



## **AMX1** Professional Alarm Management



As a leading Alarm Management solution **AMX1** has been selected by many of the UK's leading Hospitals, Universities, Institutions and Companies to assist in the effective control and distribution of event based alarms. They have chosen **AMX1** to take advantage of the following features:

- ü *Provides integrated alarm display*
- ü *Offers a choices of text, graphic, event list and logging when an event occurs*
- ü *User definable event types to define how events are handled*
- ü *Extensive history archive*
- ü *Easy to program*
- ü *Secure system with password protection at each level of access*
- ü *Flexible and expandable interfacing options*
- ü *Customisable to suit customer and application*
- ü *Can act as a common user interface*
- ü *Will manage more than just alarms!*

Time	Event Type	Location	Status	Reference	Accepted by
19:43:19	FIRE DETECTED - (Securiton 2)	Electrical Sub Station No.1	Accepted	20-1-2/0	Chris Ilman-Drax (Europe) Ltd
19:46:01	FIRE DETECTED - (Securiton 2)	Chapel of Rest	WAITING	20-1-6/0	-
19:45:52	FIRE DETECTED - (Securiton 2)	Chest Clinic	WAITING	20-1-5/0	-
19:46:07	FIRE DETECTED - (Securiton 2)	Female Changing Room	WAITING	20-1-7/0	-
19:43:47	FIRE DETECTED - (Securiton 2)	Reception Desk	Accepted	20-1-1/0	Chris Ilman-Drax (Europe) Ltd
19:45:46	FIRE DETECTED - (Securiton 2)	Male Changing Room	WAITING	20-1-4/0	-
19:43:36	MEDICAL GAS - ALERT	Medical Gas Store 2	Accepted	22-1-2/0	Chris Ilman-Drax (Europe) Ltd
19:45:18	SENSOR - FAULT - (Securiton 2)	Reception Desk	Accepted	20-1-1/2	Chris Ilman-Drax (Europe) Ltd
19:49:22	FIRE DEVICE - ISOLATION	General Office	WAITING	20-1-3/1	-
19:49:42	FIRE DEVICE - ISOLATION	Lift Lobby	WAITING	20-1-12/1	-
19:45:11	FIRE DEVICE - ISOLATION	Reception Desk	Accepted	20-1-1/1	Chris Ilman-Drax (Europe) Ltd
19:44:01	PLANT - MALFUNCTION	Sub Station No. 1a	Accepted	24-1-1/0	Chris Ilman-Drax (Europe) Ltd
19:43:58	PLANT - MALFUNCTION	X-ray Waiting Room	Accepted	23-1-1/0	Chris Ilman-Drax (Europe) Ltd
19:44:06	PLANT - MALFUNCTION	Small Plant Room 1/A	Accepted	25-1-1/0	Chris Ilman-Drax (Europe) Ltd
19:43:42	AHU - FAULT	C/Park Roller Shutter	Accepted	21-1-1/0	Chris Ilman-Drax (Europe) Ltd
19:43:34	DOOR OPEN	Main Entrance	Accepted	21-1-2/0	Chris Ilman-Drax (Europe) Ltd

## Product Summary

**AMX1** is a versatile workstation Alarm Management System that provides an integrated solution to the management and control of one or more stand-alone alarm systems.

AMX1's clear, user-friendly interface provides an enhanced common display for the external alarm systems. Use of the system does not require extensive user training. Powerful integral archiving and control tools allow advanced users to manage their sites more effectively.

Alarms of different types - which may be from different alarm systems - can be prioritised so that the user is led to the most important information first. Each alarm type may use one or more of several different display formats: graphical, text description with instructions, or a list of current alarms.

This versatile and highly configurable system may be tailored towards specific applications, allowing a custom solution providing maximum benefits for the user.

Interactive graphics allow the User to control his site via simple mouse clicks - to control a fire panel, or isolate a detector, for example.

User Profiles allow the System Manager to control the facilities available to each individual system user.

Node profiles allow the system to easily cater for different remote subsystems - e.g. fire control panels - ensuring that the User is presented with the correct options and terminology. Network Managers allow **AMX1** to interface to a wide variety of external networks or subsystems.

