SIEMENS

IVM Config
Configuration Software

Configuration Manual

IVM V3.6

Building Technologies

Fire Safety & Security Products

About this document

This Configuration Manual contains information on the setup, installation and configuration of IVM Config.

Additional information can be found in the **Readme** file in the directory **D:\Cevis**.

For information on operation please refer to the User Manual.

Trademarks

Contacting us

If you have questions or suggestions regarding the product or this documentation, please contact our Customer Support Center.

Intranet: Customer Support Center

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Training courses

Siemens Fire & Security Products provides training courses for all products.

Contents

1 Safety

1.1 Target readers

The instructions in this document are designed **only** for the following target readers:

Target readers	Qualification	Activity	Condition of the product
Operational startup personnel	Technical training for building or electrical installations.	Puts the product into operation for the first time.	The product is not yet installed and configured.

1.2 Work safety information

- Read the general safety precautions before operating the software.
- Keep this document for reference.
- Always pass this document on together with the product.
- Please also read the safety precautions for the devices that are operated by the software.
- Any national or local safety standards or laws that apply to the development, design, installation, operation or disposal of a product must be adhered to in addition to the instructions in the product documentation.

1.2.1 Handling

Damage due to improper handling

- Protect the CD from scratching.
- To clean the CD use a soft dry cloth.

1.2.2 Transport

Damage during transport

- Always transport the CD in the case it originally came in.

1.2.3 Setup

Dangerous situation due to false alarm

- Make sure to notify all relevant parties and authorities providing assistance before testing the system.
- To avoid panic, always inform all those present before testing any alarm devices.

1.2.4 Data loss after update

Data loss after software update

- Make sure to backup all data before updating the software.

1.2.5 Storage

Damage due to improper storage

- Always store the CD in its protective case.
- Keep the CD in an environment with a relative humidity of 10 – 90 %.
- Keep the CD between -5 and +55 °C.
- Do not store the CD in excessively dusty places.
- Do not keep the CD close to sources of magnetic radiation.
- Protect the CD from moisture.
- Protect the CD from direct sunlight.

1.3 Meaning of the warning notices

The severity of a hazard is indicated by the following written warning notices.

Signal word	Type of risk
CAUTION	There is a risk of minor injuries or damage to property
IMPORTANT	Malfunctioning may result

1.4 Meaning of the hazard symbols

The nature of the hazard is indicated by icons.

Caution - Dangerous area!

Caution: Dangerous electrical voltage!

2 Software description

IVM Config is a CCTV product.

The Interactive Video Management system (IVM) is suitable for universal operation thanks to its software architecture and scalability. The systems comprises the following applications:

- IVM Server
- IVM Config
- IVM CLIENT

The **IVM Config** configuration software is used to configure the system setup, workstations, users, commands and alarm management. This allows the Video Management System to be adjusted to meet a wide range of different requirements and sizes of system.

This Instruction Manual contains information on the setup, installation and configuration of IVM. The SISTORE units can be operated using the **IVM Client** or **IVM Client (VB)** application software.

2.1 Program window IVM Config

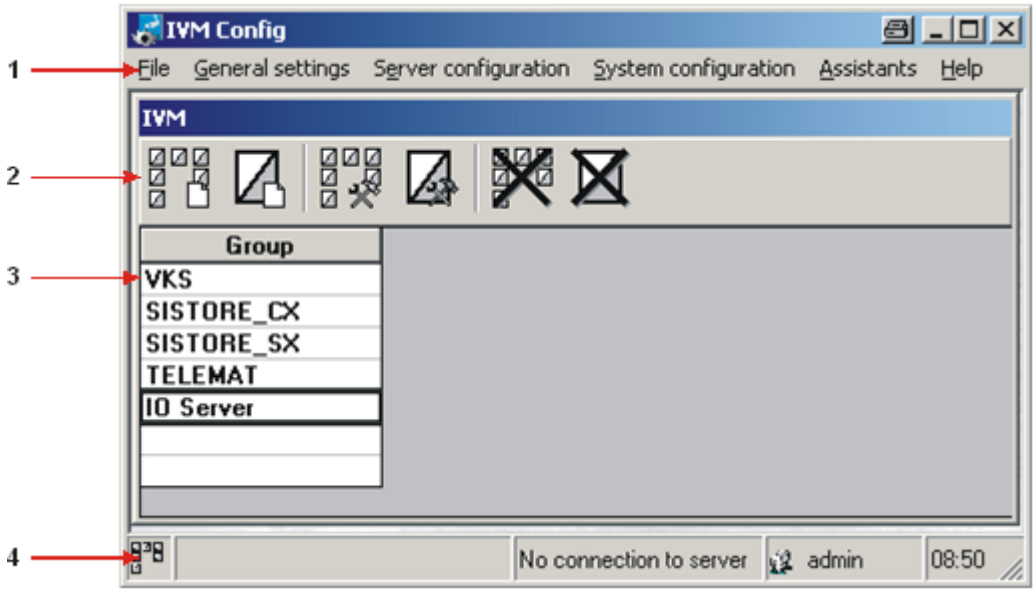


Fig. 1 IVM Config main window

1	Menu bar
2	Toolbar. See Section 2.2: Toolbar.
3	Group display
4	Status bar

The menu bar consists of the menu items:

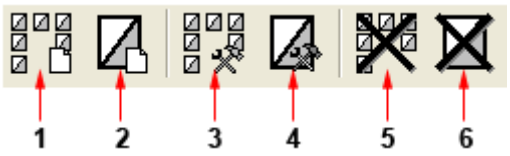
- Files
- General settings
- Server configuration
- System configuration
- Assistants
- Help

Online or offline operation

In the status bar, you can check if your PC is connected to the server.
No connection to server: offline operation
Connected to server: online operation.

2.2 Toolbar

The Toolbar is designed for quick selection of functions. When the mouse pointer is over a button a QuickInfo is displayed, giving information on the function of that button. From here it is possible to add, edit and delete groups and components.



1	Add a new group. See Section 5.1: New group.
2	Add a new component. See Section 6.1: Add a new component.
3	Edit a group. See Section 5.2: Edit a group.
4	Edit a component. See Section 6.2: Edit component properties.
5	Delete a group. See Section 5.3: Delete a group.
6	Delete a component. See Section 6.3: Delete a component.

2.3 Help

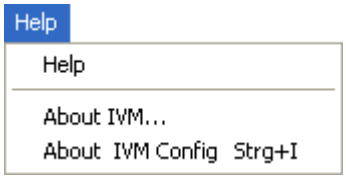
The online help as a PDF file as well as general product and project information is available under the **Help** menu.

Prerequisite:

The Adobe Acrobat Reader software is installed on your computer.

The Adobe Acrobat Reader Software is included on the accompanying CD.

1. Select the menu sequence **Help > Help**.



➔ Adobe Acrobat Reader opens.

➔ The PDF file is opened.

The Acrobat bookmarks can be used to find the information you need quickly.

2.4 Information on the version and system information

1. To display general information and information on the system, select the menu sequence **Help > About IVM…**

➔ The information will be displayed under the **General information** and **System information** tabs (see Fig. 2 and Fig. 3).

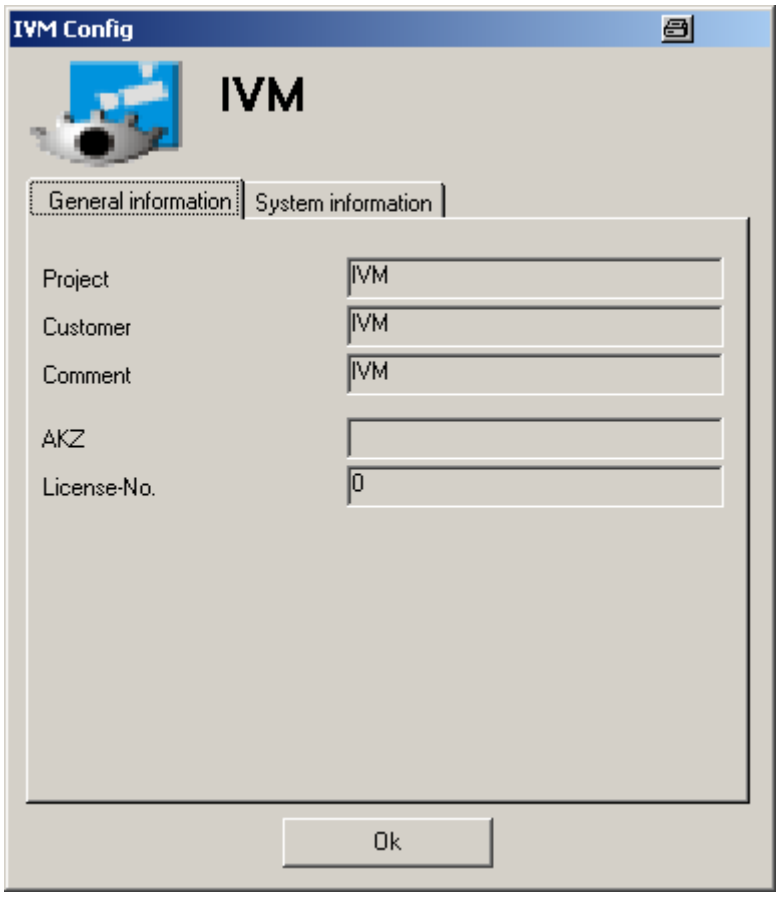


Fig. 2 General information

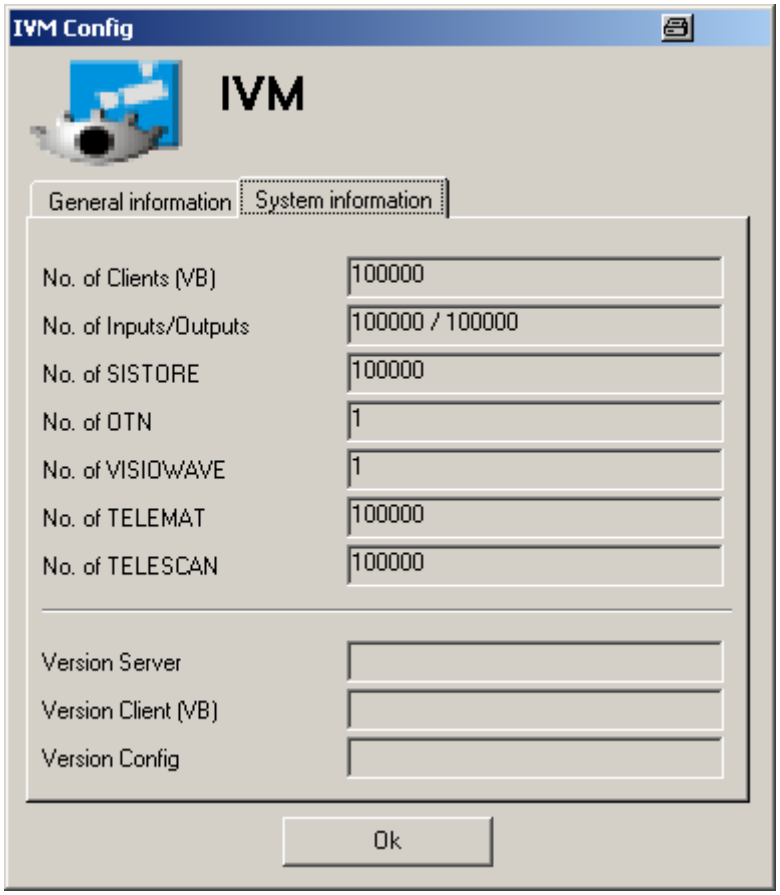


Fig. 3 System information

2. To obtain information on the current program and database versions, select the menu sequence **Help > About IVM Config**.

➔ The information will be displayed in the **IVM Config: Info** window:

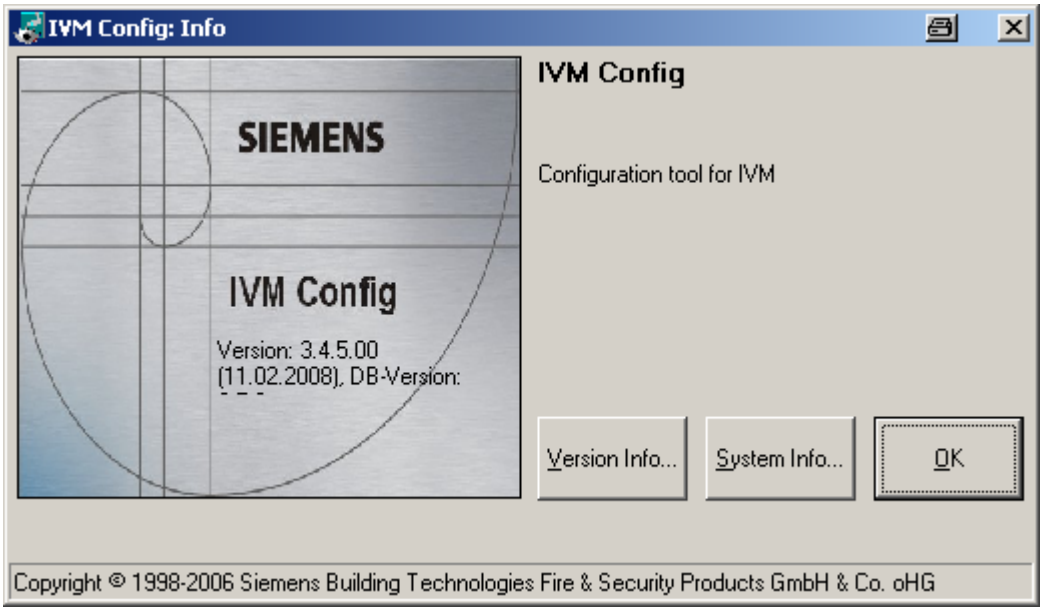


Fig. 4 IVM Config: Info

3. To display detailed system information, click **System Info…** in the **IVM Config: Info** window.

➔ The following window opens:

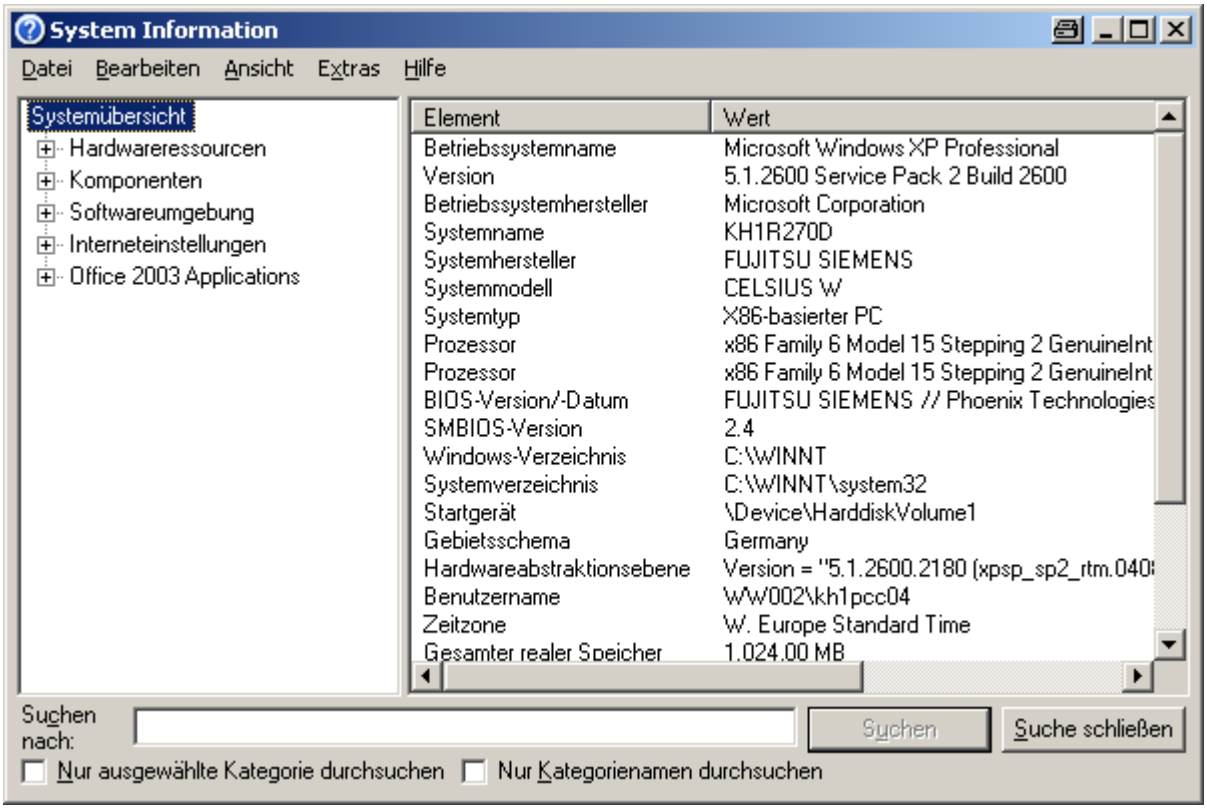


Fig. 5 Detailed system information

3 Operational setup

3.1 Configuring the system environment

In principle it is possible to work through the individual program dialog boxes independently of each other and in any order. If you are not familiar with the configuration procedure, however, the following procedure is recommended:

The software is split up into two parts:

Basic configuration

1. First of all configure all of the devices used (video matrix switchers, monitors, cameras etc.). For more information, see Section 6.1: Add a new component.
2. Set up the interfaces and connections to the devices. For more information, see Section 7.1: Configuring ports.

Alarm configuration

3. Once the hardware has been configured, it is possible to begin setting up user accounts, alarms, alarm groups, alarm sequences etc.

It is important to follow a logical naming and database ID scheme!
Before the system is configured, a clear concept should be designed, based on the system setup, which defines the assignment of IDs to the input, output, alarm, contact, video matrix etc.

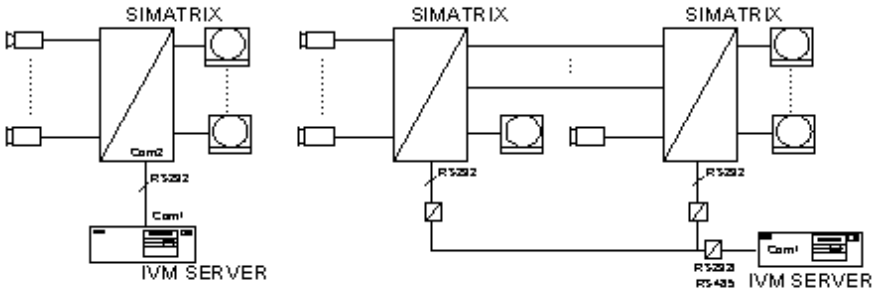
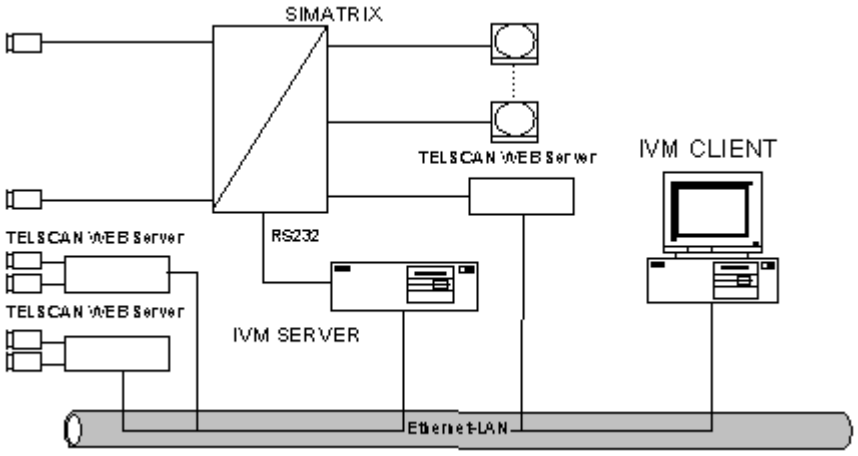
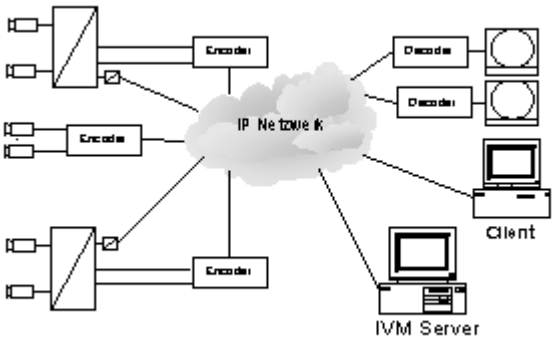
3.2 Video components

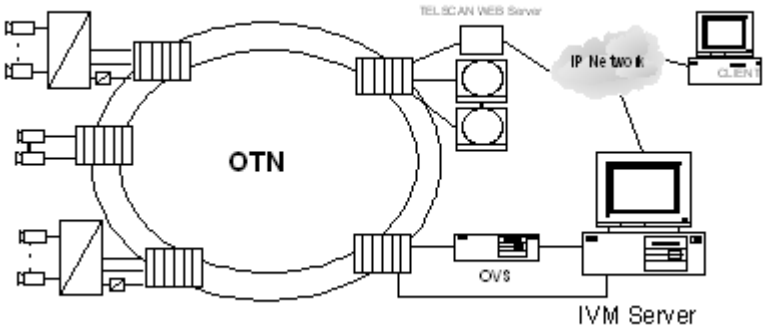
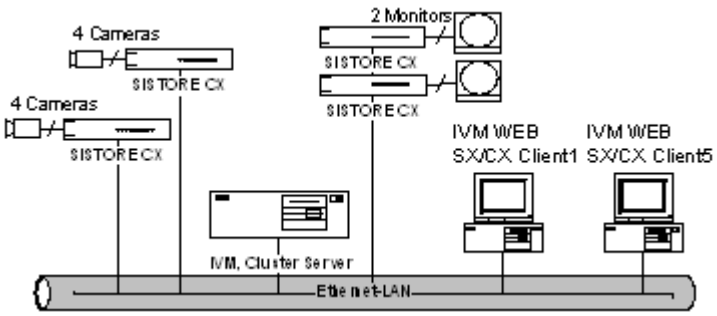
IVM supports the following video components and devices:

Video component/Device	Version
SISTORE AX	SISTORE AX 2.4 or higher
SISTORE MX	SISTORE MX 2.50 or higher
SISTORE CX	SISTORE CX 3.5
SIMATRIX EPROM	min. VM10204.X05 for SIMATRIX 1.6.4.6 min. VM60204.X05 for SIMATRIX 6.4.8 min. VM80204.X05 or VM90204.X05 for SIMATRIX SYS

3.3 System configuration examples

System configurations supported by the IVM:

System configuration	Comment
IVM – SIMATRIX IVM – SIMATRIX 	**Standard configuration** Cascade arrangement of max. 2 video matrix switchers
IVM with the TELSCAN WEB Server 	**Standard configuration** The web server is used in conjunction with the IVM for video broadcast over an IP network. The alarm processing and the video matrix functionality are controlled from the IVM server. The live picture supplied by the TELSCAN WEB server is displayed on the IVM client. If the web server is used behind the video matrix switcher, only one input on the TELSCAN WEB Server is supported. The number of live images depends on the performance of the client computer. If two or more live pictures are to be displayed simultaneously, the TELSCAN Live Player is required. This allows up to 4 images to be displayed simultaneously on a 1 GHz computer.
IVM with an encoder / decoder 	**Project configuration** Ordering and handling only via SSE! In this configuration the IP network is used to simulate a central video matrix switcher.

System configuration	Comment
Complex system: IVM-OTN-TELSCAN WEB Server 	**Project configuration** Ordering and handling only via SSE! Cascading of various types of transmission media.
SISTORE CX with IVM and Cluster Server 	**Standard configuration** ● Virtual matrix ● Web Client ● Alarm processing The Cluster Server is required only if the video system is controlled via the WEB Client. The Cluster Server permits simultaneous access to several SISTORE CX units. This allows live images to be displayed from various remote locations (max. 4 cameras) as well as global archive retrieval and backup via the WEB Client. The Cluster Server & Web Server & SISTORE Domain Server applications are pre-installed on the Video Cluster Server.

3.4 System requirements for the IVM Server

The following **server** system requirements are recommended for the IVM Server:

Processor	Dual-core processor
RAM	1 GB
Available hard drive capacity	40 GB
Operating system	Windows XP, Windows 2003 server or Windows 2008 server
Graphics card	With support for DirectX 8 (or later version)
Screen resolution	Min. 1024 x 768 pixels
Colour depth	16 bit or 32 bit (24 bit not supported)

Additional information can be found in the **Readme** file in the directory **D:\Cevis**.

3.5 Setting the hardware acceleration for DirectX

In the Windows Server 2003 operating system, the hardware acceleration is set to "None" by default. In order that your SISTORE CX live images can be displayed using DirectX, the hardware acceleration must be set to "Full".

Prerequisite:

Use of a 128 MB AGP 8x graphics card.

1. Right-click on your desktop.
2. Select **Properties**.
   ➔ The **Display Properties** window opens (see Fig. 6).
3. Select the **Settings** tab.

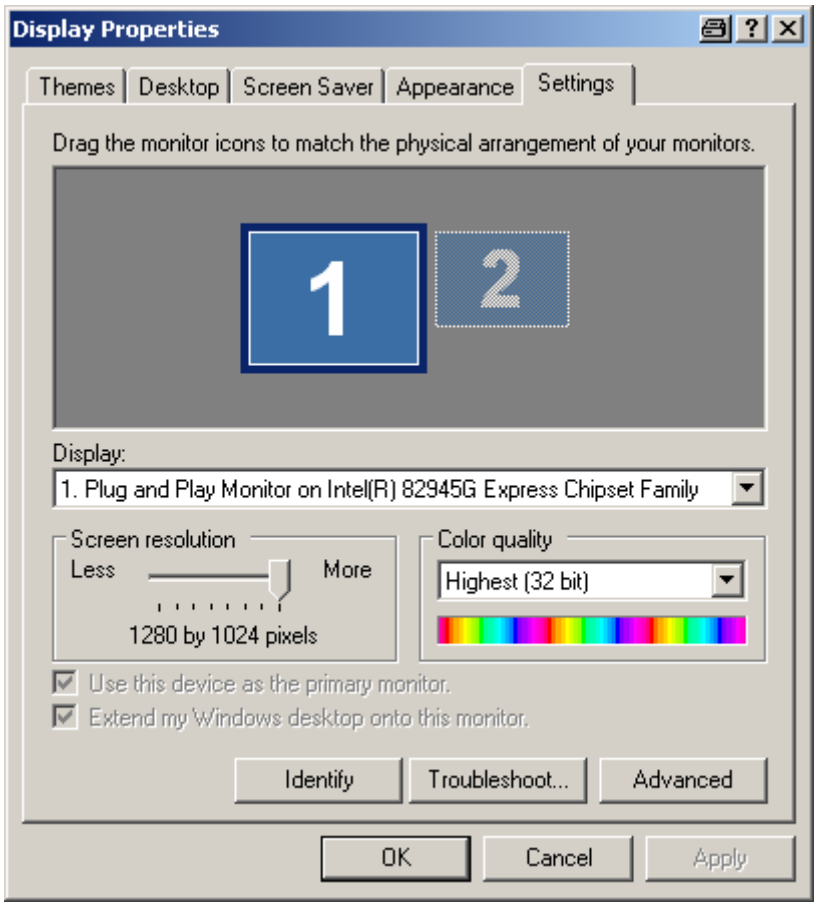


Fig. 6 Windows – Display Properties

4. Click **Advanced**.
   ➔ The **Plug and Play Monitor ...** window opens (see Fig. 7).
5. Select the **Troubleshoot** tab.

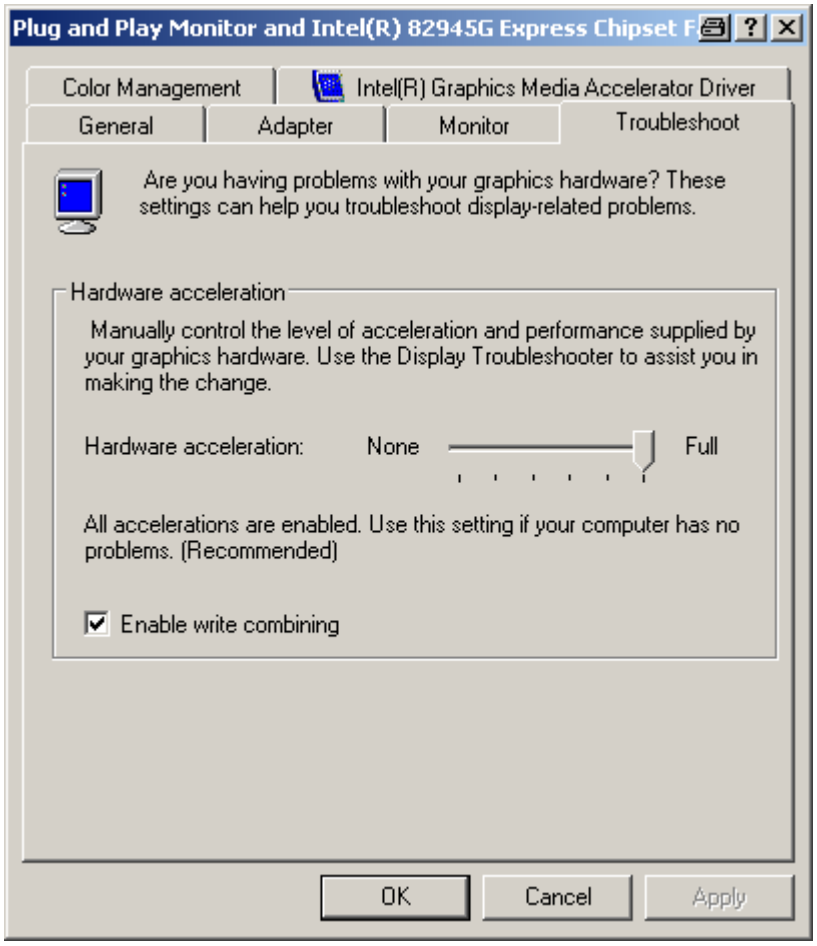


Fig. 7 Windows – Plug and Play Monitor ...

6. Move the control slider to Full.

7. Click **OK**.

➔ The hardware acceleration for DirectX is now set to maximum.

➔ The CX live images can be displayed using DirectX.

3.6 System requirements for the database

From IVM version 1.4 only the following databases are supported:

- MS Access
- MS SQL Server 2005 (only project-specific).

IVM is used with SQL Server for project configurations and is installed by the Engineering Department PSG.

3.7 IVM system limits

Using the Access database provided, trouble-free operation is guaranteed up to the following system size:

- 32 x IVM Client or 32 x Terminal Client (max. 32 in total)
- 5 x video matrix switcher (max. 255 inputs in total)
- 1 x TELEMAT basic system (max. 30 inputs)
- 50 x TELSCAN web server
- 5 x SISTORE AX or SISTORE MX Pro
- 500 x SISTORE CX4/CX8
- 500 alarms per day, 10 alarms per minute, 4 connections per second (non-cascaded systems)
- Alarm acknowledgement approx. 10 alarms/second or 50 alarms within 4 seconds
  (depending on the performance of the IVM server)
- Dependency between dwell time + number of sequences: approx. 10 sequences if dwell time = 5 s
- Management of up to 256 cameras per plan
- Management of up to 20 plan referrals per plan
- Management of up to 120 multifunction icons or alarm icons per plan

Additional information can be found in the **Readme** file in the directory **D:\Cevis**.

We recommend using only one SISTORE type in CCTV systems. It is however possible to combine SISTORE SX and SISTORE CX!

Larger system sizes can be implemented as customized project-specific solutions.

Not every possible configuration is explicitly described.

3.8 TCP/UDP ports used

3.8.1 Standard ports for SISTORE CX, MX and AX

It is recommended to release the ports only for individual devices (port forwarding).

SISTORE CX

Port	Protocol	Description
1900 – 1910	UDP	SISTORE SX/CX Config
8000 – 8032	UDP	RTP Multicast (Video Streaming)
21	TCP	Update
80	TCP	Home page
1200 – 65535	TCP	Unicast (Video Streaming)

SISTORE MX

Port	Protocol	Description
80	TCP	Home page
40	TCP	Server
1100 – 1121	TCP	Video Streaming

SISTORE AX

Port	Protocol	Description
8201	TCP	Call-back
8200	TCP	Administrator
8016	TCP	Monitoring
10019	TCP	Search

3.8.2 Enabling access to IVM applications

Access to Client applications

When the SISTORE client application has been installed, the following security alert is displayed:

Fig. 8 Windows Firewall – Security Alert

1. Click **Unblock**.
   ➔ The port for the SISTORE device is enabled automatically.

Port for IVM Client

The port for the IVM Client has to be added manually.

1. Select **Settings > Control Panel** in the Windows start menu.
2. Double-click on **Windows Firewall**.
3. Click the **Exceptions** tab.
4. Click **Port…**

➔ The following dialog box opens:

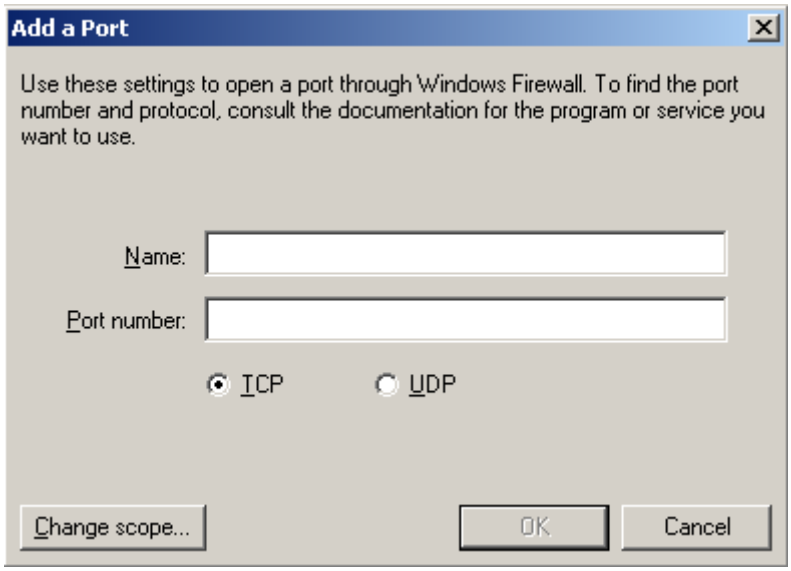


Fig. 9 Windows Firewall – Add a Port

5. Enter "IVM Client“ in the **Name** text field.

6. Enter "5688" in the **Port number** text field.

7. Activate the option **TCP**.

8. Click **OK**.

➔ The port for IVM Client has now been added.

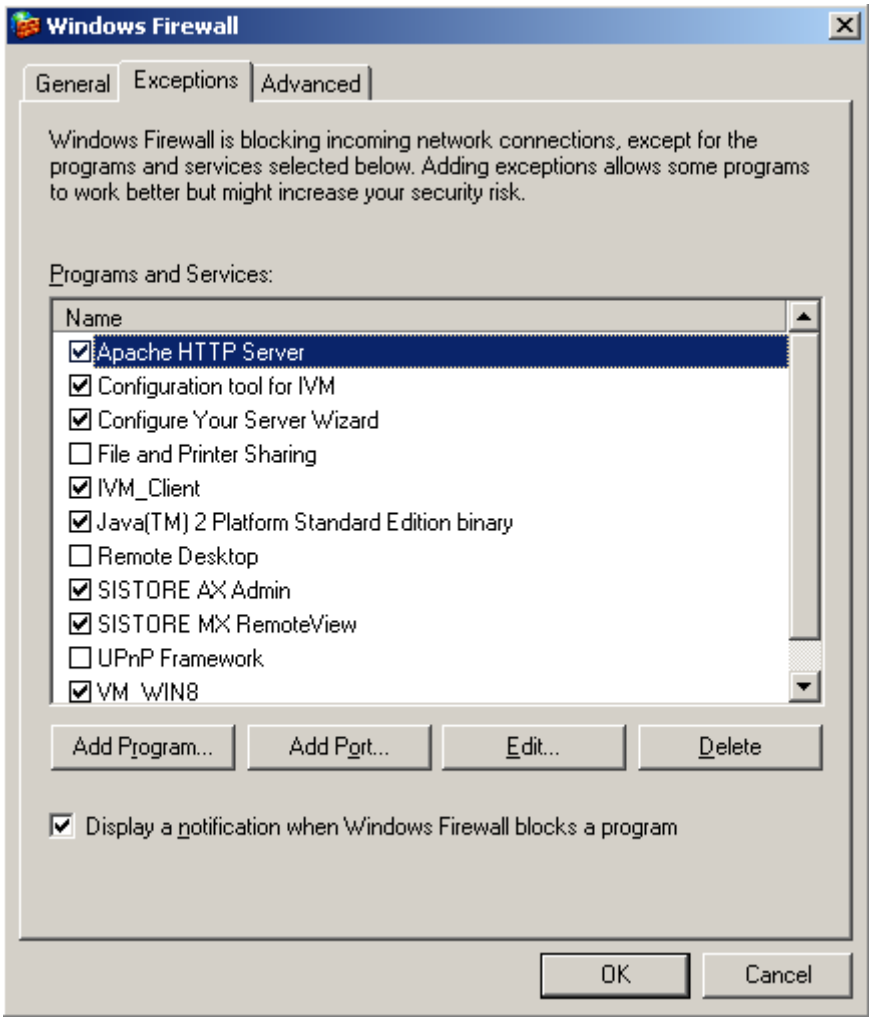


Fig. 10 Windows Firewall – Exceptions

Access to Server applications

To ensure the correct functioning of the IVM applications the Windows firewall settings must be configured accordingly.

- To allow a client PC access to IVM applications, the Windows firewall should be configured such that access is granted to all IVM applications. Examples of exceptions: See Fig. 10 Windows Firewall – Exceptions.
- These settings are described in the Windows user manuals.

4 Software installation

4.1 Installation procedure

The installation procedure is described in the file readme.txt.

The following figure gives a summary of the installation procedure with IVM, SIMATRIX and an Access database:

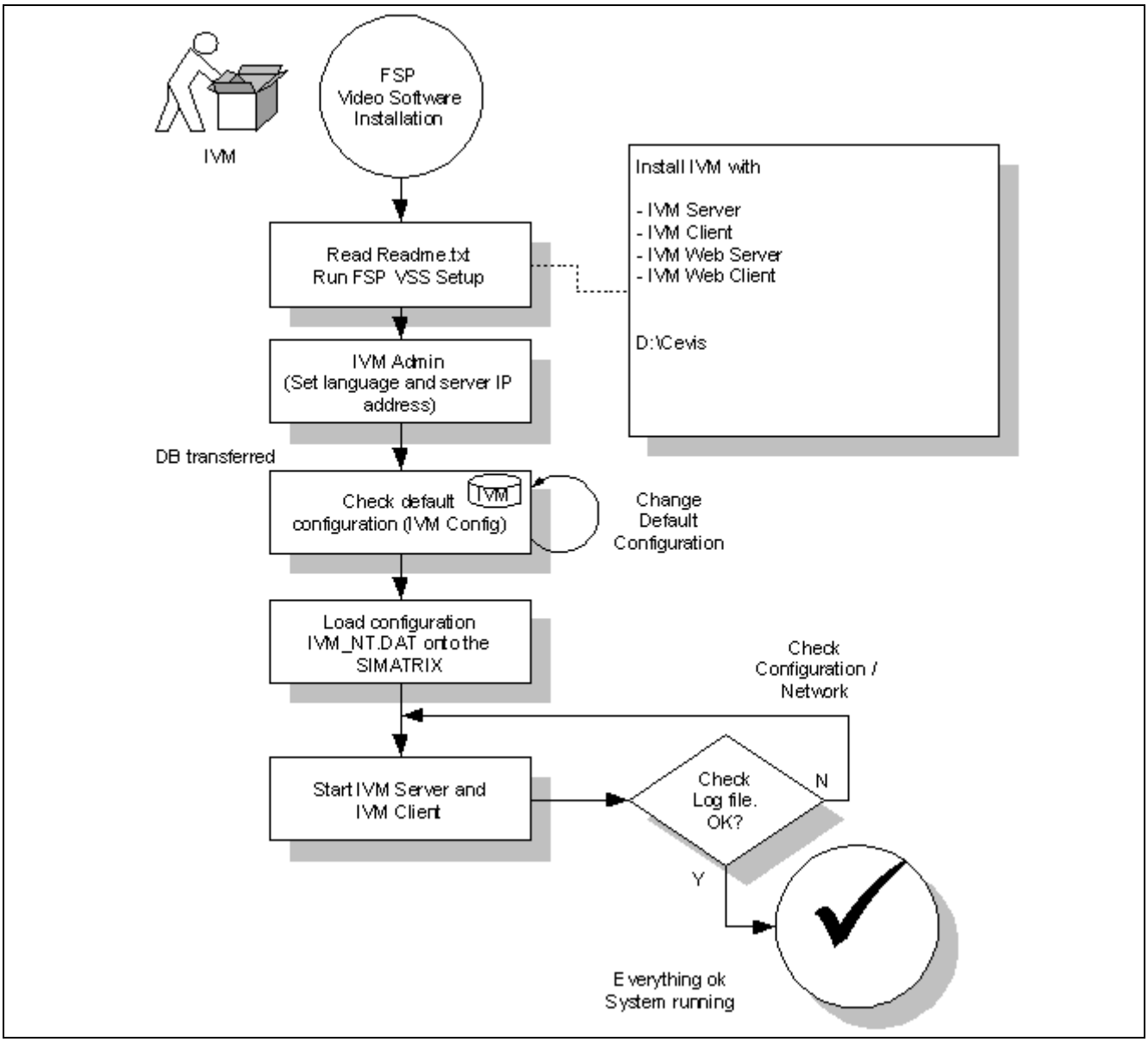


Fig. 11 SIEMENS Video Software installation

4.2 WIBU dongle installation

The **IVM Server**, **IVM Client** und **IVM API Software** are protected by the WIBU dongle. It is therefore necessary to install the WIBU-BOX Software. The WIBU-BOX installation software is to be found on the IVM installation CD in the directory **<CD LW>:\Wibu\setup.exe**. The installation procedure is automatic as part of the FSP VSS Setup.

If the WIBU-BOX/P is not plugged in to the parallel port (LPT..) or the USB port, the programs will only run in DEMO mode!

4.3 Setting up the ODBC data sources

The ODBC database source (IVM_NT, ARCHIVE, IVM_NT_Terminal etc.) are set up using the VSS installation routine. If the data sources need to be changed follow the steps below (here an example for the IVM_NT database):

1. Select the menu sequence **Start > Settings > Control Panel > Administrative Tools > Data Source (ODBC)**.

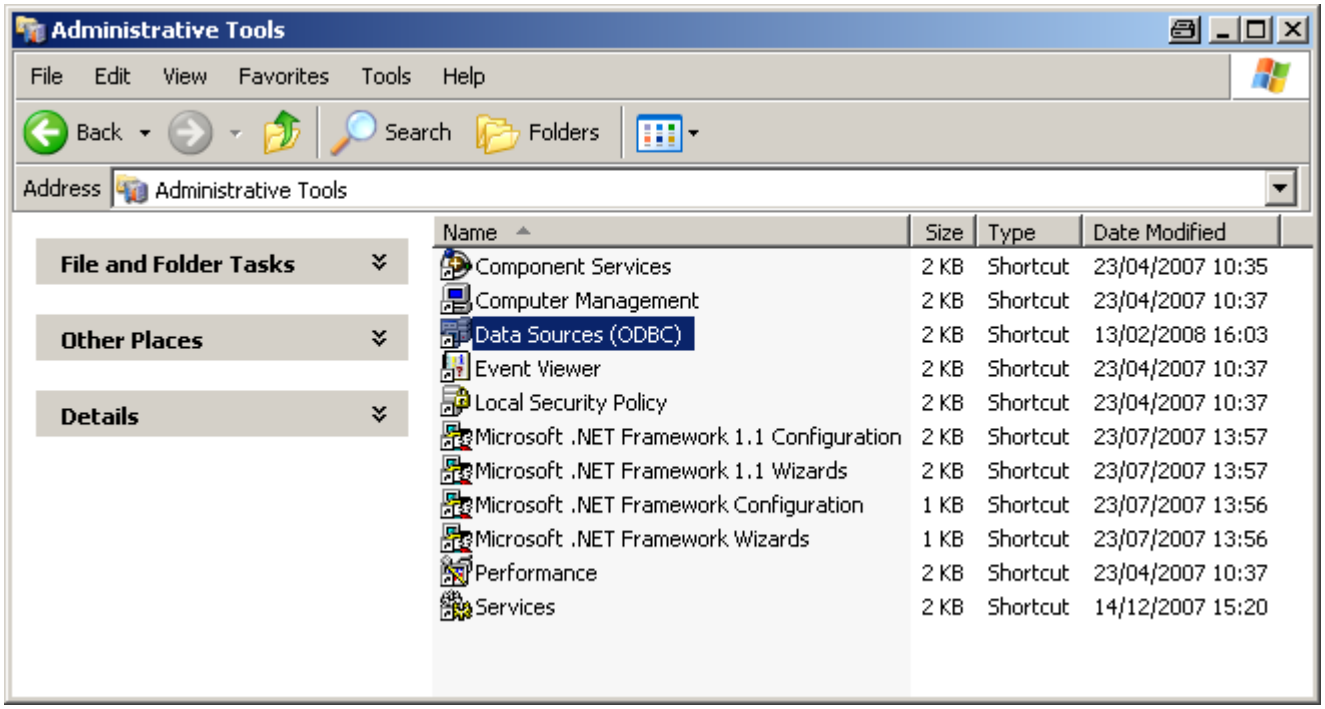


Fig. 12 Control Panel – Administrative Tools

2. Add the ODBC data sources (depending on the database used it may be necessary to select the SQL driver or the MS Access driver).

If the IVM Client is installed on a separate PC, all ODBC connections must be linked to the database on the server!

