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1 Introduction

SmartGraphics is a Graphics system that is totally user configurable. Although AMPAC have defined a number of preset pages, the majority of the pages are constructed by the user. This manual uses a sample project to outline the knowledge an Operator requires to use the system.

1.1 Purpose

The purpose of this manual is to provide guidance and instruction to the Operators of the **FireFinder™ SmartGraphics** System.

1.2 Scope

The information within this manual is only available to and for the use of personnel engaged in the installation, maintenance and operation of the **FireFinder™ SmartGraphics** System.

1.3 References

FireFinder™ System Manuals:

Document No. G0109W04 Revision 2 **FireFinder™** Technical Manual.

Document No. G0109W01 Revision 2 **FireFinder™** Operators Manual.

SmartGraphics Manual:

Document No. G0109W22 **SmartGraphics** Designers Guide

Ampac SmartGraphics Operators Manual

1.4 Hardware

SmartGraphics requires an RS232 communications interface between the Ampac **FireFinder™** panel and a compatible Personal Computer (PC). A 400Mhz computer with 24 Meg of Ram and a 1Gb Hard Drive is the minimum recommended computer that can be used to run the system.

The system may be used with either a mouse or a touch screen but not both at the same time. This manual is written as if the user were using a mouse, if a touch screen is being used substitute “press” where “click” appears.

The system is designed to display graphically the layout of the site where the **FireFinder™** is installed. The preferred method is to import maps in a CAD. DXF format and place the relevant detectors on these maps or alternatively the maps may be drawn from within the package.

SmartGraphics monitors the **FireFinder™** system and reports the status of the zones and/or detectors in the system. It can also be used to control and display the status of fans or other inputs & outputs in the system.

SmartGraphics has a number of advanced features that are not documented in this manual. These features are covered in the Referenced manuals (see Section 1.3)

1.5 Software Installation

Software Installation is not included in the scope of this manual as it is not a function of the Operator .

2 Getting Started

This Manual assumes that the user has access to the **SmartGraphics** demonstration mode as it is used as the basis for our definitions and operating instructions. Should the Demonstration mode not be available all controls and definitions still apply and virtually any project can be used to demonstrate most of the operator requirements.

2.1 The Site Map or Start-up Page

The site map is the first screen to be displayed when the system is running, it shows a map of the whole site which is split into several areas. From this map selecting an area causes the graphics screen to go to the next zoom level.

The system is configured to have multiple levels of zoom. A minimum of two levels of zoom is normally provided. Each zoom level is a separate map, and these maps are defined by the customer prior to the system being manufactured.

2.2 Login

Before the user can access any of the system functions they are required to log in. Clicking on the “Log In” button will bring up the log in form. The user can then enter their name and password. In the case of the Demonstration Mode the user will be prompted through the process,

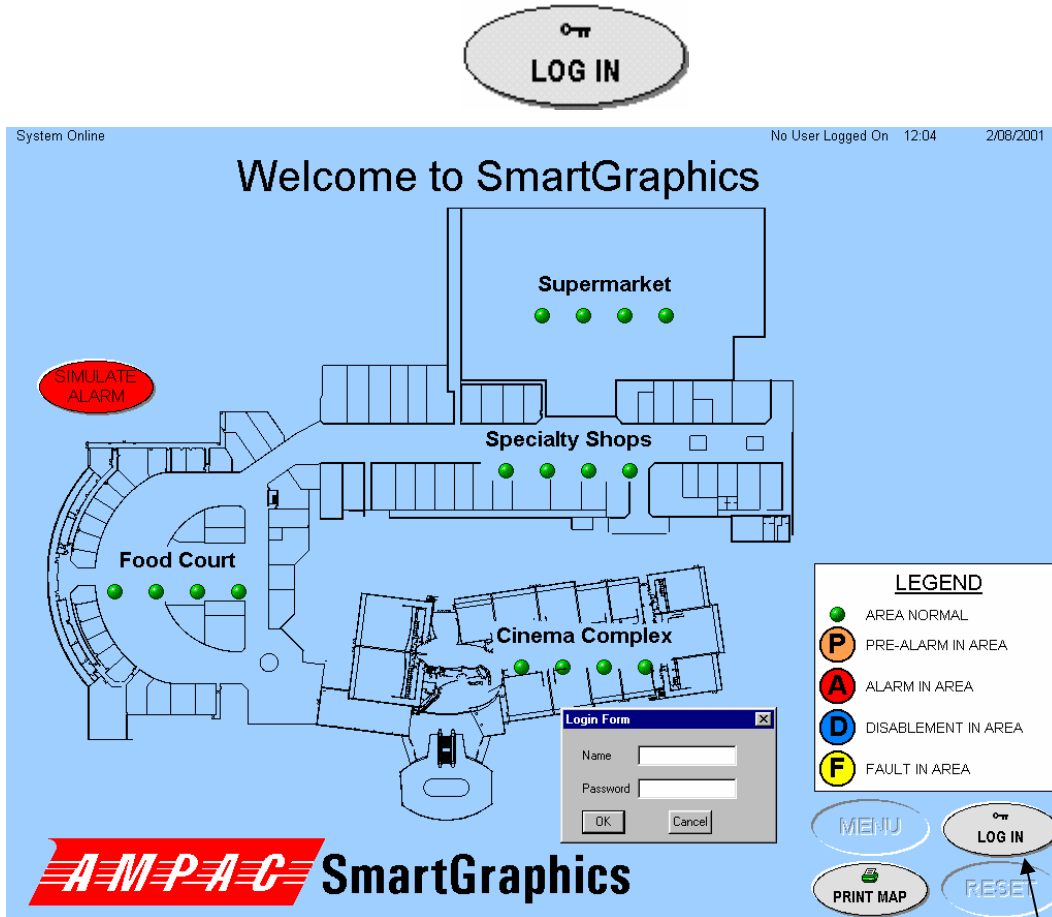
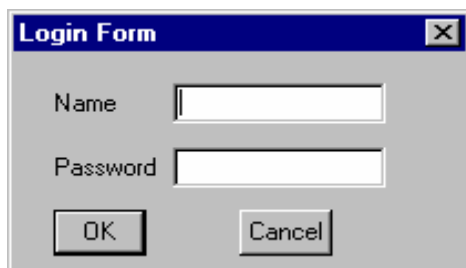


Figure 1: The Start up Page With Log in, Legend and Buttons



**Click to
Log in**

Note: Log in access ability is pre-arranged at the Installation stage

Figure 2 The Login Form

At this time it is important to note the round icons under the names of the areas within the complex. These are directly related to those within the Legend and will change state to one of the legend icons should any one of areas meet the criteria of that icon.

2.3 Log in Levels

There are three levels of log-in in the *SmartGraphics* package. These are;

- | | | |
|----------------|-----------------------|--|
| Level 1 | (<i>Operator</i>) | allows access to view maps. |
| Level 2 | (<i>Supervisor</i>) | allows access to all facilities except to erase logs and maintain passwords. |
| Level 3 | (<i>Engineer</i>) | allows full access to the system. |

2.4 Logout



Click here when you have finished using the system. This will return the system to Level 1 access and will be ready for the next user to login.

2.5 Print Map



Clicking on the print Map button will print the current screen to the selected printer.

2.6 Moving around the Project.

The operator can select which page in the system is required by simply clicking on the icons on each of the maps. The next map to be displayed is user defined when the project is created.

