IMPORTANT NOTE: The version of Insight software available for download from the Website may be newer than the version on your installation CD. Prior to installation, check to ensure that you are installing the latest version. http://www.innerrange.com Follow the links to the Support area (login required)

This Insight User Manual is provided as a pdf file on the product CD and from the Inner Range website. See Tip on page 10. Comprehensive on-line help is provided in the Insight software. See page 4 for more details.
INNER RANGE recommends that all CONCEPT systems be installed & maintained by FACTORY CERTIFIED TECHNICIANS.

For a list of Accredited Dealers in your area refer to the Inner Range Website. http://www.innerrange.com

Insight
User Manual: Revision 5
P/No: 630053

For Insight software version 5

Supporting Concept 4000 Panel firmware up to V7.6x

November, 2009

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Inner Range Pty. Ltd.

Disclaimer:

1. The manufacturer and/or its agents take no responsibility for any damage, financial loss or injury caused to any equipment, property or persons resulting from the correct or incorrect use of the Inner Range system and its peripherals. The purchaser assumes all responsibility in the use of the Inner Range system and its peripherals.

2. Whilst every effort has been made to ensure the accuracy of this manual, Inner Range Pty Ltd assumes no responsibility or liability for any errors or omissions. Due to ongoing development the contents of this manual are subject to change without notice.
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INSIGHT HELP

Insight includes a comprehensive Help file, which provides up-to-date descriptions and instructions for the majority of User operations.

It is recommended that Insight Help be utilized as your first source of information when using Insight.

Where available, the Help button on the toolbar can be used to quickly access context sensitive help for the item that you are editing.

Protect Your Insight Professional Software Investment with an Inner Range Software Maintenance Agreement

For a modest annual fee you will receive:

- Unlimited telephone and e-mail Customer Support by our Insight Help Desk.
- Free software upgrade releases of Insight Professional for the software modules for which you are licensed.

*Get the most from your Insight Professional Security Management Software!*

Complete and return the Application form contained in your Insight Professional pack or download the form from: http://www.innerrange.com/downloads/MaintenanceAgreement.pdf

Did you know that Inner Range Provides customer training courses?

Details of our Insight Professional System Administration courses are listed on our Training Website at http://training.innerrange.com/index.cfm

Enrol on-line or contact Inner Range on (03) 9753 3488 or via email to: admin@innerrange.com
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Introducing Insight

Insight consists of fourteen **modules**. Each module is a separate program that helps you manage an aspect of your Inner Range installation. The fourteen modules are (in the order you will probably use them):

<table>
<thead>
<tr>
<th>Icon</th>
<th>Module</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1.png" alt="Icon" /></td>
<td>Launch Pad</td>
<td>Launch Pad is a central springboard that lets you quickly navigate to the other Insight modules.</td>
</tr>
<tr>
<td><img src="image2.png" alt="Icon" /></td>
<td>Insight Edit</td>
<td>Insight Edit lets you inspect and modify the programming of your Inner Range system, including virtual panels.</td>
</tr>
<tr>
<td><img src="image3.png" alt="Icon" /></td>
<td>Insight Review</td>
<td>Insight Review lets you examine live and archived panel review, generate simple reports and manage alarms.</td>
</tr>
<tr>
<td><img src="image4.png" alt="Icon" /></td>
<td>Insight Schematic</td>
<td>Insight Schematic allows operators to monitor the status of an installation via graphical floor plans and site maps.</td>
</tr>
<tr>
<td><img src="image5.png" alt="Icon" /></td>
<td>Advanced Reports</td>
<td>Advanced Reports lets you create complicated reports including muster reports. Requires separate licence.</td>
</tr>
<tr>
<td><img src="image6.png" alt="Icon" /></td>
<td>Card Pool</td>
<td>Card Pool lets you manage direct entry and site code card pools. Requires separate licence.</td>
</tr>
<tr>
<td><img src="image7.png" alt="Icon" /></td>
<td>Tag-Board</td>
<td>Tag-Board can help you monitor your site. It can tell you who is in a particular area, or which area a particular person is in.</td>
</tr>
</tbody>
</table>
Insight Operators lets you manage access rights and privileges of personnel who can logon to the Insight front-end.

Insight Photo ID lets you design and print personnel ID badges. Requires separate licence.

Design and maintain screens and programming for your colour touchscreen terminals.

Licence Manager activates paid features (not required for Insight Installer).

Insight Archiver provides a one-click backup solution for your Insight security database.

Enrol Panel is used to initiate panel communications to the Concept 4000 Hardware. Ensure the communication options within the panel have been set prior to running this module.

Paid Feature
Licence Manager, Insight Operators, Touch Designer, Enrol Panel and Insight Schematic are part of Insight Professional. All other modules are separately licensed.

Warning
Insight is compatible with version 5 panel firmware. You can enrol version 4 panels, but they must be upgraded to version 5 after enrolment before they can be managed in Insight. For upgrade procedure see page Error! Bookmark not defined.
Product Highlights

Connectivity
- Insight is a true multi-panel, multi-workstation system.
- Insight uses Octane™ compression for fast upload/download, even over slow links.
- Supports direct serial, Ethernet and internal modem connections. Future releases will add support for external modems.
- Supports multiple paths with automatic switching to redundant paths on link failure.
- An Insight INSTALLER connection to a Panel can now be established while a permanent Insight Pro or Insight Express connection is already in place. This allows remote Installer access when necessary without interfering with the on-site Insight operations. Operators are alerted to changes made by the other Insight instance so that appropriate actions can be taken to synchronize the databases. i.e. Mark the changed records for upload. Note that the Panel must be V7.4 or later and have 128k or 512k memory to support the two active Insight Comms Tasks, and both Insight instances must be V5 or later.

Editing
- Changes to module programming take effect immediately, without a LAN secure.
- The LAN status of modules, zones and auxiliaries is displayed.
- Selectively show or hide items based on:
  - Name
  - LAN status (secured, missing, unexpected, not installed)
  - Programming status (blank, programmed, queued for upload/download)
- You can have multiple forms open at the same time.
- Single-click hyper-linking between forms (“[Help], [9] / [Help], [0]” functionality).
- On-line data comparison between the front-end database and any panel.
- Automatic detection of edits made at any Elite Terminal.
- Insight V5 supports Concept 4000 Control Module (Panel) firmware up to V7.4.
- User editing provides the following features:
  - Users can be exported. This allows an operator to make preset templates easily and observe how the import file format should appear. (V4 or later)
  - Multiple Users can be selected for blanking records or exporting. (V4 or later)
- When managing Inputs assigned to an Area, the operator can actively filter the input list by “Currently equipped”, “System Input” or “Zone Input”, to simplify the Input selection process.

Virtuality
- Virtual users and virtual panels lets you share common users easily between multiple panels.
- Multiple Virtual Users can be selected for edit operations such as delete. (V4 or later)

Reports
- Comprehensive reporting including muster reporting, time on site, activity reports and system programming reports.
- Fully flexible report designer enables creation of custom report layouts and content.

Management
- Perform full or partial uploads and downloads.
- Upload individual records.
- Full support for offline editing.

Control
- Remotely control areas, area lists, auxiliaries, auxiliary lists, doors, door lists, floors, floor lists, home auxiliaries and zone inputs.
DVR Integration
- Control DVRs and cameras including live digital video feeds and remote camera control.

Online Help
- Comprehensive context sensitive help. Press F1 for help on any screen!
- Helpful tips are shown when each module starts. These can be turned off if required.

Alarm Forwarding Service
- An optional “IP – XMIT” Alarm Forwarding Service module is available. (V4 or later)
- Functions as one path for panel XMIT alarm events to be sent to a central monitoring station's Automation system.
- Contact-ID and IR-Fast formats are supported.
- Intended only for situations where Insight is installed in the monitoring station and connected via an RS232 serial link to a co-located monitoring station Automation System.
- The IP-XMIT module requires a separate, special license, available for purchase on consultation only.

Registering Insight Professional
Insight Professional must be registered within 30 days of installation. See page 117 for more information.

Tip
A searchable colour version of this manual is available in electronic form. Click Start→All Programs→Insight→Insight User Guide (requires free Adobe® Reader software: http://www.adobe.com).

Insight Professional (Demo Edition)
Insight Professional is available in a demonstration edition. This version is identical to Insight Professional, with five exceptions:

- Operator passwords are bypassed.
- Only the first five items of each type are visible (doors, areas, users, maps etc.)
- You are logged off every two hours.
- A different USB security key is used.
- Licence Manager is not available.
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Launch Pad

Launch Pad is the “command centre” of Insight. It’s a module that lets you quickly navigate to all other modules. When you close Launch Pad, it moves to the system tray for easy access (next to your clock in the Windows task bar).

Launch pad also lets you specify key Insight settings such as when Operators need to log on.

- The **launch buttons** let you launch other modules with one button click.
- The **tip window** provides information about each module. Point your mouse over a launch button for a description of that module.
- The **wallpaper** improves the aesthetics of Launch Pad. You can select from a library of default wallpapers, or choose your own.

**Starting Launch Pad**

You can start launch pad in two different ways:

1. Click the **start** button and choose Programs → Inner Range → Insight → Insight Launch Pad
2. When you start your computer, Launch Pad appears automatically in the system tray (next to your computer clock). Click the icon.

**Tip**

If Launch Pad is running, you can access it from the system tray. Click the Insight icon to open it. (On Windows XP, you may need to click the **button to display all icons.)
Launching a Module

You can start a module in one of four ways. Choose the one that is most convenient for you.

1. Click the module icon with the mouse.
2. Right-click the launch pad icon in the system tray, and in the pop-up menu that appears click the name of the module you want to launch.
3. In any module, click the Launch menu, and then click the module you want.
4. Hold down the control key, and then click the number key that corresponds to that module. (See the Launch menu for the number assignment of each module.)

You may need to log in to the module with an operator name and password.

Tip
You can run multiple different modules simultaneously - you don’t have to quit a module before starting another module. If a module is already open, then attempting to launch another copy switches to the open module instead.

Logging In

You have to log on as an operator before you can use any module. When you start a module, you are prompted to enter your operator name and password.

1. Enter admin as the operator name.
2. Enter admin as the password.
3. Click Log On.

Tip
Insight ships with two default operators: admin and installer. You can edit these operators and create new operators with the Operators module (professional version only).

Changing Launch Pad Preferences

You can customise aspects of Launch Pad.

1. On the Edit menu, click Preferences.
2. Make your changes.
3. Click Save or Apply.

The settings are:

- **Play Sounds**: clear this check box if you do not want to hear a beep as the mouse moves over a launch button.
- **Wallpaper**: change the appearance of Launch Pad. Choose from a library of built-in wallpapers, or choose your own. You can also fade the wallpaper to make it less obtrusive.

Tip
Settings are saved per operator. If you log on to launch pad, your previously saved settings are restored. When launch pad starts, no operator is logged in. You can still change preferences, which will be restored the next time launch pad is started.
Changing Client Settings

You can change Insight settings for your workstation. These settings apply universally to all modules on the workstation.

1. On the Tools menu, click Insight Client Settings
2. Make your changes.
3. Click Save or Apply.

The settings are:

- **Server**
  - Server Address (not available in Installer): specifies which computer is running the Insight Database Server. If Insight is installed on a single computer, or if this computer is the server in a multi-computer installation, then select “This Computer”. If this computer is not the server in a multi-computer installation, click “another computer” and enter the name or IP address of the server computer.

- **Logging**
  - Specifies diagnostic logging options. Do not modify these settings unless instructed by an Inner Range technician.

- **Client**
  - Client Options: tick this option if you want Launch Pad to appear whenever an Insight module is closed.
  - Password Caching: specifies when Operators must enter their password. If caching is enabled, then Operators do not need to enter their name and password until they quit a module, at which point the cache is cleared. If caching is disabled, then Operators must enter their password every time a module is started.

Tip
Press F1 at any time to get content sensitive help.
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The Insight Toolbar

The Insight Toolbar is the management centre of Insight. The toolbar is where you create and manage sites, enrol panels, control field devices and perform panel programming and maintenance. The Insight Toolbar is available in all modules.

Use the Insight Toolbar to:

- Enrol panels
- Connect and disconnect panels
- Create master sites and sub-sites
- Copy or move panels between sites
- Import, export and duplicate panels
- Perform selective upload and download
- Remotely control hardware and modules

- The **Site Tree** displays all the sites and panels being managed by Insight.
- The **gripper** lets you undock (float) the toolbar, move it around, or dock (anchor) it.
- Use the **tabs** to select different modes of the Insight Toolbar (page 34).
Working With Sites

When using Insight, you organise your panels into collections called **sites**. A site is a “container” for adding panels, virtual panels and DVRs. When you create a site, you specify a name and some contact details.

**Tip**
Sites don’t have to correspond to actual, physical sites. You may wish to have a new site per customer, or you may want to group your panels by geographic area, or you may choose to store all of your panels in one site.

**Tip**
When Insight is installed, it creates a single site called “Default Site”. If you want, you can delete this site or rename it to something else.

**Previous Software**
In PCDirect and WinDirect, sites are called clients. Sites are more powerful, because:
- One site can hold more than one panel.
- Sites can be contained within other sites, forming a ‘hierarchy’.

**Master Sites and Sub-Sites**
If a site is contained within another site, it is called a **sub-site**. Sites that are not contained by other sites are called **master sites**.

**Paid Feature**
You cannot create sub-sites in Insight Installer.

**To Create A New Master Site**

1. Right click the blank white area below the bottom of the Sites Tree, and choose “New Master Site…” in the menu that appears. (Tip: you may have to scroll to the bottom of the Site Tree to find the blank area.)
2. Enter a unique name for the site.
3. Click OK.

**To Create A New Sub-Site** (licensed versions)

1. Right click an existing site and choose “New Sub-Site…” in the menu that appears.
2. Enter a unique name for the site.
3. Click OK.

**Operator Permissions**
To create a new master site, you must have the **create** permission for sites. To create a new sub-site, you must have the **create** permission for sites and the **change** permission on the parent site.
To Edit Or Rename An Existing Site

1. Right click the site and choose “Properties…” in the menu that appears.
2. Edit the details of the site.
3. Click OK.

Operator Permissions
To edit or rename a site, you must have the change permission on that site.

To Move A Sub-Site (paid versions)

1. Click the site you want to move, and keep the mouse button down.
2. Drag the site into its new location.
3. Release the mouse button

Panels are moved with the site.

Operator Permissions
To move a sub-site, you must have delete permission on the site being moved and change permission on both the old and new parent sites.
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Working With Panels

You cannot work with a panel until it has been created in Insight. There are three methods of creating panels:

1. **Enrolling:** this is the normal method. The panel is physically connected, and is fully uploaded into Insight.
2. **Importing:** with this method, the operator specifies a template file that is loaded into Insight. The panel is connected later on for full or partial download from the template.
3. **Copying:** the programming of an existing panel can be duplicated, creating a new panel. The programming of the new panel can then be fully or partially downloaded later on.

Tip
Insight ships with a number of “empty panel” templates, including Standard, Enlarged, Access, Access 2, Alarms, Apartments, Extra Door and Special. You can use these templates as a basis for panel programming without enrolling an empty panel.

Note
Panel connections are always made through Insight Server. For direct serial connections, the panel must be connected to the server computer. For dial-up connections, the PC modem must be connected to the server computer.

Paid Feature
By default, you can only manage one panel with Insight Professional. If you want to manage multiple panels with Insight Professional, you must purchase a multi-panel licence.

Enrolling Panels

Enrolling a panel makes the panel available in Insight, and also uploads (reads) all of the existing programming and users from the panel. To upload a panel:

- The panel must be powered on.
- Insight must be able to communicate with the panel (via direct serial, dial-up or TCP/IP).
- A comms task must be configured in the appropriate format. For PCDirect, consult your programming manual. For Insight, see page 186.

To enrol a panel:

1. In the Insight Toolbar, decide which site will contain the panel. If necessary, create a new master site or sub-site.
2. Right click on the site that will contain the panel, and choose “Enrol Panel...” in the menu that appears.
3. The Enrol Panel window appears. Enter the correct information for the panel being enrolled (see following pages).
4. Click the **Enrol Now** button. A new window appears, showing enrolment progress.

Note
Some of the settings on the enrolment screen *must match* the equivalent settings in Insight, or enrolment will fail. For your convenience, these fields are marked with a small Control Module icon (**) in Insight. Double-check that these settings match the settings in the panel.
Note
You can only enrol panels from the Insight Server computer. You cannot enrol panels from an Insight Client computer.

Operator Permissions
To enrol a panel, you must have the create permission for panels and the change permission on the containing site. The permissions for the new panel are copied from the defaults tab of each Operator Type.

Previous Software
Uploading a panel in WinDirect and PCDirect was a very time consuming task. Insight uses Octane™ compression to upload the panel many times faster. Depending on panel contents and transfer conditions, Insight can upload up to 600% faster than PCDirect / WinDirect.

If you are enrolling a version 5 or later panel:

- **Name:** Enter a name for the panel.
- **Panel ID:** Enter the 8 digit panel identification number. This number must match the panel ID specified in the Insight comms task.
- **Serial Number:** Enter the panel serial number (press [Menu], [2] on any terminal). You must enter the number exactly as it appears, including leading zeros.
- **IP Door Controller:** Tick this box if you are enrolling an IP Door Controller.
- **Add To Site:** Shows the site that will contain the newly enrolled panel.
- **Encryption Key:** Enter the encryption key for this panel (exactly 32 digits). This number must match the Insight A & Insight B fields specified in the Insight comms task. Leaving this field blank is equivalent to selecting all zeros.
- **Connection:** Specify the connection method you will use to enrol the panel.
  - Ethernet→Panel Ethernet UART: select this option if you wish to use your computer's TCP/IP network and/or the Internet, and the panel is fitted with a TCP/IP Ethernet UART board.
  - Serial Port→Panel UART: select this option if you are using a direct serial connection between Insight Server and the panel.
  - PC Modem→Panel External Modem: choose this option if you wish to use a modem on the Insight Server computer to dial an external modem on the panel.
  - PC Modem→Panel Internal Modem: choose this option if you wish to use a modem on the Insight Server computer to dial the internal modem on the panel.
- **Settings:** Specify any additional connection parameters here. Settings such as baud rate and IP address must match those of the panel.
- **Panel Server:** Do not change this setting from ‘LOCAL’.
- **Protocol:** Set this to Insight. Make sure comms task 1 is configured as Insight (page 186).
Installer PIN: This field is disabled when you select the Insight protocol.

If you are enrolling a version 4 panel:

Name: Enter a name for the panel.
Panel ID: Enter a unique, non-zero number in this field. The first two digits should be 00. Later on, when the panel is upgraded to version 5, you must configure the Insight comms task with this value.
Serial Number: Enter the panel serial number (press [Menu], [2] on any terminal). You must enter the number exactly as it appears, including leading zeros.
IP Door Controller: Leave this field un-ticked.
Add To Site: Shows the site that will contain the newly enrolled panel.
Encryption Key: Enter the encryption key for this panel (exactly 32 digits). Later on, when the panel is upgraded to version 5, you must configure the Insight comms task with this value. Leaving this field blank is equivalent to selecting all zeros.
Connection: Specify the connection method you will use to enrol the panel.
  - Ethernet→Panel Ethernet UART: you cannot select this option when enrolling a version 4 panel.
  - Serial Port→Panel UART: select this option if you are using a direct serial connection between Insight Server and the panel, or if you are using a serial to TCP/IP protocol converter.
  - PC Modem→Panel External Modem: choose this option if you wish to use a modem on the Insight Server computer to dial an external modem on the panel.
  - PC Modem→Panel Internal Modem: choose this option if you wish to use a modem on the Insight Server computer to dial an internal modem on the panel.
Settings: Specify any additional connection parameters here. Settings such as baud rate must match those of the panel.
Panel Server: Do not change this setting from ‘LOCAL’.
Protocol: Set this to PCDirect. Make sure there is a PCDirect comms task configured in the panel.
Installer PIN: The PIN number of User 1 in the panel.

Warning
Although you can enrol version 4 panels, you cannot manage them with Insight until they are upgraded to version 5. See page Error! Bookmark not defined.
Troubleshooting
If you receive a message to say that the upload failed, review the following checklists.

If you are using the Insight protocol to enrol the panel:

- If you upgraded the panel from version 4:
  - Was your firmware upgrade successful? (Press [Menu], [2] on any Elite Terminal, and confirm that the version is 5.xx)
  - Did you remember to default the panel?
- The Insight comms task must be Comms Task 1.
- Check the configuration of your Insight comms task matches with the Insight software:
  - Panel ID (which must be unique and non-zero)
  - Connection method and parameters (including baud rate etc.)
- Check you have entered the panel serial number correctly (including leading zeros)
- If you’re enrolling an IP Door Controller, make sure you ticked the IP Door Controller option. If you’re enrolling a regular Control Module, leave the option cleared.
- If you are using Serial Port → Panel UART, make sure you have specified the correct serial port on your PC, and that no other programs are using this port.
- If you are using Serial Port → Panel UART, and you are using a USB serial port, try using a legacy (physical) serial port, if possible.
- Make sure you have given Insight the correct protocol information. In particular, check that:
  - The protocol is set to 'Insight'.
- Make sure the other Insight options are correct (page 186).
- Try stopping and starting the Insight comms task.
- Try restarting your computer.

If you are using the PCDirect protocol to enrol the panel:

- Make sure your panel ID is unique. Even though PCDirect doesn’t use it, Insight still checks this number because it will be used later on.
- Make sure you have given Insight the correct protocol information. In particular, check that:
  - The protocol is set to 'PCDirect'.
  - You have entered the correct installer PIN.
- Check the configuration of your PCDirect comms task matches with the Insight software:
  - Connection method and parameters (including baud rate etc.)
- If you are using Serial Port → Panel UART, make sure you have specified the correct serial port on your PC, and that no other programs are using this port.
- If you are using Serial Port → Panel UART, and you are using a USB serial port, try using a legacy (physical) serial port, if possible.
- Try stopping and starting the PCDirect comms task.
- Try restarting your computer.
Creating Panels From Templates

You can create a panel from a template. Templates can be blank panel configurations from Inner Range, or any panel that you’ve exported previously. Once you’ve created the new panel you can download it into a physical panel at a later date.

To create a panel from a template:

1. In the Insight Toolbar, decide which site will contain the panel. If necessary, create a new master site or sub-site.
2. Right click on the site that will contain the panel, and choose “New Panel From Template…” in the menu that appears.
3. The Create New Panel window appears. Enter the correct information for the panel being created.
4. Click OK.

A progress window appears while the panel is being imported.

Note
The new panel will be created with the name, ID and serial number you specify. After creating the panel, you must manually set up protocol parameters and connection paths. In the Insight Toolbar, right click the new panel and select “Properties…” from the menu that appears, then click the Protocol and Ports tabs.

Tip
Insight ships with a number of “empty panel” templates, including Standard, Enlarged, Access, Access 2, Alarms, Apartments, Extra Door and Special. You can use these templates as a basis for panel programming without enrolling an empty panel.

Operator Permissions
To import a panel, you must have the create permission for panels and the change permission on the containing site. The permissions for the new panel are copied from the defaults tab of each Operator Type.

Field Descriptions:

File Name: Click the ... button and navigate to the template file you wish to import.
IP Door Controller: Tick this option if you will be connecting to an IP Door Controller instead of a regular Control Module.
Panel Name: Enter a name for the new panel.
Panel ID: Enter the panel identification number. This number must match the panel ID specified in the Insight comms task. If you do not know the panel ID (for example, the panel has not yet been delivered), enter any unique number here, and change it later on.
Serial Number: Enter the panel serial number (press [MENU], [2] on any terminal). You must enter the number exactly as it appears, including leading zeros. If you do not know the panel serial number, enter any number here, then change it later on.
Duplicating Panels

You can duplicate a panel that you have already enrolled, and then download the duplicate panel into a physical panel at a later date.

To duplicate a panel:

1. In the Insight Toolbar, decide which site will contain the duplicate panel. If necessary, create a new master site or sub-site.
2. Hold down the Control key on the keyboard.
3. Click on the panel you want to duplicate, but do not release the mouse button.
4. Drag the panel onto the site that will contain the duplicate. A plus sign appears.
5. Release the mouse button. (You can release the Control key as well.)
6. The Copy Panel window appears. Enter the correct information for the panel being created.
7. Click OK.

The new panel is created.

Note

The new panel will be created with the name, ID and serial number you specify. After creating the panel, you must manually set up protocol parameters and connection paths. In the Insight Toolbar, right click the new panel and select “Properties…” from the menu that appears, then click the Protocol and Ports tabs.

Operator Permissions

To duplicate a panel, you must have the create permission for panels, the inspect permission on the panel being copied, and the change permission on the site that will contain the copy.

Field Descriptions:

- **Panel Name**: Enter a name for the duplicate panel.
- **Panel ID**: Enter the panel identification number. This number must match the panel ID specified in the Insight comms task. If you do not know the panel ID (for example, the panel has not yet been delivered), enter any unique number here, and change it later on.
- **Serial Number**: Enter the panel serial number (press [Menu], [2] on any terminal). You must enter the number exactly as it appears, including leading zeros. If you do not know the panel serial number, enter any number here, then change it later on.

Moving Panels

You can move a panel from one site to another site.

To move a panel:

1. In the Insight Toolbar, decide which site you want to move the panel to. If necessary, create a new site.
2. Click on the panel you want to move, but do not release the mouse button.
3. Drag the panel onto the site you want to move it into. A special icon appears.
4. Release the mouse button. The panel is moved.
Panel Connections

For communications to occur between a panel and Insight, it must be connected. Connections occur over a configured connection path. Insight supports a number of different connection paths. The following table is ranked in order of reliability and lowest line cost, best option first.

<table>
<thead>
<tr>
<th>Path</th>
<th>Panel Hardware</th>
<th>Insight Hardware</th>
<th>Suitable For</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethernet</td>
<td>Panel Ethernet UART</td>
<td>TCP/IP</td>
<td>Permanent connections</td>
</tr>
<tr>
<td>Serial</td>
<td>Panel UART</td>
<td>Serial port</td>
<td>Permanent connections</td>
</tr>
<tr>
<td>Serial¹</td>
<td>Panel UART → converter → Ethernet</td>
<td>TCP/IP</td>
<td>Permanent connections</td>
</tr>
<tr>
<td>Dial-up</td>
<td>External modem</td>
<td>Modem</td>
<td>Non-permanent</td>
</tr>
<tr>
<td>Dial-up</td>
<td>Internal modem</td>
<td>Modem</td>
<td>Non-permanent</td>
</tr>
<tr>
<td>GSM</td>
<td>Panel UART → FE3000</td>
<td>TCP/IP</td>
<td>Non-permanent</td>
</tr>
</tbody>
</table>

¹ This option employs a Serial to TCP/IP protocol converter and should only be used if a V4 panel must be connected to Insight via Ethernet. i.e. Part of the link is Ethernet, however the end-to-end protocol is serial.

When a panel is not connected, you can do the following:

- Make offline edits to panel programming with Insight Edit, which will be downloaded to the panel later.
- Manage card pools with Insight Card Pool (requires separate licence).
- View archived review data with Insight Review or Insight Advanced Reports (requires separate licence).
- Generate reports on archived data with Insight Review (professional edition)
- Backup your entire Insight database with Insight Archiver SQL (professional edition) or Insight Archiver (Installer edition)
- Create and manage operators with Insight Operators (professional edition)

When a panel is connected, you can perform the following additional actions:

- Transmit changes to panel programming (including user cards and PINs)
- Control field equipment (such as doors, zone inputs and auxiliaries)
- View live security logs (review) from the panel
- Receive alarms (professional edition)
- Monitor field equipment status with Insight Schematic (professional edition)
- Update panel info in Insight.
- Update LAN status in Insight.
- Set the panel time.

Tip

A summary of panel connections is shown in the status bar at the bottom right of most Insight modules. If no panels are connected, a blinking red square is shown. Yellow means some panels are connected, and green means all panels are connected. Click the red square to stop it flashing.

To configure an Ethernet connection:

1. In the panel, configure CT001 as Insight (page 186). Ensure Ethernet options are configured including Insight IP, Panel IP, Router IP and Subnet Mask. Ensure Ethernet options are set to ACE.
2. In Insight, right click the panel in the Insight Toolbar and choose “Properties…” in the menu that appears.
3. Click Ports.
4. On the Ports tab, tick the TCP/IP option.
5. Click OK.
Note
This information applies to a panel with an Ethernet UART. If you are using a protocol converter, configure a serial connection, then consult the documentation that came with your converter.

To configure a serial connection:

1. In the panel, configure CT001 as Insight (page 186). Ensure serial options are configured including panel UART port and baud rate. Ensure serial options are set to ACE.
2. In Insight, right click the panel in the Insight Toolbar and choose “Properties…” in the menu that appears.
3. Click Ports.
4. On the Ports tab, tick the Direct Serial option.
5. On the Serial tab, set the PC serial port and baud rate. The baud rate must match the baud rate you programmed in step 1.
6. Click OK.

To configure a dial-up connection:

1. In the panel, configure CT001 as Insight (page 186). Ensure serial options are configured including panel UART port and baud rate. Ensure internal modem options are set to ACE.
2. In the panel, configure CT002 as I-modem (page 187).
3. In Insight, right click the panel in the Insight Toolbar and choose “Properties…” in the menu that appears.
4. Click Ports.
5. On the Ports tab, tick the Internal Modem option.
6. On the Internal Modem tab, set the dial-up number.
7. If you are using fax bypass, tick the fax bypass option.
8. Click OK.

Tip
In timed fax bypass mode, Insight calls the panel, hangs up after 2 rings, then re-dials the panel 60 seconds later. You must activate the timed fax bypass mode in the panel – see the callout box on page 187.

Permanent Connections

If your panel is wired for Ethernet or direct serial connections, then you will generally want to leave it permanently connected. Insight can be configured to always keep a connection open on one of these paths – this is known as a permanent panel connection. On the other hand, for dial-up connections, you generally want to choose when the panel is connected manually. This is called a non-permanent connection.

To set up a panel to be permanently connected:

1. In the Insight comms task for the panel, ensure that Ethernet and/or direct serial paths are configured and enabled.
2. In Insight, ensure that Ethernet and/or direct serial paths are configured and enabled (pp. 28-29).
3. Right click the panel in the Insight Toolbar, and choose “Properties…” in the menu that appears.
4. Click Protocol.
5. Select the Connection tab.
6. Select the Permanent Connection radio button.
7. Click OK. Insight will attempt to keep the panel connected via Ethernet or direct serial. (Insight will not attempt to dial the panel if these paths are unavailable.)
To set up a panel so that connections are managed manually by operators:

1. Right click the panel in the Insight Toolbar, and choose “Properties…” in the menu that appears.
2. Click Protocol.
3. Select the Connection tab.
4. Select the Non-Permanent Connection radio button.
5. Click OK.

Panel Initiated Connections

You can configure your panel to automatically connect to Insight Server via dial-up if an alarm occurs. The panel will connect in these circumstances:

1. An XMIT event occurs.
2. There is an IMODEM comms task configured in the panel with outgoing connections enabled (page 187).
3. There is at least one Insight modem configured to receive incoming calls (page 33).

Scheduled Connections (Insight 3.2 or later)

You can configure Insight to automatically connect to a panel on a periodic basis. The panel must be configured for manual connections (see top of page) and a dial-up connection must be configured (page 29). The connection will be maintained until a condition you specify is satisfied, such as all review being received. Scheduled connections are configured independently for each panel.

To schedule automatic connection:

1. In the Insight toolbar, right-click the panel you want to configure and choose “Schedule Connection” in the menu that appears.
2. Tick the Schedule Panel Synchronisation check box.
3. Specify how often to connect, and on which days and at what time to establish the connection.
4. Specify the connection duration. The options are:
   - **Maximum Minutes.** The connection will be maintained for the number of minutes you specify.
   - **Until Synchronised.** Insight only connects to the panel if records are marked for upload/download. Upon connection, Insight maintains communication with the panel until the panel and Insight are synchronised.
   - **Until No Review Received.** The connection will be maintained until all review has been downloaded from the panel.

**Tip**

If you want the connection to be maintained until you manually disconnect, set the Connection Duration to “Maximum Minutes” then enter 0 in the minutes field.

**Note**

If Insight can’t establish a connection with the panel, it will retry periodically for the next twelve hours.
Note
The ‘Until Synchronised’ connection duration should only be chosen if Insight is the sole means panel programming is changed and if there is no requirement to retrieve new review data.

Operator Permissions
To configure connection scheduling, you must have the control permission for the panel.

Understanding Connection Status
The status of the panel is displayed graphically in the Insight Toolbar. Refer to the following table:

<table>
<thead>
<tr>
<th>Icon</th>
<th>Path</th>
<th>Status</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>TCP/IP</td>
<td>Disconnected</td>
<td>The panel is not connected. Programming changes will be queued. Status information and live review is not available. Hardware cannot be controlled.</td>
</tr>
<tr>
<td></td>
<td>Serial</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ext. modem</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Int. modem</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>TCP/IP</td>
<td>Connected</td>
<td>The panel is connected. Live and queued programming changes will be transmitted (provided the panel isn’t locked – see page 42). Review and status information is available. Hardware can be controlled.</td>
</tr>
<tr>
<td></td>
<td>Serial</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ext. modem</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Int. modem</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>TCP/IP</td>
<td>Connection error</td>
<td>The connection could not be established, or has been lost. See ‘troubleshooting’ on page 25.</td>
</tr>
<tr>
<td></td>
<td>Serial</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ext. modem</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Int. modem</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Tip
Connections can take up to twenty seconds to establish. While Insight is negotiating the connection, the panel icon changes to 🔄.

Note
When a panel becomes connected, the following operations are performed automatically: refresh LAN status (page 38), check for terminal edits (page 43), check memory configuration (page 62), download review (page 87).

Tip
You can get more information about the current connection status of a panel. Right click the panel and choose “properties” in the menu that appears, then click the “status” icon.