## AMX1 Features

- ü *A powerful 32 bit program with a modern Look and Feel*
  - ü Easy to use graphical interface with clear toolbars, pop-up menus and ToolTip hints.
  - ü Full menu operation for keyboard users
  - ü Some basic user alarm responses can be made with single key presses
  - ü Available as a single workstation program that does not rely upon external servers or centralised databases
  - ü Multiple workstation capability
  - ü **AMX1** runs under Windows 2000 providing a modern user interface that meets the expectations of users combined with the power of a professional 32-bit operating system.
  - ü Future versions may be run in parallel with other PC programs (in non-critical applications)
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- ü *Choices of Text, Graphic, Event List and Logging when an Event occurs*
  - ü One text page (scrollable) per event
  - ü Optional reset text page per event
  - ü Multiple graphics pages per event, with zoom in and out
  - ü A Current Event List provides an overview of alarms in the system. This can be printed - and sorted by priority, time, and location.
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- ü *User definable Event Types to define how events are handled*
  - ü Easy prioritisation of different Event Types
  - ü Options for initial display format of each Event Type
  - ü Day and Night time options for auto-acceptance of each Event Type
  - ü Day and Night time options for disablement of each Event Type
  - ü Selectable alarm sound for each Event Type

**ü Extensive History Archive**

- ü Up to 32,000 events and alarms can be stored in the History each day
- ü The length of time that the History information is stored depends only upon available disk space
- ü Quick, easy classification of alarms/events into user defined categories - e.g. "False Alarm"
- ü History Explorer for quick navigation of the History Archive
- ü History lists can be sorted by Event Type, Location, Time, etc
- ü Separate history lists for Isolations, Controls, User logging on/off and System Events including program changes
- ü History Report generation using a powerful Search facility
- ü Printing of the History reports
- ü Export of History data in Text or CSV format

**ü Many additional features for the User**

- ü Extensive Set-up options, allowing use to be tailored towards specific applications
- ü Control Lists for user control of external Network/System (depending upon the Network)
- ü Isolation facilities for use with Fire Networks
- ü Controls can be initiated from the graphics - e.g. unlock a door or isolate a device
- ü User Memos may be attached to many items. These enable the user to make notes for future reference.
- ü User configuration of screen displays

**ü Easy to program**

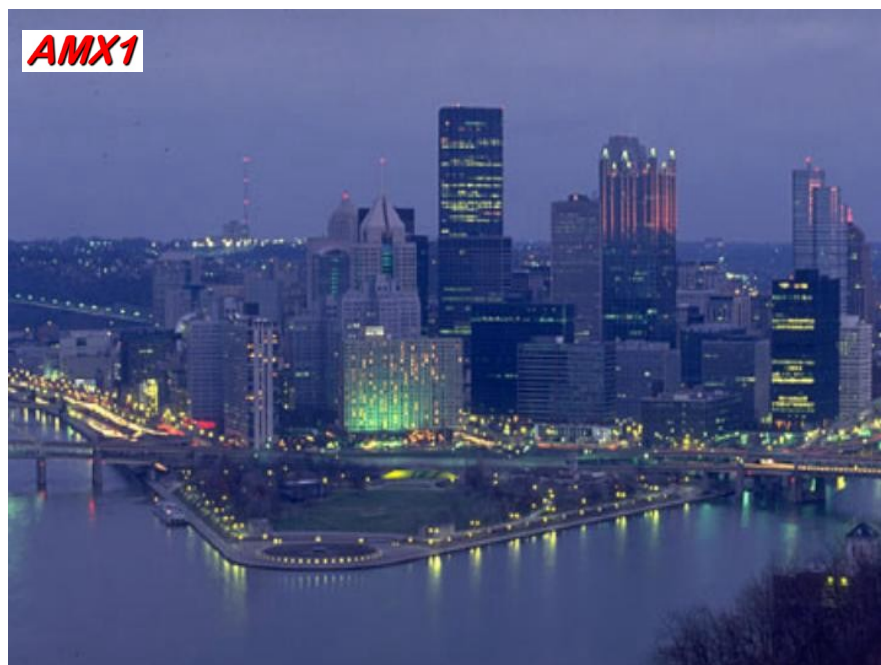
- ü User defined Event Types with user programmable Event Profiles define how each type of alarm or event is handled
- ü Text pages can use text templates - or use free text with full WP editing facilities
- ü Quick, easy page programming using Templates and user-defined Text Fields
- ü Hi resolution hi-colour graphics
- ü Graphics can be imported from any package that can produce native Windows format files (BMP, DIB, WMF, etc)
- ü AutoCAD diagrams can be exported from AutoCAD and imported to AMX1
- ü Graphics symbols may be positioned and resized as required
- ü User generated sounds - including speech announcements - may be imported for use with alarms

**ü Secure system**

- ü Password protection to all program modules
- ü Up to 2000 Users may be set up, each with their own individual User Profile defining which parts of AMX1 they can access
- ü AMX1 records System Events and program changes.
- ü Failure of AMX1 system can be signalled on the external Network(s) and subsystems (if the external system allows it)
- ü Network and subsystem faults/failures may be indicated on AMX1 (depending upon the Network)
- ü The AMX1 and its Network Managers monitor each other and indicate any problems.