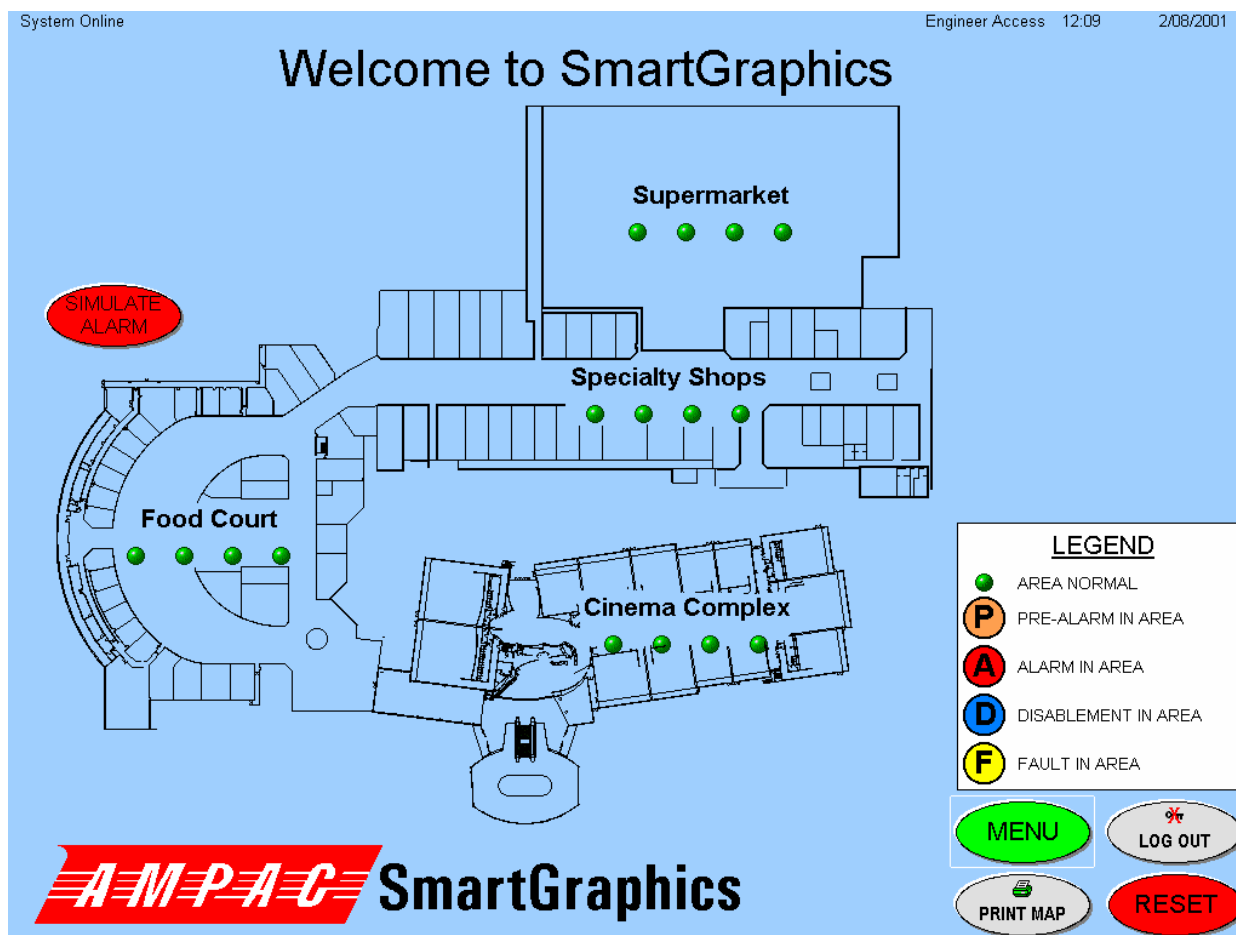
3 System Features

3.1 The Site Map

To recap the Site Map is the first screen to be displayed when the system is run. The site is divided in to sections that can be enlarged by selecting the area name (eg. Cinema Complex or Food Court etc. and as described in Moving Around the Project). Each section may have more than one level, or floor. The status of each section is indicated by the four indicators near the section name. These indicate the state in that particular area and change state accordingly. The legend below describes each state.

Other Display Options include:

1. Equipment status indicating Running, Fault or Stopped.
2. Similarly a " System On Line " icon to indicate the system is actually running. If the system loses communications with *FireFinder*TM a message window will appear.



Note: The MENU and SHUTDOWN buttons are now active

Figure 3: User Logged On

3.2 Zooming to Multi-Levels

In the following example, in this case the Cinema Complex, clicking within the area surrounding the name of the section the operator will zoom in on the next level associated with that area. Clicking on LAST MAP returns the operator back to this screen.

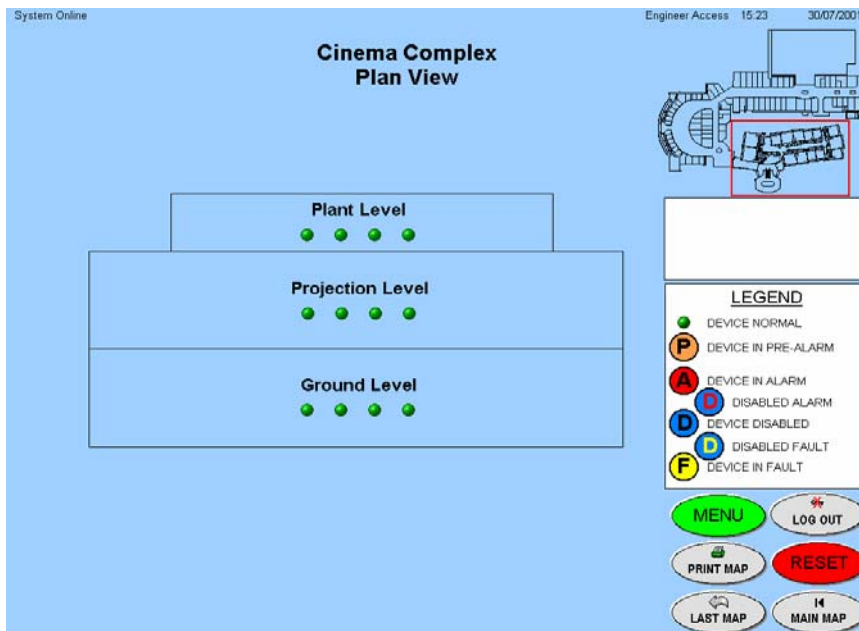


Figure 4: Cinema Complex First Screen

Clicking again within the confines of one of the above levels produces the Map associated with that level. This is shown in the following examples.

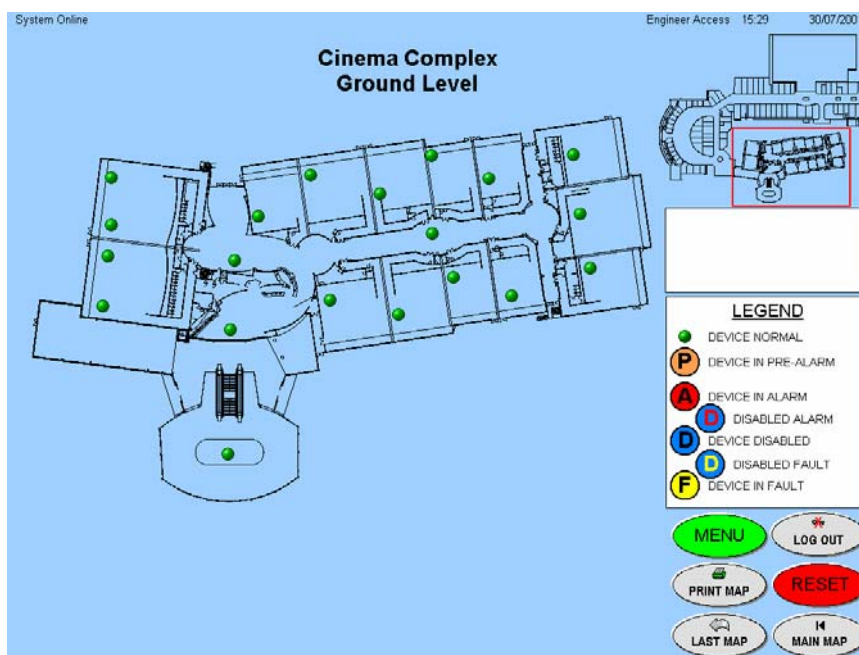


Figure 5: Cinema Complex Ground level

Zooming to Multi-Levels cont.

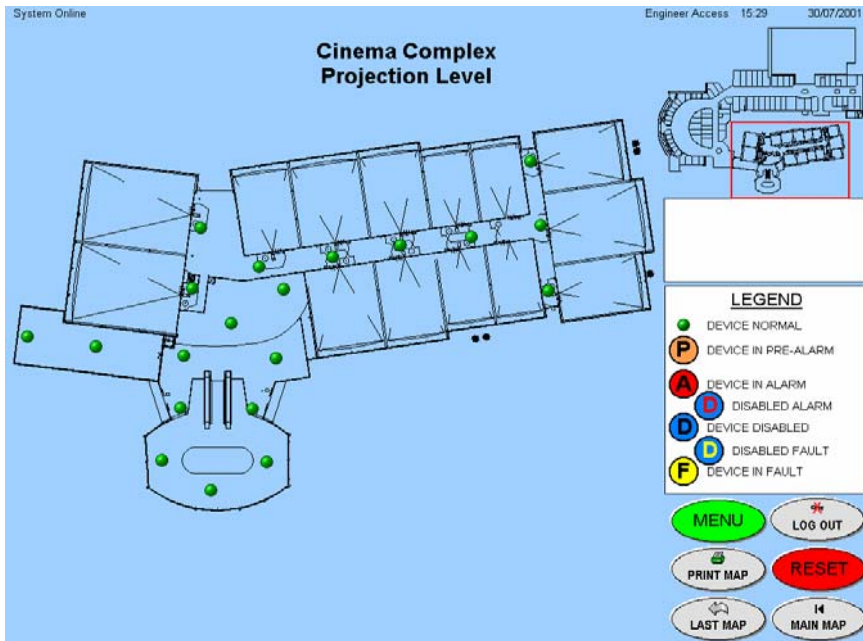


Figure 6: Cinema Complex Projection Level

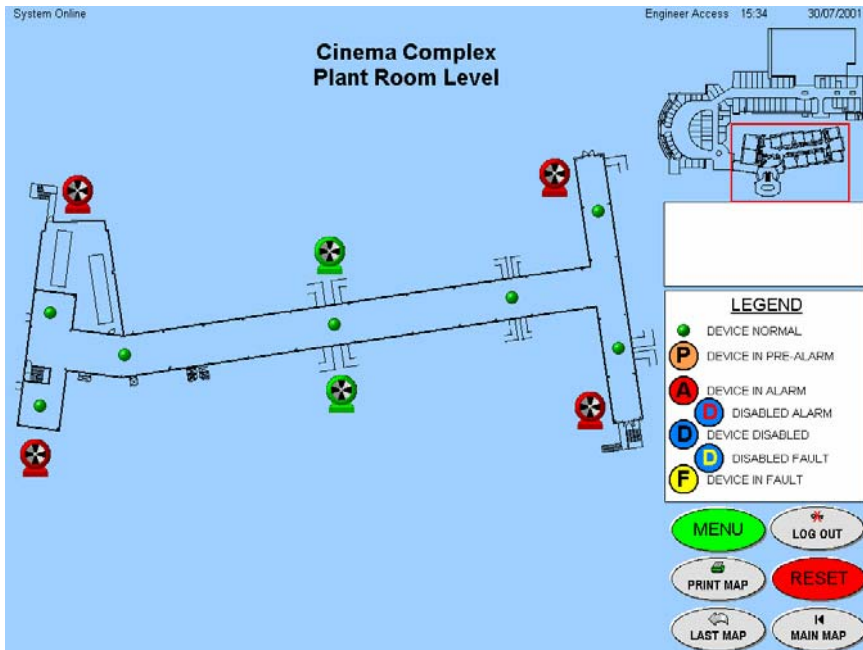


Figure 7: Cinema Complex Plant Room Level

3.3 Key Map

The key map is in the top right hand corner of each screen, it will show an overall view of the site with the area currently being viewed highlighted.