Tip
To get a quick overview of the status of all panels in an installation, click the status tab of the Insight Toolbar. It lists all panels in a flat hierarchy, with all sub-sites removed from the tree.
Manual Connections

You can manually connect a panel in Insight. Use this option to connect to a dial-up panel, or if you have configured a panel to be non-permanently connected.

To connect a panel:

1. Right-click the panel in the Insight Toolbar, and choose “Auto Connect” in the menu that appears.

Insight establishes a connection with the panel. The connection icon turns green with a tick upon success, or red with a cross if the connection could not be established.

Note
The connection will remain active, even if you close all Insight modules. The connection will only be broken if you choose to disconnect, or if the Insight Server is stopped.

Tip
If the panel is configured with multiple connection types (for example, direct serial and dial-up), Insight tries the ‘best’ path first. Insight always tries to connect in this order: TCP/IP, direct serial, dial-up to external panel modem, dial-up to internal panel modem, GSM. Only configured paths are tried – see page 34.

Tip
If you don’t want to use “auto connect” you can manually specify a connection method. After right-clicking the panel, choose “connect” in the menu that appears, then specify the connection method to try. You can only select paths that have been configured for that panel.

Operator Permissions
To connect to a panel, you must have the control permission for the panel.

To disconnect a panel:

1. Right-click the panel in the Insight Toolbar, and choose “Disconnect”.

Note
If you disconnect a panel and it is configured for permanent connection, Insight will immediately attempt to reconnect with the panel. You should configure the panel with a non-permanent connection first. See page 30.

Operator Permissions
To disconnect a panel, you must have the control permission for the panel.
Modem Blocking

If you have multiple modems, you can choose which modems can be used by Insight.

To prevent Insight from using a modem:

1. On the Insight Server computer, right click the Insight Server tool in the system tray, and choose “Settings→Modems…” in the menu that appears. (On Windows XP, you may need to click the button to display all icons.)
2. Select the modem you want to block.
3. Click the Disable button. Insight will not make or receive calls using that modem.

To allow Insight to use a modem for outgoing calls only:

1. On the Insight Server computer, right click the Insight Server tool in the system tray, and choose “Settings→Modems…” in the menu that appears.
2. Select the modem you want to make available for outgoing calls.
3. Click the Enable button. Insight will use the modem for outgoing calls. Insight will not receive calls using the modem.

To allow Insight to use a modem for receiving incoming calls only:

1. On the Insight Server computer, right click the Insight Server tool in the system tray, and choose “Settings→Modems…” in the menu that appears.
2. Select the modem you want to make available for incoming calls.
3. Click the Listen button. Insight will receive incoming calls using the modem. Insight will not use the modem for outgoing calls.

Note
You cannot configure a single modem for both incoming and outgoing calls. If you want to make and receive calls, you will need two different modems.

Panel Properties

You can find out further information about your panel by opening the panel properties window. From here you can rename the panel, change Insight protocol settings, configure communications ports, set the panel date and time, perform directory maintenance and inspect other panel properties such as firmware version and PCB revision.

To open panel properties:

1. Right-click the panel in the Insight Toolbar, and choose “Properties…” in the window that appears.
To change protocol settings:

1. Open panel properties and click the “Protocol” icon.
2. Fields marked with a Control Module icon must match the corresponding settings in the Insight comms task.
3. Click OK.

Tip
You can configure Insight to connect panels automatically under certain conditions. Open panel properties, click the “Protocol” icon then click the Connection tab.

To change port settings:

1. Open panel properties and click the “Ports” icon.
2. Fields marked with a Control Module icon must match the corresponding settings in the Insight comms task.
3. Click OK.

Tip
You can configure multiple paths (such as direct serial and dial-up) so that if one path fails, additional paths can be tried.

To set the panel date and time:

1. Open panel properties and click the “Maintenance” icon.
2. Click the Date/Time button. (Panel must be online to enable this button)
3. To synchronise the panel time with the time on the workstation you are using, click the “PC Time” button. To set the date and time manually, highlight each digit and click the up and down buttons.
4. Click OK.

Note
The panel must be connected before you can set the date or time. If the panel is not connected, the button is disabled.

Warning
Changing the panel date and time causes all time zones, diaries and holidays to be re-evaluated, which in turn could alter the state of auxiliaries, calculated auxiliaries and other system entities.

To automatically synchronise the panel date and time with Insight Server:

1. Open panel properties and click the “Maintenance” icon.
2. Click the Schedule button.
3. Tick the “Schedule Panel Time Synchronisation” box.
4. Specify how often you wish to synchronise the panel with Insight Server.
5. Click OK.

Note
When synchronising, the panel date and time is changed to match the date and time of Insight Server.

Note
For synchronisation to occur, Insight server must be running.
Remote Control Field Hardware

You can control your Inner Range security system remotely using Insight. You can control areas, area lists, auxiliaries, auxiliary lists, doors, door lists, floors, floor lists, home auxiliaries and inputs.

To control items remotely:

1. Click the Control tab of the Insight Toolbar.
2. Click the item type you want to control.
3. A window appears containing the items of that type, and after a moment the current state is displayed.
4. Highlight the item(s) you want to control.
5. Click the appropriate control button to control the item.

Tip
You can select multiple items by holding down the SHIFT or CONTROL keys whilst clicking.

Tip
If an item changes state, the change will be reflected in the control window within five seconds.

Tip
The Insight Toolbar doesn't have a Control tab in Insight Schematic. To control items in Schematic, right click the item directly on the map and choose from the menu that appears.

Tip
You can control DVRs and cameras using Insight. See page 153.

Operator Permissions
To control an item you must have the control permission for that item.
Insight Edit

Insight Edit lets you inspect and modify the programming of your Inner Range security system. This includes initial configuration of all security parameters during site commissioning, inspection and modification of programming as time progresses and ongoing site management functions such as allocating user cards and PINs.

Use Insight Edit to:

- Inspect panel programming
- Program panels and modules
- Manage user cards and PINs
- Import extended user programming
- Program virtual panels and virtual users

The Insight Toolbar lets you manage your sites and panels (page 18).
- The browse pane displays items you can program (page 37).

Note
The following sections deal with panel programming. You can only program panels that have been enrolled into Insight. To learn how to enrol panels, see ‘enrolling panels’ on page 22.
Using the Browser

The most important part of Insight Edit is the browser pane. Once you have mastered the use of this pane you can quickly and easily make programming changes to your panels.

Navigation

The browser pane is driven from the Insight Toolbar. To program a particular item:

1. In the Insight Toolbar, click the browse tab.
2. Expand the tree for the panel you wish to program.
3. Click on the programming item you want.

Tip

You can change the layout of the Insight Toolbar by selecting “Preferences…” on the Edit menu, then clicking the Interface tab. Installers who are used to the terminal menus will probably want to use the “installer” layout.

Tip

By default, the browser pane is set to large icon view (pictured). You can select different views with the Browse Toolbar. In particular, ‘detail’ view allows you to sort the information by clicking on the column headings.
### Understanding Item Status

Various graphics and symbols are used in the browser to reflect the status of each programming item.

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Applies To</th>
<th>Meaning</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Programmed" /></td>
<td>All items</td>
<td>Programmed</td>
<td>Items that are ‘solid’ have been programmed.</td>
</tr>
<tr>
<td><img src="image" alt="Blank" /></td>
<td>All items</td>
<td>Blank</td>
<td>Items that are translucent are blank / have not been programmed.</td>
</tr>
<tr>
<td><img src="image" alt="Upload" /></td>
<td>All items</td>
<td>Upload</td>
<td>This item has been marked for upload. The next time the panel is connected, the item will be read from the panel.</td>
</tr>
<tr>
<td><img src="image" alt="Download" /></td>
<td>All items</td>
<td>Download</td>
<td>This item has been queued for download. The next time the panel is connected, the item will be written to the panel.</td>
</tr>
<tr>
<td><img src="image" alt="Secured" /></td>
<td>Hardware items</td>
<td>Secured</td>
<td>The module is present on the LAN and secured.</td>
</tr>
<tr>
<td><img src="image" alt="Unexpected" /></td>
<td>Hardware items</td>
<td>Unexpected</td>
<td>The module is present on the LAN, but not secured.</td>
</tr>
<tr>
<td><img src="image" alt="Missing" /></td>
<td>Hardware items</td>
<td>Missing</td>
<td>The module should be on the LAN but isn’t.</td>
</tr>
<tr>
<td><img src="image" alt="Uninstalled" /></td>
<td>Hardware items</td>
<td>Uninstalled</td>
<td>The module isn’t on the LAN.</td>
</tr>
<tr>
<td><img src="image" alt="Shadow" /></td>
<td>All items</td>
<td>Shadow</td>
<td>This record has been created because the panel memory configuration has changed, and there are more items of this type than before.</td>
</tr>
<tr>
<td><img src="image" alt="Surplus" /></td>
<td>All items</td>
<td>Surplus</td>
<td>The panel memory configuration has changed, and this record no longer fits into the new configuration.</td>
</tr>
</tbody>
</table>

**Tip**

The status of hardware modules (secured, missing etc.) is updated each time you connect with a panel. You can also update this status manually. Right-click the panel in the Insight Toolbar and choose “Entire Panel” in the menu that appears, then choose “refresh LAN status”. 
Using Filters

You can filter the browser so that only key items are displayed. There are a number of different filtering methods available.

Using Filter Buttons

You can quickly show and hide items with the filter buttons.

- Click **show programmed** to hide or show programmed items
- Click **show blank** to hide or show blank / unprogrammed items
- Click **show normal** to hide or show records that aren’t surplus, shadow or marked
- Click **show upload** to hide or show items marked for upload from the panel
- Click **show download** to hide or show items marked for download to the panel
- Click **show surplus** to hide or show surplus records
- Click **show shadow** to hide or show shadow records
- Click **installed** to hide or show secured hardware
- Click **missing** to hide or show missing hardware
- Click **unexpected** to hide or show unexpected hardware
- Click **not installed** to hide or show uninstalled hardware

To use the filter buttons:

1. Click the appropriate filter button. If the button is active (pressed in), then items matching that type will be displayed.

**Note**

Filters are saved for each different item type, even when you exit Insight Edit. Always check the item count (bottom right corner) to see if there are any items hidden in the current view.

Using Filter Text

You can filter based on text that you specify. Text filtering can be applied to the short or long name, address or notes field of regular items, and also the site code, user type and extended information fields of users.

To use filter text:

1. Select the field you want to filter on. “Name in panel” is the short name of the item. “Name” is the full-length Insight name. “Address” is the notated address (such as DL015 for door list 15). ‘Notes’ is the notes field kept by Insight for each item.
2. Enter the text you want to filter by.
3. Press enter. Your filter is applied.

Using Wildcards

You can use special symbols called “wild cards” in your text filters. The ? symbol matches one letter. The * symbol matches any number of letters.

Here are some example filters to get you started.

<table>
<thead>
<tr>
<th>Field</th>
<th>Text</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>PIR</td>
<td>Only show items whose name includes the word “PIR”</td>
</tr>
<tr>
<td>Notes</td>
<td>delay</td>
<td>Only show items whose notes includes the word “delay”</td>
</tr>
<tr>
<td>Address</td>
<td>C01</td>
<td>Only show control module items</td>
</tr>
<tr>
<td>Address</td>
<td>T03:Z05</td>
<td>Show the fifth zone input on the third LCD module</td>
</tr>
<tr>
<td>Address</td>
<td>T03:Z*</td>
<td>Show all zone inputs on the third LCD module</td>
</tr>
<tr>
<td>Address</td>
<td>T*:Z*</td>
<td>Show all zone inputs on all LCD modules</td>
</tr>
</tbody>
</table>
Address *:Z* Show all zone inputs on all modules
Address ?01:Z10 Show the tenth zone input on the first module of each type
Address *:S?5 Shows all system inputs ending in “5” on every module
Name *k* Shows all names starting with the letter K
Name *s Shows all names ending in the letter S

Editing Items

To edit an item, double click the item in the browser. This opens an edit window for that item.

Using the Navigation Toolbar

- Locate this item in the Insight Toolbar tree.
- Go to the first record.
- Go to the previous record.
- Displays the current record number. You can enter a different number to jump to that number.
- Displays the name of the current record. Click on the arrow to select a different record to jump to.
- Go to the next record.
- Go to the next blank / unprogrammed record.
- Go to the last record.

Using the Edit Toolbar

- Save changes to the current record. If the panel is offline, mark the record for download the next time a connection is available.
- Turn autosave on or off. With autosave enabled, changes to a record are saved automatically as soon as the record is closed or you use the navigation buttons.
- Discard changes you’ve made to this record without saving them. The record reverts to the last saved version.
**Erase** the programming of this record. The record becomes blank / unprogrammed.

**Upload** the current record from the panel. If the panel isn’t connected, the record is marked for upload the next time a connection is available.

**Upload** places the current record into the Windows clipboard. When you select paste, the original record is then made blank / unprogrammed.

**Copies** the current record into the Windows clipboard.

**Pastes** from the Windows clipboard over the current record.

**Undo** the last action. You can repeat this command to undo all changes made since the record was opened.

**Opens the find window.**

**Opens the cross-reference window for this item.**

**Opens context-sensitive help for this item.**

**Tip**

If you are editing a lot of records, you should probably turn **autosave** on. As you finish each record, using the navigation buttons save your changes automatically.

**Operator Permissions**

To open an item, you must have the **inspect** permission for the item. To save changes to an item, you must have the **change** permission for the item.

**Online and Offline Edit**

If you save programming changes while the panel is connected, the changes are sent to the panel immediately. This is called “online edit”. If you make changes while the panel is disconnected, then the changes are queued to be written later on. This is called “offline edit”.

Insight uses different colours so you can quickly see if there are edits waiting to be sent to the panel.

<table>
<thead>
<tr>
<th>Icon</th>
<th>Colour</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Green</td>
<td>Panel is up to date</td>
<td>There are no edits waiting to be sent to the panel. Programming changes are being exchanged with the panel. The number in brackets next to the panel name indicates how many changes are remaining to be sent / received. Offline edits have been made. There are programming changes waiting to be written to the panel.</td>
</tr>
<tr>
<td>Blue</td>
<td>Panel synchronising</td>
<td></td>
</tr>
<tr>
<td>Red</td>
<td>Panel unsynchronised</td>
<td></td>
</tr>
</tbody>
</table>

**Tip**

You can configure Insight to automatically connect to a panel when you make programming changes. Go to Panel Properties → Protocol → Connection, and tick the boxes that say “Automatically connect this panel” and “when programming changes are made”.

**Tip**

If your panel is red (unsynchronised), you can find all records that are queued for upload or download by opening a new search, clicking the “only match records marked for upload or download” and clicking “Find Now” (without entering any search text).
**PIN Discovered**

Two user’s cannot have the same PIN in the same panel. Insight Edit will prevent you from setting a duplicate PIN. In addition, the user whose PIN was discovered will be asked to change their PIN the next time they use an Elite Terminal in the field.

**Note**

If the panel is offline, then the PIN discovered flag won’t be set until the panel is next connected.

**Scheduled User Expiry**

You can configure users to expire at a certain date and time. The expiry information is downloaded into the Control Module, which takes care of expiring the user at the appropriate time. Typically, the panel memory configuration means that only some users can be tagged to expire. With Insight, you can specify an expiry date for any user.

**To schedule expiry for any user:**

1. Open the user you wish to tag for expiration.
2. Click the Options tab.
3. Set the Expiry Date and Expiry time. If the month or year fields are set to disable, then “any month” and “any year” are assumed, respectively. If the day, hour or minute fields are disabled (by right-clicking their “spinner” controls), then “today”, “any hour” and “any minute” are assumed, respectively.
4. Specify the Disabled User Type. When the expiry date and time occurs, the user will be assigned this user type.

**Note**

Insight Server must be running for the cardholders to expire. If Insight Server isn’t running, then the users will be expired the next time Insight Server starts.

**Note**

If the panel is offline, then the users aren’t expired until the panel is next connected.

**Tip**

When a user expires, the original user type is displayed in the Primary User Type box.

**Tip**

You can set a common expiry date for a batch of users using the Copy Wizard. See page 50.

**Write-Locking Panels**

Sometimes you may wish to make offline edits, but you want the panel to be online (e.g. so that alarms can be received). In this case, the panel can be write-locked. This means that the panel is online, but any edits are not sent to the panel until it is unlocked.

**To write-lock a panel:**

1. Right-click the panel in the Insight Toolbar, and choose “locked” in the menu that appears.
2. A padlock appears next to the panel, indicating that it is write-locked. Changes will not be sent to the panel.
To unlock a write-locked panel:

1. Right-click the locked panel in the Insight Toolbar, and choose “unlocked” in the menu that appears.
2. If the panel is online, then any changes will be immediately written to the panel.

Detecting LCD Terminal (Keypad) or “2nd Insight” Edits

The Concept 4000 security system allows programming changes to be made by authorised users at any LCD Terminal “in the field”. Concept 4000 V7.4 or later can also be programmed to allow a 2nd instance of Insight (Insight Installer) to connect temporarily for remote service purposes. Edits performed from these sources are not automatically uploaded by Insight, but you will be warned that changes have been made at a terminal or by Insight Installer the next time you connect to the panel. You can then use the compare records feature (below) to determine what type of item was edited.

Tip
If you leave Insight permanently connected to your panels, then you can manually check for programming changes. Right click the panel, and choose “Entire Panel → Compare Records” in the menu that appears.

Comparing Insight With A Panel

If you suspect that edits have been made at an Elite Terminal in the field, or if you just want to satisfy yourself that Insight is correctly synchronised with a panel, you can perform a comparison between Insight and the panel. You can choose to compare the entire panel, or only a particular type of item such as doors or areas.

To compare a panel with Insight:

1. If the panel is offline, connect to the panel.
2. Right click the panel you wish to compare and choose “Entire Panel → Compare Records” in the menu that appears.
3. A message is displayed indicating if any records are different.

Note
It can take up to 30 seconds to compare a 512k panel. You will receive a message when the comparison is complete.

Note
Insight will not tell you which specific records are different, only that there are differences. For example, the message “areas are different” could mean that 1, 2 or all areas are different between Insight and the panel.

Tip
If you have established that there are differences and you want to synchronise (remove) them, then you should mark the different items for upload (if you want to preserve what is in the panel) or download (to preserve what is in Insight).

To compare part of a panel with Insight:

1. If the panel is offline, connect to the panel.
2. Expand the panel tree and locate the item type you want to compare.
3. Right click the item in the tree, and choose “Compare Records” in the menu that
appears.
4. A message is displayed indicating if any records are different.

**Long Names, Notes, Name Lock Slider, Item Picker, Quick Navigation**

**Long Name and Notes**
Insight lets you enter long names for all items, and a notes field for recording miscellaneous details.

**Name Lock Slider**
Although Insight allows for long names on all items, the Control Module only has limited space for names. To spare operators from the chore of entering both long and short names, Insight automatically links them together. If the name is too long to fit into the panel, a tilde (~) symbol is used.

- 🗓️ ☑️ ☐️ Names are locked (default behaviour).
- 🗓️ ☑️ ☑️ Names are unlocked and may be edited separately.

**Tip**
If you enter a very long name with numbers at the end, Insight will preserve the numbers and remove excess characters from the middle of the name instead of the end.

**Item Picker**
Wherever you see a button like this (      ) you can click it to open the **item picker**. The item picker is a window that lets you choose from a list of items.

**Quick Navigation (Hyperlinks)**
Hyperlinks are blue text labels that let you quickly navigate between related items, without using the Insight Toolbar to manually locate them. To follow a hyperlink, click on it with the mouse button. In the picture below, clicking the "Inside Area" hyperlink opens the area called "Office".

**Tip**
You can click as many hyperlinks as you like. When you close the windows that have popped up, you will return to the original record you were editing.

**Tip**
If you click a hyperlink on a field that is set to "none", Insight changes the browser to view all of the items that can be selected for that field.

**Previous Software**
In WinDirect, quick navigation was performed with the F9 and F10 keys. On panel terminals, quick navigation is performed with the [HELP], [9] / [HELP], [0] key combinations.
Searching Panels

Insight Edit includes an extremely fast search tool. You can choose between simple searches, which look for matching text in the locations that you specify, and advanced searches, which let you specify complicated searches such as “find everything with the word door but not the word office”.

To perform a simple search:

1. On the Edit menu, choose “Power Search…” (or press CTRL+F).
2. Enter the text you wish to search for.
3. Choose which panels and item types you wish to search by clicking the “Look In” field (optional).
4. Un-tick match case if you want GREEN to match with Green.
5. Un-tick whole words if you want am to match with hammer.
6. Enter any settings you want on the “Modified” tab (optional).
7. Click “Find Now”, or press ENTER.

Items matching the search text are displayed.

Tip
All text fields are searched by default. To specify which fields are searched, click the “Advanced” tab and select them in the “Filter” box.

Tip
If your panel is red (unsynchronised), you can find all records that are queued for upload or download by opening a new search, clicking the “only match records marked for upload or download” and clicking “Find Now” (without entering any search text).

Tip
You can open any matching item by double-clicking it with the mouse.

To perform an advanced search:

1. On the Edit menu, choose “Power Search…” (or press CTRL+F).
2. Click the “Advanced” tab.
3. Enter your search criterion (see below).
4. Choose the fields you wish to search (optional).
5. Enter any settings you want on the “Modified” tab (optional).
6. Click “Find Now”, or press ENTER.

You specify advanced criteria by entering text (enclosed in single or double quotes) separated by special commands and, or, not and xor (“exclusive or”). Placing a text item in double quotes means the text will match both upper and lower case. Placing a text item in single quotes means the text will only match if the case is the same. Brackets are used like they are in arithmetic.
Examples

“door” (double quotes)
→ case-insensitive match with door (including trapdoor, doorstop, DOORMOUSE etc.)

‘door’ (single quotes)
→ case-sensitive match with door (including trapdoor but not TRAPDOOR)

exact(“door”)
→ case-insensitive match with the whole word door (including DOOR but not trapdoor)

exact(‘door’)
→ case-sensitive match with the whole word door (but not DOOR or trapdoor)

“door” or “window”
→ matches all items with either door or window or both, regardless of capitalisation

“door” and “window”
→ matches all items with both door and window

“door” and not “window”
→ matches all items with door, unless the item also has window

“door” or not “window”
→ matches all items with door, and also matches all items without the word window

not “door”
→ matches anything that doesn’t have the word door

“exit” and “door” or “window” or “corridor”
→ matches anything with window or corridor, and also matches anything with both exit and door

“exit” and (“door” or “window” or “corridor”)
→ matches anything that has exit as well as one or more of the words door, window, corridor (note: bracketed terms are evaluated first)

“exit” or (“door” and “window” and “corridor”)
→ matches anything that has both door, window and corridor or it has exit

“door” xor “window”
→ matches everything with either door or window, but not both

Tip
If you have difficulty understanding advanced searches, try entering some of the examples listed above, then modifying them to what you want.

Operator Permissions
You must have the see permission on an item for it to appear in the output window.
Cross-Referencing Items

The cross-reference window is a very useful and powerful tool for trouble-shooting an Inner Range installation. When an item is cross-referenced, all programming relationships between that item and the rest of the system are displayed. For example, cross-referencing a calculated auxiliary shows any auxiliaries, inputs, areas, lift cars, floor lists and counters that might be altered by the calculated auxiliary.

To cross-reference an item:

1. Select the item in the browser window, or open the item for editing.
2. From the Edit menu, choose “cross-reference”; or press F2; or click the “x-ref” toolbar button (editing window only).

The cross-reference window appears.

- Any items that this item refers to are shown in the refers to section.
- If this item appears in the programming of a completely different item, then this relationship is shown in the referred from section.

Tip

You can open an item from the cross-reference window by right-clicking and choosing “Edit” in the menu that appears.

Warning

The cross-reference window will not show an item if you do not have the see permission for that item. In this case, the cross-reference tree will be incomplete.

Using The Copy Wizard

You can use the Copy Wizard to copy, swap or move items within a panel or between panels. You can also use the copy wizard to batch program user names, card numbers and other user fields.

You can replicate a record, which means a duplicate of the record is made one or more times.

To replicate a record one or more times:

1. Press F7 to open the Copy Wizard, or select the Edit menu and choose “Copy Wizard”.
2. Click “Copy, swap or move records”.
3. Click Next.
4. Click “Replicate the current record one or more times”.
5. Click Next.
6. Click the arrow in the Item Type field, and navigate to the panel and item type you want to replicate. A list of programmed items is displayed. (Click the “show blanks” box to show all items.)
7. Select the item you wish to replicate.
8. Click Next.
9. Click the arrow in the Item Type field, and navigate to the panel where you want to save the replicated records. (This can be the same panel as step 6, or a different panel.)
10. Choose which record(s) will be replaced. Hold down the CTRL key to select more than one destination record. Hold down the SHIFT key to select a range of records to be replaced.

11. Click Next.

12. Click Finish. The source record is written over the target record(s).

**Warning**
The contents of the target records are permanently replaced. This operation can't be undone, except by restoring to a previous backup.

**Note**
If you copy a record into a different panel, Insight leaves any programming references intact. For example, copying a user type that points to "door list 15" into another panel will result in the user type still using door list 15 in the new panel, even if it isn't programmed or doesn't exist.

You can *block copy* one or more records, which means a group of records are copied (either into a different location in the same panel, or into a different panel).

**To block copy select records:**

1. Press F7 to open the Copy Wizard, or select the Edit menu and choose "Copy Wizard".
2. Click "Copy, swap or move records".
3. Click Next.
4. Click "Block copy selected records".
5. Click Next.
6. Click the arrow in the **Item Type** field, and navigate to the panel and item type you want to block copy. A list of programmed items is displayed. (Click the "show blanks" box to show all items.)
7. Select the item(s) you wish to block copy. Hold down the CTRL key to select multiple records. Hold down the SHIFT key to select a range of records. You must make a note of how many records are selected, which is displayed in the bottom right corner.
8. Click Next.
9. Click the arrow in the **Item Type** field, and navigate to the panel where you want to save the replicated records. (This can be the same panel as step 6, or a different panel.)
10. Choose which record(s) will be replaced. Hold down the CTRL key to select more than one destination record. Hold down the SHIFT key to select a range of records to be replaced. You must select the same number of records as step 7.
11. Click Next.
12. Click Finish. The source records are copied over the target records.

**Warning**
The contents of the target records are permanently replaced. This operation can't be undone, except by restoring to a previous backup.

**Warning**
You shouldn't specify source and target ranges that overlap. Doing so could result in records being overwritten incorrectly.

**Note**
If you copy a record into a different panel, Insight leaves any programming references intact. For example, copying a user type that points to "door list 15" into another panel will result in the user type still using door list 15 in the new panel, even if it isn't programmed or doesn't exist.

You can *swap* one or more records, which means the selected records are exchanged.
To swap a group of records:

1. Press F7 to open the Copy Wizard, or select the Edit menu and choose “Copy Wizard”.
2. Click “Copy, swap or move records”.
3. Click Next.
4. Click “Swap selected block of records”.
5. Refer to the instructions for block copying records (previous page), starting at step 5.

You can move one or more records. This is the same as copying the records, except that the original records are blanked after the copy.

To move a block of records:

1. Press F7 to open the Copy Wizard, or select the Edit menu and choose “Copy Wizard”.
2. Click “Copy, swap or move records”.
3. Click Next.
4. Click “Block move selected records”.
5. Refer to the instructions for block copying records (previous page), starting at step 5.

You can clear one or more records to factory default values.

To clear a block of records:

1. Press F7 to open the Copy Wizard, or select the Edit menu and choose “Copy Wizard”.
2. Click “Clear records”.
3. Enter a value for the name, short name and notes fields, or leave the blank to accept factory defaults. You can use the hash symbol (#) to specify an auto-number. The # symbol is replaced by the auto-number settings you specify.
4. Click Next.
5. Click the arrow in the Item Type field, and navigate to the panel and item type you want to clear. A list of programmed items is displayed. (Click the “show blanks” box to show all items.)
6. Select the item(s) you wish to clear. Hold down the CTRL key to select multiple records. Hold down the SHIFT key to select a range of records.
7. Click Next.
8. Click Finish. The selected records are erased to factory defaults.

Warning

The selected records are permanently erased. This operation can’t be undone, except by restoring to a previous backup.
You can batch program a block of users. This feature lets you specify consecutive cards, user names or notes; set card types; set a common user type; set a common expiry date; and optionally select a ‘source record’ for duplication.

To batch program a block of users:

1. Press F7 to open the Copy Wizard, or select the Edit menu and choose "Copy Wizard".
2. Click "User programming".
3. Select which options you wish to apply.

   **Replace card numbers.** Tick this box if you wish to specify the card type and assign sequential card numbers to a block of users.

   **Replace user names.** Tick this box if you wish to specify a common name for the block of users, including an optional auto-number.

   **Replace other fields.** Tick this box if you want to specify a common user type and expiry options.

   **Use selected record as template.** Ticking this option duplicates a single user (replacing the existing users in the block), then applies any other options that are ticked. If this option isn’t selected, then the block of users are modified as-is.

4. Click Next.
5. Fill in any information requested by the wizard, which will depend on the options you selected in step 3. In particular, when selecting which users to reprogram, you must hold down the **shift key** to select a block of users; otherwise, your changes will only apply to a single user. (You can use the **ctrl** key to select non-adjacent users.)
6. Click Finish. The batch programming is applied.

**Warning**
The selected records are permanently reprogrammed. In particular, if you selected the “use selected record as template” option, then all fields in the target records are replaced. This operation can’t be undone, except by restoring to a previous backup.

**Tip**
If you assigned new card numbers, you can automatically import them into Insight Card Pool. In Card Pool, click the Panel Scan button on the Card Pool toolbar.

**Card Pool Integration**
Insight Card Pool is a separately licensed module that allows Operators to create and manage card pools. Operators can quickly assign cards from a card pool, in addition to marking cards as lost or suspended.

To assign a card from a card pool:

1. In Insight Edit, open the user you wish to assign a card to.
2. Ensure that the “Use Cardpool” option is selected. (V3.3 or later)
3. Click the ‘Card Pool’ button.
4. Click the ‘Get Card Pool Card’ button.
5. Select the card pool and card to assign to this user.

   You can assign a (new) available card from a card pool to this user. Or, if the user already has a card that works at a different panel in the system, and now needs to be programmed in this panel, too, you can choose their card from all cards that are assigned in different panels. In either case, Insight will try to find a good card for the
user, but you can select a different card to the default card from a list with the ‘Different Card..’ button.
6. Click OK.
7. Click the Save icon in the toolbar.

To create a card in the card pool and assign it to a user:

1. In Insight Edit, open the user you wish to assign a card to.
2. Deselect the “Use Cardpool” option.
3. Select “Site Code” or “Direct Entry” as the card type. Credit cards are not managed by the Card pool Manager.
4. Type the new card number of the user, or, use the ‘Acquire’ button and acquire the card number from a connected Enrolment Station (see ‘Error! Reference source not found.’, page 52).
5. Save the user. You will be prompted for the card pool the new card should be entered into. If you refuse to select a card pool here (for example, because you haven’t created card pools yet), you can still later assign that card to a card pool by using the ‘Panel Scan’ command in the Card Pool Manager (see page 82).

Paid Feature
Card Pool is a separately licensed component of Insight.

Card Acquisition

Insight can enrol cards using a card reader attached to the Insight enrolment PC. Card acquisition requires:

- A compatible card reader unit.
- A free serial port on the card enrolment computer.

Tip
If you don’t have any spare serial ports (or any serial ports at all), you can use a serial to USB protocol converter and connect the card reader to a spare USB port.

Insight v3.2 supports the following models:

- Inner Range Card Enrolment Station
- ACS Smart Reader
- HID PC Log-On

The Inner Range Card Enrolment Station (part number 994500) supports the widest range of card types and formats. Refer to the tables below.

Insight hardware support for different card formats:

<table>
<thead>
<tr>
<th>Card Type</th>
<th>26 Bit</th>
<th>27 Bit</th>
<th>30 Bit</th>
<th>32 Bit</th>
<th>34 Bit</th>
<th>35 Bit</th>
<th>36 Bit</th>
<th>37 Bit</th>
<th>40 Bit</th>
<th>IR-Secure 40</th>
<th>General 26-40bit</th>
<th>N-Bit</th>
</tr>
</thead>
<tbody>
<tr>
<td>IR Card Enrolment Station</td>
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<td></td>
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<tr>
<td>ACS Smart Reader</td>
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<tr>
<td>HID PC Log-On</td>
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</tr>
</tbody>
</table>
To acquire a card directly in Insight:

1. In Insight Edit, open the user you wish to assign a card to.
2. If you are using Insight Card Pool at your site, make sure the ‘Use Card Pool’ option is not ticked.
3. Click the Acquire button.
4. Select the reader type, card format and serial port.
5. Click the Read button.
6. Badge the card.
7. Click the Save icon in the toolbar.
8. If using Insight Card Pool, you are prompted for the card pool. Select a card pool from the dropdown list, or close the dialog without selecting any card pool.

Tip
If the card you badge belongs to a card pool, the card is automatically marked as “issued” in the card pool.

Tip
If the card you badge has a new site code, Insight creates a new card pool with that site code and adds the card to that pool.

Tip
If you don’t select a card pool for the card you badge, Insight Edit will remind you to run the Panel Scan command in Insight Card Pool (see page 82) so it can be added to one.

Insight Edit Reports

You can generate a range of useful reports in Insight Edit. These reports summarise key areas of panel programming including users, user types, areas and doors. Reports can be displayed on-screen, sent directly to a printer, or saved to a file. The contents of the reports can be streamlined with the use of a filter.

