sealed.

Report Forced Door. When checked, the system reports to printer and/or computer whenever the door is forced.

Report DOTL. When checked, the system reports to printer and/or computer whenever the door is in Door Open Too Long (DOTL) state.

Disable Duress. When checked, the system disables the duress PIN code from reporting a duress condition.

Door Unlocked Until Door Opens. When checked, the door will not lock until the door is opened.

Report Secured/Accessed. When checked, the door will report door secure and door accessed events.

Override after entry: This field determines whether the override time zone (see the Override TZ field above) takes effect immediately the time zone commences or after a user enters

OUT reader access when TZ invalid: If selected, OUT readers will allow access even if a user's door group has an invalid time zone.

Dual custody both users enter region: If dual custody functionality is used, then enabling this option means that both users are reported as having accessed a door. In addition, anti-passback rules and region rules (including region count) will be applied to both users. If either user fails for any reason, e.g. passback, then the door will remain locked and access will be denied when the failed user presents their card or PIN. Disabling this option means that only the

second user is reported as having accessed a door. Thus, if a visitor and an accompanying guard badge their cards to open a door, only the guard is considered as having accessed the door.

2 badge unlock, 1 badge re-lock: As an alternative to dual custody, two badge unlock avoids unintended unlocking of a door if a user accidentally presents their card to a reader, for example, by brushing past the reader with the card in a pocket. When two badge unlock is enabled (and the low security time zone is not valid), the user may unlock the door by presenting the same card twice within the dual custody time (see Dual custody time field above). If the low security time zone is valid, then the two badge unlock setting is ignored (see the Low security TZ field above). The door will remain unlocked until a user badges a card at the reader

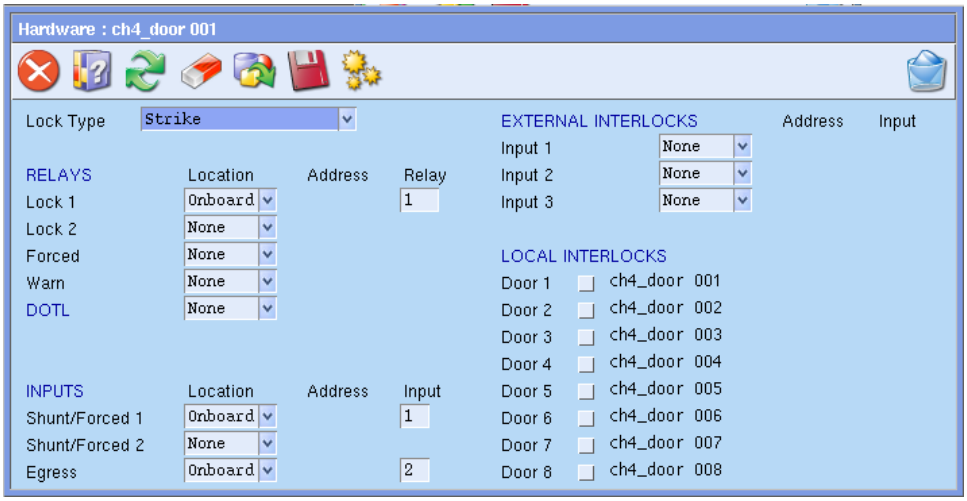
Computer Cat. Click the arrow to select from the list of computer categories (the list is restricted to show only the correct type of computer category). Each door can have a different computer category. The category determines how Forcefield will handle an event from this area. The computer category name “Door Access” can be used, but is a standard (read-only) Forcefield computer category and cannot be modified. See “Computer Categories” on page 210 for details.

Help. Double-click or press F3 to program alarm help information for this item. The help programmed here will be displayed as an action on the alarm screen when alarms are generated.

Hardware Options

Use this function to program Hardware options for NAC Doors.

NAC Door Access options window



Descriptions of window specific elements are as follows:

Lock type: To support simple programming of complex door operation, the NAC has various lock types, with associated inputs, relays and timers. The lock type determines which inputs and relays are used and how they are used. The lock types are:

- Strike
- Maglock

RELAYS

Select the relay location from the following options.

- None - The Relay is not used.
- Onboard – The Relay is connected directly to the NAC's Onboard terminals (or a relay on an attached relay controller). Enter the relay's number in the Relay number field.
- DGP – The relay is connected to a DGP that is connected to one of NAC's buses. Enter the address of DGP in address field. Enter the relay's number in relay number field. The DGP must be assigned to the NAC and polled on the bus.
- RAS – The relay is connected to a RAS that is connected to one of NAC's buses. Enter the address of RAS in address field. Enter the relay's number in relay number field. The RAS must be assigned to the NAC and polled on the bus

Lock relay 1. Specify the relay to be activated to unlock the door.

Lock relay 2. This relay is reserved for future use.

Forced relay. Specify the relay to be activated when an input is in a "Forced Door" condition, e.g. the door has been opened without a valid command.

Warning relay. Specify the relay to be activated during during the "Warning time" when the shunt timer is about to expire, e.g. may be used to activate a buzzer above a door to indicate the door needs to be closed.

DOTL relay. Specify the relay to be activated when an input is in a DOTL condition, e.g. the door left open after the shunt timer has expired.

INPUTS

Select the input location from the following options.

- None - The Input is not assigned.
- Onboard – The Input is located to the NAC (Onboard Inputs are addressed 1-8).
- DGP – The input is located on a DGP that is connected to one of NAC's buses. Enter the address of DGP in address field. Enter the input's number (local to that DGP, e.g., Input number 4 on DGP 1) in input number field. The DGP must be assigned to the NAC and polled on the bus.
- RAS – The input is located on a RAS that is connected to one of NAC's buses. Enter the address of RAS in address field. Enter the input number in input number field. The RAS must be assigned to the NAC and polled on the bus

Shunt/Forced 1 : Specify the input used to indicate if the door is open or closed. This is usually the reed switch.

Shunt/Forced 2. Specify the input connected to the lock monitor on Strike and Maglock locks.

Egress input. Specify the input that activates the egress function for the door being programmed. Egress functionality is programmed on the door's Shunt/Egress/Passback programming form.

EXTERNAL & LOCAL INTERLOCKS

Local Interlocks: Tick the door numbers on the same NAC that will be prevented from being accessed at the same time as the door being programmed.

External Interlock inputs 1, 2, 3: The NAC can check up to three external inputs for interlocking. If an input is wired up to an external controller's door contact, then specify the input in one of the external input fields.

Select the input location from the following options.

- None - The Input is not assigned.
- Onboard – The Input is located to the NAC (Onboard Inputs are addressed 1-8).
- DGP – The input is located on a DGP that is connected to one of NAC's

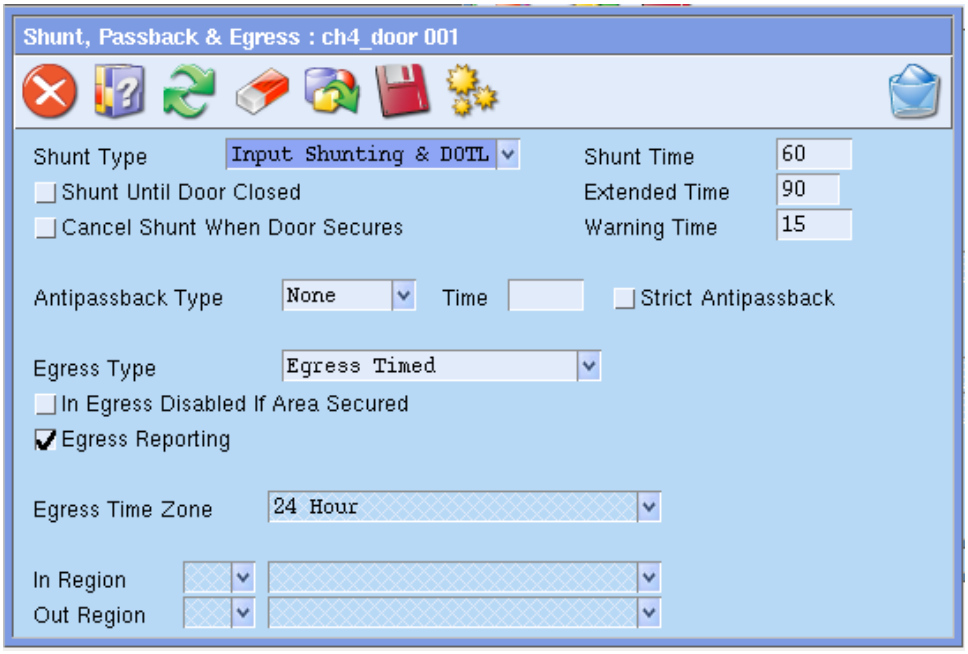
buses. Enter the address of DGP in address field. Enter the input's number (local to that DGP, e.g., Input number 4 on DGP 1) in input number field. The DGP must be assigned to the NAC and polled on the bus.

- RAS – The input is located on a RAS that is connected to one of NAC's buses. Enter the address of RAS in address field. Enter the input number in input number field. The RAS must be assigned to the NAC and polled on the bus

Shunt/Egress/Passback

Use this function to program Shunt, Egress and Anti-Passback options for NAC Doors.

NAC Door Shunt/Egress/Passback options window



Descriptions of window specific elements are as follows:

SHUNT OPTIONS

Shunting is a procedure that stops an open door causing an alarm for a set time.

Shunt type. This field defines shunt conditions. The options are:

- No shunting – The door will not be shunted.
- Input shunting – The door will be shunted and will generate a forced door alarm if it is left open (i.e. Door input 1 is unsealed) longer than the programmed Shunt time (or Ext. shunt time, if applicable).
- Input shunting & DOTL – The door will be shunted and will generate a DOTL (Door Open Too Long) alarm if it is left open (i.e. Door input 1 is unsealed) longer than the programmed Shunt time (or Ext. shunt time, if applicable).
- Auto shunting & DOTL – If the areas assigned to the door are in access (disarmed), shunting of the door will commence when the Door input 1 is unsealed. No card or PIN is required. A DOTL alarm is generated if it is left open longer than the programmed Shunt time.

Note: If the NAC is in IP Direct mode, then this option functions the same as Input shunting & DOTL above.

Shunt time.Program the amount of time that the door may be opened for without causing an alarm (shunted). This allows time for a user to pass through the door and shut it again.

Extended shunt time. Program the amount of time for the door to be shunted when a user, with the "Long access" flag enabled, presents a valid card or PIN at the door reader.

Warning time. Program the amount of time for a relay to activate, to sound a warning device, before the Shunt time (or Ext. shunt time, if applicable) expires.

Enter a number and specify Sec for seconds or Min for minutes.

Shunt until door closes. Select this option to ignore the programmed Shunt time (or Ext. shunt time), and to shunt Door input 1 until the door closes (i.e. the door input is resealed).

Cancel shunt when door closes. For security reasons, it may be required to limit the shunt period as much as possible in order to detect the door being opened again during the shunt time (after the debounce time of approximately 2 seconds). Select this option to use the programmed Shunt time (or Ext. shunt time) to shunt Door input 1 and then to cancel the shunt when the door closes (i.e. the door input is resealed).

ANTI-PASSBACK OPTIONS

The anti-passback options control the operation of the reader if a card or PIN is used to enter the same region that the user is currently in. This is valid only when a region is programmed for the door. See the Region IN and Region OUT fields below. Anti-passback violation is reported to management software.

Note:

1. To clear an anti-passback violation, the card must be used at another appropriate reader to change the region number that the user is recorded against.
2. The door must be opened after the reader is used before anti-passback will take effect.
3. Anti-passback settings do not apply to users with the "Privileged" flag in regions 0 to 199.