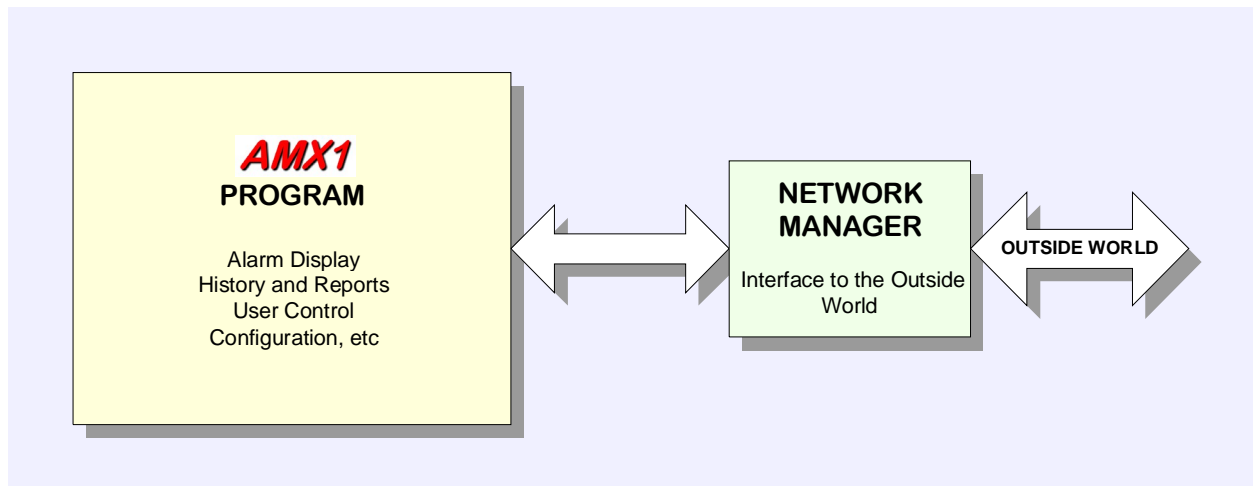
**ü Flexible and Expandable interfacing options**

- ü Separate Network Manager programs to allow easy interfacing to 3rd party networks/systems
- ü Multiple Network Managers allow simultaneous interfacing to different systems.
- ü AMX1 interfaces to many different systems/networks using standard hardware - often no special interface hardware is required