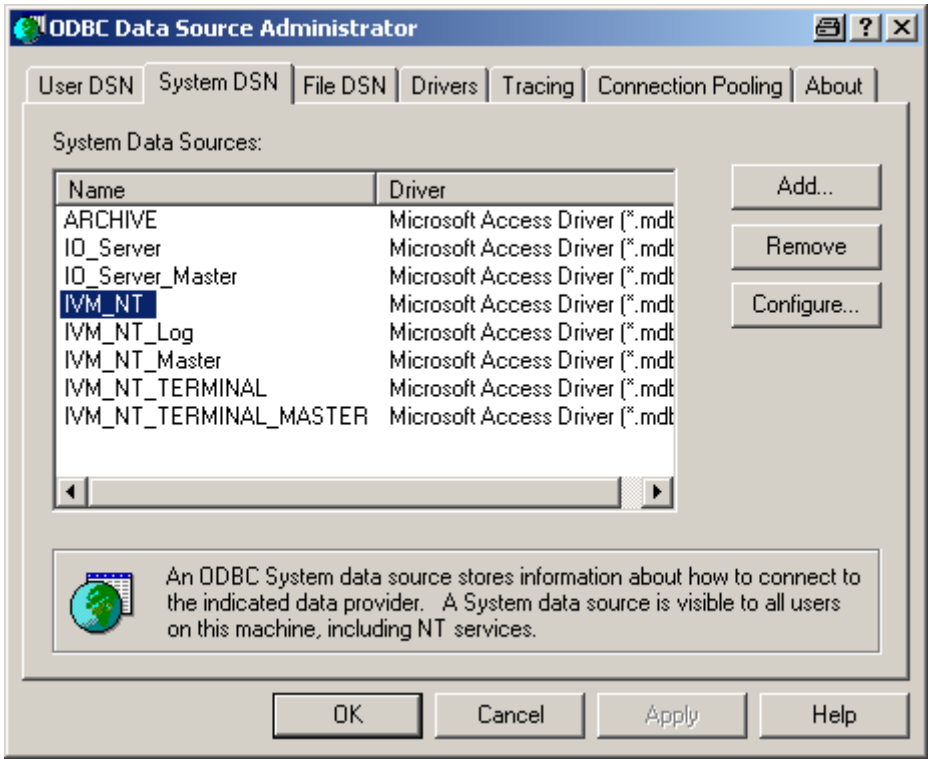


Fig. 13 ODBC Data Source Administrator

3. Configure the access driver in the following manner:

4. Select **Microsoft Access Driver (*.mbd)**.

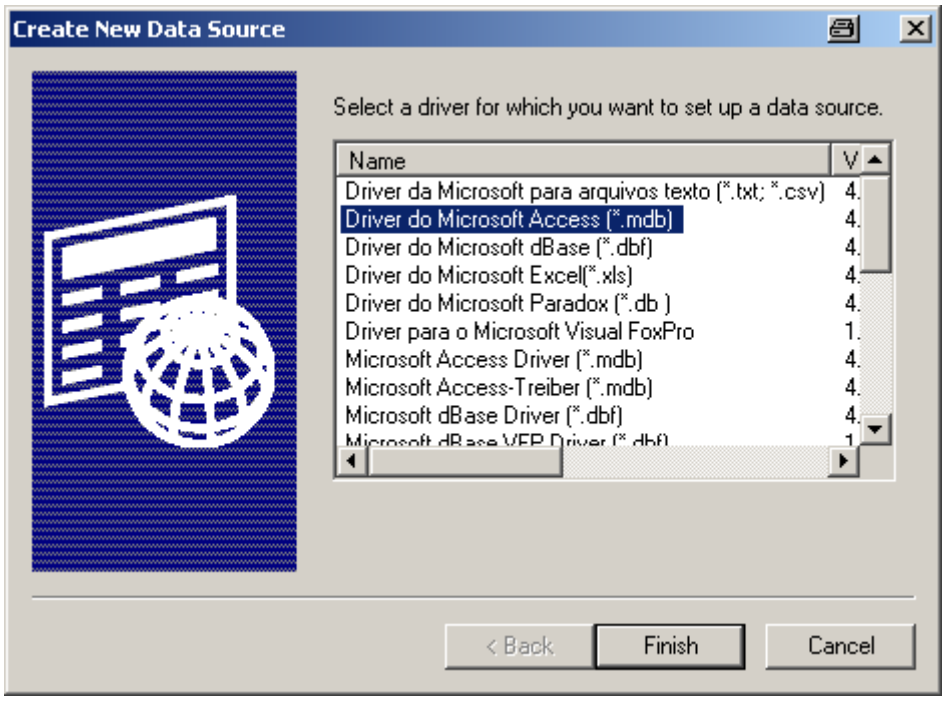


Fig. 14 Creating a new data source

5. Click on **Finish**.

➔ The following dialog box opens:

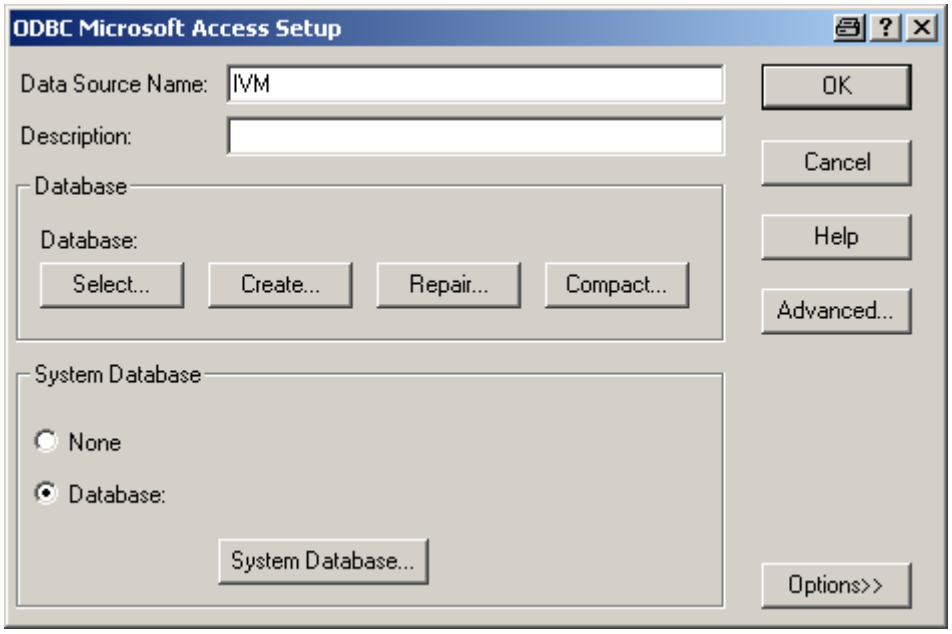


Fig. 15 ODBC Microsoft Access Setup

6. Click **Select...**

➔ The following dialog box opens:

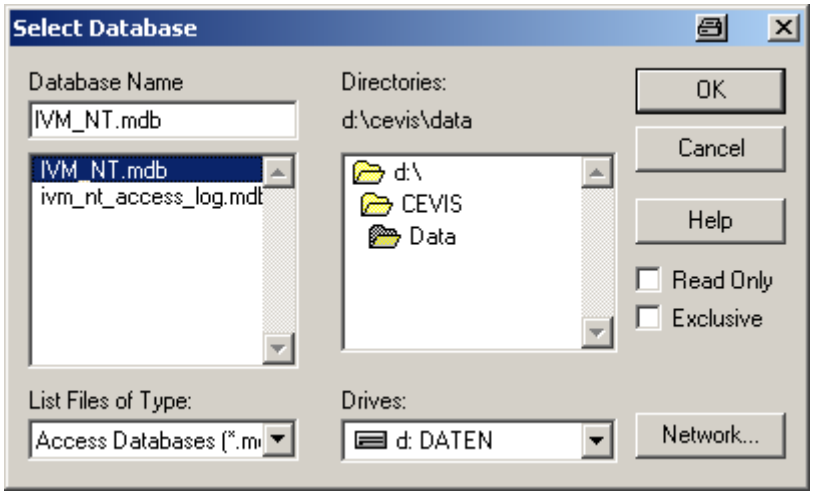


Fig. 16 "Select System Database" dialog

7. Select the **DATA** file.

8. Select the database **IVM_NT.mdb**.

9. Click **OK**.

➔ The following dialog box opens:

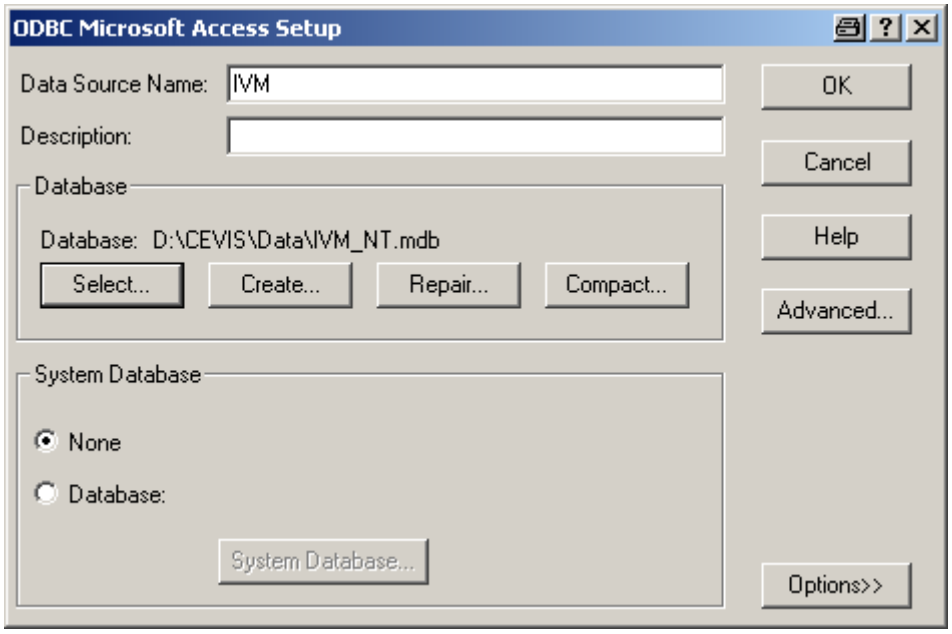


Fig. 17 ODBC Microsoft Access Setup

10. Select the **Database** option.

11. Click System Database...

➔ The following dialog box opens:

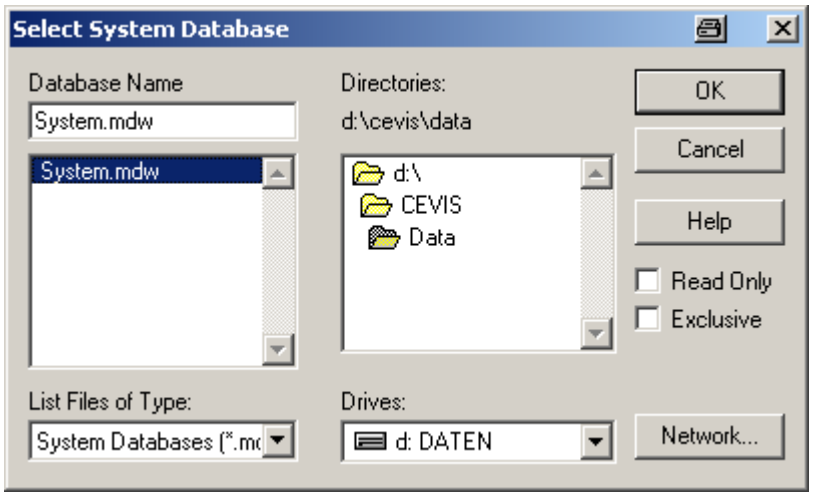


Fig. 18 Selecting the system database

12. Select the **DATA** file.

13. Select the system database **System.mdw**.

14. Click **OK**.

➔ The following dialog box opens:

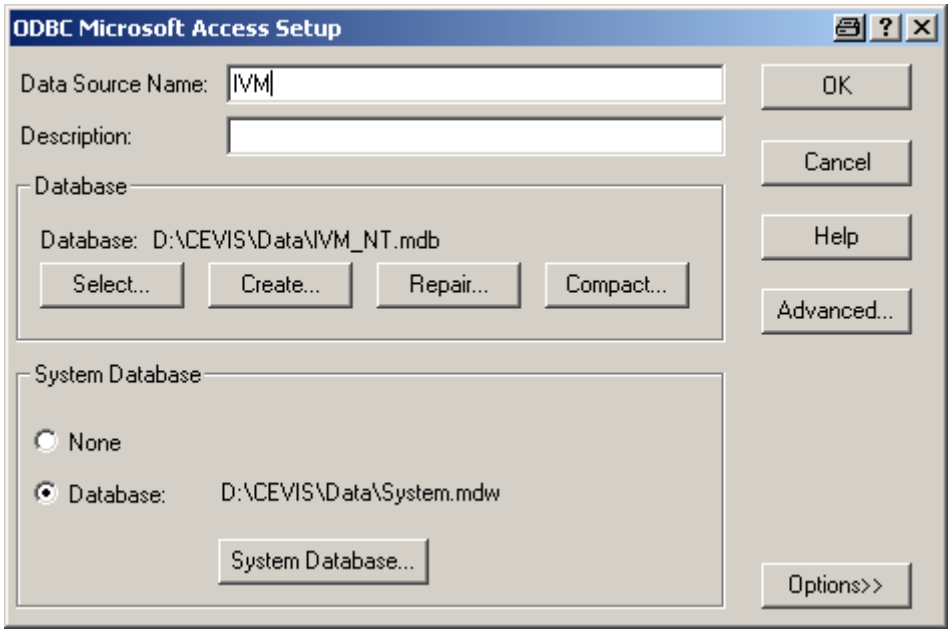


Fig. 19 ODBC Microsoft Access Setup

15. Click **OK**.

4.4 Get time of client PC from an NTP server

An NTP server always provides the current time. The time of your PC will be updated continuously with the time from the NTP server. This is a periodic synchronization mode, i.e. the time is updated at regular intervals. This may take several hours.

Prerequisite:

In order to get the time from an NTP Server the IP address of the NTP Server must be specified.

1. Open the command prompt of your PC via the Windows Start menu.

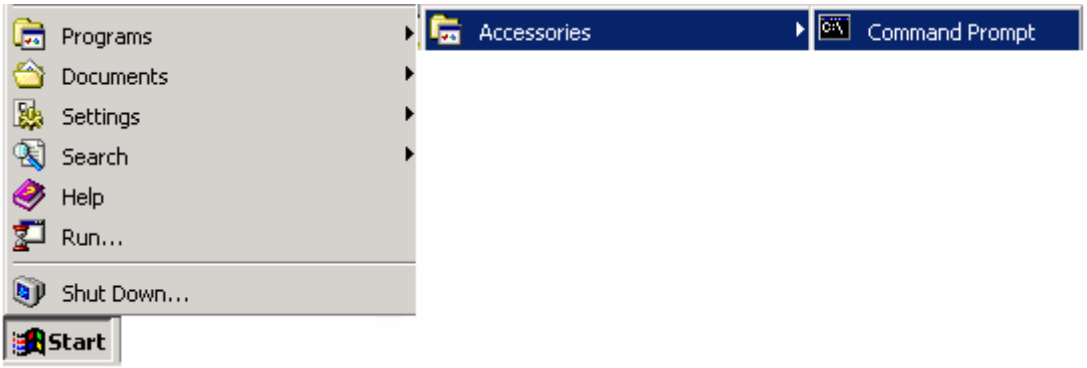


Fig. 20 Open command prompt from the Start menu

2. Enter the following command:

net time /setsntp:xxx.xx.xx.xxx

* Enter the IP address of the NTP Server for xxx.xx.xx.xxx.

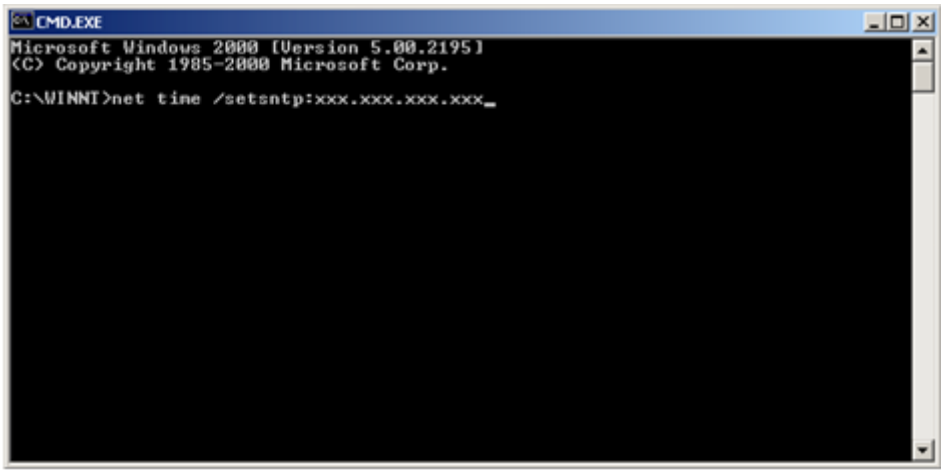


Fig. 21 Command prompt

3. Restart your client PC or enter the following command in the command prompt of your PC:

   net stop w32time
   net start w32time

4. Open the "Windows Time" service from the Windows Start menu:

   Start > Settings > Control Panel > Administrative Tools > Services > Windows Time

   ➔ The following dialog box opens:

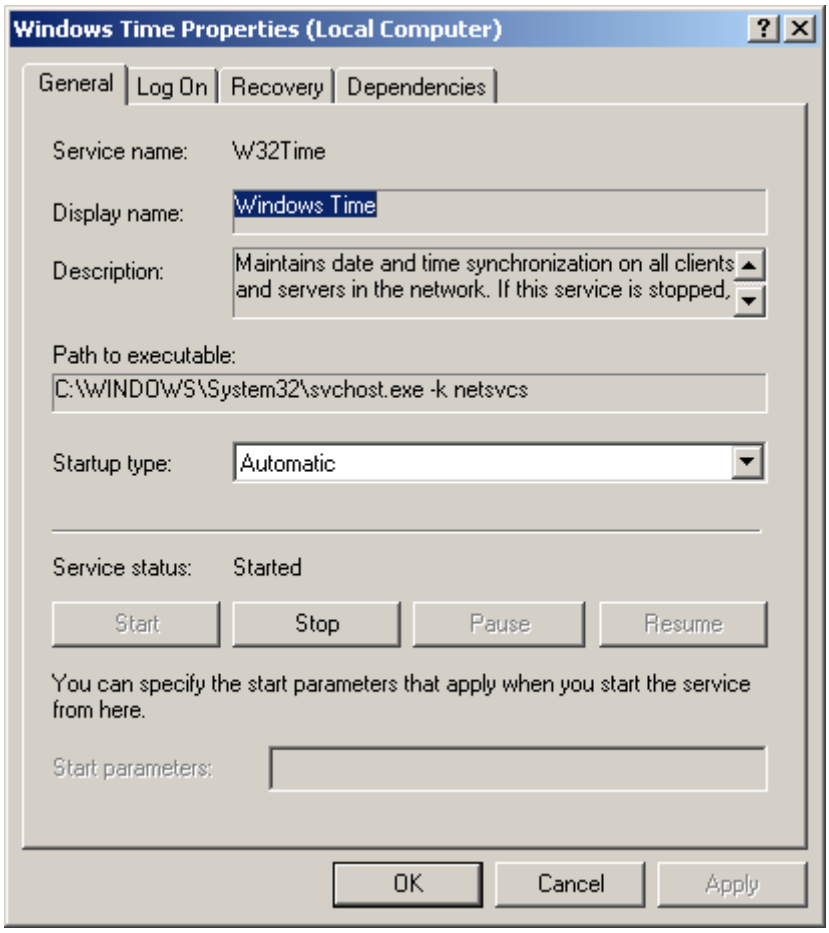


Fig. 22 Windows Time Properties

5. Select Automatic for the startup type in the **General** tab.

   ➔ When your client PC is started, a connection to the NTP server will be established automatically.

4.5 Debugging with the log files

The IVM Server and the IVM Client create their own log files (filenames: IVMNTLogfile.txt is located in Cevis/IVM_NT_Server and Client.log is located in Cevis/IVM_NT_Client). It is possible to look for clues for problem solving in these files.

4.6 Checking the network settings

Determining the IP address

The IP address can be determined using the command **ipconfig** or **ipconfig/all** in the MS DOS box.

Testing the network connection

In the MS-DOS box the command **ping** IP address (e.g. ping 142.11.71.205) or **ping** computer name (ping IVM_NT_Server1) can be used to check whether the network connection to any given computer is present.

4.7 Resolution of host names

Devices that are connected in a TCP/IP network are addressed using their IP addresses. The IP address is a 32-bit string which is usually represented in the form xxx.xxx.xxx.xxx (e.g. 141.073.022.023). As names are always easier to remember than numbers, a method has been developed which allows IP addresses to be resolved into concrete names. This method has now been integrated in the IVM system.

From IVM version 1.8, nearly all devices that are connected over a TCP/IP network are addressed using the device name. The only exceptions are SISTORE CX and SISTORE AX. To establish communication with these devices, the IP address has to be entered.

When setting up devices that will interface with IVM, it is important to ensure that the device name corresponds with the computer name of the sub-system.

The following table shows which devices support name resolution:

Unit	Name resolution supported
SISTORE AX	✘
SISTORE MX	✓
SISTORE CX	✘
IVM Client / IVM Server communication	✓

If the devices are connected using routers, the name resolution will normally not work without a specific router configuration. In that case it is recommended to include the IP address as well as the associated device name in the lmhosts file.
The lmhosts file can be found in the directory

C:\WINNT\system32\drivers\etc

and be edited using a standard editor.

When using the lmhosts file make sure to delete the **.sam** suffix.

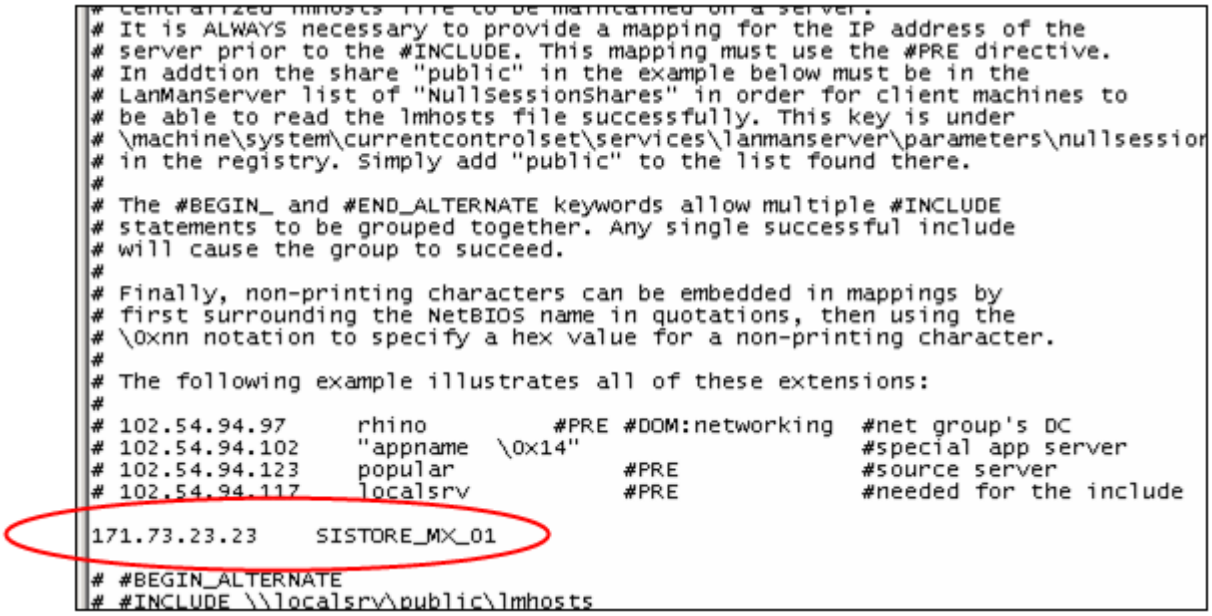


Fig. 23 Excerpt from the lmhosts file

4.8 Directory structure on the hard disk

Depending on the components selected, the installation creates the following directory tree:

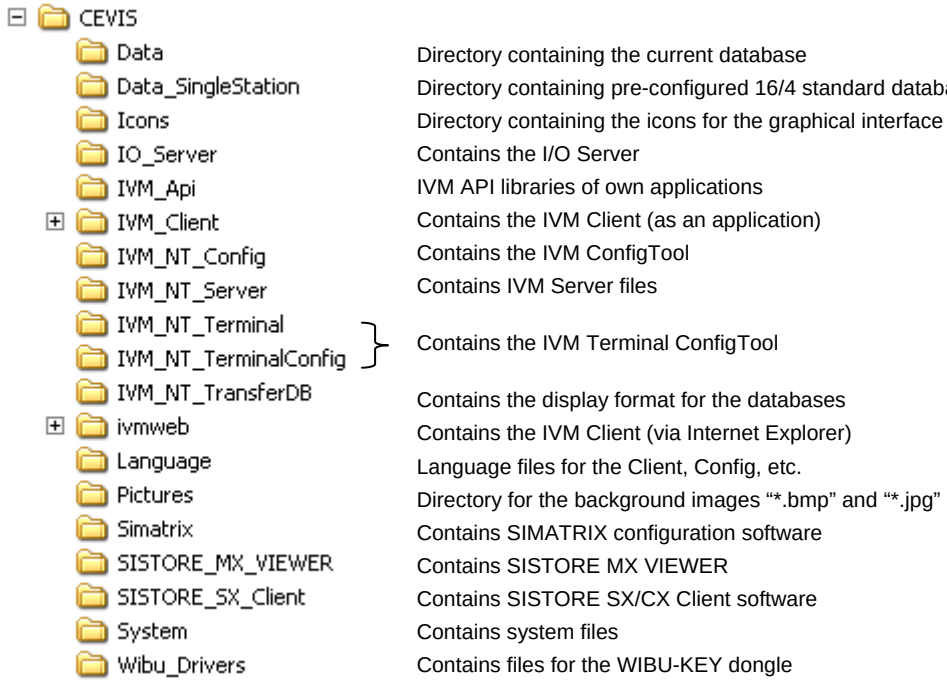


Fig. 24 Directory structure

4.9 IVM Config update

For systems with SISTORE devices, please note that in the event of an IVM update, a SISTORE update is also necessary if

- the SISTORE CX version is lower than V1.5
- the SISTORE MX version is lower than V2.5
- the SISTORE AX version is lower than V2.4

From IVM Server version 1.3 the server performs the database update automatically. For all former versions please call the hotline.

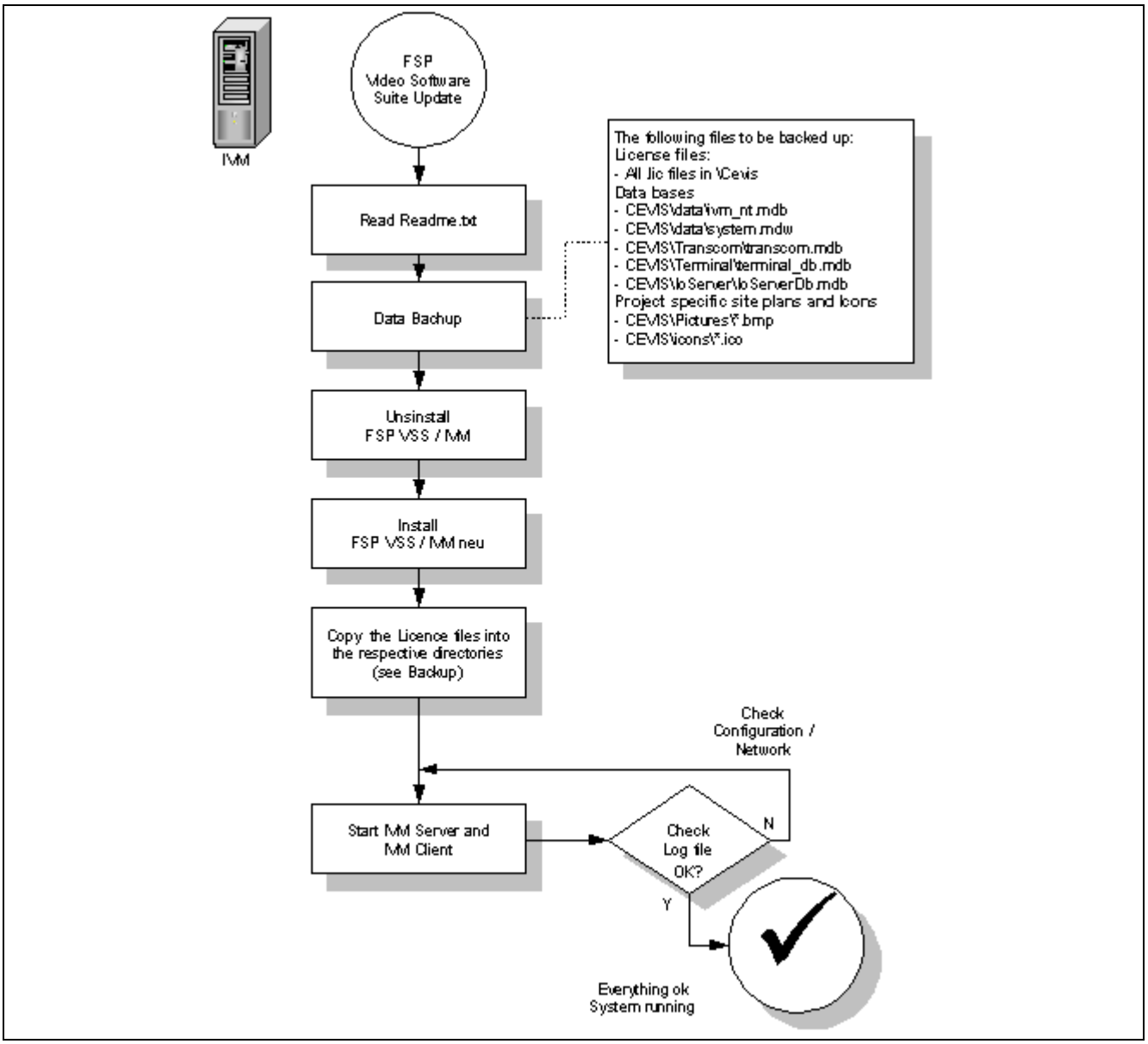


Fig. 25 IVM Update

4.10 Command line parameters

IVM Server, and Terminal Service support the use of command line parameters, which may be used to control additional functions of these components.

The following command line parameters are available:

/d The entry in the task manager is deleted for the respective component.

/i An entry is added to the task manager without any dependencies for the respective component – default setting!

Example:

IVM_NT_Server /i

/I dependency comma list

Depending on the system environment, it may be necessary to start other services (e.g. MSSQLSERVER) before starting the IVM service. These dependencies can be defined using the parameter /i.

Example:
A dependency to the MSSQLSERVER service is entered:

IVM_NT_Server /iMSSQLSERVER

The mode of the service entry is “Automatic”, i.e. this service will be started automatically when the machine is rebooted!

4.11 Starting IVM Config

Prerequisites:

The IVM server has been started.

The dongle is plugged into LPT1 and the licence file **IVM_NT_*.LIC** is located in the server application directory.

1. Select the menu sequence **Start > Programs > SIEMENS Video Software Suite > IVM Server**.
2. Select the menu sequence **Start > Programs > SIEMENS Video Software Suite > IVM Server > IVM Config**.

➔ The following dialog box opens:

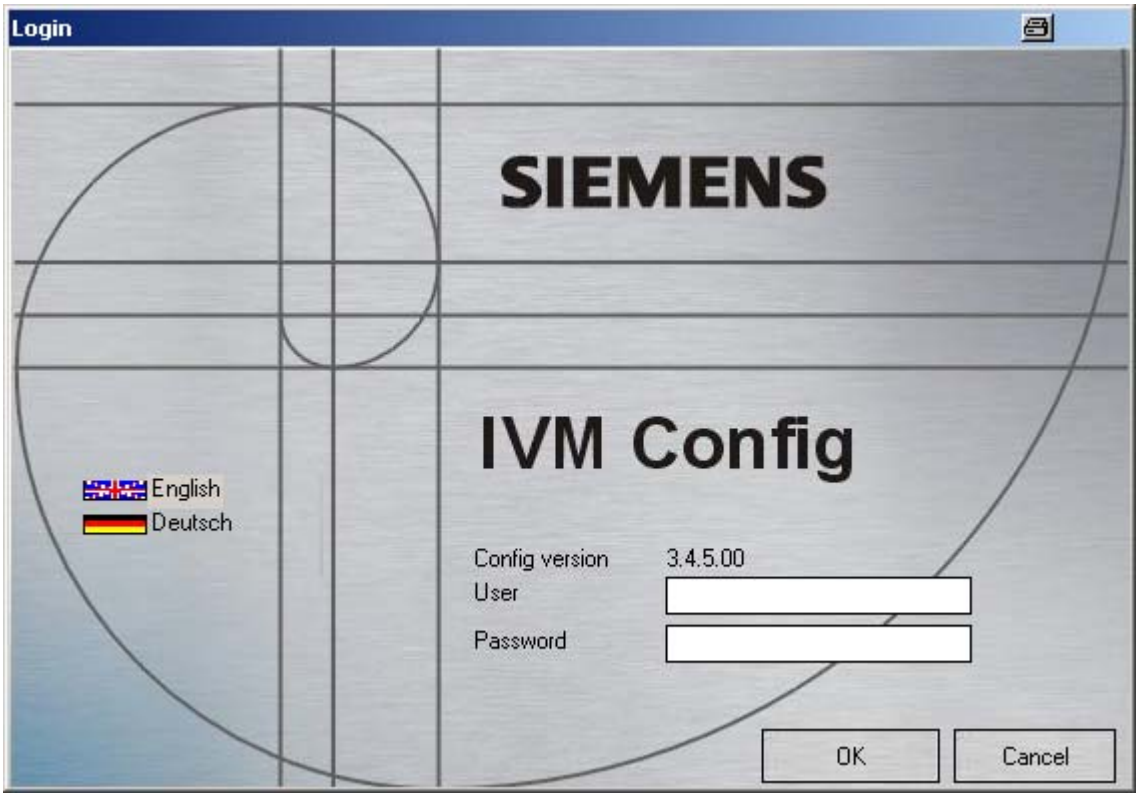


Fig. 26 IVM Config – Login dialog

3. Select a language.

The user name and password are predefined. The entry is case-sensitive.

4. Enter "admin“ in the **User** field.
5. Enter "admin“ in the **Password** field.
6. Click **OK**.

The system must be restarted after any changes are made in the Config tool!

4.12 Starting IVM Config in demo mode

In demo mode there is no communication with the IVM server.

Demo mode can be started with the command line switch **demo**, i.e. <DRIVE LETTER>:\CEVIS\IVM_NT_Client\IVM_NT_Client.exe demo.

4.13 Initial configuration

4.13.1 Size of logbook / Logging

1. Select the menu option **General settings**.
2. Select the **Logging** tab.

➔ The following dialog box opens:

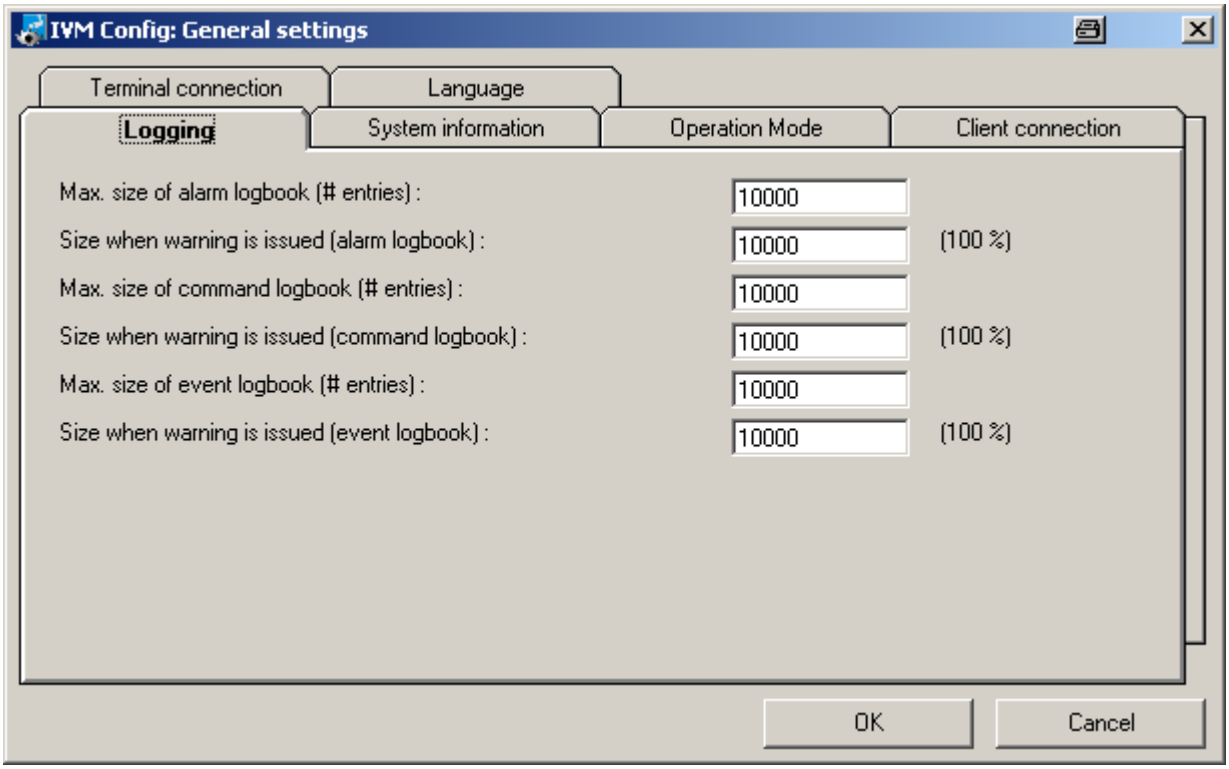


Fig. 27 General settings – Logging

Max. size of alarm, command and event logbooks.	If the specified number of entries in the log is exceeded, the oldest entries are overwritten.
Size when warning is issued (alarm, command and event logbook).	If the specified number of entries in the log is exceeded, a warning is displayed in the IVM client to move the log, in order to prevent loss of data. More information can be found in the IVM Client User Manual.

3. Enter the maximum size (number of lines) of the logbooks.

- The size at which a warning will be generated must not exceed ’10,000’.
- If the size is ’0’ no warning will be generated.

4. Enter the size of the logbooks at which a warning is to be generated.

4.13.2 Entering system information

1. Select the menu option **General settings**.
2. Select the **System information** tab.

➔ The following dialog box opens:

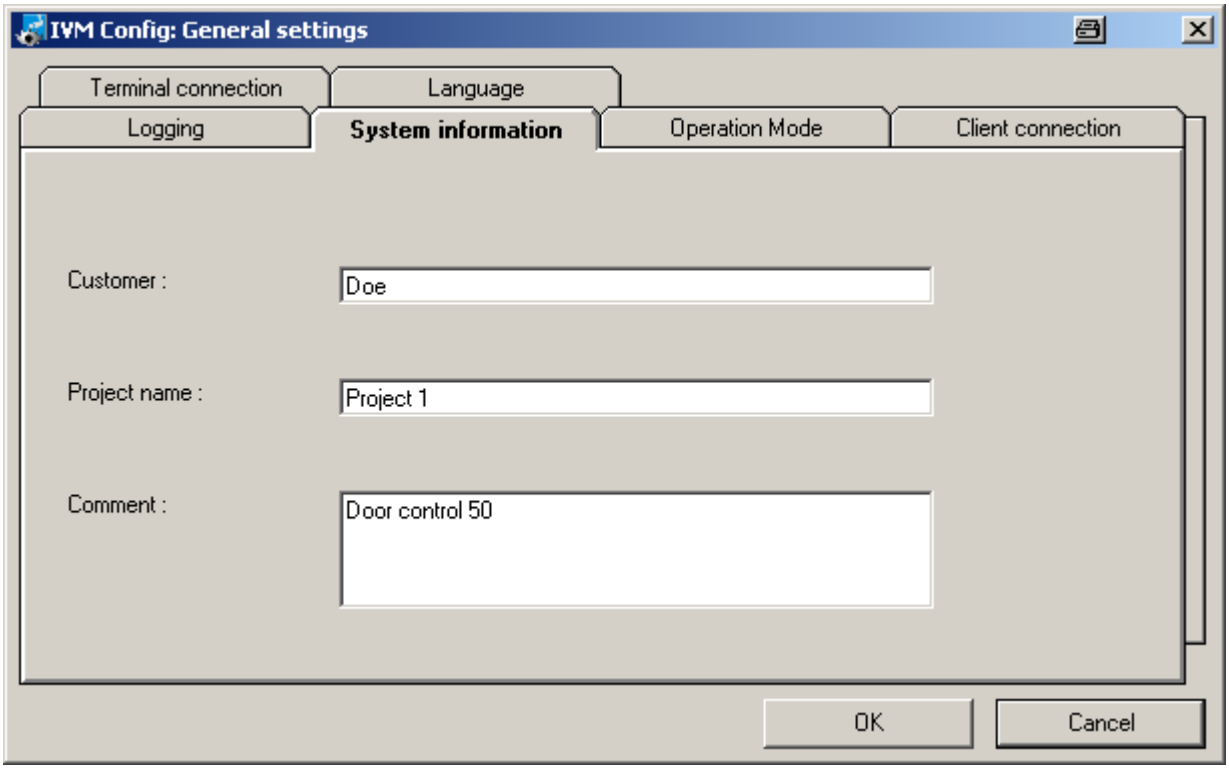


Fig. 28 General settings – System information

3. Enter the following system information:

Customer	Name of the customer
Project name	Name of the project
Comment	Comment about the system

4.13.3 Set operating mode

1. Select the menu option **General settings**.
2. Select the **Operation mode** tab.

➔ The following dialog box opens:

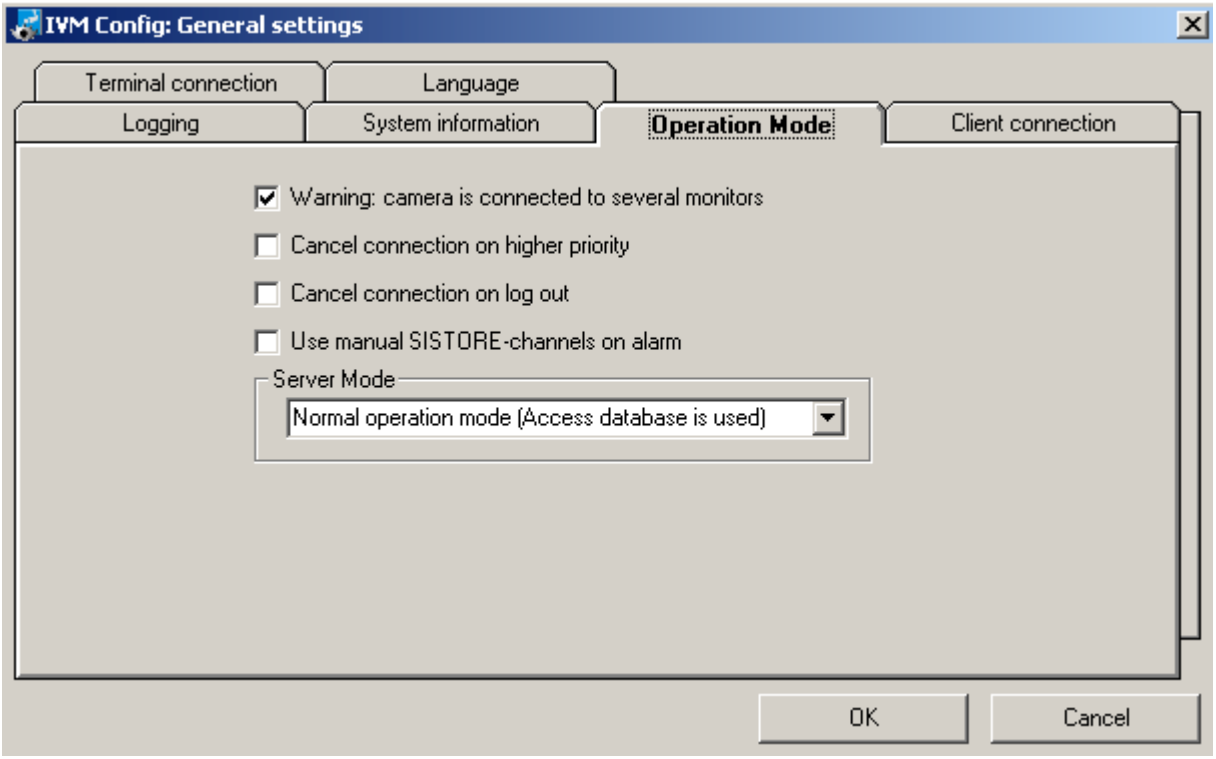


Fig. 29 General settings – Operation Mode

Warning: Camera is connected to several monitors	If a camera is connected to several monitors, the message "Camera x is already connected with user x“ is displayed in the status bar and in the message list of the IVM Client.
Cancel connection on higher priority	If all the video inputs between the matrix switchers are busy, only a user with a higher priority than is required for the current connections can select a camera.
Cancel connection on logout	If this checkbox is selected, the current user's connections are cancelled when he logs off the system.
Use manual SISTORE inputs on alarms	If this check box is selected, the SISTORE recording inputs are assigned manually by the user. You can select the mode “automatic/manual“ in the dialog box "Edit component properties“ in the "Inputs" tab. See Section 6.1.3: Configuring inputs. Depending on the base component you have selected in the Hardware tab, further settings have to be made. See Section 18: SIMATRIX integration and Section 19: SISTORE CX/AX/MX integration.

Server Mode

The Access database is selected by default in the standard configuration. In demo mode the server simulates communication with the SIMATRIX or TELEMAT.