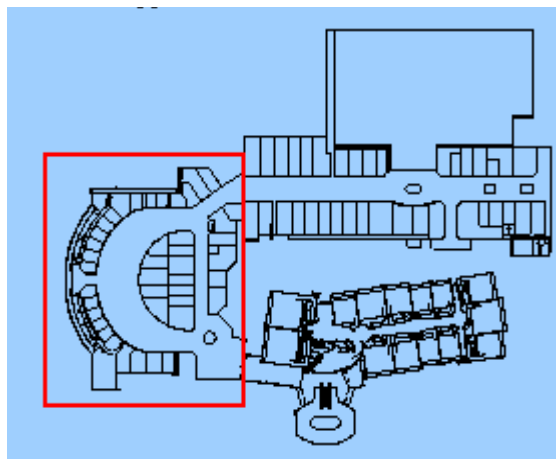


Figure 8: Example of a Key Map

3.4 Title Block

The floor map incorporates a text box for detailing action to be taken in the event of an emergency, such as:

- Map Reference: The map reference number.
- Location: Tells the user where the map is.
- Brigade Access: Fire Brigade access route.
- Hazchem Details: Indicating the presence of any dangerous materials in the area
- Fire Fighting Equipment: Any special equipment in the area.
- Public Egress: The escape routes.
- Zone Warden: The identity of the area's

zone warden.

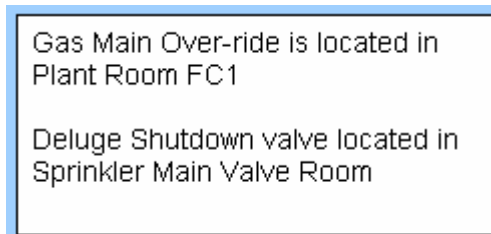
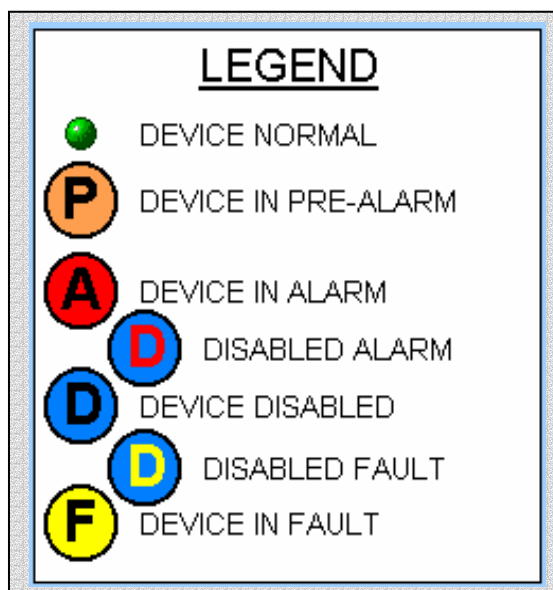


Figure 9: Example of a Title Block

3.5 Symbol Key (Legend)

The symbol key describes all the symbols which can be found on the maps, including the static icons.

**Figure 10:
Example of a Symbol Key
or Legend**



3.6 The Floor Maps

Each floor map has an interactive icon for each detector / device connected to the fire system. The icon displays the current status of each device including alarm, pre-alarm, fault and disable.

Static icons are also provided to pin point the location of emergency equipment, fire hydrants, fire extinguishers, warden intercom points etc..

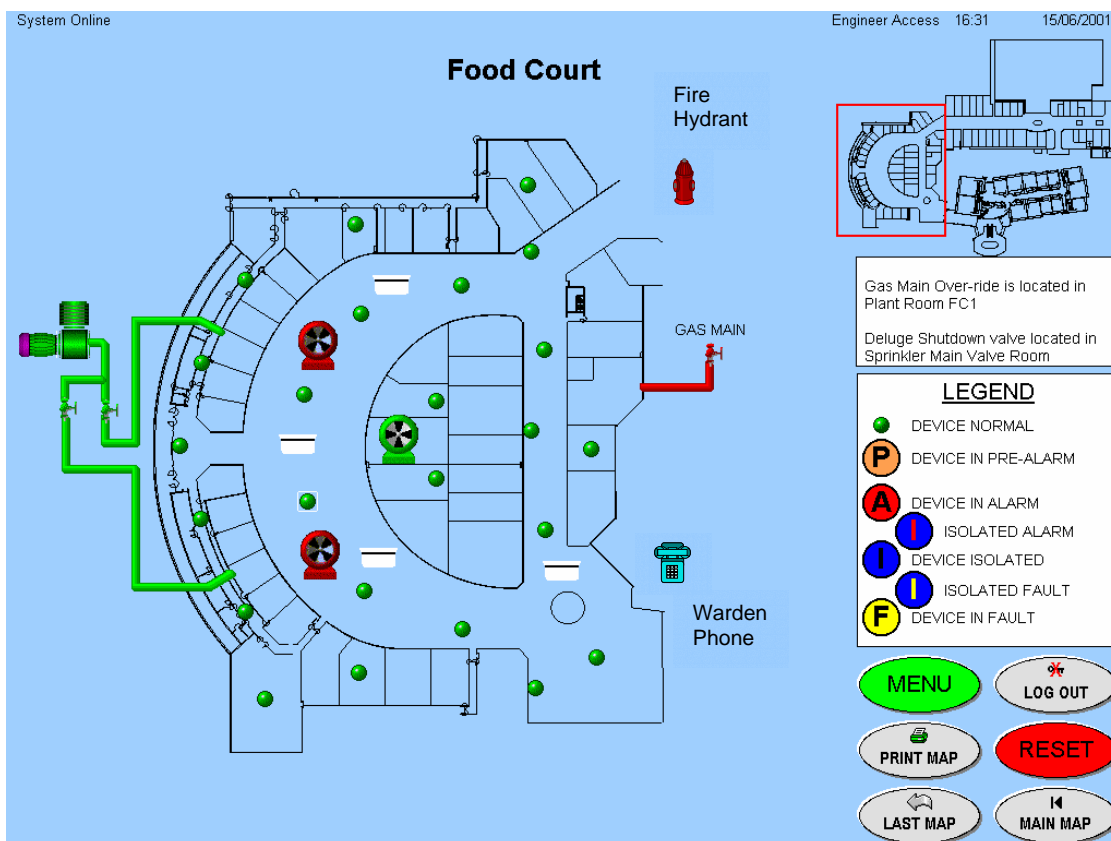


Figure 11: Example of a Floor Map

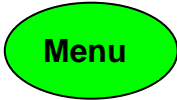
4 Main Menu

Once the user is logged on at Level 2 or 3 all Menu Buttons become active and enable the user to access each function at their prescribed level.

Note: 1. The Main Menu functions are only available at either the **supervisor or engineer** level.

2. In Demonstration mode all functions are available.

4.1 Main Menu Functions



To access the Main **MENU** click on the MENU icon in the lower right hand corner of the Site Map screen. There are six selections available from this menu,

1. **System** Status,
2. Device **Control** (Testing, Control and Disable)
3. Device **Status**,
4. Device **Logs**,
5. Maintenance **Tools** and
6. **Close Menu**.