Anti-passback.Select the type of anti-passback desired:

- None – The anti-passback functionality is not active. The card will open the door without generating an alarm.
- Soft – The card will open the door when used the second time but an alarm will be generated.
- Hard – The card will not open the door when used a second time and the attempt will generate an alarm.
- Timed Hard – The card will not open the door when used a second time in

succession at the same door within the programmed time and the attempt will generate a report.

Anti-passback time.Enter the time delay that forces the user to wait until the delay timer expires.

Strict Anti-passback. Tick this option to enable strict anti-passback on this door.

IN Region. Specifies a region which represents the IN readers for each door.When a valid card or PIN is entered at the door reader, the region that the user is entering into is recorded against the user code. The system is then able to report an anti-passback violation.

Note: The door must be opened for this to be effective.

Region OUT. Specifies a region which represents the OUT readers for each door. When a valid card or PIN is entered at the door reader, the region that the user is entering into is recorded against the user code. The system is then able to report an anti-passback violation.

Note: The door must be opened for this to be effective.

EGRESS OPTIONS

The egress options define the operation of the egress button (exit button). There are two options for setting up an egress button:

- The egress button is wired to the Egress input defined on the Hardware options programming form of the door.
- A reader assigned to the door is defined as having an egress input. See the Enable egress check box on the door readers programming form.

Note: There must be an egress time zone defined for egress functionality to work.

Egress Type. Defines the operation of the egress button:

- Egress timed – When the egress button is pressed, the door will unlock for the Access time programmed on the Access Options programming form of the door.
- Egress held – Allows the door to be held unlocked for as long as the egress button is pressed or the length of the Access time, whichever is longer.
- Egress shunts only – When the egress button is pressed, the input is shunted.

Egress time zone. The egress time zone controls the times when an egress button will unlock a door to allow exit. When the time zone is valid, a user can press the egress button and the door will unlock. Select a valid Time Zone available to this NAC from the list (F4) or F3 to create a new link from the Time Zone pool available.

IN Egress disabled if area secure. This check box controls the ability to use the egress button on any IN reader to open the door if any of the areas assigned to the door (via an access control level) are secure, i.e. armed. If any of the

areas assigned to the door are secure then the egress button will not unlock the door.

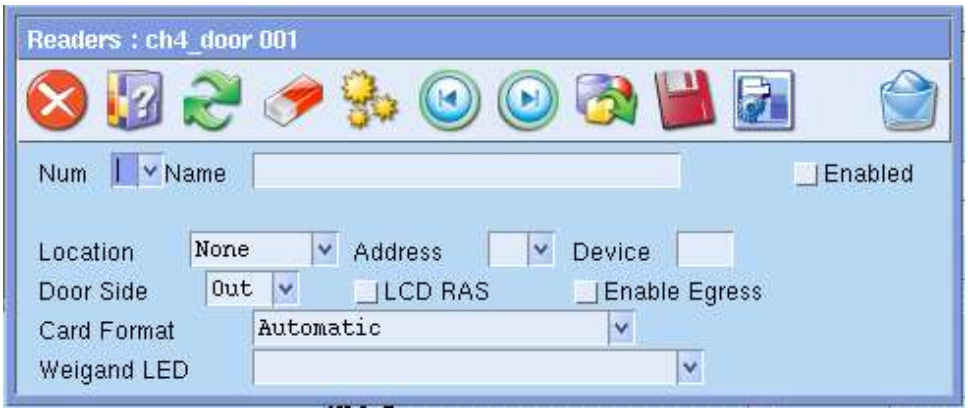
Note: This option does not apply to the NAC in Direct mode.

Egress reporting. When selected, a report is sent to management software when the egress function is used. This is only a reporting function.

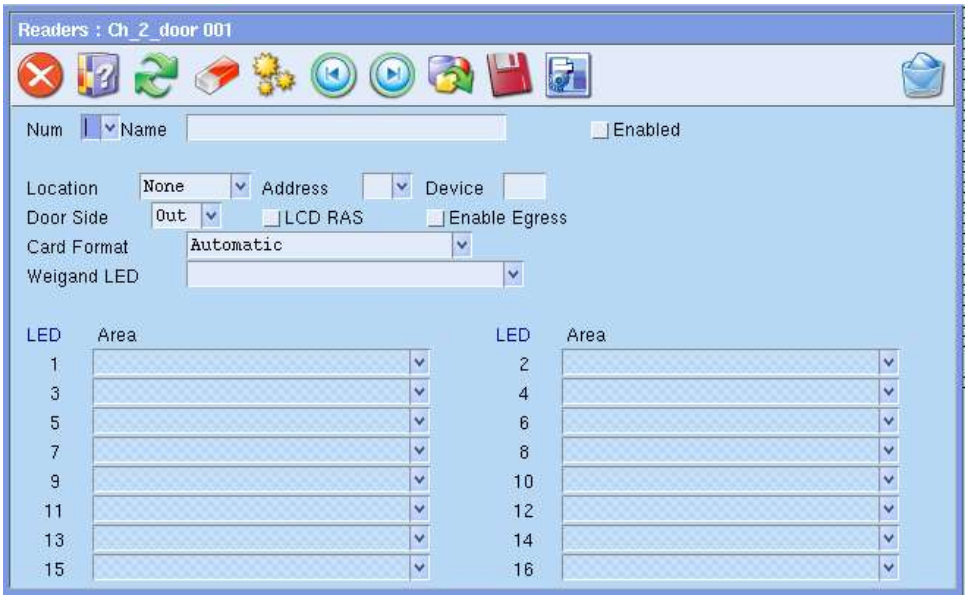
Readers

Use this function to program up to 6 Readers for each of the NAC Doors. Reader numbers range 1-6. Each door can have up to six door readers associated with it in any combination of IN and OUT readers. If the reader is attached to one of the NAC's buses, then the reader must be assigned to the NAC on the Assigned RASs window from NAC Panel Programming, and polled. Similarly, if the reader is attached to a DGP which is attached to one of the NAC's buses, then the DGP must be assigned to the NAC on the Assigned DGPs window from NAC Panel Programming, and polled.

DIRECT Mode NAC Door Readers window



EXTENDED Mode NAC Door Readers window



Descriptions of window specific elements are as follows:

Num. Enter the Reader number (1-6) to be programmed for the NAC Door.

Name. Type a name to identify the Reader. Up to 30 characters (including spaces) can be downloaded to the panel.

Location. Select the location of Door Reader. This can be one of the following:

- None – no reader assigned
- DGP – Reader assigned from an Assigned DGP location
- RAS – Reader assigned from an Assigned RAS location

Address. Select the address of Assigned RAS or Assigned DGP that needs to be added as the Door Reader.

Device. Type the Device number of the RAS / DGP device. For Tecom RAS, this field is usually 1. In the case of a Dual Wiegand Interface type DGPs, this field may be either 1 or 2.

Door Side. A door reader's side can be IN or OUT. Select the correct Door side from drop-down.

- Outside (IN reader) – IN reader placed on the outside of the door.
- Inside (OUT reader) – OUT reader placed on the inside of the door.

Enabled. Tick the check box to enable the reader.

LCD fitted. Tick the check box if the reader has LCD (liquid crystal display).

Enable egress. Tick the check box if the reader has an egress button connected to the reader's IN or EGRESS terminal.

Card Format. Select the appropriate Card Format for this Reader. This can be any one of the following:

- Automatic/ Not Available - The NAC will automatically determine the card format from the card used (this should be assigned for non-Tecom Readers e.g., SALLIS/Aperio/SALTO)
- Weigand 26 bit - For standard 26-bit Wiegand format readers. Has a 16-bit card number (0-65534) and an 8-bit site code (0-255).
- Tecom 27bit - For range of Tecom proximity readers supplied by UTC Fire & Security. (Default for Tecom Readers)
- Wiegand LED. Select the reader LED behaviour from the following options:
- LED 1 on when locked – LED 1 is on when the door is locked.
- LED 1 on when unlocked – LED 1 is on when the door is unlocked.
- LED 1 on when area is armed – LED 1 indicates if the area assigned to the door is armed (if more than one area is assigned, all areas assigned to the door must be armed before LED changes state).
- LED 1 off when area is armed – LED 1 indicates if the area assigned to the door is disarmed (if more than one area is assigned, all areas assigned to the door must be disarmed before LED changes state.)
- Two LED access/secure – Readers with dual LED control lines connected indicate the area disarmed and armed with different LED colours.
- Two LED valid/void – Readers with dual LED control lines connected indicate User Valid or Void using different LED colours.
- LEDs disabled – No LED control.

Note: On readers with dual LED control lines, LED 2 may also be programmed to indicate other conditions via the NAC's macro logic programming.

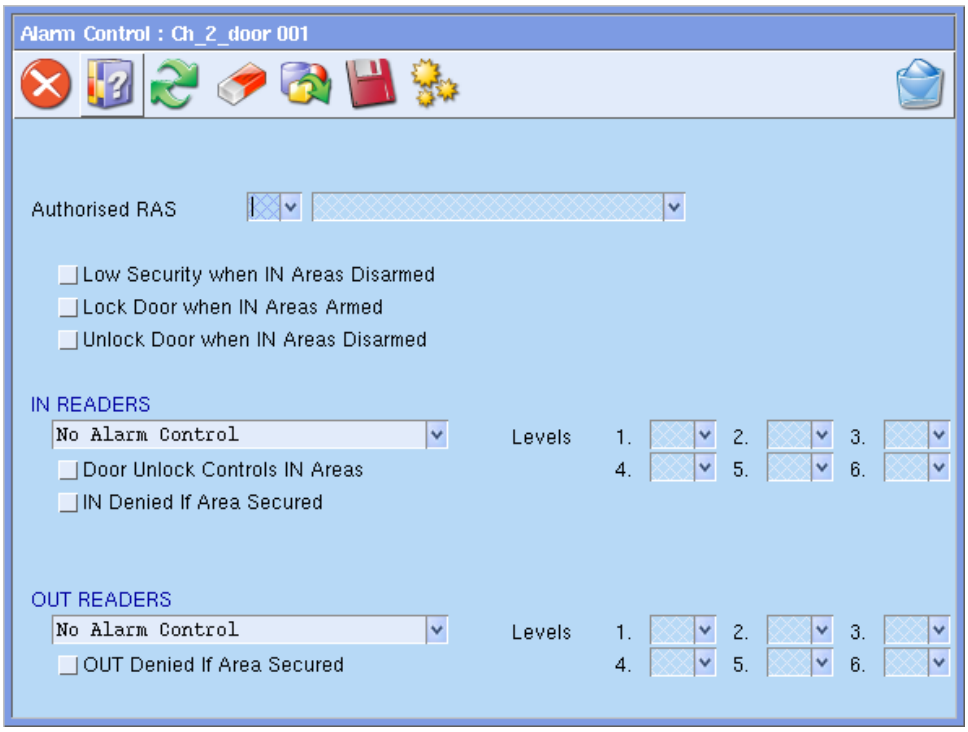
LED mapping. The LED mapping tab allows the operator to program which Challenger area number is assigned to the reader's area LEDs, if applicable. Up to 16 Areas can be assigned to each door reader for LEDs 1-16.

Note: LED mapping does not apply to the NAC in IP Direct mode.

Alarm Control

The Door alarm control level function can be used to configure up to six alarm control levels for a NAC door. Alarm control levels do not apply to a NAC in IP Direct mode. An extended mode NAC panel (where the NAC is polled as a DGP on ChallengerPlus panel), can support Alarm Control functionality such as arming/disarming areas via badging a card or entering a PIN. Alarm Control functionality can be configured separately for IN and OUT Readers. In order for alarm control to function, the door nust be assigned at least one alarm control level.