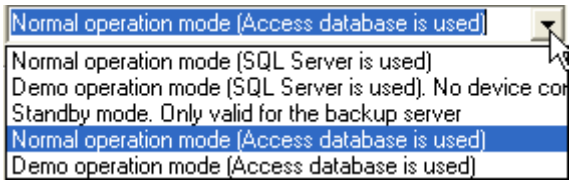


Fig. 30 Server Mode

4.13.4 Language settings

1. Select the menu option **General settings**.
2. Select the **Language** tab.

➔ The following dialog box opens:

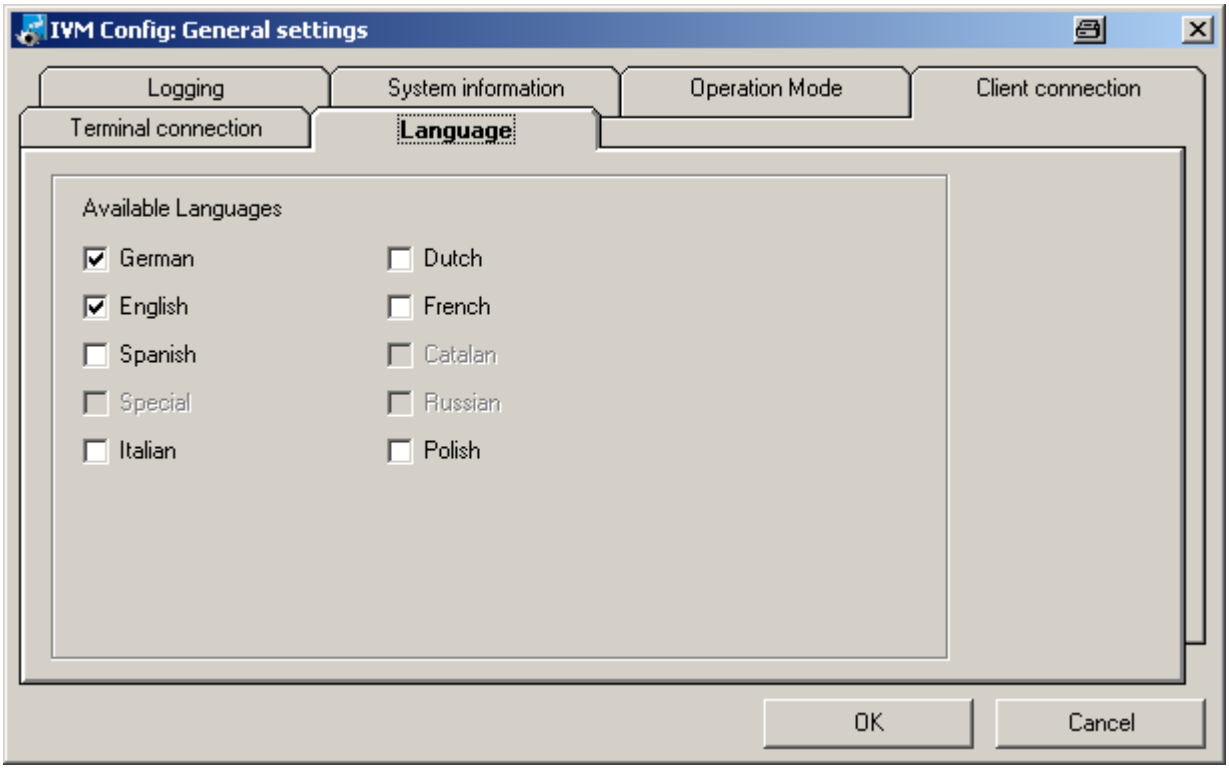


Fig. 31 Language settings

The following filename extensions are used:

German	=*.ger	English	=*.eng	Spanish	=*.spa
Special	=*.xyz	Italian	=*.ita	Dutch	=*.hol
French	=*.fra	Catalan	=*.cat	Ruski	=*.rus
Polish	=*.pol				

The language files are located in: **D:\Cevis\Language**

The selected languages are then available in the Client and Config.

4.13.5 Client connections

1. Select the menu option **General settings**.
2. Select the **Client connection** tab.

➔ The following dialog box opens:

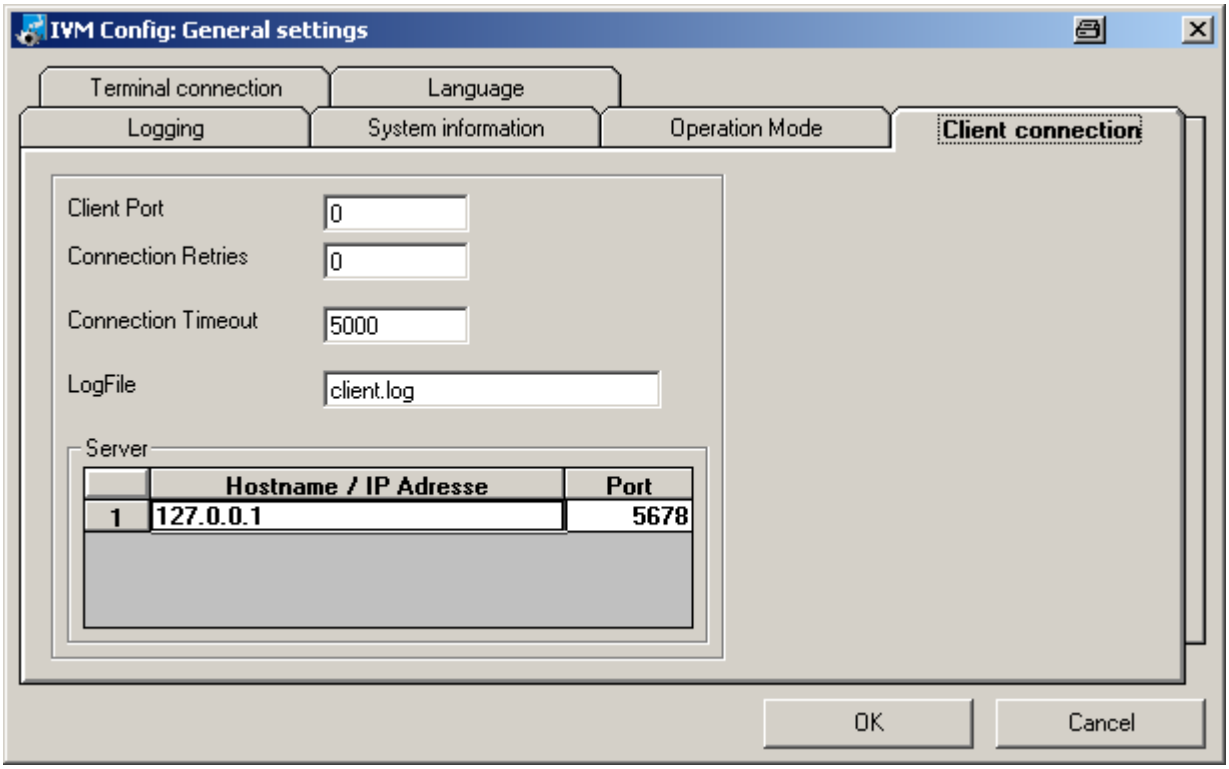


Fig. 32 Client connection

If the IVM Client is installed on the same PC as the IVM Server then the default loop address **127.0.0.1** can be used, otherwise it is necessary to use the real IP address.

If the IVM Client is installed on a separate PC, the IP address of the IM Server must be entered in the AdminTool.

4.13.6 Terminal connection

1. Select the menu option **General settings**.
2. Select the **Terminal connection** tab.

➔ The following dialog box opens:

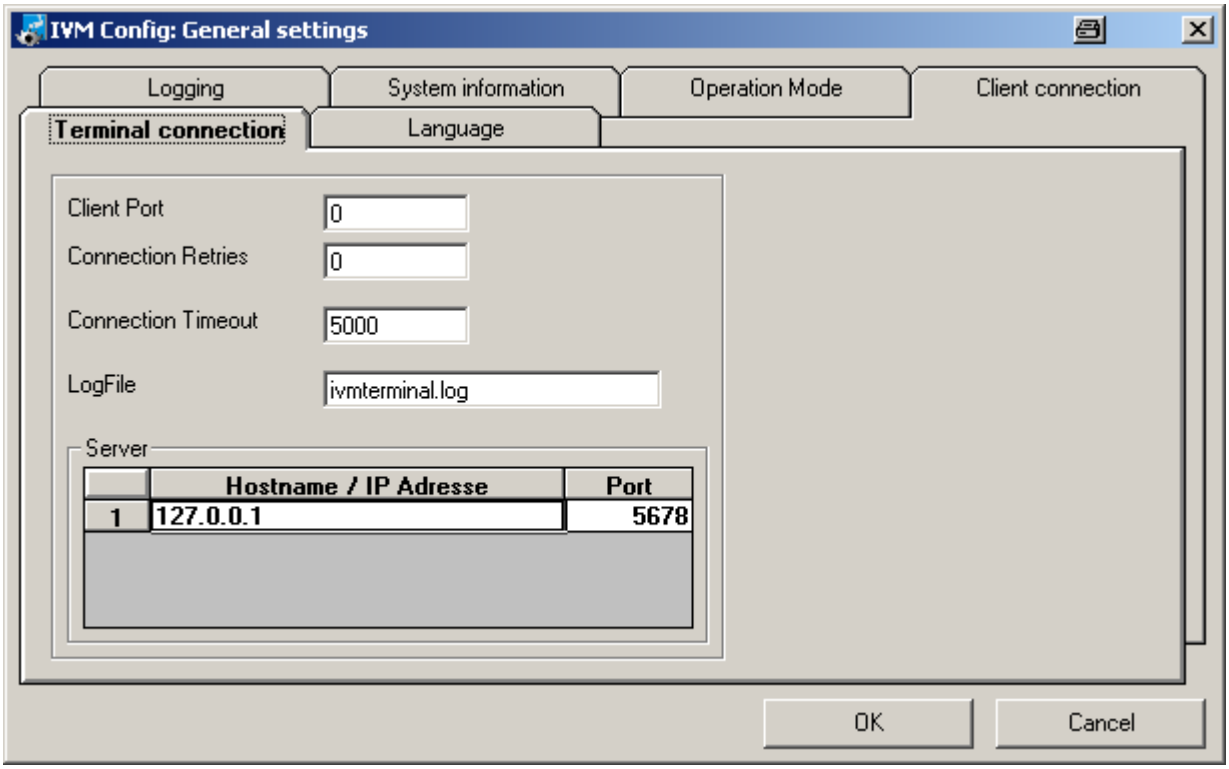


Fig. 33 Terminal connection

3. Make the desired settings.

5 Group configuration

Individual hardware components can be bundled into groups. The group can subsequently be administered in plans See Section 15: Plan configuration.

"Group“ is the default group name. The designation "Group“ originates from the database. You can change the name while editing the group. See Section 5.2: Edit a group.

5.1 New group

1. Click the icon  **Add new group**.
   ➔ The following dialog box opens:

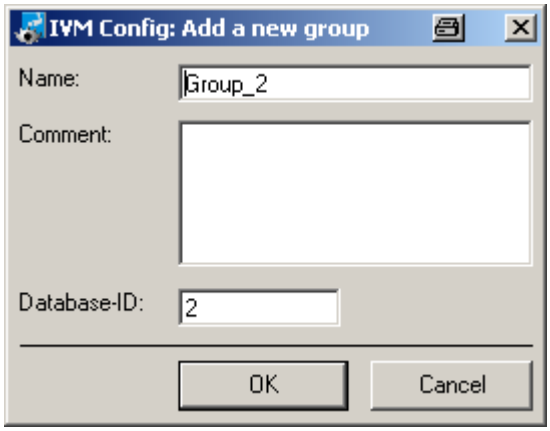


Fig. 34 Add a new group

2. Enter the name of the group.

The addition of a comment or changing the Database ID is optional.

3. Click **OK**.
   ➔ A new group of components is added to the system.

5.2 Edit a group

1. Click on any cell in the desired group column.
2. Click the icon  **Edit group**.
   ➔ The **Add a new group** dialog box opens (see Fig. 34).
3. Edit the properties of the group. See Section 5.1: New group.

5.3 Delete a group

1. Click on any cell in the desired group column.
2. Click on the icon  **Delete group**.
   ➔ The following safety query appears:

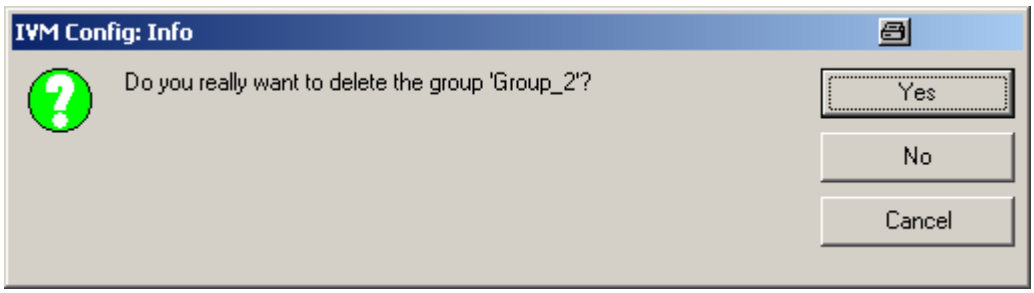


Fig. 35 Delete a group

3. Click **Yes**.
   ➔ The data for a group, and for all components belonging only to that group, can be deleted completely using this button. Any components belonging to the selected group and at least one other group remain intact.

6 Configuring components

6.1 Add a new component

The hardware settings are used to select CCTV components.

Depending on the type of component, various other configuration settings or forms may be necessary.

It is recommended that the total size of system envisaged should be defined from the start with respect to in and outputs, since previous in/out settings may be lost in a currently working system if subsequent changes to the number of in and outputs are made.

1. Click on **Add new component**.
   ➔ The following dialog box opens:

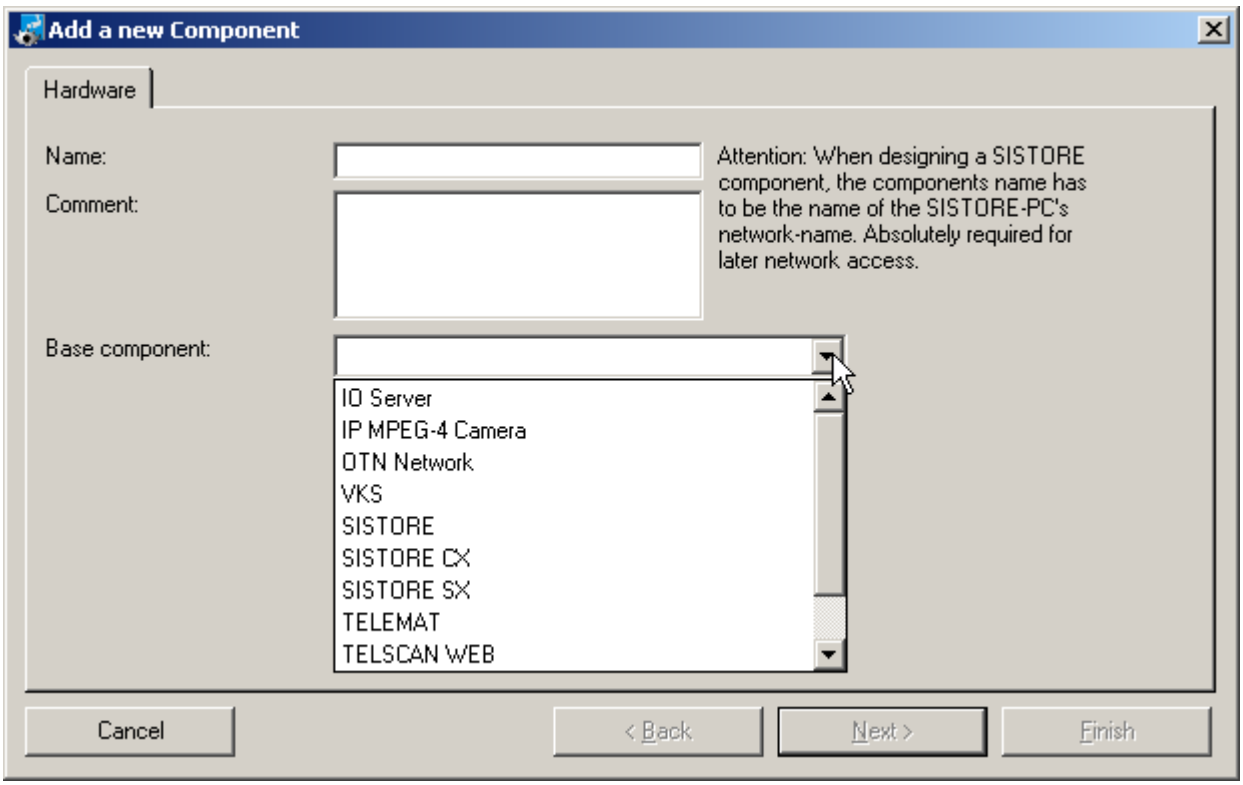


Fig. 36 Add a new component

2. Enter the name of the component. The addition of a comment is optional.

To select a **SISTORE AX** or **SISTORE MX** component, select "SISTORE".

3. Select a new component in the **Base component** list box.
   ➔ The appearance of the screen depends on the selected base components:

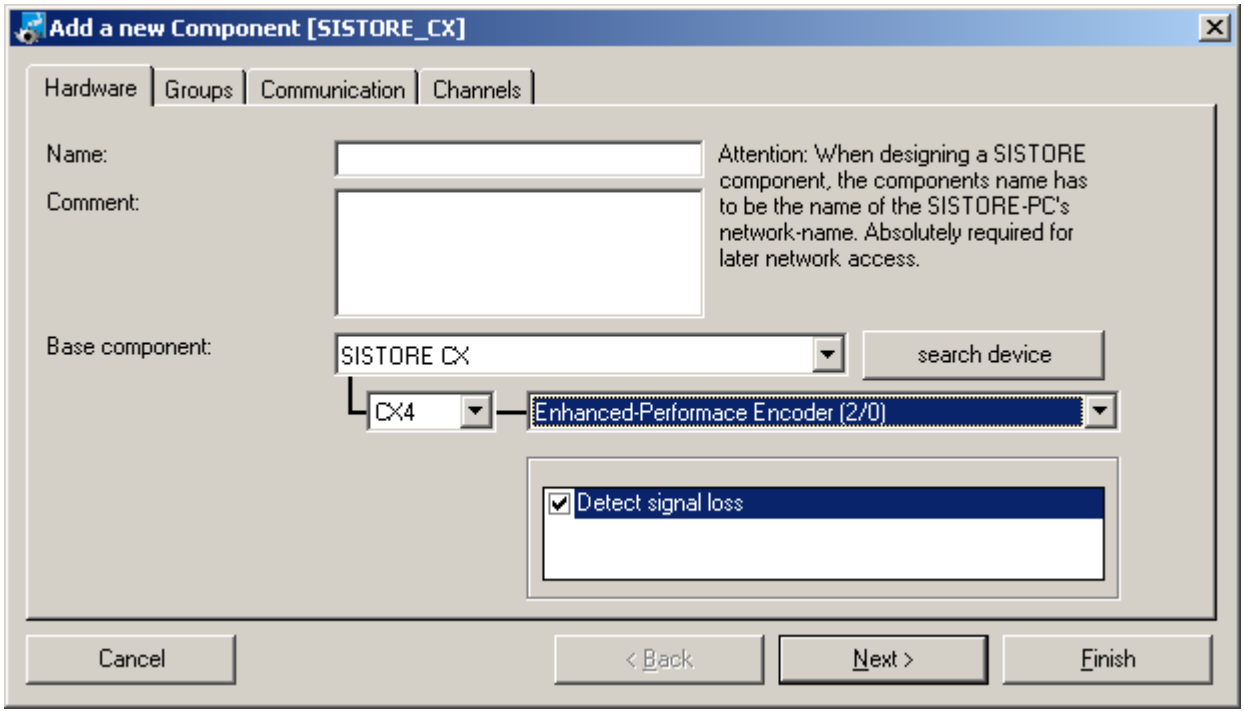


Fig. 37 Add a new component – Organization

➔ If the selected component is a SISTORE device or a video matrix switcher, you can decide whether or not signal loss is to be detected and reported .

4. If signal loss is not to be reported, unmark the checkbox **Detect signal loss**.

5. Configure the new component.

Component	**Configuration of the component**
I/O Server	See Section 20.2: Adding and configuring an I/O Server.
OTN Network	See Section 6.1: Add a new component and Section 6.1.5: On-screen display (OSD).
VKS	See Section 18.1: Adding and configuring SIMATRIX.
SISTORE AX	See Section 19.3.2: SISTORE AX configuration.
SISTORE MX	See Section 19.4.3: Configuring SISTORE MX.
SISTORE CX	See Section 19.2.3: SISTORE CX configuration.
Visiowave Network	See Section 6.1: Add a new component.

6.1.1 Assigning a component to a group

The current component needs to be added to one or more existing groups. The assignment of components to different groups is used to organize the system. This is necessary for very large CCTV systems, for example in underground railway systems, airports, etc. All video matrix switchers in an airport terminal can be combined together, for example.

Prerequisite:

You have selected a base component.

You have created at least two groups. Information on how to add a group can be found in Section 5.1: New group.

1. Select the **Groups** tab.

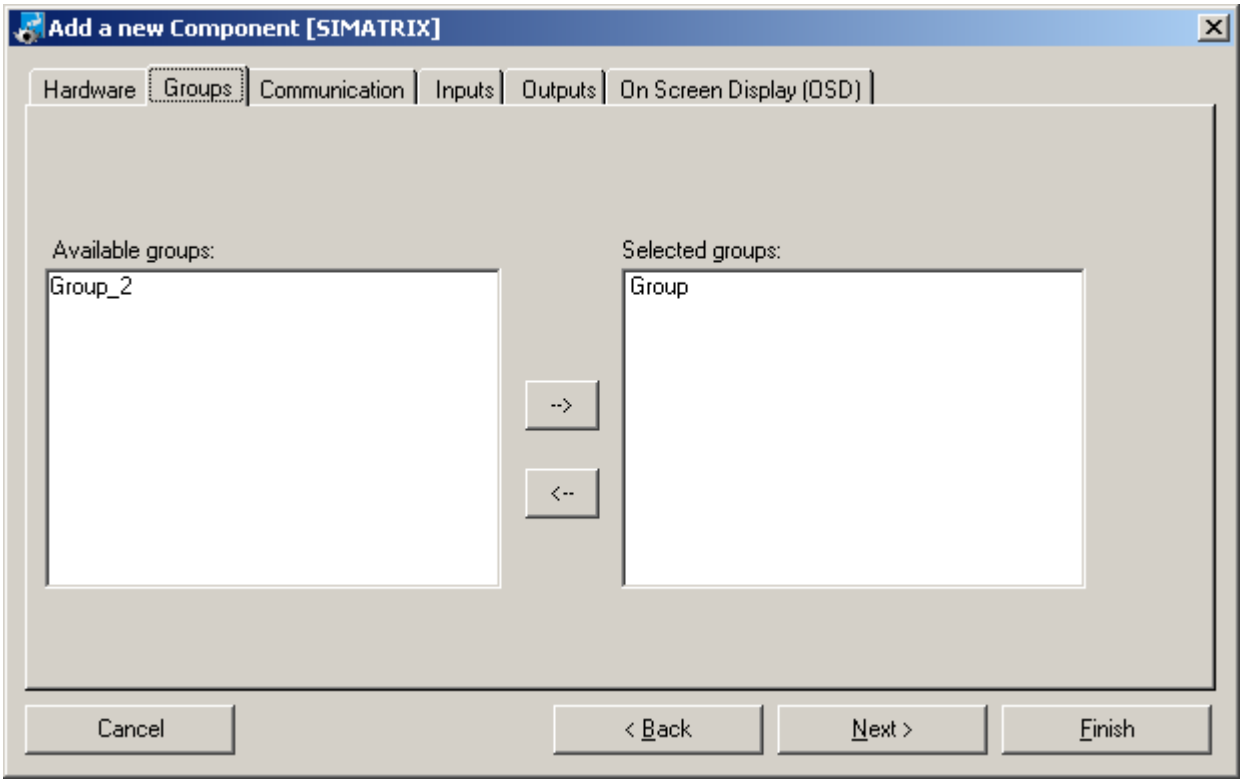


Fig. 38 Add a new component – Groups

➔ The available groups are listed in the **Available groups** section.

2. Select a group in the **Available groups** list.

3. Assign the component to the selected group using the arrow button or by double clicking on the group.

➔ The component has been assigned to the group and will be displayed in the **Selected groups** list.

4. Click **Apply**.

6.1.2 Setting type of protocol and port

Prerequisite:

You have selected a base component.

1. Select the **Communication** tab.

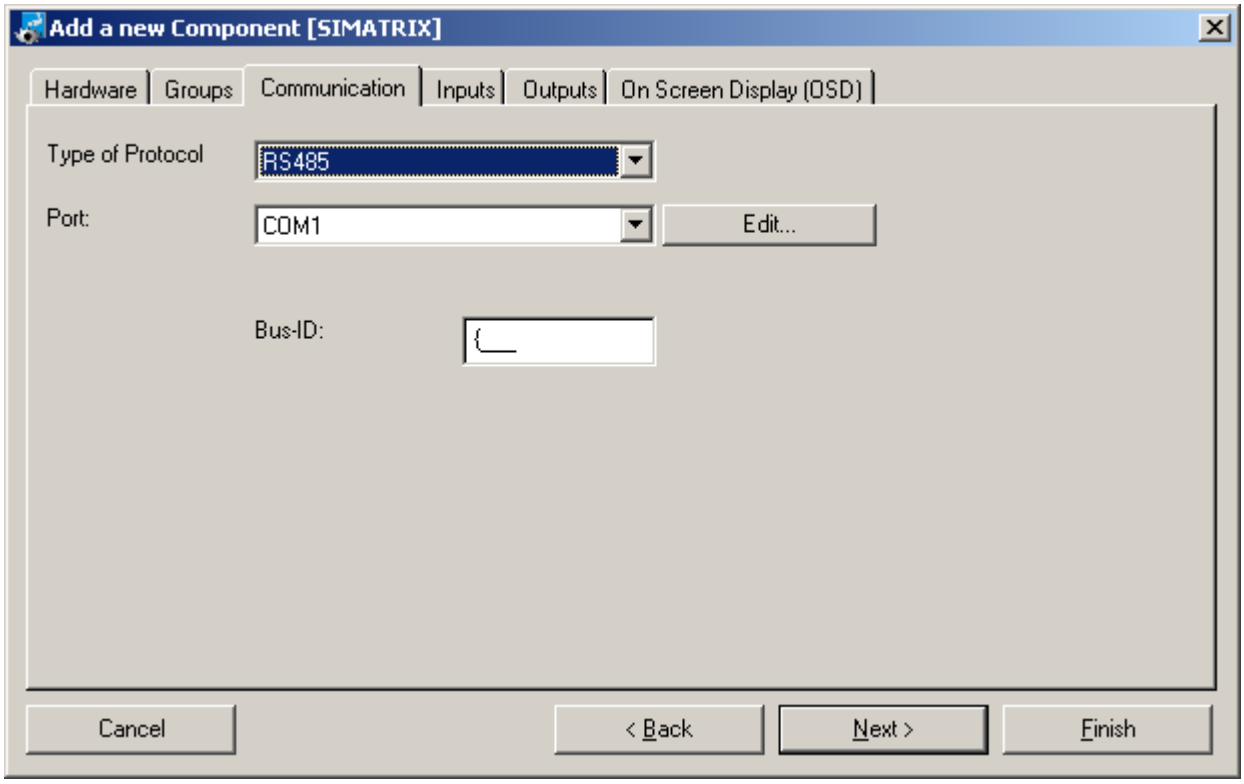


Fig. 39 Add a new component – Communication

2. Select the type of protocol: RS232, RS485 or TCP/IP in the **Type of Protocol** drop-down list.
3. Select the port in the **Port** drop-down list.

   – OR –

   Select "New port…“ in the **Port** drop-down list if you wish to create a new port.
4. To edit a port, click on **Edit…**.

➔ The following dialog box opens:

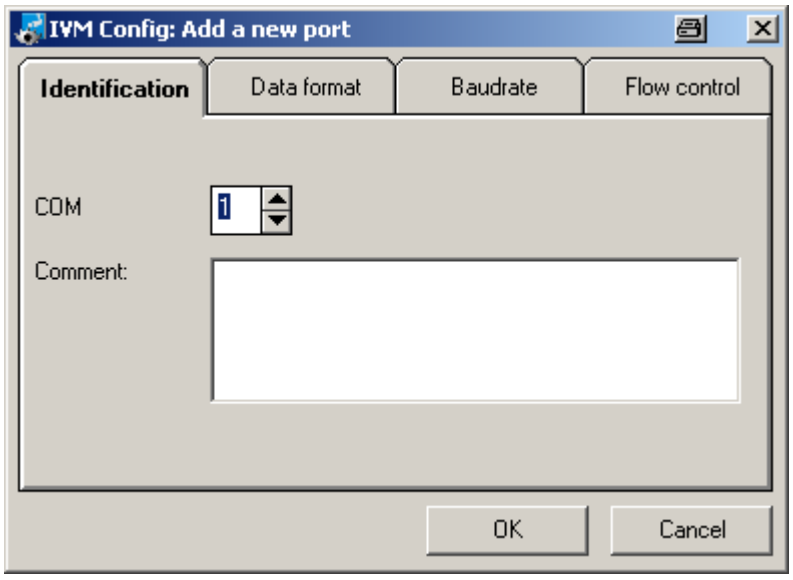


Fig. 40 Edit port properties – Identification

For more information, see Section 7.1: Configuring ports.

6.1.3 Configuring inputs

Prerequisite:

A base component has been selected.

1. Select the **Inputs** tab.

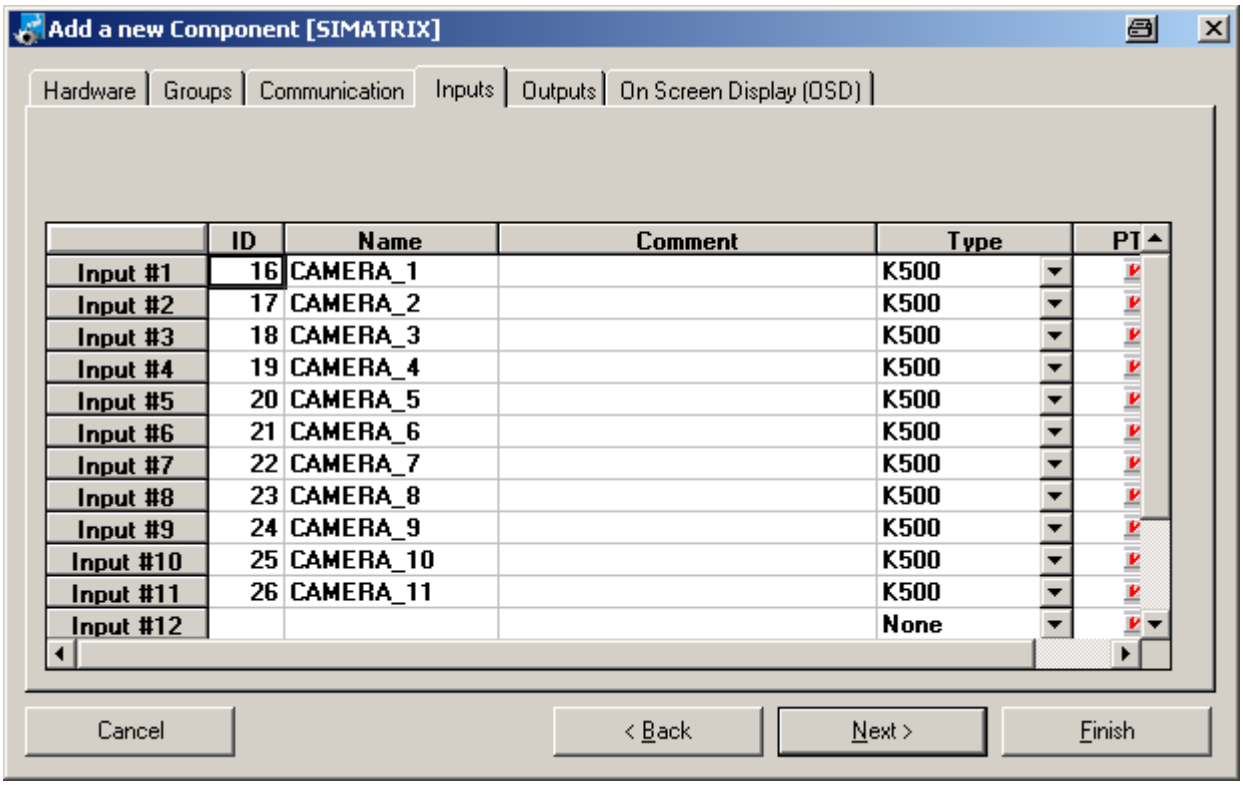
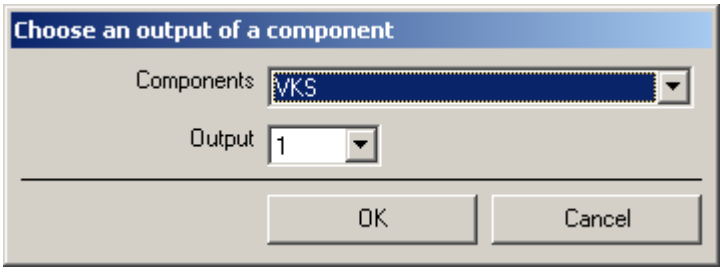
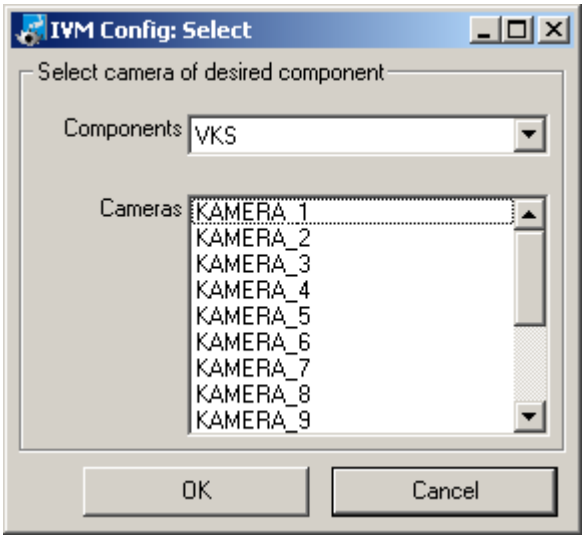


Fig. 41 Edit component properties - Inputs

Connection to outputs on the same device is not possible!

2. Select the **Type** of the connection.
The following connection types are available:

None	Select "None" if this input is not to be used to establish a connection.
Connection	Select "Connection" if the component is to be connected behind the video matrix. 
Split Camera	Select "Split Camera" if the component is to be connected before the video matrix. The camera is connected to SIMATRIX and to SISTORE unit. 
CCBx **K500** **K505**	For cameras that are directly connected to the SISTORE unit.

➔ A standard name will be entered automatically.

Make sure to use a uniform naming scheme. This contributes to clear organization of the system.

3. If you want to change a standard name, you can overwrite it in the **Name** column.

4. Other information can be added in the **Comment** text box.
This information is also evaluated in the SISTORE archive.

The **ID** is assigned automatically by the system.

Depending on the base component you have selected in the **Hardware** tab, further settings have to be made. See Section 18: SIMATRIX integration and Section 19: SISTORE CX/AX/MX integration.

6.1.4 Configuring outputs

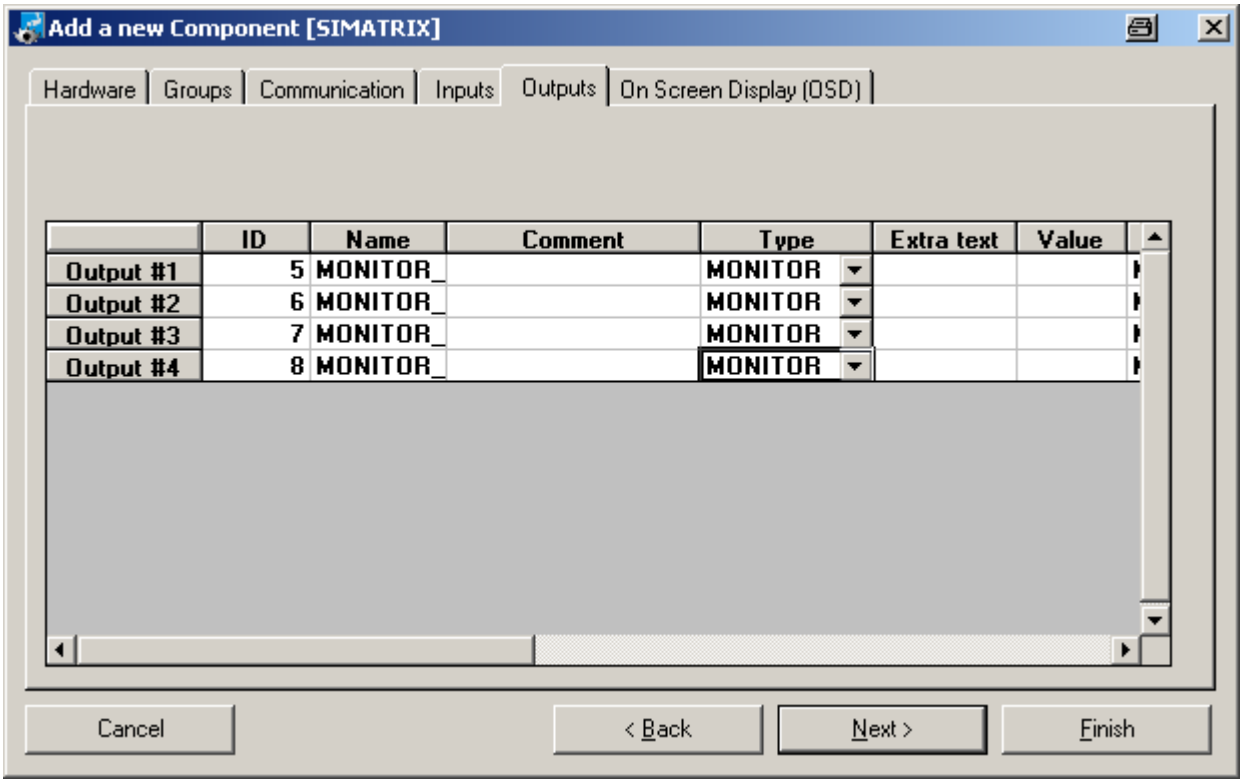


Fig. 42 Edit component properties – Outputs

Possible types of output are:

- none
- Connection
- Monitor
- VCR
- Video server

During configuration attention should be paid to a uniform naming scheme, since this contributes to clear organization of the system.

Connection is also possible to the inputs of other devices: Select “connection” and a dialog box will open automatically, allowing the device and the device input to be selected.

Connection to inputs on the same device is not possible.

The icons for display on the workstation can be configured to control the individual states of the devices connected to the outputs.

The outputs in the IVM Client are represented by the icons contained in the tables Icon Standard, Icon Displayed, Icon Record, Icon Failure und Icon Alarm. If no other icons are entered, the IVM Client will use the default icons.

To select an icon click on the ... button in the corresponding row (see Fig. 42).

The following window opens:

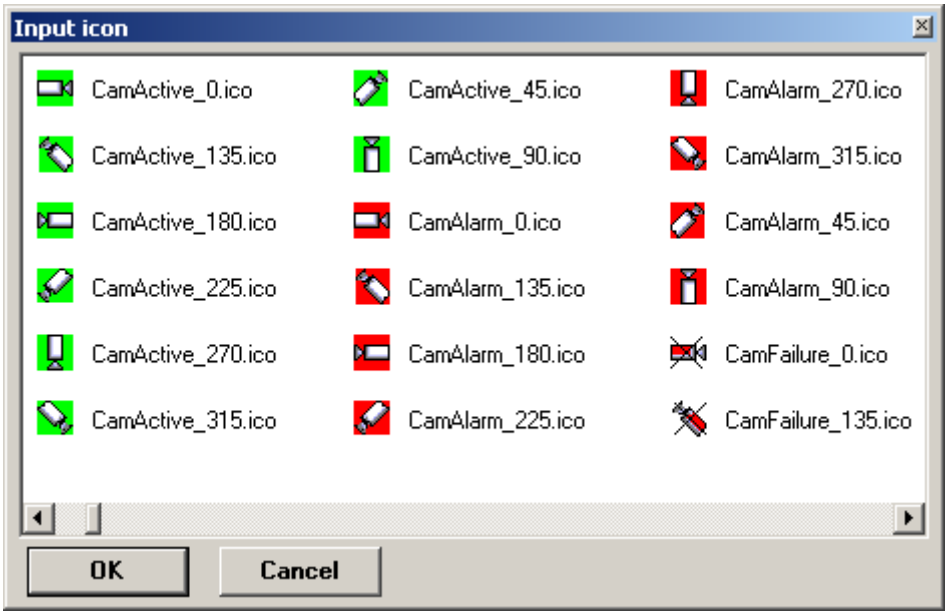


Fig. 43 Input icon

6.1.5 On-screen display (OSD)

In the current version, the on-screen display (OSD) is only supported for the components **VKS** and **OTN Network**.

Using the transport device it is possible to display text strings and functions in the video image.

The following text strings can be configured:

- relatively static text such as camera name, location etc.
- text during alarm display, i.e. “Alarm”.
- function texts such as “left”, “right” (camera control).
- any other messages.

Edit OSD template

1. Select **OTN Network** in the **Hardware** tab. See Section 6.1: Add a new component.
2. Activate the check box **OSD**.
3. Select the **On-Screen Display (OSD)** tab.

➔ The following dialog box opens:

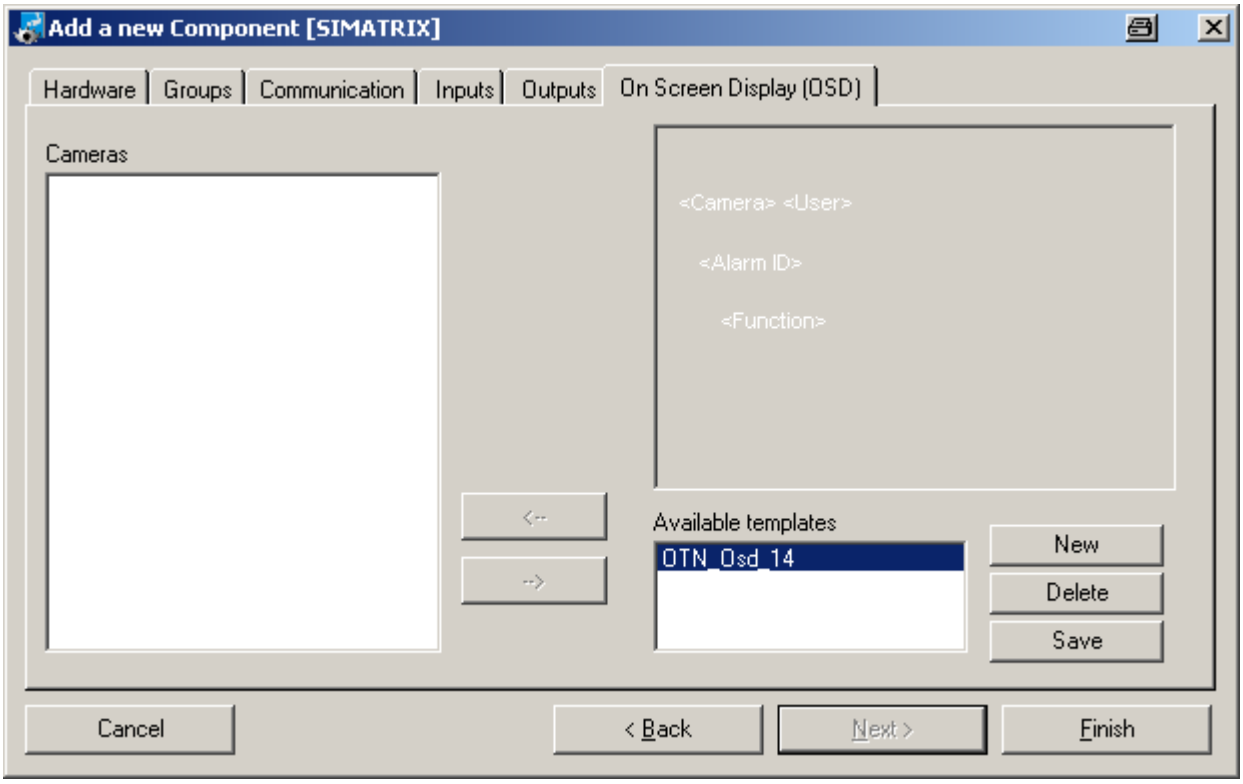


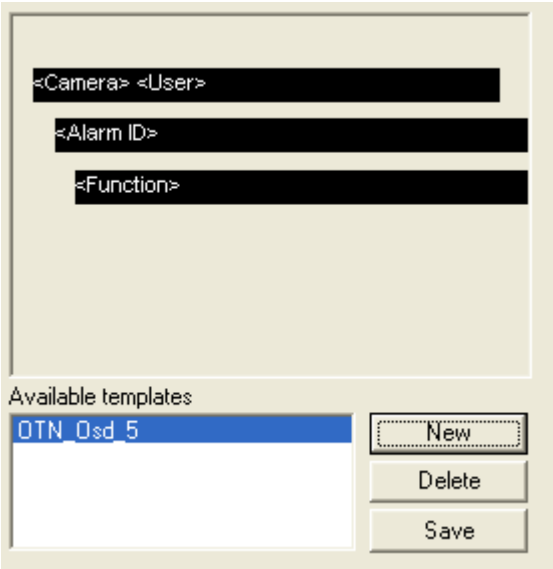
Fig. 44 OSD editor

New OSD templates can be created or deleted using the commands **New**, **Delete** and **Save**.

OSD text display is reserved exclusively for staff from SIEMENS Karlsruhe.

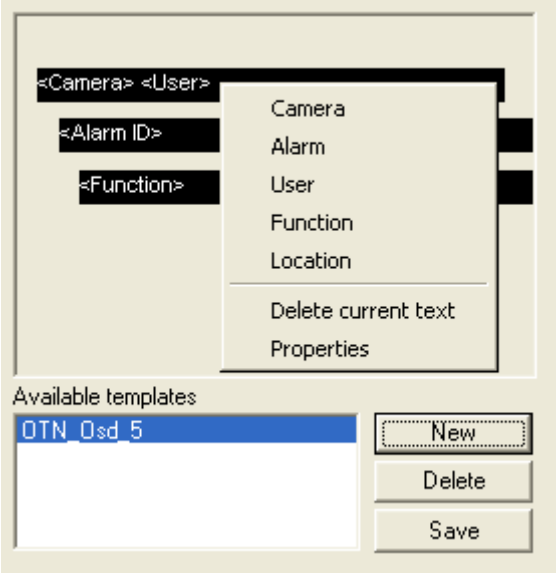
4. Select an available OSD template or create a new one.

➔ The OSD template is opened:



5. Right-click on the desired text field.

➔ The following context menu opens:



Text properties

Select **Properties** in the context menu.

