All purpose graphical control and monitoring system

AlViS

A software tool to control and monitor:

- Security systems
- Fire alarm systems
- Access control systems
- Perimeters
- Video systems
- Other – specific devices
- Production processes

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Features

AIViS is more than a program, it is a general-purpose tool to develop an user specific monitoring and control system. AIViS is a result of long-term development tested in hundreds of installations. It is suitable everywhere a more transparent and comfortable graphical presentation of the monitored area has been required.

Client/server architecture

AIViS is based upon client-server architecture, allowing distributed division of the monitoring and alarm system among several computers interconnected within a network (LAN, WAN, INTERNET…). The monitored panels can be connected to the same or different computers and their operation can be controlled by another computer.

AIViS itself is the ***client***, ensuring the whole ***visualization*** part of the system. For functioning one or more ***servers*** are needed, which communicate with attached devices and provide the necessary data to AIViS.

The ***server-programs*** communicate with clients through the standard dynamic data exchange (DDE) protocol (or NetDDE protocol for network communication). The number of servers and clients running in the network is not limited and every client can describe optional subset of data, provided by the servers.

Universality

By its conception and price AIViS is suitable for all types and sizes of the monitoring and control applications from the small ones, consisting of several monitoring zones only, to the large applications with numerous attached sensors.

Open system

AIViS has no limitation of sort, quantity, producer or the way of connection of the monitored devices. The number of supported systems, rather large nowadays, is still growing. Beside servers delivered by Spirit , other servers (supporting standard DDE, eventually NetDDE) may also be used.

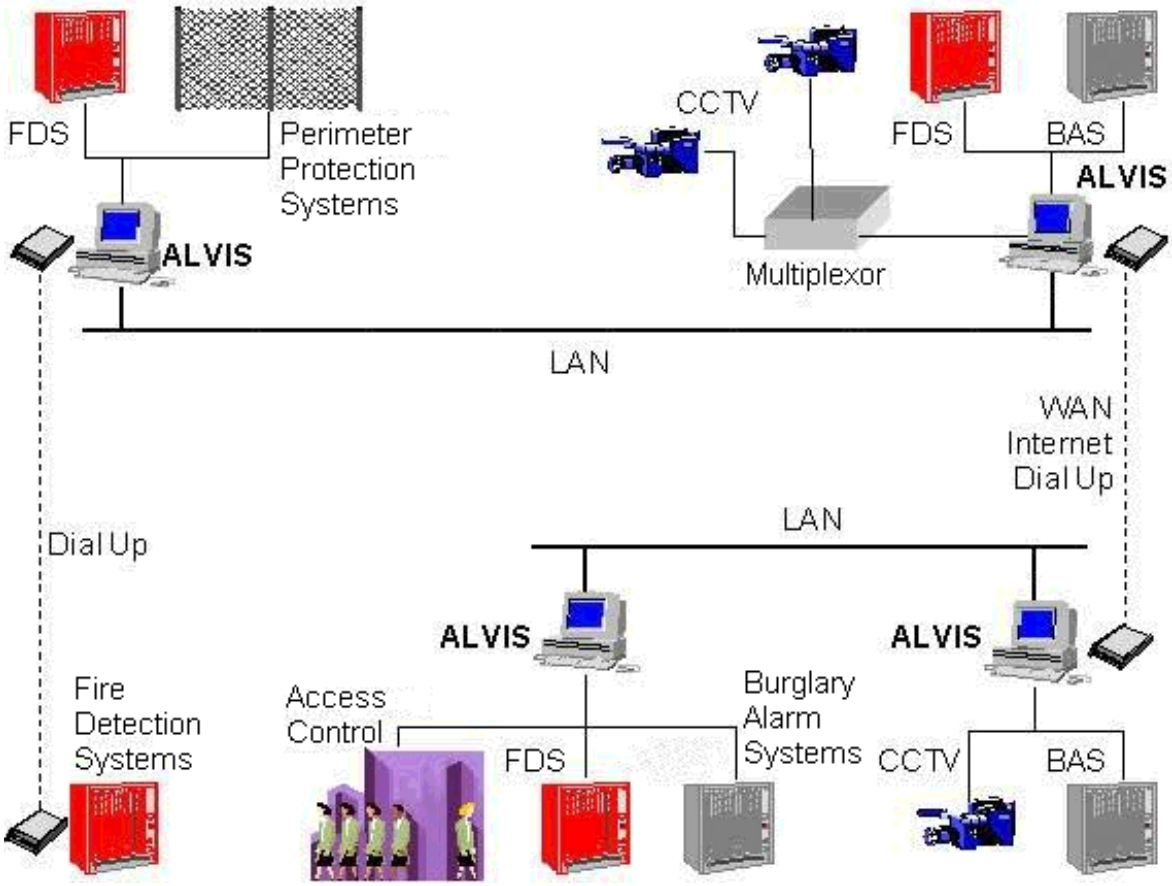
Simple system configuration and modification