## **AMX1** Interfacing

### *The AMX1 Interfacing Concept*

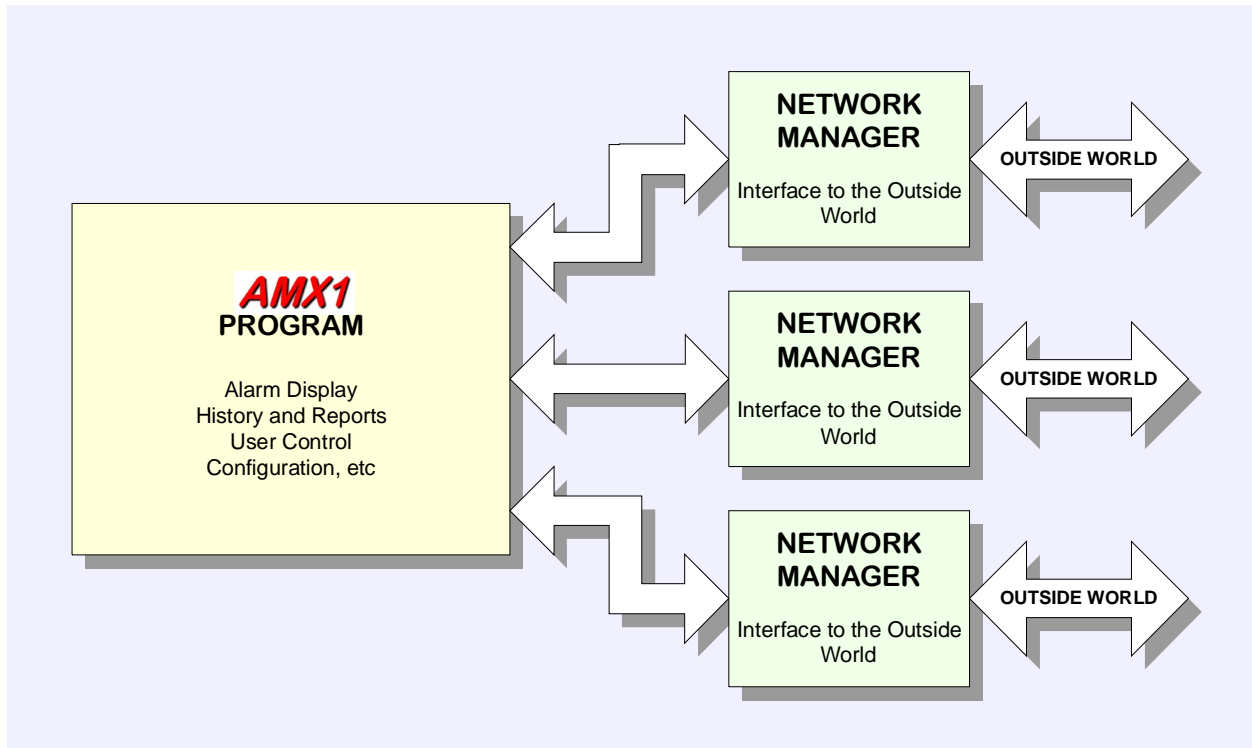


The AMX1 software consists of two independent programmes that multi-task on the same PC. The main AMX1 program takes care of prioritisation, display and logging of the alarms, and all of the main user interfacing. A separate Network Manager program controls communication with the outside world. These two programmes multi-task on the PC, communicate with each other internally and monitor each other for greater system integrity.

The main AMX1 program only needs to be changed when new features are being added. If it is required to interface to a new type of external network or subsystem, a new Network Manager program is created. It is not necessary to change the main program. This makes it easy and quick to adapt the system to different networks and external subsystems.

The electrical interface to the outside world is via serial ports. These are chosen to suit the external equipment and may be the standard serial ports built into a PC, or they may use additional plug-in isolated ports on standard PC cards.