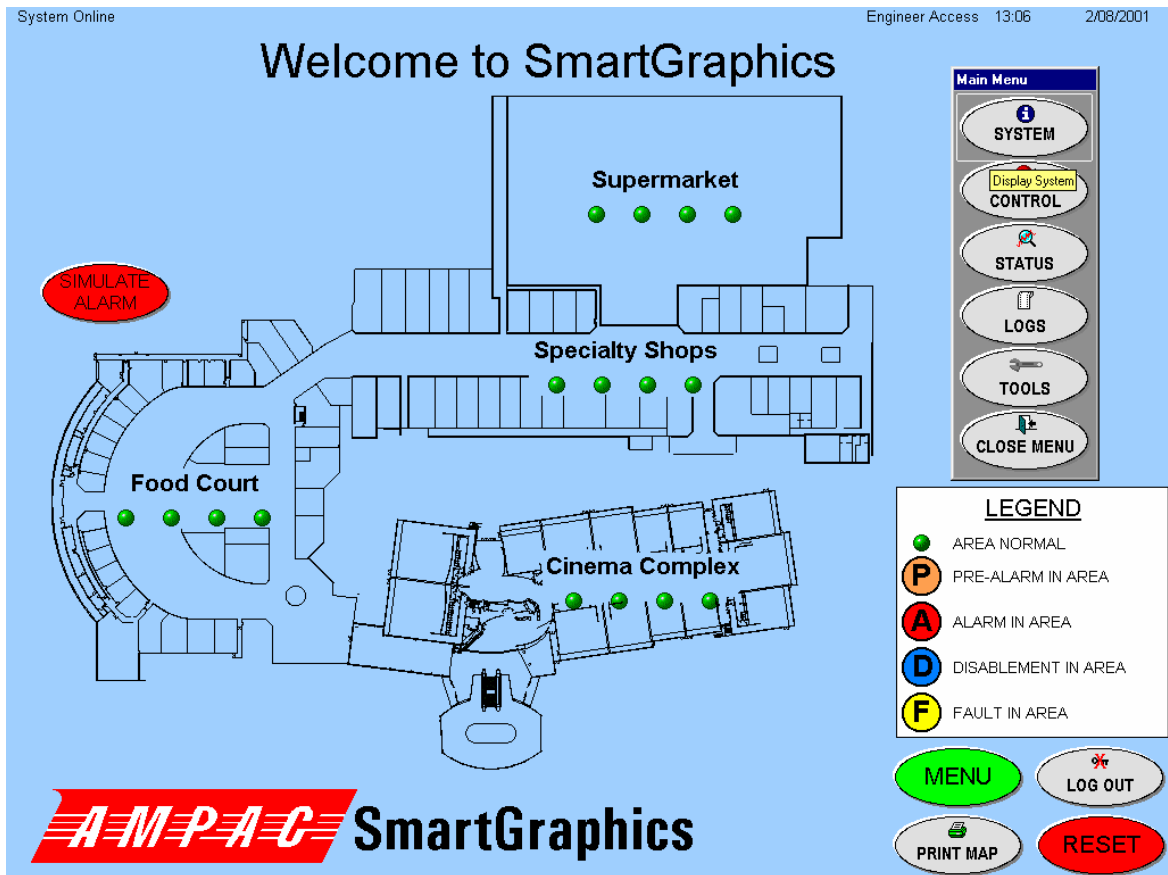


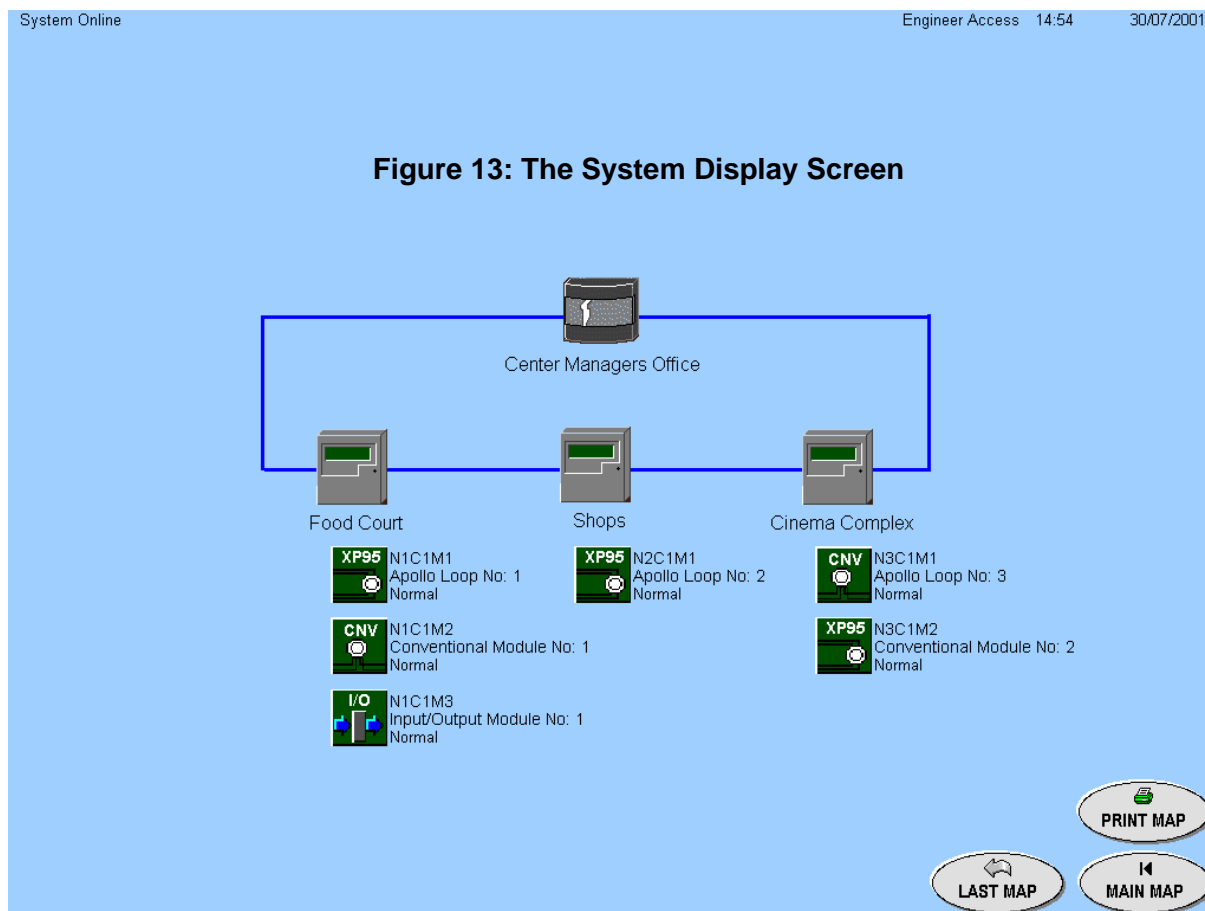
Figure 12: Main Menu Selected

4.2 Using the Main Menu

To select one of the options click on the appropriate button. Each menu list has a Close Menu button that allows the user to return to a previous screen.

4.2.1 Select System (screen)

The graphics interface allows the current status of the fire system network to be viewed, as well as the status of the modules connected to each network node.



Note:

The above example System Display shows the connections and status of the panels and modules in a *FireFinder*™ system.

Clicking on;

LAST MAP, takes the screen back to the last one displayed;

MAIN MAP, takes the screen back to the first Map displayed or the default screen as it is also called,

PRINT MAP, prints the current screen

4.2.2 Select Control

The Device Control Window allows alarm testing, fault testing and disabling to be carried out on either a range of devices/zones or individual devices/zones.

For instance clicking “Zone”, “5”, then “Disable” to disable Zone 5, or

clicking “Loop”, “1”, “Sensor”, “10”, “To”, “25”, then “Alarm Test” to alarm test Loop 1 Sensor 10 through to 25.

The selected multiple device control information is displayed in this widow.

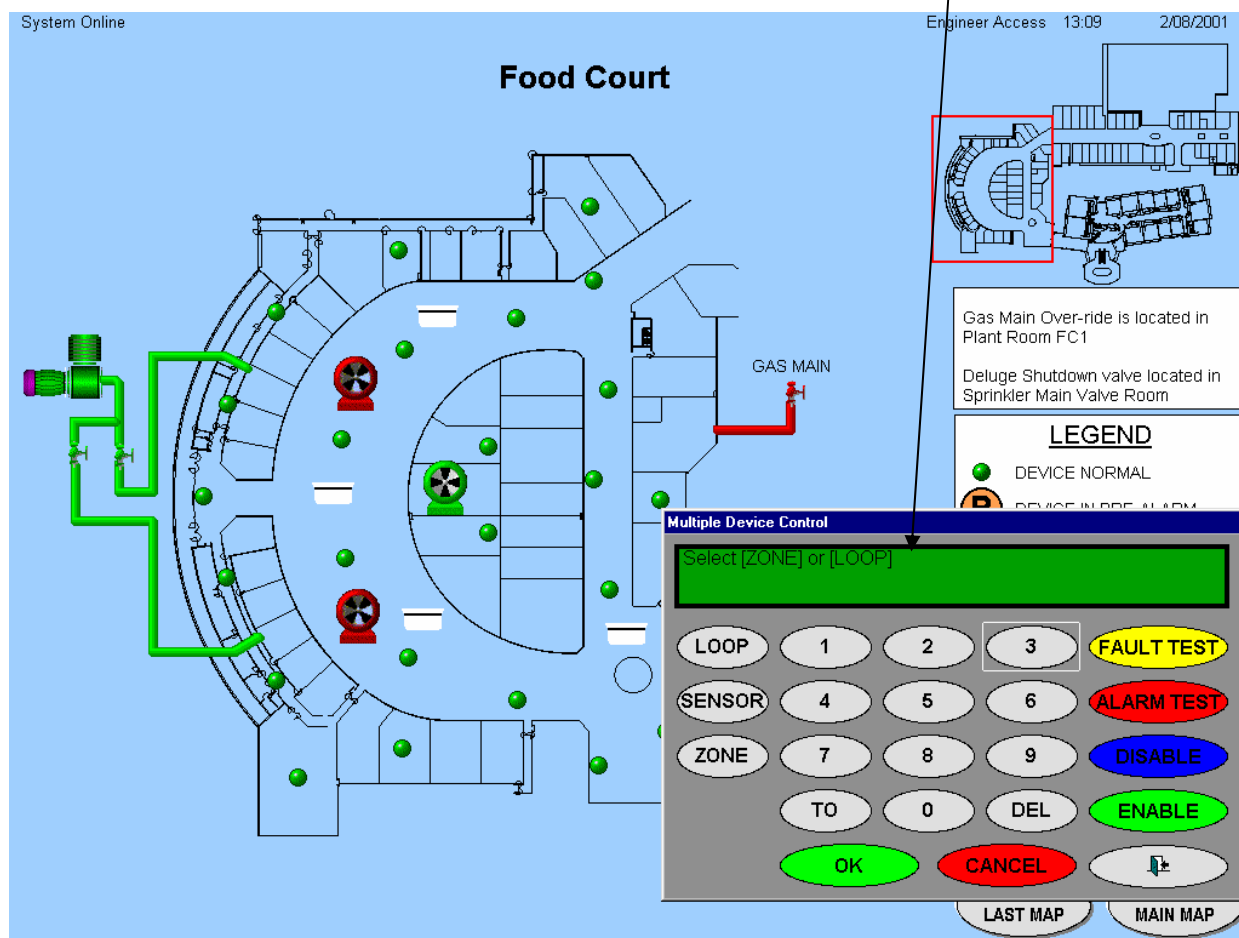


Figure 14: The Device Test Screen

The Multiple Device Control allows remote control of the fire panel(s) by allowing the operator to perform the following commands;

- Alarm Tests
- Fault Tests
- Disable / Enable

4.3 Device Facilities

Devices may be identified / tested / disabled / acknowledged or enabled by means of clicking on the left mouse button. This causes a menu as shown below to pop up thereby allowing the operator access to the range of available commands to perform on that detector.