Extended mode NAC Door's Alarm Control Window



Descriptions of window specific elements are as follows:

Authorised RAS. This field is used to select a RAS on Challenger LAN (numbered from 1 to 16 or from 65 to 80). The selected RAS is authorised to arm/disarm and select areas when a valid card is presented at a door reader. The selected RAS must have a keypad for area selection. The NAC door readers can no longer be userd open the door, they are dedicated to arming and disarming areas controlled by the nominated RAS. The RAS that is selected must also have the Toggle Keyboard Control option enabled.

Low Security when IN Areas Disarmed. Tick the checkbox to set this option on a NAC Door. When this option is enabled, Low security option gets activated

automatically on the door when any area assigned to the door is disarmed. This means that the door goes from Card + PIN to Card OR PIN.

Lock Door when IN Areas Armed. Tick the checkbox to set this option on a NAC Door. If this option is enabled, the door is unlocked when all areas assigned to the NAC door are disarmed. If a Time Zone is assigned, it postpones until all door areas are disarmed as well as TZ being valid. If door only unlocks after 1st entry is set, this is also taken into account for the 1st unlock. When all areas that are assigned to the door are armed, the door will automatically lock.

These automatic unlock / lock features allow users that do not have alarm control to still access a secured room. An example of why this might be used is a meeting room. Any user might want to access the meeting room, so the area is automatically disarmed when they enter. Then when someone else secures the building, the meeting room will be armed, and the door locks as a result.

Unlock Door when IN Areas Disarmed. Tick the checkbox to set this option on a NAC Door. When this option is set, if an area that is assigned to the door is disarmed, the door automatically gets unlocked.

IN READERS

IN alarm control. This field determines whether the door's IN readers can be used to control the alarm system (arm/disarm) and if so, the way in which it can be controlled:

- No Alarm control – It is not possible to arm/disarm via the reader.
- Alarm control on 1st badge – Presentation of a valid card at the reader will disarm the system on the first badge. (Three badges are still required to arm system).
- Alarm control on 3rd badge – Presentation of a valid card three times at the reader will arm/disarm system.
- Alarm control with button int – Presentation of a valid card at the reader will authorise the user to access functions on the Button Interface.
- Alarm control always (off = IN, on = OUT) – Presentation of a valid card at the IN reader will disarm the system and presentation of a valid card at the OUT reader will arm the system.

Door Unlock Controls IN Areas. This feature works with the following rules.

- When a door is Unlocked from management software, Override TZ or Scheduled action, the areas in the IN alarm control level should be disarmed according to the options in the alarm control level.
- When a door is locked from management software, override TZ or scheduled action, the area(s) in the IN alarm control level should be armed according to the options in the alarm control level.
- The feature will work regardless of the type of IN alarm control set (i.e. No alarm control, 1st badge, 3rd badge etc).
- When Override after entry option is set, the panel will only attempt to

disarm when the first user presents a card after the time zone has activated.
- Disarm will only occur at the start of the time zone, or when the door is unlocked.
- Arm will only occur at the end of the time zone, or when the door is locked.
- Areas can be armed by user actions (1st badge / 3rd badge) at any time.
- A user with no alarm control can activate the door override assuming the IN denied if area secured option is not set.
- When the IN denied if area secured option is set, a user must be able to disarm the area that is assigned to the door. If the user can only partially disarm, the areas disarmed will report disarmed by user. The remaining areas should disarm by the system.
- 2 badge unlock / 1 badge relock should also perform alarm control if this option is set.

IN Denied if Area Secured. Stops a user opening a door using the IN reader when any of the areas assigned to the door are armed. When selected, a valid card or PIN will not open a door if any of the areas assigned to the door are armed.

OUT READERS

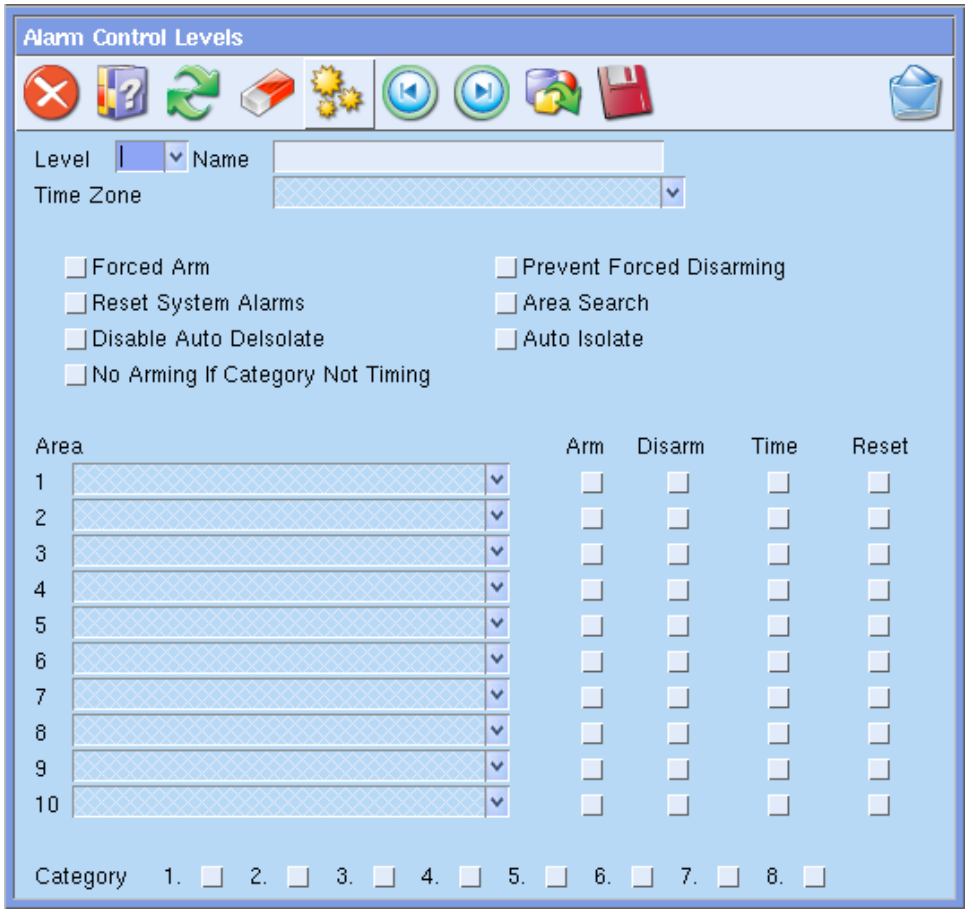
OUT alarm control. This field determines whether the door's OUT readers can be used to control the alarm system (arm/disarm) and if so, the way in which it can be controlled:

- No Alarm control – It is not possible to arm/disarm via the reader.
- Alarm control on 1st badge – Presentation of a valid card at the reader will disarm the system on the first badge. (Three badges are still required to arm system).
- Alarm control on 3rd badge – Presentation of a valid card three times at the reader will arm/disarm system.
- Alarm control with button int – Presentation of a valid card at the reader will authorise the user to access functions on the Button Interface.
- Alarm control always (off = IN, on = OUT) – Presentation of a valid card at the IN reader will disarm the system and presentation of a valid card at the OUT reader will arm the system.

OUT Denied if Area Secured. Stops a user opening a door using the OUT reader when any of the areas assigned to the door are armed. When selected, a valid card or PIN will not open a door if any of the areas assigned to the door are armed.

Alarm Levels. Up to six alarm levels can be assigned to each NAC door's IN/OUT sides. Click F4 to configure a new alarm control level or F3 to select from the available alarm control levels. Alarm control levels can be assigned to the door's IN and OUT readers separately.

Extended mode NAC Door's Alarm Control Levels programming window



Descriptions of window specific elements are as follows:

Level number. Enter a number for the alarm control level, and, optionally, a name to identify the alarm control level. Alarm levels can be numbered between 1-100.

Time zone. Specify a time zone to apply to this alarm control level. The alarm control level is only available if the time zone is valid. Click F4 to select from available list of time zones for this NAC or F3 to create a new time zone.

Reset system alarms. A user with the appropriate alarm group can reset latching system alarms at the door. The user's alarm group and the door's alarm control level must allow arming, disarming, and resetting. The System alarms latch option (on the System options form) must also be enabled on the ChallengerPlus panel.

Auto isolate. When a user with the appropriate alarm group arms an area, all unsealed inputs will be automatically isolated. The system is armed without causing an alarm.

Forced arm. When a user with the appropriate alarm group arms an area, the check for unsealed inputs is ignored. If there are unsealed inputs when the arming procedure is started, the system still arms (the unsealed inputs might cause an alarm).

Prevent forced arming. This setting controls the treatment of unsealed inputs during the disarming procedure and may be used if there are access alarm input types such as type 1 or type 11 in the system. If enabled, the area cannot be disarmed if there are unsealed inputs.

No arming if category not timing. This option prevents the area from being automatically rearmed without a user category. For example, a guard might have a user category that automatically re-arms an area when the user category timer expires. But if someone else disarmed the area (the user category timer isn't running), then the guard's user category will not automatically re-arm the area. If enabled, automatic re-arming is prevented when an area is occupied by non-user category staff.

Disable auto deisolate. Select this option to prevent certain users (for example, cleaners) from being able to automatically deisolate inputs in the area they disarm. If enabled, a user the appropriate alarm group can disarm areas with isolated inputs remaining isolated even if the system is programmed, via the ChallengerPlus panel's Auto de-isolate when area accessed system option (on the System options form), to automatically deisolate (sealed) isolated inputs.

Enable area search. When enabled, a user with the appropriate alarm group must perform an area search as part of the disarming process during the time zone specified in the ChallengerPlus panel's Area search time zone system option (on the Options tab of the System options form). See Using area search for details of area search.

User category 1 to 8. User categories assigned to an alarm control level provide timing functionality via a corresponding user category time. Refer to the Challenger Series Programming Manual or ChallengerPlus Programming Manual for more information on user categories. If multiple user categories are assigned to an alarm control level, then the lowest user category number applies. System functionality can depend on the alarm group assigned to a user, and the alarm control levels assigned to a door. In these cases, the lowest common user category number applies.

For example, if a user has an alarm group containing user categories 3 and 4, and a door has an alarm control level containing user categories 1, 2, 3, and 4, then only user category 3 would apply to that user at that door. When ticked, the user category activates when a user with the appropriate alarm group enters their PIN or badges their card.

Areas. An alarm control level can only control the functions of areas that are assigned to it. An alarm control level can be linked to multiple areas. For each area, the alarm control level can control the area's permissions for arming, disarming, alarm reset, and for timing.

Arm/Disarm/Reset/Timed. The following permissions for each area can be changed. Tick/Untick the check-box next to each area to assign or unassign the permission:

- Arm – A user with the appropriate alarm group can arm the area.