## Multiple networks and multi-disciplines

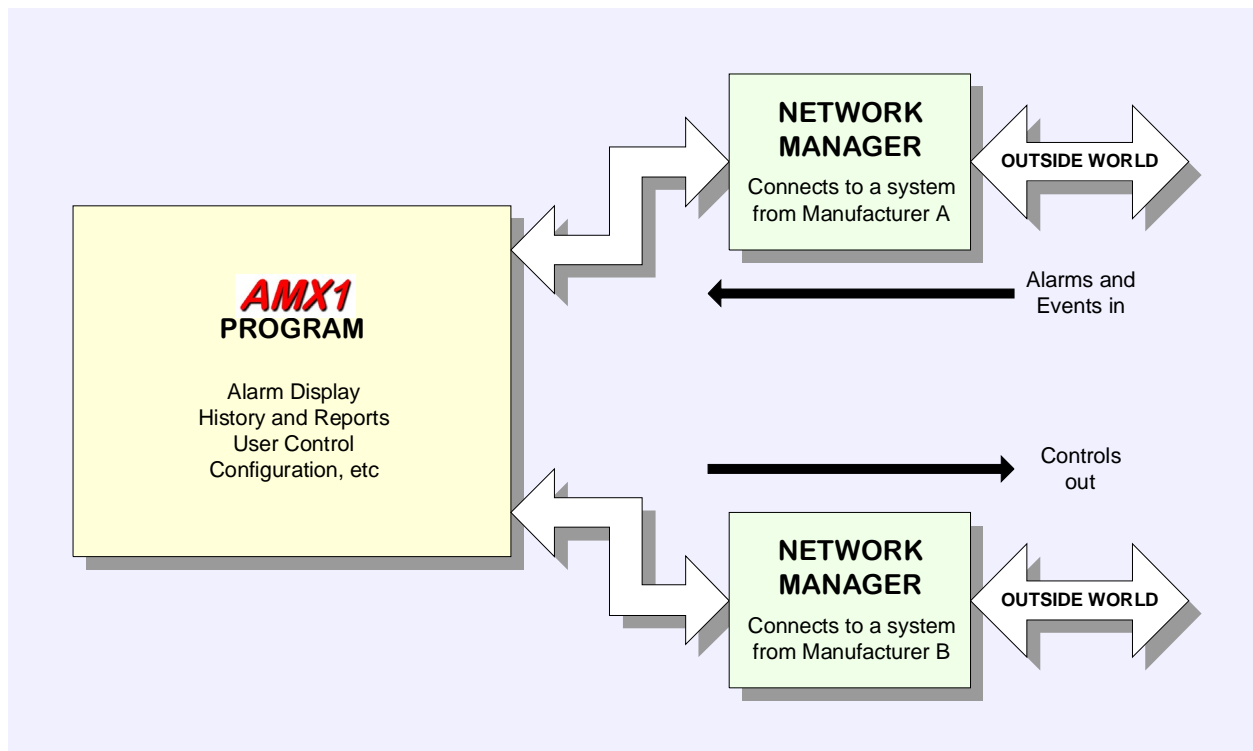


The basic AMX1 program is designed to work with up to four different Network Managers simultaneously (the above diagram shows only three). With additional hardware, further expansion and an increased number of Network Managers can be accommodated.

Each Network Manager can connect to an external Network of many hundreds of remote nodes, or to a single external subsystem.

This ability allows the AMX1 system to display and prioritise alarms from more than one external network or subsystem. For example, AMX1 could be connected to an Access Control network and to a Fire network. All that is needed is to use the relevant Network Manager programs for each different type of external system to which AMX1 is to be connected.

## Interaction between networks



An important feature of AMX1 is that it allows interaction between the different networks that can be connected by the separate Network Managers.

As shown in the diagram above, events and alarms received from the Network Manager connected to manufacturer A's system can trigger controls which are sent to the separate system from manufacturer B (connected to the second Network Manager). These controls are programmed on the AMX1 and can be configured by the end user. The exact types of control that are available will depend upon the external networks and the capabilities of the external network protocols.

As an example, if a fire network was connected to the first Network Manager and an Access Control network was connected to the second, it would be possible for events or alarms in the fire network to unlock doors in the Access Control system via the AMX1's customer program<sup>1</sup>.


Programming of these controls is done on the AMX1 PC and will not require changing of EPROM's or software in the external networks.

Note: These controls are dependent upon the AMX1 PC and it's hard disk so they should be generally used for supplementary controls and not for critical functions.

<sup>1</sup> The exact control facilities will depend upon the capabilities of the external networks and subsystems

This is not a major restriction, as networks such as fire networks will perform their own critical functions in order to comply with the standards anyway.

### System enhancement are available as options

- ü Client-Server operation
- ü Pager Interface
- ü CCTV integration
- ü Expansion of time and day/night controls
- ü Foreign language versions
- ü External access via modem
- ü TCP/IP
- ü Multi-tasking with other PC applications
- ü Timed emailing of alarm summaries and reports
- ü Drax  compatible for network wide event notification

Drax are committed to maintaining and expanding the capabilities of the AMX1. In addition to the options outlined above, the library of Network Managers will be expanded in response to specific project requirements.

## Technical Data

Hardware Requirements	Pentium PC with 128Mb memory
Platform	Windows 2000. Future versions of Windows 32 bit operating systems will be supported after they are established.
Display	High resolution 1024 x 768 HiColour or TrueColour display with 32,768 or 16 million colours
Network Managers	4 (on basic system without additional hardware)
Remote Nodes	2047
Zones per Node	255
Inputs per Zone	255
Input states per Input	16
Maximum Text Pages	2,129,698,800 text pages - theoretical limit. In practice this is limited by the available disk space.
Maximum graphics	32,000
History Capacity	32,000 Events/Alarms per day. Also, 32,000 Isolations and 32,000 system events may be stored each day. There is no limit on how long the data may be stored, assuming adequate disk space.
Maximum Users	Up to 2000 Users may have their own password and User Profile defining which modules they may access
Event Type Categories	Up to 32,000 Event Type categories - e.g. "Security Alarm", "Plant Fault" - defines how this type of event should be handled by the system.
Alarm Priorities	Up to 32,000 - set by the Event Type

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**AMX1** is a powerful and flexible tool that is constantly being enhanced and improved to meet the challenges in today's Alarm Management situations. Therefore the data presented here is subject to change as part of that ongoing development process.