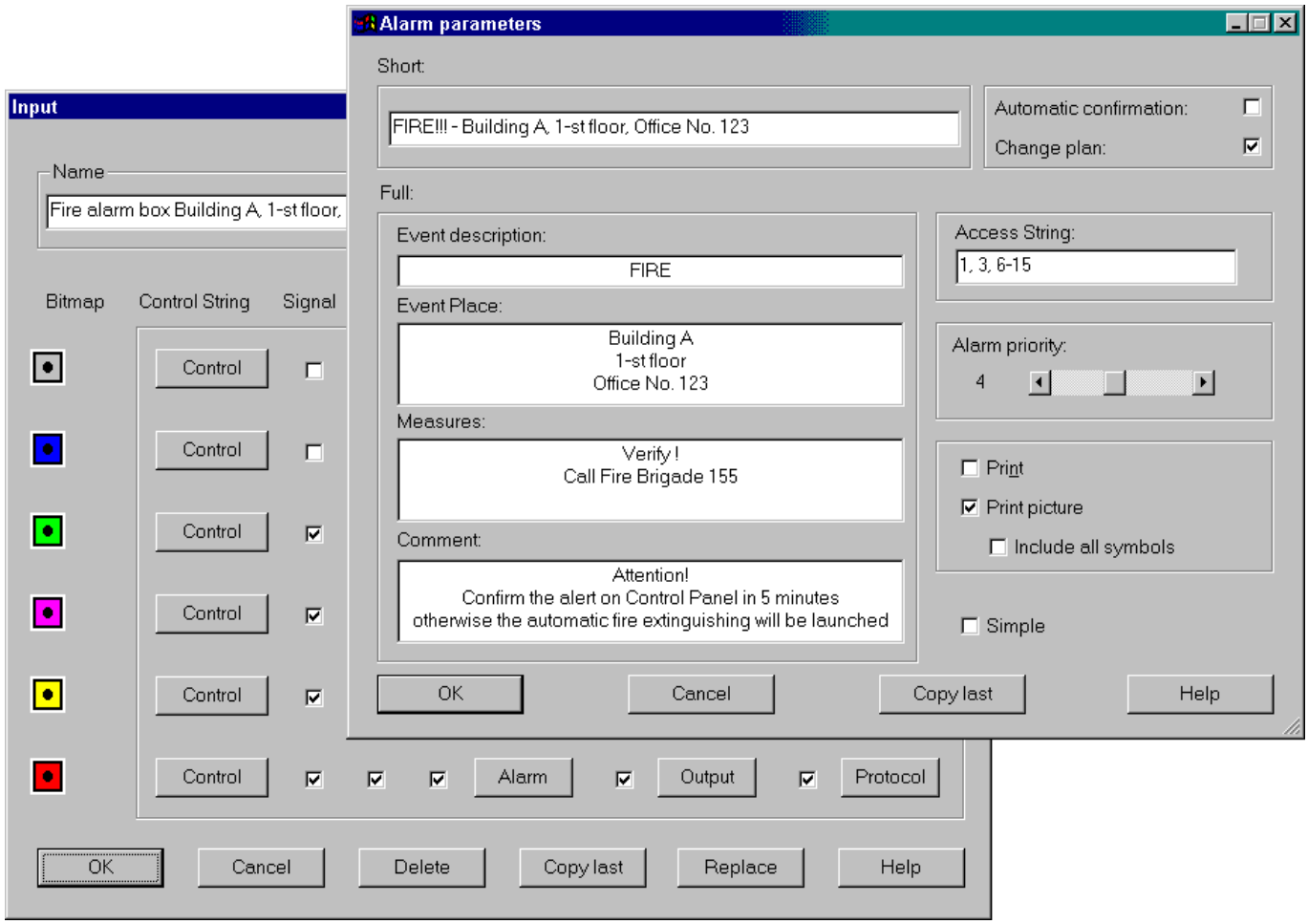
The AIViS system operates in two modes:

1. The ***Development*** mode is intended to design the monitoring and alarm system. This mode allows to insert object maps (drawn or scanned as bitmaps) into the system, as well as to place and configure device symbols to them. Within this mode, the built-in features allow :

- complete ***customization*** (internal scripting language with rich set of functions, MCI, OLE automation support.…)
- ***easier work*** when creating an application:
  - the possibility to ***copy*** control data at various levels, from defining the indicator statuses up to inserting individual maps into various applications
  - the possibility to configure symbol according to a pre-prepared ***template***
  - the possibility of ***massive application changes*** by means of the ***template editing*** and intelligent ***Replace*** function with regular expressions support
  - the possibility of applications development in both graphical (AIViS) and text modes (text editor, spreadsheet,..)

2. The ***Monitoring*** mode enables the I/O lines and displays status changes of the monitored devices. It also allows to follow all events on the screen, to switch between individual maps, symbols, alarms using the mouse and keyboard, or to control the connected devices by sending a command.





Clear graphic representation of the monitored area

The monitored area is represented by maps. Any map contains symbols representing the real monitored devices. The system allows to define almost any number of maps, e.g. building floors, parking lots etc. Each map is a bitmap file created by a drawing utility, or by a scanner. At least one map must be created for each application.