The following dialog box opens:

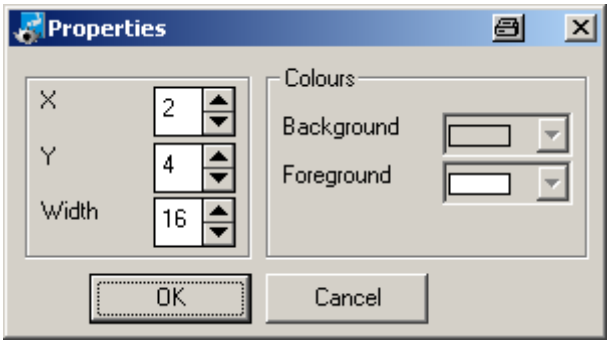


Fig. 45 Text properties

Here you can select the position of the text, its width, as well as the background and foreground colours.

Deleting text

Select **Delete current text** in the context menu.

Adding text

Select the appropriate item in the context menu (**Camera, Alarm, User, Function** or **Location**):

The text entered is only displayed if the text width is wide enough!

Positioning the text

If the text needs to be repositioned select the text at the top left-hand corner with the left mouse button. Hold down the left mouse button to move the text. The x/y coordinates of the current position of the text are displayed in the status bar.

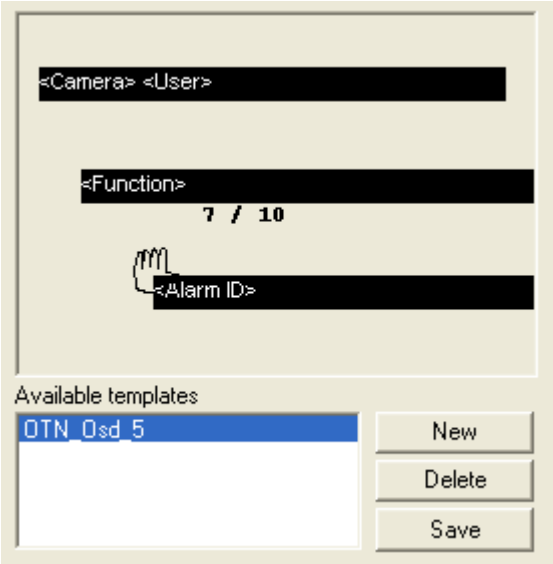


Fig. 46 Positioning the text

The position of the various text strings is defined by the top-left corner and can be positioned anywhere. The software does not check whether the text is completely within the display area of the monitor or whether various text strings overlap.

Assigning an OSD template to a camera

Prerequisites:

At least 1 input must be selected in the **Inputs** list in the **Hardware** tab.

The cameras can now be assigned in the **Inputs** tab.

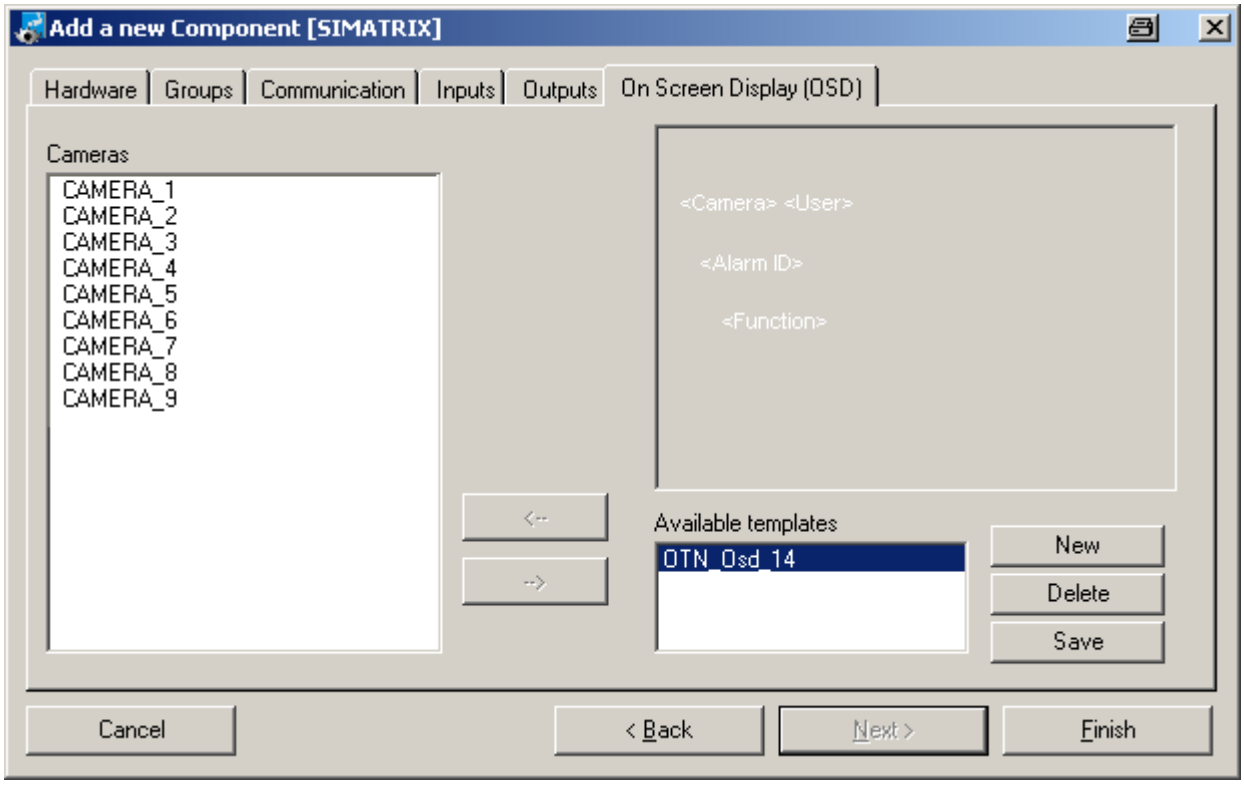


Fig. 47 Edit component properties - On Screen Display (OSD)

Here you can assign the OSD templates to the individual cameras.

➔ All predefined OSD templates are displayed in the list box (bottom right).

1. For a template to be assigned the camera must first be selected.
You can select areas using the **Shift** and **Ctrl** keys.

2. The template is assigned to, or removed from, the camera using the **arrow buttons**.

<--	Assign OSD template
-->	Remove template

3. Click **OK**.

➔ The settings will be saved.

6.2 Edit component properties

1. Select the component you wish to edit.
2. Click the button **Edit component**.
   ➔ The following dialog box opens:

The appearance of the screen and the tabs displayed (see Fig. 48) depends on the selected base components.

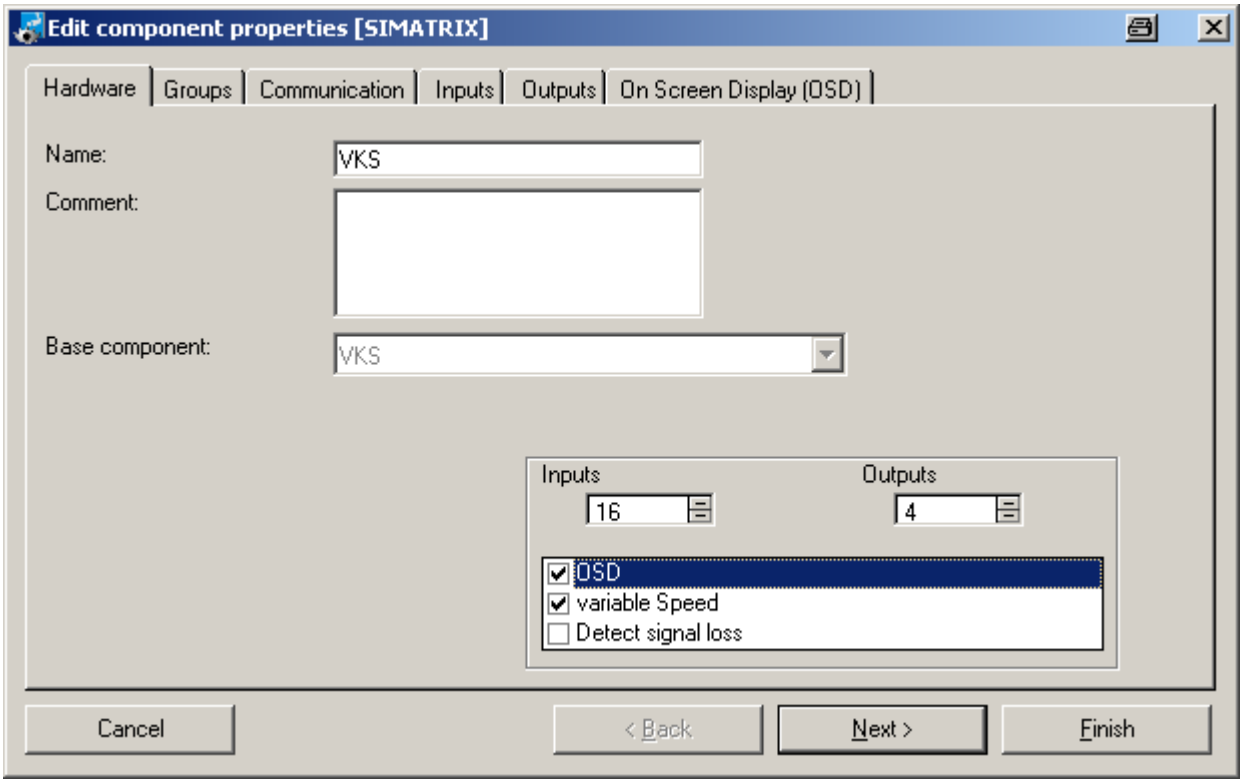


Fig. 48 Edit component properties

3. Configure the new component.

Component	Configuration of the component
I/O Server	See Section 20.2: Adding and configuring an I/O Server.
OTN Network	See Section 6.1: Add a new component and Section 6.1.5: On-screen display (OSD).
VKS	See Section 18.1: Adding and configuring SIMATRIX.
SISTORE AX	See Section 19.3.2 SISTORE AX configuration.
SISTORE MX	See Section 19.4.3: Configuring SISTORE MX.
SISTORE CX	See Section 19.2.3: SISTORE CX configuration.
Visiowave Network	See Section 6.1: Add a new component.

6.3 Delete a component

The data for a component can be deleted completely using the button **Delete component**. Deletion commences only after user confirmation.

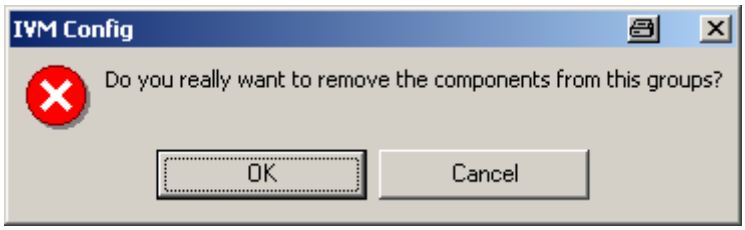


Fig. 49 Delete a component

7 Server configuration

7.1 Configuring ports

Please make sure to assign the interfaces only once. For instance, an interface that is assigned to IVM Terminal Config cannot be used for other applications within the IVM.

Select **Ports** in the **Server configuration** menu.

➔ The following dialog box opens:

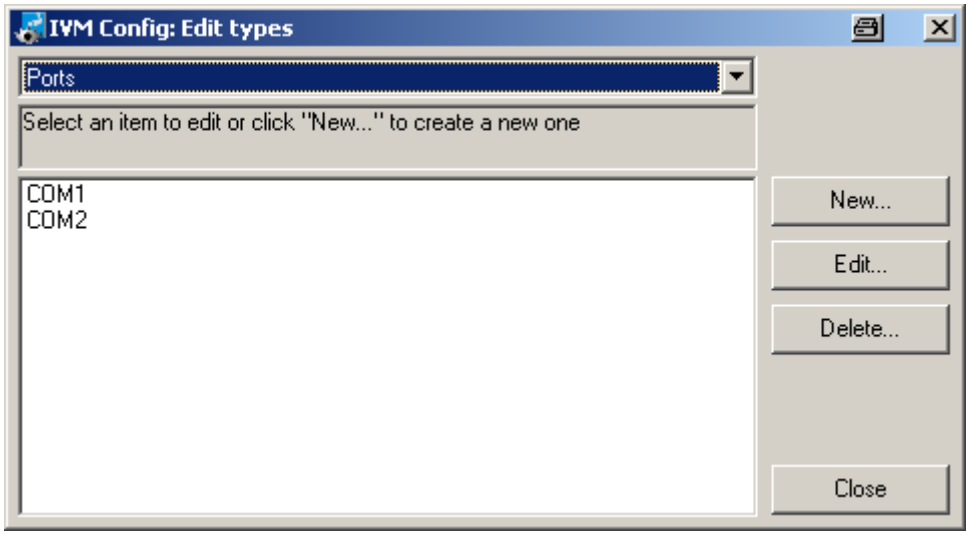


Fig. 50 Configuring ports

New RS232 serial ports can be added, edited or deleted in this dialog box.

Adding a new port

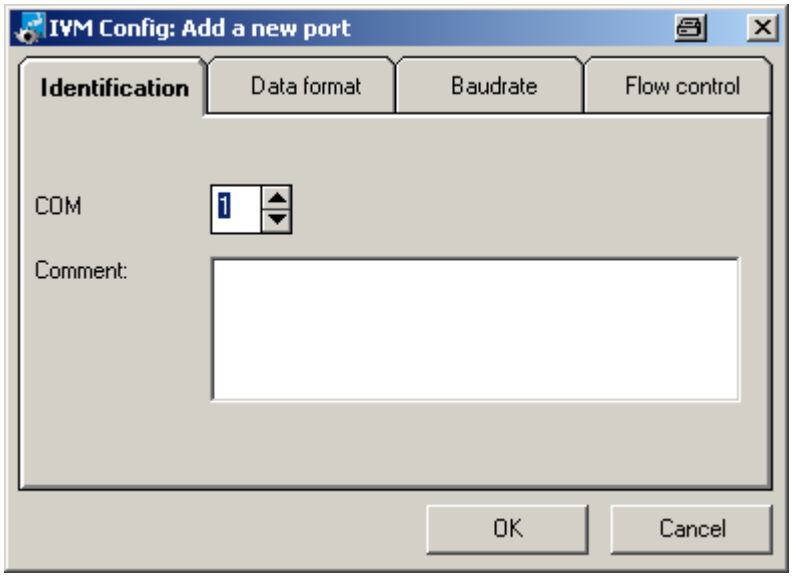


Fig. 51 Edit port properties – Identification

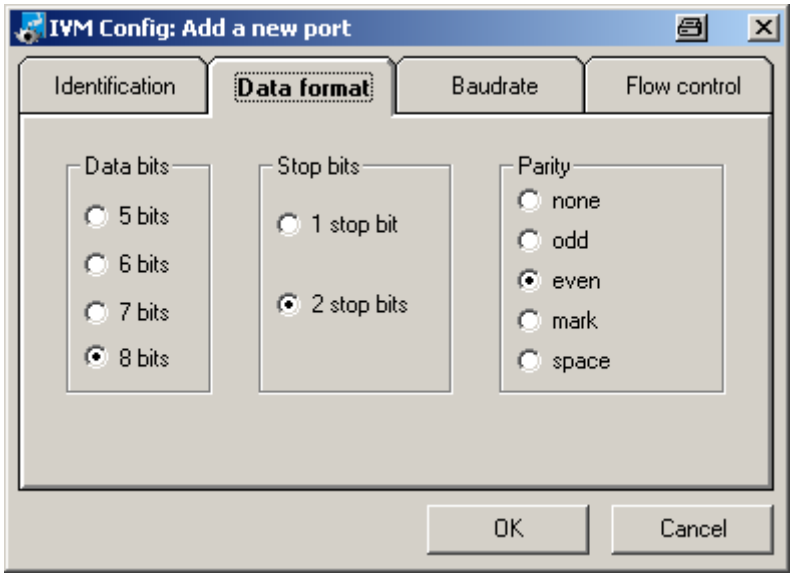


Fig. 52 Edit port properties – Data format

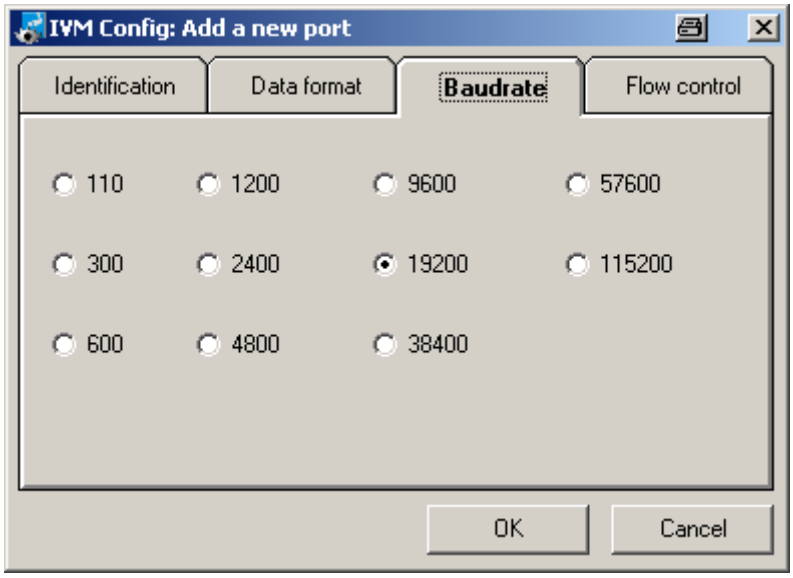


Fig. 53 Edit port properties – Baud rate

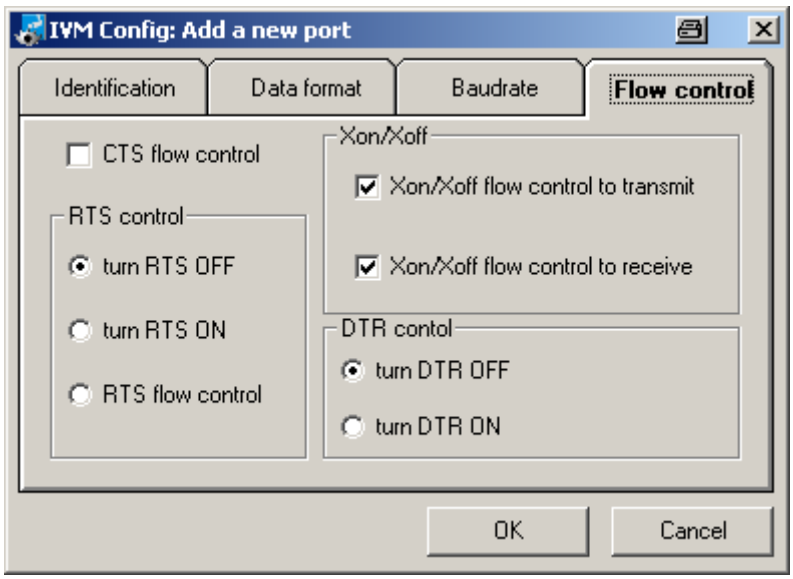


Fig. 54 Edit port properties – Flow control

The port properties can be defined in the various tabs. The default settings are the SIMATRIX164 / 648 / SYS properties.

7.2 Add server to the list

The server list only needs to be maintained for redundant systems.

1. Select the menu sequence **Server configuration > Server list**.

   In the list of redundant servers a **maximum of 2 servers** can be added, which will be available to provide redundancy. To do this, you must be assigned the appropriate rights. For more information, see Section 8: User administration and administration of rights.

2. Click **Add**.

   ➔ A new row will be added.

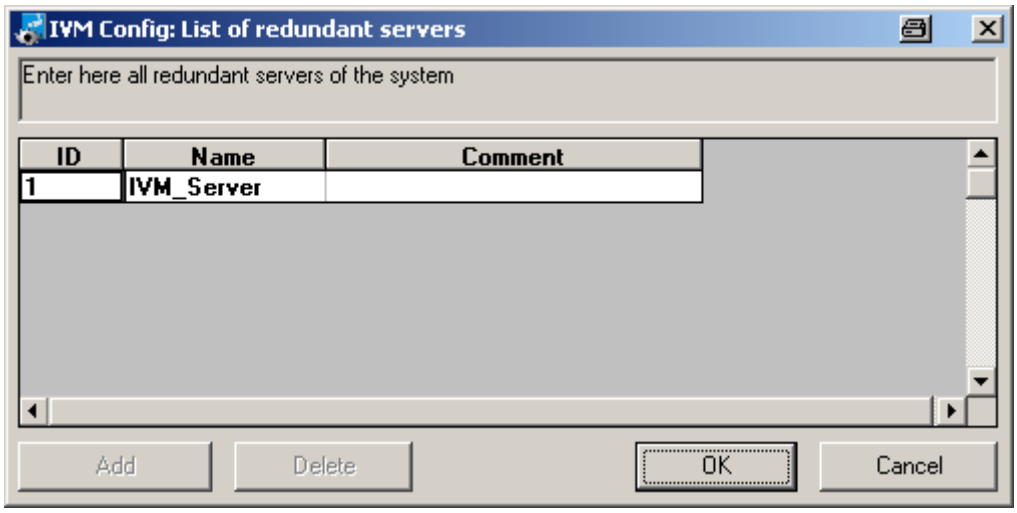


Fig. 55 List of redundant servers

3. Enter the name of the computer on which the IVM server is installed in the **Name** column.

   ➔ The server has been added to the list.

7.3 Server log settings

IMPORTANT Changes may only be made by trained service personnel.

1. Select **Server-Log settings** in the **Server configuration** menu.
   ➔ The following dialog box opens:

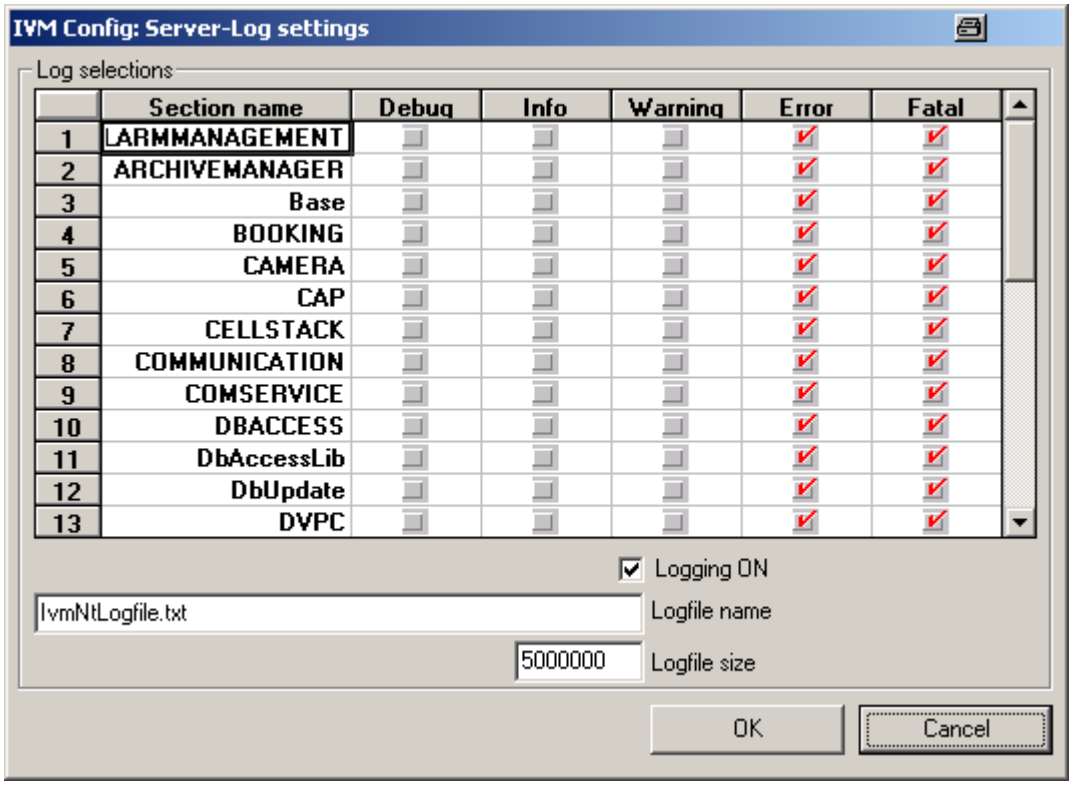


Fig. 56 Server-Log settings

2. Select the functions which are to be logged in the log file.

   Depending on the malfunction, the corresponding log level, i.e. Debug, Info, Warning, Error or Fatal, can be selected.

8 User administration and administration of rights

The users granted access to the system need to be configured. A number of different areas can be configured: Login, Function rights, SISTORE rights, Cameras and Output devices.

In a network of systems with SISTORE SX/CX, a user must be registered to the system with the same password for all devices. Otherwise communication problems may result.

1. Select **Users…** in the **System configuration** menu.

➔ The following dialog box opens:

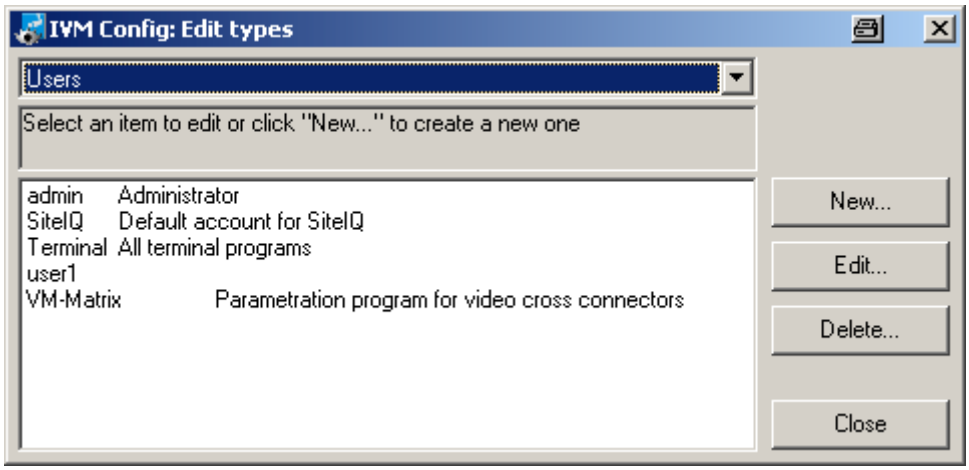


Fig. 57 Edit types

Button	Description
New	Create a new user. See Section 8.1: Create a new user.
Edit	Edit user properties. See Section 8.2: Edit user properties.
Delete	Delete a user.
Close	Close dialog.

8.1 Create a new user

1. Click **New**.

➔ The following dialog box opens:

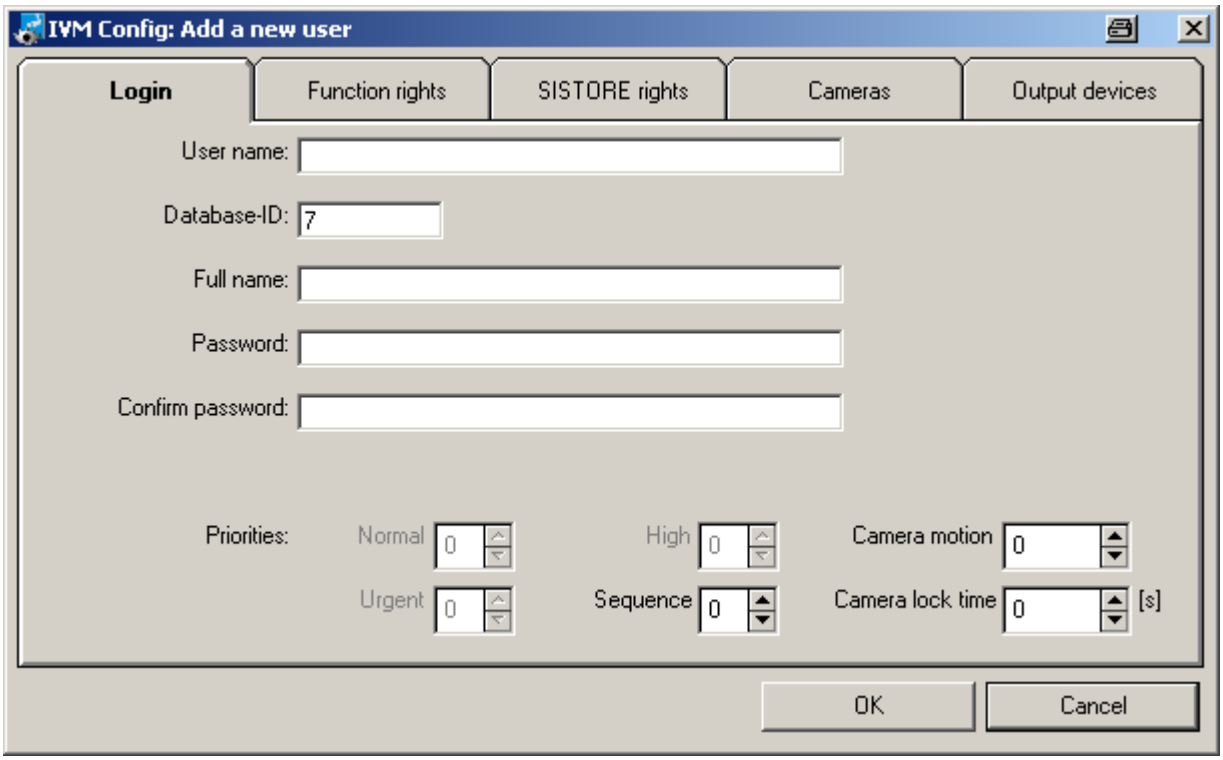


Fig. 58 Edit user properties [admin] – Login

Login	See Section 8.2: Edit user properties.
Function rights	See Section 8.3: Assigning function rights.
SISTORE rights	See Section 8.4: Assigning SISTORE user rights.
Cameras	See Section 8.5: Assigning user rights for cameras.
Output devices	See Section 8.6: Assigning user rights for output devices.

8.2 Edit user properties

1. Make the following entries in the dialog box (see Fig. 58):

User name	User name is the login name for the user.
Database ID	The user is identified by the **Database ID**.
Full name	Provides additional information on the user.
Password	The **Password** is required for user login.
Priorities	User priorities are divided into: ● Normal ● High ● Urgent Sequence The priorities affect the video connections between cascading video matrix switchers. The **Priorities** are evaluated when a selection is made by the user. To avoid conflicts between different users, it is possible to set priorities for various functions. In general this should only be done for large systems and should be carried out by qualified personnel.
Camera motion **Camera lock time**	**Camera control** To avoid conflicts between different users, who may want to control the same camera the priorities, the “Camera motion” and “Camera lock time” priorities can be used. When a user completes a control operation such as panning, the camera remains locked for the specified lock time, hence cannot therefore be controlled by another user. A user with higher camera priority is able to interrupt the camera lock time.

Selection priorities

For cascading transport devices there are generally fewer communication inputs than signal sources available. If the user wants to display another camera and there are no more communication inputs available, then existing lower priority displays are deleted.

The default setting is **Normal** priority for individual selections and **Sequence** for sequences. In critical situations it is possible for a user to select the priority **High** or **Urgent** to ensure that the selection is successful. More information can be found in the IVM Client User Manual.

8.3 Assigning function rights

You can assign function rights to the IVM Client user.

Prerequisite:

You have opened the **Add a new user** or the **Edit user properties** dialog box. See Section 8.1: Create a new user.

1. Select the **Function rights** tab.

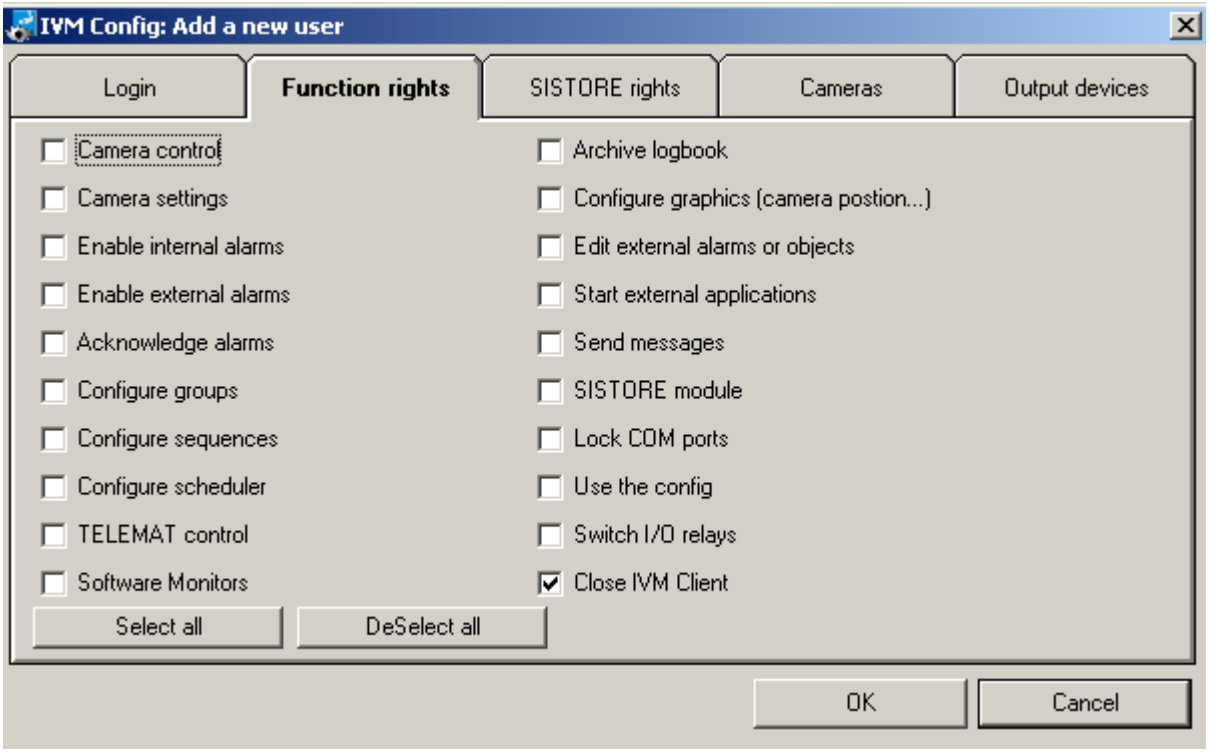


Fig. 59 Edit user properties [admin] – Function rights

2. Select the function rights to be assigned to the user.
The individual meanings of the functions are:

Camera control	Camera pan/tilt Zoom in / Zoom out Focus far / Focus near Pan camera to a predefined position
Camera settings	Electrical/Mechanical selection Save camera position Switch AGC on/off Select between B/W and colour Special configurations for K505 and CCBx
Enable internal alarms	Enable/disable internal alarms Internal alarms are reported by components within the IVM system.
Enable external alarms	Enable/disable external alarms Activate/deactivate external alarms External alarms are reported to the IVM system by autonomous external systems (e.g. Topsys, WinCC) via the IVM API interface.
Acknowledge alarm	Acknowledge alarms
Configure groups	Define/edit/delete a group
Configure sequences	Define/edit/delete a sequence

Configure scheduler	Define/edit/delete a scheduler entries
Software Monitors	Define a software monitor. See Section 16: Configuration of the Software Monitor.
Archive logbook	Save the logbook Warning of possible logbook overflow
Configure graphics (camera position...)	Right in the IVM Client
Edit external alarms or objects	Right in the IVM Client that allows the user to edit external alarms or objects.
Start external applications	Start external programs either directly on the server or via the server on any client
Send messages	Send messages to other users
SISTORE module	Reserved for future versions
Lock COM ports	Lock or open a serial port on the server (used for the SIMATRIX configuration program)
Configure server	Use the IVM Config
Switch I/O relays	Right to switch the I/O relays.
Close IVM Client	Close the IVM Client.

3. Click **OK**.

8.4 Assigning SISTORE user rights

An IVM Client user can be assigned rights for SISTORE devices.

Prerequisite:

You have opened the **Add a new user** or the **Edit user properties** dialog box. See Section 8.1: Create a new user.

1. Select the **SISTORE rights** tab.

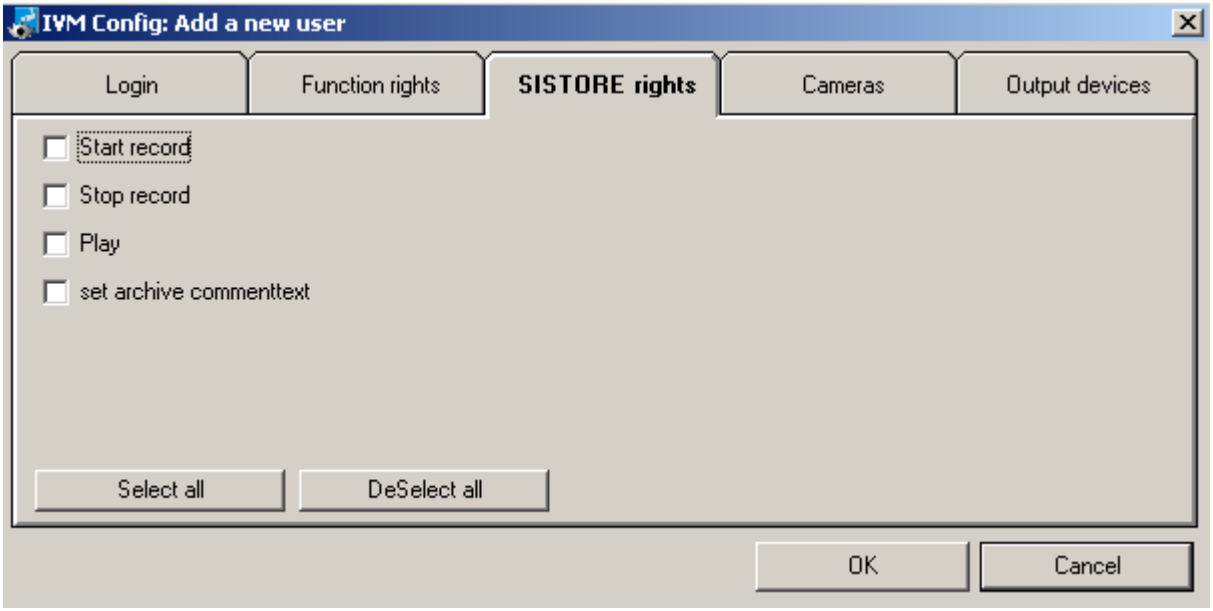


Fig. 60 Edit user properties [admin] – SISTORE rights

2. Select the rights to be assigned to the user.

You can assign the following rights:

Rights	Description
Start record	The user is assigned the right to start recordings.
Stop record	The user is assigned the right to stop recordings.
Playback	The user is assigned the right to play back recordings.
Set archive comment text	The user is assigned the right to add comments to a SISTORE archive entry.

3. Click **OK**.

8.5 Assigning user rights for cameras

The user is granted access to the cameras on the system to which he is supposed to have access.

Prerequisite:

You have opened the **Add a new user** or the **Edit user properties** dialog box. See Section 8.1: Create a new user.

1. Select the **Cameras** tab.

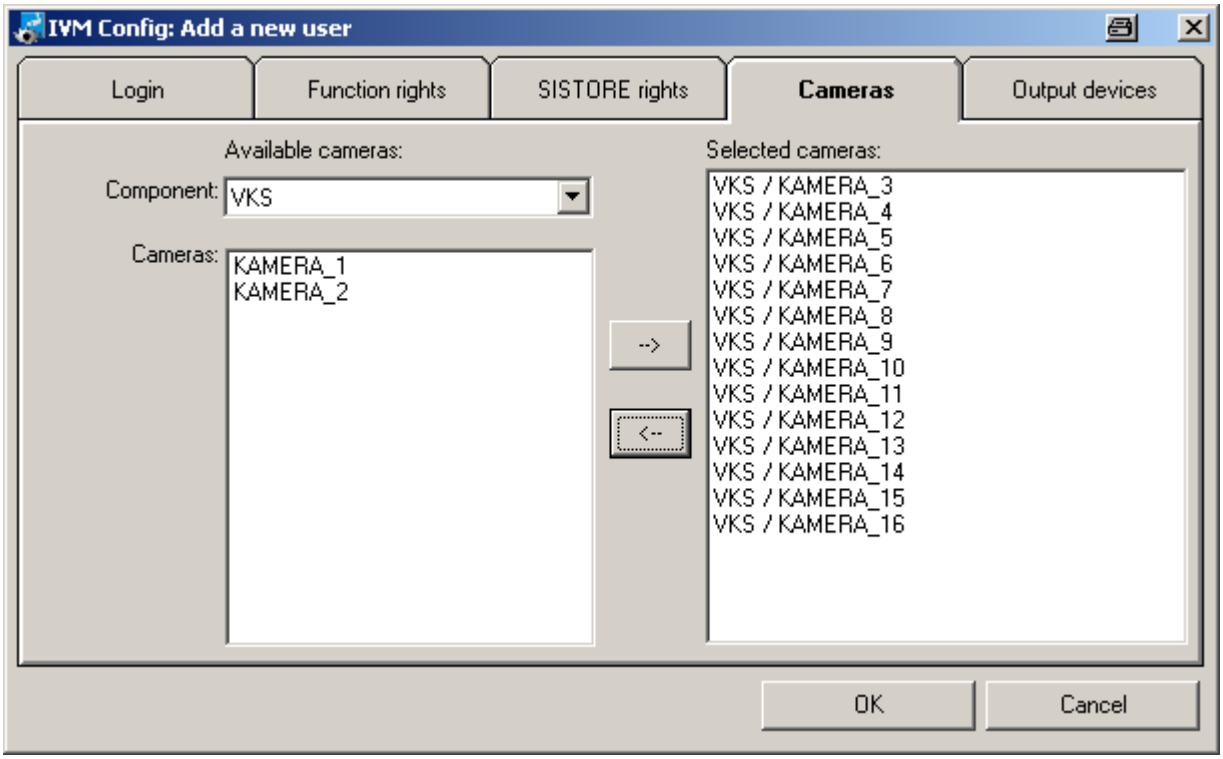


Fig. 61 Edit user properties [admin] – Cameras

2. Select a camera in the **Cameras** list.

3. Assign the selected camera to the user either using the arrow buttons or by double-clicking on the camera.

➔ The cameras assigned to the user are listed in the **Selected cameras** list box.

➔ Following the planning configuration, the cameras appear on the station plans in the IVM Client application.

8.6 Assigning user rights for output devices

The user is granted access to the output devices (i.e. monitors) on the system to which he is supposed to have access.

Prerequisite:

You have opened the **Add a new user** or the **Edit user properties** dialog box. See Section 8.1: Create a new user.

1. Select the **Output devices** tab.

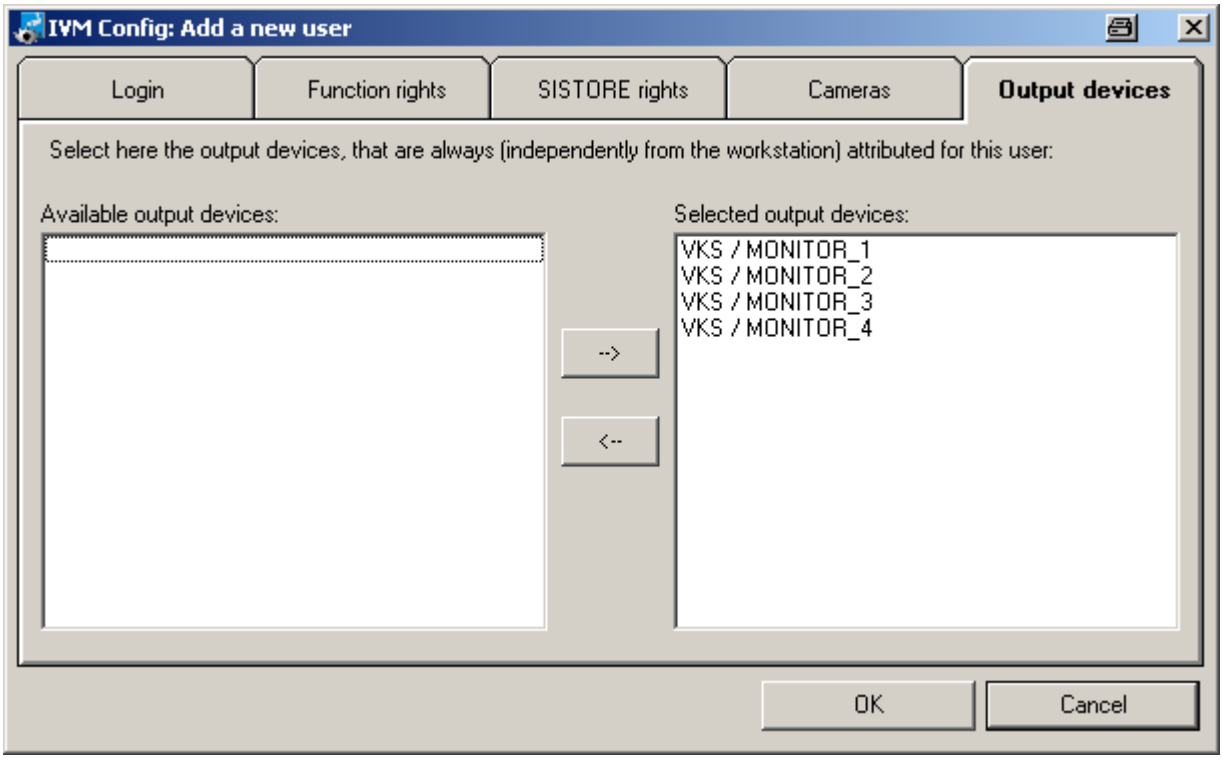


Fig. 62 Edit user properties [admin] – Output devices

➔ The cameras assigned to the user are listed in the **Selected output devices** list.

2. Assign the selected devices to the user either using the arrow buttons or by double-clicking on the device.

➔ The output devices assigned to the user are listed in the **Available output devices** list. The selected output devices are shown in the IVM Client.