<table>
<thead>
<tr>
<th>I want to view, print or save…</th>
<th>From the Reports menu, choose…</th>
</tr>
</thead>
<tbody>
<tr>
<td>User programming</td>
<td>Programming → Users</td>
</tr>
<tr>
<td>User type programming</td>
<td>Programming → User Types</td>
</tr>
<tr>
<td>Input programming</td>
<td>Programming → Inputs</td>
</tr>
<tr>
<td>A list of areas in each area list</td>
<td>Programming → AreaList</td>
</tr>
<tr>
<td>A list of doors in each door list</td>
<td>Programming → DoorList</td>
</tr>
<tr>
<td>A list of lifts in each lift car list</td>
<td>Programming → LiftCarList</td>
</tr>
<tr>
<td>A list of floors in each floor list</td>
<td>Programming → FloorList</td>
</tr>
<tr>
<td>A list of sirens in each siren list</td>
<td>Programming → SirenList</td>
</tr>
</tbody>
</table>
Doors accessible to each user type References→User Type→Doors
Users for each user type References→User Type→Users
Areas accessible to each user type References→User Type→Areas
Floors accessible to each user type References→User Type→Floors
A list of inputs in each area References→Area→Inputs
A list of reportable inputs per area References→Area→Commissioning Inputs
Users who can turn an area on References→Area→User On
Users who can turn an area off References→Area→User Off
Inputs + process groups in each area References→Area→Input – Proc Grp.
Doors accessible to each user References→User To→Door
Areas accessible to each user References→User To→Area
Floors accessible to each user References→User To→Floor
A list of users with access per door References→User From→Door
A list of users with access per floor References→User From→Floor
A list of users with access per Lift Car References→User From→Lift Car

To generate a report:

1. Select your desired report on the Reports menu.
2. To print the report, choose Print in the sub-menu that appears. To view the report, choose View in the sub-menu that appears.

Tip
Reports saved to a file are written in CSV format, which can be opened by spreadsheet applications such as Microsoft® Excel®.

To generate a filtered report:

1. Firstly, ensure that the “Use Filtering” item on the Reports menu is checked.
2. Select your desired report on the Reports menu.
3. To print the report, choose Print in the sub-menu that appears. To view the report, choose View in the sub-menu that appears.
4. The Print Filtering dialog will appear. You can filter on a combination of parameters, as shown on the right:
   - Item status (programmed/defaulted/both)
   - Name (of the item)
   - Notes
5. When filtering, either Simple or Complex filtering can be chosen. Simple filtering allows filtering on a single item and/or Notes entry.
6. Complex filtering allows filtering based on a combination of search terms. For instance, you are able to list areas except area names containing ‘A0’ and ‘SYSTEM’ (illustrated on the right) When Complex filtering is chosen, the Print Filtering dialog changes to look like what is shown on the right. (When using Complex Search, you can only filter on Item Name, not on notes).
7. Select OK once you have set the parameters of interest to generate the report.
Tip
In both Simple and Complex Search, you can use ‘wildcard characters’ as described on page 39. In Complex Search, you can use the advanced criteria as used in the Advanced Search function. Some examples start on page 46.

Paid Feature
Filtered Reports within Insight Edit are enabled when you enter a valid licence for the Insight Advanced Reporting Module.

Employees
Each panel contains information about users that have access privileges for that panel. Depending on the memory configuration in the panel, a name might also be stored for some or all users.

It is often useful to store extended information about each user such as full name, age, home and work contact details, gender and even a photograph for identity verification.

Insight calls this additional data extended user information. Users with this additional information are referred to as employees.

Insight Versions
Extended user information and user photographs are not available in Insight Installer.

To add extended information to a user:

1. In Insight edit, double-click the user in the browser pane. Or, right-click the user and choose “Properties...” in the menu that appears.
2. Click the Employee tab.
3. Enter the person's title, full name, birth date and gender.
4. Click the Profile tab.
5. Enter the person's business profile and personal profile.
6. Click the Save Changes button to save your changes.

Note
If you edit the first name or surname field on the Employee tab, the Name field on the Access tab becomes locked for editing. All future name edits must be carried out on the Employee tab.
Custom Fields

You may find that the default employee fields such as name, age and address insufficient for the requirements of your organisation. Insight lets you define up to 32 custom fields which will be associated with each user.

To define a custom field:

1. In Insight edit, double-click any user in the browser pane. Or, right-click a user and choose “Properties...” in the menu that appears.
2. Click the “Custom 1” or “Custom 2” tab.
3. Click an unused check box.
4. Enter a label for the new custom field. The custom field is created and available for all users.

To rename a custom field:

1. In Insight edit, double-click any user in the browser pane. Or, right-click a user and choose “Properties...” in the menu that appears.
2. Click the “Custom 1” or “Custom 2” tab.
3. Double-click the custom field you wish to rename.
4. Enter a new name and click OK. The custom field is renamed.

To remove a custom field:

1. In Insight edit, double-click any user in the browser pane. Or, right-click a user and choose “Properties...” in the menu that appears.
2. Click the “Custom 1” or “Custom 2” tab.
3. Clear the check box next to the custom field.

Note
Removing a custom field doesn’t delete any data. If you create a new custom field in the same position, any existing data is restored.

Tip
You can search for data in custom fields. See “searching” on page 45.

Tip
You can import data into custom fields. See below.

Importing Extended User Information

You can import extended user information (such as age and contact details) from an external file. The file must be in “Comma Separated Values” format (CSV), which means:

- The file is a text document.
- Each line of the file represents a single user record, with an End-Of-Line symbol marking the beginning of the next record.
- Each field is separated by a comma character.
Insight expects the data to begin with a *heading row* followed by your data.

**Tip**

CSV is a common file format that can be exported by most software products. Check the documentation that came with your software.

You will be required to provide a heading row followed by the user data. The following table describes each one of the available headings and the expected data for each.

<table>
<thead>
<tr>
<th>Field code used in heading row</th>
<th>Description</th>
<th>Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>####</td>
<td>First name; must be the first field, denotes the first name</td>
<td>Any text</td>
</tr>
<tr>
<td>secondname</td>
<td>Second name</td>
<td>Any text</td>
</tr>
<tr>
<td>title</td>
<td>Title</td>
<td>One of the following values: Mr, Mister, Mrs, Mistress, Miss, Ms, Dr, Doctor, Prof, Professor, Sir, Lady, Lord</td>
</tr>
<tr>
<td>gender</td>
<td>Gender</td>
<td>One of the following values: M, m, 0, F, f, 1</td>
</tr>
<tr>
<td>dob</td>
<td>Date of birth</td>
<td>A date format matching the locale of this computer (go to Control Panel→Regional &amp; Language Options for Windows® XP, or Control Panel→Regional Options for Windows® 2000). e.g. for Australia, the format is normally dd/mm/yyyy. You should specify a 4 digit year value for correct processing.</td>
</tr>
</tbody>
</table>

<p>| street                        | Street      | Any text |
| suburb                       | Suburb     | Any text |
| city                         | City       | Any text |
| state                        | State      | Any text |
| country                      | Country    | Any text |
| postcode                     | Post code  | Any text |
| workphone                    | Phone Number (Work) | Any text |
| homephone                    | Phone Number (Home) | Any text |
| homemobile                   | Phone Number (Home Mobile) | Any text |
| workmobile                   | Phone Number (Work Mobile) | Any text |
| homefax                      | Fax Number (Home) | Any text |
| workfax                      | Fax Number (Work) | Any text |
| homeemail                    | E-mail Address (Home) | Any text |
| workemail                    | E-mail Address (Work) | Any text |
| position                     | Position Description | Any text |
| department                   | Department | Any text |
| sitecardnumber               | Card number for site card entry set up. Supersedes &quot;directnumber&quot; and &quot;creditcard&quot; | Any valid site card number (a positive decimal number up to 2147483647). |
| company                      | Company Name | Any text |
| photo                        | Filename where to find a photo of the user | A valid image file name |</p>
<table>
<thead>
<tr>
<th>Field code used in heading row</th>
<th>Description</th>
<th>Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>directnumber</td>
<td>Card number for direct-entry card setup. Is superseded by &quot;sitecardnumber&quot;, supersedes &quot;creditcard&quot;</td>
<td>Any valid direct entry card number (a hexadecimal number (not 0) of at most 10 digits).</td>
</tr>
<tr>
<td>usertype token</td>
<td>Key/token to refer to both panel and user type in this panel</td>
<td>Must correspond to a user type token/key as set up in a Lookup table in the DUIM setup.</td>
</tr>
<tr>
<td>pin</td>
<td>The PIN with which the user will authenticate at a panel terminal</td>
<td>Any valid PIN (decimal).</td>
</tr>
<tr>
<td>extraarea</td>
<td>Extra area</td>
<td>Area as it appears in the panel</td>
</tr>
<tr>
<td>extradoor</td>
<td>Extra door</td>
<td>Door as it appears in the panel</td>
</tr>
<tr>
<td>extradoorlist</td>
<td>Extra door list</td>
<td>Door list as it appears in the panel</td>
</tr>
<tr>
<td>(custom user field name 1)</td>
<td>custom user field 1 defined in dbEdit</td>
<td>Any text</td>
</tr>
<tr>
<td>(custom user field name 2)</td>
<td>custom user field 2 defined in dbEdit</td>
<td>Any text</td>
</tr>
<tr>
<td>(custom user field name 3)</td>
<td>custom user field 3 defined in dbEdit</td>
<td>Any text</td>
</tr>
<tr>
<td>(custom user field name 4)</td>
<td>custom user field 4 defined in dbEdit</td>
<td>Any text</td>
</tr>
<tr>
<td>(custom user field name 5)</td>
<td>custom user field 5 defined in dbEdit</td>
<td>Any text</td>
</tr>
<tr>
<td>(custom user field name 6)</td>
<td>custom user field 6 defined in dbEdit</td>
<td>Any text</td>
</tr>
<tr>
<td>(custom user field name 7)</td>
<td>custom user field 7 defined in dbEdit</td>
<td>Any text</td>
</tr>
<tr>
<td>(custom user field name 8)</td>
<td>custom user field 8 defined in dbEdit</td>
<td>Any text</td>
</tr>
<tr>
<td>(custom user field name 9)</td>
<td>custom user field 9 defined in dbEdit</td>
<td>Any text</td>
</tr>
<tr>
<td>(custom user field name 10)</td>
<td>custom user field 10 defined in dbEdit</td>
<td>Any text</td>
</tr>
<tr>
<td>(custom user field name 11)</td>
<td>custom user field 11 defined in dbEdit</td>
<td>Any text</td>
</tr>
<tr>
<td>(custom user field name 12)</td>
<td>custom user field 12 defined in dbEdit</td>
<td>Any text</td>
</tr>
<tr>
<td>(custom user field name 13)</td>
<td>custom user field 13 defined in dbEdit</td>
<td>Any text</td>
</tr>
<tr>
<td>(custom user field name 14)</td>
<td>custom user field 14 defined in dbEdit</td>
<td>Any text</td>
</tr>
<tr>
<td>(custom user field name 15)</td>
<td>custom user field 15 defined in dbEdit</td>
<td>Any text</td>
</tr>
<tr>
<td>(custom user field name 16)</td>
<td>custom user field 16 defined in dbEdit</td>
<td>Any text</td>
</tr>
<tr>
<td>(custom user field name 17)</td>
<td>custom user field 17 defined in dbEdit</td>
<td>Any text</td>
</tr>
<tr>
<td>(custom user field name 18)</td>
<td>custom user field 18 defined in dbEdit</td>
<td>Any text</td>
</tr>
<tr>
<td>(custom user field name 19)</td>
<td>custom user field 19 defined in dbEdit</td>
<td>Any text</td>
</tr>
<tr>
<td>(custom user field name 20)</td>
<td>custom user field 20 defined in dbEdit</td>
<td>Any text</td>
</tr>
<tr>
<td>Field code used in heading row</td>
<td>Description</td>
<td>Data</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>-------------</td>
<td>------</td>
</tr>
<tr>
<td>(custom user field name 21)</td>
<td>custom user field 21 defined in dbEdit</td>
<td>Any text</td>
</tr>
<tr>
<td>(custom user field name 22)</td>
<td>custom user field 22 defined in dbEdit</td>
<td>Any text</td>
</tr>
<tr>
<td>(custom user field name 23)</td>
<td>custom user field 23 defined in dbEdit</td>
<td>Any text</td>
</tr>
<tr>
<td>(custom user field name 24)</td>
<td>custom user field 24 defined in dbEdit</td>
<td>Any text</td>
</tr>
<tr>
<td>(custom user field name 25)</td>
<td>custom user field 25 defined in dbEdit</td>
<td>Any text</td>
</tr>
<tr>
<td>(custom user field name 26)</td>
<td>custom user field 26 defined in dbEdit</td>
<td>Any text</td>
</tr>
<tr>
<td>(custom user field name 27)</td>
<td>custom user field 27 defined in dbEdit</td>
<td>Any text</td>
</tr>
<tr>
<td>(custom user field name 28)</td>
<td>custom user field 28 defined in dbEdit</td>
<td>Any text</td>
</tr>
<tr>
<td>(custom user field name 29)</td>
<td>custom user field 29 defined in dbEdit</td>
<td>Any text</td>
</tr>
<tr>
<td>(custom user field name 30)</td>
<td>custom user field 30 defined in dbEdit</td>
<td>Any text</td>
</tr>
<tr>
<td>(custom user field name 31)</td>
<td>custom user field 31 defined in dbEdit</td>
<td>Any text</td>
</tr>
<tr>
<td>(custom user field name 32)</td>
<td>custom user field 32 defined in dbEdit</td>
<td>Any text</td>
</tr>
<tr>
<td>(custom user field name 33)</td>
<td>custom user field 33 defined in dbEdit</td>
<td>Any text</td>
</tr>
<tr>
<td>(custom user field name 34)</td>
<td>custom user field 34 defined in dbEdit</td>
<td>Any text</td>
</tr>
<tr>
<td>(custom user field name 35)</td>
<td>custom user field 35 defined in dbEdit</td>
<td>Any text</td>
</tr>
<tr>
<td>(custom user field name 36)</td>
<td>custom user field 36 defined in dbEdit</td>
<td>Any text</td>
</tr>
<tr>
<td>creditcard</td>
<td>Card number for credit card or any swipe card authentication. Is superseded by &quot;sitecardnumber&quot; and &quot;directnumber&quot;</td>
<td>Any valid credit card number</td>
</tr>
<tr>
<td>expiry</td>
<td>Expiry date</td>
<td>A date in the format: &quot;12 August 2010 11:22&quot; or &quot;12 aug 2010 11:22&quot; or &quot;12/8/2010 11:22&quot;; will supersede &quot;expirynhrs&quot; and &quot;expirytime&quot;. The month name must be given in English, full or abbreviated to at least 3 letters. 'yes' if the user is to be deleted instead of added</td>
</tr>
<tr>
<td>delete</td>
<td>Delete information</td>
<td>Any text</td>
</tr>
<tr>
<td>notes</td>
<td>Any additional notes</td>
<td>Any text</td>
</tr>
<tr>
<td>altusertype</td>
<td>User type the user will have after expired. Default None.</td>
<td>Must be a (name of a) user type as it appears in the panel</td>
</tr>
<tr>
<td>foreignkey</td>
<td>Any additional data you want to specify</td>
<td>Of the form &quot;keyname=value&quot;</td>
</tr>
<tr>
<td>expirynhrs</td>
<td>Expiry time in hours from current time, i.e. time of import; will supersede &quot;expirytime&quot;; will be superseded by &quot;expiry&quot;</td>
<td>A valid (decimal) integer number</td>
</tr>
</tbody>
</table>
Field code used in heading row | Description | Data
--- | --- | ---
expirytime | Expiry time | A time in the format "9:22" or "9:22|5". If it's 8:22 now (at the time of import), "9:22" will be in an hour, and "9:22|5" will be 9:55 in 5 days' time. If it's 11:15 at the time of import, then "9:22" will be 9:22 one day later, and "9:22|5" will be 9:55 in 6 days' time. This time is superseded by either the "expiry" or the "expirynhrs" columns.
irqualifications | The name of the qualification. | Any text
irqualificationvalues | This field will be either the Count or start date for the qualification | A valid (decimal) integer number or a date stamp (DD/MM/YYYY).

When importing .csv files, you can omit a field that you wish to leave unchanged or specify a field you want to blank. You must still include the comma after the blank field.

Example:
John,Smith,,M ← The third record is empty and skipped when importing.
John,Smith,<blank>,M ← The third record is <blank> and will erase any pre-existing data in this field.

Note
One of the three identifying card numbers -- "directnumber", "sitecardnumber", or "creditcard" -- or a PIN number (pin) is mandatory, and the user is identified by it, i.e., any old user with the same number will be overwritten.

Sample CSV File: (line breaks added to fit onto the printed page; text should all be on one line)
Line 1: ###,secondname,pin,sitecardnumber, usertype,position,company,title,gender,1/02/2003 ,street,suburb,city,state,country,postcode,workphone,homephone,homemobile,workmobile,workfax,workemail,Car Rego,notes,photo
Line 2: Clayton,Kielbasa,0151,1,OWNER,Installer,A Secuirty Company,Mr,male,2/02/2003,123 aStreet St.,Melbourne,VIC,Australia,3000,1300000000,,.,3462476124,0523596872,emailaddressees@company.com,PIW-205,A good installer. Should be paid more.,c:\photos\1.png
Line 3: Neil,Canney,5253,1,Manager,CEO,,male,3/02/2003,,,,Australia,3000,3999999999,,855 8812952,,emailaddress@company.com,VMZ-545,,c:\photos\1.png

You can specify a custom import order in the header row, which must be the first line of the CSV file. The header row starts with three hash characters (###), followed by a list of field names (as defined in the table above) separated by commas.

Note
In the import file, “###” means “first name”. Because “###” must be the first entry in the header row, this means “first name” must be the first field in each row.
Tip
In addition to the field names defined above, you can also use the name of any custom field label as defined in dbEdit.

Sample CSV File with header row: (assumes a custom field is defined called ‘favourite colour’)

Line 1: ###,secondname,sitecardnumber,company,favourite colour
Line 2: Joe,Bloggs,150,Inner Range,Red
Line 3: Fred,Smith,151,Inner Range,Blue

To import extended user information:

1. Right-click the panel that contains the users you want to import information for, and choose “Import→Extended Employee Data” in the menu that appears.
2. Navigate to the CSV file that contains your extended information and click Open. The Input Range dialog appears.
3. Specify the index of the first user you are importing data for. Installer is index 0, master is index 1, U00003 is index 2, and so forth.
4. Specify how many users you are importing from the CSV file. If you enter 0, all records will be imported.
5. Click OK.

Tip
It’s a good idea to write-lock the panel (page 42), so that changes won’t be written to the panel until the import is complete.

Operator Permissions
To import extended information, you must have the change permission on each user being imported. If you do not have the change permission on a user, the user is skipped and the next available record is used.

Insight Versions
Insight Installer only imports First Name, Second Name and Card Number.
User Photographs

You can attach a photograph to a user, either from an existing picture file on your computer or by acquiring a picture from a device like a scanner or digital camera. You can configure Insight to automatically display the photograph when the user badges at a door.

To attach an image from your hard disk to a user:

1. Open the user for editing.
2. Click the Employee tab.
3. Click the Attach Image button (🔍)
4. Browse to the image file you want to attach.
5. Click OK.
6. Click the Save Changes toolbar button to save your changes.

Tip
To save space, Insight stores a compressed “thumbnail” of the photograph, regardless of the original size and image format. You don’t need to scale your photographs before importing.

To acquire a new photograph and attach it to a user:

1. Open the user for editing.
2. Click the Employee tab.
3. Click the Acquire Photo button (📸)
4. Select the device you will be acquiring the image from (e.g. camera, scanner)
5. Follow the on-screen directions which will vary depending on the device.
6. Click the Save Changes toolbar button to save your changes.

Note
Direct image acquisition is available for devices that support the Windows Image Acquisition (WIA) interface in Windows® XP. For other devices and operating systems, capture the image to your hard disk first, then attach the image.

To pop-up the photo automatically when the user badges their card:

See “working with alarm responses” on page 97.

To print an ID badge without starting Photo ID:

1. Open the user for editing.
2. Click the Employee tab.
3. Click the Print Badge button (⎙)
4. If more than one card template is defined, you will be asked to choose a template.
5. In the print dialog that appears, click Print.

Paid Feature
To print ID badges you must have a licence for Insight Photo ID.
To remove a photograph from a user:

1. Open the user for editing.
2. Click the Employee tab.
3. Click the Remove Photo button (🗑️).
4. Click the Save Changes toolbar button to save your changes.

Panel Memory Configurations

Each Inner Range panel has a database for storing users and programming information. The size of the database is determined by the size of the memory chip on the panel (32, 128 or 512 kilobytes). For each memory size, there are a number of memory configurations (such as Standard, Alarms and Special) that determines how many items of each type are stored by the panel. This count of items is known as the directory of the panel. For example, the 512k Standard directory has 128 doors, 250 areas, 64 time zones and so on.

When you connect to a panel, Insight automatically checks the panel’s directory. Under normal circumstances, the directory of the panel and the directory stored by Insight is the same. Under certain circumstances, they can be different.

1. You have used a terminal to ‘default’ (change) the panel configuration since it was enrolled; or
2. You created the panel in Insight from a template or by duplicating another panel, and are now connecting to a panel with a different memory configuration.

Both situations cause a conflict in Insight, because the panel contains a different number of records than you can see in Insight. Insight automatically resolves the conflict by creating surplus and shadow items.

Surplus items are records that no longer fit in the new panel memory configuration. You can edit them, but they cannot be saved to the panel unless the panel configuration is changed to something else. If you know you will never do this, then the surplus records can be trimmed, which deletes them permanently from Insight.

Shadow items are records that exist in the new panel configuration, but not in Insight. They are like a ‘place holder’, telling you that the records exist in the panel but have not been uploaded yet. If you know you will be sticking with the new memory configuration, then these records should be expanded, which converts them into ‘real’ records by uploading them from the panel.

Below are some examples of surplus and shadow records and how they are created.

Example 1

<table>
<thead>
<tr>
<th>Insight:</th>
<th>4 diaries</th>
</tr>
</thead>
<tbody>
<tr>
<td>Panel:</td>
<td>2 diaries</td>
</tr>
<tr>
<td>Insight after connect:</td>
<td>4 diaries (2 normal, 2 surplus)</td>
</tr>
<tr>
<td>Insight after ‘trim’ command:</td>
<td>2 diaries</td>
</tr>
</tbody>
</table>

Note

If you edit a surplus record and click save, your panel will be permanently unsynchronised (since Insight can never save your changes to the panel). To rectify this, you should trim the surplus records.
Example 2

<table>
<thead>
<tr>
<th>Insight</th>
<th>Panel</th>
<th>Insight after connect</th>
<th>Insight after ‘expand’ command</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 door</td>
<td>4 doors</td>
<td>4 doors (1 normal, 3 shadow)</td>
<td>4 doors</td>
</tr>
</tbody>
</table>

Tip
If you make changes to a shadow record, it is automatically converted to a normal item and queued for download to the panel.

Trimming and Expanding Records
Under normal circumstances, you should always trim (delete) surplus records, and expand (upload) shadow records. Insight doesn’t do this automatically, because you might want to copy the information out of surplus records before trimming, and because expanding shadow records can be time consuming (they have to be uploaded into Insight).

To trim or expand records:

1. Right click on the panel in the Insight Toolbar, and choose “Properties…” from the menu that appears.
2. Click the “Maintenance” icon.
3. Click the “Directory” tab.
4. Click “Compare”. The panel column shows how many items are in the current panel memory configuration. The Insight column shows how many items are being displayed by Insight.
5. Select the items you want to expand or trim, or click “select all” to work on the entire panel.
6. Click “Expand Insight” to convert shadow records into normal records. If you are connected to the panel, the records are uploaded immediately; otherwise, they are queued for upload the next time it is connected. Click “Trim Insight” to delete surplus records from Insight. Click “Expand + Trim” to automatically expand or trim, depending on which operation is appropriate.

Warning
You cannot undo the trim command - the surplus records are permanently deleted.

Note
Trimming and expanding has no effect on the panel. It only effects surplus and shadow records in Insight.

Note
You cannot change the panel memory configuration with Insight. This can only be performed at a panel terminal.
Tip
You can trim or expand a particular item type by right-clicking the item in the Insight Toolbar, then choosing “Trim Surplus Records” or “Expand Shadow Records” in the menu that appears.

Tip
You can quickly trim or expand the entire panel by right-clicking the panel in the Insight Toolbar, then choosing “Entire Panel → Trim Surplus Records” or “Entire Panel → Expand Shadow Records” in the menu that appears.

Operator Permissions
To trim records, you must have the change permission on the containing panel.
Virtuality

Virtuality lets you program several physical panels as if they are a single “virtual” panel. In other words, you program the information once and it is automatically saved to each panel.

Virtuality was introduced in Insight version 2. In its current implementation, virtuality is supported for users. In other words, you program a user’s information once, and it is saved to multiple panels. Future versions of Insight may extend virtuality to other item types.

A virtual panel is a collection of two or more physical panels. You create a virtual panel with Insight Edit using a wizard. Creating a virtual panel is straightforward - you just select which physical panels to include, and specify how you want to create your virtual users.

When a panel is added to a virtual panel, it is called a member panel.

A virtual user is like a regular user, except the user exists in all of the member panels and is programmed from a single location.

Insight makes virtuality as simple as possible, by allowing you to edit users in a single location. You can program all the fields you can normally program for a user such as name, PIN number, user type, expiry and fob options. When you save your changes, they are sent to each member panel in the virtual panel.

Although you may think of virtual users as existing in one place, in reality Insight has to convert your changes into real users in real panels, and this introduces some complexity. For example, the member panels may have different memory configurations. You may also want a user’s access rights to be different in each member panel. Member panels will be connected to different field hardware, and items such as “extra area” cannot be programmed from a single location, since the extra area will almost certainly be different in each member panel.

Insight solves these problems using virtual links. Virtuality and virtual links will be explained in more detail in the following pages.
Virtual Users Explained

To understand virtual users, imagine you have two panels with the following programming. (For simplicity, we are ignoring the fact that user 1 is normally INSTALLER and user 2 is normally MASTER.)

Looking at the diagram, we can see that John exists in both panels, whereas the other users do not. From now on, we want to program John in one place instead of two. To do this, we make a new virtual panel and make John a virtual user in the virtual panel.

Now that a virtual panel has been created, the following rules apply:

- **John** is now VU001 in the virtual panel. This is represented by a gold user icon (👨‍💻).
- Any programming changes made to VU001 will be saved to U001 in Panel A and U001 in Panel B.
- John cannot be edited in Panel A and Panel B, because he is now a virtual user. This is represented by a grey user icon (👤) in those panels.

You will note that the user numbers “line up” in each panel – VU001 is the same user as U001 in Panel A and U001 in Panel B. Now imagine that Peter has been granted access to Panel B. He becomes U004 in that panel. How is this represented in the virtual panel?

Virtual Panel

- VU001 John
- VU002 Peter

Panel A

- U001 John
- U002 Peter
- U003 Bill
- U004 Frank

Panel B

- U001 John
- U002 Amy
- U003 Jo
- U004 (Blank)
As you can see, the user numbers do not need to “line up”. Virtual user 10 might be physical user 25 in Panel A and physical user 70 in Panel B.

You can control which physical user in each panel is linked to the virtual user in the virtual panel.

To see or change which physical users are linked to a virtual user:

1. Open the virtual user.
2. Click the Physical Panel Items tab. The Panel Item column shows which physical user is linked for each panel.
3. If you want to change the physical user in a panel, click the entry with the mouse. A drop-box appears, allowing you to set a new physical user.
4. Save your changes.

Tip
You can jump directly to a physical user from this screen. Right click the physical user, and choose “Edit” in the menu that appears.

Note
If you change the physical user, the newly selected user will be erased and replaced with the virtual user. The previous user will be unlinked, but retains all programming. You should erase this programming to avoid user duplication.
**Virtual Links Explained**

To understand virtual links, imagine you have two panels with the following programming. (For simplicity, we are ignoring the normal default items INSTALLER, MASTER and OWNER.)

As can be seen from the diagram, John exists in both panels and has User Type “Guard” in both panels. Note that Guard is User Type 1 in the first panel and User Type 2 in the second panel.

When set up as a virtual panel, the diagram looks like this:

In the virtual panel:
- **John** is a virtual user.
- **Guard** is a virtual user type link. Guard is only a link – it cannot be edited in the virtual panel.

In the physical panels:
- **John** is a copy from the virtual panel and cannot be edited except in the virtual panel.
- **Guard** is the user type that already existed in the panel. Guard is not copied from the virtual panel.

Essentially, the “link” (VUT001) tells Insight which user type to use for John in each physical panel. In Panel A, John is UT001 (Guard). In Panel B, John is UT002 (Guard). Editing VUT001 in Insight shows this information, but not the regular User Type programming fields. These must be set up in each member panel.

Links apply to the following items: user types, areas, area lists, doors, door lists, inputs and auxiliaries.
Virtuality In Practice

The previous explanations may have made virtuality seem complicated. If you set up your physical panels correctly, then it becomes much easier.

To set up virtuality in a new system:

1. Work out how many users will exist in every panel. This may equal the capacity of your panels, or be a smaller number. Any leftover users can be programmed specifically on that panel. Make sure to leave some “headroom” for future use – for example, if your system currently has 100 users, you may wish to assign 200 virtual users.
2. Program all of the users into consecutive slots in one of the panels.
3. Set up the user types for the users you have created. Again, use consecutive slots.
4. Make sure that the corresponding slots in the other panels do not contain important information. They will be erased in the creation process, so copy records to safe locations if necessary (see “using the copy wizard” on page 47).
5. Create the virtual panel using the “Master Panel” method.

Master panel: select the panel you set up in steps 2 and 3.
Starting record: select one less than the first user you set up in step 2. So if you started programming your users at U0010, enter 9 here.
# of records: enter the number you decided in step 1.

If you create your virtual panel using this method, then the virtual users and virtual user type links will all be created for you by Insight. All you need to do is edit the virtual users as required.

Tip
Insight uses colours to differentiate between virtual and non-virtual items. Refer to the table below.

<table>
<thead>
<tr>
<th>Icon</th>
<th>Colour</th>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Gold</td>
<td>Virtual Item</td>
<td>This is a virtual item. Programming changes will automatically be saved to all member panels.</td>
</tr>
<tr>
<td></td>
<td>Grey</td>
<td>Member Item</td>
<td>This is a virtual item in a member panel. You cannot edit this item directly – edit the item in the virtual panel instead.</td>
</tr>
<tr>
<td></td>
<td>Regular</td>
<td>Normal item</td>
<td>This is a normal item in a panel. When you edit this item, changes will be saved only to the panel containing the item.</td>
</tr>
</tbody>
</table>
Creating Virtual Panels

You create virtual panels in Insight Edit with the virtual panel wizard. Ideally, you should create or enrol the physical panels first, although this isn’t strictly necessary since you can add member panels later on. When you create a virtual panel, you will normally want Insight to create virtual users at the same time. You can choose between four methods for this task.

For the following illustrations, imagine you start with two physical panels, A and B, with some users programmed as shown.

### Method 1: Panel With Default Users

With this method, you specify a starting record and the number of users, and Insight creates the requested number of blank virtual users. Any existing users in the range specified are erased in each member panel.

#### Example

Starting record: 1, number of blank users: 3.

<table>
<thead>
<tr>
<th>Virtual Panel</th>
<th>Panel A</th>
<th>Panel B</th>
</tr>
</thead>
<tbody>
<tr>
<td>VU001 Blank</td>
<td>U001 Installer</td>
<td>U001 Installer</td>
</tr>
<tr>
<td>VU002 Blank</td>
<td>U002 Blank</td>
<td>U002 Blank</td>
</tr>
<tr>
<td>VU003 Blank</td>
<td>U003 Blank</td>
<td>U003 Blank</td>
</tr>
<tr>
<td></td>
<td>U004 Blank</td>
<td>U004 Blank</td>
</tr>
<tr>
<td></td>
<td>U005 Frank</td>
<td>U005 Sarah</td>
</tr>
</tbody>
</table>

**Note**

Insight considers the first user to be starting record 0, whereas the panel starts number users with “U00001”. Hence, entering a starting record of 1 corresponds to U00002 in the panel.
**Method 2: Master Panel**
With this method, you specify a starting record and the number of users, and Insight creates the requested number of virtual users by reading them from a dominant panel. Any existing users in the range specified are overwritten in the other panels.

**Example**
Dominant panel: Panel A, starting record: 2, number of users: 2.

Note
Insight considers the first user to be starting record 0, whereas the panel starts number users with “U00001”. Hence, entering a starting record of 2 corresponds to U00003 in the panel.

**Method 3: Empty Panel**
With this method, the virtual panel doesn’t contain any virtual users initially. You must add them later. Any existing users in member panels are unaffected.

**Method 4: Generate From Like Records**
This method will be implemented in a future version of Insight.

Tip
You can create any number of virtual panels, however each physical panel can only belong in one virtual panel.
To create a new virtual panel:

1. Enrol or create the panels that will be in the member panel. You must start with at least one panel, you can add more later if required.
2. Right click the site that will contain the virtual panel, and choose “New Virtual Panel” in the menu that appears.

   The virtual panel wizard appears.

3. Click Next.
4. Enter a name for the virtual panel.
5. Tick the panels you want to add to the virtual panel. You can add panels from any site or sub-site, provided they aren’t already a member of a virtual panel.

6. Click Next.
7. Choose a creation method for your virtual users (see previous pages).
8. Click Next.
9. Depending on the chosen creation method, you may be asked to specify a starting record and number of virtual users to create. Fill in the required fields, consulting pages 70-71 if necessary. Users in the range specified will become virtual in your member panels. If you specified “default users” as your creation method, they will be erased. If you specified “master panel” as your creation method, they will be copied from the designated panel into the other panels.
10. Click Finish. Your virtual panel is created.
Note
If you selected a method that creates virtual users, then the virtual users will be written to the member panels immediately. If any member panels are offline, they will turn red, indicating there are pending programming changes in those panels.

Note
Virtual users are always created starting with VU00001, even when you specify a starting record greater than one. See the previous examples for an illustration.

To add a panel to an existing virtual panel without linking Users:

1. In the Insight Toolbar, right click the virtual panel and choose “Properties…” in the menu that appears.
2. Tick the panels you wish to add to the virtual panel.
3. Click OK.