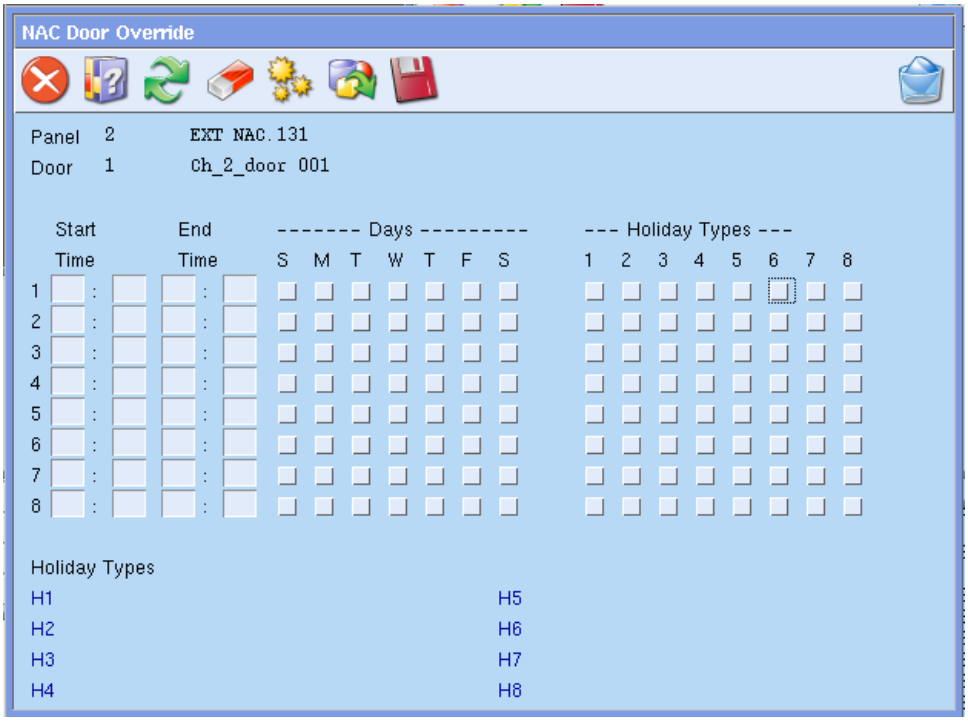
- Disarm – A user with the appropriate alarm group can disarm the area.
- Timing – A user with the appropriate alarm group can reset alarms for the area.
- Reset – Depending on the application, a user with the appropriate alarm group can disarm the area for the user category time (in which case disarming must be permitted), or automatically arm another area via vault programming (in which case arming must be permitted).

Door Override. The Door override form allows an operator to program an automatic lock/unlock schedule for each Network Access Controller door. The operator can define the override schedule per door without using any of the installer-defined panel time zones. A single Door Override time zone can be configured with upto 8 sub- time zones.

Note:

1. If either the door override or any existing door override time zone is active (programmed via the door's Override TZ field in Door Access Options form), then the door will be unlocked.
2. Door override applies to doors on a Network Access Controller only.

NAC Door Override programming window



Descriptions of window specific elements are as follows:

Start Time. Enter Start time in hours and minutes. The start time requires an hour and minute in 24-hour format.

End time. Enter Start time in hours and minutes. The end time requires an hour and minute in 24-hour format.

Days. Tick the check boxes to indicate the days of the week (SMTWTFS) that the sub-time zone is valid.

Holiday types. Tick the check boxes to indicate that the sub-time zone if valid on holidays of particular types. Holidays may have up to eight defined holiday types.

Note: A sub-time zone is invalid on any defined holiday unless the holiday's type is included as a day in the sub-time zone

Holidays

Forcefield uses a common pool of Holiday records. Those records must be associated (linked) with the NAC to be utilised in this Network Access Controller Panel. This function creates the links and also allows access to the Holiday record creation form.

Holiday link Programming window

Descriptions of window specific elements are as follows:

Holiday number. This is the holiday number in the NAC Panel. Enter a number here to bring up a holiday that is linked to the NAC already, or to create a new link with that holiday number. If the link already exists, the Holiday record ID will be displayed. To display a list of holiday links for this NAC, press the function key F4 on this field.

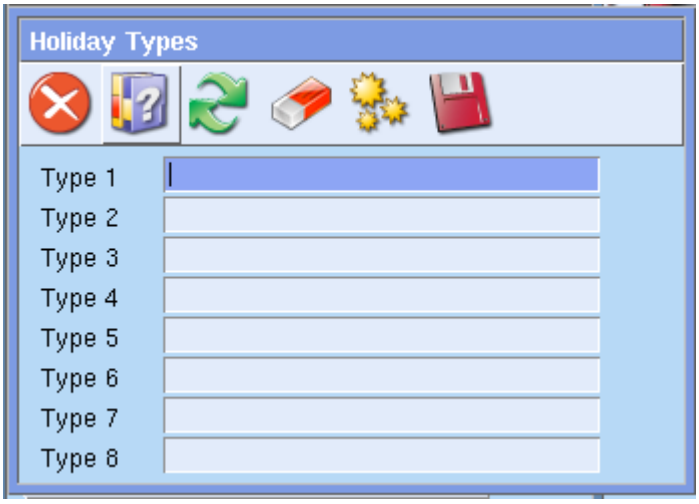
Holiday Types

Holiday types provide the ability to grant access to users on some holidays and not others. Holiday Types consist of a name and a number. Up to eight holiday types can be programmed for a NAC panel.

Holiday types provide the ability to grant access for users on some holidays and not others. For example:

- We want cleaning staff to have access during school holidays, but not on public holidays.
- We want maintenance staff to have access during both school and public holidays.
- School holidays can be designated H1 type, and the cleaning staff time zone must contain H1 type.
- Public holidays can be designated H2 type, and the maintenance staff time zone must contain H1 and H2 types

Holiday Types Programming window



Holiday Type Name: Enter a name for the Holiday Type. These names are shown on the Holiday form. The first 30 characters of the description (including spaces) are sent to the panel as the holiday type name.

Regions

The Regions form allows the operator to program regions on a NAC. Regions are used to monitor the whereabouts of users and to detect (and control) fraudulent access via anti-passback. Region 0 is used to indicate that the user is off-site and may be used with the Inhibit off-site users options on the Access Options form of the Doors programming. Regions programmed from this function are not downloaded to the NAC panel. They remain in Forcefield database that can be linked to ‘Region Configuration’ records on NAC.

Regions Programming window

Descriptions of window specific elements are as follows:

Number: Enter a region number in the range 1 – 255

ID: Enter a unique ID to identify this region

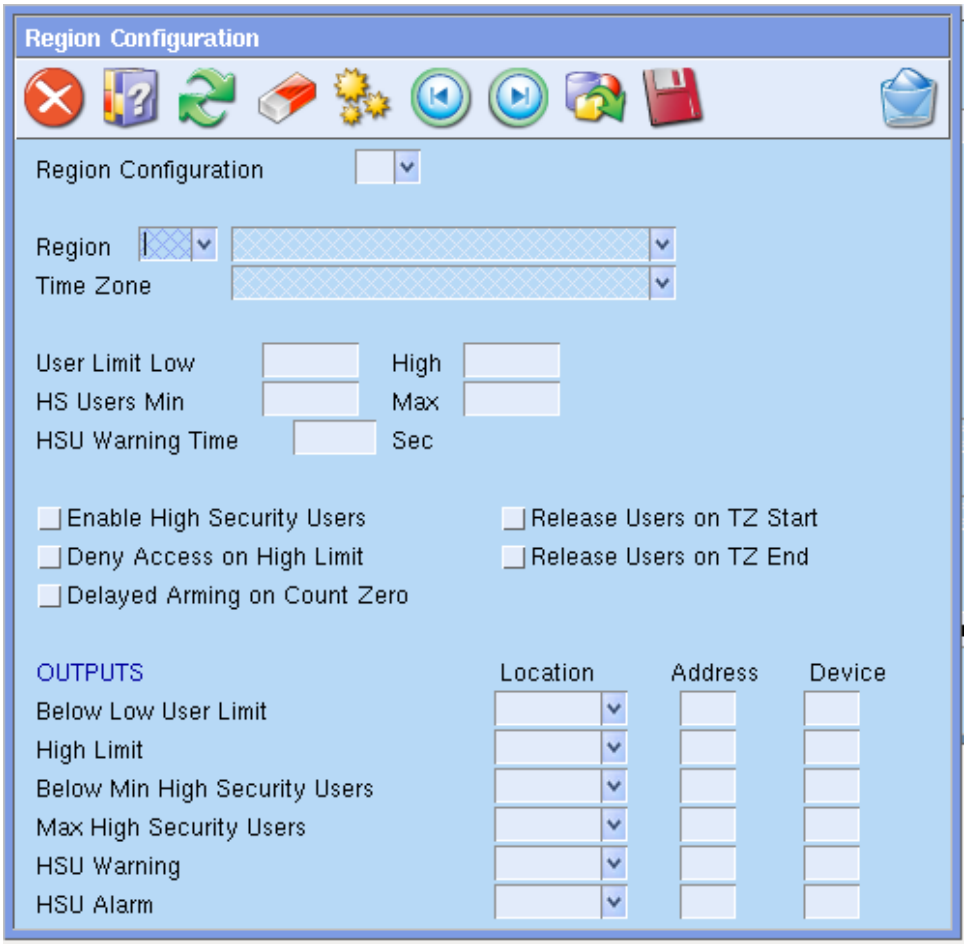
User Allowed in Region for: Forcefield uses this value to track for how long a user has been inside a Region. Enter 0 for no limit. Valid range for this is 15 – 65535 minutes. This value is not downloaded to the Panel. If a user stays in a

particular region for over the configured ‘Allowed’ time, an alarm is generated. Moving to a new region restarts the time limit.

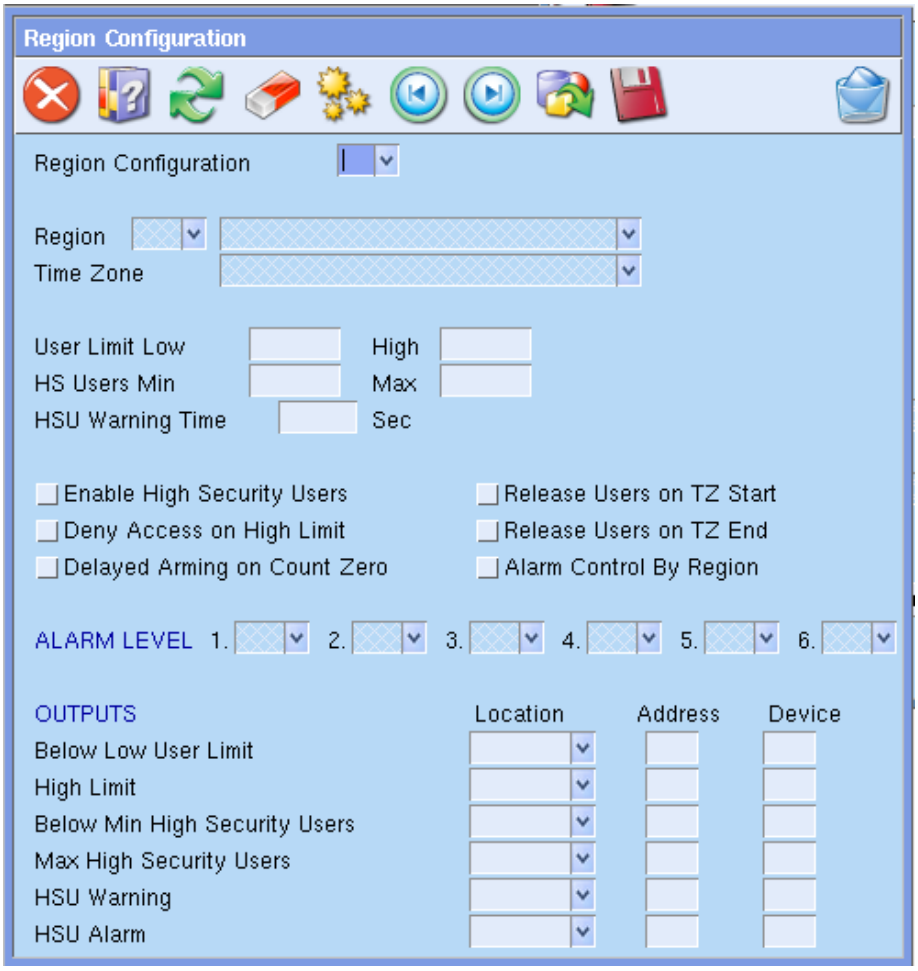
Region Configuration

The Region Configuration function allows the operator to program additional properties for a region on a NAC panel. Region Configuration is not applicable to Challenger Panels. Up-to 16 Region configuration records can be created on a NAC panel, ranging 1-16.