8.7 Edit user properties

1. Select the menu sequence **System configuration > Users...**

➔ The following dialog box opens:

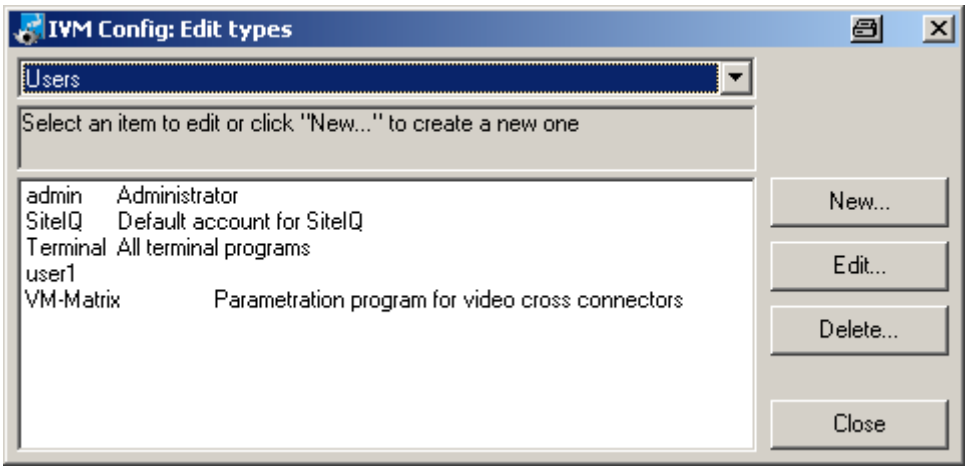


Fig. 63 Edit types

2. Select the user you wish to edit.
3. Click **Edit**.

➔ The following dialog box opens:

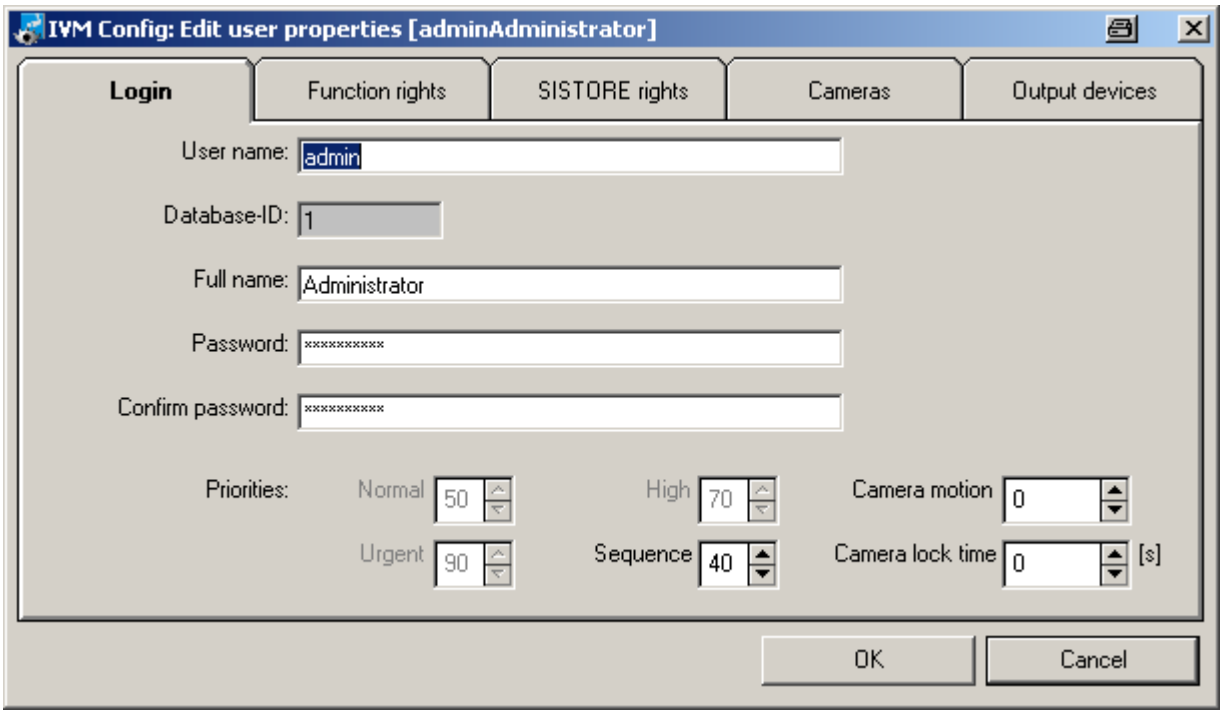


Fig. 64 Edit user properties [admin] – Login

4. Configure the following settings in this dialog box:

Login	See Section 8.2: Edit user properties.
Function rights	See Section 8.3: Assigning function rights.
SISTORE rights	See Section 8.4: Assigning SISTORE user rights.
Cameras	See Section 8.5: Assigning user rights for cameras.
Output devices	See Section 8.6: Assigning user rights for output devices.

9 Workstations

For each new Client a workstation needs to be configured.

1. Select the menu sequence **System configuration > Workstations**.

➔ The following dialog box opens:

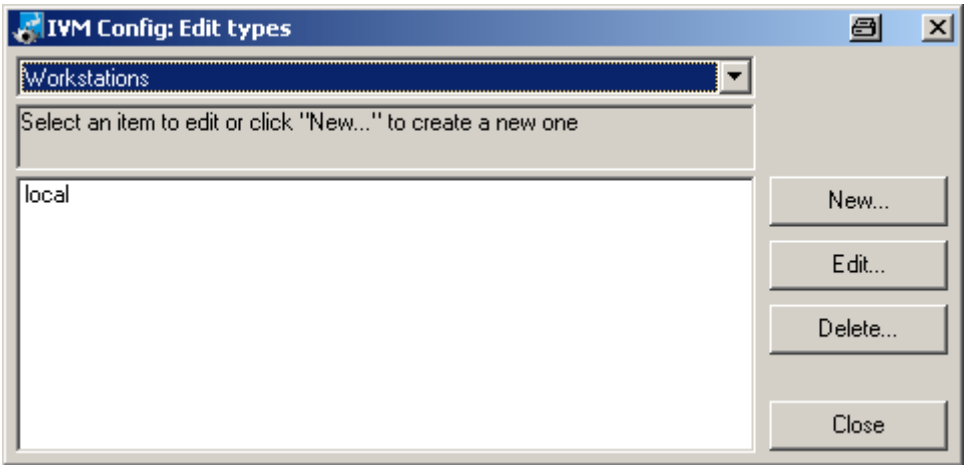


Fig. 65 Edit types – Workstations

Additional workstations can be added, edited or deleted in this dialog box.

Button	Description
New	Create a new workstation. See Section 9.1: Add a new workstation.
Edit	Edit a workstation. See Section 9.4: Edit workstation properties.
Delete	Delete a workstation.
Close	Close dialog.

9.1 Add a new workstation

1. Click **New**.

➔ The following dialog box opens:

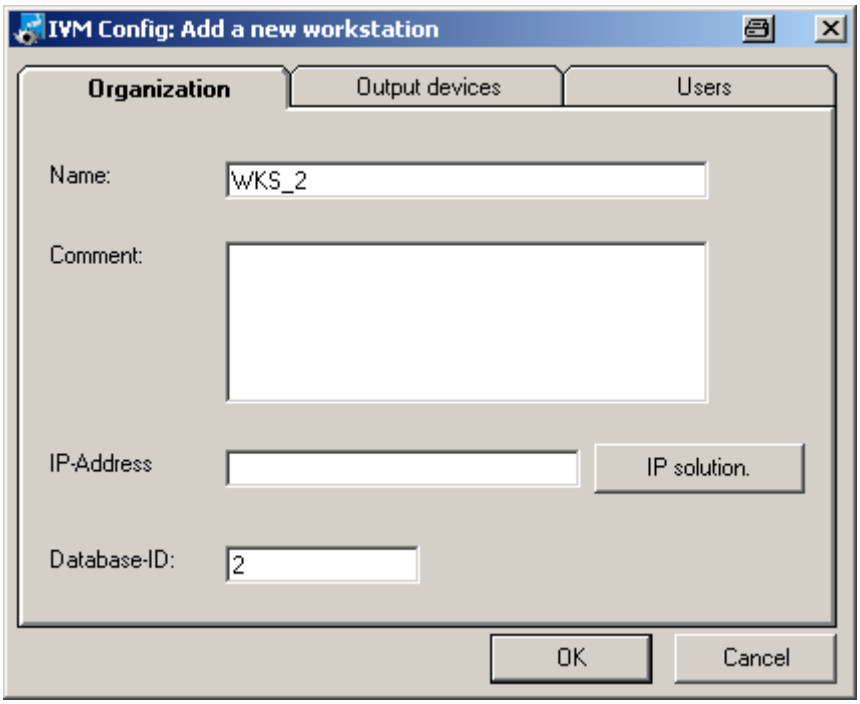


Fig. 66 Add a new workstation (local) - Organization

2. Enter the **Name** of the workstation, a **Comment**, and the **Host name**.

Output devices	See Section 8.3: Assigning function rights.
User	See Section 8.4: Assigning SISTORE user rights.

9.2 Assigning output devices

Here output devices are assigned to workstations. The selection of the output, individual and group components, as well as the sequence, are critical for the Alarm Management. See Section 7: Server configuration.

Prerequisite:

You have opened either the **Add a new workstation** or the **Edit workstation properties** dialog. See Section 9.1: Add a new workstation.

1. Select the **Output devices** tab.

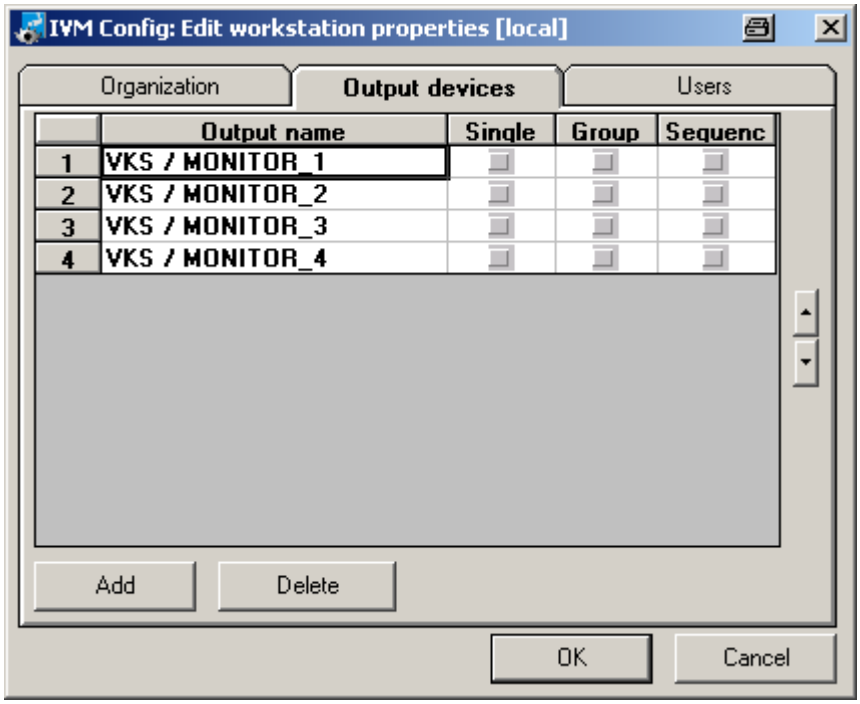


Fig. 67 Edit workstation properties [local] – Output devices

2. Click **Add**.

➔ The following dialog box opens:

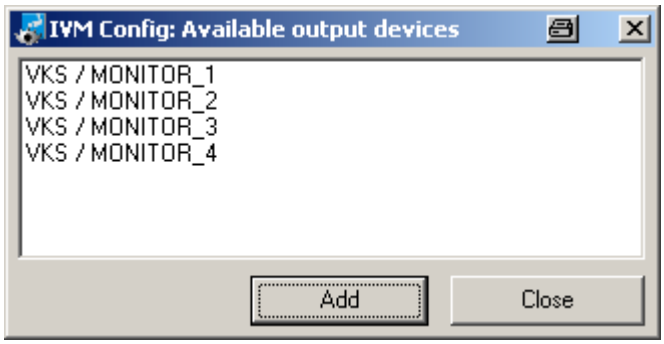


Fig. 68 Available output devices

3. Select the available output devices.

This assignment is required for the alarm management.

Where the server displays individual outputs is defined using the check box (individual alarm intrusion, alarm groups and alarm sequences), i.e. on which output the alarm intrusion can also be acknowledged eventually.

9.3 Assigning user rights for workstations

For a user to be able to log in to the workstation that user needs to be assigned to that workstation.

Here workstations are assigned to the users who are intended to use/operate them.

Prerequisite:

You have opened either the **Add a new workstation** or the **Edit workstation properties** dialog. See Section 9.1: Add a new workstation.

1. Select the **Users** tab.

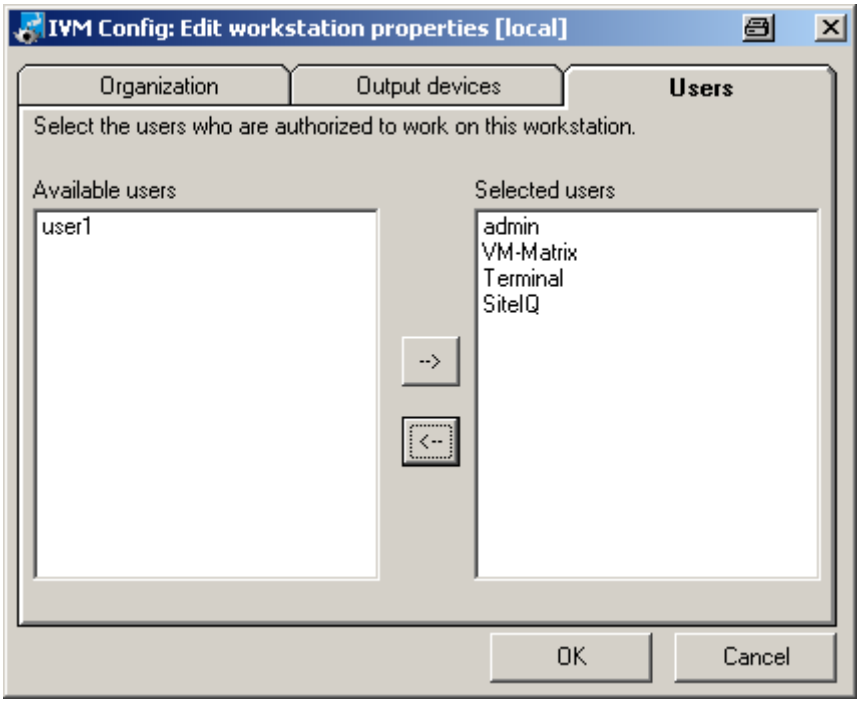


Fig. 69 Edit workstation properties [local] – Users

2. Select the user you wish to assign rights for the workstation from the **Available users** list box.

3. Assign the selected workstation to the user either using the arrow buttons or by double-clicking on the workstation.

➔ The users assigned to the workstation are displayed in the **Selected users** list box.

9.4 Edit workstation properties

1. Select the menu sequence **System configuration > Workstations**.

➔ The following dialog box opens:

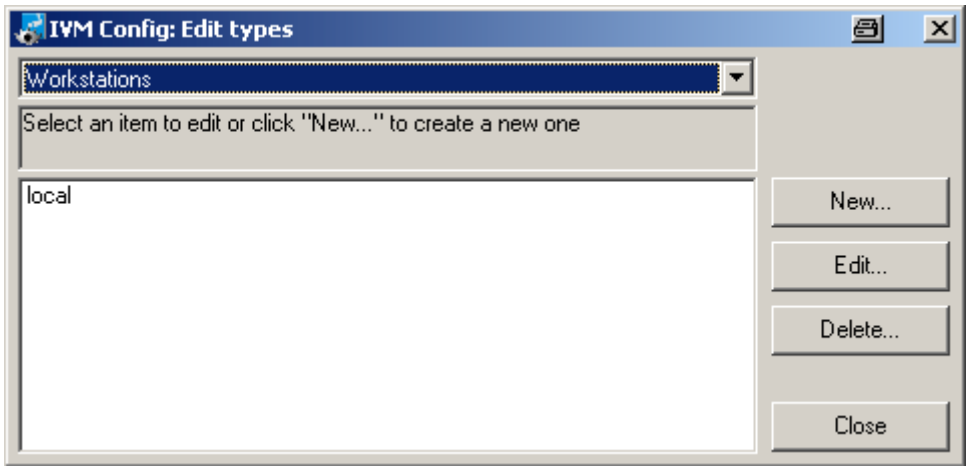


Fig. 70 Edit types – Workstations

2. To edit a workstation, click on **Edit**.

➔ The following dialog box opens:

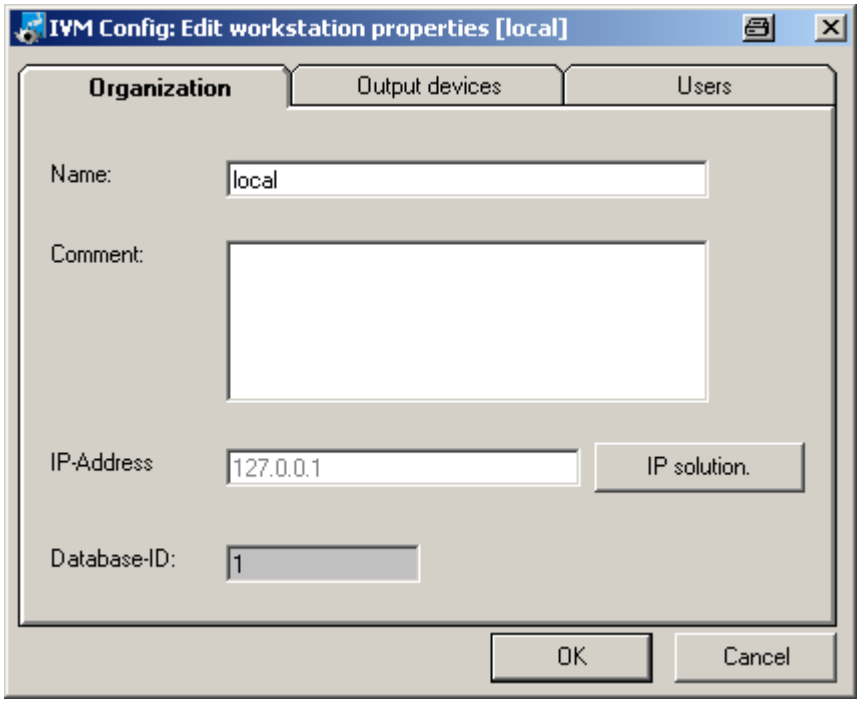


Fig. 71 Edit workstation properties [local] – Organization

3. Enter the following in this dialog box:

Organization	Here you can change the workstation data. See Section 9.1: Add a new workstation.
Output devices	Here you can assign output devices. See Section 9.2: Assigning output devices.
User	Here you can assign user rights for workstations. See Section 9.3: Assigning user rights for workstations.

4. Click **OK**.

10 Alarm group configuration

Multiple cameras, and one alarm, can be displayed simultaneously using the alarm groups. The alarm groups created are subsequently integrated into the commands.

Select the menu sequence **System configuration > Alarm groups**.

➔ The following dialog box opens:

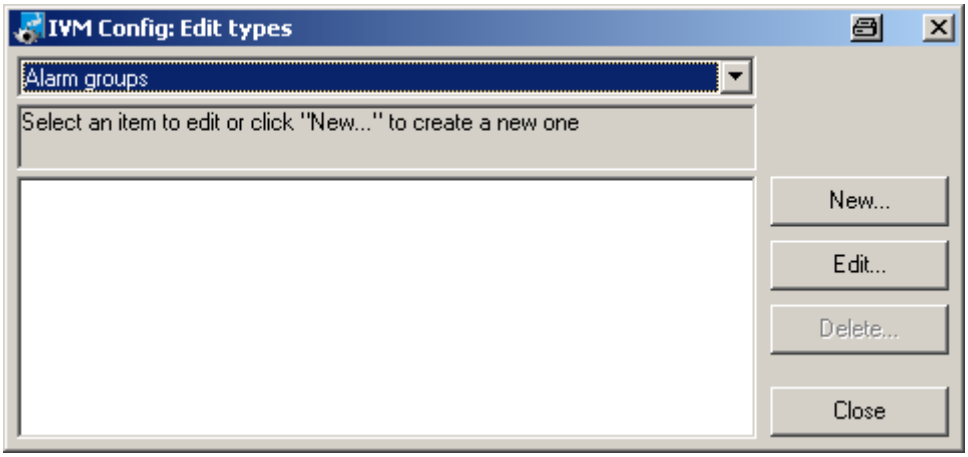


Fig. 72 Edit types – Alarm groups

Additional alarm groups can be added, edited or deleted in this dialog box.

10.1 Alarm group organization

Here the organizational entries for the name and a descriptive comment for alarm groups can be entered.

The alarm is referenced using the Database ID.

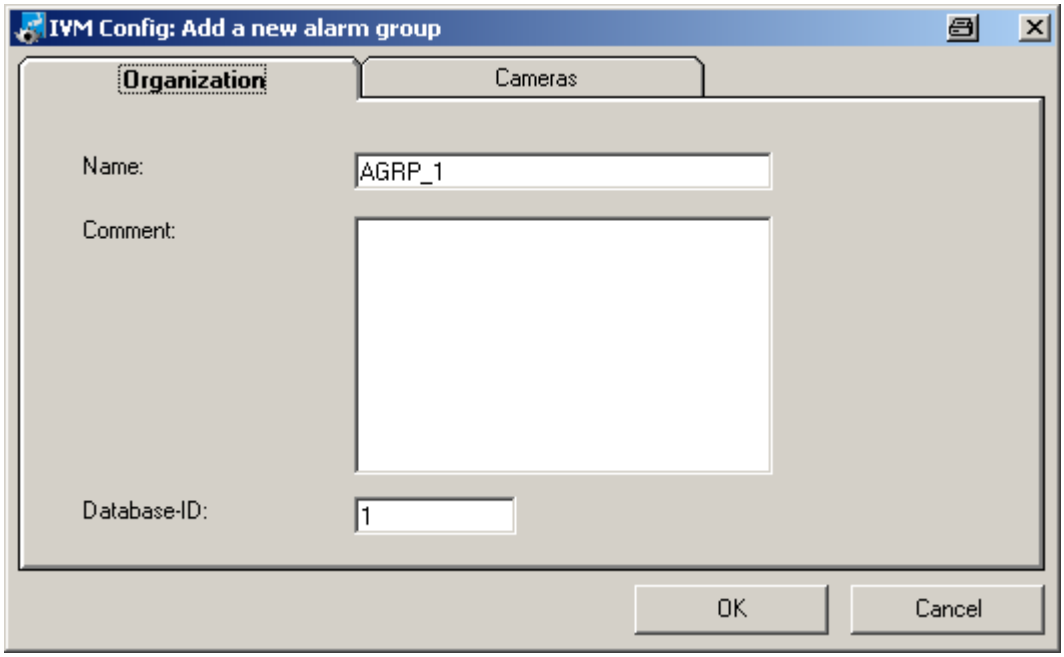


Fig. 73 Edit alarm group properties

10.2 Alarm group cameras

An alarm group can have one or several cameras assigned to it, which are to be displayed in the event of activation.

Using the arrow keys (or by double clicking on a group), selected cameras can be moved between the list boxes for “Available cameras” and “Selected cameras”.

The selected cameras are listed in the list box on the right.

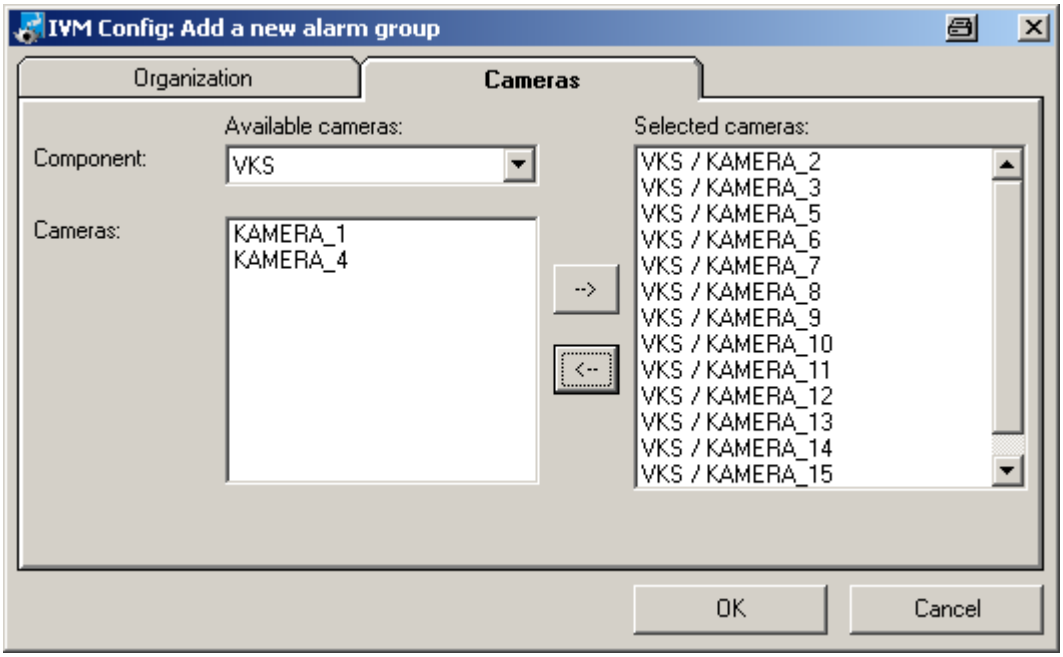


Fig. 74 Edit alarm group properties [AGRP_1] - Cameras

11 Alarm sequence configuration

Configuration of the alarm sequences is split into two sections:

- Organization. See Section 11.1: Adding alarm sequences.
- Sequence items. See Section 11.2: Adding cameras to alarm sequences.

1. Select the menu sequence System configuration **>** Alarm sequences.

➔ The following dialog box opens:

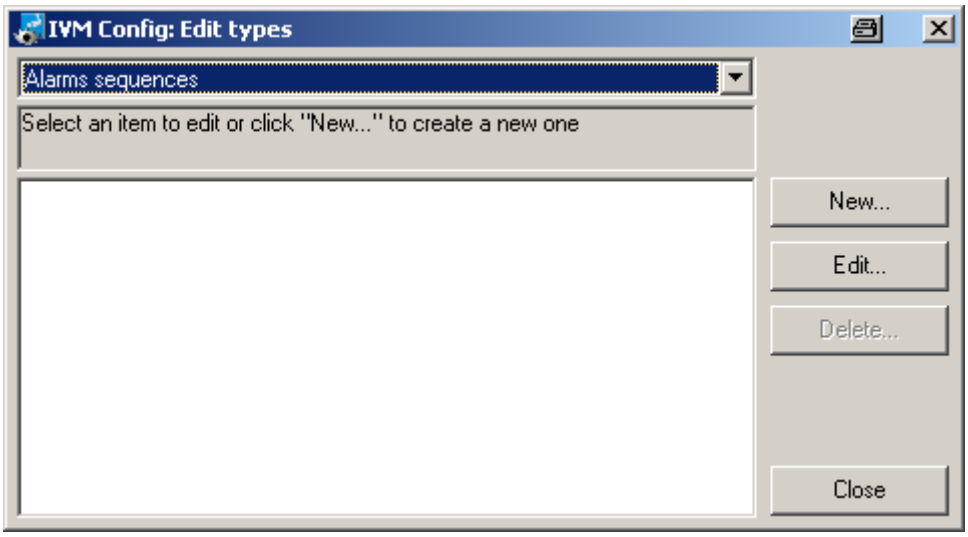


Fig. 75 Edit types

New	Add a new alarm sequence.
Edit	Edit alarm sequences.
Delete	Delete alarm sequences.

You can define whether a sequence which is interrupted by another alarm should be restarted. The alarm intrusion is made in addition to an alarm selection. It can be deleted either by single display or by acknowledging the alarm.

11.1 Adding alarm sequences

1. Clicking on **New...** allows a new sequence to be defined.

   ➔ The following dialog box opens:

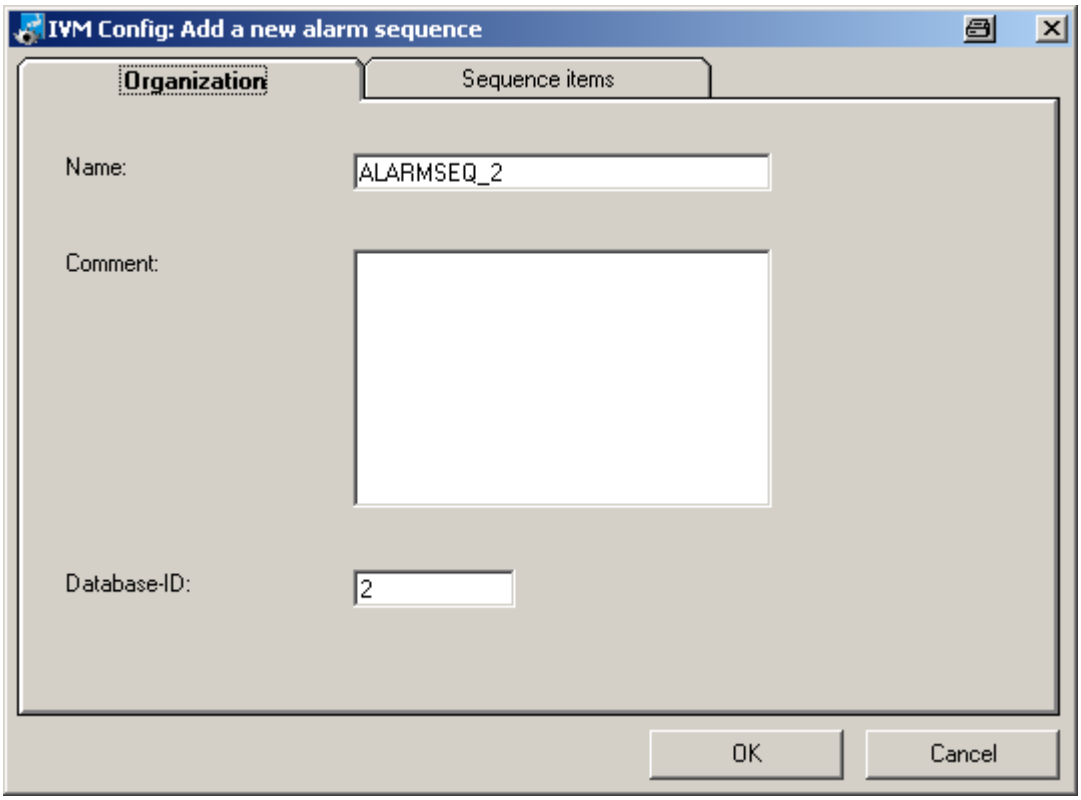


Fig. 76 Edit alarm sequence properties

2. Enter the name of the sequence, a comment, and the database ID.
3. Click **OK**.

11.2 Adding cameras to alarm sequences

1. Select the **Sequence items** tab.

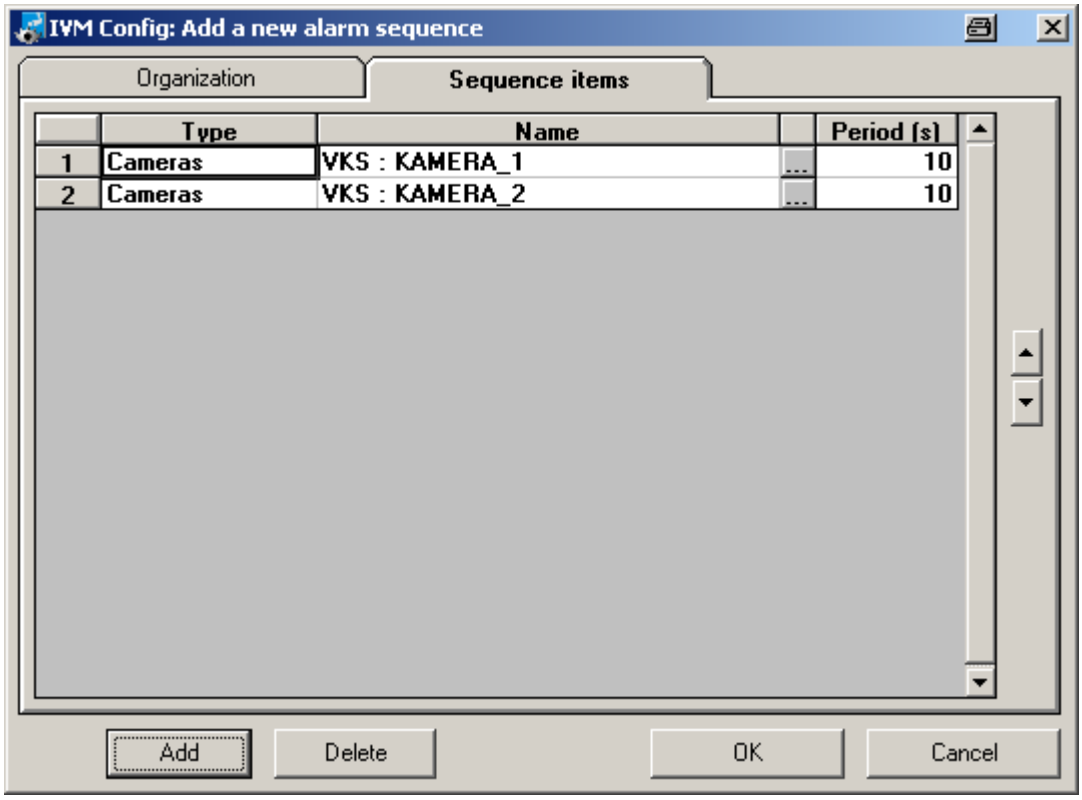


Fig. 77 Add an alarm sequence

Add	Add new sequence items.
Delete	Delete a sequence item.

2. Click **Add**.

➔ The following dialog box opens:

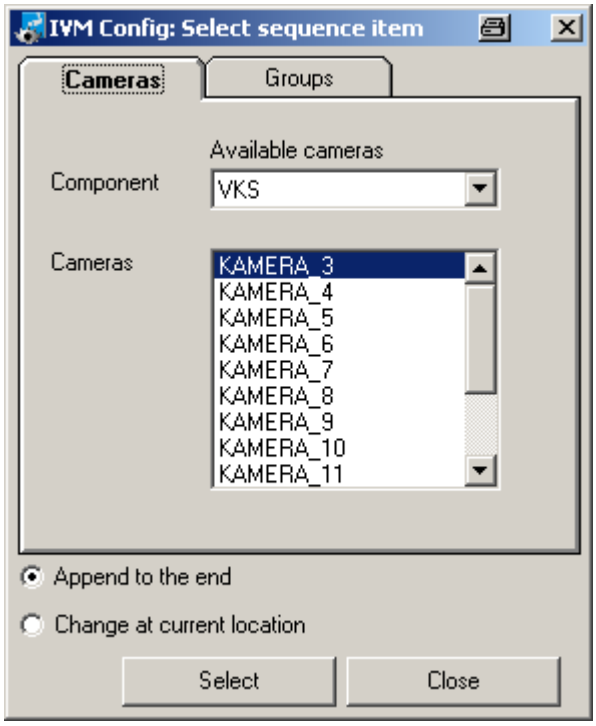


Fig. 78 Select sequence item - Cameras

3. Select the cameras to be added to the sequence.

4. Click **Select**.

➔ The cameras have been assigned to the sequence.

5. Select the **Groups** tab.

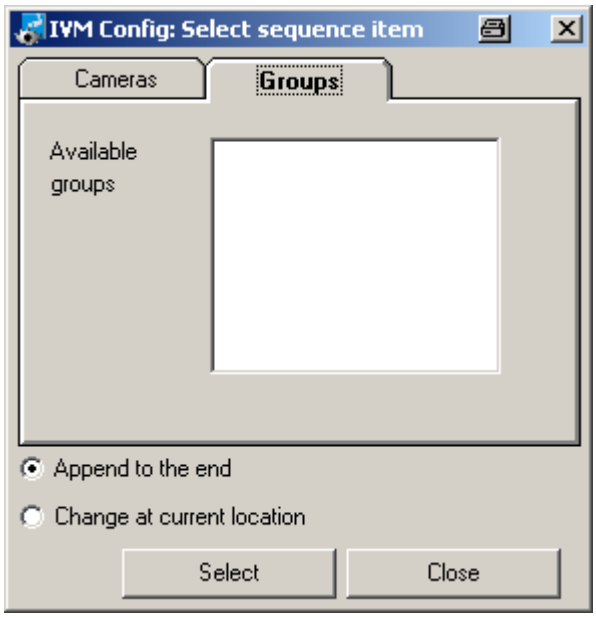


Fig. 79 Select sequence item – Groups

Here you can add groups to the sequence.

6. Click on **Close**.

7. Enter the dwell time in seconds for the camera/alarm group in the **Period (s)** list box.

12 Commands

12.1 Create a new command

The commands configured can also be used in the IVM Client and Scheduler.

1. Select the menu sequence **System configuration > Commands**.
   ➔ The following dialog box opens:

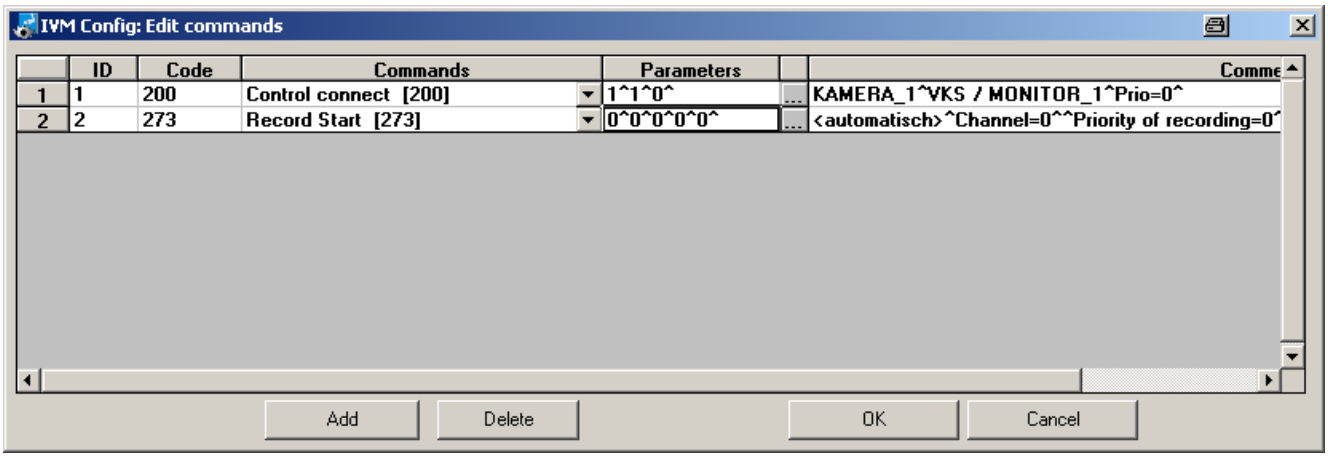


Fig. 80 Edit commands

2. Click **Add**.
3. Click on an arrow in the **Commands** column and select the appropriate command from the drop-down list.

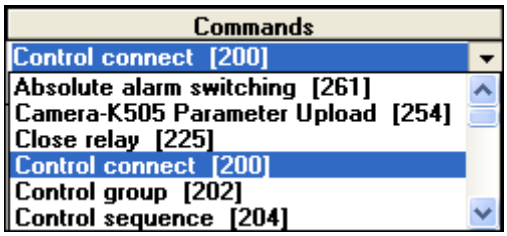


Fig. 81 Command selection

   ➔ A command ID is generated.
   ➔ The **Design VAPI command** dialog box opens. See Sections 12.2.1 to 12.2.16.
4. Configure the appropriate command. See Section 12.2: Configure commands.
5. Click **OK**.
   ➔ The command is now created.
   ➔ The command code, the parameters and the comment are generated automatically.

12.2 Configure commands

1. Select the menu sequence **System configuration > Commands**.
   ➔ The **Edit commands** dialog box opens (see Fig. 80).
2. Click the symbol [...] corresponding to the command.
   ➔ The **Design VAPI command** dialog box opens.
3. Configure the command. See Sections 12.2.1 to 12.2.16.

12.2.1 Absolute alarm switching

Using the command **Absolute alarm switching** the selected input is mapped on the selected output, independent of the operator station configuration.

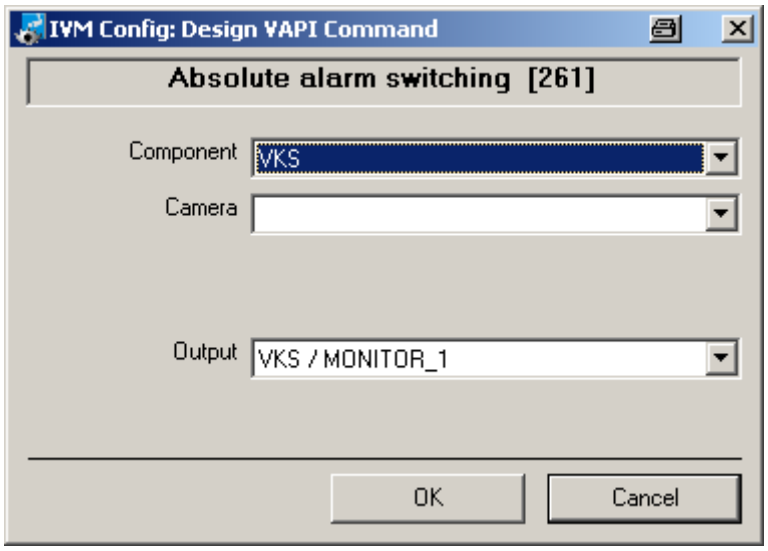


Fig. 82 Design VAPI command – Absolute alarm switching

1. Select a component.
2. Select an input in the **Camera** drop-down list.
3. Select the output on which the selected input is to be activated.

12.2.2 Set alarm status

Using the command **Set Alarm Status**, individual alarms can be activated or deactivated. This command can subsequently be administered via the scheduler.

Prerequisite:

The alarms have been defined.

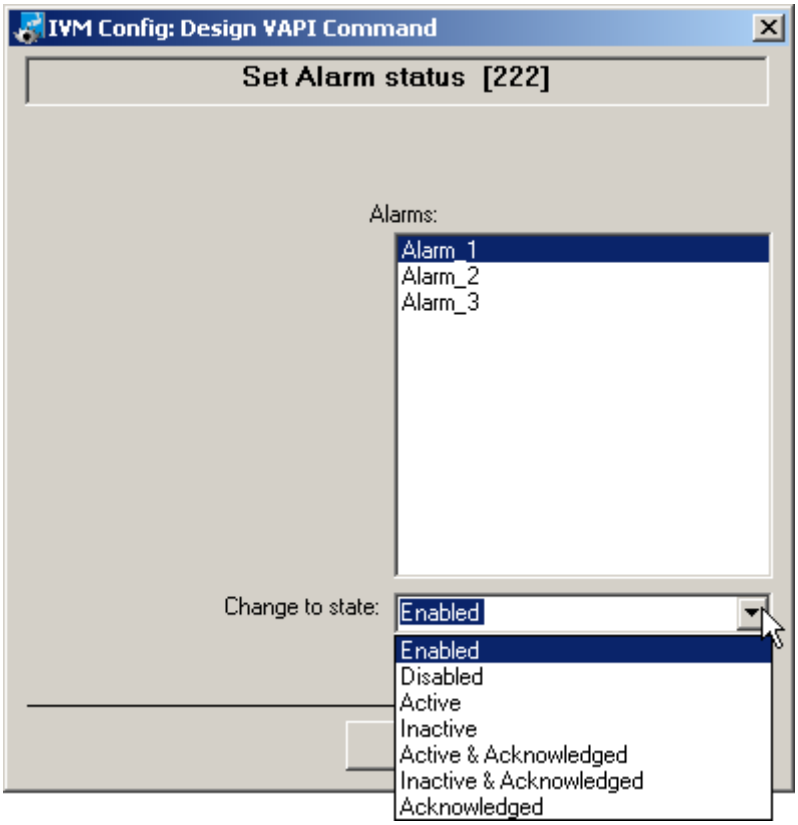


Fig. 83 Design VAPI command – Set Alarm status

1. Select the alarm for which the status is to be changed from the list.
2. Select the appropriate state in the **Change to state** drop-down list.
   You can choose from seven different states:

If the alarm type "ODR alarm" is selected, the states **Enabled** and **Disabled** have no function. This means that the CX sensor is not enabled or disabled, but only the ODR alarm message in IVM is suppressed.

Enabled	The associated alarm device is enabled and signals alarms.
Disabled	The associated alarm device is disabled and does not signal alarms.
Active	The associated alarm device is activated (e.g. for alarm simulation purposes).
Inactive	The associated alarm device is deactivated (e.g. for alarm simulation purposes).
Active & Acknowledged	An active alarm has been acknowledged.
Inactive & Acknowledged	An inactive alarm has been acknowledged.
Acknowledged	An alarm has been acknowledged; the alarm status is either "Active & Acknowledged" or "Inactive & Acknowledged“.

12.2.3 Switch alarm component

Using the command **Switch Alarm Component**, components such as a TELEMAT can be enabled/disabled, i.e. all the alarms defined for the particular device are switched simultaneously.

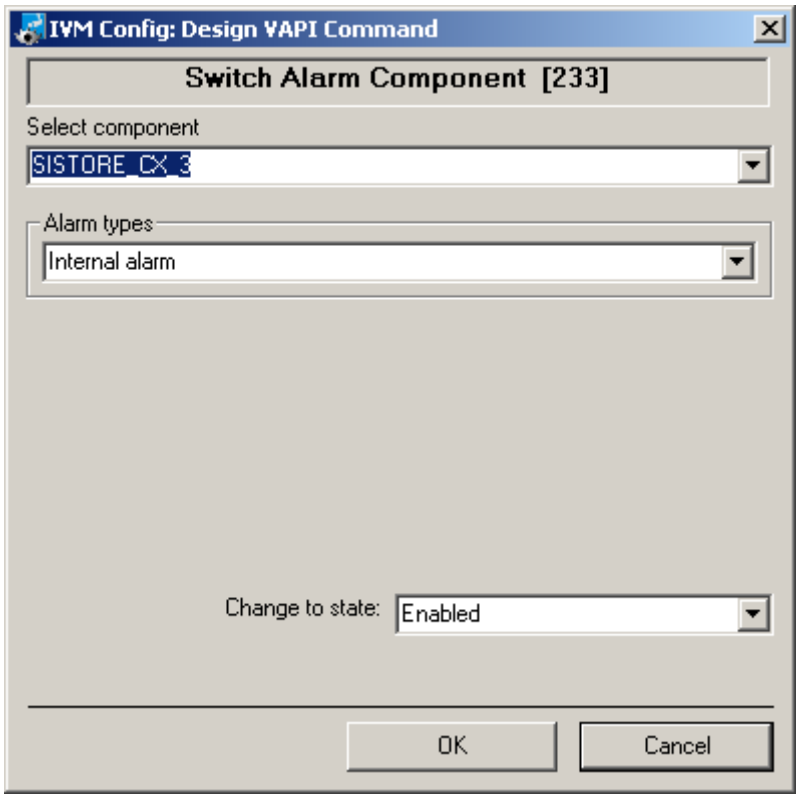


Fig. 84 Design VAPI command – Switch Alarm Component

When the alarm type "external alarm" is selected, choose "No Component". Thus all the external alarms that are defined in the system are switched.