Note
Users in the virtual panel will not be linked to the newly added panel(s). You must link the users manually. See pages 70 and 71 for examples.

To add a panel to an existing virtual panel:

To add a panel to an existing virtual panel and automatically link Users:

1. In the Insight Toolbar, right click the virtual panel and choose “Add Panel” in the menu that appears. This will start the wizard.
2. Tick the panel/s you wish to add to the virtual panel.
3. Select which panel in the virtual panel relationship will be used as the template to provide the User linking for the new panel. The options are:
   “From any panel in the virtual relationship”. This will use a random panel from the virtual panel.
   “From a specific panel in the virtual relationship”. This will allow you to choose which panel to use as the template. (Recommended option)
4. Click OK.

Warnings
1) Any existing User data in the panel being added will be overwritten if it is put into a virtual panel relationship using this method.
2) Ensure that the new panel has an appropriate memory size and configuration to support the number of Users and User Types that are programmed in the template panel. Think and prepare carefully before adding a new panel to a virtual panel using this method.

Note
Users in the virtual panel will be linked to the newly added panel(s) as defined in the wizard. The User Type assigned to each User in the new panel will be the same as that assigned in the template panel, however, the User Type programming (including name) is not copied into the new panel.
To delete a virtual panel:

1. In the Insight Toolbar, right click the virtual panel you wish to delete and choose "Delete" in the menu that appears.
2. Click Yes. The virtual panel is deleted.

Warning
Deleting a virtual panel cannot be undone, except by creating a new virtual panel and setting it up again. Think carefully before deleting a virtual panel.

Tip
Deleting a virtual panel doesn’t delete the member panels, and their programming remains unchanged. Future programming changes can only be made on the individual panels, unless you create a new virtual panel.
Insight Card Pool

Insight Card Pool lets you assign, manage and examine access control cards in an Inner Range security system. Use Insight Card Pool to:

- Create direct entry and site code card pools
- Move cards between card pools
- Assign cards to users
- Mark cards as lost or suspended, or found
- Re-activate lost or suspended cards
- Automatically create card pools based on panel programming
- Detect unassigned cards and add them to card pools
- Find and fix duplicate card assignments and other problems of the user programming

The Insight Toolbar lets you navigate between card pools.

The Card Pool Toolbar lets you manage your card pools.

The browse pane displays cards in the selected card pool.

The filter controls let you filter what is displayed in the browse pane.

Using The Card Pool Toolbar

- Create a new site code card pool.
- Create a new direct entry card pool.
- Perform a panel scan and add newly found cards to a card pool.
- Get information about Card Pool Manager.
About Card Pools

A card pool is a collection of access control cards which can be assigned to cardholders. Often, the cards are “keyed” to a particular site and numbered sequentially – these cards are called site code cards. Such cards store two pieces of information, the site code (which is generally common between all cards on a site), and the card number which is unique for each card. Usually, the card number is printed on the card for easy identification. Cards can be enrolled without a card reader, because the site code and card number are readily identifiable.

Cards that don’t have a site code are called direct entry cards. These cards only have one piece of information, the card number. Because there is no unique site information encoded on the card, typically this number is quite long and therefore isn’t usually printed on the card. These cards have to be physically enrolled at a card reader to be enrolled into the system.

Regardless of which method is used, data is encoded on the card using binary numbers (0’s and 1’s). The length of this encoding (i.e. the number of binary digits or ‘bits’) determines the “card format” (e.g. 26-bit, 34-bit etc.) The more bits, the more unique cards that can be represented.

Card pools simplify the management of cards at a site by streamlining the assignment of cards to users and introducing the ability to tag cards as lost or suspended. Cards can be returned to the card pool, which makes them available for reassignment.

Note
You can have any number of direct entry or site code card pools.

Warning
Insight Card Pool ignores tenancy rules. Operators will be able to see the names of cardholders that don’t belong in their tenancy.

Migrating To Card Pool

If you are migrating to card pool and already have cards programmed in your panels, you should use Card Pool Manager to add these cards to a card pool.

To migrate to Card Pool in an existing installation:

1. Use the Auto Create Card Pools menu option to create card pools based on panel programming (see “To automatically create card pools based on panel programming:” on page 77).
2. Add any other card pools you require (for example, corresponding to unissued cards). See “To manually create a direct entry card pool:” and “To manually create a site code card pool:” on page 77.
3. Use the Panel Scan button to detect unassigned cards and add them to your card pools (see “To allocate unassigned cards to card pools:” on page 82).
4. Optionally, use the “Card Scan” to detect and fix problems with card programming and assignment.
Working With Card Pools

You can create card pools in one of two ways. At any time, you can manually create a card pool. When you manually create a card pool, you specify:

- The type of card pool (direct entry or site code).
- The name of the card pool.
- The site code (for site code card pools).

If no card pools are present, you can automatically create card pools based on panel programming. Insight Card Manager looks at the site code programming of each panel, and creates corresponding site code card pools if they don’t exist already. A direct entry card pool is also created.

To manually create a direct entry card pool:

1. Select to create a new Direct Entry card pool:
   - Click the Direct Entry button on the Card Pool toolbar ( ), or
   - Select “New Card Pool → Direct Entry” in the File Menu, or
   - Right-click the “All Card Pools” icon in the Insight Toolbar and select “New Card Pool → Direct Entry” from the context menu.
2. Enter the name for the new card pool.
3. Click OK.

Note
Card Pool Manager expects cards to be badged at an Inner Range Card Enrolment Station (part number 994500) connected to a PC serial port.

To manually create a site code card pool:

1. Select to create a new Site Code card pool:
   - Click the Site Code button on the Card Pool toolbar ( ), or
   - Select “New Card Pool → Site Code” in the File Menu, or
   - Right-click the “All Card Pools” icon in the Insight Toolbar and select “New Card Pool → Site Code” from the context menu.
2. Enter a name, site code and site code offset for the card pool. The site code offset is not normally required. However, you must specify an offset if the card number range overlaps any other site code card number range in any given panel. For more information, refer to your Concept system programming documentation.
3. Click OK.

Tip
Insight expects the card number field to be entered in decimal. The Site Code may be entered in the hexadecimal or decimal field depending on the card format. Insight does the conversion from hexadecimal to decimal or reverse automatically as you type into the box.

To automatically create card pools based on panel programming:

1. In Insight Edit, program the site codes for your panel.
2. In Card Pool Manager, click the Auto Create button on the Card Pool toolbar ( ), or select “Autocreate Cardpools” in the File Menu. This menu option is only available if there are no card pools in the system. If a site code is found in any panel with no corresponding card pool, the card pool is created. A direct entry pool is also created.
Tip
If you have already issued cards to cardholders, you should use the panel scan feature to update the contents of your card pools. See page 82.

To add cards to an existing direct entry card pool:
1. Right-click the card pool in the Insight Toolbar.
2. Select “Add cards” in the context menu.
3. Select the card format.
4. Select the COM port of your card reader.
5. Click the Start Read button.
6. Badge one or more direct entry cards to add them to the direct entry card pool.

To add cards to an existing site code card pool:
1. Right-click the card pool in the Insight Toolbar.
2. Select “Add cards” in the context menu.
3. Specify how you want the cards to be added, as follows:
   - **Enter range manually**: adds a sequential batch of cards without badging them.
   - **Swipe range**: adds a sequential batch of cards, you swipe the 1st and last card.
   - **Swipe cards**: adds cards one at a time as you badge them.
4. If you chose “swipe range” or “swipe cards”, specify the card format and COM port, then click Start Read and badge your cards.
5. Click OK.

Tip
If you change COM ports while Insight is waiting for you to badge a card, then badging is aborted. Click the Start button to resume badging.

To merge card pools:
1. Drag one card pool onto the other in the Insight Toolbar.

Note
You can only merge a Direct Entry card pool into another Direct Entry card pool, or a Site Code card pool into another Site Code card pool with the same site code.

To delete a card pool:
1. Right-click the card pool in the Insight Toolbar.
2. Select “Delete card pool” in the context menu.
3. If the card pool contains any assigned cards, you are asked if the users’ card programming should be erased by this operation. Select “No” if you want to retain the users’ card programming.

To delete all cards from a card pool:
This is faster than multi-selecting all cards in the browser pane and deleting them.
1. Right-click the card pool in the Insight Toolbar.
2. Select “Delete all cards” in the context menu.
3. If the card pool contains any assigned cards, you are asked if the users’ card programming should be erased by this operation. Select “No” if you want to retain the users’ card programming.

Using The Browser
The browser pane in Card Pool Manager shows the status of cards in a card pool, and also lets you quickly assign and return cards, tag cards as lost, found, or suspended, reactivate them,
add notes, plus inspect and fix the assignment of cards.

The browser pane shows the status of all cards in the currently selected Card Pool. The meaning of each column is explained below.

<table>
<thead>
<tr>
<th>Heading</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Card Pool Name</td>
<td>The name of the pool containing this card.</td>
</tr>
<tr>
<td>Card Number</td>
<td>The card number. For site code cards, this is the decimal card number component without the site code. For direct entry cards, this is the entire card number (in hexadecimal).</td>
</tr>
<tr>
<td>Card Type</td>
<td>Either direct entry or site code.</td>
</tr>
<tr>
<td>Card Status</td>
<td>Available: the card is waiting to be assigned. In Use: the card has been assigned to a cardholder. Lost: the card has been lost. Suspended: the card has been suspended.</td>
</tr>
<tr>
<td>Card Assigned To</td>
<td>For cards that are in use or lost, indicates who the card is assigned to.</td>
</tr>
<tr>
<td>Date/Time Last Updated</td>
<td>The date and time the status of this card most recently changed.</td>
</tr>
<tr>
<td>Reactivate</td>
<td>For cards that are lost or suspended, indicates who the card will be assigned to if it is reactivated.</td>
</tr>
<tr>
<td>Last Assigned To</td>
<td>For cards that are returned from the lost or suspended states, this column indicates who the previous assignee was.</td>
</tr>
<tr>
<td>Quick Note</td>
<td>Operators can enter general comments in this field.</td>
</tr>
</tbody>
</table>

You can filter the browser pane on a range of criteria. Only cards matching the criteria are displayed.

To apply a filter to the browser pane:

1. Select a criterion in the Select Filter box.
2. Enter a text string in the Filter Text box. Insight hides cards that don’t match the filter text.

Tip
To stop filtering, clear the contents of the Select Filter box.

Managing Cards
When card numbers are programmed for users in some panels, these cards are programmed. You manage cards by assigning them in Insight Card Pool or Insight Edit. Cards can be marked lost or suspended in both Insight Edit and Insight Card Pool, and they can be returned or reactivated in Insight Card Pool.
In the browse pane, multi-selection is possible. Any of the actions can be carried out on multiple
cards where this makes sense (e.g., assigning multiple cards is not possible, but returning them is). You can select all cards in the browse pane with Ctrl-A.

**To assign cards from a card pool:**

- In Insight Edit, see “To assign a card from a card pool:” on page 50; or
- Use the Panel Scan (see page 82) to assign one or more cards to card pools which have already been programmed in users’ panel programming; or
- In Insight Card Pool: In the Insight Toolbar, select the card pool that contains the card you want to assign. In the browse pane, right-click the card and select “Assign To…”

**Note**

If a person is programmed as a user in multiple different panels and/or virtual panels, the same card can be assigned to all of those users, because they all actually correspond to the same actual person (this is the intended modelling). For this reason, both cards marked as ‘Available’ and ‘In Use’ are assignable. But it is impossible to assign an already assigned card to another user within the same physical or virtual panel in which it is already assigned and keep the original assignment, as this would create duplicate card programming. In the panel, if two users are programmed with the same card number, and this card is badged at a card reader of this panel, the panel will always assume that it is the user of the two with the lower user number who is entering, so the other user will never be identified.

1. Browse to the user who you want to assign the card to.
2. Hit “Apply” if you want to assign the card to more users. Hit “OK” if you want to assign the card to only this user and finish at the same time.
3. Hit “Cancel” to finish assigning this card.

**Note**

If the selected user already had a different card, this card will be removed from them first. If another user in this panel had this card before, then the card will be taken from them and assigned to the selected user.

**To mark a card as lost:**

1. In the Insight Toolbar, select the card pool that contains the lost card.
2. In the browse pane, right-click the lost card and choose “Lost” in the menu that appears. The status of the card is changed to “lost”. The previous user is shown in the “Reactivate To:” field of the card.
To suspend a card:

1. In the Insight Toolbar, select the card pool that contains the lost card.
2. In the browse pane, right-click the card and choose “Suspend” in the menu that appears. The status of the card is changed to “suspended”. The user who had the card is shown in the “Reactivate To:” field of the card.

To re-activate a lost or suspended card:

1. In the Insight Toolbar, select the card pool that contains the lost or suspended card.
2. In the browse pane, right-click the card and choose “Reactivate” in the menu that appears. The card will be reassigned to the user listed in the “Reactivate to” column.

Note
If a card is lost or suspended, do not delete the user who held it before. If you do, don’t try to reactivate the card, it may be reactivated to an unprogrammed user or to a different person.

To return a lost card to the card pool:

1. In the Insight Toolbar, select the card pool that contains the lost card.
2. In the browse pane, right-click the card and choose “Found” in the menu that appears. The status of the card will be changed to “available” and the identity of the previous cardholder will be displayed in the “last assigned to” column.

If a suspended card is lost:

1. In the Insight Toolbar, select the card pool that contains the card.
2. In the browse pane, right-click the card and choose “Lost” in the menu that appears. The status of the card will be changed to “Lost”. The column “Reactivate To” remains as before.

To return a card to the card pool:

1. In the Insight Toolbar, select the card pool that contains the card.
2. In the browse pane, right-click the card and choose “Return” in the menu that appears. The status of the card will be changed to “available” and the identity of the previous cardholder will be displayed in the “last assigned to” column.

If this card was issued to multiple users across different panels (hopefully all representing the same person), then this applies to all those users, and all those users have their card programming reset.

To move cards between card pools:

1. Select the cards you want to move, then drag them onto the target card pool in the Insight Toolbar.

Note
You can only move Direct Entry cards into Direct Entry card pools, and a Site Code cards into Site Code card pools with the same site code.

Tip
Changes you make in Card Pool are saved automatically.
Note
If your changes affect a cardholder in a panel and the panel is online, changes will be written to the panel immediately. If the panel is offline, changes will be written the next time it is connected.

Panel Scan for Unassigned Cards

Unassigned cards are cards that have been programmed in Insight Edit for a cardholder, but don’t exist in any card pools. These will be there if Card Pool was licensed after the cards were programmed. You can use Card Pool Manager to scan for unassigned cards and add them to your card pools.

To scan for unassigned cards:

1. Select ‘Panel Scan’:
   - Click the Panel Scan button on the Card Pool toolbar ( ), or
   - Select ‘Panel Scan’ in the File menu.
2. Insight scans panel programming, then displays the Assign Users To Card Pool window. If any unassigned cards are detected, they are displayed in the list.

To allocate unassigned cards to card pools:

1. Select the cardholders whose cards you wish to assign to a card pool.
2. Select the card pool in the upper right corner.
3. Click the “Assign to Card Pool” button.
4. You can repeat steps 1-3 to assign cards to different card pools. The results of the actions taken are displayed in the Log window.
5. Click the Close button when finished.

Tip
If you change your mind, you can assign a card you previously assigned to one card pool to another.

Card Scan

A ‘Card Scan’ shows you all places in the system where a particular card is programmed or assigned. It can help detect all users of a card and correct common problems such as:

- Creating missing links between cards and users who hold them.
- Finding and eliminating duplicate cards or other unintentionally assigned cards.
- Finding missing site codes (and programming them in the panels where they are missing).
- Correcting an incorrect card state.
- Removing a card from all users who hold it.
- Associating a card to all users who are programmed or assigned to have that card.
- Correct implicit site card programming. If a user has a ‘site code’ card with card number 0, the user is assumed to have a card with the user number as the card number. This ‘implicit’ card programming is problematic because it is not readily visible and does not translate well into virtualisation of panels.

Remember, a card is **programmed** for a user if the user has this card programmed in their panel programming. It is **assigned** to the user if it exists in the card pool, and the card pool shows this user as owner of the card. The card is correctly **associated** with the user if it is both programmed and assigned to them. The Card Scan detects if this is correctly done for the scanned card, and can fix the situation if it finds any problems.

**To scan a single card**
1. Right-click the card in the browse pane and select ‘Scan’ in the context menu, or Double-click the card.

**To scan multiple cards**
1. Select all cards to scan in the browse pane. You can select all cards at once with Ctrl-A.
2. Right-click and select ‘Scan’ in the context menu.

The Card Scan is a complex procedure and can be slow in large databases, but if you select multiple cards, most of it is done in the background. The dialog displays a count of the cards that were not scanned yet, and of the major and minor problems that were found while scanning. Major problems, indicated with a red cross (X), are:
- A wrong card state (card marked ‘In Use’ when it has no users).
- A user has this card assigned, but not programmed.
- A user has the card programmed implicitly, i.e., the user has a site code card number of

![Card Scan Happens in the Background](image)
0. For a physical user, their actual card number is then the user number. For a virtual user, the card number can possibly not be determined unambiguously.

- A user has this card programmed, but not assigned (exception: a physical user governed by a virtual user does not need to have the card assigned if the parent virtual user does).
- The card has two holders within the same panel (duplicate card).
- The card is assigned to a user in a panel which doesn’t have the card’s site code programmed and activated.
- The card is assigned to a virtual user, and the virtual user represents two users in different physical panels, and the site code is programmed in both panels, but the two site codes have different site code offsets.

Minor problems are shown with a blue question mark (❓), because they could indicate an error, or be correct under certain circumstances:

- If the card is duplicate, i.e. exists in two different card pools. This could be two physically different cards with different site codes.
- If a user has the card programmed, but a different card assigned. The user could have a card with the same number, but another site code assigned. Note that if the panel has the foreign site code programmed, the user will have access at the panel.

If no problem is found with a card or a user, it is marked with a green tick(✔).

**Troubleshooting cards with the Card Scan dialog**

**To operate on a single user of a card:**

1. With the card selected, select the user (physical or virtual user) in the user tree.
2. Click “Associate” if you want to fix and complete the user’s card programming, so that the card is correctly programmed and assigned to this user.
   Click “Disassociate” if you want to completely revoke the user’s card programming, so that the card won’t be assigned to the user, and the user won’t have this card programmed any more.

**To operate on one or multiple cards:**

1. Select the card or cards you want to operate on. Ctrl-A selects all cards in the list.
2. The following card reprogramming buttons are only active if the card is incorrectly associated:
   Click “Associate All” if you want to correctly program and assign each card to all its users found.
   Click “Disassociate All” if you want to remove this card from all its users found.
   Click “Autofix” to fine-tune the actions executed on all selected cards.

**Autofix Options:**

- “Assign cards to all its users” – this behaves like the “Associate All” button.
- “Remove card from all its users” – this behaves like the “Disassociate All” button.
- Choose “No change” if you don’t want to operate on user card programming with this Autofix operation.
- “Create missing sitecodes” creates the necessary site codes in panels where they are missing.
- “Remove duplicate users” – when the card scan finds two users of the same card
within one panel, the second one is invalid and will be removed (unprogrammed).

- “Correct all card states” – makes an educated guess about what the correct state should be of any card that has a “wrong” (inconsistent) state, and sets it.

To remove the assignment of a card to a user, but not remove the user’s card programming:

Don’t do this here. In the browse pane, delete the card and select “No” when asked if you want to remove the user’s card programming.
Insight Review lets you search, filter and print security events from your Inner Range security system. The Professional Edition also includes advanced alarm handling and report generation.

Use Insight Review to:

- View live and archived review
- Search and filter review data
- Specify advanced alarm rules (professional edition)
- Acknowledge alarms (professional edition)
- Generate reports (professional edition)

- The **Insight Toolbar** lets you manage your sites and panels (page 18).
- **Review Windows** let you search, filter and display review (page 88).
Underlying Concepts

Inner Range panels maintain an audit trail of access control and alarm events known as review. Depending on the size and configuration of the panel, this can be up to 6500 entries. Once the review log is full, it slowly begins overwriting itself.

Insight uploads review from panels whenever it is connected, and stores it in a permanent archive. The archive can be examined in real time (as new events are added by panel activity) or historically. Because Insight keeps a permanent archive, it does not matter when the panel review log overwrites itself.

Warning
Insight only receives review from panels while they are connected. If events occur when a panel is disconnected, they are queued and received by Insight the next time a connection occurs. The number of events that can be queued varies depending on panel size, but is guaranteed to be at least 300 events and will be at most 6,500 events.

Warning
Insight tracks review via the Insight comms task ([Menu], [7], [3], [1] at any terminal). If this comms task is stopped and started (manually or via the Control Module being reset) then Insight cannot determine which review events are ‘unseen’. In this case, you must move the review pointer manually. See page 92.

Previous Software
In PCDirect and WinDirect, review was received automatically during online edit mode. With Insight, panels might not be ‘connected’ even when Insight is running. To understand panel connections, see page 28.

Tip
Insight uploads review from panels whenever they are connected, even if the Review module is not running.

Insight Audit Events

Insight generates its own review entries called audit events. Audit events are generated when operators log on and log off, when alarms are acknowledged and when items are edited in Insight Edit.

Tip
You can filter specifically for audit events. Open a review window, add a new Thing filter, and set the thing to “Insight Audit”.
Review Windows

Review is examined in a window called the review window. You can have as many review windows open at a time as you like, each with its own set of filters. To open a new review window, select “New...” from the File menu, or press CTRL+N.

Review Preferences and Review Colouring.

A number of options are available to customize the way in which review events appear in the Review Window, and the way in which they are audibly announced on the computer.

The “Preferences” and “Review Colouring” dialogues for these options can be accessed from the Edit Menu.

Insight Review Preferences

Optional “beep” and “Play a Sound File” options are available for panel “Xmit” review events. i.e. Review messages for events that have been programmed in the panel to be reported.

Sound files can be selected independently for Alarm Notifications and Restores by selecting one of the three sound file options in the Insight library, or a custom “wave” sound file (.wav file extension).

Sounds are enabled for Notifications and Restores by default.
Insight Review Colouring.

Colours can be selected from a range of 48 basic colours and up to 16 custom colours for the “foreground” (text) and “background” of a number of important types of review events.

Factory default settings are provided, and these can be re-instated at any time by clicking on the “Reset to Factory Defaults” button. Clicking on the column-heading, sorts the Review Types in alphabetical or reverse alphabetical order. Clicking on the appropriate cell in the Foreground or Background column opens the colour selection dialogue. Select the colour and click on OK to save your choice.

Using the Review Toolbar

- Open a new review window.
- Open a saved filter stack.
- Save the current filter stack.
- Show or hide the filter stack.
- Add a new filter to the filter stack (and stops review processing).
- Turn auto-scroll on or off.
- Clear the current window. Disabled if review processing is enabled.
- Starts and stops review processing for this window.
- Create a filtered report.
- Select review archive.

Using the Filter Toolbar

- Open a saved filter.
- Save the filter for use later.
- Remove the filter from the filter stack.
- Toggle and/or logic. If and is selected, review must match this filter as well as previous filters. If or is selected, review only has to match this filter plus any subsequent and filters.

To Examine Review:

1. Open a new review window (CTRL+N)
2. Load or modify the filter stack to suit your requirements
3. If your filter stack includes the “all review”, “live review” or “last…” filters, and you want review to appear as it happens at the panel, make sure the panel is connected in the Insight Toolbar.
4. Click the “GO” button.
Filtering Review

Since Insight saves every single review event ever received, the number of events can grow to a large number. Usually, you will only be interested in examining review from a particular time period or from a specific panel. You can quickly isolate review of interest by applying filters.

About Filter Stacks

Each review window has a filter stack applied to it. A filter stack is a collection of one or more filters which are “stacked” between the window title and the window contents. When you modify the filter stack, you change what review events are displayed in the window.

Tip

You can hide the filter stack by clicking the show/hide filter stack button. The filters still apply even when hidden.

Time Filters

Time filters let you filter for review that occurred at a certain time. There are five types of time filters.

- **On:** Lets you specify a particular day. You can also specify a time interval on the specified day, for example 18:30 to 19:15.
- **From / To:** Lets you specify an interval that spans more than one day. For example, midday on March 15 until 8pm on April 3rd.
- **Last:** Lets you specify review that occurred within a certain range of the current time. For example, the last 45 minutes or the last 2 weeks. As time passes, entries will disappear with this filter type.
- **Live Review:** This special filter type matches any review that is received live from a connected panel.
- **All Review:** This special filter type matches ALL review unconditionally, including live review from connected panels.

Thing Filters

Thing filters let you filter for review that concerns a particular item. Refer to the table below.

<table>
<thead>
<tr>
<th>I want to…</th>
<th>This is achieved by…</th>
</tr>
</thead>
<tbody>
<tr>
<td>See review from a specific panel.</td>
<td>Select the panel thing filter.</td>
</tr>
<tr>
<td>Exclude review from a specific panel.</td>
<td>Select the panel thing filter, then set the matching option box to “isn’t”.</td>
</tr>
<tr>
<td>See review that contains certain text.</td>
<td>Select the text compare thing filter.</td>
</tr>
<tr>
<td>Exclude review that contains certain text.</td>
<td>Select the text compare thing filter, then set the matching option box to “isn’t”.</td>
</tr>
<tr>
<td>See review for a particular user, door, area, time zone, function zone, calculated auxiliary, diary, input or module.</td>
<td>Select the user, door, area, time zone, function zone, calculated auxiliary, diary or module thing filter.</td>
</tr>
<tr>
<td>Exclude review for a particular user, door, area, time zone, function zone, calculated auxiliary, diary, input or module.</td>
<td>Select the user, door, area, time zone, function zone, calculated auxiliary, diary or module thing filter, then set the matching option box to “isn’t”.</td>
</tr>
<tr>
<td>See review that is a particular type (e.g. area on/off, system messages, user access etc.)</td>
<td>Select the review type thing filter.</td>
</tr>
<tr>
<td>Exclude review that is a particular type.</td>
<td>Select the review type thing filter, then set the matching option box to “isn’t”.</td>
</tr>
</tbody>
</table>
I want to…  This is achieved by…

See XMIT entries.          Select the XMIT thing filter. (XMIT entries are review messages flagged as ‘important’ by the panel).

Select review for a particular XMIT message type. Select a thing filter that starts with an asterisk.

See all Insight audit events. Select the Insight audit thing filter.

See edits made to panel programming, Insight programming or Insight permissions. Select the audit panel items, audit insight items or audit permissions thing filter.

See operator log-ons and log-offs. Select the audit operator log thing filter.

See panel enrolments. Select the audit sync panel thing filter.

Paid Feature
Not all of these filters are available in Insight Installer.

You can combine any number of time and thing filters to create more complex rules. For example, by adding three filters you could show only review from “Panel A” that occurred in the last hour and contains the word “granted” in the message.

To add a filter to the filter stack:

1. Click the add filters button in the toolbar and choose the appropriate type.
2. Modify the filter according to your requirements.
3. If this isn’t the only filter in the stack, click the and/or button to determine how this filter interacts with the other filters in the stack.
4. Click the go button to activate review processing for the window.

Tip
You can search for items in the review window. Choose “Find…” from the Edit menu, or press CTRL+F.

To copy review to the clipboard:

1. Select the item(s) you want to copy.
2. Choose “Copy” from the Edit menu, or press CTRL+C.

Tip
You can select multiple rows by holding down the Shift or Control keys whilst clicking in the review window.

To save review to a text file:

1. (Optional) select the entries you want to save.
2. Choose “Save As…” from the File menu.
3. To save all events, click the All Entries radio button. To save the events you selected in step 1, click the Selected Events radio button.
4. (Optional) enter a name for your file.
5. Click Save.
Moving The Review Pointer

If the Insight comms task is reset, then Insight cannot determine which review entries have not been processed. In this case, it is possible to move the review pointer manually.

To move the review pointer:

1. Right click the panel in the Insight Toolbar and choose “Review” in the menu that appears, then choose “Move Back…”.
2. Enter how far back you want to move the review pointer.
3. Click Close.

Warning
Moving the review pointer may cause duplicate review entries to be recorded. This feature is recommended for experts only.

Basic Reports

Insight includes report templates for most common reporting activities, including user access, door access and alarm reports. Refer to the table below.

<table>
<thead>
<tr>
<th>I want to…</th>
<th>This is achieved by…</th>
</tr>
</thead>
<tbody>
<tr>
<td>Create a report showing all review events.</td>
<td>Use the all events report.</td>
</tr>
<tr>
<td>Create a report showing all comms task triggers.</td>
<td>Use the all alarms report.</td>
</tr>
<tr>
<td>Create a report showing all XMIT events.</td>
<td>Use the XMIT alarms report.</td>
</tr>
<tr>
<td>Create a report showing user activity.</td>
<td>Use the user access report.</td>
</tr>
<tr>
<td>Create a report showing door activity.</td>
<td>Use the door access report.</td>
</tr>
<tr>
<td>Create a report showing lift activity.</td>
<td>Use the lift access report.</td>
</tr>
<tr>
<td>Create a time on site report.</td>
<td>Use the time on site report.</td>
</tr>
<tr>
<td>Create a report showing events matching a complex filter.</td>
<td>Create a filter stack report.</td>
</tr>
</tbody>
</table>

To generate a basic report:

1. Select the desired report from the Reports menu.
2. Specify the criteria for your report.
3. Click OK. Insight generates the report.

Tip
You can copy all or part of the report into the Windows clipboard. Select the portion you want to copy, then choose “Copy” from the Edit menu, or press CTRL+C. Formatting will be preserved if you paste the report into a compatible application such as Microsoft® Word.

To print a report:

1. Choose “Print…” from the edit menu.

Tip
If your report doesn’t paginate correctly, then regenerate the report and change the “records per page” value to something else.
To save the report to disk:

1. Choose “Save As…” from the File menu, or press CTRL+S.

Tip
The report is saved in HTML format and can be opened by any web browser.

To find text in a report:

1. Choose “Find…” from the Edit menu, or press CTRL+F.

Custom Reports

You can generate a report based on complex rules and filters. Creating custom reports is a two-step process. First, a filter stack is created that specifies the criteria for the report. Then, the report is generated.

To create a custom report:

1. If necessary, create a new review window (select “New…” from the File menu, or press CTRL+N).
2. Add time filters and thing filters to your review window until it is filtering for the data you want (see page 90).
3. Test your filter stack by pressing the Go button in the toolbar ().
4. Click the Filtered Report button in the toolbar (). A report is generated matching the criteria in the filter stack.

Tip
If you save the filter stack with the Save Filter Stack button (), then you can quickly access the report by choosing “Filter Stack” from the Reports menu, then selecting your saved filter stack. Make sure you are saving the Filter Stack, and not an individual filter - the Save Filter Stack button is next to the Hide Filter Stack button () at the top of each review window.

Time On Site Report

With Insight you can generate a Time On Site report. The key features of the Time On Site report are:

1. Fully customisable report criteria including flexible start and end times, multiple shift times, cardholders, doors.
2. Selectable reporting fields.
3. Choice of detailed or exception reporting modes.
4. Customisable shift tolerance.
5. Provision for worker breaks of customisable duration.
6. Option to export to CSV (Comma Separated Values) file readable by Excel & other software.
7. Option to export to MYOB, Tenix or Custom file.
9. Ability to load and save all report settings.

Paid Feature
Time On Site reporting is licensed separately as part of the Insight Advanced Reporting Licence and requires Insight Professional to operate.
To generate a Time On Site report:

1. Choose “Time On Site” from the Reports menu.
2. On the Time/Date tab, specify the starting and ending date and time for the report.
3. Define one or more shifts for the report.
4. On the Panels/Users/Doors tab, select at least one cardholder and door. Any number of additional doors and cardholders can be specified, across multiple Panels if required.
5. On the Fields tab, tick the fields you want included on the report.
6. On the Detailed/Exception tab, choose between a detailed report (which includes all time on site information) and an exception report (which only includes entries that match specified exception criteria, such as minimum or maximum hours per day/week/month).
7. If you want to export the data in addition to generating the report, tick the Generate Export File box on the Export tab, and choose your Export Type (Custom, MYOB or Tenix). Once you have chosen the export type, you can then choose your export settings relevant to that type. If you choose the “Custom” type, you will need to setup the file format. See “To setup a custom export type format” below.
8. Choose which review archive to run the report on. The default is “current”, which contains review that hasn’t been archived.
9. If you want to save the report settings, click the Save Settings button.
10. Click OK to generate the report.

To setup a Custom export type format:

1. Choose "Custom" from the Export Type drop-down list.
2. Select “Edit Custom Output Format”.
3. Define the content of the Header, User Summary record, Ingress/Egress record and Footer sections. The required data fields, separators, format identifiers, etc. are added by selecting an insertion point and double-clicking on an item in the “Substitution Fields” list. Normal text can also be entered by typing.
4. Click OK to accept the settings for this report.

Date and Time formatting.

In the custom export format definitions; the operator can specify a date format by including a format phrase in square brackets [ ].

E.g. User exited at: ^LASTOUT[%H:%M]^.

For example, a "User Summary Record: (repeated for each user)" line like this:

^USERDEFINED1^^COMMA^^LASTOUT[%d/%m/%Y,%H:%M]^^COMMA^^ACCESS SPOINTERLAST^^NEWLINE^.

Could produce an output line like this: 666777,18/06/2008,11:25,TOS Door.

The formatting codes for the date / time fields are listed below:

<table>
<thead>
<tr>
<th>Format Code</th>
<th>Field Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>%a</td>
<td>Abbreviated weekday name</td>
</tr>
<tr>
<td>%A</td>
<td>Full weekday name</td>
</tr>
<tr>
<td>%b</td>
<td>Abbreviated month name</td>
</tr>
<tr>
<td>%B</td>
<td>Full month name</td>
</tr>
</tbody>
</table>
Note that only the following codes are relevant when defining a time span:

- `%d` Day of month. Must be used alone & is specified as a decimal number.
- `%H`, `%M` and `%S` Hour, Minute and Second. May be used together.