DIRECT Mode NAC Region Configuration Programming window



Extended Mode NAC Region Configuration Programming window



Descriptions of window specific elements are as follows:

Region Configuration number. Enter the Region Configuration record number. NAC allows region configuration records to be programmed between 1 –16.

Region. Select an existing Panel's region number that has to be linked to this region configuration record or F3 to create a new region record. Region 0 is considered offsite and cannot be used here.

Time zone. Select an existing Time Zone record linked to this NAC panel or F3 to create a new time zone record.

User Limit Low. When there are less than this many users in the region, the Below Low User Limit output will be activated.

User Limit High. When there are this many or more users in the Region, the high limit output will be activated. A value of zero indicates no upper limit.

Minimum High Security Users. When there are less than this many High Security Users in the region, the Below Minimum High Security Users output will be activated.

Maximum High Security Users. When there are this many or more High Security Users in the region, the Maximum High Security Users output will be

activated. A value of zero indicates no upper limit.

High Security Users Warning Time. When the number of high security users is below the minimum HSU limit, the warning timer starts. It runs until expired or until the time when the number of HSU Users increases to the minimum threshold.

Enable High Security Users. Set to enable High Security Users counting.

Release Users on TZ Start. Set to release users from the region at start of the selected time zone.

Release Users on TZ End. Set to release users from the region at end of the selected time zone.

Deny Access on High Limit. Set to deny user access when the user high limit is reached.

Delayed Arming on Count Zero. Set to Delay arming when number of users in the region is zero.

Alarm Control by Region. Set to enable alarm control by region. This option is not available for Direct mode NAC's Region Configuration.

Alarm Level. There may be up to six alarm control levels assigned to the region. Click F4 to select an existing alarm control level or F3 to create one. This option is not available for Direct mode NAC's Region Configuration.

OUTPUTS.

Select the relay location from the following options.

- None - The Relay is not used.
- Onboard – The Relay is connected directly to the NAC's Onboard terminals (or a relay on an attached relay controller). Enter the relay's number in the Device field.
- DGP – The relay is connected to a DGP that is connected to one of NAC's buses. Enter the address of DGP in address field. Enter the relay's number in device field. The DGP must be assigned to the NAC and polled on the bus.
- RAS – The relay is connected to a RAS that is connected to one of NAC's buses. Enter the address of RAS in address field. Enter the relay's number in device field. The RAS must be assigned to the NAC and polled on the bus

Below Low User Limit Output. Activates when the number of users in the region is below the minimum value. Does not operate when the low user count is zero.

High User Limit Output. Activates when the number of users in the region is at or above the maximum value.

Below minimum High Security Users Limit. Activates when the number of High Security Users in the region is below the minimum value.

Maximum High Security Users limit. Activates when the number of High Security Users in the region is at or above the maximum value.

High Security Users Warning output. Activates when the HSU warning timer is running.

High Security Users Alarm output. Activates when the HSU warning timer has expired and the number of High Security Users in the region remains below the minimum threshold.

Battery Test

Battery test function records the details of automatic battery test procedure and enables battery test to be started at the programmed frequency. The Battery test function allows the operator to program regular battery tests to check the health of the battery. Battery tests are scheduled for the NAC panel which in turn runs battery tests on the NAC and all its corresponding Assigned DGPs with a valid battery connected. The start of the battery test for each of the devices to be tested is staggered, so that all devices don't switch to battery test at once.

NAC Battery testing programming window

Descriptions of window specific elements are as follows:

Frequency. Select the frequency that the battery test will be executed.

- Disabled
- Test every working day
- Test every Monday
- Test on 1st Monday of every month

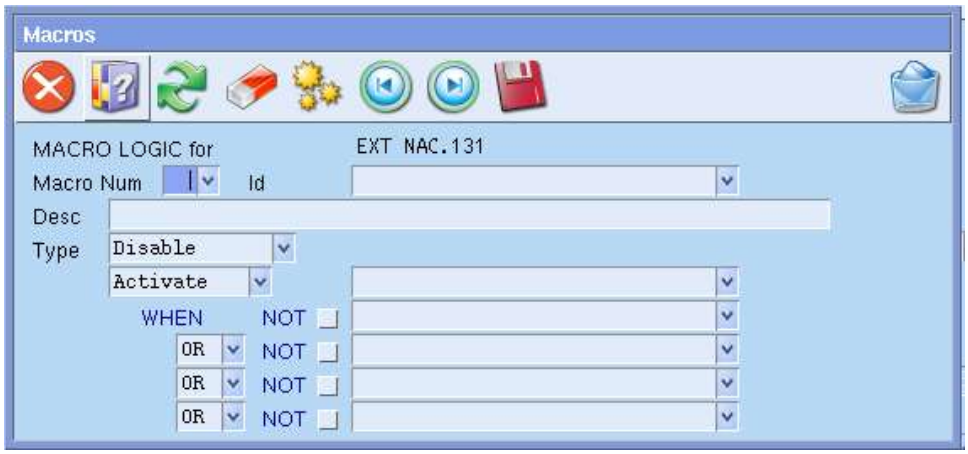
Start time. Choose the starting time for the battery test.The format for this field is: hh:mm.

Run time (mins). Enter the number of minutes that the test is to run.A value of 0 means that the test is disabled. It is recommended that the test be run for at least two minutes.

Macro Logic

The Macro Logic programming window is used to program Intelligent Controller events to be generated under specific logic conditions. Only events relating to the controller that you are programming can be used. About half the events available can be input or output events in the macro logic, while the rest can only be input events.

NAC Macros programming window



Descriptions of window specific elements are as follows:

Macro Num. Records the number of the macro logic program (48 programs are available).

Id. Macro identification information for Forcefield.

Desc. Macro description and associated information.

Type. Selects the function of the event flag or input when activated.

- Disabled—Macro logic program disabled.
- Non Timed—Follows the result of the logic equation only.
- On Pulse—Activates for the programmed time or the active period of the logic result, whichever is the shortest.
- On Timed—Activates for the programmed time regardless of the logic result.
- On Delay—Activates after the programmed time period unless logic result is no longer active.
- Off Delay—Follows the result of the logic equation, but remains active for the time programmed after the logic result is no longer active.
- Latched—Activates on any of the first three inputs in the logic equation and is reset by the fourth input (AND / OR function not used).

Time. Records a time period which is used when any of the timed functions are

selected. A value of 2 or greater should be used. When programming 1 to 4 minute periods, program in seconds (i.e. 60, 120, 180 or 240 seconds).

Activate or Deactivate. Select whether to activate or deactivate the selected output event.

Output field (not labelled). Select the event flag to be activated.

Logic Equation fields: The logic connecting the four inputs can be programmed for AND or OR functions. A NAND or NOR function can be achieved by inverting the logic of the particular input. Set the NOT box to invert the logic of the input.

When all conditions of the logic equation are met, the result is active and the output event programmed in the previous step will be activated (depending on any timing function programmed).

Note: Any unused inputs must be left as OR functions.

Scheduled Actions

The Scheduled Actions function allows an operator to program up to 100 door schedules on Network Access Controller doors, allowing for very flexible door locking and unlocking schedules.

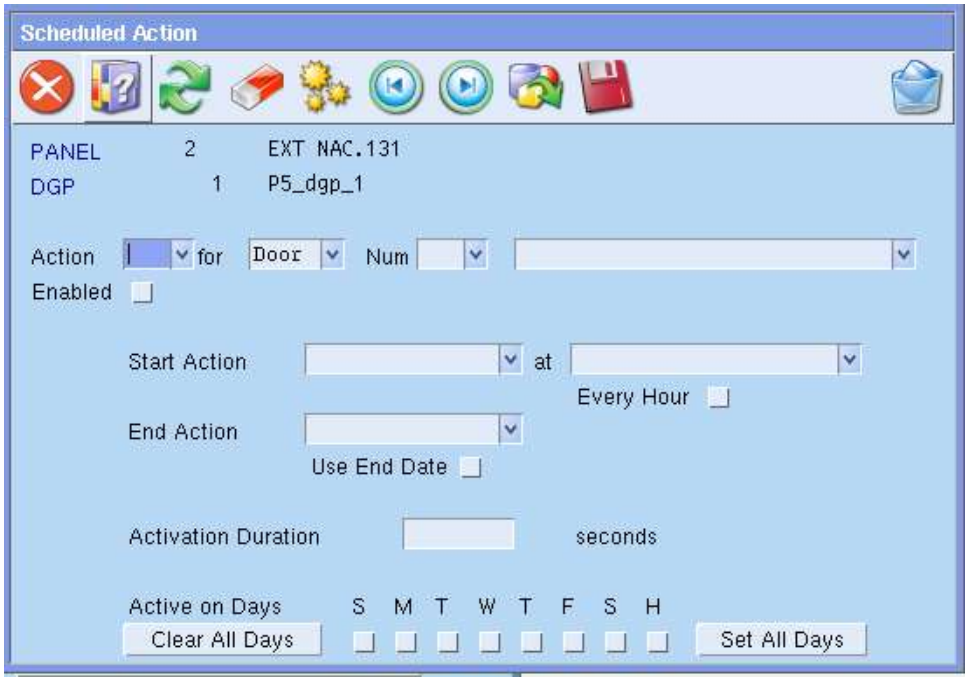
Door schedules have an active period (set via a start date and an optional end date). If no end date is set, then the active period extends indefinitely. You can also specify if the door schedule is active on particular days of the week (and holidays) during the active period.

Door schedules must be configured with a start time when the start action (e.g. door unlock) is executed.

Start actions can be either timed or immediate. Timed start actions have an active duration that can be configured from 1 second to 366 days, after which the end action (e.g. door lock) will be executed. If no action duration is configured, then the start action is immediate. Generally, immediate actions will not have an end action.

Note: Door schedules only apply to doors on a Network Access Controller.

Scheduled Actions programming window



Descriptions of window specific elements are as follows:

Action number. Enter a scheduled action number 1 to 100.

Door. Select Door from drop-down as the action is for a NAC door.

Door Number. Select the Door by its number.

Door ID. Door ID is populated by Forcefield depending on Door number selection.

Enabled. Set the flag to make the scheduled action active.

Start Action. Select the Start Action from the following options:

- No action – take no action
- Unlock – unlock the door
- Lock – lock the door
- Disable – disable the door
- Enable – enable the door

Start time. Enter the start time for the Start action.

Every Hour. Tick the check box if the Start action is to repeat every hour.

End action. Select the end action from the options. The options are the same as for the Start action field. See the Start action section above.

Use End Date. Tick this option to set this schedule to repeat on specified days until the end date.

End date. Enter the date that the schedule will run until. This option is only available if the Use End Date checkbox is selected.

Activation duration.The activation duration is the period of time that the Start

action should remain in effect. When the action duration expires, the End action will be triggered.

Active on days.Tick the days of the week (and/or holidays) that the door schedule will run during the active period (between the Date and End date).

Holiday. Tick the checkbox if the door schedule will be active on holidays during the active period.

Clear All Days. Click the button to clear all days of week that were selected including holiday selection.

Set All Days. Click the button to select all days of week including holidays.

Input Mapping

If the NAC is attached to a ChallengerPlus panel, then the NAC can present up to 32 inputs for the ChallengerPlus to respond to and up to 16 relays for the ChallengerPlus to activate, without complex use of macros or other programming.