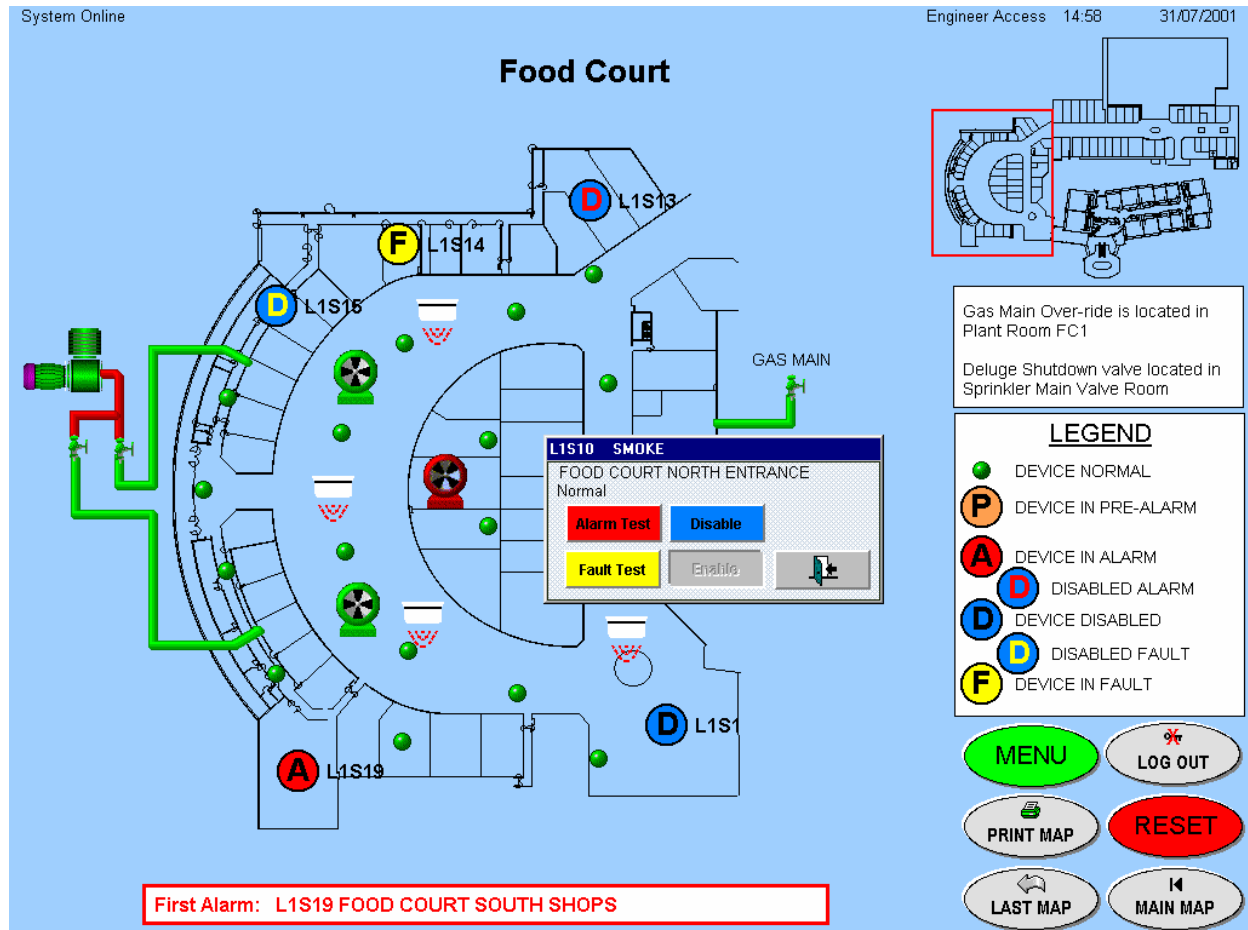


Figure 15: Devices in Alarm, Fault and Disabled

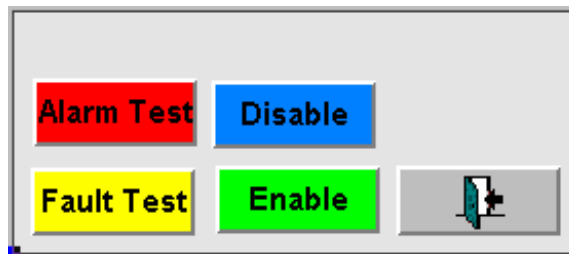


Figure 16: Detector Commands

4.4 Fan, Pump And Valve Controls

Double clicking a fan, pump or valve icon will bring up the control window. The switch and indicators mimic the functions of the controls on the fire panel. If the switch on the fire panel is in the auto position then the controls on the graphics are enabled. If the switch on the fire panel is turned to the off or on position then the graphics control is disabled and the buttons will be dulled to indicate that they are inactive.

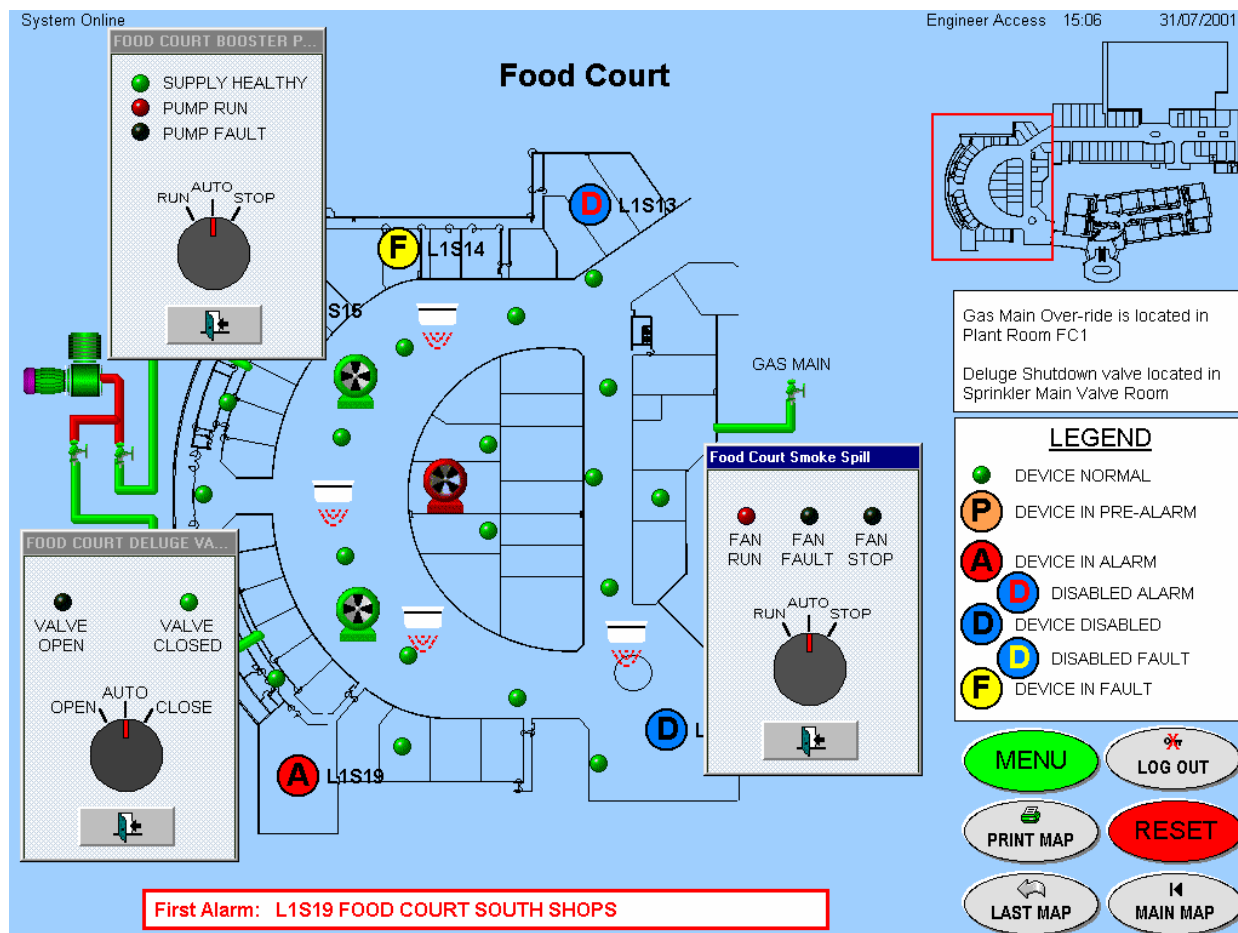


Figure 17: Example Of A Fan, Pump And Valve Control Mimic Window

4.5 Reset

Clicking on the Reset Button will return the fire system to its normal state. Any flashing areas on the site map shall also return to their normal state.