The # flag may prefix any formatting code. In that case, the meaning of the format code is changed as follows.

<table>
<thead>
<tr>
<th>Format Code</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td><code>##a</code>, <code>##A</code>, <code>##b</code>, <code>##B</code>, <code>##p</code>, <code>##X</code>, <code>##Z</code>, <code>##Z</code>, <code>##%</code></td>
<td># flag is ignored.</td>
</tr>
<tr>
<td><code>%c</code></td>
<td>Date and time representation appropriate for locale</td>
</tr>
<tr>
<td><code>%d</code></td>
<td>Day of month as decimal number (01 – 31)</td>
</tr>
<tr>
<td><code>%H</code></td>
<td>Hour in 24-hour format (00 – 23)</td>
</tr>
<tr>
<td><code>%I</code></td>
<td>Hour in 12-hour format (01 – 12)</td>
</tr>
<tr>
<td><code>%j</code></td>
<td>Day of year as decimal number (001 – 366)</td>
</tr>
<tr>
<td><code>%m</code></td>
<td>Month as decimal number (01 – 12)</td>
</tr>
<tr>
<td><code>%M</code></td>
<td>Minute as decimal number (00 – 59)</td>
</tr>
<tr>
<td><code>%p</code></td>
<td>Current locale’s A.M./P.M. indicator for 12-hour clock</td>
</tr>
<tr>
<td><code>%S</code></td>
<td>Second as decimal number (00 – 59)</td>
</tr>
<tr>
<td><code>%U</code></td>
<td>Week of year as decimal number, with Sunday as first day of week (00 – 53)</td>
</tr>
<tr>
<td><code>%w</code></td>
<td>Weekday as decimal number (0 – 6; Sunday is 0)</td>
</tr>
<tr>
<td><code>%W</code></td>
<td>Week of year as decimal number, with Monday as first day of week (00 – 53)</td>
</tr>
<tr>
<td><code>%y</code></td>
<td>Year without century, as decimal number (00 – 99)</td>
</tr>
<tr>
<td><code>%Y</code></td>
<td>Year with century, as decimal number</td>
</tr>
<tr>
<td><code>%z</code>, <code>%Z</code></td>
<td>Either the time zone name or time zone abbreviation, depending on registry settings; no characters if time zone is unknown.</td>
</tr>
<tr>
<td><code>%%</code></td>
<td>Percent sign</td>
</tr>
</tbody>
</table>

### Note

Insight will automatically flag users whose report data may include inaccuracies. Users are flagged who trigger any of the following events:

1. Two or more consecutive ‘Door Out’ events without an intervening ‘Door In’ event.
2. Two or more consecutive ‘Door In’ events without an intervening ‘Door Out’ event.
3. First event in shift is ‘Door Out’.
4. Last event in shift is ‘Door In’.
5. No ‘Door Out’ events in shift.

### Tip

You can specify a shift tolerance when generating a time on site report. In and Out events occurring within the specified tolerance will be included in the report.

### Tip

You can specify customisable worker breaks. Time off site will be ignored if it is less than the specified interval.
To generate a report using saved settings:

1. Choose “Time On Site” from the Reports menu.
2. Click the Load Settings button.
3. Navigate to your saved settings file.
4. Click Open.
5. (Optional) make any desired settings changes prior to running the report.
6. Click OK to run the report.

Alarms

Insight provides advanced, customisable alarm recognition and response. The key features of Insight alarm handling are:

- Four alarm levels: low, medium, high and critical.
- Define any number of customisable alarm events with complex filters.
- Customisable alarm reaction including sound effects and opening schematic maps.
- Automatic user photograph pop-up.
- Customisable help response messages.
- Customisable operator responses.

What is an alarm?

For clarity, we define two different types of alarm:

- **Panel alarms** (also called XMIT entries) are security conditions detected in the field by a Control Module and flagged as an alarm. Usually, you will want these alarms to be handled as an alarm condition in Insight.
- **Insight alarms** are defined by Operators. They may or may not be based on an XMIT entry. Insight Alarms are much more flexible than panel alarms, because you can choose exactly what conditions must be satisfied for the alarm to be raised.

The way Insight reacts to an alarm is controlled by an **alarm response**. When Insight is first installed, it has a single alarm response set up that handles all panel alarms. You can modify or remove this alarm response, and you can add any number of additional alarm responses.

Alarms are displayed in the **alarms window**, and must be acknowledged. In any module, the number of outstanding alarms is displayed in the lower right hand corner of the screen.

Paid Feature

Alarm handling is not available in Insight Installer.

Acknowledging Alarms

When an alarm occurs, a number of things will happen, depending on the rules specified in the corresponding alarm response. Typically, an alert sound is played and the alarm count starts flashing.

**To open the alarm handler window:**

1. In any module, click the alarm count in the status bar (bottom right).

**To acknowledge an alarm:**

1. Open the alarm handler window.
2. Select the alarm you wish to acknowledge. (You can select multiple alarms with the shift and control keys).
3. Click the Acknowledge Alarm button ( ). Depending on the alarm response options the Alarm Acknowledge screen appears.
4. If the alarm requires an acknowledgement message, then enter your acknowledgement text. You can select from pre-defined operator responses by clicking the down-arrow at the right edge of the field.
5. Click OK. The alarm is removed from the alarm handler window.

Working With Alarm Responses

An **alarm response** defines what rules constitute an alarm and also specifies how Insight reacts when it occurs. Alarms are defined using a filter stack. When incoming review matches the filter stack, the alarm is triggered. A triggered alarm can be configured to attract the Operator's attention in a variety of ways. Triggered alarms are added to the alarms window and must be acknowledged.

To create a new alarm response:

1. In any module, click the alarm counter (bottom right corner). The Alarm Handler window opens.
2. On the Edit Alarms menu, choose “New Alarm Response” and navigate to the type of review event you want to base the alarm response on. A new filter stack is created matching your criteria, and the Alarm Response window is displayed.
3. Enter the settings for this alarm response (see below).
4. Click OK.
**Options Tab**
This defines the basic properties of the Alarm Response.

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>The name of the alarm response, used for identification only.</td>
</tr>
<tr>
<td>Alarm Level</td>
<td>Specifies the urgency of the alarm. Since the alarm window can be filtered to only show a certain level and above, this can be used to prioritise alarms.</td>
</tr>
<tr>
<td>Response Help</td>
<td>Specifies the help text that should be displayed when the alarm is acknowledged.</td>
</tr>
<tr>
<td>Operator Response</td>
<td>If ticked, the operator must enter a text message when acknowledging the alarm. If cleared, no text message is required.</td>
</tr>
<tr>
<td>Enabled</td>
<td>If ticked, alarm processing occurs normally for this alarm response. If cleared, the alarm response is ignored.</td>
</tr>
<tr>
<td>This Alarm will be Acknowledged Automatically</td>
<td>If ticked, no operator action is required - Insight will acknowledge the Alarm automatically and the Alarm will not appear in the IR Alarm Handler window.</td>
</tr>
</tbody>
</table>

**Message Tab**
Controls the Message displayed to the Operator in the Alarm Response window.

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alarm Response Message</td>
<td>A description of the alarm. This text is displayed next to the alarm in the alarm handler window.</td>
</tr>
<tr>
<td>Text Colour</td>
<td>When the alarm occurs, the text will be this colour in the alarm handler window.</td>
</tr>
<tr>
<td>Background Colour</td>
<td>When the alarm occurs, this colour will be behind the alarm in the alarm handler window.</td>
</tr>
</tbody>
</table>

**Immediate Tab**
Allows Insight to perform actions immediately upon receipt of this type of Alarm Insight Review.

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beep PC’s internal Speaker</td>
<td>When the alarm occurs, the internal PC speaker is beeped.</td>
</tr>
<tr>
<td>Play a Sound File</td>
<td>When the alarm occurs, the specified sound file is played. To choose a custom sound, press the Custom radio button, then browse to the sound file (must be in WAV format). Press the Test button to hear the alarm sound.</td>
</tr>
<tr>
<td>Repeat Count</td>
<td>Indicates how many times to play the alarm sound. If set to continuous, the sound repeats until the alarm is acknowledged or the mute sounds button is pressed in the toolbar (  ).</td>
</tr>
<tr>
<td>Maximize Window</td>
<td>If Insight Review is running, then it will be maximised (in other words, the window will be expanded to take up the entire screen). If Insight Review isn’t running, this option is ignored.</td>
</tr>
<tr>
<td>Flash Application Icon In Taskbar</td>
<td>If Insight Review is running, then it will start flashing in the Windows task bar. If Insight Review isn’t running, this option is ignored.</td>
</tr>
</tbody>
</table>
Display Photo-ID User Verification screen

If the review entry that generated the event has a user associated with it, then the Photo-ID User Verification screen is displayed.

Start Insight Schematic

Launches Insight Schematic.

...when computer name is

If this field is used, a Windows machine name (without the backslash characters) must be specified.

Map

In Insight Schematic, specifies which map to display when the alarm occurs.

Show DVR Camera Live Video

Opens a new video window displaying live video from the specified camera.

Run (immediate tab)

You can specify the path, name and command line options of a 3rd-party software component, which will be executed when the alarm occurs.

Note

Custom alarm sounds are not backed up by Insight Archiver. If you delete or rename the custom sounds, then they will not be played by Insight.

Paid Feature

The Display Photo-ID User Verification screen requires a valid Photo-ID licence.

Using the Photo-ID User Verification Screen

1. The Photo-ID User Verification Screen will appear in response to a user event when enabled.
2. The user associated with the current user event is displayed in the middle of the screen.
3. The associated review event is displayed beneath the pictures.
4. Selecting the Previous or Next button will show the corresponding user event and user photo. You can also click on the previous or next photo to go to the corresponding event.
**Acknowledge Tab**
Contains options pertaining to Alarm acknowledgement.

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Display a Message Box</td>
<td>If this option is ticked, then double-clicking an alarm opens the alarm acknowledgement window. If this option isn’t ticked and response help is set to none and operator response isn’t ticked, then double-clicking an alarm silently removes it without showing the alarm acknowledgement window.</td>
</tr>
<tr>
<td>Display a dialog box showing User Information</td>
<td>If the review entry that generated the event has a user associated with it, then a User Information Window is displayed when the alarm is acknowledged, unless the Auto Pop-Up option is ticked. (This is a different window to the Photo-ID Verification box in the Immediate tab)</td>
</tr>
<tr>
<td>Auto Pop-Up</td>
<td>If the review entry that generated the event has a user associated with it, then the User Information Window is displayed when the alarm occurs. The User Information option must also be ticked.</td>
</tr>
<tr>
<td>Run (acknowledge tab)</td>
<td>You can specify the path, name and command line options of a 3rd-party software component, which will be executed when the alarm is acknowledged.</td>
</tr>
</tbody>
</table>

**DVR Tab**
Commands can be sent to cameras and DVRs when an Alarm is received.

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Execute DVR Command</td>
<td>Sends the specified command to the selected camera or DVR.</td>
</tr>
<tr>
<td>Additional Parameters</td>
<td>Some commands require additional parameters, which can be specified in these fields.</td>
</tr>
</tbody>
</table>

**Reports Tab**
Advanced Reports can be triggered to run upon receipt of an Alarm.

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Run Report</td>
<td>The checkbox runs the selected report when the alarm occurs.</td>
</tr>
<tr>
<td>Additional Parameters</td>
<td>Allow you to select from Advanced Reports in the system.</td>
</tr>
</tbody>
</table>

**Note**
For reports to execute automatically, you must set a valid printer in the settings for the selected report. If you need to print to a network printer, the IRDB service on the Insight server computer must be set to run using an account that has access to the network printer(s). See your network administrator if network printing is required.

**Tip**
Unlike the Actions in the other tabs, the Actions in the DVR and Reports tab aren’t dependent on an Insight client module being open at the time the Alarm is received. These actions will execute when the alarm is received by Insight as long as the Insight server is running.
To perform DVR commands on alarms, the Insight DVR Integration Module must be purchased. Likewise, the Insight Advanced Reporting Module is required to trigger reports on alarms.

To customise which events trigger an existing alarm response:

1. Open the Alarm Handler window by clicking the alarm count.
2. Click the Alarm Responses button in the toolbar ( ).
3. Select the alarm response you wish to modify, then click Edit. The alarm response filter stack is displayed, then the alarm response window is opened.
4. Click Cancel to close the alarm response window. You will be left with the alarm response filter stack.
5. Modify the filter stack to suit your requirements (page 90). Remember, any review messages that satisfy your filter stack will generate an alarm.
6. Close the filter stack. Changes take effect immediately.

To modify how Insight reacts to an existing alarm response:

1. Open the Alarm Handler window by clicking the alarm count.
2. Click the Alarm Responses button in the toolbar ( ).
3. Select the alarm response you wish to modify, then click Edit. The alarm response filter stack is displayed, then the alarm response window is opened.
4. Make any changes to the alarm response.
5. Click OK.

Tip
If the filter stack for the alarm response is open, then you can modify the alarm response simply by clicking the Alarm Response button on the toolbar ( ).
Working With Help Responses

Help responses are displayed as part of the alarm acknowledgement window. You can create different help responses for different alarms. You must first create the help response using the help response editor. You can then attach the help response to an alarm so it will be displayed during the acknowledgement procedure.

To create a new help response:

1. Open the Alarm Handler window by clicking the alarm count (bottom right corner).
2. Click the Help Responses button in the toolbar ( ).
3. Click New.
4. Enter the name and text of the help response. You can use the formatting tools at the bottom of the window to control text colour, size and formatting.
5. Click OK.

To modify an existing help response:

1. Open the Alarm Handler window by clicking the alarm count.
2. Click the Help Responses button in the toolbar ( ).
3. Select the help response you wish to modify.
4. Click Edit.
5. Make any changes you require.
6. Click OK. The next time you acknowledge an alarm with this help response attached, you will be shown the updated text.

To attach help response to an alarm:

1. Open the Alarm Handler window by clicking the alarm count.
2. Click the Alarm Responses button in the toolbar ( ).
3. Select the alarm response you wish to modify, then click Edit. The alarm response filter stack is displayed, then the alarm response window is opened.
4. Select the Options tab.
5. Click the Response Help field, and select the help response you want displayed.
6. Click OK. When operator’s acknowledge this type of alarm, the help text will be displayed in the acknowledge window.
Working With Operator Responses

Operators usually need to enter text when acknowledging alarms. Instead of entering free text, you can provide "templates" dealing with common responses that the operator can quickly select.

To create a new operator response:

1. Open the Alarm Handler window by clicking the alarm count.
2. Click the Operator Responses button in the toolbar ( ).
3. Click New.
4. Enter the name and text of the operator response.
5. Click OK.

To modify an existing operator response:

1. Open the Alarm Handler window by clicking the alarm count.
2. Click the Operator Responses button in the toolbar ( ).
3. Select the operator response you wish to modify.
4. Click Edit.
5. Make any changes you require.
6. Click OK.

To apply an operator response when acknowledging an alarm:

1. Double-click the alarm to open the alarm acknowledgement screen
2. In the Operator Acknowledgement field, click the pull-down arrow and choose the appropriate response. You can optionally modify the text if required.
3. Click OK.
Insight Advanced Reports

Advanced Reports lets you design and generate a wide range of User Database or Event-based reports, including muster, user activity and time on site reports.

Use Insight Advanced Reports to:

- Run ready-made reports such as muster reports, door access reports and time on site.
- Generate extended user reports with photographs.
- Design new custom reports based on existing templates or from scratch.
- Place coloured text and graphics, drawing shapes, charts, barcodes, tables, forms or even data from external applications in your reports.
- Print professional report documentation.
- Export reports in a myriad of formats including HTML, XML, RTF, JPEG, PDF and Text.
- Output reports to third party software such as MYOB and other payroll systems.
- Share reports amongst multiple Insight installations.

This module has undergone a significant upgrade in V4. The main changes are as follows:

- Improved usability of the Advanced reports User interface.
- Review based reports now support the powerful grouped filter-stack to enable you to create a vast number of reports.
- All advanced reports can be automatically run on a time or panel event based schedule.
- New Time on Site report selects users with a filter-stack, so you will no longer need to update reports every time a new employee starts, or an old one leaves.
- Import/Export means that reports can easily be sent by e-mail - great for remote technical support.
- Exception reports allow you to see who hasn’t gone through a door.
- All report settings are now stored in the server (including the report output format).
- The **Insight Toolbar** lets you select a built-in report template or customised report.
- The Launch Toolbar allows you to launch other Insight applications.
- The Report Properties window allows you to design your report.
- The **Report Preview** button displays the last report that you generated.

**Paid Feature**
Insight Advanced Reports is a separately licensed module.
Underlying Concepts

Insight Advanced Reports lets you design your own reports using a flexible report designer. The basis of every report is a **report template**. The report template dictates the physical appearance of the report including the position of text and graphics, which Insight fields are included, any grouping or sorting of the data in the report and any page headers or footers included in the report. Think of the report template as the physical layout and appearance of the report.

In addition to the report template, a report requires certain information that assists in preparing the report. For example, a muster report needs to know which areas of interest should be included in the report. Insight also needs to know where to send the report – to the screen, to a printer, to an email contact or to a file. This information is collectively called the **report settings**.

A report is the combination of a report template and the report settings. Insight requests the report settings every time you run a report. When you save a report, the report settings are saved as well, and are used as the default values the next time you run the report.

Insight is pre-installed with a handful of reports. These are called built-in reports. If you change the report settings, you can save the report under a new name. The saved report is called a custom report.

Tip
A report template controls how a report looks. The report settings specify what data to feed to the report, and also where the report is sent (screen, printer, export file etc.).

Working With The Insight Toolbar

The Insight Toolbar provides access to your custom reports and built-in reports.

**To view and manage your custom reports:**

1. Make sure the Insight Toolbar is visible (View → Insight Toolbar)
2. Click the Custom Reports tab

**To view and manage your built-in reports:**

1. Make sure the Insight Toolbar is visible (View → Insight Toolbar)
2. Click the Built-in Reports tab

Generating Reports

Generating a report requires up to three steps: selecting the report, specifying the report options, and running the report.

**To generate a report without changing report settings:**

1. On the Insight Toolbar, click the Custom Reports tab (to generate a report you’ve saved previously) or click the Built-in Reports tab (to generate a built-in report with default settings).
2. Right-click the report, and choose “Run Report” in the menu that appears.

Tip
All Advanced Reports can be triggered in response to an Alarm. See the section Working With Alarm Responses on page 97.
To generate a report with the option to change report settings:

1. On the Insight Toolbar, click the Custom Reports tab (to generate a report you’ve saved previously) or click the Built-in Reports tab (to generate a built-in report starting with default settings).
2. Right-click the report and choose “Report Settings…” in the menu that appears.
3. Specify any data settings for the report (varies according to the report type).
4. Click More Options.
5. Specify the date range, print options and export options for the report as desired.
6. Click OK.
7. If you want to save your settings as a custom report, click Save As and enter a name and group for the report. The group dictates where the report appears in the Custom Reports tree.
8. Click Run Report.

Tip
You can create a new group when saving the report. Click the Create New Group button and specify a name for the group.

Note
If you need to print to a network printer, the IRDB service on the Insight server computer must be set to run using an account that has access to the network printer(s). See your network administrator if network printing is required.

To export a report to a file:

1. Select the report you want to export.
2. Right-click the report and choose “Report Settings…” in the menu that appears.
3. Specify any data settings for the report (varies according to the report type).
4. Click More Options.
5. Click the Export Options tab.
6. Specify a name and format for the export file.
7. Click OK.
8. If you want to save your settings as a custom report, click Save As and enter a name and group for the report. The group dictates where the report appears in the Custom Reports tree.
9. Click Run Report. The report is exported then the normal report preview appears.

Tip
If you don’t specify a path, then Insight saves the report in the Advanced Reports folder in the Insight directory (normally C:\Program Files\Insight\Advanced Reports).

Tip
If you want the exported report to be opened by Microsoft® Word®, then select “HTML” as the export format, and call the export file “filename.doc”. Adding the .doc extension means the document will be opened by Word, which can parse HTML files (from Word 2000 onwards).

Tip
If you want to export a report to PDF (Portable Document File) format, then generate the report to screen, then click the email (✉️) button in the Preview Toolbar and choose PDF as the format.
Built-in Reports

Insight ships with a number of built-in reports. As of version 3.2.1.2, there are three main types of built-in report: door access reports, extended user reports and muster reports.

The **door access reports** show when doors in the system have been accessed and by whom. The **extended user report** shows the name, company and department of a specified set of users including their photograph. The **muster reports** show user access within the last 24 hours, and are used to establish the location of all users currently on site at the time the report is run.

**To generate a door access report:**

1. On the Insight Toolbar, click the Built-in Reports tab and select the type of door access report you wish to generate. If you’ve created your own custom door access report, then select it instead (on the Custom Reports tab).
2. If you want to specify a date range, print or export the report, right click the report and choose “Report Settings…”. On the dialog that appears, click More Options and specify those settings.
3. Click Run Report.

**To generate an extended user report:**

1. Select the Extended User Report on the Built-in Reports tab. If you’ve created your own custom report based on this report, then select it instead (on the Custom Reports tab).
2. Right click the report and choose “Report Settings…”
3. Select the users that should be included in the report. (Only users who have information in the First Name, Last Name, Company, Department or Photograph fields are displayed.)
4. If you want to specify a date range, print or export the report, click More Options and specify those settings.
5. Click Run Report.

**To generate a muster report:**

1. On the Insight Toolbar, click the Built-in Reports tab and select the type of muster report you wish to generate. If you’ve created your own custom muster report, then select it instead (on the Custom Reports tab).
2. Right click the report and choose “Report Settings…”
3. In the left pane, specify the areas you wish to run the muster report against.
4. In the right pane, select any muster points you want to highlight in the report.
5. If you want to specify a date range, print or export the report, click More Options and specify those settings.
6. Click Run Report.
Custom Reports

A custom report contains all of the run-time settings of a report (such as input data and output format), plus the name of the template that embodies the layout of the report. To change the physical appearance of the report, you edit the report template. To change what data is fed to a report and where its sent to, you edit the custom report settings.

To create a custom report:

1. On the Insight Toolbar, select a report which will form the basis of your custom report.
2. Right-click the report and choose “Report Settings…” in the menu that appears.
3. Specify any data settings for the report (varies according to the report type).
4. Click More Options.
5. Specify the date range, print options and export options for the report.
6. Click OK.
7. Click Save As and enter a name and group for the report
8. Click Cancel to close the report options window.

To modify a custom report:

1. On the Insight Toolbar, select a report which will form the basis of your custom report.
2. Right-click the report and choose “Report Settings…” in the menu that appears.
3. Specify any data settings for the report (varies according to the report type).
4. Click More Options.
5. Specify the print options and export options for the report.
6. Click OK.
7. Click Save.
8. Click Cancel to close the report options window.
To switch a custom report to a different template:

1. Select the report you want to change.
2. Right-click the report and choose “Report Settings...” in the menu that appears.
3. Click More Options.
4. Click Browse.
5. Navigate to the report template you want to use. (Normally in C:\Program Files\Insight\Advanced Reports).
6. Click Open.
7. Click OK.
8. Click Save.
9. Click OK.
10. Click Cancel to close the Report Options window.

Working With Report Previews

When you generate a report, a preview is displayed in the report preview pane of the Advanced Reports main window. You can use the preview toolbar to perform additional operations such as printing or emailing the report.

Using the Preview Toolbar

- Go to the first page of the report.
- Go to the previous page of the report.
- Jump directly to a page of the report.
- Go to the next page of the report.
- Go to the last page of the report.
- Print the current page of the report.
- Print all pages of the report.
- Send the report via email to a recipient.

Tip

When emailing a report, you can choose to email in a number of formats including PDF, TIFF, EMF, JPG and text. The default type is a preview file, which can be opened on any computer that has Insight installed.

Working With Templates

Every report is based on a report template. A report template can be shared between different reports, and you can have many different report templates. Each report must use exactly one template.

Insight Advanced Reports ships with a number of built-in report templates to get you started. You can create your own templates by choosing an existing template, making a copy of it and modifying it to suit your requirements. Or, you can create a new report template from scratch.
To create your own report template:

1. Select a custom report (Insight Toolbar→Custom Reports tab) or built-in report (Insight Toolbar→Built-in Reports tab) that most closely resembles the report you’re trying to achieve. (If you intend to start a new report from scratch, then you can select any report you like.)
2. Right-click the report, and choose “Edit Report Style...” in the menu that appears. The report designer opens and shows the contents of the report template.
3. On the file menu, choose “Save As...” and enter a name for the new template.
4. Click Save.
5. If you’re creating a report from scratch, then select all the objects on the report (press CTRL+A or choose Select→All from the Objects menu), then press the delete key (or choose Delete from the Edit menu). Then choose Save from the File menu.
6. Make any changes you wish to your new report template.
7. Choose Save from the File menu.
8. Close the report designer.

Tip
Once you’ve created a new template, you’ll need to modify a custom report so that it uses the new template. See “to switch a custom report to a different template” on page 110.

To modify an existing report template:

1. Select a report that uses the template you want to modify.
2. Right-click the report and choose “Report Settings...” in the menu that appears.
3. Click More Options.
4. Click Edit Style. The report designer opens and shows the contents of the report template.
5. Make any necessary modifications to the report template.
6. Choose Save from the File menu.
7. Close the report designer.
8. Click OK.
9. To see a preview of your changed report, click Run Report. If you don’t want to preview your changes, click Cancel (the changes to your template are preserved).

Note
The built-in templates are marked as “read only”. You cannot directly modify these templates. To edit a built-in template, first save it with a different name.

Warning
Changes made to a template will affect all reports that use that template. If you want to make changes to a report without affecting other reports, then save the template under a different name before making changes, then assign the new template to the report (Report Settings→More Options→Browse).
Using The Report Designer

Insight Advanced Reports includes a fully featured report designer for modifying existing reports or creating new reports. With the report designer you can:

- Add formatted text and graphics to your report
- Add tables of columnar data with coloured cells, gridlines and text
- Add drawing shapes to your report
- Add dynamic graphs to your report
- Add HTML text to your report
- Add Insight data fields to your report

- The actions toolbar lets you open, save or print the report; cut, copy and paste elements in the report; align items on the report; and perform other operations on the report.
- The objects toolbar lets you place text, graphics, shapes, graphs, barcodes and other items on the report.
- The variables pane lets you drag Insight data fields onto the report. When the report is run, these fields are replaced with information from the Insight database.
- The preview pane shows a thumbnail preview of the report.
- The properties pane shows properties about the currently selected item.
- The workspace is where you make changes to the report layout.

For more information on using the report designer, refer to the on-line help (click the help menu and choose “Contents” in the report designer).

Tip

You can open the built-in report templates to see how they work or to adapt them to your requirements.
Insight Archiver (SQL Edition)

Insight Archiver provides a one-click backup solution for your Insight security database. All database components (including review and panel programming) are archived into a single file for convenient storage. Insight Archiver can also archive review to a separate file. Backups can be scheduled to occur automatically or run manually.

Use Insight Archiver (SQL Edition) to:

- Backup your database
- Restore a previous backup
- Move review to an archive
- Schedule automatic backups

Insight Versions
Insight Archiver SQL is part of Insight Professional.

Insight Versions
A simpler version of Insight Archiver is part of Insight Installer. Insight Archiver Installer can back up your entire database to a single file, but cannot schedule automatic backups or move review to a separate archive.

Backing Up vs. Archiving
You can back up your Insight Database to a file. This creates a copy of all your data, which can later be restored from the backup file. Your existing database isn’t modified when you make a backup, and is completely replaced when you restore from a backup.

You can archive the Insight Review to an archive file. This moves review that occurred prior to a date you specify, and places it in an archive file. If you choose to archive review, Insight Archiver will create a new archive file for each calendar year. In busy systems, archiving review is necessary to prevent the database growing too large.

Tip
You can create review filters that extract review from a yearly archive. Open a review window, and click the Select Review Archive button ( ) in the toolbar.

Note
You cannot create a filter stack in Insight Review that can display review from multiple archives simultaneously.

To manually create a backup:

1. Ensure the “Backup” radio button is selected.
2. Specify a location for the backup file to be saved. You can navigate to a different folder easily by clicking the ellipsis (…) button.
3. Click Backup.
4. Your Insight database is archived to a file called “InsightBackup year month day time.ibu”. For example: InsightBackup 2005 Oct 07 190133.ibu.
Note
If Insight Archiver is set to save or restore a backup to a location outside the Insight installation folder, then the “NT AUTHORITY\Network Service” account on the Insight ‘server’ machine needs to have full access to the selected location. See your Network Administrator for assistance.

To schedule an automatic database backup:

1. Click Schedule…
2. In the screen that appears, tick the “perform scheduled database backup” box.
3. If necessary, specify the location of the backup by clicking the ellipsis (…) button.
4. Specify how often to run the backup, and on which days and at what time to perform the backup.
5. Click OK.
6. A new Insight database backup will be created each time the criteria you entered is triggered.

Note
Insight Server must be running at the appointed time for a scheduled backup to be performed.

To schedule automatic review archiving:

1. Click Schedule…
2. In the screen that appears, specify the location of the backup by clicking the ellipsis (…) button. Note that archived review and Insight database backups always occur to the same directory.
3. Select the “review archive schedule” tab.
4. Tick the “perform scheduled database archive” box.
5. Specify how often to perform the archive, what review should be archived, and on which days to perform the archive.
6. Click OK.
7. Review will be moved from the “live” database to the appropriate yearly review archive each time the criteria you entered is triggered.

Note
Insight Server must be running at the appointed time for a scheduled archive to be performed.

To manually restore from a backup:

1. Ensure the “Restore” radio button is selected.
2. Specify the backup file you want to restore from. You can navigate to the file easily by clicking the ellipses (…) button.
3. If you want to backup the existing database before its overwritten, tick the “Preserve existing database” check box. The backup is saved into (Insight Directory)\Backups\PreservedFiles.
4. Click Restore.
5. If Insight Server is running, you will be asked to wait while the Server is stopped.
6. Your Insight database is replaced with the backup.
**Warnings**

I. When you restore from a backup, the existing Insight database is deleted and replaced with the backup.

II. A backup taken with a newer version of Insight must never be restored to an older version of Insight. I.e. A backup taken with Insight V3.3 must not be restored to V3.2 or earlier.

III. A backup taken from newer versions of SQL Server cannot be restored to older versions, regardless of the Insight versions involved. I.e. A backup taken from SQL Express cannot be restored to any Insight version that is connected to MSDE or a full-blown SQL Server 2000.

**Note**

Insight Archiver must be run on the Insight Server computer.
Insight Professional requires licence keys to function. These licence keys are stored in the USB hardware lock that was shipped with Insight Professional.

Use Insight Licence Manager to:

- View installed licence keys
- Install and remove licence keys

The Serial Number identifies your Insight installation.
The Licence Keys determine which features of Insight are available.
The Allow TS and Deny TS buttons and the Allow TS Checkbox are used in conjunction with “Allow Remote” licences. See the installation instructions supplied with the Allow Remote license for more details.

Paid Feature
Insight Licence Manager is part of Insight Professional.

Registering Insight Professional

Insight Professional will operate in Professional mode for thirty days from the initial installation date. During this time, you must contact Inner Range for a permanent Professional licence key.

To register Insight Professional:

2. Click the hyperlink that says Click to Register. A new window appears.
3. Click the hyperlink that says Click here for registration form.

Warning
If you fail to register in the 30-day period, Insight will revert to Installer operation. As soon as your permanent Professional key is entered, Insight will return to Professional operation.

Tip
The Insight serial number is stored inside the hardware key. You can quickly check the serial number by opening the About box in any module.
Licensed Modules

Your Insight Professional licence provides unlimited access to the core Insight Professional modules such as Insight Operators and Insight Schematic. The following features or functions are licensed separately:

- **Client License** - Licensed per machine. Allows an additional workstation to run Insight Professional.
- **Panel License** - Licensed per panel. Allows enrolment of an additional Concept control module.
- **Insight Reports** - Allows operators to use the Advanced Reports module.
- **Photo ID** - Allows operators to use the Photo ID module.
- **Card Pool** - Allows operators to use the Card Pool module.
- **Hotel PMS Interface** - Allows use of the Dynamic User Import Module.
- **Just-In-Time User Programming** - Allows use of the Active User Rotation Module.
- **Camera Licence** - Allows use of the DVR Integration module. Two types of this license are generated. The first license purchased of this type will allow 30 cameras to be connected to Insight. Subsequent licenses purchased of this type will allow an additional 10 cameras to be connected to Insight.
- **IP-Xmit Alarm Forwarding** - Allows use of the Insight Communicator module.
- **Allow Remote Clients** - Allows remote terminal sessions to the Insight server.
- **COM Interface - Read Only** - Allows 3rd party products read only access to Insight via the COM Interface. (Note: This license allows the creation of review messages)
- **COM Interface - Read/Write** - Allows 3rd party products read/write access to Insight via the COM Interface.
- **Tag-Board** - Allows operators to use the Tag Board module.
- **User Qualification Expiry** - Allows the use of the Qualifications module.
- **IP Door Controller licensing** - Licensed per panel. Allows enrolment of an additional Concept IP Door Control module. (Note: The first 15 IP Door Controllers do not require a license)

Panel Licensing

Insight Professional includes a licence to enrol one panel. To enrol additional panels, additional licences are required. Contact your Inner Range distributor.

Note: Up to 15 IP Door Controller Panels may be enrolled without additional licenses.

Workstation Licensing

Insight Professional includes a licence to log in from one workstation. To enrol additional workstations, additional licences are required. Contact your Inner Range distributor.

About Fixed Workstation Licences

When you purchase workstation licences, they are initially “floating”. As soon as an operator logs on from a new non-server workstation, the licence becomes locked to that workstation. You can manually “unlock” a licence at the rate of one workstation per week.

To unlock a workstation licence:

1. In Licence Manager, select the workstation whose licence you want to release.
2. Click Remove.
To unlock all workstation licences without waiting one week per licence:

1. Contact Inner Range, who can issue a special key to release all workstation licences. The key will function for 48 hours from the time of generation.