These inputs and relays must be configured in the NAC via input and output mappings. The ChallengerPlus must also be programmed with additional inputs (via the Inputs form) and relays (via the Relays form), with their numbering depending on the NAC's address (set via its DIP switches) and which ChallengerPlus system LAN the NAC is attached to.

Each input on a panel can reflect the sealed or unsealed state of an input on the NAC (either onboard inputs or attached to an Assigned RAS or DGP on one of its buses), or can reflect the state of a NAC Door (e.g., a Forced Door Condition).

Input Mapping programming window

Descriptions of window specific elements are as follows:

Input. Enter a number in the range 1 to 32. The mapped input number is an index into the ChallengerPlus input numbering scheme. Thus, for the NAC with address 1 on the ChallengerPlus panel's LAN1, mapped input numbers 1 to 32 correspond to ChallengerPlus input numbers 17 to 48. Forcefield will calculate the Panel input number and will warn if that input is not setup in ChallengerPlus panel. The panel input number depends on which DGP address the NAC is polled on ChallengerPlus and whether it is on LAN1 or LAN2.

Alarm Panel Input. Forcefield will calculate the corresponding Alarm Panel input number and auto-populate this field with that input number and ID (if it exists on ChallengerPlus panel) or will warn if that input is not setup in ChallengerPlus panel. The panel input number depends on which DGP address the NAC is polled on ChallengerPlus and whether it is on LAN1 or LAN2. An operator can launch Input programming form from this field by double-click or function key F3.

Input type. Specify the input type for the input mapping. The input types are:

- Not used (reports sealed) – the input always reports as sealed. This type of input cannot be assigned to a door.
- Forced – the input is a logical input associated with a door and is unsealed when the door has a Forced Door alarm (from the door's Door input 1 being unsealed) or there is a tamper condition. Specify the door in the Door field.
- Egress – the input is a logical input associated with a door and is unsealed when the door is in egress condition (i.e. the door's Egress input is unsealed) or there is a tamper condition. Specify the door in the Door field.
- DOTL – the input is a logical input associated with a door and is unsealed when the door has a Door Open Too Long (DOTL) alarm (from the door's Door input 1 being unsealed). Specify the door in the Door field.
- Shunted Pass through – the input is a physical input which is passed through to the ChallengerPlus panel if the associated door is not shunting. Specify the door in the Door field. The input location must be specified in the Input field.
- Direct Pass through – the input is a physical input which is passed directly through to the ChallengerPlus panel. This type of input cannot be assigned to a door. The input location must be specified in the Input field.

Door. If the Input type field is one of Forced, Egress, DOTL, or Shunted pass through, then you must specify a door to be associated with the input mapping. Enter the door number or click function key F4 to select a door from the list to associate the door with the input mapping.

Input Device. If the Input type field is one of Shunted pass through or Direct pass through, then an input device must be specified in the Input field. This input device can be located on any of the following locations.

- None - The Input is not used.

- Onboard – The Input is connected directly to the NAC's Onboard terminals. Enter the Input's number in the Device field.
- DGP – The Input is connected to a DGP that is connected to one of NAC's buses. Enter the address of DGP in address field. Enter the Input number in device field. The DGP must be assigned to the NAC and polled on the bus.
- RAS – The Input is connected to a RAS that is connected to one of NAC's buses. Enter the address of RAS in address field. Enter the Input number in device field. The RAS must be assigned to the NAC and polled on the bus

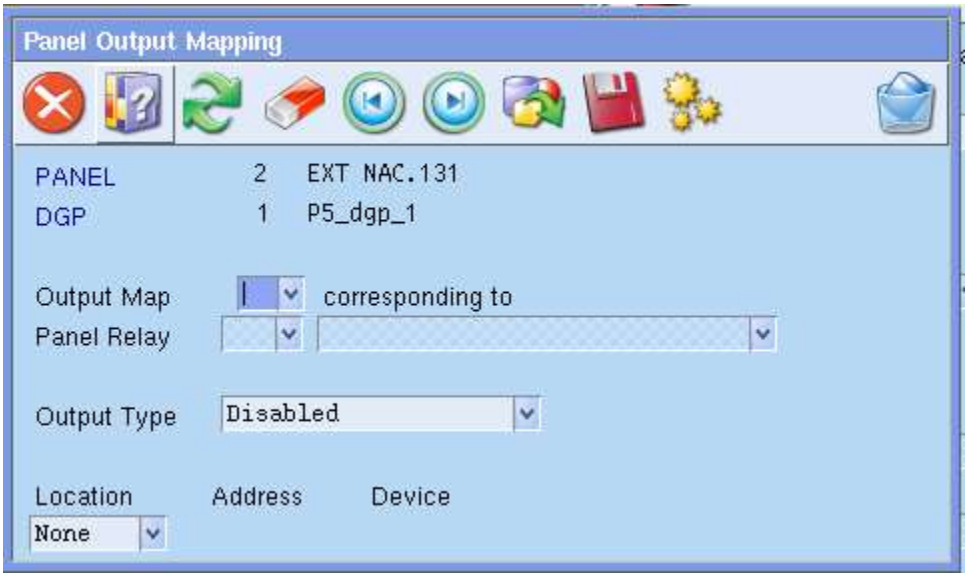
Output Mapping

Each output (relay) presented to the ChallengerPlus is a direct map of an output (relay) attached to the NAC (either directly onboard, or attached to a DGP or RAS on one of its buses).

An Output (relay) mapping must be set up in the NAC to map the relay to a relay number in the range 1 to 16. Activating the ChallengerPlus relay number will activate the specified relay attached to the NAC.

Relays that are not mapped to a device may be used as an input to a macro. Output Mapping only applies to Network Access Controller panels in Extended Mode.

Output Mapping programming window



Descriptions of window specific elements are as follows:

Output Map. Enter a number in the range 1 to 16. The mapped relay number is an index into the ChallengerPlus relay numbering scheme. Thus, for the NAC with address 1 on the ChallengerPlus panel's LAN1, mapped relay numbers 1 to 16 correspond to ChallengerPlus relay numbers 17 to 32. Use the Relays form to program ChallengerPlus relays. Activating the ChallengerPlus relay will activate the specified relay device attached to the NAC.

Panel Relay. The mapped relay number is an index into the ChallengerPlus relay numbering scheme. Thus, for the NAC with address 1 on the ChallengerPlus panel's LAN1, mapped relay numbers 1 to 16 correspond to ChallengerPlus relay numbers 17 to 32. Forcefield auto-populates the corresponding Panel Relay number (if that relay exists on ChallengerPlus panel) or will warn if that relay is not setup in ChallengerPlus panel. The Panel Relay number depends on which DGP address the NAC is polled on ChallengerPlus and whether it is on LAN1 or LAN2. An operator can launch Relay programming form from this field by double-click or function key F3.

Output type. Specify the output type for the output mapping. The output types are:

- Disabled – The output is disabled.
- Direct map – The output is directly mapped from the ChallengerPlus to the output specified in the output field below.

Output Location. The output location must be specified in the Output field. This output device can be located on any of the following locations.

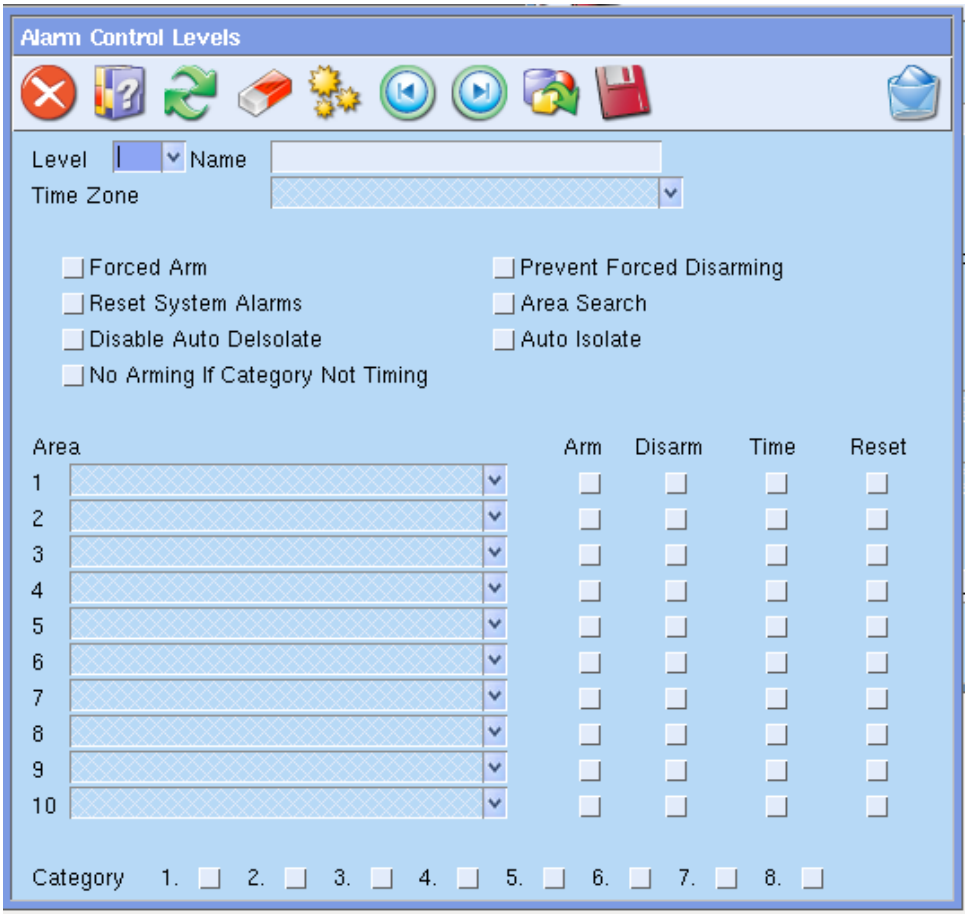
- None - The relay is not used.
- Onboard – The relay is connected directly to the NAC's Onboard terminals. Enter the relay number in the Device field.
- DGP – The relay is connected to a DGP that is connected to one of NAC's buses. Enter the address of DGP in address field. Enter the relay number in device field. The DGP must be assigned to the NAC and polled on the bus.
- RAS – The relay is connected to a RAS that is connected to one of NAC's buses. Enter the address of RAS in address field. Enter the relay number in device field. The RAS must be assigned to the NAC and polled on the bus

Alarm Levels

The Alarm Levels function can be used to configure alarm control levels for a NAC. Up to six alarm levels can be assigned to either IN /OUT sides of the NAC door. This can be done from the Alarm control function in NAC Door Programming.

Note: Alarm control does not apply to the NAC in IP Direct mode.

Alarm Levels programming window



Descriptions of window specific elements are as follows:

Level number. Up to 100 alarm control levels can be defined. Enter a number between 1 – 100 for configuring the alarm level.

Level Name. Enter a name for the alarm level.

Time Zone. Specify a time zone to apply to this alarm control level. The alarm control level is only available if the time zone is valid.

Force arm. When a user with the appropriate alarm group arms an area, the check for unsealed inputs is ignored. If there are unsealed inputs when the arming procedure is started, the system still arms (the unsealed inputs might cause an alarm).

Prevent forced disarming. This setting controls the treatment of unsealed inputs during the disarming procedure and may be used if there are access alarm input types such as type 1 or type 11 in the system. If enabled, the area cannot be disarmed if there are unsealed inputs.

Reset system alarms. A user with the appropriate alarm group can reset latching system alarms at the door. The user's alarm group and the door's alarm control level must allow arming, disarming, and resetting. The System alarms latch option (on the System options form in ChallengerPlus programming) must also be enabled on the ChallengerPlus panel.