Monitored devices

All monitored devices (cameras, movement detectors, fire detectors, emergency buttons etc.) are represented by ***symbols*** placed on the maps. Symbols can change their state (differentiated by symbol colour and/or shape) depending upon real measured signal values from the corresponding devices.
The following attributes can be defined for each status of a symbol:

✓ **symbol behavior** - acoustic signal or blinking

✓ **alarm** - defining the following parameters:

- ***alarm priority***
- ***access right*** of the user who can confirm the alarm
- ***automatic switching*** to the map where alarm occurred
- ***automatic*** alarm ***confirming***
- ***alarm messages*** - short message displayed in the alarm survey window and 2 kinds of long messages with instructions for the operator
- ***automatically printing*** of the map and alarm detail information

✓ **outputs** - command strings sent to a required device, either automatically or manually (by clicking on the device symbol). This feature allows to control other devices in the system using a device signal (e.g. to activate a camera after a movement detector status changed)

✓ **protocol** - defining the message to be recorded into the protocol, including date and time, and with the possibility of on-line printer output.

Graphical localization of the place from which the alarm comes

When a monitored device state changes, and an ***alarm*** occurs, AIViS can ***automatically display*** the map with the symbol of the device. The ***symbol color and/or shape will change*** according to the state indicated, the symbol can also ***blink and play an alarm sound***.

In the ***alarm survey window*** an ***alarm description message will appear*** and on the screen the ***window with detailed alarm description and instructions*** for the operator,will show up. ***Protocol message*** with date and time will be recorded into the event protocol.

Priority real-time processing of events

The alarm states are evaluated according to their ***priority and the time*** of occurrence. AIViS evaluates the highest priority alarm in real time. In cases when several alarms with the same priority occur, they are evaluated according to the time of their occurrence. After ***confirmation*** of the alarm by the operator the alarm with the next highest priority is displayed etc. All current alarms are also displayed in the ***alarm survey window*** (according to their priority and the time of occurrence).

Events protocol

All events occurring within the AIViS monitoring and alarm system are ***recorded*** in the events protocol. The events protocol is a file being continuously saved on hard disk and on printer. Description of all events is recorded - event message, type, message keywords, date and time of the message, date and time of the event, current AIViS and extern users. The protocol messages can be viewed, filtered, exported and printed from the protocol survey windows. Backup protocol can be also automatically being saved.

Security system

In AIViS, all significant actions can be protected by a system of users, ***passwords and access rights***. This way the system is protected against unauthorized manipulation. In AIViS development mode, a ***list of users*** with passwords and access rights can be created. When in the monitoring mode, only the operations where the current user has the access right can be performed.

Visual arrangement of the relevant information on the screen

All information important for the operator is displayed on the screen. Separate ***information windows*** show all ***current alarms and errors***. When an alarm or error becomes invalid, the relevant message disappears from the window. Alarms and errors are listed according to the priority and the time of their occurrence. Special information windows show alphabetical ***list of maps and symbols***. When a status change or an alarm occurs, the system allows to display a ***window with instructions for the operator***. ***Events protocol*** is also displayed in separate windows.

The number and type of information windows can be defined in the development mode. It can also be defined whether the operator is allowed to change windows size and their location on the screen.

Technical requirements

PC Pentium, 128MB RAM, 1 GB HDD, MS Windows 2000 SP4/XP SP1, IE 6.0. Optional sound card, video-overlay card, touch screen monitor. One or more control panels with a set of devices, connected to the computer by serial lines, modems or a special I/O cards.

List of available drivers

Security	EUROPLEX	APLEX 100/ 30 / MIDIPLEX / 3GS	**Fire alarm**	ADEMCO	FCC 5000
		Remote display APLEX /3GS		ARITECH	FP 800, FP900, FP1100/1216/2000
	ARITECH	CD 91 and CD 95		LITES	MHU 103, MHU109, MHU110/111
	ZETTLER	ZETADRESS		ESSER	8007/8008
	MICROTECH	GALAXY		SCHRACK	COMPACT, MAXIMA,INTEGRAL
	SPELZA	DOMINUS		ZETTLER	LOOP 500, ZETFAS, BMCI, EXPERT
	SECURITON	SecuriPro		CERBERUS	ALGOREX
	ALARMCOM	Sintony		SECURITON	SecuriPro
	INTERLOGIX	ATS		ELTEK	Anx95E
	INNER RANGE	Concept		KIDDE	PROCYON
	SATEL	CA-64		ALARMCOM	Synova
	GENESIS	Genesis		Labor Strauss	BC 216
Perimeter	EL-FAR electr.	EF-10	**ACCESS control**	BIS	
	GLINE			Northern Computers	N-1000-III/IV, PW-5000
				LINEAR	Linear
I/O device	M a R			COTAG	Granta
	ADVANTECH	DIO card		ARITECH	ACS
	OLYMPO	Simux		OLYMPO	HubPro
				IMA	K3DDE
VIDEO -	VIDEV				
Device	MATRIX		**OTHER**	TELINK-DSCÚ	Phone center supervis.
	SENSORMATIC			HARRIS	
				COMMEND	