1. In the **Select components** drop-down list, select either the desired component or select the option **-No Component-**.
2. Select the appropriate alarm type in the **Alarm types** drop-down list.
3. Select the appropriate state in the **Change to state** drop-down list.

   You can choose from seven different states:

If the alarm type "ODR alarm" is selected, the states **Enabled** and **Disabled** have no function. This means that the CX sensor is not enabled or disabled, but only the ODR alarm message in IVM is suppressed.

Enabled	The associated alarm device is enabled and signals alarms.
Disabled	The associated alarm device is disabled and does not signal alarms.
Active	The associated alarm device is activated (e.g. for alarm simulation purposes).
Inactive	The associated alarm device is deactivated (e.g. for alarm simulation purposes).
Active & Acknowledged	An active alarm has been acknowledged.
Inactive & Acknowledged	An inactive alarm has been acknowledged.
Acknowledged	An alarm has been acknowledged; the alarm status is either "Active & Acknowledged" or "Inactive & Acknowledged".

12.2.4 Record start

Compatibility

SISTORE CX	✓
SISTORE AX	✓
SISTORE MX	✓

Using this command, recording can be started on a SISTORE server.

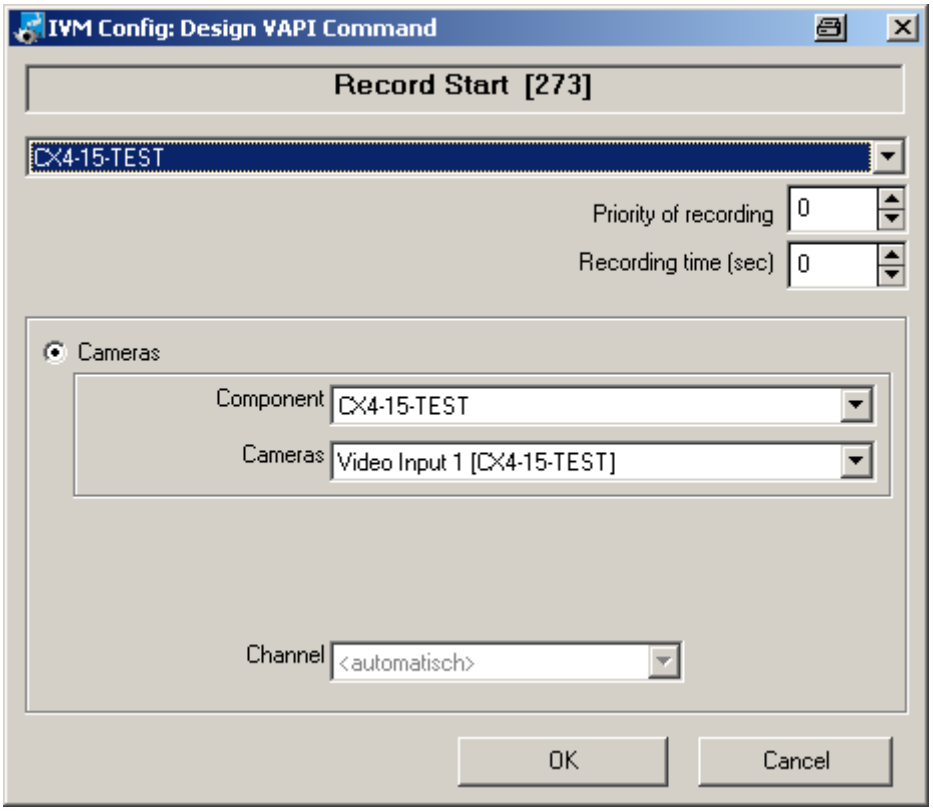


Fig. 85 Design VAPI command – Record Start

Select the configured SISTORE server in the first drop-down box. The following parameters for recording can be set:

Priority of recording	Definition of the priority
Recording time	Recording time in seconds
Cameras	If fixed channel assignment is used, the SISTORE CX Server and the cameras can be selected here. In case of <automatic> channel assignment an unassigned camera will be connected automatically (configuration behind the video matrix).

Please note Section 19.

12.2.5 Record stop

Compatibility

SISTORE CX	✓
SISTORE AX	✓
SISTORE MX	✓

Using this command a recording can be stopped on a SISTORE server.

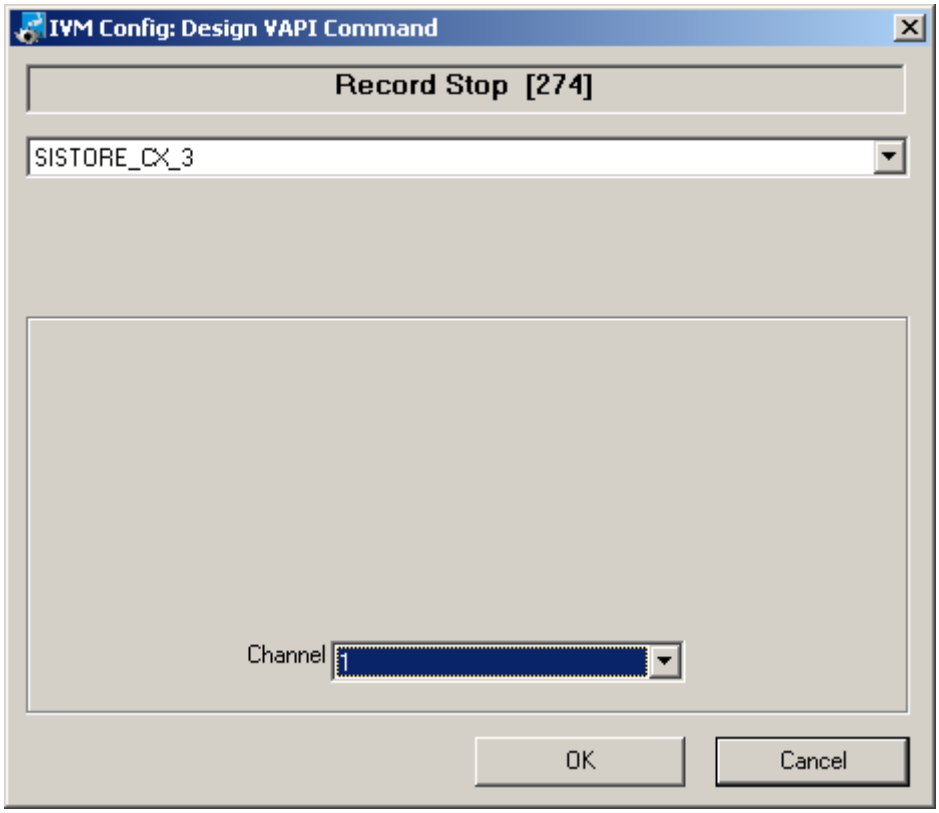


Fig. 86 Design VAPI command – Record Stop

12.2.6 User program

The command **User program** allows an external program to be executed. You can select whether the user program is to be started on the IVM server or on an IVM Client station

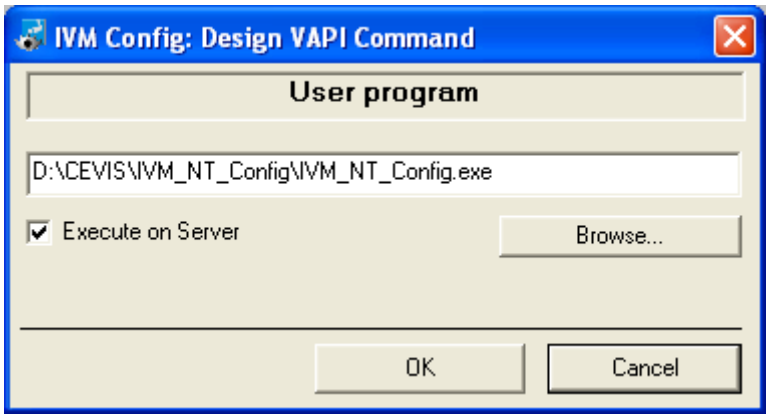


Fig. 87 Design VAPI command – User program

1. To start the program on the server, tick the checkbox **Execute on Server**.

   – OR –

   To start the program on the client PC, untick the checkbox **Execute on Server**.
2. Click **Browse...**.
3. Select the desired program.

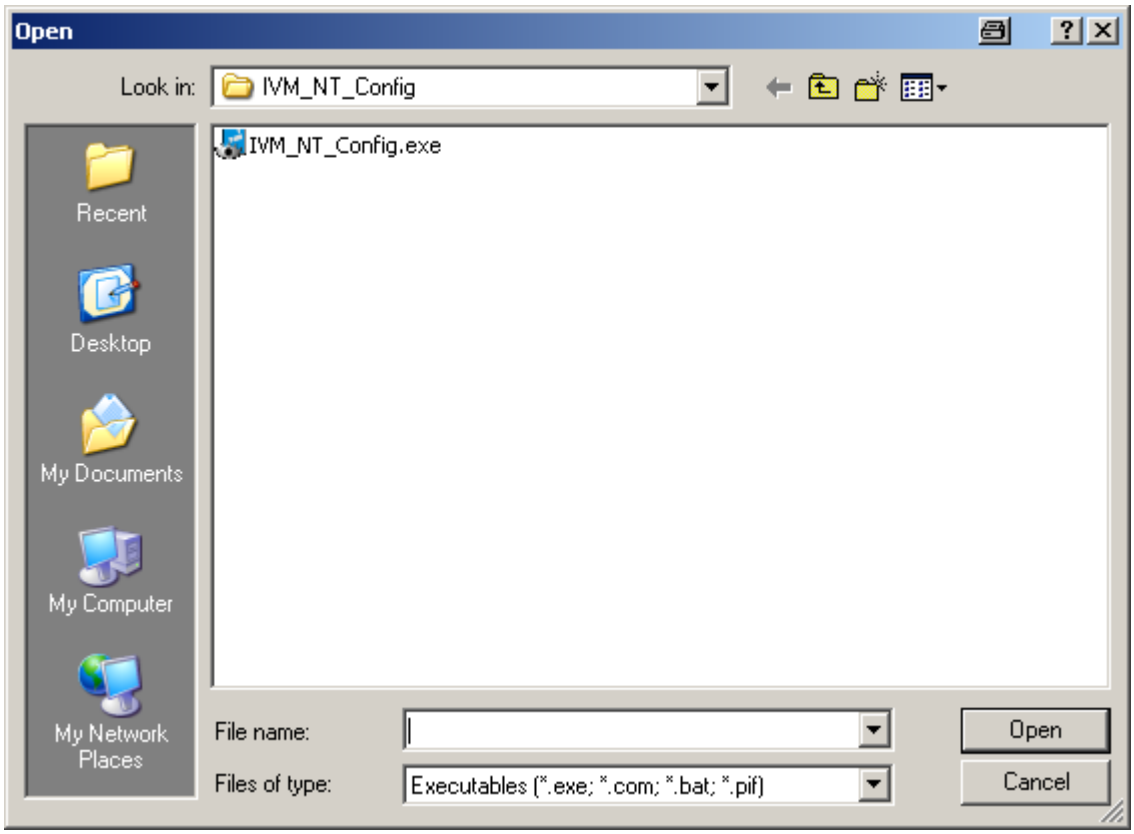


Fig. 88 "Open" dialog

If external commands are used, the situation may arise that an external program, which is started using a command, is run in the background and is not shut down correctly.

To rectify this, the option **Data transfer between services and desktop** needs to be selected in the Windows Task Manager in order to prevent this phenomenon.

Make sure not to use any blanks when entering the path name.

Play sound file

We recommend using the Windows Media Player Classic for playing sound files.

The Media Player can be started using the following parameters:

mplayer2.exe /play /close <soundfile>

To play the sound file **alarm.wav** in the directory **D:\sound** enter the following:

mplayer2.exe /play /close D:\sound\alarm.wav

The sound file **alarm.wav** will be played. The Media Player application will be closed.

12.2.7 Switching between EDS/ODR programs

The command **EDS/ODR Program switching** can be used to switch between predefined alarm programs.

Prerequisite:

EDS alarm programs have been configured in SISTORE SX/CX Config. Further information on this can be found in the SISTORE SX/CX Configuration Manual.

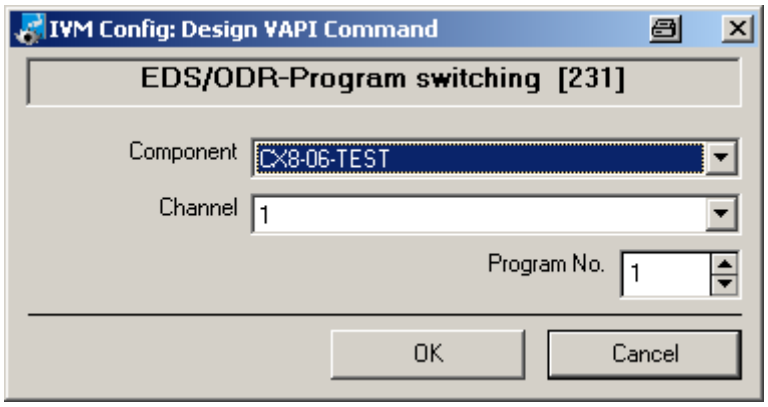


Fig. 89 Design API Command – EDS/ODR Program switching

1. Select the appropriate component.
2. Select a video input (**1** to **8**) in the **Channel** drop-down list.
3. Select the program (**1** to **4**).
4. Click **OK**.

12.2.8 Control group

The groups previously defined in the Alarm groups are available here. The entries simply need to be selected. An associated priority can be defined.

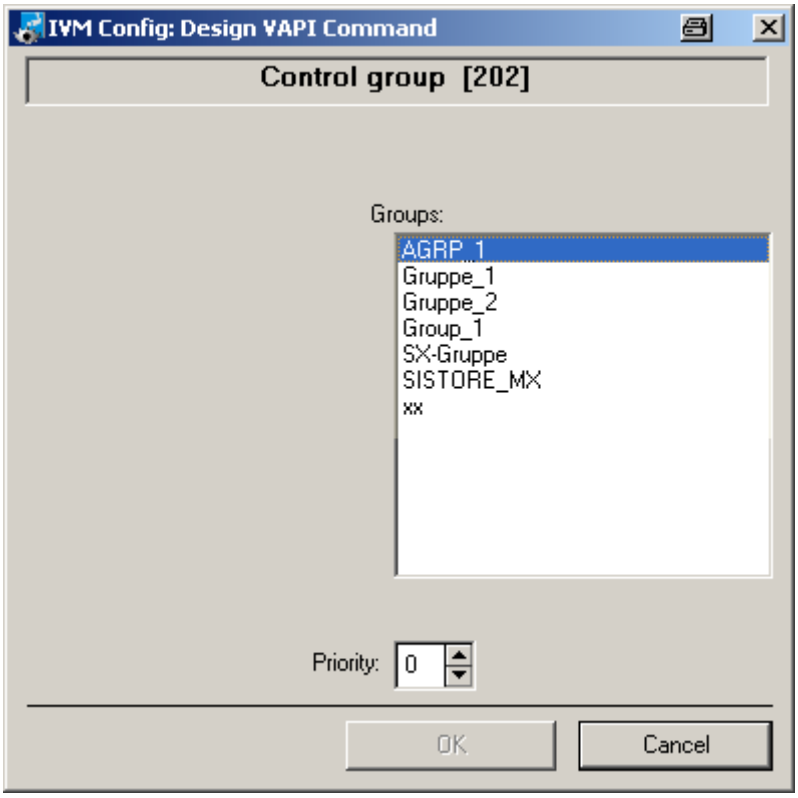


Fig. 90 Design VAPI command – Control group

12.2.9 Move camera to position

This allows selection of the video matrix (SIMATRIX, SISTORE SX/CX) camera which is to be moved to a previously saved position.

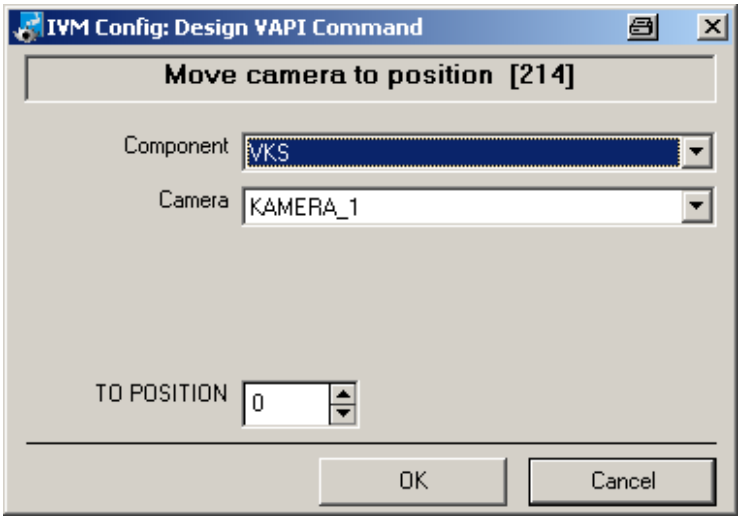


Fig. 91 Design VAPI command – Move camera to position

Cameras with position control have to be set up in the SIMATRIX configuration.

12.2.10 Move camera to position name

Prerequisite:

The position names configured in SISTORE CX and in IVM Config must be identical. See Section 6: Configuring components.

This allows selection of the video matrix (SIMATRIX, SISTORE SX/CX) camera which is to be moved to a previously saved position.

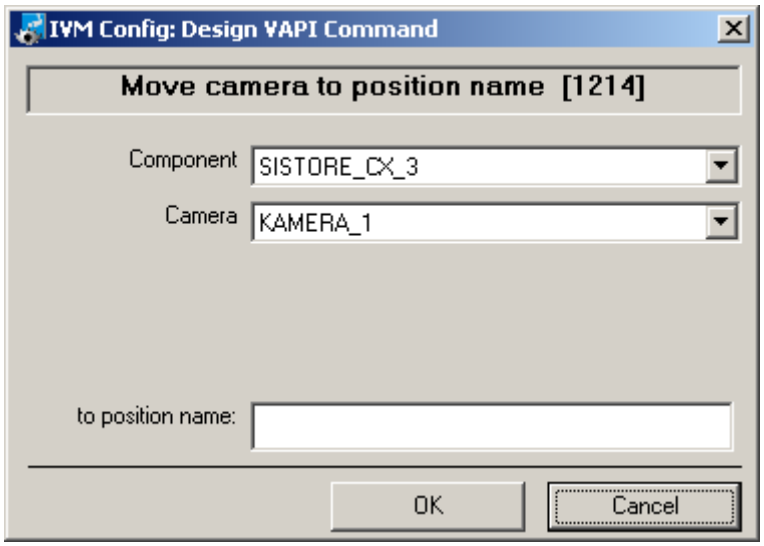


Fig. 92 Design VAPI command – Move camera to position name

12.2.11 Close relay

This command can be used to close the relays of transport devices.

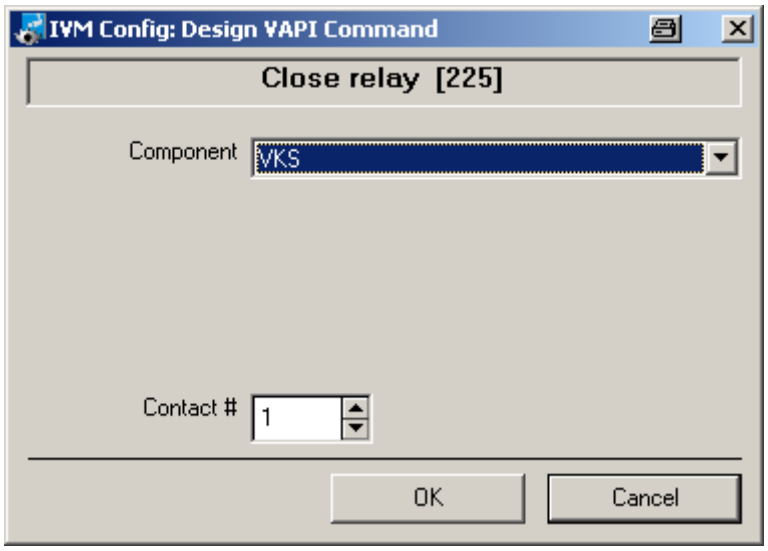


Fig. 93 Design VAPI command – Close relay

12.2.12 Open relay

This command can be used to open the relays of transport devices.

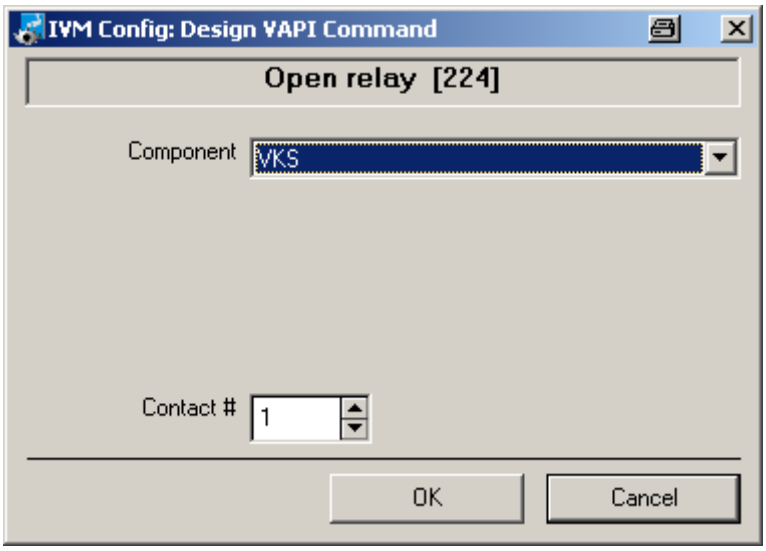


Fig. 94 Design VAPI command – Open relay

12.2.13 Relay pulse

The command **Relay pulse** is only for use by the I/O server. This allows different contacts to be triggered according to a set timing routine.

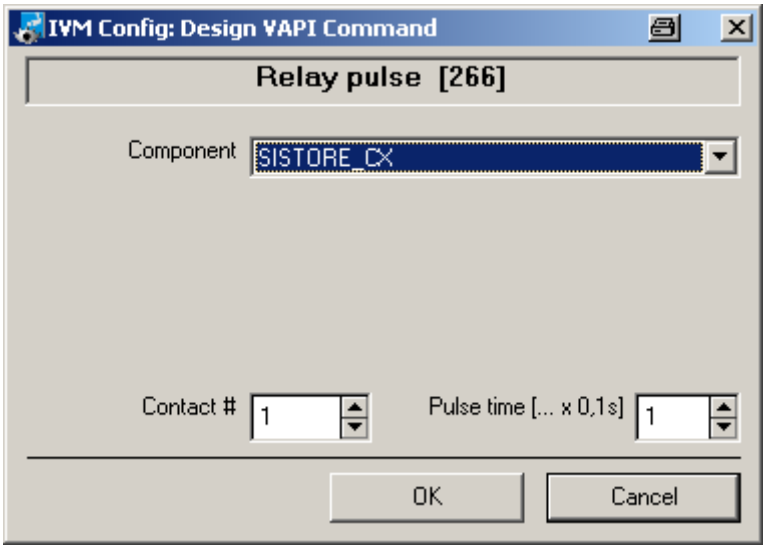


Fig. 95 Design VAPI command – Relay pulse

12.2.14 Control sequence

Sequences can be configured either in the Config Tool or in the Client.

The sequences defined previously are available here. The entries simply need to be selected. An associated priority can be defined.

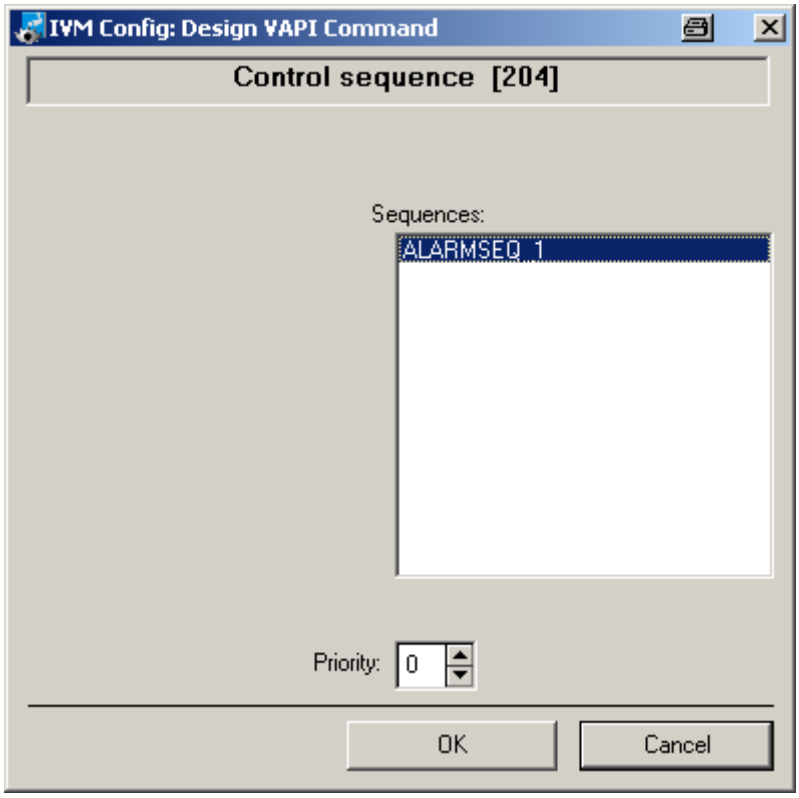


Fig. 96 Design VAPI command – Control sequence

12.2.15 Control connect

Using the **Control connect** command, a selection command can be configured.

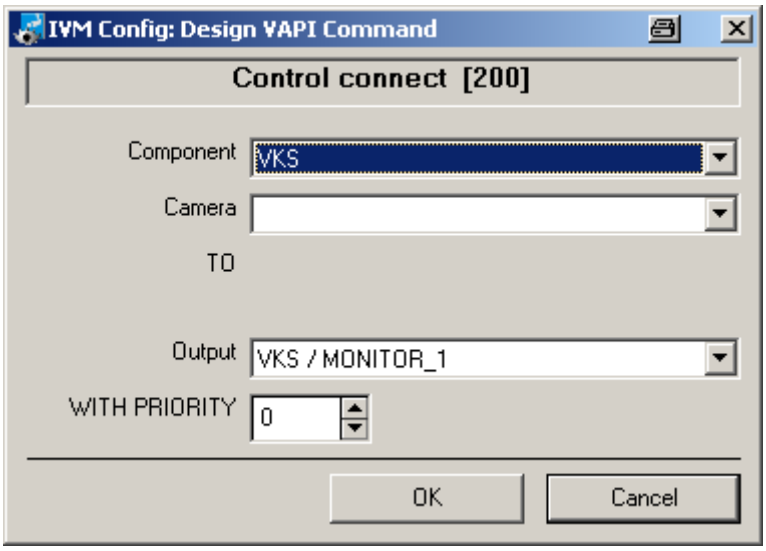


Fig. 97 Design VAPI command – Control connect

The selection of a camera assigned to a component, or the camera itself, can be defined. It can also be defined, which monitor it is displayed on, and with which priority.

The output depends on the alarm management configuration. This allows the output components to be adjusted. See Section 13.2.2: Alarm management configuration.

12.2.16 Disconnect

Using the Disconnect command, a currently selected camera can be removed.

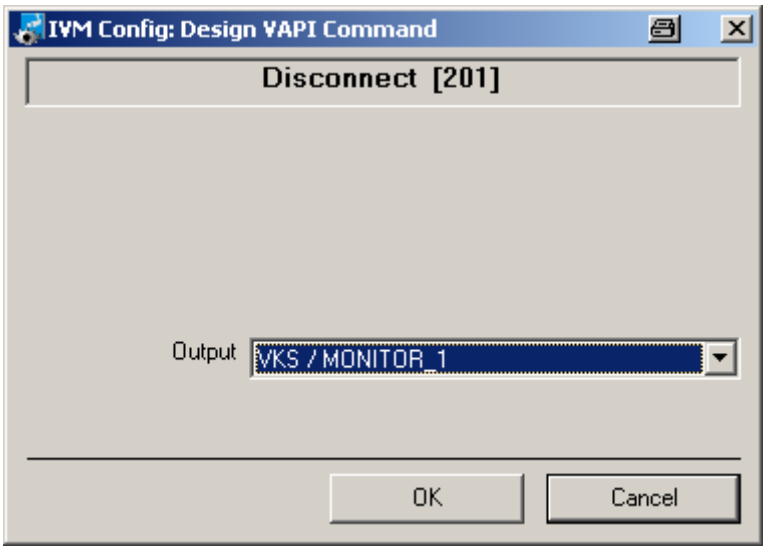


Fig. 98 Design VAPI command – Disconnect

This command may also be used as an acknowledge command, if the camera image is to be removed after an alarm is acknowledged.

13 Alarms

Alarms are used to display certain events graphically. They may be set off by such events as contacts in the matrix switcher, motion sensors on the TELEMAT, tamper switches etc. Each alarm can have different commands assigned to it, i.e. SISTORE control, camera selection.

13.1 Add a new alarm

1. Select the menu sequence **System configuration > Alarms**.
   ➔ The following dialog box opens:

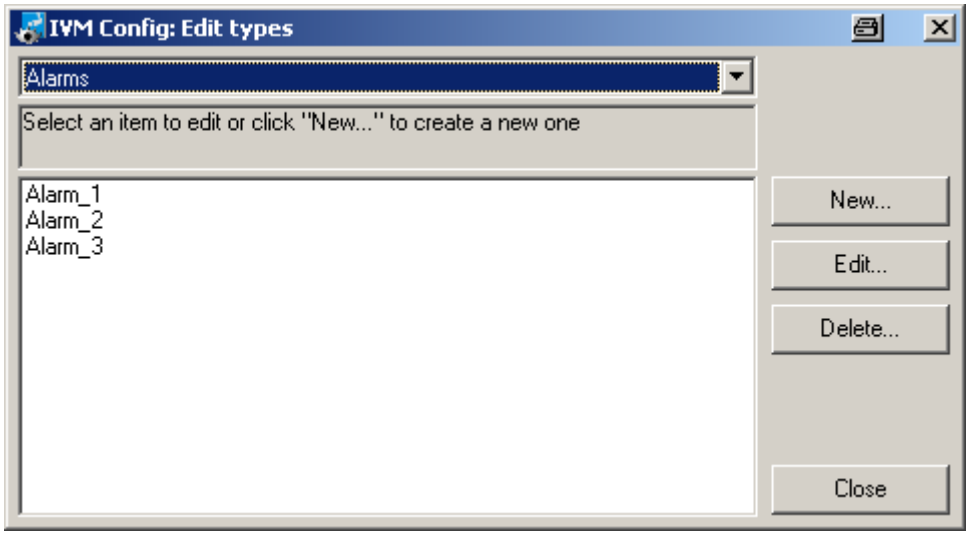


Fig. 99 Edit types – Alarms

2. Click **New...**

➔ The following dialog box opens:

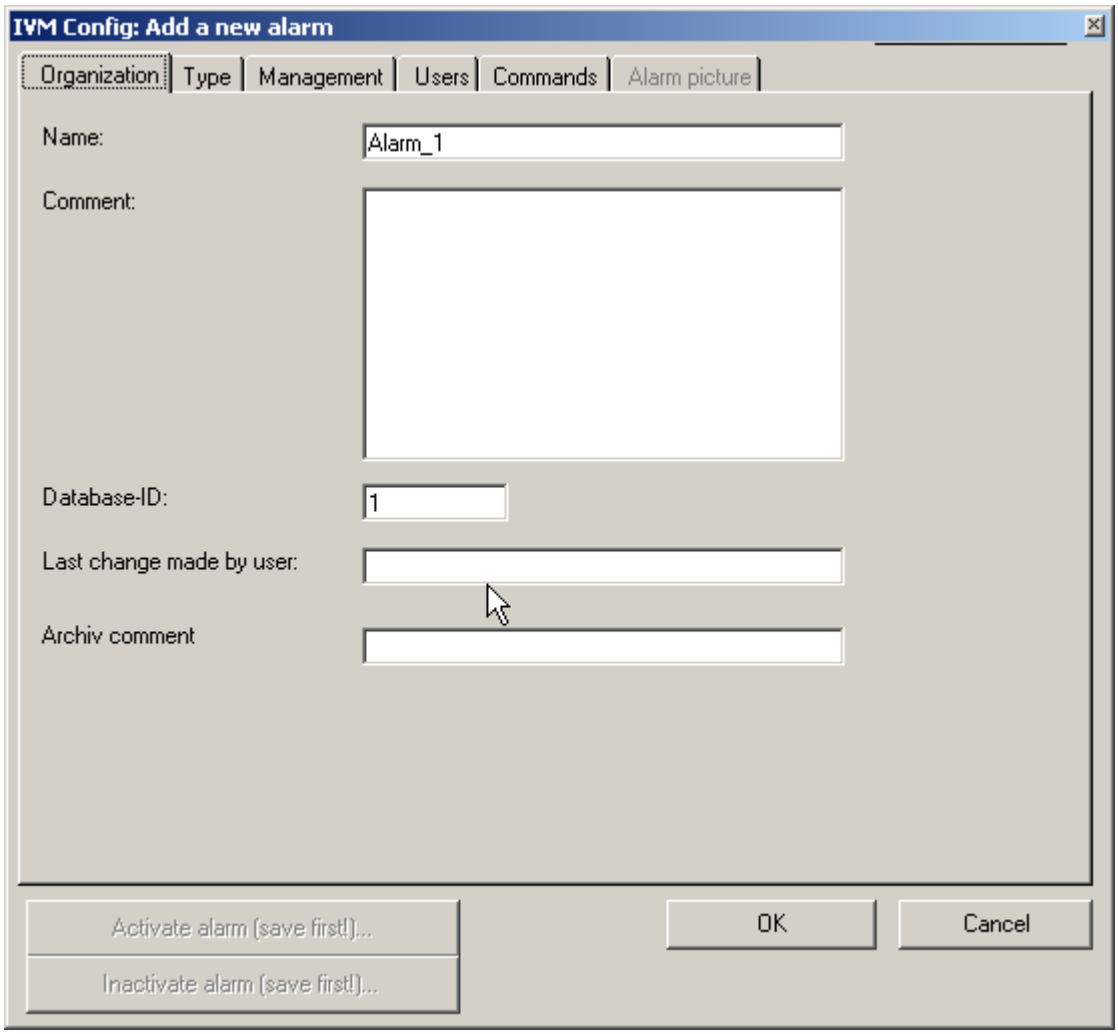


Fig. 100 Edit alarm properties – Organization

➔ A name and a database ID are entered automatically.

3. If you want to change the name, you can overwrite it in the **Name** text field.

The alarm is referenced using the Database ID.

4. If you want to change the database ID, you can overwrite it in the **Database ID** text field.

5. If you want to add further information, you can enter a comment in the **Comment** field.

➔ The comment will be displayed within the IVM Client in the alarm list and in the alarm logbook.

The **Last change made by user** box displays which user last changed the alarm configuration (see Fig. 101).

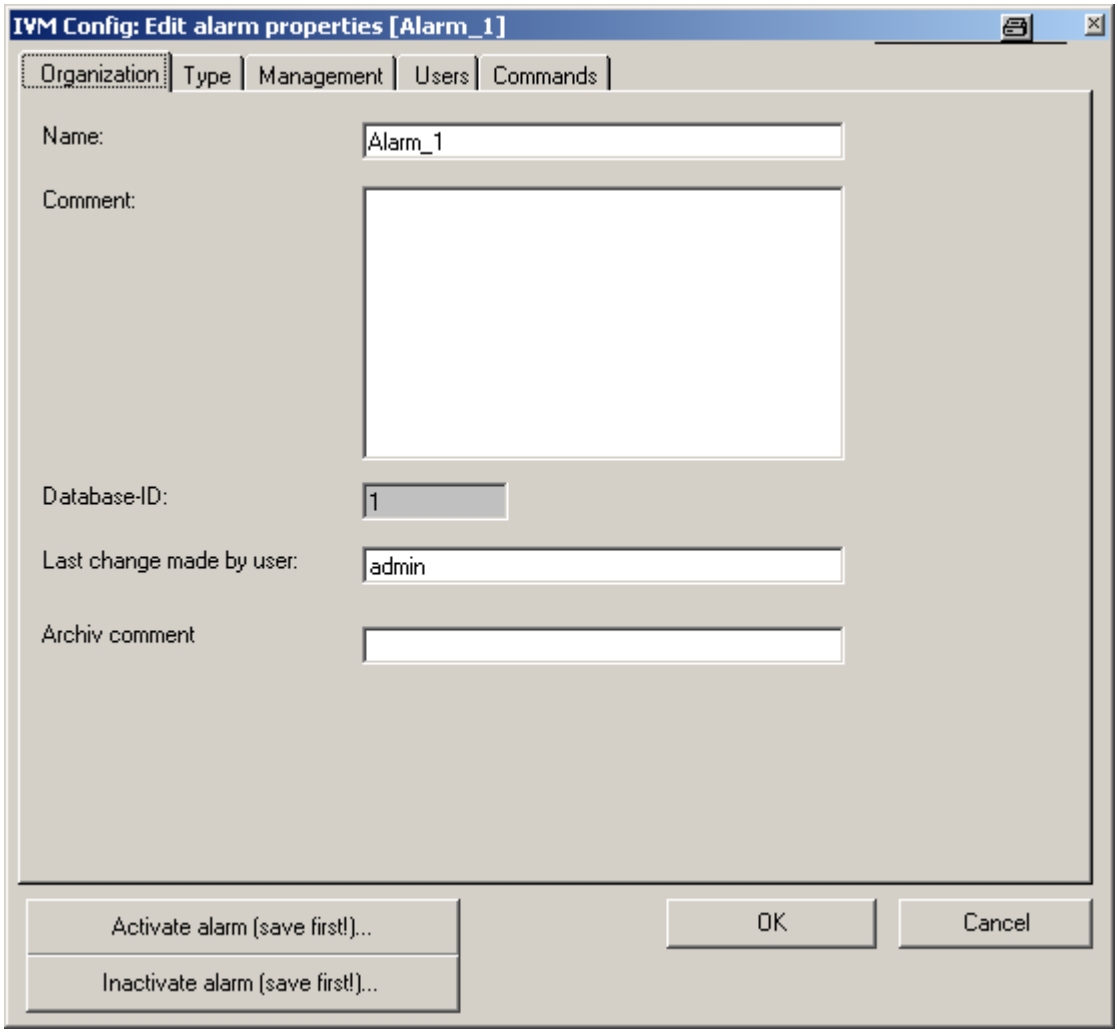


Fig. 101 Edit alarm properties – Organization

6. If you want to save additional information to the archive, you can enter a comment in the **Archive comment** field.

➔ If recording is started, the comment will be passed to the digital video recorder and saved to its archive.

13.2 Alarm configuration

13.2.1 Selecting and configuring alarm types

Prerequisite:

The alarms have been configured on the devices.

1. Select the **Type** tab.

➔ The following dialog box opens:

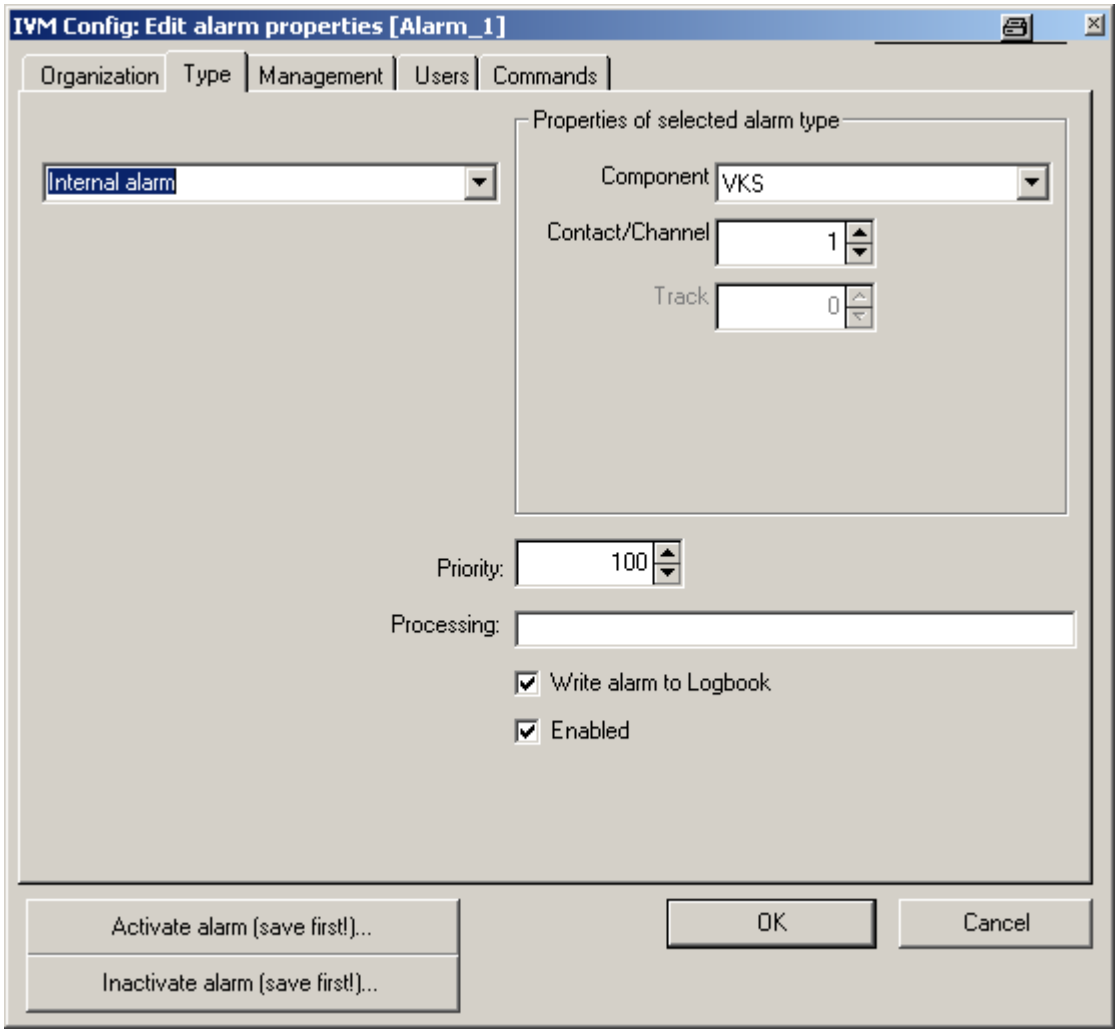


Fig. 102 Edit alarm properties – Type

2. Select the **alarm type** from the **list box**.

The following alarm types are available:

- Internal alarm
- External alarm
- Signal loss
- Tamper detection
- Motion detection (MD)
- Enhanced Motion Detection (EDS)
- Removed/left objects (ODR)
- Removed/left objects pre-alarm

➔ There are various configuration possibilities in the **Properties of selected alarm type** area depending on the alarm type.

3. Select the component which will report the alarm in the **Component** list box.

The following components are available for the different alarm types:

Alarm type	**Components**
Internal alarm	Internal alarms are reported by components within the IVM system: SISTORE CX SISTORE AX SISTORE MX VKS I/O Server OTN Network TELEMAT Visiowave Network
External alarm	External alarms are reported to the IVM system by autonomous external systems (e.g. Topsys, WinCC) via the IVM API interface.
Signal loss	SISTORE CX SISTORE AX SISTORE MX VKS OTN Network TELEMAT Visiowave Network
Tamper detection	SISTORE CX OTN Network TELEMAT Visiowave Network
Motion detection (MD)	SISTORE CX
Enhanced Motion Detection (EDS)	SISTORE CX
Removed/left objects (ODR)	SISTORE CX
Removed/left objects pre-alarm	SISTORE CX

For more detailed information on alarms please refer to the SISTORE SX/CX Client User Manual.

4. Select the number of I/O inputs of the component in the **Contact/Channel** list box.

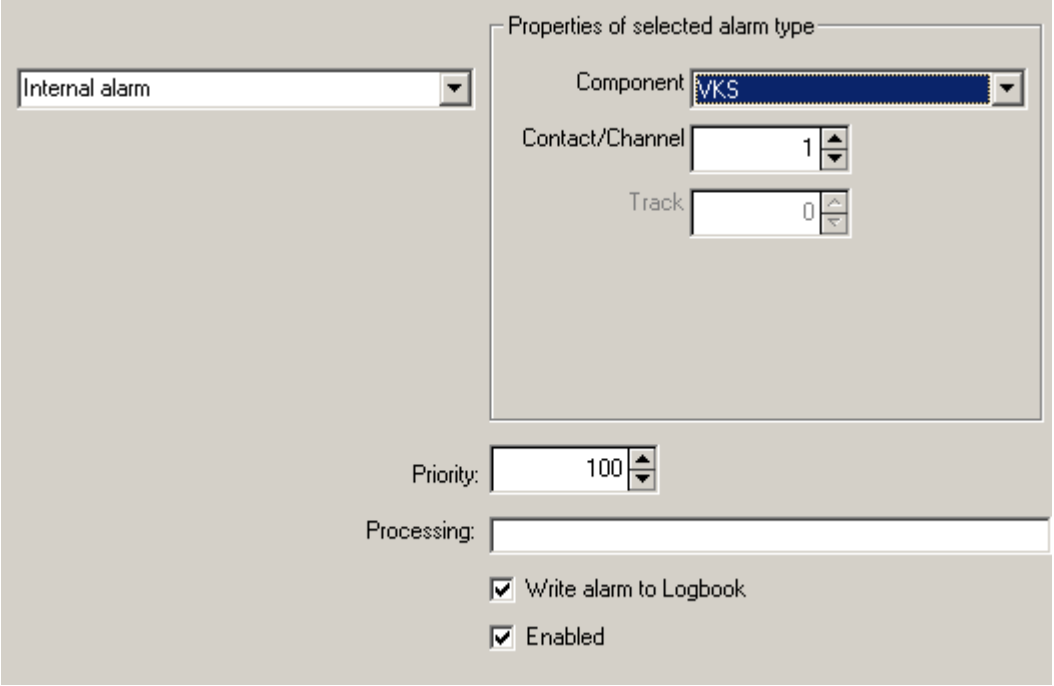


Fig. 103 Internal alarm

5. To assign the alarm a priority, select a value between 0 and 200 in the **Priority** list box.

0	The alarm has the lowest priority and will be executed last.
200	The alarm has the highest priority and will be executed first.