Area search. When enabled, a user with the appropriate alarm group must perform an area search as part of the disarming process during the time zone specified in the ChallengerPlus panel's Area search time zone system option (on the System options form in ChallengerPlus programming).

Disable auto deisolate. Select this option to prevent certain users (for example, cleaners) from being able to automatically deisolate inputs in the area they disarm. If enabled, a user the appropriate alarm group can disarm areas with isolated inputs remaining isolated even if the system is programmed, via the ChallengerPlus panel's Auto de-isolate when area accessed system option (on the System options form in ChallengerPlus programming), to automatically deisolate (sealed) isolated inputs.

Auto isolate. When a user with the appropriate alarm group arms an area, all unsealed inputs will be automatically isolated. The system is armed without causing an alarm.

No arming if category not timing. This option prevents the area from being automatically rearmed without a user category. For example, a guard might have a user category that automatically re-arms an area when the user category timer expires. But if someone else disarmed the area (the user category timer isn't running), then the guard's user category will not automatically re-arm the area. If enabled, automatic re-arming is prevented when an area is occupied by non-user category staff.

User category 1 to 8. User categories assigned to an alarm control level provide timing functionality via a corresponding user category time. Refer to the Challenger Series Programming Manual or ChallengerPlus Programming Manual for more information on user categories. If multiple user categories are assigned to an alarm control level, then the lowest user category number applies. System functionality can depend on the alarm group assigned to a user, and the alarm control levels assigned to a door. In these cases, the lowest common user category number applies.

For example, if a user has an alarm group containing user categories 3 and 4, and a door has an alarm control level containing user categories 1, 2, 3, and 4, then only user category 3 would apply to that user at that door.

When ticked, the user category activates when a user with the appropriate alarm group enters their PIN or badges their card.

Areas. An alarm control level can only control the functions of areas that are assigned to it. An alarm control level can be linked to multiple areas. For each area, the alarm control level can control the area's permissions for arming, disarming, alarm reset, and for timing.

Arm/Disarm/Time/Reset permissions. The following permissions for each area can be changed:

- Arm – A user with the appropriate alarm group can arm the area.
- Disarm – A user with the appropriate alarm group can disarm the area.
- Time – A user with the appropriate alarm group can reset alarms for the

area.

- Reset – Depending on the application, a user with the appropriate alarm group can disarm the area for the user category time (in which case disarming must be permitted), or automatically arm another area via vault programming (in which case arming must be permitted).

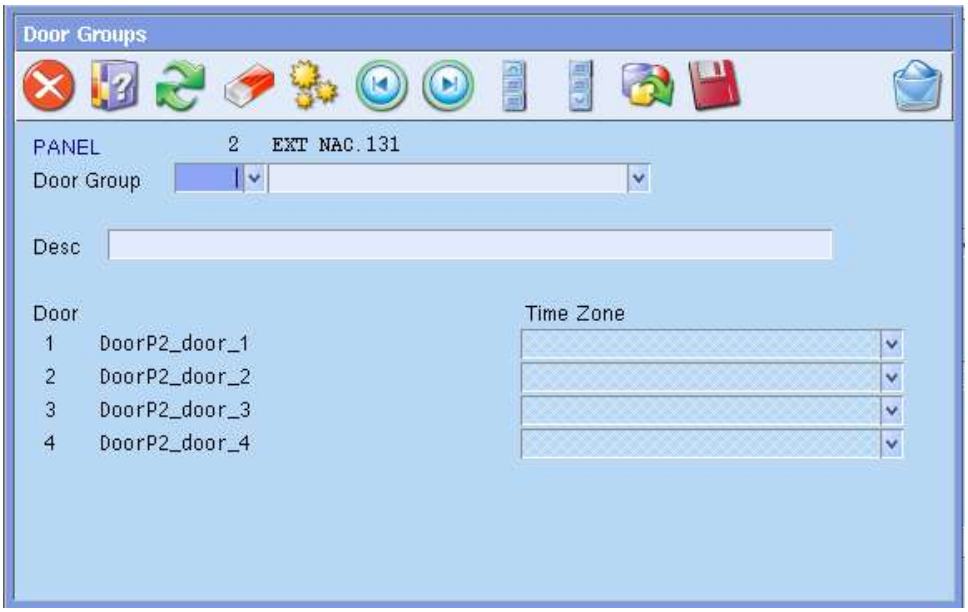
Area permissions for arming, disarming, timing, and for alarm reset can be modified on a per area basis.

Door Groups

Door Groups are used to allocate access levels to users. They define which doors the users are able to get access to and at what times they are able to use each door. To create a new door group on NAC panel, enter a new Door Group ID and Forcefield will automatically allocate the next available number.

On NAC panels, Forcefield allows creating up to 999 door groups. If you are editing an existing door group, you can select by either Door group ID or Door group number.

Door Groups programming window



Descriptions of window specific elements are as follows:

Door Group number. Enter the door group number. On NAC panels, this can be between 1 – 999.

Door Group ID. This ID represents the unique door group ID in Forcefield.

Description. Optionally, enter a Description for this Door group.

Doors. Doors are auto-populated by Forcefield that exist on the panel on which

you want to create a door group.

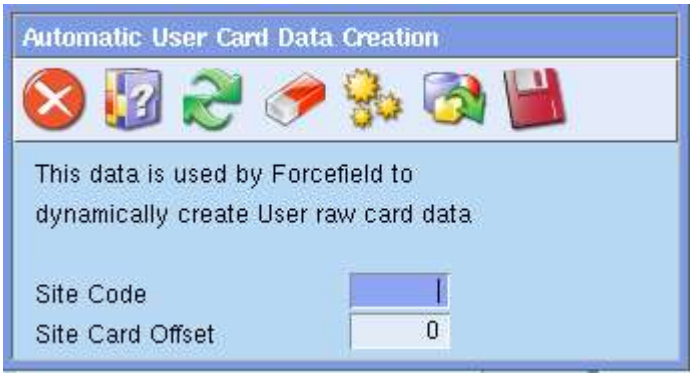
Time Zone. Select the time zone for the corresponding field. To create a new time zone, press F3 or double-click which then opens Time Zone programming form. To select from available Time Zone list for this panel, press function key F4.

Note: Even though the door is listed here, it is not part of the group until a time zone is assigned to it.

Automatic User Card Data Creation

When Forcefield downloads user data to a panel and no card data has been associated with the User (see User Setup), Forcefield will automatically generate card data corresponding to both the card category set on the panel record main form and the data supplied here. This happens only if the panel card category is one of the known card formats. A similar method is used in User downloads to Challenger Panels where Site Code A and Offset A (in System options form under Challenger Programming) values are used.

Automatic User Card Data Creation programming window



Descriptions of window specific elements are as follows:

Site Code. This is the value of Site Code used to generate the card data. If this is not set, no auto creation of user card data will be performed.

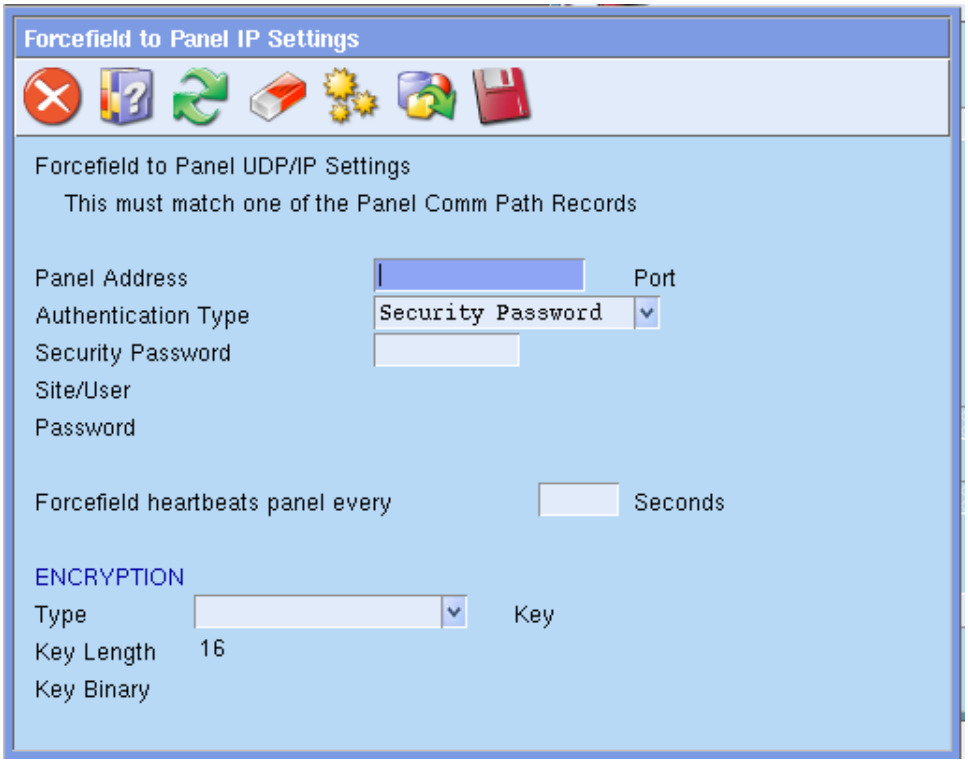
Site Card Offset. This is the value of User offset. This offset is added to the user number. For example, if this value is 100 and Forcefield is downloading User 50, the card data will be generated as if the user number was 150.

Forcefield to Panel IP Settings

The settings configured here allow Forcefield to communicate with the Panel (Challenger or Network Access Controller Panels). In the panel, one of the communication paths must be set to communicate with this invocation of

Forcefield. The settings set here must match those in the Panel Comms Path.

Forcefield to Panel IP Settings window



Descriptions of window specific elements are as follows:

Panel Address. Enter the IP address of the Panel.

Authentication Type. ChallengerPlus and NAC panels support path authentication with a name and pass or just by password. This allows connections via the path to be logged against user names and allows for more complex passwords. Select what type of authentication to use for this path.

Security Password. This must match the Security Password set in the Panel's Comms Path.

Site/User. Enter a name for path authentication

Password. Enter a password for path authentication

Forcefield hearbeats panel every. Enter the time interval (in seconds) at which Forcefield will heartbeat the Panel.

Encryption Type. Encryption should be set to None or Two Fish 128 bit. It must match the corresponding comms path encryption in the panel.

Glossary

abnormal status	A security device or point that is not in its normal operating state, for example, area access, and input isolated.
Access	The condition of an area or building when it is occupied and when the security system has been set so that normal activity does not trigger an alarm.
Acknowledged Alarm	See Alarm Types
Active status	The status of a card which is currently in use by a user within the security system.
Alarm	The state when an armed input device is activated, for example, an input is unsealed.
Alarm bar	The top line of the main menu window which flashes when an alarm is reported, displays the alarm icon, and alarm priorities.
Alarm Group	A Challenger feature which defines a group of Areas, functions and menu options. An Alarm Group can be assigned to certain users and input types for area control.
Alarm Response Codes	Pre-programmed common responses to alarms. When responding to alarms these codes can be quickly entered using their ID number.
Alarm window	A Forcefield window which displays Alarms reported by the security system. From this window an Alarm is dealt with until the situation causing the alarm is removed.
Alarm types	There are two types of Alarms; unacknowledged or acknowledged. In the alarm window an alarm which has had no action taken is an unacknowledged alarm. Once a acknowledgement has been made it becomes an acknowledged alarm and is moved to the follow-up alarm window.
Area	A physical space being controlled and monitored by Challenger. An Area includes everything which is physically located within its boundaries, including users, security devices, doors, floors etc. Forcefield can handle up to 5120 Challenger panels.
Armed	The state of a device/area when a change in its condition (from sealed to unsealed) will cause an alarm.
Arming Station	Also called “RAS”. Any device connected to the Challenger LAN that is capable of controlling the security system functions such as arm/disarm, open doors, etc.
Backup	The copying of system databases to removable storage devices for safekeeping.
Badge (a card)	The act of presenting a card to a specifically designed reader to gain access to an Area.