Remote (Terminal Services) Licensing

Insight Professional supports connections to Insight machines over Windows Remote Desktop or Terminal Services.

- The Insight Allow Remote Licence allows connection to an Insight computer on the network from a remote computer in order to use Insight. The remote computer does not need to have Insight installed on it.

A Client licence needs to be purchased for each remote connection. For more information, contact your Inner Range distributor.
Insight Operators

Insight Operators lets you manage who is allowed to login to Insight, and what privileges they have within the Insight system.

Use Insight Operators to:

- Create operators
- Delete operators
- Modify operator privileges
- Create “locked down” workstations with reduced privileges
- Manage tenancies in multi-tenant systems

- The Insight Toolbar lets you select between operators, workstations, operator types and tenants.
- The browse pane displays items you can modify.

Paid Feature
Insight Operators is part of Insight Professional.

Demo Edition
Operator passwords are bypassed in the demonstration version of Insight.
Working With Operators

Access to Insight modules is restricted to authorised personnel called operators. Operators have their own user name and password. Operators can be assigned different levels of privilege, which determine what operations they can perform.

Administrators

Special operators can be created called administrators. Administrators are like normal operators, but with permanently elevated privileges.

Installer

There is only one installer operator in any Insight installation. The installer has all the privileges of an administrator, plus the ability to create and delete tenants. The installer is invisible to everyone except the installer.

Task Manager

There is only one task manager operator in any Insight installation. The account is invisible to everyone except the installer. The task manager is a special non-logon account which executes any scheduled operation, including:

- Scheduled panel time sync (page 34).
- Scheduled user expiry (page 42).
- Scheduled database archive (page 114).
- Scheduled DVR time sync (page 156).

To create an Operator:

1. Click the Operators tab in the Insight Toolbar.
2. Click the “New” button; or press the Insert key; or right click the browser pane and select “New Operator…” from the menu that appears.
3. Enter a unique name for the Operator.
4. Specify a password for the Operator then retype the password in the Confirm Password field.
5. Click the “Types” icon, and allocate Operator Types to the Operator.
6. Click the “Access” icon, and configure the Expiry and Availability parameters for this Operator if required.
7. Click OK to save the new Operator.

To delete an Operator:

1. Click the Operators tab in the Insight Toolbar.
2. Right click the Operator and choose “Delete” in the menu that appears; or click the Operator with the left mouse button, then press the Delete key.
3. Click Yes when asked if you really want to delete the Operator.
**Tip:** You cannot delete yourself.

**Operator Permissions**
To create an Operator you need create permissions on operators. To delete an operator you need delete permission on the operator.

**To suspend an Operator:**
You can suspend an operator without deleting them.

1. Open the Operator you wish to suspend.
2. Click the “Disabled” radio button.
3. Click OK. The Operator will not be able to login to any modules.

**Tip**
You cannot suspend yourself.

**Operator Permissions**
To suspend an Operator you must have the change permission on the Operator.

---

**Working With Operator Types**
Operator Types let you control which items Operators can see, create, delete, control and modify.

Once an Operator Type has been created, you can assign it to Operators.

**To create an Operator Type:**

1. Click the Operator Types tab in the Insight Toolbar.
2. Click the “New” button; or press the Insert key; or right click the browser pane and select “New Operator Type…” from the menu that appears.
3. Enter a unique name for the Operator Type.
4. Click the “Permissions” icon, and allocate privileges to the Operator Type.
5. Click the “Log On” icon, and specify which workstations Operators of this type are permitted to log on from.
6. Click OK to save the new Operator Type.

**To delete an Operator Type:**

1. Click the Operator Types tab in the Insight Toolbar.
2. Right click the Operator Type and choose “Delete” in the menu that appears; or click the Operator Type with the left mouse button, then press the Delete key.
3. Click Yes when asked if you really want to delete the Operator Type.
Note
Deleting an Operator Type might prevent Operators from logging in, since an Operator with no Type cannot login to Insight modules.

Tip
Operators who are Administrators automatically receive all privileges. You do not have to assign them any Operator Types.

Operator Permissions
To create a new Operator Type, you must have the create permission for Operator Types. To delete an Operator Type you must have the delete permission on the Operator Type.

Working With Permissions
Permissions are at the heart of Operator Types. With permissions, you can precisely control what an Operator can do in Insight.

There are three pages of permissions in each Operator Type: sites and panels shows permissions for all sites, panels, panel programming and maps. Security shows permissions for Operators, Operator Types and Workstations (in other words, the items manipulated by the Insight Operators module itself). Defaults shows what permissions will apply to new items that are created in the future.

Insight lets you define what an Operator can do via nine permissions.

<table>
<thead>
<tr>
<th>Permission</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>See</td>
<td>The see permission means you can see the item in lists and browser panes.</td>
</tr>
<tr>
<td>Inspect</td>
<td>The inspect permission means you can open the item and see how it is configured.</td>
</tr>
<tr>
<td>Change</td>
<td>The change permission means you can modify the item and save your changes.</td>
</tr>
<tr>
<td>Create</td>
<td>The create permission means you can create new items of that type. Permissions on the new item will be copied from the Defaults page.</td>
</tr>
<tr>
<td>Delete</td>
<td>The delete permission means you can delete the item. For panel items like doors and user types, this permission lets you reset the record to the unprogrammed state.</td>
</tr>
<tr>
<td>Control</td>
<td>The control permission means you can control the item via the Insight Toolbar.</td>
</tr>
<tr>
<td>Print</td>
<td>The print permission is not currently implemented.</td>
</tr>
<tr>
<td>Export</td>
<td>The export permission means you can export data to a file. It's currently only used by the “save panel as template” command in Insight Edit.</td>
</tr>
<tr>
<td>Set Perms</td>
<td>The set perms permission is not currently implemented.</td>
</tr>
</tbody>
</table>

Setting Permissions
You grant or deny permissions on a particular item by ticking or clearing the corresponding checkbox for that item.

The privileges windows are deliberately organised in a tree structure. When you tick an item at
the top of the tree, the tick “ripples” down through the branches of the tree. Thus, ticking “see” at the top-most site level grants the “see” privilege to all items in the site including sub-sites, panels, programming items and maps.

Tip
If you don’t want a tick to “ripple” down the tree, hold down the Control key when you click the checkbox. The tick will not ripple more than one level down.

Tip
Sometimes, you may want to “ripple” a setting that only makes sense at the lower branches of the permission tree. For example, you can control doors but not sites. In this case, Insight provides a special check box with a black border. The purpose of this check box is to provide a convenient means of turning the permission on and off at a lower level in the tree.

Operator Permissions
To set permissions on an item, you must have the set perms permission on that item. To set some items, you must also be an administrator.

Working With Module Permissions
With Insight, you can grant or deny Operators access to Insight modules, and you can also control what actions can be performed within modules. Module permissions are set at the Operator Type level.

<table>
<thead>
<tr>
<th>I want to…</th>
<th>Use this permission in the tree (see below)…</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control which alarms an operator type can acknowledge</td>
<td>Alarm Handler→Alarm Acknowledgement→ (Critical/High/Medium/Low)</td>
</tr>
<tr>
<td>Specify whether an operator type can create, edit and remove Alarm Responses</td>
<td>Alarm Handler→Alarm Responses→ (Create/Edit/Remove)</td>
</tr>
<tr>
<td>Specify whether an operator type can create, edit and remove Help Responses</td>
<td>Alarm Handler→Help Responses→ (Create/Edit/Remove)</td>
</tr>
<tr>
<td>Specify which Insight modules are available to an Operator Type</td>
<td>Run Modules→(module name)</td>
</tr>
</tbody>
</table>

To change the permissions for an Operator Type:

1. Double-click the Operator Type you wish to modify.
2. Click Modules.
3. Expand the tree on the right hand pane to locate the item you wish to modify. Ticking an item grants the permission to all Operators with this Operator Type.
4. Click OK.

Tip
Operators with multiple Operator Types receive the combined permissions of each Operator Type.
Working With Workstations

Insight lets you use workstations in two ways.

1. You can specify that certain Operator Types must log on from designated workstations.
2. By applying an Operator Type to a workstation, you can limit the permissions that are available from that workstation.

To create a workstation:

1. Click the workstation tab in the Insight Toolbar.
2. Click the “New” button; or press the Insert key; or right click the browser pane and select “New Workstation…” from the menu that appears.
3. Enter the name of the workstation, or click the Browse button and select the workstation from the network.
4. Click OK to save the new workstation.

To delete a workstation:

1. Click the workstation tab in the Insight Toolbar.
2. Right click the workstation and choose “Delete” in the menu that appears; or click the workstation with the left mouse button, then press the Delete key.
3. Click Yes when asked if you really want to delete the workstation.

To create a “locked down” workstation:

1. Create an Operator Type, and set up the maximum permissions that will be permitted from your locked-down workstation.
2. Right-click the workstation and choose “Properties…” from the menu that appears.
3. Click the “Operator Type” icon.
4. Click the radio button labelled “Restrict permissions to this operator type”.
5. Select the Operator Type you created.
6. Click OK to save your changes.

Any permission that isn’t granted in the Operator Type will never be allowed on the locked-down workstation. Any permission that is granted in the Operator Type may be allowed on the locked-down workstation, depending on the Operator’s normal permissions.

Note
You cannot create or edit Operator Types from workstations that have been locked down.

Warning
It is possible to lock yourself out of Insight completely with this feature. Use it carefully, and make sure you never lock down your system in such a way that you (the administrator) cannot change permissions from any workstation.

Operator Permissions
To create a new workstation, you must have the create permission for workstations. To delete a workstation, you must have the delete permission for that workstation.
Working With Tenants

Tenants let you ‘divide’ your panel into multiple groups, so that only parts of the panel are visible to each group. For example, a shopping centre might have ten retailers. Rather than installing one panel per retailer, a single panel can be used. To prevent retailer A from tampering with retailer B’s security configuration, tenants are created so that each retailer can only ‘see’ their own users, doors, areas and review.

Tenancy Rules Explained

- Tenancy rules can be switched on or off. If tenancy rules are off, then all operators can see all items, subject to the permission rules defined for each operator type (see page 123).
- Only the installer operator can turn tenancy rules on or off.
- Turning tenancy rules off erases any existing tenancies. All items and operators become ‘untenanted’.
- Only the installer operator can create or delete tenancies.
- Only the installer and administrators can modify existing tenancies.
- If an item (like a door or an area) isn’t placed in a tenancy, it is visible to all tenants (subject to the permission rules for each operator type).
- Once an item is assigned to a tenancy, it is only visible to installer, all administrators and any operators in that tenancy.
- An item can belong to more than one tenancy.
- Operators can belong to multiple tenancies. Operators can ‘see’ any item that belongs to any of their tenancies - provided, of course, that the operator has the appropriate permissions (see page 123).
- Operators cannot see review entries if any part of the review message is out of their tenancy.

Warning

Insight Card Pool ignores tenancy rules. Operators will be able to see the names of cardholders in other tenancies.

How Tenancy Affects Review

- Review messages are visible to the tenants that are common to all items in the review message. In other words, only operators who can see all of the items in a message can see the message.
- Changing an item’s tenancy after a review message has been created has no effect on the review message.
To enable Insight tenancy rules:

1. You must log in to Insight Operators as installer.
2. Click tenants.
3. Click the “turn tenancy on” button (above the browser pane).
4. Click ‘Yes’ on the warning screen that appears.
5. Restart the server by logging on to any Insight module.

Warning
Turning on tenancy rules stops the Insight server. All operators will be disconnected.

To disable Insight tenancy rules:

1. You must log in to Insight Operators as installer.
2. Click tenants.
3. Click the “turn tenancy off” button.
4. Click ‘Yes’ on the warning screen that appears.
5. Restart the server by logging on to any Insight module.

Warning
Turning off tenancy will remove all items from any tenancies, then delete the tenants. Turning tenancy rules back on will not restore the deleted tenants.

Warning
Turning off tenancy rules stops the Insight server. All operators will be disconnected.

To create a new tenancy:

1. You must log in to Insight Operators as installer.
2. Click tenants.
3. Click the “New” button.
4. Enter a name for the new tenant.
5. Click OK.

To delete an existing tenancy:

1. You must log in to Insight Operators as installer.
2. Click tenants.
3. Select the tenant you want to delete.
4. Click the “Delete” button.
5. Click “Yes” on the warning screen that appears.

Note
When a tenant is deleted, any items belonging to that tenancy are removed from the tenancy. If an item belonged only to that tenancy, then it becomes visible to all remaining tenants.
To add an operator to a tenancy:

1. You must log in to Insight Operators as installer or an administrator.
2. Click operators.
3. Double-click the operator you wish to modify.
4. Click tenancies.
5. Tick the tenancies you want the operator to be a member of.

To remove an operator from a tenancy:

1. You must log in to Insight Operators as installer or an administrator.
2. Click operators.
3. Double-click the operator you wish to modify.
4. Click tenancies.
5. Uncheck the tenancies you want to remove the operator from.

To assign an item to one or more tenancies:

1. You must log in to Insight Operators as installer or an administrator.
2. Click tenant.
3. Double-click any tenancy in the browser pane. (If there aren’t any tenancies defined, you will need to create one first.)
4. Click members.
5. Locate the item in the items tree. Panel items are in the sites branch. Review filters are in the review branch. Operators and workstations are in the security branch.
6. Right-click the item, and choose “see all tenancies…” in the menu that appears.
7. Tick the tenancy or tenancies that the item should belong to.
8. Click OK. The item will become invisible except to operators sharing one or more common tenancy.

To make an item visible to all tenancies:

1. You must log in to Insight Operators as installer or an administrator.
2. Click tenant.
3. Double-click any tenancy in the browser pane. (If there aren’t any tenancies defined, then the item is already visible to all tenants, subject to Operator Type permissions.)
4. Click members.
5. Locate the item in the items tree. Panel items are in the sites branch. Review filters are in the review branch. Operators and workstations are in the security branch.
6. Right-click the item, and choose “see all tenancies…” in the menu that appears.
7. Uncheck all the boxes in the “belongs to” window.
8. Click OK.

Note
This method always works if you are logged on as installer. It will work for administrators, provided the administrator can ‘see’ all the tenancies that the item has. If there are additional tenancies that the administrator cannot see, then the item will remain in those tenancies and hence won’t become visible.

Tip
Items are visible to all tenancies by default. You only need follow this procedure to remove an item from all tenancies if you had previously assigned it to one.
To see which items belong to a tenancy:

1. You must log in to Insight Operators as installer or an administrator.
2. Click tenant.
3. Double-click the tenancy in the browser pane.
4. Click members.
5. Items that are ticked in the tree belong to that tenancy.

Tip
The tenancy count shows how many tenancies an item belongs to. If the tenancy count is zero, the item is visible to all tenancies.
Insight Schematic

Insight Schematic allows operators to monitor the status of an installation via an intuitive interface based around graphical floor plans and site maps. Special icons can be placed on each map to show the status of hardware items (such as inputs, areas and auxiliaries) in real time.

Use Insight Schematic to:

- Import site plans
- Browse drill-downs
- Add areas, auxiliaries, inputs, doors, floors and modules to plans
- Monitor site activity in real time
- View and acknowledge alarms
- Control your Inner Range security system

- The **Insight Toolbar** lets you manage your sites and panels (page 18).
- The **map** lets you add elements to your map, and to monitor and control these elements in real time (page 132).
Working With Maps

To use Insight Schematic, you must first import a map of your site or buildings.

Note
You cannot create map images with Insight Schematic. You must create or scan your map with other software, then import the image file into Schematic.

To import a map:

1. In the Insight Toolbar, click on the site that will contain the new map. If necessary, create a new master site or sub-site.
2. Choose “New...” (formerly "Import Graphic...") from the Map menu. Alternatively, right-click the site and select “New Schematic Map..” from the context menu.
3. Navigate to the image file you wish to import
4. Click Open.

The map is added to the selected site.

Tip
Several sample maps are installed with Insight, which can be used to familiarise yourself with Schematic. Navigate to the location where you installed Insight, then look in the “Sample Maps” directory.

Tip
You can change the scale of a map that you have imported. Select “Zoom...” from the Map menu or use the Zoom combo box on the Edit toolbar.

Tip
Once a graphic is imported, you can delete or move the original file. Insight stores its own copy of the image.

Tip
Schematic can open files in the following formats: BMP (Bitmap), JPEG (Joint Photographic Expert Group), PNG (Portable Network Graphics) and TIF (Tagged Image Format). Pictures in other formats (including AutoCAD DWG files) must be converted into one of these formats prior to importing.

To edit a map.

From the Insight toolbar: Double-click the map in the Insight Toolbar to display it. Right-click on the map to “Show” the map on the screen, “Delete” the map, or edit the map “Properties..” including name, text format, grid resolution and icon size.

From the “Map” menu: Once a map is shown on the screen, the “Map” menu can be used to “Delete” the map, “Zoom...” the map to the required size or edit the map “Properties..” including name, text format, grid resolution and icon size.

e.g. To rename a map:
1. In the Insight Toolbar, right-click the map you wish to rename and choose “Properties...” in the menu that appears.
2. Enter the new map name.
3. Click OK.
Operator Permissions

To import a map, you must have the create permission for maps. To delete a map, you must have the delete permission for that map. To rename a map, you must have the change permission for that map.

Adding Labels

You can add text labels to your maps. To add labels:

1. Ensure you are in Edit Mode (select “Edit Mode” from the File menu).
2. In the Insight Toolbar, click the map you want to add the Label to.
3. Select the Label tool ( ).
4. Click on the map where you want to place the label.
5. Enter the text of your label. The text format (font, style, size and alignment) can also be edited by selecting the “Text Format” tab.
6. Click OK.
Note that a Label can also be used as a Map Link. See “Creating Drill-Downs” for details.

Adding Alarm Groups

Alarm Groups let you monitor alarms from many sources and display them at a single point on your map.

To add an Alarm Group to your map:

1. Ensure you are in Edit Mode (select “Edit Mode” from the File menu).
2. In the Insight Toolbar, click the map you want to add the Alarm Group to.
3. Select the Alarm Group tool ( ).
4. Click the map where you want to place the Alarm Group.
5. In the Alarm Group properties window, enter a name for the Alarm Group.
6. In the Site Tree, tick the inputs that you want to add to the Alarm Group.
7. You can use the “Text Format” tab to edit the font, style, size and alignment of the Alarm Group name.
8. Click OK.

Working With Surveillance Items

Surveillance items correspond to hardware detectors and devices in your Inner Range system, and fall into one of two categories.

- **Point** items occupy a single point on the map. These items are usually doors, auxiliaries, input devices such as door/window reed switches and the like.
- **Area** items occupy shaped regions on the map. These items are usually Inner Range areas, or input sensor devices such as motion detectors or perimeter beams.

Adding Surveillance Items

You can monitor the status of your installation by adding surveillance items to your maps.

To add point surveillance items:

1. Ensure you are in Edit Mode (select “Edit Mode” from the File menu).
2. In the Insight Toolbar, expand the Site Tree until you reach the item you wish to monitor.
3. Click the item with the left mouse button, but do no release the button.
4. With the button held down, drag the item onto your map and release the button.
5. The Item Properties dialogue opens to allow the text format and other relevant
parameters to be edited if required. Make any changes necessary, then click OK. (While in edit mode, the item properties can be accessed at any time to view &/or edit by right-clicking on the item.)

6. If necessary, you can fine-tune the placement of the item with the mouse or arrow keys; and the size of the icon by dragging one of the resizing handles on the corners.

**To add area surveillance items:**

1. Ensure you are in Edit Mode (select “Edit Mode” from the File menu).
2. If you are placing an area, select the Area tool ( ), If you are placing a zone input, select the Zone Area tool ( ).
3. Draw the area by clicking on the map. Hold the CTRL key down if you wish to draw angled lines.
4. To finish the shape, either double-click the mouse button, or click on the first point of the shape.
5. The Item Properties dialogue opens to allow the relevant item (e.g. Area, Zone Input) to be assigned to the shape. You must select an item before you can proceed. The Properties dialogue also allows the text format and other relevant parameters to be edited if required. Make any changes necessary, then click OK. (While in edit mode, the item properties can be accessed at any time to view &/or edit by right-clicking on the shape.)
6. If necessary, you can fine-tune the shape by dragging the resizing handles on the corners of the image. You can also fine-tune the placement of the shape with the mouse or arrow keys. New corners can be added to the shape by clicking and dragging the mouse from anywhere along an existing side of the shape. To remove a corner from a shape, right-click the desired corner and select ‘Delete Vertex’ from the context menu.

**Tip**

You can place the same item more than once, either on the same map or different maps.

**Tip**

You can see which items have been placed on maps via the Map Items window. Select “Map Items Window” from the View menu.

**Tip**

You can jump straight to a placed item on any map. Choose “Go To” from the Edit menu.

**Tip**

You can choose between the two default icon sizes. In the Insight Toolbar, right-click the map and choose “Properties…” from the menu that appears. Click the Appearance tab, then choose the icon size you prefer. All icons can also be sized individually.

**Tip**

When an item is placed, a text caption appears with the item. You can change the position of the caption, or hide it completely. Right-click the item and choose “Caption” from the menu that appears.

**Tip**

When you place items, they are aligned to a “snap” grid. You can change the size of the snap grid - choose “Preferences…” from the Edit menu. You can disable grid snap - uncheck “Snap To Grid” in the Edit Menu. You can hide the snap grid - click the “show/hide snap grid” button in the Schematic Toolbar.
Operator Permissions

To add, move or delete surveillance items from maps, you must have the change permission on that map.

Working with Icons

The Insight Schematic image library contains a range of ready-made icons for use with point items on the Schematic maps. For each category of items (Auxiliaries, Cameras, Doors, Lift Floors, Inputs, Modules and PTZ Camera Presets) a range of icons are available to illustrate the different types of item. e.g. The “Doors” category provides different icons for Boom Gates, Roller Doors, Sliding Doors and Standard Doors. In the relevant categories such as Auxiliaries, Doors and Inputs, a variation of each icon is provided for each of the different item states. e.g. The Auxiliaries category has different icons for Off and On for each type of Auxiliary.

New icons can be added, and existing icons can be edited, by opening the image library while in edit mode. You cannot create icons with Insight Schematic. You must create or scan your icon image with other software, then import the image file into Schematic as described below.

Changing an icon.

The icon for a specific point surveillance item can be changed by right-clicking on the item and selecting “Icon Library” from the context menu.

Adding or editing an icon.

1. Open the image library by selecting “Image Library” from the Edit menu, or by clicking on the “Image Library” icon in the “Map Edit” toolbar.
2. If adding a new icon, click in the empty name cell in the bottom row. This will create a new row in the table for this icon. If editing the name of an existing icon, click in the name cell for the icon name you wish to change.
3. Type in the new name or the changes.
4. If adding a new icon, click in an empty image cell for the icon state you wish to add. If changing the image for an existing icon, click on the icon.
5. Click on the browse button that appears and navigate to the image file that you wish to use. The file must have a gif, jpg, jpeg, bmp or png extension. Select the file and click “Open”.
6. Repeat step 5 for any additional icons that need to be added or changed.
7. From the “Actions” menu, select “Save Changes”, or if your editing session is complete, select “Save Changes and Close”.

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**Understanding Surveillance Item Status**

Insight conveys the status of surveillance items through the use of colour.

<table>
<thead>
<tr>
<th>Sample</th>
<th>Type</th>
<th>Colour</th>
<th>Meaning</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Input</td>
<td>Green</td>
<td>Sealed</td>
<td>The input is in a sealed state.</td>
<td></td>
</tr>
<tr>
<td>Input</td>
<td>Red</td>
<td>Alarm</td>
<td>The input is in an alarm state.</td>
<td></td>
</tr>
<tr>
<td>Input</td>
<td>Orange</td>
<td>Tamper</td>
<td>The input is in a tamper state.</td>
<td></td>
</tr>
<tr>
<td>Auxiliary</td>
<td>Blue</td>
<td>On</td>
<td>The auxiliary is on.</td>
<td></td>
</tr>
<tr>
<td>Auxiliary</td>
<td>Grey</td>
<td>Off</td>
<td>The auxiliary is off.</td>
<td></td>
</tr>
</tbody>
</table>

The following symbols may be drawn on top of surveillance items to convey additional information.

<table>
<thead>
<tr>
<th>Sample</th>
<th>Type</th>
<th>Meaning</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Input</td>
<td>Isolated</td>
<td></td>
<td>The input is isolated.</td>
</tr>
<tr>
<td>Auxiliary</td>
<td>Override</td>
<td></td>
<td>The auxiliary is in an override state, and cannot be turned on or off until the override is ended.</td>
</tr>
<tr>
<td>Auxiliary</td>
<td>Not Present</td>
<td></td>
<td>The module containing the auxiliary is not present on the LAN.</td>
</tr>
</tbody>
</table>

The status of **areas** and **zone areas** is displayed using different colours.

**Areas**

<table>
<thead>
<tr>
<th>Edit Mode</th>
<th>Surveillance Mode</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assigned</td>
<td>Off</td>
</tr>
<tr>
<td>Unassigned</td>
<td>Alarm</td>
</tr>
<tr>
<td>Panel Offline</td>
<td>In Alarm</td>
</tr>
<tr>
<td>Subscription Error</td>
<td>In Tamper</td>
</tr>
</tbody>
</table>

**Zone Areas**

<table>
<thead>
<tr>
<th>Edit Mode</th>
<th>Surveillance Mode</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assigned</td>
<td>Sealed</td>
</tr>
<tr>
<td>Unassigned</td>
<td>In Alarm (fast flash)</td>
</tr>
<tr>
<td>Panel Offline</td>
<td>In Tamper (fast flash)</td>
</tr>
<tr>
<td>Subscription Error</td>
<td>Had Alarm/Tamper (slow flash)</td>
</tr>
</tbody>
</table>
Adding Cameras

You can drag a DVR camera onto your map.

**To add a camera to a map:**

1. Locate the camera in the Insight Toolbar by expanding the associated DVR.
2. Drag and drop the camera onto your floor plan.

Once a camera is placed on a map, you can view live video from the camera in schematic.

**To view live video from a camera in schematic:**

1. Switch to surveillance mode
2. Right-click the camera and choose “Show Video” in the menu that appears.

**Tip**

If the camera is a PTZ-enabled model, a PTZ toolbar will be incorporated into the video window.

**Note**

You can only view live video in schematic. To view historical footage, you must use Insight Review. See page 158.

Adding Camera Presets

You can drag camera presets for PTZ cameras onto your map.

**To add a PTZ camera preset to your map:**

1. Locate the PTZ camera preset in the Insight Toolbar by expanding the associated camera.
2. Drag and drop the preset onto your map. A link is shown to the associated camera.

**To activate a preset on your map:**

1. Double-click the preset. The PTZ camera will adjust its pan, tilt, zoom and iris to match the preset.

**Paid Feature**

Adding cameras and camera presets requires a DVR integration licence. Contact your Inner Range distributor for more information.
Creating Drill-Downs

With drill downs, you can create maps that link to other maps. For example, a site diagram could have clickable buildings that open more detailed interior schematics, or clicking a stairwell could jump to the next floor in an office building. You can create drill-downs quickly and easily in Insight Schematic.

To create a drill-down:

1. Ensure you are in Edit Mode (select “Edit Mode” from the File menu).
2. If you will be drilling to a different map, ensure that the map has already been imported into Schematic.
3. Select the Map Link tool ( ).
4. Trace the outline of your drill-down by clicking on the map. The shape you draw will be the shape that triggers the drill-down. Hold the CTRL key down if you wish to draw angled lines.
5. To finish the shape, either double-click the mouse button, or click on the first point of the shape.
6. The Map Link properties page allows the entry or selection of the target for a link. This can be specified as map coordinates or as a map item. When a map item is selected as the link target, the map link can reflect the status of the target item in surveillance mode.

Tip
In Surveillance Mode, you can follow a drill-down by clicking twice. In Edit Mode, you can follow a drill-down by right-clicking and choosing “Follow Link” in the menu that appears.

Working In Surveillance Mode

Insight Schematic starts monitoring the status of all surveillance items when you activate Surveillance Mode. You can also control items directly from your floor plan.

To activate surveillance mode:

1. Select “Surveillance Mode” from the File menu.

In a few moments, the state of all surveillance items is updated.

Note
Insight Schematic cannot monitor the status of panels that are not connected. Schematic places a cross over all point surveillance items that belong to offline panels, and draws all area surveillance items a dim grey colour.

Alarm Processing

Schematic has a simple alarm reporting and clearing mechanism. Items that go into an alarm or tamper state flash and change colour.

- Point surveillance items go red for alarm and orange for tamper; in addition, the text “in alarm” flashes while the alarm is active, and “had alarm” if the alarm condition has passed.
- Area surveillance items go red when in alarm, and orange when in tamper; in addition, the flashing speed halves when the alarm condition has passed.

Alarms will continue to flash, even after the condition that caused the alarm ends. You must clear alarms from Insight Schematic manually. Alternatively, an alarm or zone map item can be configured to ‘Automatically Acknowledge’ alarm states and the map item will automatically...
return to the sealed state when the physical input is resealed.

**To clear alarms:**

1. Right click the item that is in alarm and choose “Clear” from the menu that appears.

The alarm is cleared.

**Note**
If Schematic is open on more than one workstation then the alarms must be cleared on each workstation.

**Note**
Clearing alarms in Insight Schematic does not acknowledge the alarms at the panel. You must still acknowledge alarms from a Terminal.

**Note**
Insight Schematic alarms are not related to advanced alarm management in Insight Review. Clearing alarms in Insight Schematic does not acknowledge alarms in Insight Review.

**Note**
Insight Schematic must be running when Area alarm events occur, or they will not appear in Schematic. All other alarm events will be displayed even if they occurred before Insight Schematic was opened, provided the alarms are still active.

**Tip**
If a zone input exists in multiple areas, you can choose to only show alarms on the floor plan when an alarm occurs in one designated area. Right click the zone or zone area and choose “Area Monitored” in the menu that appears, then choose the area you want to monitor, or choose “All Areas” to restore normal behaviour.

**Controlling Items Within Schematic**

You can control field hardware directly from your maps in Schematic including doors, areas, auxiliaries, home auxiliaries and inputs.

**To control an item on a floor plan:**

1. Make sure you’re in surveillance mode (File → Surveillance Mode)
2. Right-click the item, and choose a command from the menu that appears.

**Operator Permissions**
To control an item, you must have the control permission on that item.
(This page has been left intentionally blank)
The Insight Server Tool lets you perform advanced server tasks.

Use the Insight Server Tool to:

- Manually start or stop Insight Server
- See who is connected to Insight Server
- Disconnect clients who are connected
- Configure your modem pool

Starting and Stopping Insight Server

Insight Server normally starts automatically. **Insight Installer** starts its own internal server when the operator logs on. **Insight Professional** starts the server as soon as Windows has loaded (but before anyone has logged in).

- Insight Server is running and accepting client connections.
- Insight Server is running, but no connections will be accepted.
- Insight Server is stopped. The server will start again if an operator tries to log on.

To stop Insight Server:

1. Right click the Insight Server Tool and choose “Stop Database” in the menu that appears.

**Note**
Stopping the server can take up to one minute.

**Warning**
If you stop Insight Server, all operators will be forcibly disconnected. All panels will also be disconnected, and review and alarms will not be received until the panels are reconnected.

To start Insight Server:

1. Right-click the Insight Server Tool and choose “Start Database” in the menu that appears.

**Note**
Starting the server can take up to one minute.
To start the Insight Professional server, the red lamp must be illuminating on the hardware lock, which must be plugged into a USB port on the server computer.

**Viewing Client Connections**

You can see which operators are connected to Insight Server. You can also block connections, so operators can no longer log on.

**To view client connections:**

1. Right-click the Insight Server Tool, and choose “Client Connections…” in the menu that appears.

**To disconnect an operator:**

1. Right-click the Insight Server Tool, and choose “Client Connections…” in the menu that appears.
2. Select the session that you wish to disconnect.
3. Click Stop.
4. In the Module Shutdown window, enter a message that will be displayed on the Operator's workstation and also specify how long the message will appear before the session is terminated.
5. Click OK.

**To block new connections:**

1. Right-click the Insight Server Tool, and choose “Client Connections…” in the menu that appears.
2. Tick the “Block new connections” checkbox.

New connections will not be accepted. Note that sessions that have already been established are not affected.

**Configuring Your Modem Pool**

You can choose which modems on the server computer are available for incoming and outgoing Insight connections. See Modem Blocking on page 33.
Insight Photo ID

Insight Photo ID allows you to design ID card templates and print identification tags and badges for Users (employees, contractors, visitors, etc.)

In Insight V4, this module has undergone a significant upgrade. The main changes are as follows:

- All new Photo-ID card designer.
- Rotation and cropping of images, as they are acquired (either from a camera or a file).
- Support for double sided cards.
- Barcode support.
- Association rules allow new users to automatically use the correct card template based on user-type, department, etc.

Use Insight Photo ID to:

- Design one or more ID card templates (styles and layouts) for your organisation.
- Print ID cards using these templates.
Underlying Concepts

Printing ID cards is a two step process. First, you must design a card template (layout). The card template lets you choose how the ID card will look. Photo ID provides simple tools which allow you to design card templates by inserting the required graphics and fields into the card design and defining what fonts and colours will be used.

You can create and save as many different card templates as you like, each with a different layout. Templates may include images, simple graphics, text and user database information such as user names, company details and photos.

Once a template has been created, it can be used to print a batch of ID cards. To print cards, you first select the users who will be issued with the cards, then issue the print command.

- The Photo ID Toolbars let you quickly customise and print ID badges.
- The field elements define how your ID badge looks and prints.

Paid Feature

Photo ID is a separately licensed add-on to Insight Professional.

Toolbars

Photo ID provides quick access toolbars, in addition to drop-down menus, that will cover most of the actions required to design a card template. The toolbars can be custom arranged by clicking on the four dots to the left of each toolbar and dragging them to your preferred position.