6. If a text is to be displayed during the alarm, you can enter this text in the **Processing** text field.

➔ The text will appear in the alarm list of the IVM Client.

7. If you wish to log the alarms of this alarm type, mark the checkbox **Write alarm to Logbook**.

➔ The alarms will be logged in the alarm logbook of the IVM Client.

8. To activate the alarm, tick the checkbox **Enabled**.

For some SISTORE devices, the alarm sources must be explicitly enabled. When the server is started, all alarms that are enabled are therefore deactivated and then set to "enabled" for the appropriate devices. This ensures that the alarms can be generated.

9. Restart the server.

13.2.2 Alarm management configuration

1. Select the **Management** tab (see Fig. 104).

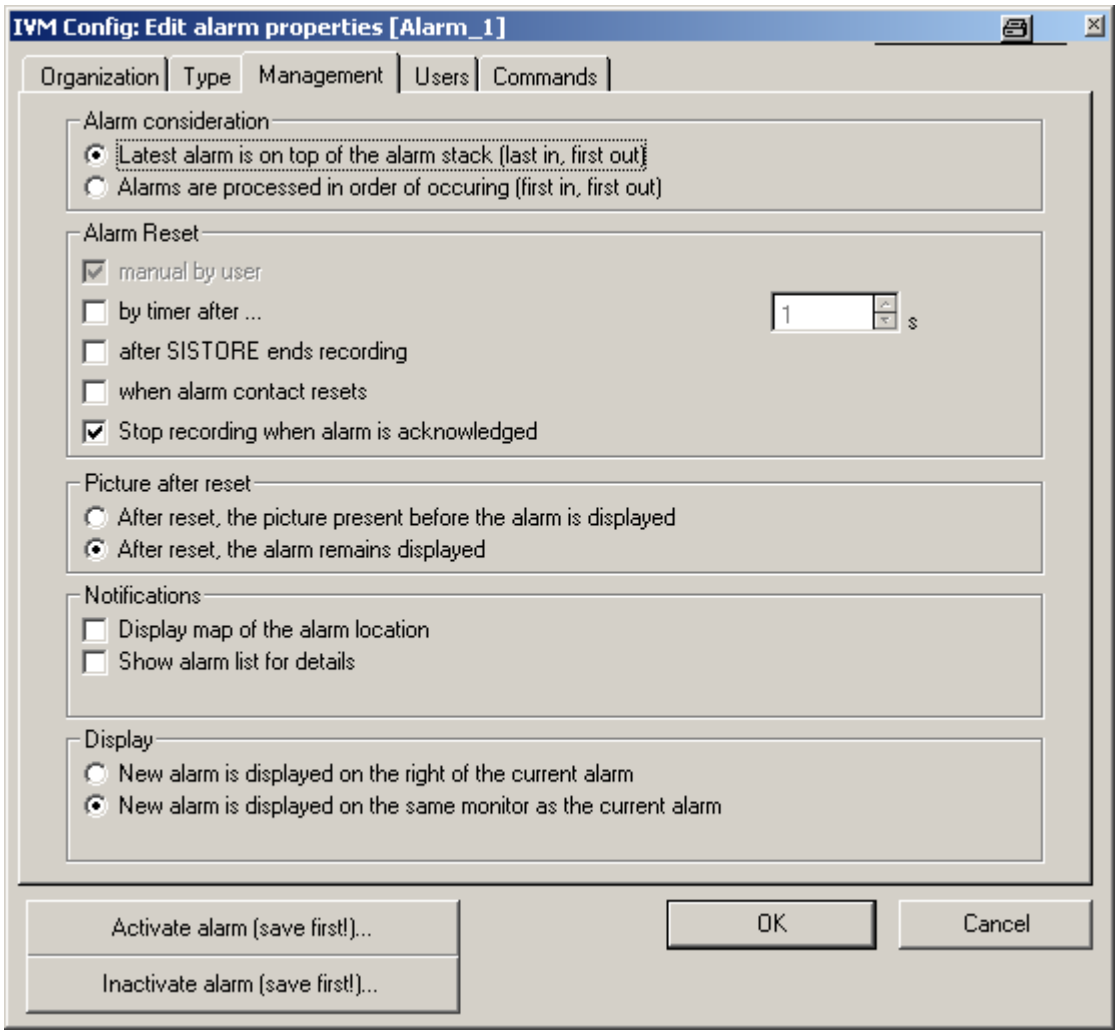


Fig. 104 Edit alarm properties - Management

2. Make your configurations in the following five sections:

Alarm consideration

Latest alarm is on top of the alarm stack (last in, first out)	The current alarm is displayed.
Alarms are processed in order of occurring (first in, first out)	The alarms are displayed in the order in which the occur.

Alarm Reset

Here you can mark several checkboxes.

manually by user	This setting cannot be changed. Alarms can always be acknowledged manually.
by timer after ...	The alarm is acknowledged automatically after x seconds. The value x is adjustable.
after SISTORE ends recording	The alarm is acknowledged automatically when SISTORE stops recording.
when alarm contact resets	The alarm is acknowledged automatically when the alarm contact resets (e.g. the person has left the zone where the alarm was triggered).
Stop recording when alarm is acknowledged	The recording is stopped automatically when the alarm has been acknowledged.

Picture after reset

After reset, the picture present before the alarm is displayed	The image, which was displayed on the alarm monitor before the alarm, is displayed again afterwards.
After reset, the alarm remains displayed	The alarm image remains displayed after the alarm has been reset.

Notifications

Display map of the alarm location	In the event of an alarm, a map of the area including the alarm camera is displayed in the IVM Client.
Show alarm list for details	In the event of an alarm, the alarm list is opened automatically on the IVM Client.

Up to 20 plans may be opened simultaneously by alarms. If more than 20 plans are opened simultaneously, the system can no longer be controlled. Should this be the case, a message will be displayed in the "Message" line. More information can be found in the IVM Client User Manual (VB Version).

Display

New alarm is displayed on the right of the current alarm	New alarm images are displayed on the monitor to the right of the current monitor, i.e. the first alarm image on the first monitor, the second on the second monitor.
New alarm is displayed on the same monitor as the current alarm	With this setting only one image is displayed per alarm. The image is displayed on only one monitor. Each alarm image overwrites the previous one.

13.2.3 Select users

Alarm processing/display is only possible, if the alarm has been assigned to at least one user. For the display of the alarm, the user has to be logged on to the system.

1. Select the **Users** tab.
2. Select the user who shall be the receiver of the alarm in the **Available users** list (see Fig. 105).

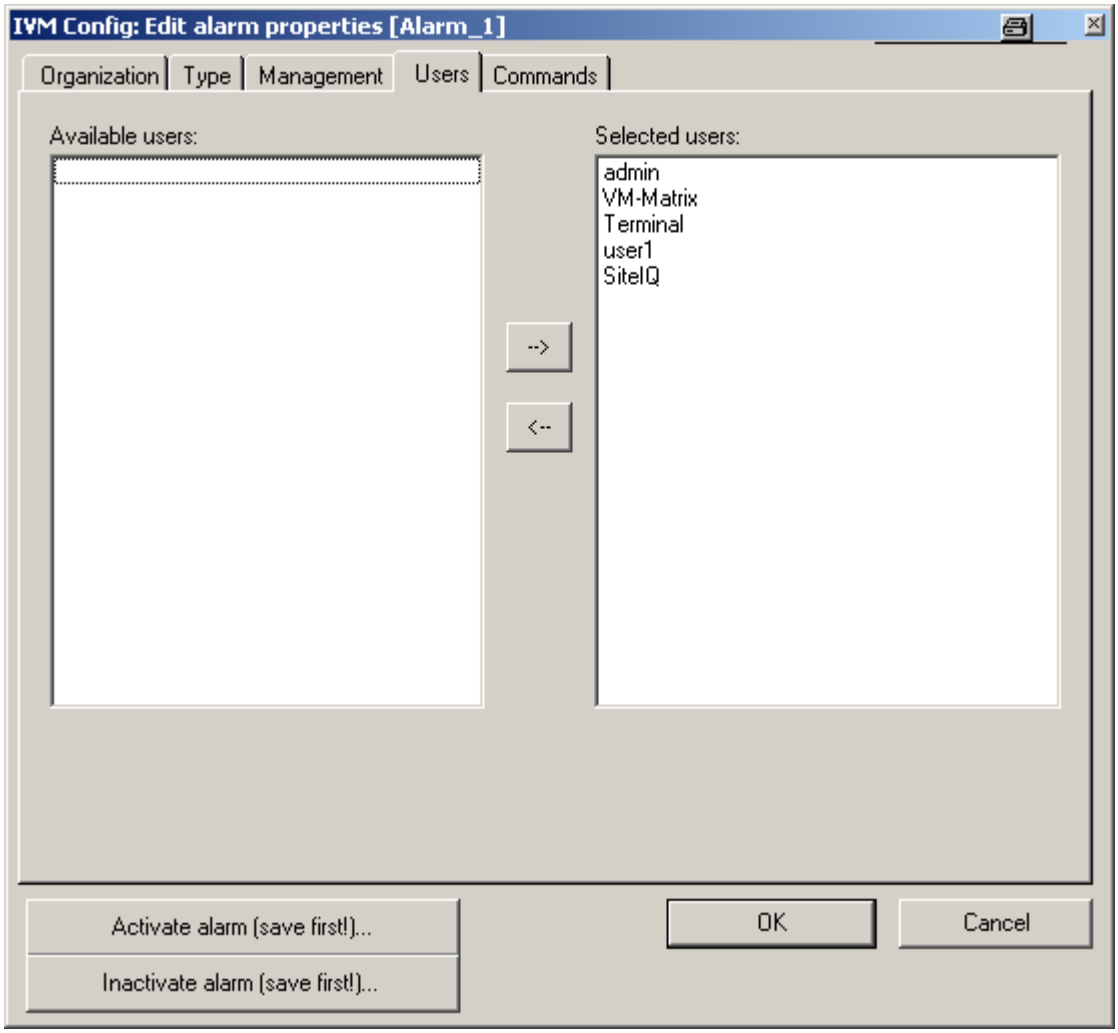


Fig. 105 Edit alarm properties – Users

3. Click the arrow button  .
   ➔ The user is displayed in the **Selected users** list.
   ➔ The user has now been selected and assigned to the alarm as the receiver.
4. To reverse your selection, click the arrow button  .

13.2.4 Assign commands

Each alarm can be assigned one or several commands. When the alarm is triggered, the commands run in the order in which they are listed.

⚠	**IMPORTANT**	**Loss of recorded data due to unacknowledged alarms** Commands that are linked to an alarm are triggered when the alarm occurs for the first time. If an alarm is not acknowledged, the command will not be triggered the next time the alarm occurs. ● Acknowledge the alarm when it occurs for the first time. ➔ The command will be triggered automatically the next time the alarm occurs.

Prerequisite:

The commands have been configured. See Section 12: Commands.

Select command type

1. Select the **Commands** tab (see Fig. 106).

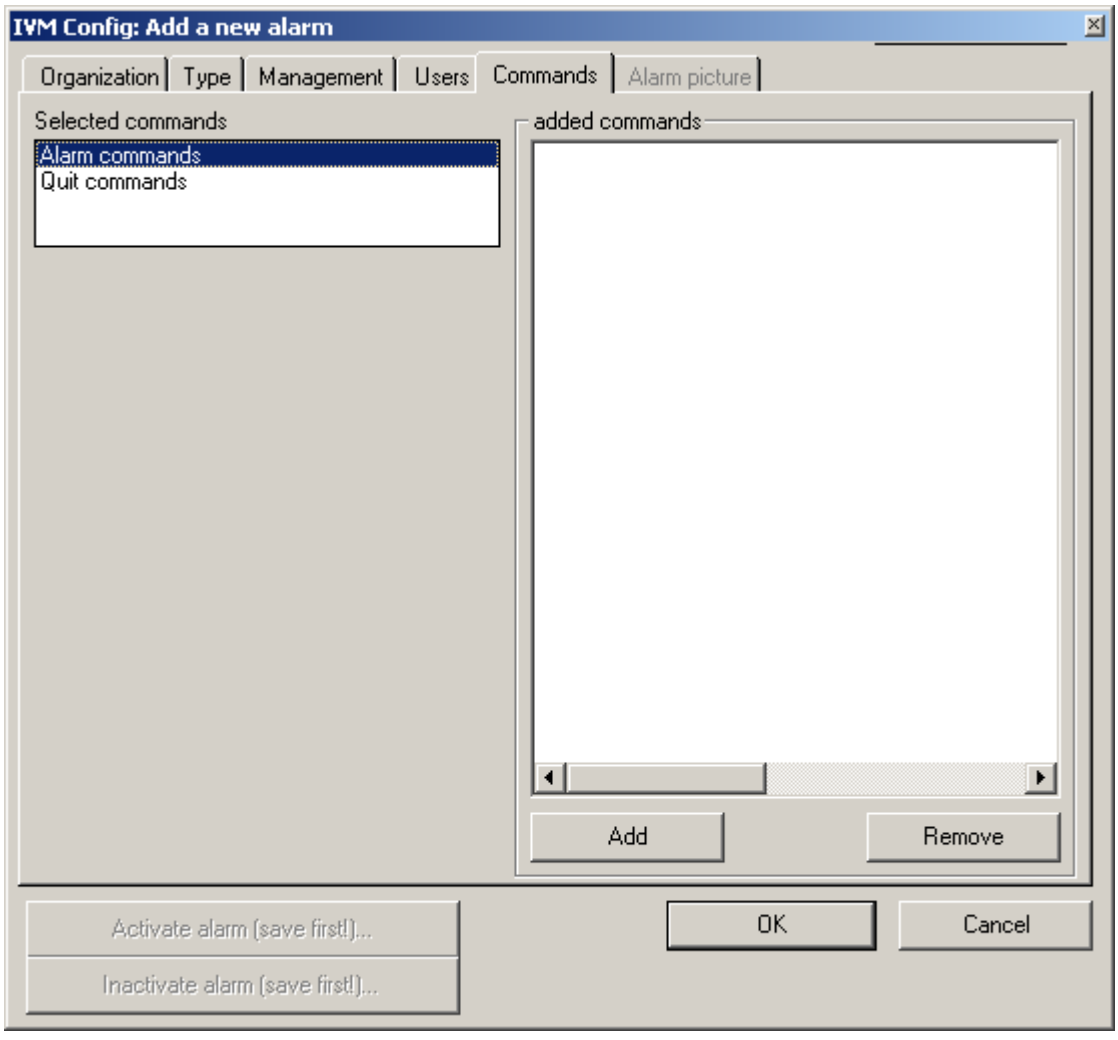


Fig. 106 Edit alarm properties – Commands

2. In the **Selected commands** list box, you can choose between the following command types:

Alarm commands	Commands which run in the event of an alarm.

Quit commands	Commands which run when an alarm is acknowledged.
Trip wire commands	Commands which run when a predefined trip wire is crossed.
Area commands	Commands which run if objects are removed from or left in a defined area.

Assign alarm and acknowledge commands

1. Click **Add**.

➔ The following dialog box opens:

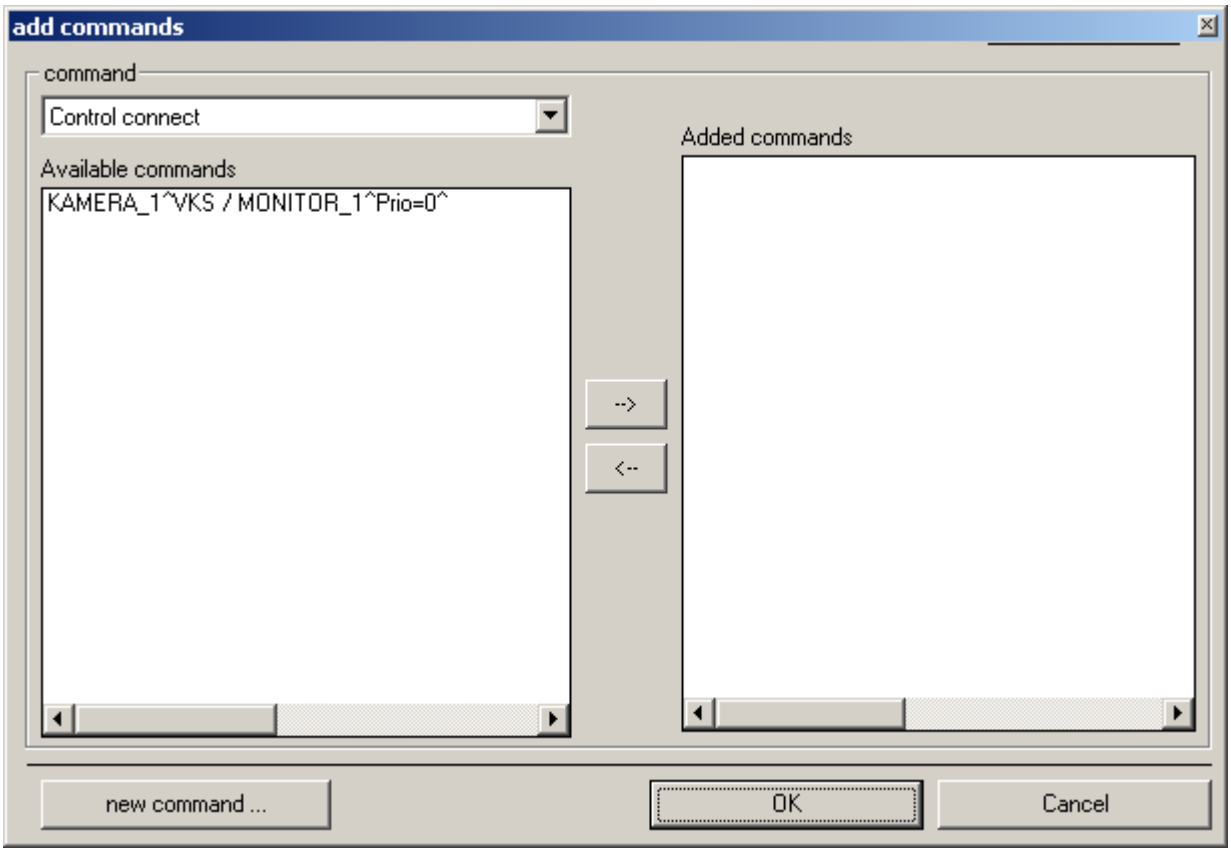


Fig. 107 "Add commands" dialog

2. To add a new command, click on **new command…**.
See Section 12: Commands.

3. Select the appropriate command group in the list box.
The following command groups are available:

Name	Alarm	Reset/Acknowledge
Control connect	x	x
Disconnect	x	x
Absolute alarm switching	x	
Set alarm status	x	x
Switch alarm component	x	x
Open relay	x	x
Close relay	x	x
Relay pulse	x	x
Control group	x	
Control sequence*	x	x
Move camera to position	x	x
Move camera to position name	x	x
Start user program	x	x
Record start	x	
Record stop	x	x

* If the "Control sequence " command is executed when an alarm is acknowledged, then the sequence will be started anyway irrespective of the alarm, i.e. the camera pictures will be displayed on the monitors defined for the sequence.

4. Select the appropriate command in the **Available commands** list.
5. Click the arrow button [->].
   ➔ The command is displayed in the **Added commands** list.
   ➔ The command is now assigned.
6. To reverse your selection, click the arrow button [<--].
7. Click **OK**.
   ➔ The command has been assigned to the alarm and is saved to a database.

Assign trip wire commands and area commands

1. Click **Add** in the **Trip wire** or **Area** section.
   ➔ A trip wire or an area is created (see Fig. 108).

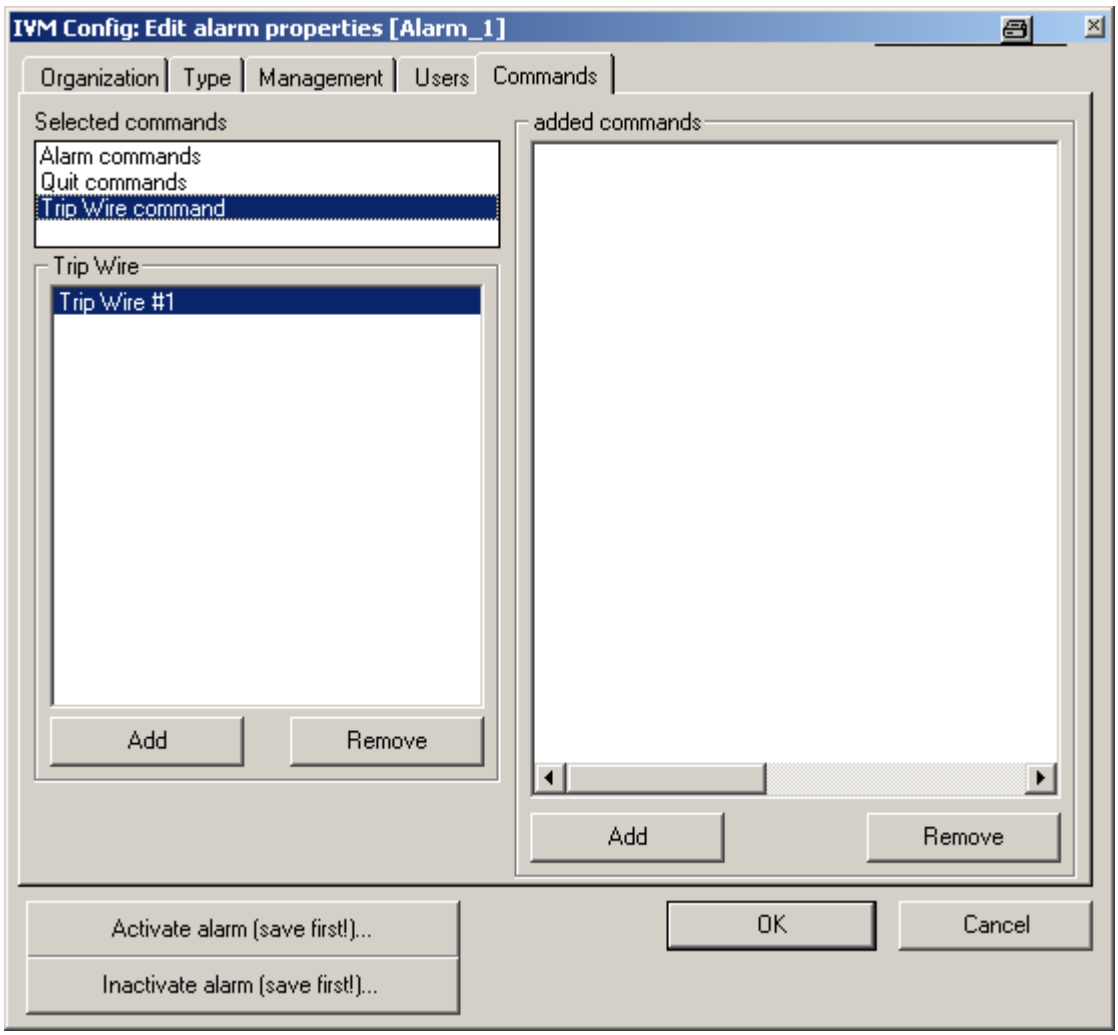


Fig. 108 Edit alarm properties – Commands – New trip wire

A maximum of 32 trip wires can be configured.
The identifying number of the trip wire must be identical with the number defined in SISTORE SX/CX Config.

2. To change the identifying number of the trip wire or area, double-click on the trip wire or area, respectively.

➔ The following dialog box opens:

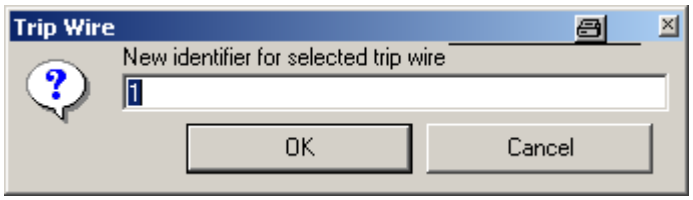


Fig. 109 Trip wire – New identifier

3. Overwrite the number in the **New identifier for selected trip wire** text field.
4. Click **OK**.

➔ The identifying number of the trip wire or area will be changed.

5. To assign commands to a trip wire or an area, select the desired trip wire or area.
6. Click **Add** in the **Added commands** section.

➔ The following dialog box opens:

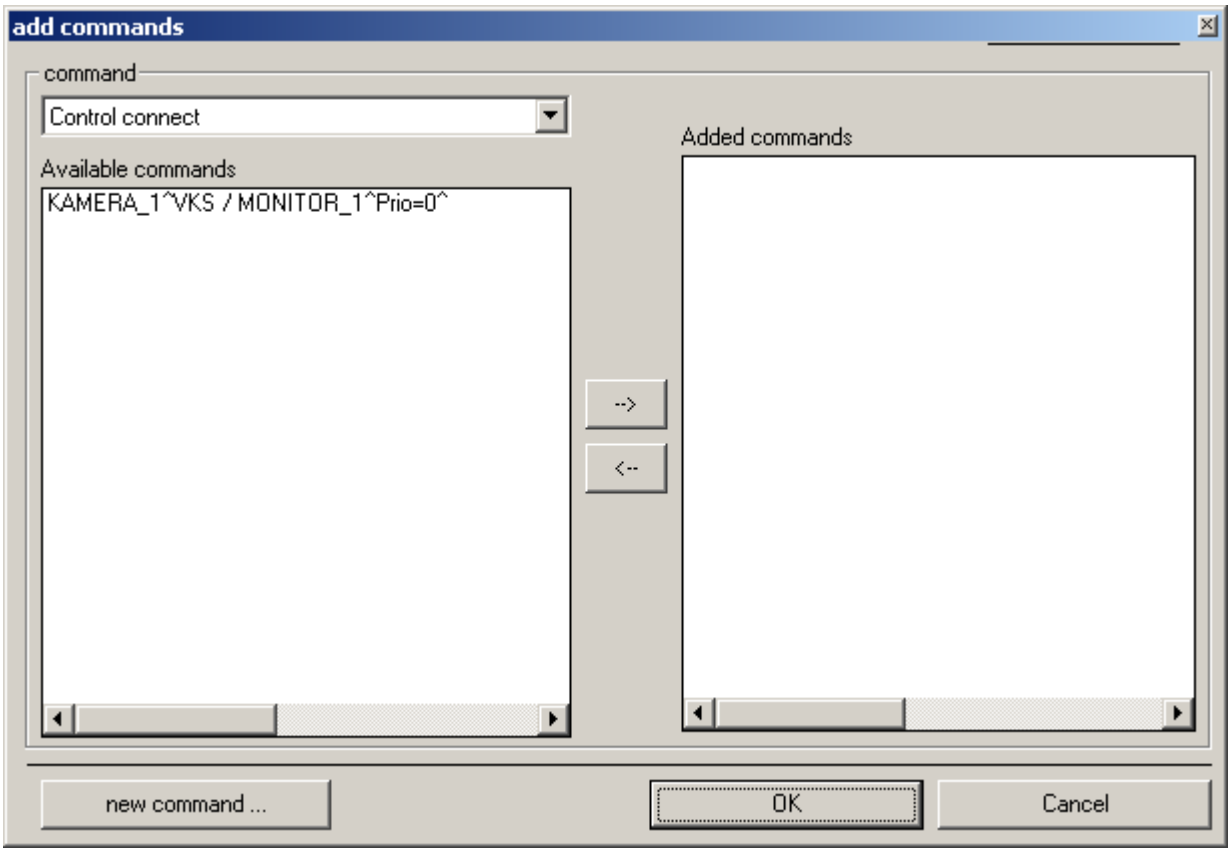


Fig. 110 "Add commands" dialog

7. To add a new command, click on **new command…**.
   See Section 12: Commands.
8. Select the appropriate command group in the **Command** list box.
   The following command groups are available:

Name	Trip wire	Area
Control connect	x	x
Disconnect	x	x
Absolute alarm switching	x	x
Set alarm status	x	x

Name	Trip wire	Area
Switch alarm component	x	x
Open relay	x	x
Close relay	x	x
Relay pulse	x	x
Control group	x	x
Control sequence*	x	x
Move camera to position	x	x
Move camera to position name	x	x
Start user program	x	x
Record start	x	x
Record stop	x	x

9. Select the appropriate command in the **Available commands** list.
10. Click the arrow button  .
    ➔ The command is displayed in the **Added commands** list.
    ➔ The command is now assigned to the trip wire or area.
11. To reverse your selection, click the arrow button  .
12. Click **OK**.
    ➔ The command has been assigned to the trip wire or area and is saved to a database.

13.3 Simulate alarm

Alarms and their effects can be simulated.

Prerequisites:

The alarm has been saved.

You require two client licences.

1. Select the menu sequence **System configuration > Alarms**.
2. Select the alarm you want to simulate.
3. Click **Edit...**.
4. Click on **Activate alarm**.
   ➔ The alarm will be simulated.
5. Click on **Inactivate alarm**.
   ➔ The alarm will be deactivated and acknowledged.

* If the "Control sequence " command is executed when an alarm is acknowledged, then the sequence will be started anyway irrespective of the alarm, i.e. the camera pictures will be displayed on the monitors defined for the sequence.

13.4 Alarm management configuration

General information on alarm management

New alarm and display concepts are integrated into the IVM system. A key feature, in contrast to conventional CCTV video and alarm systems, is that the alarm administration is dynamic, not static. The alarm follows the user. This means that the IVM system displays the alarms at the workstation where the specified user is currently logged on. The user responsible for each alarm is saved for each alarm.

From IVM version 1.4 onwards it is also possible to configure absolute alarm display. This enables cameras to be displayed on specific monitors, irrespective of where a user is currently logged on.

13.4.1 Basic functions for alarm configuration

If video display is included in the configuration of an alarm, then the command will be executed as soon as the alarm is detected. Depending on the alarm configuration of the workstation, the alarm is displayed for each user that is logged on.

There are 3 flags available per monitor for each workstation. These flags determine where the video signal is displayed.

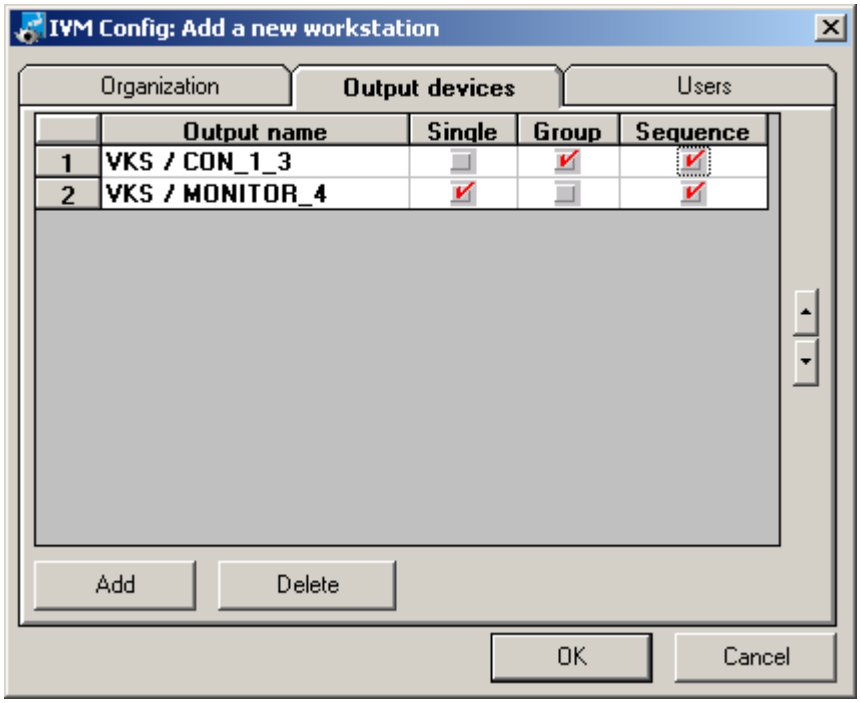


Fig. 111 Edit workstation properties

Further information on the output components can be found in Section 9.2: Assigning output devices.

In this example, the monitors M1 and M2 are reserved for individual display and the monitors M3 and M4 for sequences.

	M1	**M2**	**M3**	**M4**
Single	x	x		
Alarm groups			x	x
Alarm sequences			x	x

The alarm priority can influence the display behaviour in cases where there is a conflict between the connections to sub-centres and centres. A LIFO alarm with lower priority cannot, for example, be displayed over alarms with higher priority, i.e. it cannot be acknowledged on the monitor. It has to be reset in the alarm list. To avoid such behaviour, alarms on cascading matrix switchers should be configured with the same priority as each other.

Fundamentally, the following applies to the alarm programs listed below:

If alarm images are displayed, no other sequences or any other types of display are possible on this monitor.

On a monitor which has become available by resetting of an alarm, only the **oldest** alarm image in the waiting list will be displayed if there are further alarms in the waiting list (see Fig. 112).

(This ensures that each alarm has to be reset manually (stack alarm processing).

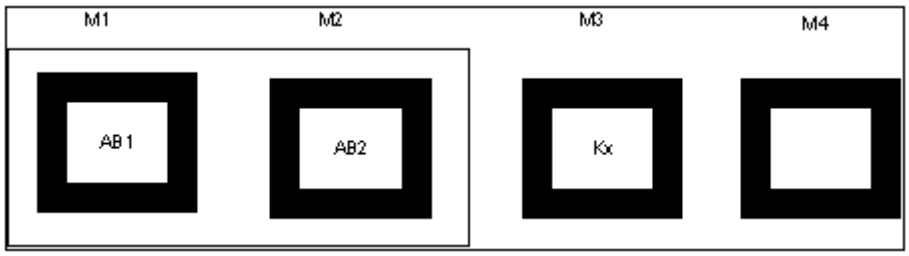


Fig. 112 Example of display of 5 alarm images (alarm program 2)

Cx: any camera

AI: alarm image

A1: AI1 A2: AI2

Stack with the following alarms

A3: AI3 (1.)

A4: AI4 (2.)

A5: AI5 (3.)

Acknowledging see example Fig. 112:

1 AI1 on M1is acknowledged --> AI35 is displayed on M1

2 AI2 on M2 is acknowledged --> AI35 is displayed on M1

3 AI4 on M2 is acknowledged --> AI3 is displayed on M2

Once the last alarm is acknowledged, either the image present before the alarm was displayed is displayed again, or the alarm image remains displayed (configurable).

With appropriate rights alarms can be enabled or disabled.

If the SIMATRIX is working with the TELEMAT then it is possible to highlight the zone where the alarm is reported (configurable). When an alarm is reset the TELEMAT is also reset.

The alarm monitors are defined in IVM Config at the workstation.

Notes on alarm configuration!

- The combined operation of “LIFI/FIFO”, “Alarm image remains displayed/previous image remains displayed” is not supported.
- An alarm is only displayed if a user has been configured for this alarm and is logged on. If alarm display is intended to take place regardless of which users are logged on, then it is necessary to configure absolute alarm display.
- In an alarm group the display takes place from left to right.
- If there are fewer group monitors than the number of cameras in the group, only the first cameras in the group are displayed. Basically it is recommended that the number of monitors in a group should be equal to, or a multiple of, the number of cameras in the group.
- The number of cameras in the group should remain constant.
- No more than two SISTORE recordings can be defined for an alarm.

13.4.2 Alarm programs

The basic alarm programs supported by IVM are described in programs 1 to 6.

Alarm program 1 (individual display)

Alarms can be processed as follows:

- In the event of an alarm the alarm image is displayed on the configured monitor (monitor 1 in this case).
- The alarm can be acknowledged (deleted) by clicking on the corresponding “MON” icon (MON1 in this case). If there are no alarms in the stack then the image previously displayed, or the alarm image, remains on the monitor, depending on the configuration.
- If a second alarm arises before the first is acknowledged, then this is also displayed in the alarm monitor (monitor 1 in this case). The waiting alarm image (AI1 in this case) is added to the stack.

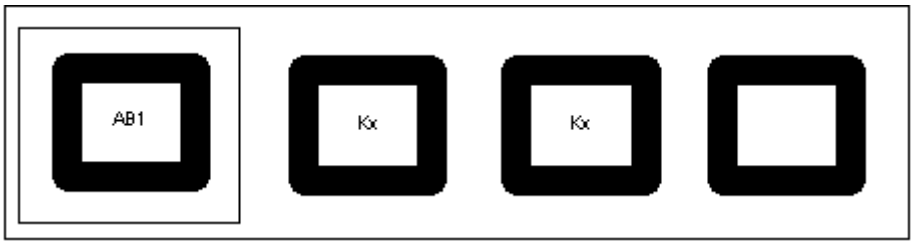


Fig. 113 Display of 5 alarm images (for example)

Cx: any camera

AI: alarm image

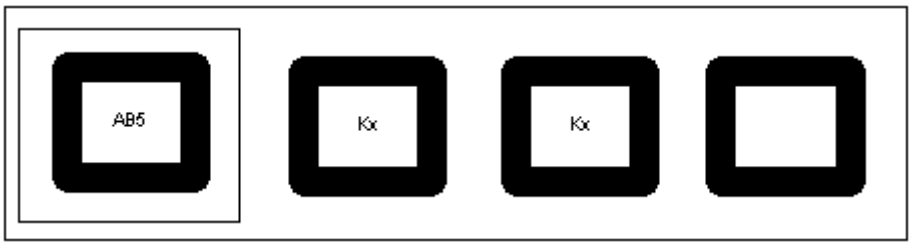


Fig. 114 Display of 5 alarm images (for example)

Cx: any camera

AI: alarm image

Display of 5 alarm images (for example)

Stack with the following alarms	**Acknowledge on Monitor1**
A1: AI1 (1.)	A5: AI5
A2: AI2 (2.)	A4: AI1
A3: AI3 (3.)	A3: AI2
A4: AI4 (4.)	A2: AI3
A5: AI5 (5.)	A1: AI4

Alarms displayed on the alarm monitor can be acknowledged using the “MON” icons (MON1 in this case).

On the monitor which has become available by acknowledging (MON1 in this case), the oldest waiting alarm image is displayed, if there are several alarms waiting.

IVM alarm configuration

For this alarm behaviour the options “Latest alarm is displayed on the same monitor” and “Latest alarm is on top of the alarm stack (last in, first out)” need to be marked in the IVM Config and for workstation\ output components, monitor1 has to be marked as “Single”.

Alarm program 2 (individual display/series)

- In the event of an alarm the alarm image is displayed on the first available monitor (monitor 1 in this case).
- The alarm can be acknowledged (deleted) by clicking on the corresponding “MON” icon (MON1 in this case). The original image is displayed again on the monitor if no other alarms are waiting in the stack.
- If a second alarm arises before the first is acknowledged, then this second alarm is displayed on the next available monitor (monitor 2 in this case).
- If all alarm monitors are occupied, then the new alarm is added to the stack (see Fig. 115).

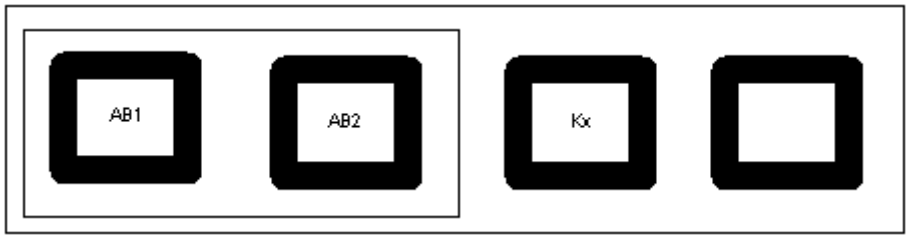


Fig. 115 Display of 5 alarm images (for example)

Cx: any camera

AI: alarm image

Stack with the following alarms	Acknowledge on MON1	Acknowledge on MON2
A1: AI1 (1.)	AI1	AI2
A2: AI2 (2.)	AI3	AI4
A3: AI3 (3.)		AI5
A4: AI4 (4.)		
A5: AI5 (5.)		

Display of 5 alarm images (for example)

Alarms displayed on the alarm monitors (1 or 2 in this case), can be acknowledged using the corresponding monitor icons (‘MON1’ or ‘MON2’).

On a monitor which has become available by acknowledging (MON1 in this case), the oldest waiting alarm image is displayed if there are several alarms waiting.

IVM alarm configuration

For this alarm behaviour the options “Latest alarm is displayed on the same monitor” and “Latest alarm is on top of the alarm stack (last in, first out)” need to be marked in the IVM Config and for workstation\ output components, monitor1 and monitor 2 have to be marked as “Single”.

Alarm program 3 (individual display/series)

The same as alarm program 2 (points 1-3)

Each additional alarm image overwrites an existing one, however, so that the two latest alarm images are always displayed on monitors 1 and 2, older alarm images are added to the stack (see Fig. 116).

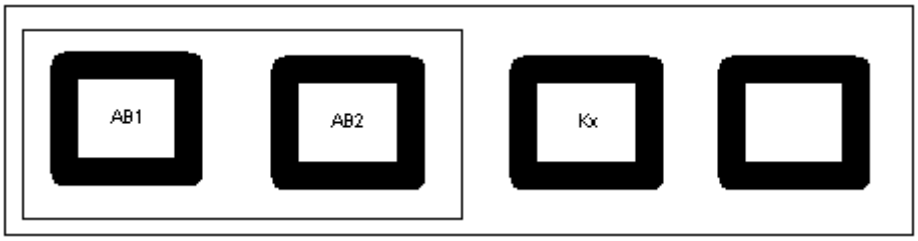


Fig. 116 Display of 5 alarm images (for example)

Cx: any camera

AI: alarm image

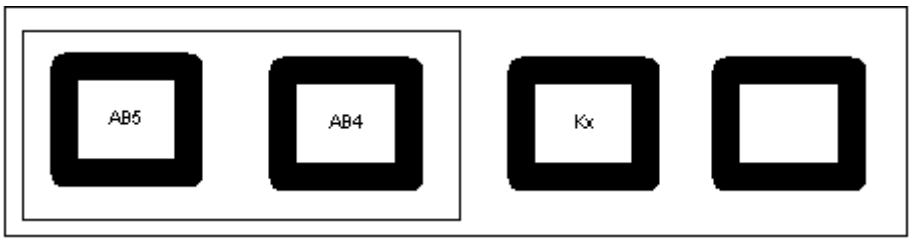


Fig. 117 Display of 5 alarm images (for example)

Cx: any camera

AI: alarm image

Stack with the following alarms	Acknowledge on MON1	Acknowledge on MON2
A1: AI1 (1.)	AI5	AI4
A2: AI2 (2.)	AI1	AI2
A3: AI3 (3.)		AI3
A4: AI4 (4.)		
A5: AI5 (5.)		

Display of 5 alarm images

Alarms displayed on the alarm monitors (1 or 2 in this case), can be acknowledged using the corresponding monitor icons (‘MON1’ or ‘MON2’).

The oldest waiting alarm image is displayed on the “acknowledged” monitor. When the next alarm image is deleted the second oldest is displayed, etc.

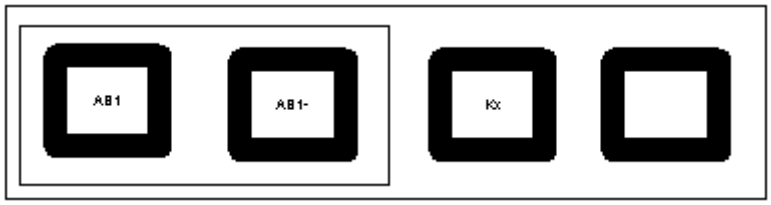
IVM alarm configuration

For this alarm behaviour the options “New alarm is displayed on the right of the current alarm” and “Latest alarm is on top of the alarm stack (last in, first out)” need to be marked in the IVM Config under “alarms\alarm management” and for workstation\ output components, monitor1 has to be marked as “Single”.

Alarm program 4 (alarm group display)

Alarms can be processed as follows:

- In the event of an alarm the alarm image is displayed on the first available monitor (MON1 in this case), and the image of the neighbouring camera is displayed on the neighbouring monitor (MON2 in this case) (alarm group display).
- The alarm can only be acknowledged (deleted) by clicking on the corresponding “MON” icon (MON1 in this case). The previous images are displayed again on the monitors (the neighbouring monitor (MON2 in this case) also becomes available), if there are no more alarms in the stack. (Clicking on MON2 has no effect).
- If all alarm monitors are occupied, the new alarm is added to the stack.

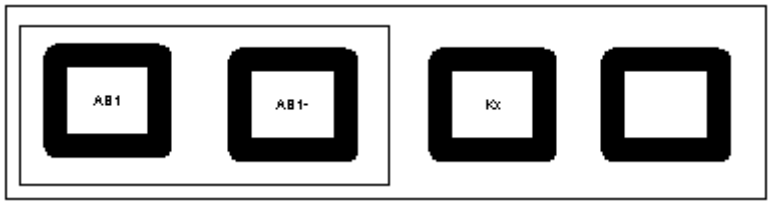


Cx: any camera

AI: alarm image

AI- : alarm image group

Display of 1 alarm image



Cx: any camera

AI: alarm image

AI- : alarm image group

Display of 3 alarm images

If there are more alarms waiting after alarm 1 is acknowledged, then the oldest alarm image is displayed on the alarm monitor (monitor 1 in this case), and the image from the neighbouring camera on the neighbouring monitor (monitor 2 in this case), etc.

Alarm groups can contain more than 2 cameras. As many cameras are displayed, from left to right, as there are alarm monitors available for the group. The alarm has to be acknowledged on the first monitor. It is, however, possible to overwrite the other monitors separately by manual display switching, without acknowledging the alarm.

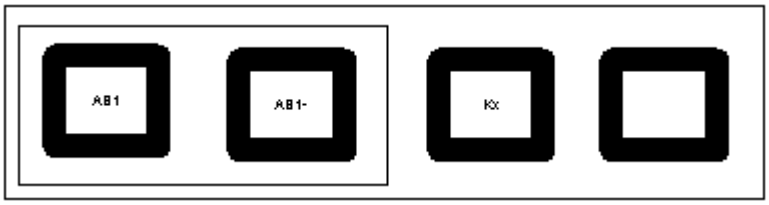
IVM configuration:

For this alarm behaviour the options “New alarm is displayed on the right of the current alarm” and “Alarms are processed in order of occurring (first in, first out)” need to be marked in the IVM Config under “alarms\alarm management” and for workstation\ output components, monitor 1 and monitor 2 have to be marked as “Group”.