Card	A token carried by the user. Usually in the form of a plastic card, but it can also be a key, a proximity card, a magnetic swipe card or key tag. Used to grant access where applicable. A card uniquely identifies a user.
Card Number	Identification number of a card.
Card Only	A user with this card status can only badge a card to gain access and cannot use a PIN code.
Challenger	The Challenger control panel is the basis of the alarm and access control equipment installed at the sites. The Challenger is the main panel that controls remote arming stations, data gathering panels, and relays etc.
CIFS	Common Internet File System
Client	See Forcefield client
Cluster	A Cluster is a grouping of the same type of items (inputs, areas, doors, relays, RASs, DGPs or buildings) that enables many operator functions to be performed more quickly and conveniently. Clusters can be utilised to simplify the simultaneous control of a large number of devices.
Computer Access	An operator of the Forcefield computer system can have access to all or some of the features of Forcefield. The restriction of access to these features is referred to as Computer Access.
CSV	Comma Separated Value data format, typically used to export data to an external spread sheet or database application. Such applications may require the CSV data to be either raw or formatted: CSV raw data is exported ‘as is’, with dates not in human-readable format. CSV formatted data is exported with dates converted to human-readable format.
Database	Forcefield databases contain all the information Forcefield and Challenger need in order to maintain control and access functions. Information about users and operators, system equipment, Times and locations are all stored in databases.
De-isolate	A device that has been isolated from the system can be de-isolated, therefore making it part of the security system again.
Device	PIRs, alarms, readers, cameras etc.
DGP	Data Gathering Panels. Devices connected to the Challenger which collect data from other security devices. DGPs expand the number of inputs/relays in a Challenger system and can be installed remote from the Challenger panel.
Disable	To prevent a programmed function being carried out.
Disarm	Changing the status of an Area from armed to disarmed to allow the area to be occupied.
Door Group	A grouping of doors for a common access level, identification and ease of programming. This is a Challenger feature.
DOTL	Door open too long.

Dual Custody	When the Challenger system option dual custody is enabled, two users must enter their codes before access is granted to user programming. When an Intelligent Access Controller is used, dual custody also refers to whether two user cards or PINs are required to gain access to a door or lift. Two users must present their card or PIN to open a door (for example, when a user is identified as a visitor and must be accompanied). In Forcefield, this functionality refers to a card type of Dual.
Download	The transferring of data from Forcefield to Challenger panels.
Duress (keyboard)	A situation where a user is being forced to breach the security system, for example, forced at gunpoint to open a door. The duress facility is reported. This is activated by entering a pre-programmed duress digit in conjunction with a PIN.
Duress system	The Ascom Nira Duress system is comprised of a duress station (connected to Forcefield), duress system locators (static locations within a facility), and a duress transceiver (worn by a personnel such as a guard). If the guard's duress transceiver generates an alarm, the system informs the operator of the guard's location and direction of travel. In addition, the system may be used to page (produce beeps or a siren) when an event occurs.
DVR	Digital Video Recorder or Digital Video Multiplexer Recorder
Dynamic Graphic Display	Any node in the system can display a map of a site with graphical representations of the physical contents of the site or area. These maps display the current status and location of doors, detection and control points and permit actioning and controlling points.
Enable	When programming functions, the Enable action will allow that function to be performed until programmed otherwise.
Event	Each action that occurs in the Forcefield system is recorded as History and each individual occurrence is called an Event.
Event Printer	A printer with this setting will print events in real time. Reports can also be sent to this printer, but only if the printer is set up as a report printer. If so, events will stop being printed to allow for the report. Event printing will resume when the report has finished.
Event window	Displays everything that happens in the security system (subject to the operator's permissions). Each event is dated, timed, and IDs are included where applicable, as is other relevant information.
Expired Status	The status of a card which is outside the dates set for its active use. An expired card will be denied access.
Floor Group	A grouping of floors for identification and ease of programming. This is a Challenger Feature.
Follow-up Alarm	See Alarm Types

Forcefield	Forcefield is multi-operator, multi-tasking, network-enabled software for controlling Challenger panels and high-level interfaces such as CCTV switchers, intercom systems, and more.
Forcefield client	Windows computer that provides operator access to the Forcefield server, connected via LAN/WAN or dial-up.
Forcefield server	QNX computer running Forcefield.
Guard Tour	A Guard Tour is a defined series of checkpoints at which a security guard must check in, within specified time intervals. Failure to check in on time triggers an alarm or other event.
History	The system collects and stores Events as History. Every action performed by an operator and every event received from, or sent to, the field equipment is considered to be an Event.
ID	Identity. Same as Id.
Inactive status	A card which is no longer being used.
Incident	A series of events (starting with an alarm event) belonging to a member. Incidents may be created automatically or manually.
Input	An electrical signal sent from a security device to the Challenger system. These include PIR Detector, Door/Window contact, Smoke detector, Egress button, Key switch, etc.
IP Challenger	A Challenger panel fitted with an IP interface module such as a TS0898 Ethernet Interface or a TS0099 Enhanced Challenger TCP/IP Interface.
Isolate	A device which is Isolated is inhibited from indicating its status to the system and is effectively excluded from functioning as part of the system. Inputs, RASs and DGPs are devices which can be isolated.
IUM	Intelligent User Memory—expanded memory in Challenger equipment
Jump zone	The jump zone is a defined area on a map that, when selected, jumps to another map. The jump zone can be used to zoom from a general map to a more detailed map, or to provide a junction point to display the next section of a large map.
LAN	Local Area Network. The hardware connection linking nodes together for the purpose of sharing data.
LAP	Live Animation Point on a map indicates the position and status of a device under control of Forcefield.
Login	Enter a login name and password at the login window to gain access to the Forcefield system.
Logoff	Allows an operator to exit the Forcefield system but not shut it down. Allows another operator to login to a work station.
Long Access	Allows for a door to be opened for a longer period of time without an alarm being generated. Can be used for physically challenged users.
Lost status	The status of an access card which has been lost. This status will generate an alarm if the card is used.
MAC	Media Access Control

Mag card	Magnetic stripe card
Member	Members are used to define which operators, operator terminals and printers have access to different Items and events in the system. Members are then combined to form member groups.
Member Group	A member group contains a list of members. An operator, terminal or printer is assigned to a member group to restrict their access to items and events relevant to their location and/or level of authority. member groups are also utilized to generate reports.
Node	A computer that is running Forcefield.
NFS	Network File System
NIC	Network Interface Card
NTP	Network Time Protocol
Operator	A person who has a login name and password for access to Forcefield.
PIN	Personal Identification Number used to identify the user to the field equipment system and grant access where applicable. The PIN can be a 4 to 10 digit number.
Point	A device under control of Forcefield including doors, RASs, cameras, nodes, printers, etc.
PPP	Point-to-Point Protocol
Priority	Priorities are set for managing the system events. The preferred order in which the system will display events and the importance of the event will determine its priority.
Privileged	This card function disables the anti-passback features on a card. This is usually applicable to users who are senior in an organisation’s structure. It also over-rides the disabled reader status.
Profile	See User Profile
Prox card	Proximity card (Tecom 27-bit or Wiegand 26-bit). May be used for Forcefield operator login.
PTZ camera	Pan-Tilt-Zoom camera
QNX	The Forcefield server’s operating system.
RAS	Remote Arming Station. See Arming Station.
Region	Regions can consist of doors, readers and remote arming stations. Separate from Challenger-defined areas, a region requires a user to badge their card to both enter and exit a site.
Relay	An output device connected to a Challenger system that is used to control a physical device. For example: sirens, strobes, piezo screamers, door locks, indicator lamps, cameras, etc. Challenger Relays can also be used to interface with lighting, heating, and air-conditioning systems for integrated building management.
Remote Control	Control of a security device using Forcefield rather then using a Remote Arming Station.
Report Printer	A printer with this setting will be able to print reports.

SMB	Open source software providing file and print services across various operating systems.
Sealed	An input device that is NOT activated, for example, door closed.
Sector	The use of Forcefield sectors enable multiple inputs to be associated via the sector number in the inputs' computer category. This lets the inputs generate a sector alarm (also known as perimeter alarm) and for multiple inputs to increase or decrease the alarm priority of the sector alarm, depending on the inputs' alarm and restoral states. Sectors are also used linking of Forcefield events to external events such as a Teleste alarm codes.
Secure	The condition of an area or building when it is armed and unoccupied. The security is turned on.
Secured mode	Use of a special 4-byte password for smart card readers to ensure that a reader cannot be reprogrammed by a configuration card from a different system.
Server	See Forcefield server
Shunt time	The timed inhibiting of an input from being activated when it is in an unsealed condition. for example, a shunt stops a door generating an alarm when opened for a short time.
Shut down	Shut down turns off the Forcefield system safely without losing any information. Not the same as logging off.
Tamper	A situation where a device or associated wiring is tampered with or accidentally damaged. The tamper facility activates an alarm.
Timezone	Refers to Forcefield or Challenger concepts of 'hard' time zones (triggered by defined times and dates) and 'soft' time zones (triggered by events). In Forcefield, time zones are used to give time frames of operation for operators to access the system. In Challenger panel, time zones are used to give time frames of operation to functions and users. There is also a location time zone, used to give Forcefield and Challenger their physical time zone location in relation to GMT. This allows all events to be logged chronologically, irrespective of the time zone of the individual Challenger or Forcefield node.
TPVS	Third-party video service
Trace	A card, with this option set, presented at a reader will attach the word trace to that user in the event log. This allows for that user's movements to be traced, and can be programmed to generate an alarm.
TSV	Tab Separated Value
ULCS	User link control system
Unacknowledged Alarm	See Alarm Types
Unlock Door	When a door is in the locked state the Unlock Door command will unlock it.
Unsecured mode	A smart card reader only sees blank (un-programmed) cards with a unique serial number and user-defined cards (the 4-byte security password is not used).

Unsealed	The state of an input device when it is activated. For example: a PIR has detected movement.
Upload	The transferring of data from Challenger panels to Forcefield.
User	A user is a person that holds a Card and/or a Personal Identification Number (PIN) that controls the security system functions (access, secure, etc.) and door functions in a Challenger system. Not to be confused with an operator, who uses Forcefield operator terminals.
User Link	User mapping between Forcefield and a third-party user link control system (for example, a lift system).
User Number	The unique identification number of a user.
User Profile	A collection of user information such as member, date range, position, department, card type, trace, long access, card only, privileged options, and Challenger access.
Valid date	A set of dates between which a user can legally access the security system using a card.
Visitor Status	A visitor can only unlock a door when escorted by a user with Guard authority.
Void status	A user who is programmed in the system but has had their authority denied of any access.
WAN	Wide area network
Watch house mode	A special mode of operation designed for watch houses. All Forcefield nodes to be used in watch house mode must be fitted with monitor, keyboard, and mouse. A Forcefield node is designated as a night switch workstation and other Forcefield nodes are designated as watch house pods. Any Forcefield node not designated as either a pod or a night switch workstation operates in standard mode. Watch house mode enables the night switch workstation to automatically take control of a pod’s members when the pod’s operator logs off. Conversely, when an operator logs onto a pod, the members are automatically transferred back to the pod.
Workstation	A computer providing access to the Forcefield user interface.

Index

C

D

E

F

G

H

I

J

L

M

N

O

P

Q

R

S

T

U

V

W