General Photo ID Toolbar

- Changes the view from Design mode to Print mode.
- Changes the view from Print mode to Design mode.
- Creates a new card template.
- Save changes to the currently selected card template.
- Print one or more ID badges based on the current template.
- Cut the selected item/s.
- Copy the selected item/s.
- Paste the previously copied or cut item/s.
- Zoom out to reduce the viewing size of the card.
- Zoom in to increase the viewing size of the card.
- Zoom page fit: Adjust the viewing size of the card to fit the screen.

Insert Toolbar

- Add an image to the card template.
- Add a photograph from the User database.
- Add a text/database field.
Inserts a **barcode**

Inserts a single **straight line**

Inserts a **rectangle**

Inserts a **circle** or **ellipse**

**Layer Arrange toolbar**

- Bring the selected items to the **front**
- Move the selected items to the **back**
- Bring the selected items **forward**
- Move the selected items **backward**

**Item Align and Sizing toolbar**

- **Left align** the selected items
- **Horizontally Centre** the selected items
- **Right align** the selected items
- **Top Align** the selected items
- **Vertically Centre** the selected items
- **Bottom Align** the selected items
- Make the width of the selected items the same
- Make the height of the selected items the same
- Make both the height and the width of the selected items the same
- Make the horizontal spacing between the selected items the same
- Make the vertical spacing between the selected items the same

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**Working With Card Templates**

With Insight Photo ID you can add, remove and modify card templates. A card template stores the layout of an ID card including any text, images or watermarks that appear on the card.

**To create a new a card template:**

1. Choose "New Card" from the Card menu, or press the New Card button on the Photo ID toolbar.
2. In the Properties window, specify a name for the template, select whether the card is single-sided or double-sided and specify the size of the card.
3. Edit and save the template.

**Tip**

To create a new template based on an existing card layout, select the existing template from the Card Designs window, (or the Workspace tab if the template has already been opened) and select "Save as new Card" from the Card menu.
To delete a card template:

1. Select the template from the Card Designs window.
2. Click the “Delete” button at the top of the window, or right-click on the template and select “Delete”.
3. A “Delete Card” confirmation message will appear.
4. Read the message to confirm which template is to be deleted, then click on Yes to delete the template, or click on No if the wrong template was selected.

Warning
Deleting a template is permanent. You cannot restore a deleted template.

Tip
Deleting a template does not delete the employees that are using that ID badge.

To modify an existing template:

1. Double-click on the template you wish to edit from the Card Designs window,
2. or, Select the template you wish to edit from the Card Designs window and click on the Open button on the toolbar ( Scouts ).
3. You can now modify the template.

Designing Card Templates

Card templates are made up of any combination of text (custom static text and/or database fields), images, vector graphics and user photographs. Custom text, images and graphics are the same on every card in a batch. They form the “layout” of the card. Database fields and photographs are different for each employee. They form the “information” on the card.

To add text to a template:

1. Select the template you want to work with, or create a new template.
2. Click the “Add Text Field” button in the toolbar ( Tools ).
3. Click and drag the mouse in a rectangle shape where you want the text to appear.
4. In the window that appears, enter the text that you want to place on your card.
5. Click the “Font” button, and specify a font (typeface), size and colour for the text.
6. Specify any other attributes for your text, such as alignment and orientation.
7. Click OK. When cards are printed, the text you entered will appear on every card.

Note
You must specify a font every time you add text to a card.

Tip
If the text is “chopped off”, then you need to increase the size of the text rectangle. With the selection tool ( Select Tool ), click the text on your card layout and drag the selection handles to make the rectangle bigger.

Tip
To change the text, font or colour, double click the text with the selection tool ( Select Tool ).
To create vertical text, tick the “Rotate text 90?” box in the text properties window.

To add images to a template:

1. Select the template you want to work with, or create a new template.
2. Click the “Add Image Field” button in the toolbar ( ).
3. Click and drag the mouse in a rectangle shape where you want the image to appear.
4. In the window that appears, click the browse button ( ) and navigate to the image.
5. Click OK. When cards are printed, the image you placed will appear on every card.

To change the size of an image, click on it once, then drag one of the selection handles that appear around the image.

To rotate an image, tick the “Rotate Image 90?” box in the image properties window.

To add database fields to a template:

1. Select the template you want to work with, or create a new template.
2. Click the “Add Database Field” button in the toolbar ( ).
3. Click and drag the mouse in a rectangle shape where you want the text to appear.
4. In the window that appears, choose the database field that you want.
5. Click the “Font” button, and specify a font (typeface), size and colour for the text.
6. Specify any other attributes for your text, such as alignment and orientation.
7. Click OK. When cards are printed, the information for each employee will replace the field.

Note
You must specify a font every time you add a database field to a card.

To change the font or colour, double click the database field with the selection tool ( ).

To create vertical text, tick the “Rotate text 90?” box in the text properties window.

To place a barcode on your ID card, use a barcode font such as “3of9.ttf”. Remember that barcode readers expect an asterisk as the first and last character in a barcode.
To add employee photographs to a template:

1. Select the template you want to work with, or create a new template.
2. Click the “Add Photograph Field” button in the toolbar ( ).
3. Click and drag the mouse in a rectangle shape where you want the photograph to appear. You can resize the photograph later if you want.
4. If you want a border around the image, tick the “border around photograph” box.
5. If you want to rotate the photograph 90 degrees clockwise, tick the “rotate photograph 90” box.
6. Click OK. When the card is printed, the employee photograph will appear on the card.

Note
You must assign a photograph to an employee with Insight Edit before it will print on their ID card. See page 61.

Tip
To quickly add text, images or database fields to a card layout, select “Manage Fields” from the Define Photo ID menu, or click the field management button ( ) in the toolbar.

Editing Card Templates
You can make changes to existing card templates with Insight Photo ID.

To move text, images, database fields or photos:

1. Select the template you want to work with, or create a new template.
2. Make sure the selection tool ( ) is selected by clicking it in the toolbar.
3. Click the text, field or image you wish to move. Selection handles appear on the item.
4. Click the item again and drag it to a new location.

Tip
If you can’t select an item because it is ‘underneath’ another item, then move the top item out of the way, or right click the top item and choose “make last” in the menu that appears.

Tip
You can make fine adjustments to the location of an item by tapping the arrow keys on your keyboard while the item is selected.

To resize text, images, database fields or photos:

1. Select the template you want to work with, or create a new template.
2. Make sure the selection tool ( ) is selected by clicking it in the toolbar.
3. Click the text, field or image you wish to resize. Selection handles appear around the item.
4. Click one of the selection handles and drag it to a new location.

To edit the properties of an item:

1. Select the template you want to work with, or create a new template.
2. Make sure the selection tool ( ) is selected by clicking it in the toolbar.
3. Double-click the text field or image you wish to edit.

Printing Cards

Photo ID allows you to print single or multiple cards to different types of outputs. Part of the printing process can be automated using card associations (see Print Using Card Associations for details).

To switch Photo ID to Print Mode, click the print mode icon ( ) or select Print Mode under the View drop-down menu.

Print mode allows you to preview card designs for particular users in available panels.

To preview a user, select a panel, then click the name of a user within that panel. You can preview other card designs by double clicking a card from within the card window.

The User window displays all programmed users for the selected panel. You can tick the box next to each user for whom you wish to print a card. This window can be customized by adding or removing the user fields you wish to view.
Right click on the field header and check or uncheck the appropriate fields.

**Print Toolbar**

The print toolbar offers a quick, easy way of making final adjustments to the user photo.

- ![Folder icon](image) Returns you to **design mode**.
- ![Print icon](image) Print a card/multiple cards according to the current print setup.
- ![Crop icon](image) Crop the photo while previewing a particular user.
- ![Zoom icon](image) Zoom in or out of the user photo.
- ![Reset icon](image) Reset the photo to its original state.

**Print Setup**

Before you begin printing, open the Print Setup window from the Card drop-down menu to setup your printing options.

To print onto cards, you must have a printer capable of accepting cards. You can print to paper of any available size to your installed printers. Select the paper size, source and resolution which most suits your needs. Orientation allows you to select either Portrait or Landscape orientation (be aware that your card design must be appropriate to the orientation chosen).

File section gives options for outputting to a file (see Print output section).

You have the option to choose which side/s of the card to print. To print both sides you will need a compatible printer.

Print range will print either the Current selected user and card design or the full Selection of users which have been checked in the user list of your panel.
Print Output

PhotoID offers two different outputs via the print setup window, Printer Output or File Output.

To output to a printer
1. Open the print setup window.
2. Select the appropriate printer you have already installed on your system by clicking the browse button under the Printer section.

To output to a file
1. Check the “Print to file” box. Once selected, the Printer section will be greyed out and you will be shown options for the file output.
2. Select the folder destination in which you wish to save the file.
3. Select the resolution and file type and click OK.

Once you have completed your setup, click the print icon or select Print from the Card menu.

Print Using Card Associations

PhotoID allows you to easily print cards for multiple users by using card associations (see Card Association section below for details).

After selecting all of the users for whom you wish to print cards, open the print setup window by selecting Print Setup under the Card menu.

Within the Print range section check the Selection option, then tick the “Use Card Associations” box. This will print cards for all selected users on card designs specified in your card association setup.

Once you have completed your setup, click the print icon or select Print from the Card menu.

Card associations

Card Associations is a powerful tool which allows you to associate a chosen card template with a particular piece of user information (e.g. user type or extended user data) which is stored in the database.

This association can then be used to automatically print cards using the same template for multiple users that share the common field, and to automatically select that template when printing a card for a particular user.
1. Select card association from the Card drop-down menu and click the New icon.
2. Right click in the Card box to choose the appropriate card design.
3. Under the Name column, choose the user profile field you would like to associate to that card design.
4. Double click in the Value box to type in the common value for that user field. This will be compared to database values using a text compare function, and is not case sensitive (e.g. sales matches Sales).

This example shows that all users who work in the Research and Development department, will have a blue card printed and all users who work in the Sales department, will have a green card printed.

Insight does allow for non-mutually exclusive card associations. For instance in the above case, we could have a third card that was printed for anybody whose User Type was set to "Manager". In this case the card templates are prioritised from top to bottom, so the Research and Development Manager would get a Research and Development card, not a Manager card.

Tip
To select a range of adjacent employees, click the first employee, hold down the shift key, then click the second employee. To select non-adjacent employees, hold down the Ctrl key, then click the employees you want.
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Insight DVR Integration

Insight DVR Integration allows operators to control Digital Video Recorders and cameras within Insight, including the ability to view live and historical video feeds.

Use Insight DVR Integration to:

- Attach DVRs and cameras to Insight
- View live and historical video feeds directly in the Insight workspace
- Remotely control PTZ cameras
- Access recorded video information based on review events
- Switch cameras and video feeds based on custom real-time triggers

- The Insight Toolbar lets you open video feeds and send control commands
- The camera pan/tilt and zoom/focus/iris controls let you control PTZ cameras
- The timeline controls let you locate previously recorded footage
- The playback controls let you switch between live view and recorded playback modes
- The layout controls let you arrange your video feeds and OSD (on-screen display)

Paid Feature
Insight DVR integration must be licensed separately. Insight DVR integration requires Insight Professional.
About Insight DVR Integration

Insight provides true integration with an ever expanding range of Digital Video Recorders. You can choose to view live and recorded camera images directly within Insight. You can control PTZ cameras including pan, tilt, zoom and iris. You can also issue commands directly to cameras and DVRs.

DVR Plugins installer.

Insight DVR Integration is constantly being updated to add new DVR models to the range of DVRs supported by Insight. New DVR models added since Insight version 3.2 release are no longer automatically installed with an Insight installation or upgrade.

To add support for new DVR models, you need to run the Insight DVR Plugins installer program separately on both the server and all client PCs requiring DVR services. This installer first runs a setup wizard which lists the models available and allows you to select the specific DVR model/s that your system is required to support.

To add a DVR (quick guide):

1. Check the list of supported DVRs on the Inner Range web page to make sure your model is supported. If necessary, run the DVR Plugins installer to add DVRs that have been added to the range of supported products since Insight V3.2.
2. Set up the DVR and cameras according to the documentation that came with your DVR.
3. Enrol the DVR into Insight (page 154).
4. If you are using Insight Schematic, you can drag cameras and camera presets onto your building floor plans (page 136).
5. If you are using Insight to manage alarms, you can customise your alarm responses to display camera footage (page 100).
6. If you are using a dedicated monitor or hardware multiplexer, you can use Insight to remotely control the DVR whilst watching video feeds on your monitor (page 160).
7. You can view video feeds and remotely control cameras directly in Insight (page 155).

Enrolling A New DVR

You must enrol a new DVR into Insight before you can control cameras or view video feeds.

To enrol a new DVR:

1. Start any Insight module that uses the Insight Toolbar (Edit, Review or Schematic).
2. In the Insight Toolbar, make sure the Browser tab is selected.
3. Decide which site you want to attach the DVR to, or create a new site if necessary. (The decision of which site is unimportant, since it has no affect on DVR integration.)
4. Right click the site that will contain the DVR, and choose “New Digital Video Recorder…” in the menu that appears. (Note: requires a licence.) The DVR wizard appears.
5. Follow the on-screen prompts. The enrolment procedure varies slightly between brands and models. This is because there is no industry standard governing DVR design and manufacture. You will probably need to refer to the documentation that came with your DVR.

Note: the MCI interface is the interface used to issue commands to the DVR. The video streaming interface is the interface used to view camera feeds in Insight. You can choose not to configure the video streaming interface, but the MCI interface is necessary to interface with the DVR.

6. On the Cameras page, specify the type and number of cameras connected to the DVR. (For some models, this is populated automatically.)
• The name can be any name that meaningfully identifies the camera.
• To set the camera type (Fixed or PTZ), click the entry twice.
• The camera number should match the camera number assigned by the DVR software.

7. On the DVR Associations page, specify the area and/or other panel item/s that you wish to associate with each camera. Insight V3.3 or later now allows a camera to be linked to multiple panel items, no longer just an area.

• The camera can be associated with one or more panel items. e.g. Areas, Doors, Lift Cars, Inputs, etc.
• Right-clicking a Review Event in Insight Review that contains the item, allows you to jump directly to the historical footage from that camera beginning at the date/time of the Review Event.

• Depending on the specific model of DVR you can then use the playback controls to rewind, fast forward, etc. from that point.

To un-enrol a DVR:

1. Start any Insight module that uses the Insight Toolbar (Edit, Review or Schematic).
2. In the Insight Toolbar, make sure the Browser tab is selected.
3. Right click the DVR, and choose “Delete” in the menu that appears.

To edit DVR settings including configured cameras:

1. Start any Insight module that uses the Insight Toolbar (Edit, Review or Schematic).
2. In the Insight Toolbar, make sure the Browser tab is selected.
3. Right click the DVR, and choose “Properties…” in the menu that appears.

Note
If you add, remove or reassign cameras with your DVR software, you must update the DVR properties in Insight.

Working With Video Windows

To see camera footage, you have to open a video window (also called a software video multiplexer). When video windows are created, they show the footage from one camera (either live or historical). You can change the layout of a video window to show more than one camera. Regardless of how many cameras are being displayed, the time line of the video window is always synchronised. This means that the view from each camera will always show images from the same time period. If you rewind to a particular date and time, then the video window will show what each camera recorded at that time. If you switch to live footage, then each camera in the video window will show live footage.

You can open multiple video windows. Each video window can have multiple cameras. Each video window has its own time line, so you can (for example) show live camera feeds in one window and historical feeds (of the same or different cameras) in another window.
To open a new video window:

1. In Insight Review, select the Control tab of the Insight Toolbar.
2. Right click a video camera in the tree, and choose “Show Video” in the menu that appears.

A new video window is opened.

Tip
You can add additional cameras to the window. See working with layouts on page 159.

Tip
You can switch to a different camera without creating a new video window. Simply drag the new camera from the Insight Toolbar and drop it onto the video window.

To assign cameras to a video window:

1. Click the video window you want to add cameras to, and make sure the layout contains the number of cameras you want to add (page 159).
2. In the Insight Toolbar, make sure the Control tab is selected.
3. Drag cameras from the Insight Toolbar and drop them onto the appropriate panels in the video window. Video feeds are added and synchronised to the time line of the video window.

Synchronising DVR Date/Time

You can synchronise the DVR date and time so that it’s the same as Insight Server. Synchronisation can be performed manually, or scheduled to occur automatically at specified intervals.

To manually synchronise the DVR date and time:

1. In the Insight Toolbar, right-click the DVR you want to synchronise and choose “Properties…” in the menu that appears.
2. Click the DVR Time Zone tab.
3. Specify the time zone where the DVR is located.
4. Click Synchronise DVR Now.

To automatically synchronise the DVR date and time with Insight Server:

1. In the Insight Toolbar, right-click the DVR you want to synchronise and choose “Properties…” in the menu that appears.
2. Click the DVR Time Zone tab.
3. Click the Schedule button.
4. Tick the “Schedule DVR Time Synchronisation” box.
5. Specify how often you wish to synchronise the DVR with Insight Server.
6. Click OK.

Note
When synchronising, the DVR date and time is changed to match the date and time of Insight Server.
**Working With The DVR Control Bar**

The DVR Control Bar lets you manage your cameras. You can switch between live and archival footage, change the time code of the video window and change the number of cameras displayed. For PTZ cameras you can pan, tilt, zoom, iris and focus the camera by remote control or activate a camera preset.

**Controlling PTZ Cameras**

You can remotely control compatible PTZ cameras from the DVR Control Bar.

**To control a PTZ camera:**

1. In the video window, click the camera you want to control. The selected camera is enclosed by a yellow rectangle.
2. Make sure the DVR Control Bar is visible (View → DVR Control Bar)
3. Make sure the video window is in live video mode (click ![live mode icon]).
4. To **pan** the camera, click the left and right arrow controls (andrarr).
5. To **tilt** the camera, click the up and down arrow controls (andrarr).
6. To **zoom** the camera, click the **zoom +** and **zoom –** buttons.
7. To **focus** the camera, click the **focus +** and **focus –** buttons.
8. To adjust the **iris** of the camera, click the **iris +** and **iris –** buttons.

Some PTZ cameras support a “tour” mode, where the camera automatically tracks over a preset path.

**To put a PTZ camera into tour mode:**

1. Click the video window containing the camera you want to control.
2. Make sure the DVR Control Bar is visible (View → DVR Control Bar)
3. Make sure the video window is in live video mode (click ![live mode icon]).
4. Click the tour button (Tour). The camera enters tour mode.

**Tip**

To exit tour mode, click the tour button a second time, or click one of the pan/tilt/zoom/focus/iris buttons.

Some cameras can be programmed with presets. Activating a preset sets the zoom, focus, iris, tilt and zoom to a known position. Use your DVR software to program your camera presets.
To activate a PTZ camera preset:

1. Click the video window containing the camera you want to control.
2. Make sure the DVR Control Bar is visible (View→DVR Control Bar)
3. Make sure the video window is in live video mode (click).
4. Click the preset button. The preset controls appear.
5. Enter the preset number you wish to activate.
6. Click Go. The camera moves to the selected preset.

Tip
You can also activate camera presets in Insight Schematic. See page 136.

Working With The Video Timeline

Each video window maintains a video timeline. The timeline applies to all cameras in the window. For example, if you add 5 cameras to a video window, then set the time line to March 15 at 10am, then each camera will show archival footage from March 15 at 10am.

The time line is ignored if the video window is showing live footage.

To view live footage:

1. Click the video window containing the cameras you want to switch to live feed.
2. Make sure the DVR Control Bar is visible (View→DVR Control Bar)
3. Click the live video button.

The live video button turns red, indicating you are watching live video.

Tip
This only applies to cameras in the active video window. Other video windows are unaffected.

To view archival footage:

1. Click the video window containing the cameras you want to see archival footage for.
2. Make sure the DVR Control Bar is visible (View→DVR Control Bar)
3. In the Video Timeline box, enter the date and time in the Date/Time box, or click the calendar button and select a date, then drag the slider control to set the time.

The live video button turns blue, indicating you are watching archival video.

To set the time code to a review event:

1. Make sure the video window containing the cameras you want to see is open. If necessary, create a new video window and assign cameras to it.
2. Open the review window containing the review message. Make sure the video window isn’t completely obscured by the review window.
3. Drag the review event and drop it onto the video window. The time code is changed to match the date and time of the review event.
To control playback of archival footage:

1. Enter playback mode (see “to view archival footage”, above).
2. Use the video playback controls described below.
   - Play forward (normal speed)
   - Play backwards (normal speed)
   - Freeze current frame
   - Play forward (high speed)
   - Play backwards (high speed)
   - Advance forward one frame
   - Advance backwards one frame
   - Freeze current frame

Working With Layouts

You can show up to sixteen cameras in a single video window. Each camera is synchronised with the time controls for the video window.

To change the layout of a video window:

1. Click the video window you want to change.
2. Make sure the DVR Control Bar is visible (View → DVR Control Bar)
3. Make sure the Layouts tab is selected.
4. Click a new layout.
5. Drag cameras from the Insight Toolbar onto the new layout.

Note

If you switch to a layout with fewer cameras than the current layout then Insight will discard any leftover cameras. You can always add the cameras again by dragging them from the Insight Toolbar and dropping them on the layout.

Insight can superimpose an On-Screen Display (OSD) for each camera in a video window. The OSD shows the name of the camera.

To activate the OSD for a video window:

1. Click the video window you want to change.
2. Make sure the DVR Control Bar is visible (View → DVR Control Bar)
3. Make sure the OSD tab is selected.
4. Tick or clear the Show Camera Name box.

Tip

Turning on the OSD effects all cameras in the current video window.
Sending Commands To A DVR Or Camera

You can send a model-specific command to a DVR or camera. Right-click the DVR or camera, and choose “Commands” in the menu that appears.

Note

The commands available will be specific to the make and model of your DVR and/or camera. Consult the documentation that came with your equipment for more information.

Integration With Review

You can set the time code of a video window to the time and date of a review event. In other words, if a particular review entry occurs on February 28 at 3pm, you can quickly see camera footage from this date and time. See page 158.

You can associate cameras with areas. Right-clicking on a review event that contains the area enables you to see live video from the associated camera.

Integration With Schematic

You can place cameras and camera presets directly onto your floor plans in Insight Schematic. See page 136.
TouchDesigner 1.0 is a new module within Insight Installer and Insight Professional that allows customisation of the touch screen terminal.

As you can see in the image above there are three main components to TouchDesigner.

The tree view on the left hand side only contains Concept panels that are using a memory configuration that supports touch screen terminals. Depending on the memory configuration and memory size you can create a number of Layouts, Screens and Buttons.

The centre section of the application is for previewing and selecting Screens and Buttons.

The right side of the screen is for adjusting the properties for the currently selected Layout, Screen or Button.

Additionally there is a new tool bar for the creation of blank Layouts, Screens and Buttons: These buttons will be enabled depending on your selection within the tree view on the left hand side of TouchDesigner.
Customisation of a Touch Screen Terminal

As stated above there are three components used to create a custom touch screen design. A touch screen Layout contains Screens which contain Buttons. All of these components can be customised, however the First Screen that is created automatically with every Layout will have the default Inner Range Menu Screen.

Note
You can only change the colour scheme, layout name and the next screen that the Control and Security buttons will take you to on the default Inner Range Menu Screen.

Panel memory and layouts

Just to the right of every panel in the TouchDesigner are two numbers in brackets:

- 128k Standard (80/44)

The example above has a 128k panel with (80/44). The number 80 represents the total memory or ‘structures’ allocated to touch screen Layouts created within the panel. The number 44 represents the remaining structures available to create more Layouts, Screens and buttons.

You can exceed the total structures allocated to the panel you are configuring Layouts, Screens and Buttons for but you will not be able to save changes. If you attempt to save any changes you have made after exceeding the total, a warning dialog will appear.

Note
The panel icon will change from green to red to represent unsaved changes within the TouchDesigner.

Creating a new Layout

To begin creating a new Layout for your touch screen terminal, right click the panel in the tree view on the left hand side of the screen and select Add layout…

Note
You can create a new Layout by clicking on LA after selecting the panel you wish to create it for:
Next you will be required to give the new layout a Name and a Colour scheme:

After clicking OK to confirm the layout name and colour, you will notice a number in brackets to the right of the newly created layout. The panel icon will change to red.

The number in brackets (3) represents the structures this layout will use within the panel. Additionally, Screens will have their own number in brackets representing the structures they will take within the panel.

The name of the selected Layout can be changed in the Properties on the right hand side of the screen.

Whenever a change has been made to a panel Layout, Screen or Button the Panel icon will change to red. To save your changes, right click your panel and select Save.

Creating a new Screen

There are three types of screens that can be created. By right clicking the desired panel you can click on Add Screen followed by Menu Screen or Diary Screen:

- **Add Screen → Menu Screen → Fixed Text** allows you to create a standard Screen with buttons etc...
- **Add Screen → Menu Screen → Custom Text** allows you to create the same standard Screen as above with custom text at the top.
- **Add Screen → Diary Screen** allows you to create a blank screen for displaying diary messages. Please refer to [Menu], [5], [4] p1 of the Programming, Applications And Reference Manual for more detail on diary messages.

Creation of a Fixed Text Menu Screen:

By right clicking your Layout and selecting **Add Screen → Menu Screen → Fixed Text** you’ll be presented with the following dialog:

1. Enter a name to describe your new screen.
2. The Button Alignment buttons allow you to group the buttons together on the screen.
3. If the Needs Logon check box is ticked users will be required to enter their PIN code to access the screen you have created:

![PIN code input](image)

4. If the Has Logoff Button check box is ticked, users will be able to logoff using the button:

![Log out button](image)

5. If the Has Toolbox Button check box is ticked, users will be able to access Review and Isolate if permissions have been given to them in their Menu Group via their User Type: Please refer to the Programming, Applications And Reference Manual for more detail on user programming.

6. If the Has Back Button check button is ticked, the user has the option to return to the previous screen:

![Back button](image)

**Tip**
When creating a Layout with many screens, the Back button will make navigation easier for the end user.

**Creation of a Custom Text Menu Screen:**

By right clicking your Layout and selecting **Add Screen → Menu Screen → Custom Text** you’ll be presented with a dialog similar to the one seen when creating a Fixed Text Menu Screen. You will notice that there is an additional text box at the bottom of the dialog allowing you to enter a custom title at the top of the screen you are creating:

![Custom Text Menu Screen](image)

**Tip**
When creating a Layout with many screens, make good use of the Custom Text Menu Screen to make navigation easier for the end user.

**Creation of a Diary Screen:**

By right clicking your Layout and selecting **Add Screen → Diary Screen** you’ll be presented with a dialog similar to the one seen when creating a Fixed Text Menu Screen. You will notice that you only have the option to change the screen name and select the Diary Message you wish to display on the screen you are creating.

Diary Screens can not be modified. You can change the name of the screen and the Diary Message assigned.
Creating a new Button

Menu Screens allow you to place Buttons on them. To do this Right click the Screen in the tree view of the left hand side of the screen and select Add Items:

<table>
<thead>
<tr>
<th>Add Items</th>
<th>Add Custom Text items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Menu</td>
<td>Area</td>
</tr>
<tr>
<td>Area</td>
<td>Timed Auxiliary</td>
</tr>
<tr>
<td>AreaList</td>
<td>Isolate</td>
</tr>
<tr>
<td>Isolate</td>
<td>Review</td>
</tr>
<tr>
<td>Review</td>
<td>User extra area</td>
</tr>
<tr>
<td>User extra area</td>
<td>Home analog auxiliary</td>
</tr>
<tr>
<td>Home analog auxiliary</td>
<td>Switched auxiliary</td>
</tr>
</tbody>
</table>

**Add Items** and **Add Custom Text items** allow you to select one of nine different items. **Custom Text items** differ slightly to Add items in that they allow you to specify a text label for the button. **Add Items** will allow you to create an item with either the name of the item programmed within the panel or a list of pre-defined text words.

Button placement

Once you have selected an item to place on your screen, a new button will be placed on your screen. You can move the button amongst other buttons on your screen by right clicking it and selecting either **Move Previous Position** or **Move Next Position**:

Tip
To remove a button from your screen, right click it and select Delete. A confirmation dialog will pop up to confirm your action.

Button properties

Most of the buttons available will have similar properties. The common button properties are:
**Button**
This property is read only. It is a number that represents the location of the Button amongst the other Buttons that may be on the same Screen.

**Parent Screen**
This property is read only. This property contains the name of the Screen containing the Menu Button.

**Button Function**
Allows you to change the button from a Menu Button to another item.

**Button Text**
If the button is a custom text button you can enter custom text here to describe the buttons function:
If the button is not a custom text button then you will have the option to select one of the items in the drop down list box.

**Title type**
Allows you to change the button from a custom text button to a preset button.

---

**Menu Buttons**

Menu Buttons are used to allow the user to navigate from the current screen to another.

**Next Screen**
Allows you to select the screen that will be displayed if this button is pressed.

**Requires Logon**
This property is read only. It will indicate if the Next Screen has the property Need Logon set to Yes.

---

**Area Buttons**

Area buttons allow the user to arm or disarm a single area within the system.

**Area Index:**
Allows you to select one of the areas available in the panel.

---

**Timed Auxiliary Buttons**

Timed Auxiliary buttons allow the user to activate a home auxiliary for a timed period or toggle its state on/off.

**Home Auxiliary Index:**
Allows you to select one of the home auxiliaries available in the panel

---

**AreaList Buttons**

AreaList buttons allow the user to arm or disarm the selected area list within the system.
AreaList Index  Allows you to select one of the area lists available in the panel:

Isolate Buttons

The Isolate button allows the user to access a separate menu for isolation of standard inputs and system inputs.

Review Buttons

The Review button allows the user to access a separate menu for viewing panel history.

User Extra Area Buttons

The User Extra Area button allows the user to arm or disarm their allocated extra area within the system.

Home Analogue Auxiliary Buttons

The Home Analogue Auxiliary button allows the user to control an automation system such as C-Bus, Dynalite or HPM. Eg. A Home Analogue Auxiliary can be used to control light dimming.

Home Auxiliary Index  Is used to select the home auxiliary that will be used to control the automation system.

Switched Auxiliary Buttons

Switched Auxiliary buttons allow the user to toggle the state of a home auxiliary.

Home Auxiliary Index  Allows you to select one of the home auxiliaries available in the panel:
Adaptive User Rotation Module

The AURM (Adaptive User Rotation Module) has been designed to accommodate for configurations consisting of one or many panels that require more users than the maximum allowable memory configuration.

When a user presents their card to a reader, the panel will search its own memory for the user record. If the users record exists locally then the panel will grant access as per its programmed configuration. If the user does not exist then the panel will send a request to Insight. Insight will then search for this user within its own database and update the panel with the users record. If all of the user records in the panel are already programmed then the user record that has been inactive the longest will be replaced.

When presenting a card to a reader the transaction time will vary if the user is not stored locally. The total time taken is approximately 3 seconds from when the card is presented and when the user is granted or denied access.

Paid Feature
Insight Adaptive User Rotation Module is a separately licensed module and requires Insight Professional to run.

Requirements

To take advantage of Adaptive User Rotation, the following criteria must be met:

- Insight Professional 4.3 or above
  - Adaptive User Rotation Module license.
  - Virtual Panel with one or many panels configured for AUR
- Concept panel(s) with the following configuration:
  - Firmware v7.60 or above.
  - 512k memory expansion.
  - Reader Mode set to Site Code.
  - Reader option U (Request unknown User) in EU.
  - A permanent connection.
  - Adaptive User Rotation selected in Panel Profile.

Configuring Active User Rotation

Before starting please ensure you are using a panel with firmware version 7.6 or above. To check this press [Menu], [2] when logged out of the terminal.

1) Configuring the Concept panel
   a. Log in to the Terminal: [0], [1], [OK].
   b. Go to the Reader Options: [Menu], [7], [2], [4].
   c. Enter the Reader Module number to program: [0], [1].
   d. Turn on Request unknown User: [OK] x7, [►], [9].
   e. Change the Reader 1 Mode to Site Code: [OK] x3, [►].
   f. Change the Reader 2 Mode to Site Code: [OK] x5 [►].
   g. Repeat steps b - f for each reader module.
   h. Go to the Intelligent Reader Options: [Menu], [7], [2], [8].
   i. Enter the Intelligent Reader Module number to program: [0], [1].
   j. Change the Reader 1 Mode to Site Code: [OK] x10, [►].
   k. Turn on Request unknown User for Reader 1: [OK] x2, [►], [9].
   l. Change the Reader 2 Mode to Site Code: [OK] x5, [►].
   m. Turn on Request unknown User for Reader 2: [OK] x2, [►], [9].
   n. Change the Reader 3 Mode to Site Code: [OK] x5, [►].
o. Turn on Request unknown User for Reader 3: [OK] x2, [►], [9].

p. Change the Reader 4 Mode to Site Code: [OK] x5, [►].

q. Turn on Request unknown User for Reader 4: [OK] x2, [►], [9].

r. Repeat steps h - q for each reader module.

2) You will need to enrol the panel into Insight as you would normally.

Note
For Instruction on Door programming and the Insight communications task please refer to the “Concept 4000 Programming, Applications And Reference Manual”.

3) Once the panel is enrolled within Insight you will need to go into the panel properties and turn on Adaptive User Rotation. You will also need to set the AUR threshold. Set this threshold to the user record number that active user rotation will start from. Users below this threshold will act as normal local panel users:
4) **Make sure the panel is set to Permanent connection (Insight will try to stay connected):**

![Image of panel settings with Connection Type set to Permanent connection]

**Note**
If a user is not in the panels database when it is offline then the user will be denied access.

5) **Right-click a site and select New Virtual Panel…**

- New Sub-site...
- Enrol Panel...
- New Panel From Template...
- **New Virtual Panel…**
- Go Online
- Go Offline
- New Digital Video Recorder…
- Delete
- Properties…
6) Select Adaptive User Rotation and click Next >.

The remainder of the Virtual Panel Wizard is the same as creating a standard virtual panel. Please refer to the Insight User Manual for more detail on creating virtual panels.