Figure 18:THE RESET BUTTON

4.6 Select Status

CURRENT STATUS Engineer Access 13:15 17/08/2000

Date	Time	Device	Location	Map Name	Status
17/08/2000	13:15:46	L2520	CINEMA 8 SEATING	Project	Alarm
17/08/2000	13:15:44	L2516	CINEMA 6 SEATING	Project	Alarm
17/08/2000	13:15:43	L2512	CINEMA 4 SEATING	Project	Alarm
17/08/2000	13:15:39	L256	CINEMA 2 SEATING	Project	Fault - device missing
17/08/2000	13:15:39	L257	CINEMA 2 SEATING	Project	Fault - device missing

The device Status window displays the list of all devices or only those in Alarm, Pre-Alarm, Faulted or Disables by clicking on the corresponding button below. The Print Status button will send the listing to the printer, "Close" goes back to the Main Map.

← → ↑ ↓
DISPLAY ALL
DISPLAY ALARMS
DISPLAY PRE-ALARMS
DISPLAY FAULTS
DISPLAY DISABLE
PRINT STATUS
CLOSE

Figure 19: The Device Status

4.7 Select Logs

The Device Log window lists the history of devices that have been in Alarm, Fault or Disable and can be and printed using the Print Log button. The logs can be cleared by clicking on:

Menu Tools Erase Logs.

ALARMS LOG Engineer Access 15:04 06/09/2001

Date	Time	Device	Location	Map Name	Status
12/06/2001	12:41:29	L151	FOOD COURT SOUTH ENTRANCE	NAP1	Alarm
12/06/2001	12:41:29	L152	FOOD COURT SOUTH	NAP1	Alarm
12/06/2001	12:41:29	L153	FOOD COURT SOUTH	NAP1	Alarm
12/06/2001	12:41:29	L154	FOOD COURT SOUTH	NAP1	Alarm
12/06/2001	12:41:29	L155	FOOD COURT NORTH	NAP1	Alarm
12/06/2001	12:41:29	L156	FOOD COURT NORTH	NAP1	Alarm
12/06/2001	12:41:29	L157	FOOD COURT NORTH	NAP1	Alarm
12/06/2001	12:41:29	L158	FOOD COURT EAST	NAP1	Alarm
12/06/2001	12:41:29	L159	FOOD COURT EAST	NAP1	Alarm
12/06/2001	12:41:29	L159	FOOD COURT EAST	NAP1	Alarm
12/06/2001	12:41:29	L1510	FOOD COURT NORTH ENTRANCE	NAP1	Alarm
12/06/2001	12:41:29	L1510	FOOD COURT NORTH ENTRANCE	NAP1	Alarm
12/06/2001	12:41:29	L156	FOOD COURT NORTH	NAP1	Alarm
12/06/2001	12:41:29	L159	FOOD COURT EAST	NAP1	Alarm
12/06/2001	12:41:46	L158	FOOD COURT EAST	NAP1	Alarm
12/06/2001	12:41:46	L157	FOOD COURT NORTH	NAP1	Alarm
12/06/2001	12:41:50	L155	FOOD COURT NORTH	NAP1	Alarm
12/06/2001	12:41:55	L154	FOOD COURT SOUTH	NAP1	Alarm
12/06/2001	12:41:55	L153	FOOD COURT SOUTH	NAP1	Alarm
12/06/2001	12:41:55	L152	FOOD COURT SOUTH	NAP1	Alarm
12/06/2001	12:42:00	L151	FOOD COURT SOUTH ENTRANCE	NAP1	Alarm
12/06/2001	12:42:10	21	FOOD COURT ULSOA 21	NAP1	Alarm
12/06/2001	12:42:32	21	FOOD COURT ULSOA 21	NAP1	Alarm
14/07/2001	14:06:41	21	FOOD COURT ULSOA 21	NAP1	Alarm

← → ↑ ↓
-2
DISPLAY ALARMS LOG
DISPLAY FAULT LOG
DISPLAY DISABLE LOG
PRINT LOG
CLOSE

Figure 20: The Device Log

4.8 Select Tools

From the main Menu click on TOOLS and the Engineer Menu will become active. From the Engineer Menu a user can:

SHUTDOWN This option is only available to the Engineer Level as it shuts down all **SmartGraphics** display functions leaving only **FireFinder™** monitoring.

ERASE LOGS as in Section 4.9

SETUP as in Section 4.10

USER TOOLS as in Section 4.11

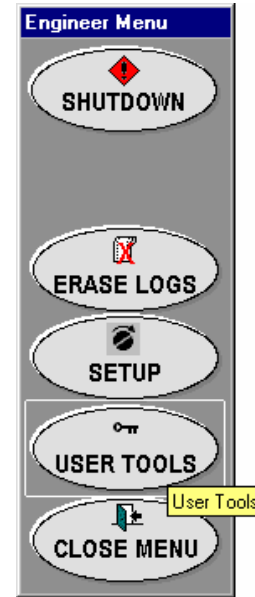


Figure 21: The Engineer & User Menus

4.9 Erase Logs

To erase a Log file select either, User, Alarm, Fault, or Disable from the Erase Log Menu and click OK in the confirmation box.

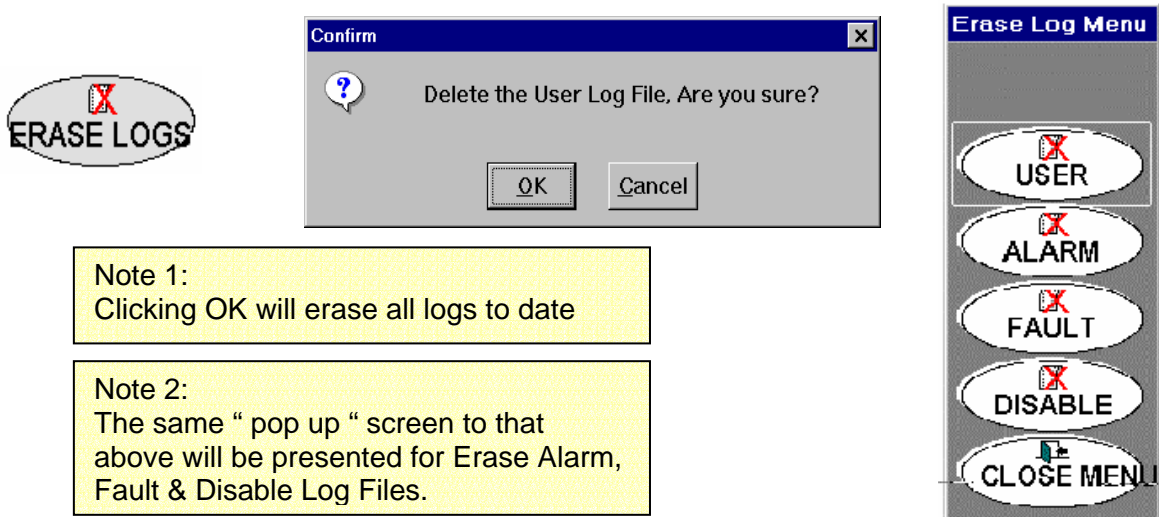


Figure 22: Erase Logs

4.10 Set Up Menu

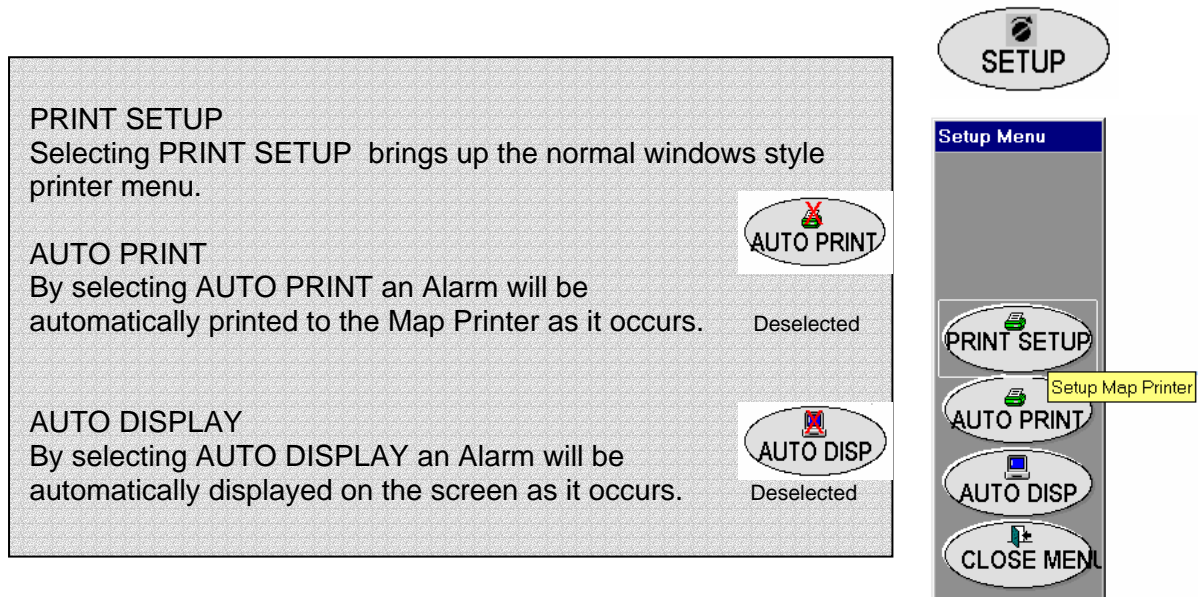


Figure 23: Set Up Menu

4.11 Select Add or Create a User

From the Engineers Menu select " USER TOOLS " then " ADD USER ". The menu below will appear. Enter the details as shown selecting the type of user from the drop down box ie Operator, Supervisor or Engineer.