7) Virtual users created will not go directly to the panel. If an Unknown Card Request is generated then Insight will send the user to the panel if the user exists.
Dynamic User Import Module

The Dynamic User Import Module enables automatic user programming of a Concept panel. It is designed for installations where the access-enabled user base changes frequently, like in hotels, clubs, fitness centres, etc. The DUIM module runs as a service on the Insight Server machine and picks up files with the updated user information. These files can be output files from a third party system, and so the update of the user base can run fully automatically.

This module was initially conceived for use with a hotel’s Property Management System, but the Insight Dynamic User Import Module can also be applied to commercial and industrial applications with its ability to take output from other ERP/HR Systems and update user programming in Insight and Concept panels accordingly.

**Paid Feature**

Insight Dynamic User Import Module is a separately licensed module and requires Insight Professional to run.

The Dynamic User Import Module is a service that runs in conjunction with Insight on the Insight Server machine. It must be set up to work with the panel(s) in the system before it will run properly.

**Setting up the Dynamic User Import Module**

Before attempting to set up the Dynamic User Import Module, it is recommended that the panel or panels have been programmed first. The key panel items relevant to this module are:

- Panel Name(s)
- Number of users to be serviced - this will determine the memory configuration in the panel as well as the User Range specified in the Dynamic User Import Module
- Type of cards used for access
- User types - When importing .INI files from a Hotel PMS, a User Type will be associated with each floor the panel will service, based on the floor number. When importing .CSV files from ERP/HR systems, a correspondence will be established between User Types in the panel and User Type tokens as they appear in the .CSV file.

**To Set Up the Dynamic User Import Module:**

1. Ensure the Dynamic User Import Service is installed on the Insight Server Machine. To verify this, click on the Insight Task bar Icon 🍀 on the Insight Server machine. The DUIM service is installed if the menu item ‘DUIM Service Settings’) is enabled. If the service is running, this menu item is checked.
2. Select this menu item (‘DUIM Service Settings’).
3. You will be prompted to log in. Log in as **installer** to enter the setup.
4. Enter the settings required by the Dynamic User Import Module (see below).
### Operator Permissions

To access the Setup dialog, the Installer user must be the currently logged-in user in Insight!

---

#### Login Tab

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dynamic User Import Service Status</td>
<td>Indicates the current status of the DUIM service (running, stopped, start pending, stop pending, etc). If the status is ‘running’, this is also indicated by a check before the ‘DUIM Service Settings’ menu item of the Insight Task Bar Icon and can so be found out without logging in. This section of the Setup dialog provides buttons to start and stop the service, and to test the Dynamic User Import Module.</td>
</tr>
<tr>
<td>Operator Details</td>
<td>Sets the Insight Operator account which will be used to process the data files. The user specified in Operator Details should be set up specifically for use with the Dynamic User Import Module only and limited to having SEE permissions on panel items and CHANGE permissions on users.</td>
</tr>
<tr>
<td>Folder to Monitor</td>
<td>This is the folder where the Dynamic User Import Module will expect data files with the updated user information to be dropped by a third party system. The default location is the “CMS Monitor Files” folder in the Insight Application Data folder (C:\Documents and Settings\All Users\Application Data\Inner Range\Insight\CMS Monitor Files).</td>
</tr>
</tbody>
</table>

**Start:** When ‘Start’ is pressed, the status display will change to ‘Start pending’ and then ‘Running’, indicating that the Dynamic User Import Module is ready to use. It will then monitor the folder nominated under the ‘Folder to monitor’ setting for new files and process new files as it sees them.

**Stop:** Selecting the ‘Stop’ button will cause the DUIM service to stop if it is running. The status display will change to ‘Stop pending’ and then ‘Stopped’, indicating that the Dynamic User Import Module is not operating.

**Test:** Pressing this button opens a dialog where the Dynamic User Import Module can be quickly tested. The operator can test the addition as well as the removal of a user. The test must be started with the ‘Start’ button first which will restart the DUIM service (to make sure that any new settings entered are picked up, provided they were ‘Applied’ first). To test the working of the Dynamic User Import Module, enter sample users in the Testing dialog and see them appear in the panel in Insight Edit.

---

#### Options Tab

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Import Type</td>
<td>This tells the Dynamic User Import Module which kind of files to look for. <strong>Windows INI File:</strong> Version 1 of Hotel PMS Tool format (see section on page 177). <em>Use this format when interfacing with a Hotel PMS and where Room Numbers are part of the User data.</em> <strong>CSV File:</strong> Comma-Separated Value file format. This CSV file format follows the same rules as import of extended user information in Insight Edit (see page 55). <em>Use this format when interfacing with ERP and HR systems.</em></td>
</tr>
</tbody>
</table>
Card Type
Select a radio button to match the type of access cards programmed in the panel.

Card Pool for Cards
When importing user programming via a CSV file, the card numbers and/or card allocation can be automatically entered into the Card Pool system, assuming the Insight installation has a valid Card Pool licence.

The type of the card pool selected in this dialog must match the type of card specified in the user programming in the CSV file. No action is taken if the Card Pool specified does not match the type of card specified in the user programming in the CSV file.

For example, if the Card Pool specified is a Site Code Card Pool and the user programming indicates a Direct Entry Card Pool, then no cards are assigned.

User Type Lookup
Check the ‘Multi-storey hotel application’ checkbox if interfacing with a Hotel PMS system and importing data using the .INI format. This links a floor (derived from the guest's room number) with a matching User Type in the panel. The “Room Digits” setting (see below) is only active if this item is checked.

When interfacing with a system using the .CSV format, leave this checkbox unchecked. In this case, a User Type defined in the .CSV file is linked to a particular User Type in the panel using a Lookup Table defined in the “Lookup Table” tab.

Room Digits
The number of digits to remove from the room number to get the floor number (hotel floor). For example, if room 12 on the 4th floor was designated Room 412, Room Digits should be set to 2.

**Note**
When using CSV files, specific items of programming for a user can be cleared by populating the field(s) with the entry, <blank>. The <blank> entry cannot be used for the following fields: PIN, First Name, Second Name, Gender, Date of Birth, Card Number.

**Panels Tab**
The Dynamic User Import Module needs to know which panel(s) is/(are) servicing the installation.

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Panel Selection Icon List</td>
<td>A list of icons representing the panels used for dynamic user import.</td>
</tr>
<tr>
<td>‘Properties’ Button</td>
<td>Allows settings for the selected panel to be viewed and changed.</td>
</tr>
<tr>
<td>‘Remove Panel’ Button</td>
<td>Deletes the selected panel from the Dynamic User Import Module setup.</td>
</tr>
<tr>
<td>‘Add Panel’ Button</td>
<td>Used to add panels to the list that the Dynamic User Import Module will deal with. Selecting this button will bring up a dialog which is explained below.</td>
</tr>
</tbody>
</table>

Adding Panels (‘Add Panel’) or modifying them (‘Properties’) brings up the ‘Add Panel’ dialog:

**Panel Name:** Type the panel name in this field. (The panel must already exist in the system). The Panel Name field must exactly match the name of the Panel as shown within the Insight Edit module.
**Virtual Panel:** If this item is checked, the panel shows up in the Select Panels pane as a virtual panel (which must already exist in the system).

**User Range:** This setting refers to the range of user numbers to use in the panel when adding new users. Each of the "Card Only User" settings are in blocks of 8000 user numbers.

- For up to 4000 Users with User Number in the range of U0001 to U4000, select "Card/Pin Users(57)". This would be the typical setting on a 128k panel (where built-in memory configurations allow a maximum of 2000 users).
- For up to 8000 Card Only Users with User Number in the range of U0001 to U8000, select "Card Only User(186)". This setting would normally only be selected for a 512k panel or an IP Door Controller.
- For up to 8000 Card Only Users with User Number in the range of U8001 to U16000, select "Card Only User(187)". A 512k panel is required for this setting and beyond.
- For up to 8000 Card Only Users with User Number in the range of U16001 to U24000, select "Card Only User(188)".
- For up to 8000 Card Only Users with User Number in the range of U24001 to U32000, select "Card Only User(189)". This setting and beyond would require a 512k panel with a custom memory configuration.
- For each bank of 8000 User Numbers beyond U32000, select the appropriate "Card Only User" option.

**Warning**
If the setting of User Range exceeds the amount of users available in the Panel (based on memory size and configuration, for instance, choosing a "Card Only User" setting on a 128k panels, which, by default do not support Card Only users), the Dynamic User Import Module may successfully process the setup file, but will report an error when processing files to add users.

**User Index:** This setting determines an index number from which the module starts adding users in the panel. For instance, if the User Range is set to "Card Only User(187)" (which means that User Numbers of 8000-16000 are used in the panel) and the User Index is set to 10, the first User Number that the Hotel PMS Tool will use in the panel is U8011.

**Tip**
Where the User Range includes U0001-U4000, it is recommended that User Index is set to at least 3 to avoid inadvertently overwriting the user programming for the MASTER and INSTALLER users.

**Note**
No User Range and User Index can be selected if the panel is virtual. User ranges and starting indices are already specified when defining the virtual panel.

**Lookup Table Tab**
Lookup tables are required for the Dynamic User Import Module to link a hotel floor in an .INI file to a User Type in a panel (for Hotel PMS) or to match a User Type token in a .CSV file (typically from an ERP/HR system) to a User Type in a panel.

The Dynamic User Import Module Setup dialog will create a lookup table for each of the panels defined in the Panels tab.

To see and edit properties in a lookup table, left-click the lookup table, then select the Edit… button. This will open the Lookup Properties dialog for the selected lookup table. Alternatively, double clicking a lookup table will also open the Lookup Properties dialog.
The Lookup Properties dialog shows the existing lookup values for a panel. The values display which User Type in a panel is associated with a particular floor (for .INI files) or user type token (for .CSV files).

From this dialog, the user can add, edit, and delete lookup items for a panel.

<table>
<thead>
<tr>
<th>Lookup Properties Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hotel Floor (if Hotel application);</td>
<td>The Hotel Floor (a number) if hotel application.</td>
</tr>
<tr>
<td>Key for User Type (otherwise)</td>
<td>If not a hotel application ad CSV-style file inout, a token (key) to refer to the User Type in this particular Panel as it will be found in the external data file.</td>
</tr>
<tr>
<td>User Type</td>
<td>The User Type in the panel that corresponds to the Hotel Floor or User Type key in the data file.</td>
</tr>
<tr>
<td>Panel</td>
<td>The panel this User Type belongs to.</td>
</tr>
</tbody>
</table>

When the Add or Edit buttons on the Lookup Properties dialog are pressed, the Lookup Item dialog appears:

An explanation of the different Lookup Item dialog properties is shown below.

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hotel Floor/Token to represent</td>
<td>Hotel Floor or User Type token (key) found in the external data file.</td>
</tr>
<tr>
<td>User Type</td>
<td>When importing using .INI files and using room numbers, this value is typically the floor number.</td>
</tr>
<tr>
<td></td>
<td>When importing using .CSV files, this value can be chosen freely. It is recommended to choose a token that is exactly the same as the User Name In Panel.</td>
</tr>
<tr>
<td></td>
<td>The Hotel Floor or User Type token must be unique within the lookup table!</td>
</tr>
<tr>
<td>User Type In Panel</td>
<td>In this field, enter the User Type defined in the panel that corresponds to the floor or user type in the Hotel Floor/User Type field.</td>
</tr>
<tr>
<td>Panel Name</td>
<td>Select the panel to which this User Type belongs to. Remember that lookup tables are created for each panel in the system, so all items within a lookup table should relate to one panel only.</td>
</tr>
</tbody>
</table>

Note

Whilst Hotel Floor/User Type Values must be unique within a table, many different floors or user type tokens may be associated with a single actual User Type in the panel.

Note

Entering a single asterisk, "+", in the User Type In Panel field tells the Dynamic User Import Module that there is no Panel User Type associated with this User Type key value in the data file. With the exception of, "+", the entry in this field must have a matching entry in the panel.

Finish the Set-Up procedure using the ‘Apply’ or the ‘Close’ button at the bottom of the Setup dialog.

**Working with the Dynamic User Import Module**

Once the Dynamic User Import Module is set up and the new Setup written to disk via the
‘Apply’ or ‘Close’ button, the DUIM service needs to be (re-)started to pick up the new settings. If you use only ‘Apply’ (so the Setup dialog stays open) or re-enter the Setup dialog afterwards, in the ‘Login’ Tab, you can see the current status of the service. If the service is running, hit the ‘stop’ button. Now start the service again. The Dynamic User Import Module is now ready to wait for new user data.

Sending data files to the Dynamic User Import Module

1. Ensure that the Dynamic User Import Module is running and ready to accept data.
2. The third-party system should be set up to output data files in a format that matches the settings applied to the Dynamic User Import Module.
3. The third-party system should output files with incrementing file names each time a new data file is created (e.g.: Insight0000001.csv, Insight0000002.csv, etc.).
4. The names of the data files must correspond to a certain naming convention:
   - If using .CSV files, the files must be named “Insight*.csv” (e.g.: Insight0000001.csv).
   - If using .INI files, the files must be either be named “InsightAdd*.ini” (for adding a user) or “InsightDel*.ini” (for deleting a user) (e.g.: InsightAdd0001.ini, InsightDelete0002.ini).
5. The data files need to be dropped into the location nominated in the set-up for the Dynamic User Import Module.

Hotel PMS INI File Format

Note

The .INI file name must use the following naming convention: The file must be called either “InsightAdd*.ini” (e.g. “InsightAdd0001.ini”) to add a user, or “InsightDelete*.ini” (e.g. “InsightDelete0001.ini”) to remove a user.

When importing .INI files, the data must be in the following format:

Guest Name, Room Number, Card Number, Leave

Each record is on a new line in the file.

<table>
<thead>
<tr>
<th>Field</th>
<th>Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>any text, e.g.: &quot;Rodrigo Rodriguez&quot;</td>
</tr>
</tbody>
</table>
| Room    | A room number, e.g.: "207".  
A number of digits (specified in the ‘Room Digits’ setting in the ‘Options’ tab of the DUIM setup) will be removed from the end of this number. The remainder must correspond to one of the floor numbers entered in the ‘Lookup Table’ in the DUIM Setup, which correspond to a panel user type. |
| Card    | Card number, e.g.: "6702FF0000".  
The Card type will be imported as Site Code, Direct Entry, or Credit Card, depending on the ‘Card Type’ setting in the ‘Options’ tab of the DUIM Setup. |
| Leave   | Date/Time in one of the following formats: |
|         | dd Month yyyy hh:mm e.g.: "27 January 2007 10:59" |
|         | dd mon yyyy hh:mm e.g.: "27 jan 2007 10:59" |
|         | dd/mm/yyyy hh:mm e.g.: "27/01/2007 10:59" |
|         | • In all date formats, a single space character separates the date from the time. |
• In the first and second date format, a single space separates the date components.
• In the first and second date format, the month component is alphabetical. The Dynamic User Import Module will parse the first three letters of the month component.

Example .INI Files for import with the DUIM Service

[File name: InsightAdd00002.ini]
[DATA_ADD]
Name=Wayne Clarke
Card=6534221
Room=308

[File name: InsightDelete00003.ini]
[DATA_DELETE]
Name=Conor O’Hara
Card=54297645

Note
Only one user can be added or deleted per .INI file.
Qualifications

Qualifications work by allowing a user access to a particular Door according to the validity of the Qualification and whether the user can otherwise access that door associated with the user.

The first 8 Door Lists in the system are reserved for Qualifications. A qualification is associated with each of these door lists. Any Doors assigned to these Door Lists will require a user with a valid Qualification assigned to that Door to be valid in order to get access through that Door.

Qualifications can be configured in two ways – Timed or Count.

Timed Qualifications:

A user can be given a qualification that spans a predefined number of days. For example: A forklift operator might require a particular license that has a duration of one year / 365 days. A Timed Qualification could be used if the forklift operator is only permitted to work within a secure location during the time their license is valid.

Timed Qualifications have two special properties - Valid Duration and Expire Warning:

- **Valid Duration** is the total number of days that the license is valid for.
- **Expire Warning** is set to the number of days prior to expiry that generate an event in Review.

Count Qualifications:

Users can be given a Count Qualifications to limit a users total number of entries to a defined door list. For example: An employee might pay in advance for 10 days use of an underground car park. Each time the user is granted access to the car park entry their Count Qualification is reduced by 1. Once the count reaches 0 the user will be denied access.

When qualifications are in effect, if a door is in any of door lists 1-8, a user who otherwise would have access to that door at that time must also have the appropriate qualification. If the door appears in more than one of these door lists, the user must have all of the associated qualifications to gain access..

Requirements

To take advantage of the new qualifications feature, the following criteria must be met:

- Insight Professional 4.3 or above
- Concept panel with the following configuration:
  - Firmware v7.70 b46 or above.
  - 512k Memory Expansion fitted.
  - Defaulted to the xDoor memory configuration.
  - In General System Options - Option Q in ELPSZWQ
  - A permanent connection.

Note

ANY door assigned to ANY of the first 8 Door Lists requires a Qualification. These Door Lists are reserved for Qualifications.
Preparing the Concept Panel

Before starting please ensure you are using a panel with firmware version 7.70 b46 or above.
To check this press [Menu], [2] when logged out of the terminal.

8) Configuring the Concept panel
   a. Log in to the Terminal: [0], [1], [OK].
   b. Go in to the Default menu [Menu], [7],[5],[2].
   c. Select xDoor [►] x8, [OK], [9].
   d. Log in to the Terminal: [0], [1], [OK].
   e. Go to the General System Options [Menu], [7], [5], [1].
   f. Turn on Qualifications, [OK] x20, [►] x8, [9], [OK].

9) You will need to enrol the panel in to Insight as you would normally.

User Qualifications are only enabled if the requirements listed in the section above are met.

Creating the Qualification

Qualifications are created using the Insight Edit module:

1) Open Insight Professional by Right-clicking the Insight Launch Pad (Pro) icon.
   a. Select Insight Edit.
   b. Log in to the Insight Edit module by entering your User Name and Password. To continue select Log On.

2) Create a Qualification:
   a. Click on Edit → User Qualifications…

   Qualifications are displayed in a table format:
i. This screen allows you to view all of the existing Qualifications and their properties.

c. Click Add… to create a new Qualification:

   i. Enter a **Name** to define the purpose of the Qualification.
   ii. Enter a **Description** to help identify and explain the purpose of the qualification to others.
   iii. Tick the **Active** tick box to allow you assign the Qualification to a user.
   iv. Enter the **Door List Index** of the Door List you wish to assign this Qualification to.
   v. Select either **Time Qualification** or **Count Qualification**.
   vi. If you select **Time Qualification** you will need to enter a **Valid Duration** in days.
   vii. If you select **Time Qualification** you will need to enter an **Expire Warning** in days.
   viii. Click **OK**.
   ix. Click **Save** then **Exit**.

**Creating Doors**

When using qualifications door programming does not differ.
Creating Door Lists

You will need to assign one or many doors to the first 8 door lists corresponding to the appropriate qualification.

1) Create a door list for the qualification.
   a. From the tree view on the left hand side of Insight Edit Select Door Lists.
   b. Double-click the Door List that the qualification has been assigned to (in the “Door List Index” box of the Qualification screen) on the right hand side of Insight Edit.
   c. Give the Door List a descriptive name that will reflect its purpose.
   d. Select the Door(s) you want to require this qualification for access.
   e. Click on the save icon to finish.
Creating Users

Note
For Instruction on User programming please refer to the “Concept 4000 Programming, Applications And Reference Manual”.

Newer versions of Insight Edit have a Qualifications section at the bottom of the Users Options tab:

The Red and Green indicators to the right of the ‘Qualifications…’ button indicate valid Qualifications assigned to the User. The indicators represent Door Lists 1 through 8 respectively.

In the image above the user has a valid Qualification(s) assigned to Door List 1 and a valid Qualification(s) assigned to Door List 4. The User will be able to access any Doors assigned to the 1st or 4th Door List if their User Type has a Door List with those Doors assigned.

1) Assign a door list to the user.
   a. From the tree view on the left hand side of Insight Edit Select Users.
   b. Double-click the User you wish to give a Qualification on the right hand side of Insight Edit.

   Ina F L Driver

   c. Give the User a User Type with appropriate access including a Door List containing the Door that is a member of a qualification door list.

2) Assigning the User a Qualification within Insight Edit:
   a. Click on the Options tab for that User.
   b. Click on Qualifications…

   c. Double-click on the Name of the Qualification you wish to assign to the User.
d. Depending on the type of qualification you are giving to the user you will be required to enter either a date or a number of credits:
   
   i. If the qualification is a timed type than you will need to enter the date from where the qualification will start from.

   ![Qualification acquisition window]

   ii. If the qualification is a count type than you will need to enter a value representing the total number of times the user is allowed to access any of the doors in the qualification door list.

   ![Date and access credit input fields]

   e. Click **OK**. Then Click **OK** again to go back to the Users Options tab.

   f. Click on the save icon to finish.
Insight Review

Listed below are a few examples Insight review events:

The user has access to the door.

Insight will generate a review event when a user’s qualification reaches its expiry warning time. This event will be generated each day for the user until the qualification has expired.

The user’s qualification has expired. If the user attempts to gain access to a door that requires a qualification they will be denied.

The user is denied entry due to an expired (or no) qualification.

Importing Extended User Information

You can import extended user information (such as age and contact details) from an external file. The file must be in “Comma Separated Values” format (CSV).

Imported and exported user information has two extra columns for qualifications:

<table>
<thead>
<tr>
<th>Field code if used in heading row</th>
<th>Description</th>
<th>Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>irqualifications</td>
<td>The name of the qualification</td>
<td>Any text</td>
</tr>
<tr>
<td>irqualificationvalues</td>
<td>This field will be either the Count or start date for the qualification</td>
<td>A valid (decimal) integer number or a date stamp (DD/MM/YYYY).</td>
</tr>
</tbody>
</table>

Note

For more information on importing extended user information and the dynamic user import module, please refer to the Insight user manual.
Appendix A: Communications Task Configuration

Insight communicates with panels via an Insight comms task. This comms task must be CT001 in the panel.

To configure the Insight comms task:

1. Using an elite terminal, log in with the Installer PIN and go to [Menu], [7], [3], [1] (comms tasks).
2. If your panel is using factory settings (or the panel has been defaulted) then CT001 will be set to Insight. In this case, you will only need to adjust the settings in red.
3. Press [Help], [9], and change the panel ID to a unique, non-zero value. The first two digits should be 00. The value you enter here must match the number assigned in the Insight front-end software (see pages 23 and 34).
4. Leave all other settings on their defaults, which are listed below:

   - Panel ID = 00xxxxxx
   - Port: 1
   - Baud: 9600
   - Opts NUIP = ....nnnn
   - Ethernet = ......ACE
   - RS232 = ......ACE
   - FE3000 = ......ACE
   - Ext. Mod = ......nnn
   - Int. Mod = ......nnn
   - Insight Key1: 0
   - Insight Key2: 0
   - IPFast IP: 0.0.0.0
   - IPFast Key1: 0
   - IPFast Key2: 0
   - Panel IP: see below
   - Router IP: see below
   - Subnet Msk: see below
   - CT001 Announce Port: 17185
   - Max Attempts: 0

   For direct serial connections: if you are using a DTR/DSR comms cable, you can set opts to nYnn. This stops phantom mouse detection on older PC’s. Most cables do not have DTR/DSR connected, and will not work with this option.

   For Ethernet UART only. If you don’t intend to use an Ethernet UART, set these flags to nnn.

   If you don’t intend to use this connection type, set these flags to nnn.

   If you are using the internal modem, set these flags to ......ACE and configure an I-modem task.

   To secure your installation, set these to random values. They must match the settings on page 37.

   ★ Insight requires these settings to enrol the panel. Note them down. You will also need to know the panel serial number (press [Menu], [2]).

   Insight IP is the static IP address of the Insight Server computer. If you aren’t using the Ethernet or FE3000 connection paths, leave this as zero.

   Panel IP is the static IP address of the panel. If you aren’t using the Ethernet or FE3000 connection paths, or if you want the panel to obtain an IP address from a DHCP server, leave this as zero.

   Router IP is the static IP address of the local router or gateway. If you aren’t using the Ethernet or FE3000 connection paths, leave this as zero.

   Subnet Mask is the TCP/IP subnet mask for the local network. If you aren’t using the

---

1 Pick a random or sequential number for each panel. The number must be unique for all panels in your Insight installation.

2 Control Module firmware prior to V6.0 doesn’t support an external modem connection with Insight.
5. Make CT001 idle then active.

**To configure the I-modem comms task:**

1. Change **CT002** from active to idle
2. Change CT002 to I-modem
3. Press [Help], [9], and make sure the following settings are selected:

<table>
<thead>
<tr>
<th>Setting</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rings to answer</td>
<td>15</td>
</tr>
<tr>
<td>Ans. Options</td>
<td>nnnnnn...</td>
</tr>
<tr>
<td>Line Test Time</td>
<td>0</td>
</tr>
<tr>
<td>Insight #</td>
<td>None</td>
</tr>
<tr>
<td>IPFast #</td>
<td>None</td>
</tr>
<tr>
<td>ISP Accnt</td>
<td></td>
</tr>
<tr>
<td>ISP Passwd</td>
<td></td>
</tr>
<tr>
<td>Dial</td>
<td>nnnnnnnnn</td>
</tr>
<tr>
<td>PABX No.</td>
<td>None</td>
</tr>
<tr>
<td>Back No.</td>
<td>None</td>
</tr>
<tr>
<td>Cust No.</td>
<td>None</td>
</tr>
<tr>
<td>Seize Aux</td>
<td></td>
</tr>
<tr>
<td>Single DTMF Tone</td>
<td></td>
</tr>
<tr>
<td>Line Test Count</td>
<td>0</td>
</tr>
</tbody>
</table>

   - For timed fax bypass, set these options to nnnYnnn..
   - If you want the panel to dial Insight when there is an alarm, set this to the phone number of the Insight Server computer.

4. Make CT002 active.
5. In CT001, make sure Int. Mod = ....ACE and restart CT001.
Appendix B: Upgrading the Database to SQL Express 2005

This appendix applies to installations that are upgrading to Insight V3.2 or higher from a previous version of Insight (V3.1x or earlier).

Prior to V3.2, Insight Professional used MSDE (Microsoft Server Desktop Engine) SQL as the default database platform. This limited the maximum database size to 2 GB of data. Commencing with V3.2, Insight ships with MS SQL Express 2005 which is used in new installations. If upgrading from an earlier version of Insight, the installer will retain the previous database (either MSDE or SQL Server).

Since MS SQL Express 2005 allows a database limit of 4 GB and is compatible with MS Vista, some installations that are upgrading to Insight 3.2 may benefit from upgrading the database platform to SQL Express 2005.

To Upgrade from Insight 3.1 (or earlier) to Insight 3.2 (or higher) and use SQL Express 2005:

1. **Before** installing Insight 3.2, use the Insight Archiver SQL module to back up the Insight database.
2. Remove MSDE (Microsoft SQL Server Desktop Engine) completely using Add or Remove Programs from the Windows Control Panel (Start → Control Panel → Add or Remove Programs).
3. Install the new version of Insight, following all the prompts.
4. Restore the Insight database which was backed up in step 1.

**Note**

The Insight installer will prompt the user that SQL Server 2005 will be installed to run under a particular account (usually, “NT AUTHORITY\Network Service”) and that the account needs access to the Insight installation folder. The user should answer “Yes” to the dialog.

**Note**

If the previous version of Insight was set up to have its database back ups stored to a location outside the Insight installation folder, then the “NT AUTHORITY\Network Service” account on the Insight ‘server’ machine needs to have full access to the location the Insight database back ups are kept in.
Appendix C: Insight Express Feature Set

Insight Express is an inexpensive software solution for small business enterprises. It provides one connection to a Concept 3000/4000 control panel and can be used on a single computer workstation. Full operator passwords are provided for added security. Insight Express can also be upgraded to Insight Professional when further expansion is required. It is intended for small businesses with only a single panel and one client.

Overview

Insight Express is a cut down version of Insight with the following features/limitations.

Features:
- Lower cost.
- Allows permanent connections.
- Able to expire users that the panel cannot (same as Insight Pro).

Limitations:
- It is a stand-alone system. (NOT client/server like Insight Pro).
- Only 1 panel can exist in the database at any time.
- Will not work with IP Door controllers.
- No Schematics
- No Alarm Handler
- No Virtual Panel
- No Tenancy
- Edit reports will not support the filtering dialogs

Licensing:
- Needs an Insight Express dongle. Will not run if no dongle is present.
- Will revert to Insight INSTALLER type of functionality if a valid "Express" key is not in the dongle (even if an Insight Pro key is).
Appendix D: Panel Firmware Versions Support

The Concept 4000 Panel Firmware is regularly updated to incorporate new features.

When each new version of Insight software is released, it will provide full support for the version of Panel firmware that is currently in production, or a version that is soon to be released to production.

The table below shows which version of Insight is required to provide full support for the various versions of Panel firmware. Additional columns also show which versions of Panel firmware are provided with “Enrol Only” and “Extended” support.

<table>
<thead>
<tr>
<th>Insight Version</th>
<th>Panel (Control Module) Version and level of support.</th>
<th>Full Type 2 Panels only.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Partial. Type 1 Panels only.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Enrol Only</td>
<td>Extended (See note below)</td>
</tr>
<tr>
<td>V1.0</td>
<td>V2.0 to V4.09</td>
<td>V5.0</td>
</tr>
<tr>
<td>V1.4</td>
<td>V2.0 to V4.09</td>
<td>V5.1 / V5.11</td>
</tr>
<tr>
<td>V2.1</td>
<td>V2.0 to V4.09</td>
<td>V5.2 to V5.28</td>
</tr>
<tr>
<td>V3.0.0.11</td>
<td>V2.0 to V4.09</td>
<td>V5.6</td>
</tr>
<tr>
<td>V3.1</td>
<td>V2.0 to V4.09</td>
<td>V5.7</td>
</tr>
<tr>
<td>V3.2</td>
<td>V2.0 to V4.09</td>
<td>V6.2 to V7.0</td>
</tr>
<tr>
<td>V4.0</td>
<td>V2.0 to V4.09</td>
<td>V7.4</td>
</tr>
</tbody>
</table>

NOTE: Extended Type 1 Panel support.
Insight V4.0 or later now provides extended support for Type 1 Panels. Connection is via the “PCDirect” Comms Task format and provides full upload and download of the Panel database, control of common entities such as Areas, Doors, Home Auxiliaries, etc. and the retrieval and storage of Review.
As Insight is intended to manage Type 2 Panels, some newer features not available in Type 1 panels will appear to be available, but will not function. If these particular features are required, or to take advantage of the full range of Insight features, the Panel will need to be upgraded to a Type 2 or later Control Module with the latest firmware fitted.
Appendix E: Microsoft SQL Server Express limitations

This appendix explains the limitations of the bundled SQL Server 2005 Express Edition software and provides guidelines to determine when it is appropriate to upgrade to another edition.

The Limits

SQL Server Express edition is a free database engine provided by Microsoft. Express Edition has a number of limitations, but the most important one from the point of view of the Inner Range Insight Management Software is a limit of 4 Gigabytes for any one database.

Insight uses a number of databases to store its data. The ones most likely to be affected by this limit are the Review database in any busy system and the main Insight database (which includes users) when there are a lot of panels or a lot of users.

As an indication, Insight Review can fill a 4GB database with approximately 2 million events. This number depends very much on the type of event, the number of review entries the event generates and the text associated with those entries. This equates to a little over 5,000 events per day for a year, where each event might cause a number of review entries. On a busy site, 5,000 or more events per day would not be uncommon.

Operations that we regard as an event for this purpose would include:

1. User access operations to Doors or Lifts.
2. Automation events.
3. Modules constantly going on and off line due to poor LAN installation practices has been known to fill up 4GB in a day or two.
4. Other events including Area on/off, log-ins, etc. which occur much less often, would therefore contribute less.

Interestingly, Insight Schematics state changes and area count increments/decrements don’t get stored in Insight Review and therefore don’t contribute to it filling up.

As another indication, 10,000 user photos of 400kB each would alone fill up the Insight database.

Guidelines

Under any of the following circumstances, an unlimited edition of the SQL Server would be recommended:

- If Insight Review is logging the activity of 200 users, each performing an average of 10 access operations per day, you probably need an unlimited SQL server. If a lot of Automation functions are also being logged, these numbers should be decreased.
- If Insight Review is logging the activity of 20 automation functions, each processing an average of 100 changes of state per day, you probably need an unlimited SQL server. If a lot of User access operations are also being logged, these numbers should be decreased.
- If the Insight database has more than 5000 user photos, you probably need an unlimited SQL Server.
- If the Insight database has more than 10 panels, you probably need an unlimited SQL Server.

Note that the above are only guidelines. Due to the range of factors influencing database usage there is no guarantee that you won’t run out of database space if you choose to utilize SQL Express edition when the system activity &/or database size is below, but approaching, these suggested numbers.

If your system is large and/or busy, closely monitor the size of your review database in particular, noting how much it grows over a specific period. (e.g. A week or a month) If it gets much above half of the 4GB limit, older Review events should be archived to free up space.
Once you know how long it takes for the review database to grow to over half of the 4GB limit you will then have the information you need to pick a suitable period for older Review events to be archived on a regular basis. This will not only reduce the chances of Insight encountering problems, but will also improve responsiveness to viewing filtered review and generating review based reports.

**Solutions**

Microsoft has an SQL Server Workgroup edition that costs approximately $1000 for a server with 5 client access licenses. This edition removes the 4GB database limit.

For very large enterprise systems, with tens or even hundreds of panels, it is best to discuss the requirements with Inner Range. In this case the solution would usually include a faster Microsoft SQL Server standard edition with multicore processors running on separate dedicated server PC and connected to the Insight Server with fast (Gigabit) Ethernet.

We should also certainly mention in this area that SQL can’t be left to its own devices with regards to memory consumption if it is installed on the same computer as the Insight Server.

**Server Properties → Memory → Maximum server Memory:**

![Server Properties Interface](image)