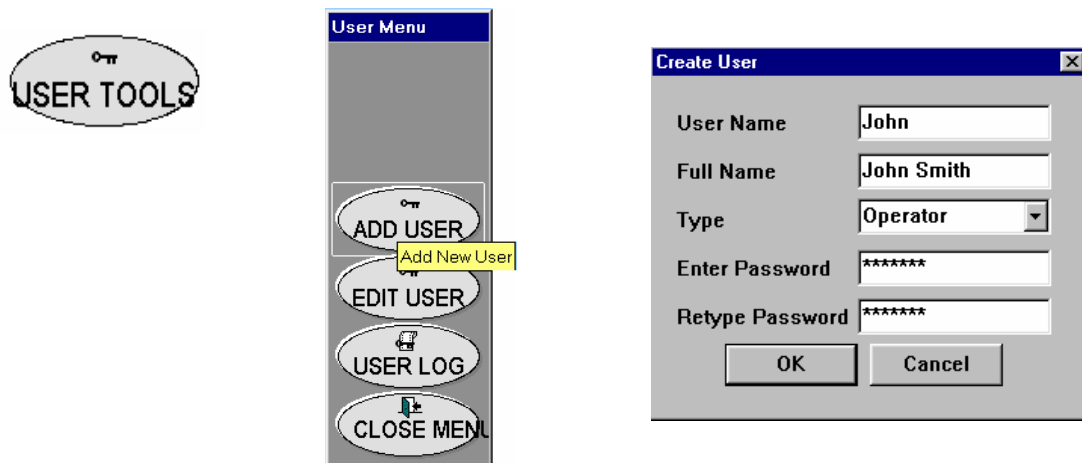


Figure 24: Add / Create A User

4.12 Select Edit a User

From the Engineers Menu select “ USER TOOLS “ then “ EDIT USER “. The menu below will appear. Enter the details as shown selecting the type of user from the drop down box, ie Operator, Supervisor or Engineer.

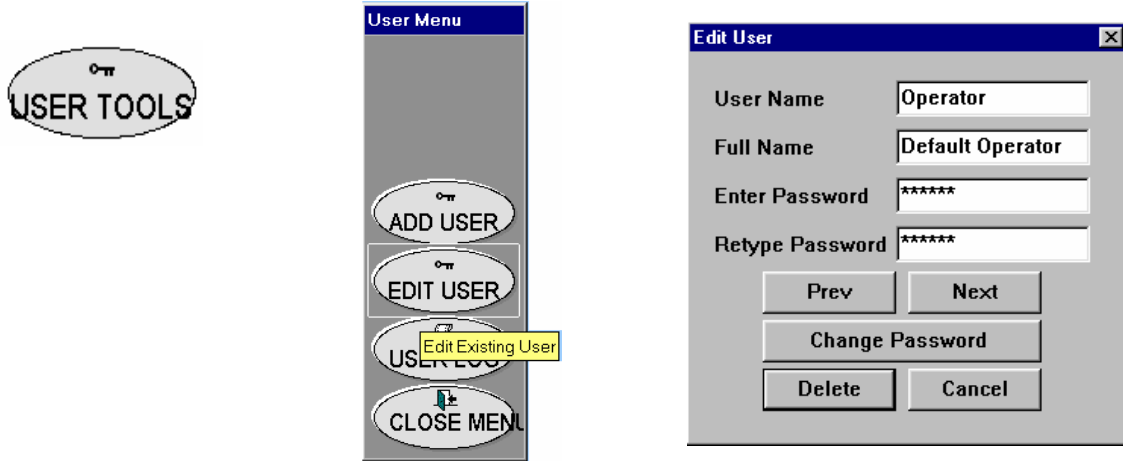


Figure 25:: Edit A User

4.12.1 Button Functions in Edit User:

Prev. (Previous) / Next

Functions as a goto the previous / next record on file.

Change Password

Changes the Password for the record shown.

4.13 Select User Log

The Security Access Log records all login / logout information for not only security reasons but also general user activity.

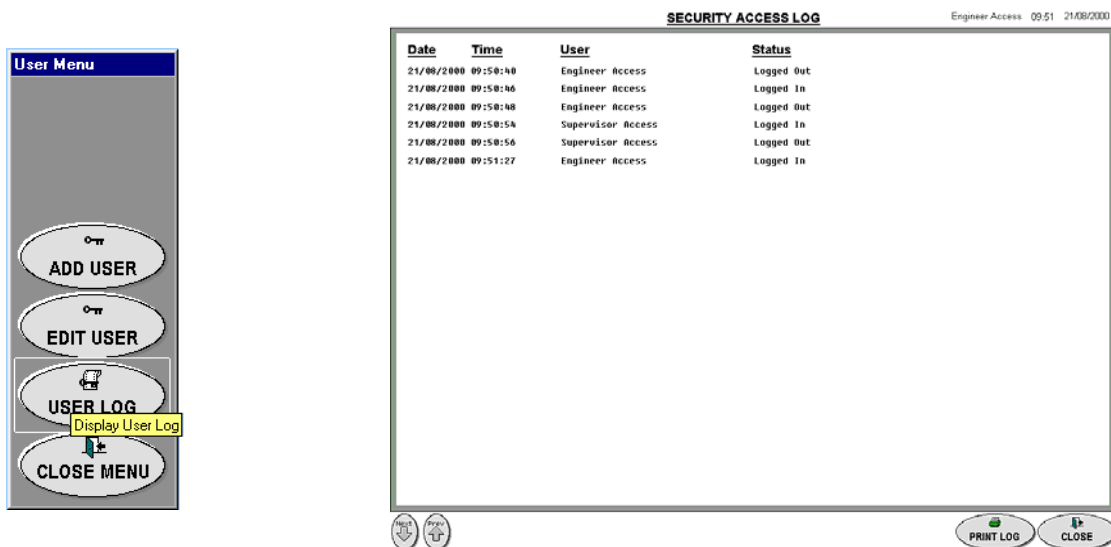


Figure 26: Operators Log

5 Summary of Section Map Facilities

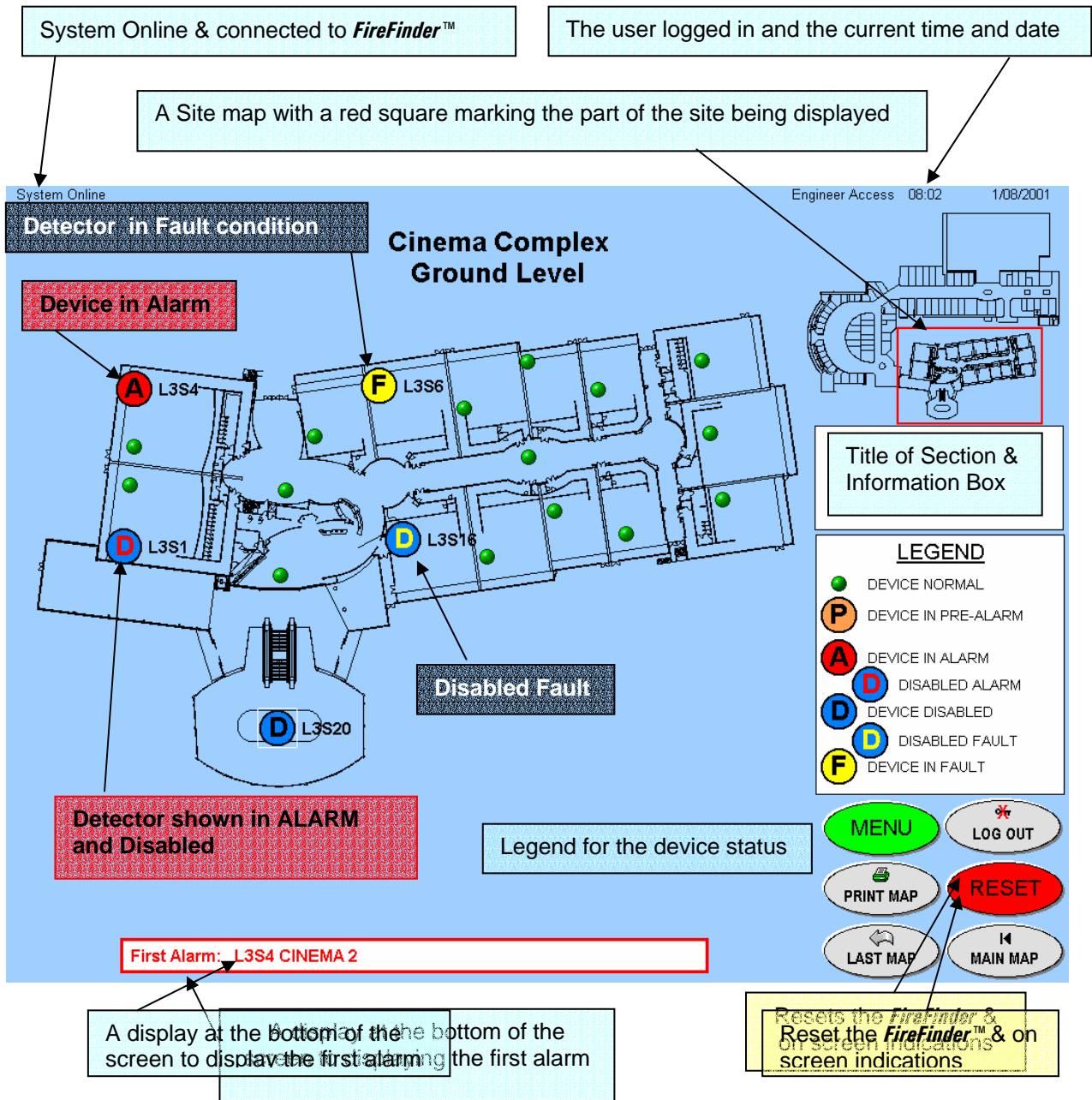


Figure 27:: Example Section Map

5.1 Processing Alarms

When the system receives an alarm, it shall be added to the events log and the system can be optionally configured to display and/or print the floor map upon which the alarm occurred, and if desired return to the Site Map.

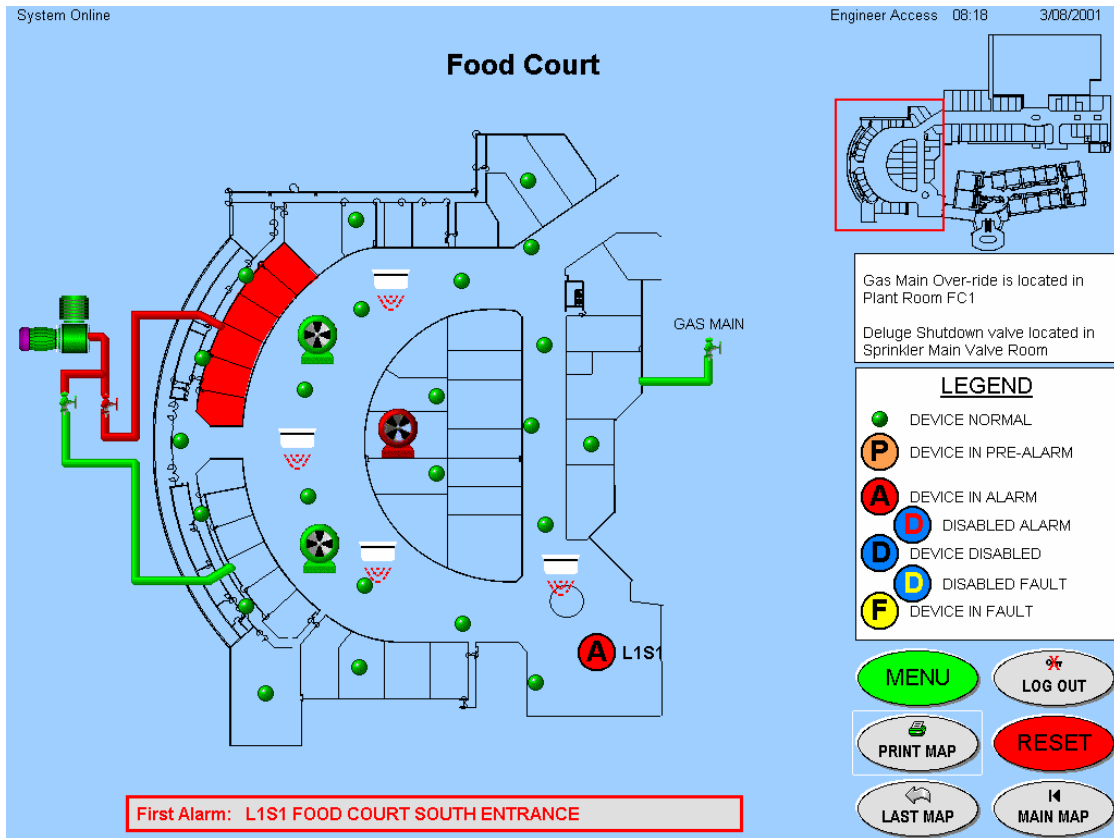


Figure 28: Example of a Map Displaying An Alarm

The above example also shows the:

1. Food Court in Alarm (Loop 1 Sensor 1) and the deluge system in operation. The Alarm can be acknowledged by clicking on the detector. The icons will change state from

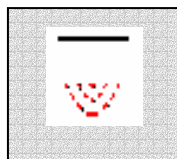


to



and,

2. sounders in operation



5.2 Site Status

By right clicking on an area the system shall display a status summary of all of the devices within that area.

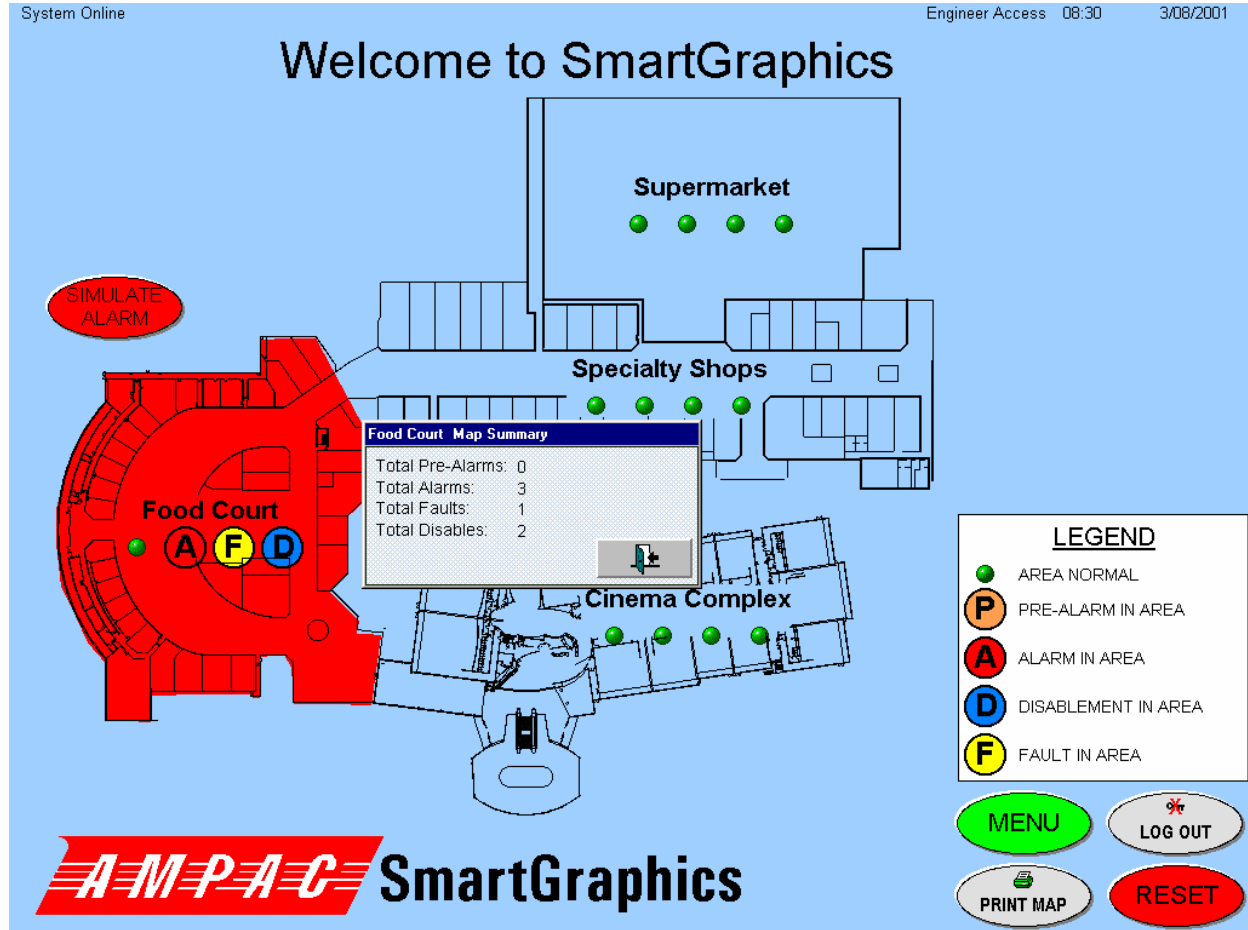


Figure 29: Example Of The Site Map Displaying An Alarm

6 System Operation









6.1 If an alarm occurs;

1. the device is identified;
2. automatically added to the Alarm & Device Status Log [see Fig.14]; and
3. the Section Map containing that alarm is printed out on the Log/Map Printer if auto print is selected.

6.2 Fault and Disable

Faults and Disables are not normally printed but can be viewed from the log screens or by going to the section map. A print out can be obtained if necessary using the “ Print Status“ button on the “ Current Status “ screen .

7 Section Map Legend at a Glance

Icon Status	Meaning
 Device Normal	Device is functioning within parameters
 Device Concealed.	Indicates a device is installed with in an enclosed space and is not visible under normal circumstances.
 Device in Pre Alarm	Device is not normal and is close to alarming
 Device in Alarm	An Alarm has been activated
 Disable Alarm	Alarm has been manually acknowledged at the <i>SmartGraphics</i> terminal and <i>FireFinder™</i> panel.
 Device Disabled	Alarm has been disabled say due to an alarm fault within a device or circuit
 Disabled Fault	A Device has been disabled due to a fault condition
 Fault	A Device has developed a fault which has been detected by <i>FireFinder™</i>

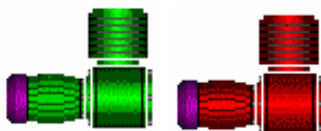
Other Graphical Symbols



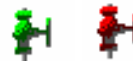
Fan Operation



Deluge Pump Operation



Water / Gas Valves



Sounder