Alarm program 5 (alarm group display)

The same as alarm program 4 (points 1-2).

Each additional alarm image overwrites an existing one, however, so that the alarm monitor and the neighbouring monitor always display the latest alarm group, older alarm groups are added to the stack.

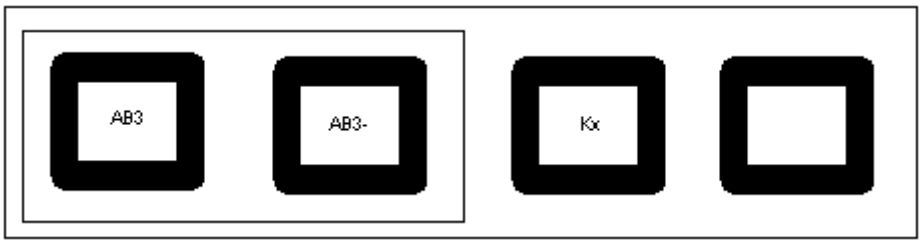


Cx: any camera

AI: alarm image

AI- : alarm image group

Display of 1 alarm image



Cx: any camera

AI: alarm image

AI- : alarm image group

Display of 3 alarm images

If there are more alarms waiting after alarm 1 is acknowledged, then the oldest alarm image is displayed on the alarm monitor (monitor 1 in this case), and the image from the neighbouring camera on the neighbouring monitor (monitor 2 in this case), etc.

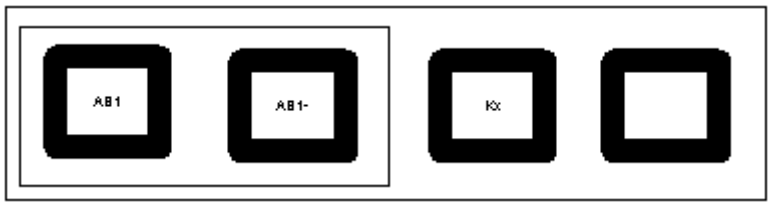
IVM configuration:

For this alarm behaviour the options “New alarm is displayed on the right of the current alarm” and “Latest alarm is on top of the alarm stack (last in, first out)” need to be marked in the IVM Config under “alarms\alarm management” and for workstation\ output components, monitors 1 and 2 have to be marked as “Group”.

Alarm program 6 (group display/series)

The same as alarm program 3, but with groups.

By clicking on the first alarm monitor icon in the group (‘MON1‘ and ‘MON3‘ in this case), the cameras of the groups on the neighbouring monitors are automatically deleted.

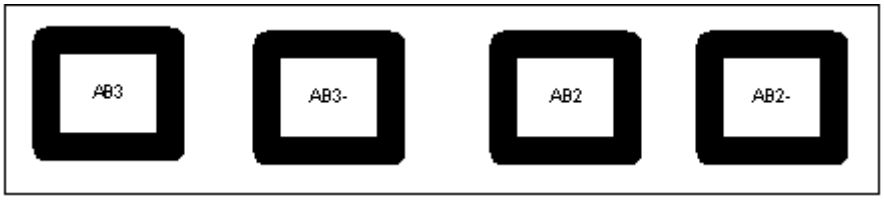


Cx: any camera

AI: alarm image

AI- : alarm image group

Display of an alarm image group



Cx: any camera

AI: alarm image

AI- : alarm image group

Display of 3 alarm image groups

IVM configuration:

For this alarm behaviour the options “New alarm is displayed on the right of the current alarm” and “Latest alarm is on top of the alarm stack (last in, first out)” need to be marked in the IVM Config under “alarms\alarm management” and for workstation\ output components, monitors 1, 2, 3 and 4 have to be marked as “Group”.

13.5 Colour representation of alarms

Select the menu sequence **System configuration > Colour setting of the alarms**.

➔ The following dialog box opens:

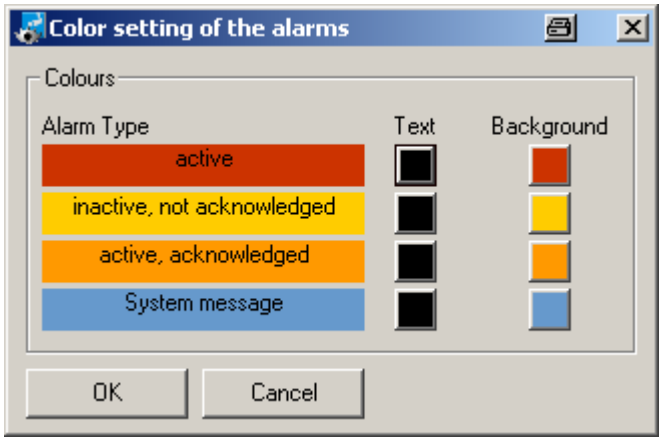


Fig. 118 Alarm configuration

Different colours can be defined for the text and background for the various statuses of an alarm.

14 Priorities of camera control

1. Select **Allocation of group priorities** in the **System configuration** menu.
   ➔ The following dialog box opens:

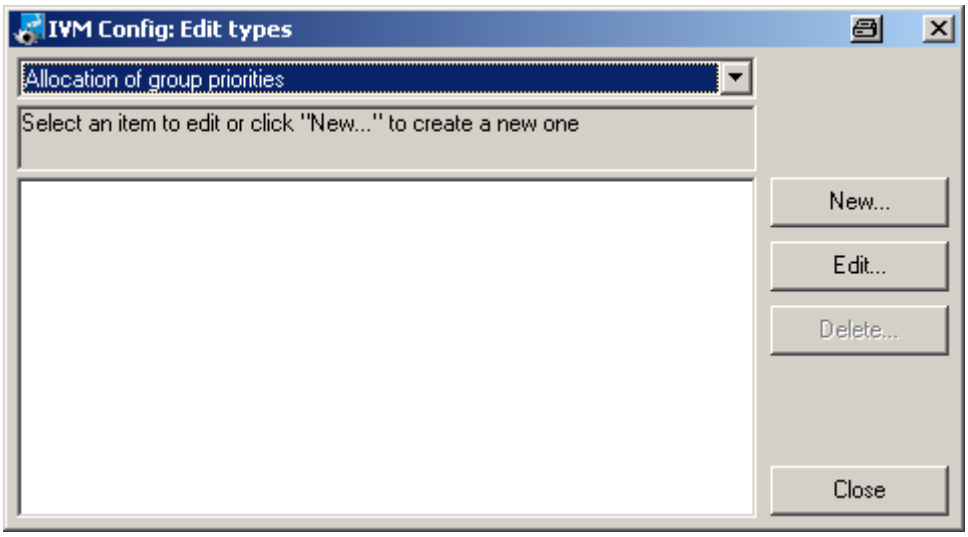


Fig. 119 Allocation of group priorities

You can use this function to assign priorities to individual groups.

2. Click **New**.
   ➔ The following dialog box opens:

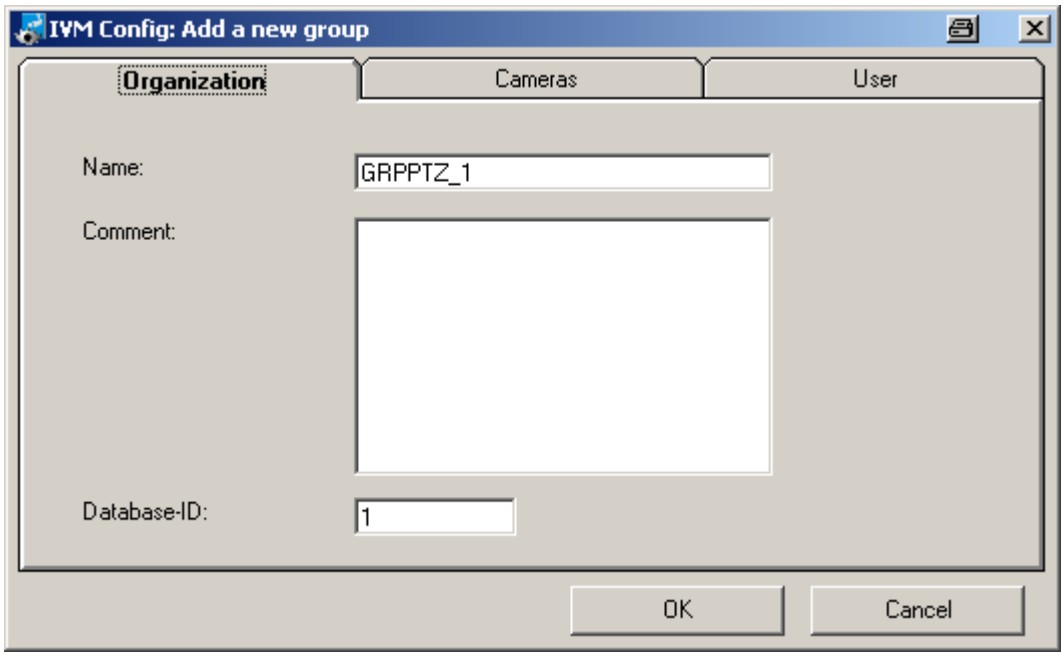


Fig. 120 Groups

3. Enter a **name** for the camera group in the dialog box which opens and click **OK** to confirm. The addition of a comment is optional.
   ➔ A new camera group is added to the system.

A camera group can have one or several cameras assigned to it, which are to be displayed in the event of activation.

4. Using the arrow keys (or by double clicking on a group), selected cameras can be moved between the list boxes for “Available cameras” and “Selected cameras”.

➔ The selected cameras are listed in the list box on the right (see Fig. 121).

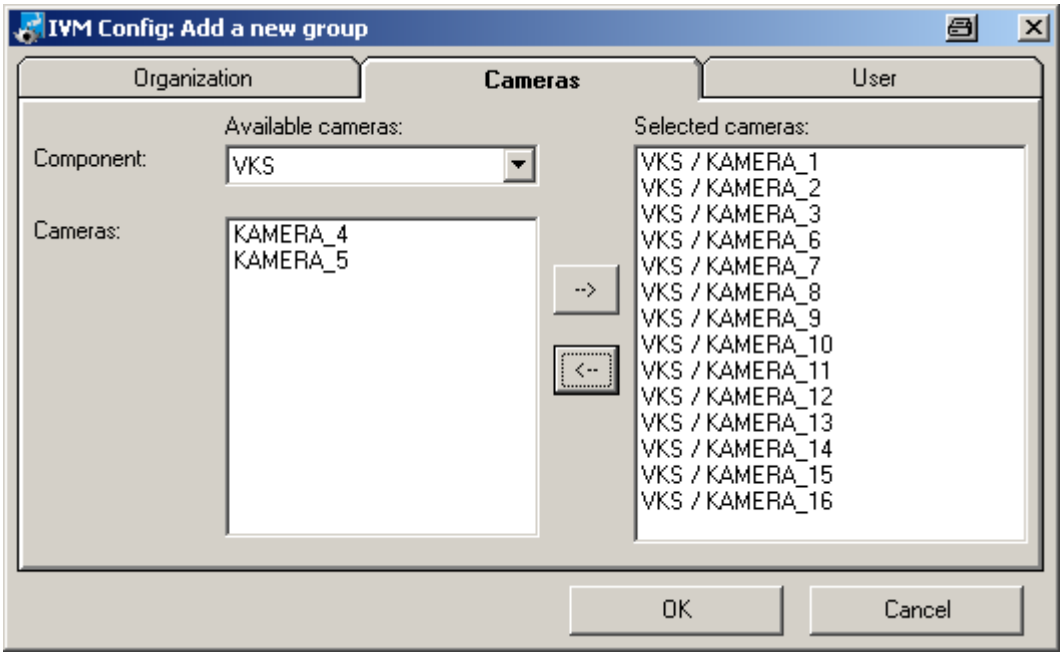


Fig. 121 Cameras

5. Click the **User** tab

➔ The user is assigned priorities and control times here.

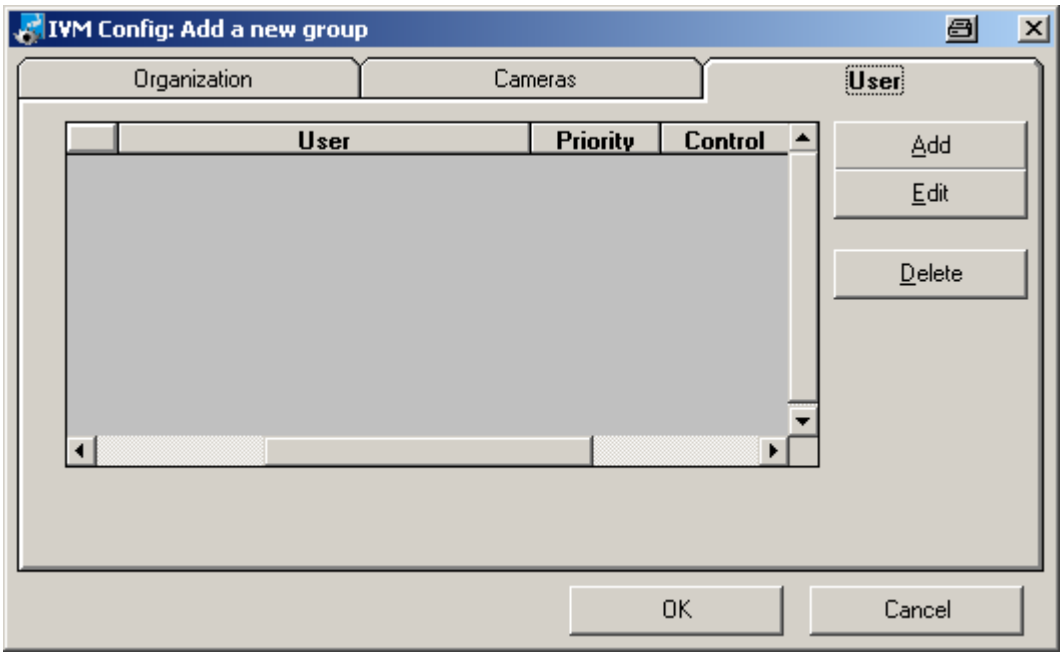
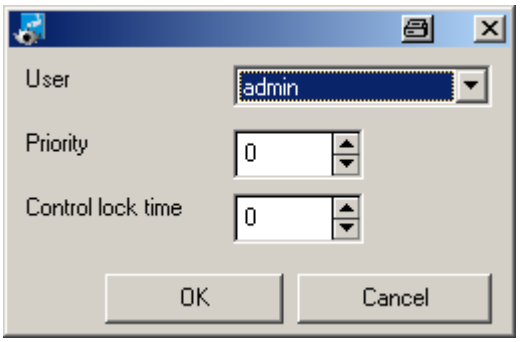


Fig. 122 User

6. Click **Add**.

➔ The following dialog box opens:



7. Select User, Priority and Control lock time (in s).
8. Click **OK**.

➔ The following dialog box opens:

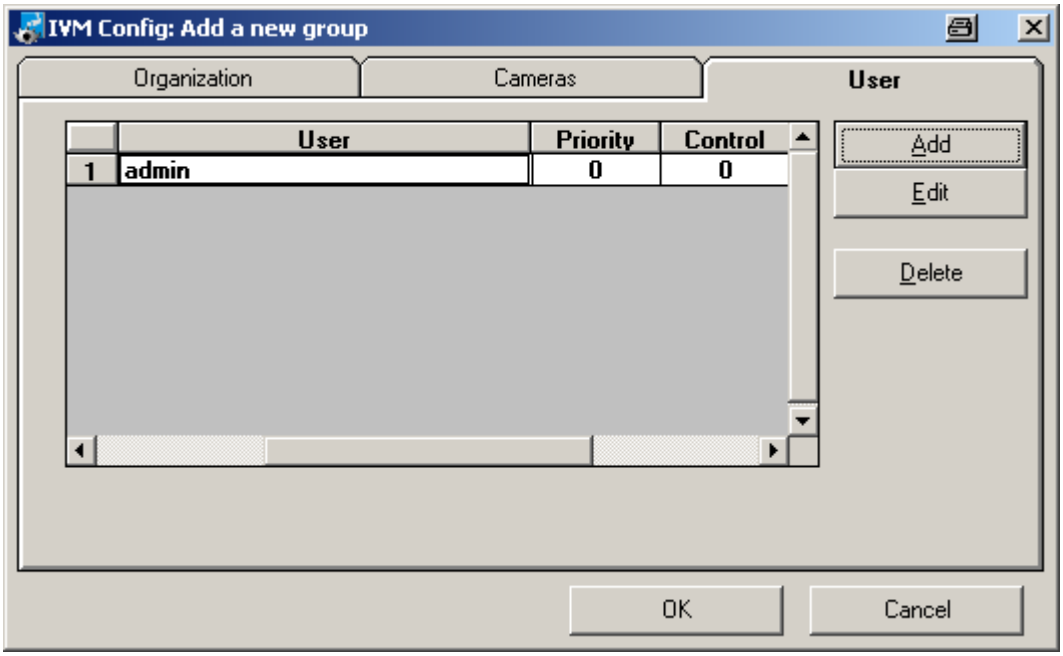


Fig. 123 User

The **admin** user group with priority 10 (range: [0 ... 100]) has the highest priority.

The **VM-Matrix** user group with priority 5 has the lowest priority.

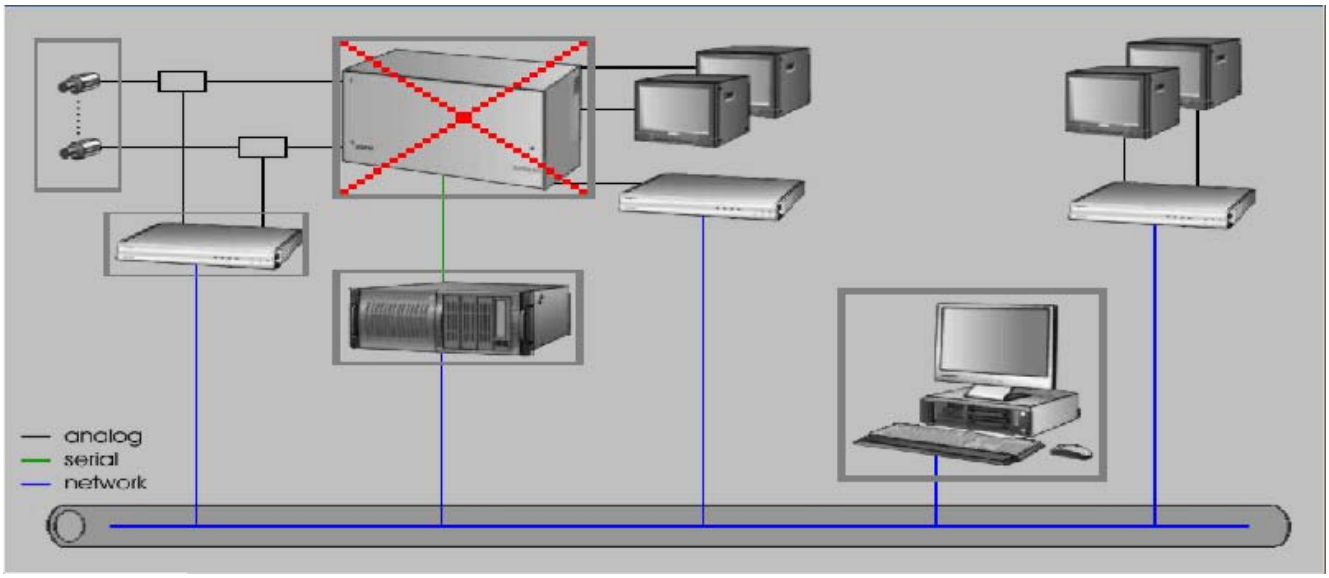
15 Plan configuration

The plan configuration is opened using the function **System configuration/Plan configuration**.

15.1 Configuration of system overview

1. Select **Plan configuration** in the **System configuration** menu and then **System overview** in the submenu.

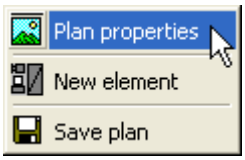
➔ The system overview is displayed:



This plan provides an overview of the status of the complete system (e.g. signal loss, defective device). More Information can be found in IVM Client, Section System overview.

2. Right-click on the system overview.

➔ The following context menu opens:



3. Select **Plan properties** from **context menu**.

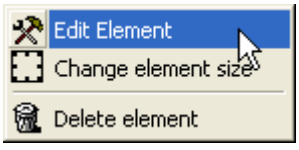
Here you can select the background image for the system overview. For more information, see Section 15.2: Create a new plan.

4. Select **New element** in the **context menu**.

➔ A new element is now created.

5. Right-click on the element.

➔ The following context menu opens:



6. Select **Edit element** in the **context menu**.

➔ The following dialog box opens:

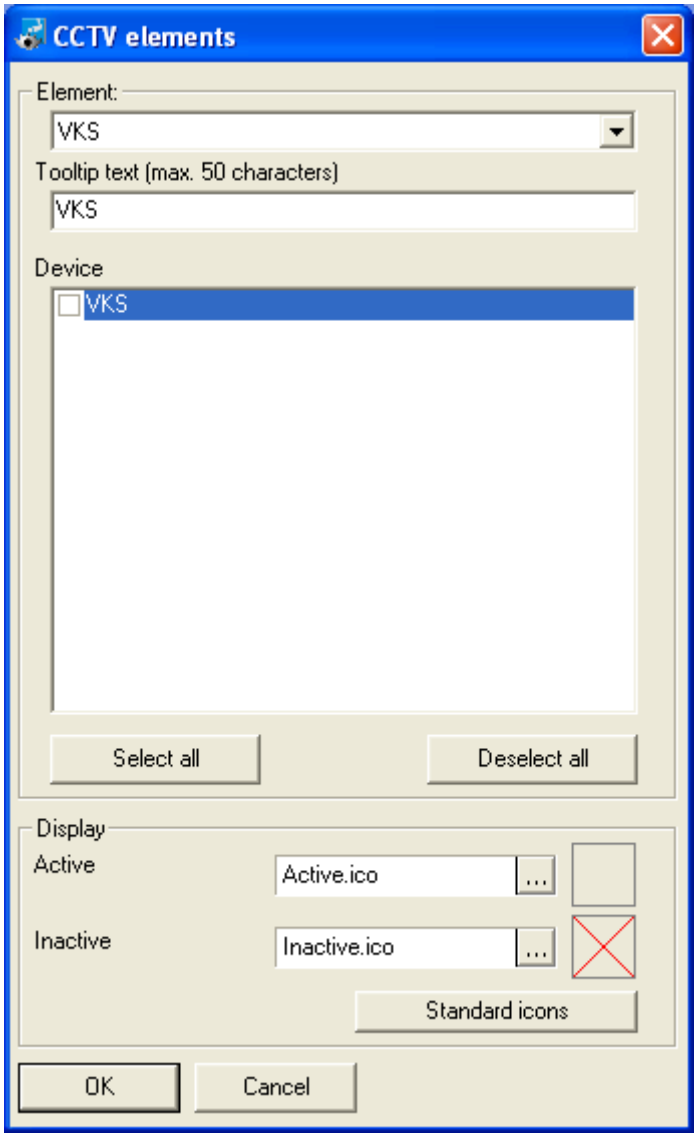


Fig. 124 CCTV elements

7. Make the following settings in the dialog box:

Element Camera, VKS, Server, SISTORE, Clients, TELEMAT	Selection of the component to be displayed using the collective icon.
QuickInfo text	Explanatory text.
	If this checkbox is selected, the status of the selected device will be displayed in the collective icon in the system overview (default: all checkboxes activated).
	If this checkbox is not selected, the status of the selected device will not be displayed in the collective icon in the system overview.
Display Active Inactive	By clicking the **Default icons** button a grey frame is assigned to "active“ and a red cross to inactive mode.
…	It is possible to assign user-defined icons using this button.

The icon can be deleted and its size changed here as in the system overview. For more information, see Section 15.2: Create a new plan.

15.2 Create a new plan

1. Select the menu sequence **System configuration > Plan configuration > New plan**.

➔ The following window opens:

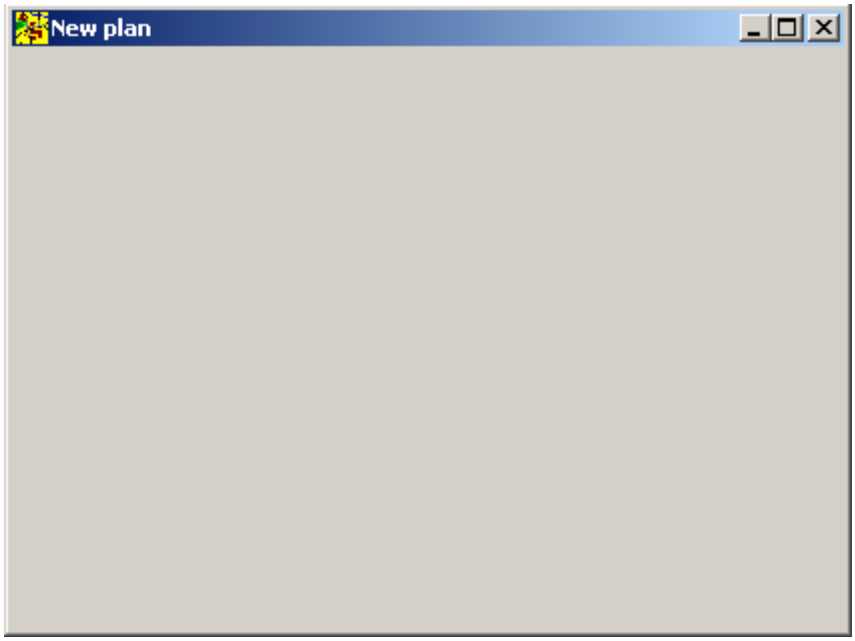
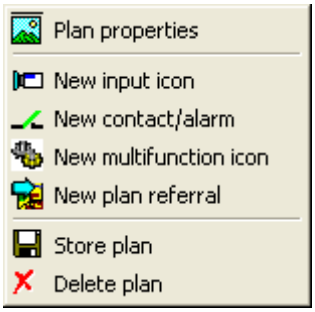


Fig. 125 New plan

2. Right-click on the plan.

➔ The following context menu opens:



3. Select **Plan properties** from the context menu.

➔ The following dialog box opens:

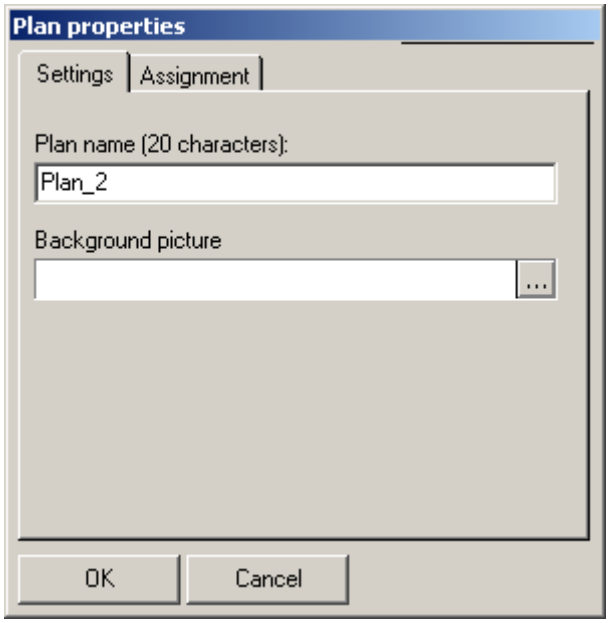


Fig. 126 Plan properties

4. Specify the properties of the plan.

Plan name (20 characters)	Here you must enter the name of the new plan
Background picture	Selection of the background image. The background images are stored in the directory: **D:\Cevis\Pictures**

5. Click on  .

➔ The following window opens:

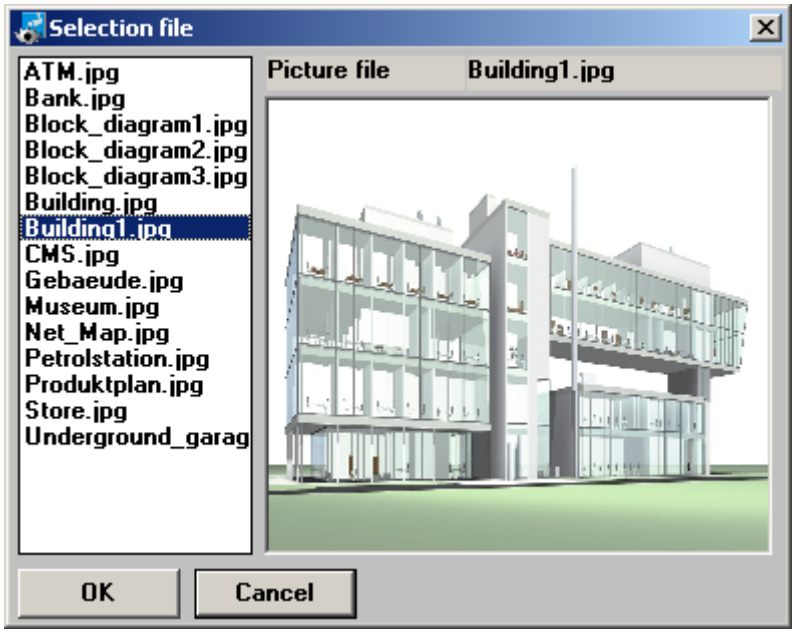


Fig. 127 Selection file

The background image for the plan must be available in a standard picture format (GIF, JPG).

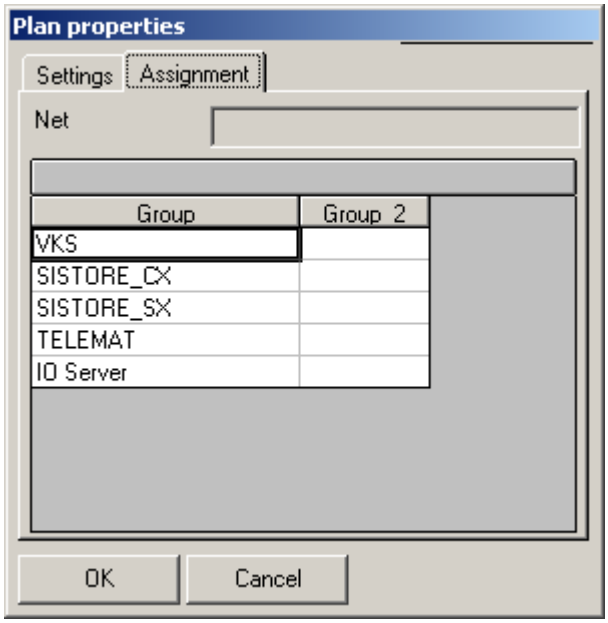


Fig. 128 Plan properties - Assignment

The plan can be assigned to different matrix systems or devices, i.e. only the cameras pertaining to the respective matrix or device are visualized in the plan.

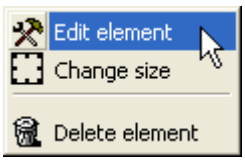
15.3 Create new element

You can use the menu **New element** to create an new station icon.

Change size

1. When you right-click on the new station icon, the following window is opened.

   ➔ The following context menu opens:



2. Select the menu item **Change size**.

   ➔ A frame is put around the icon.

3. You can now change the size of the element proportionally by keeping the left mouse button pressed while dragging the arrows. This does not apply to the **Plan referral** icon.

   The size and shape of the **Plan referral** icon can be changed as required.

4. You can use the left mouse button to shift the element to another position by keeping the mouse button pressed in the centre of the frame.

Delete element

With the function **Delete element** the element can be deleted from the plan.

Edit plan icon

Select **Edit element** in the **context menu**.

The following dialog box opens:

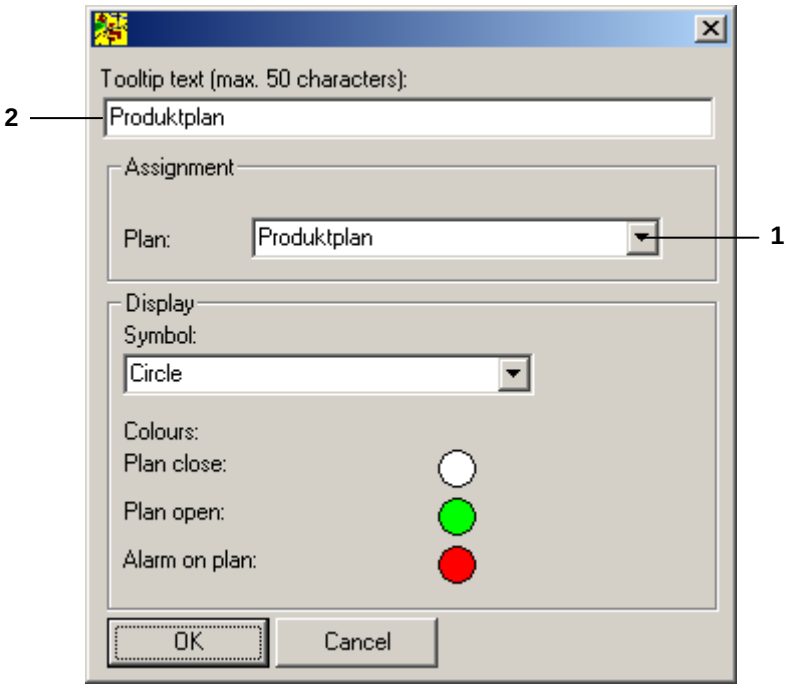


Fig. 129 Edit element

1	Selection of the graphics plan. Automatic plan selection: the first plan of the selected group is opened.
2	QuickInfo (appears when the mouse is moved across the icon!)

The plan icon can now be edited.

Symbols

The symbol can be assigned predefined shapes.

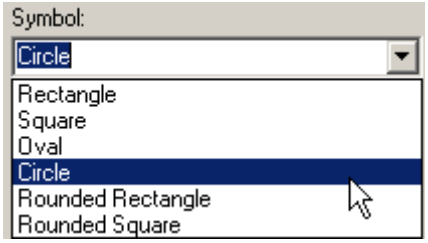


Fig. 130 Symbols

In addition, you can select the icon colour from the colour pallet below.

Fig. 131 Colour selection

You can select the colours for the individual alarm statuses if you click the three symbols Plan close, Plan open and Alarm on plan.

15.4 Edit plan

You can edit an existing plan by selecting the menu sequence **System configuration -> Plan configuration -> Edit plan**.

The following dialog box opens:

Fig. 132 Edit plan

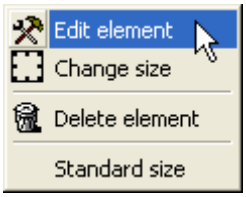
Open the plan you wish to edit by double-clicking on it.

15.4.1 New input icon

You can use the right mouse button to insert a new input symbol in the plan.

Up to 128 input symbols can be arranged on a plan.

If you have created a new icon and click it with the right mouse button, the following window appears:



The icon can be deleted and its size be changed here as in the plan overview and the system overview. If you select the function "Edit element", the following window is opened:

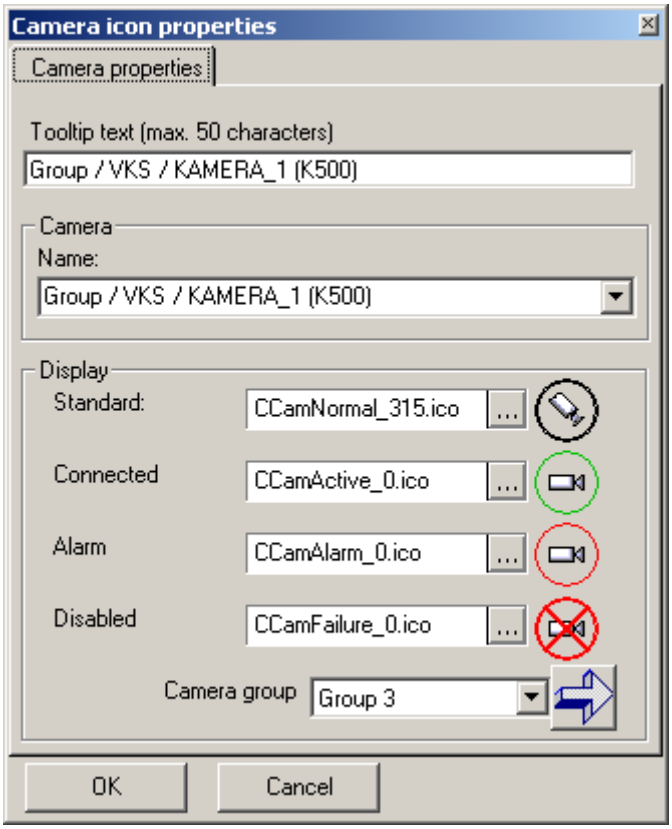


Fig. 133 Camera properties

Every time you click the  button, all cameras are rotated by 45°.

In this window, you can assign the camera to the input symbol. In addition, you can configure the four status icons of the camera.

A camera will appear only if it was previously assigned to the user in IVM Config.

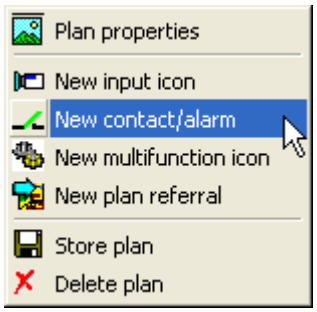
Up to 256 cameras can be configured for each plan.

15.4.2 New contact/alarm

The contact/alarm icon visualizes the status of the alarm input. There are three different statuses:

- Active
- Inactive
- Disabled

You can set a **Contact/alarm icon** by clicking the plan with the right mouse button.



Its shape, colour and the symbol can also be determined using the right mouse button.

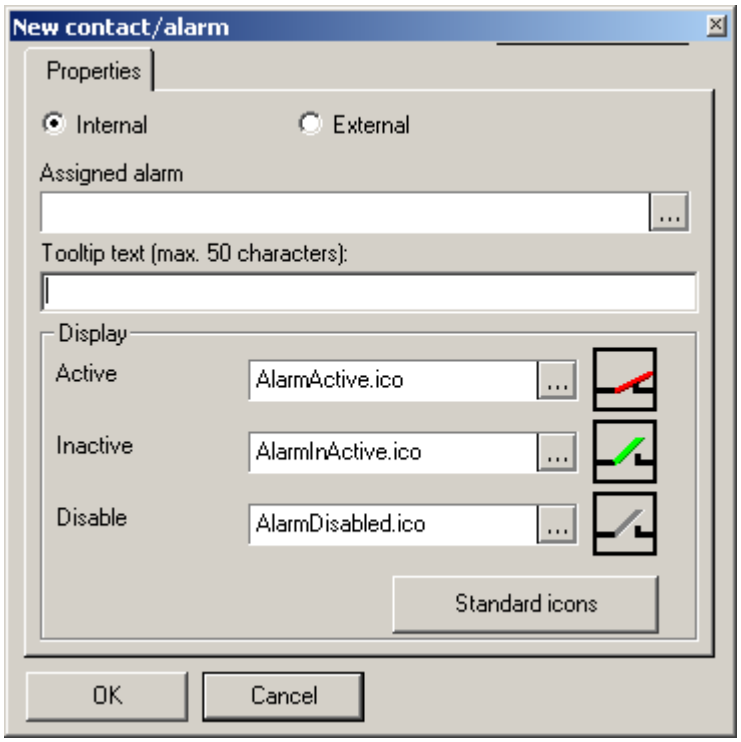


Fig. 134 Contact/alarm

Up to 256 alarm symbols can be configured for a plan.

15.4.3 New multifunction icon

Up to 120 symbols can be configured for a plan.

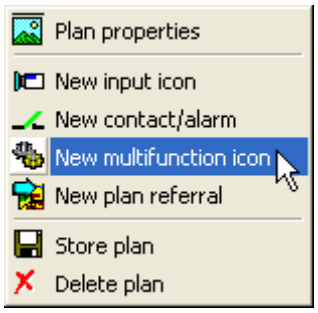


Fig. 135 New multifunction icon

With the multifunction icons, it is possible to configure commands for these symbols. Up to 32 commands can be assigned to each multifunction icon.

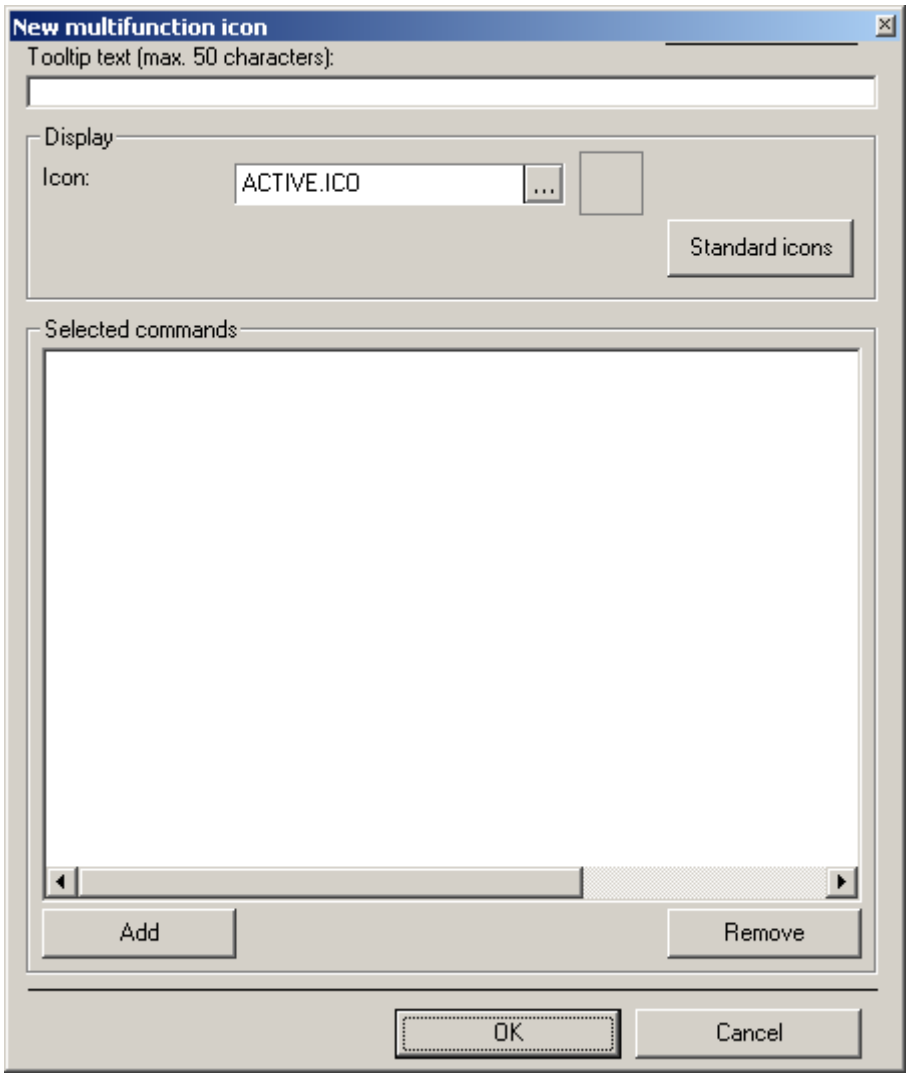


Fig. 136 Multifunction icon – Configuring commands

A large number of project-specific functions can be implemented using the multifunctional icon, e.g. enabling/disabling of entire components, switching of cameras, moving cameras to predefined positions, etc.

Basically, every IVM API command can be assigned to the multifunctional icon. The external alarms must be created in IVM Config before they can be assigned to the icons on the plan.

The commands are configured in IVM Config, and are then assigned in the icon configuration under the "External commands" tab.

In the input mode of the **IVM Client**, the menu is opened using the right mouse button. The command is executed by clicking on the selected menu sub-item.

Fig. 137 All commands

By double-clicking the icon, all commands associated with it are executed.

15.4.4 New plan referral

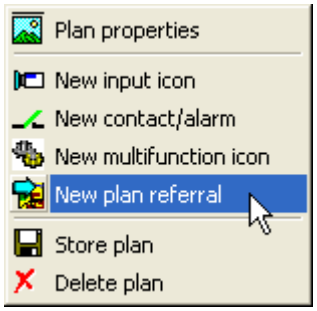


Fig. 138 New plan referral

You can use this function to set a new layer icon on the plan. This layer icon can be used to branch to another plan in operating mode.

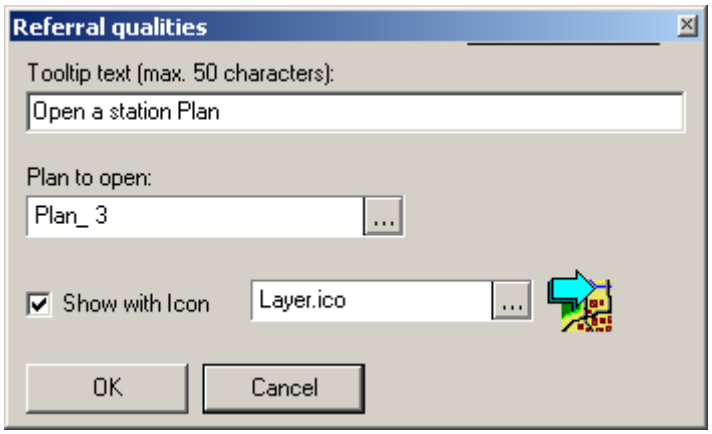


Fig. 139 Referral qualities

The layer icon is visualized as a sensitive area or as an icon.

Up to 20 layer icons can be set on a plan.

15.4.5 Store plan

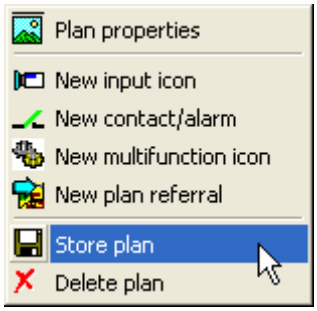


Fig. 140 Store plan

Use this command to save the current plan with all objects.

15.4.6 Delete plan

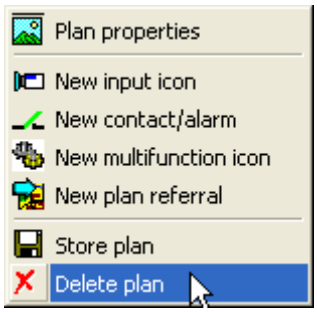


Fig. 141 Delete plan

Use this command to delete the current plan.

15.4.7 Plan assignment to devices/groups

1. Select the menu sequence **System configuration > Plan configuration > New plan**.
2. Right-click on the plan.
3. Select **Plan properties** from the context menu.
4. Select the **Assignment** tab.

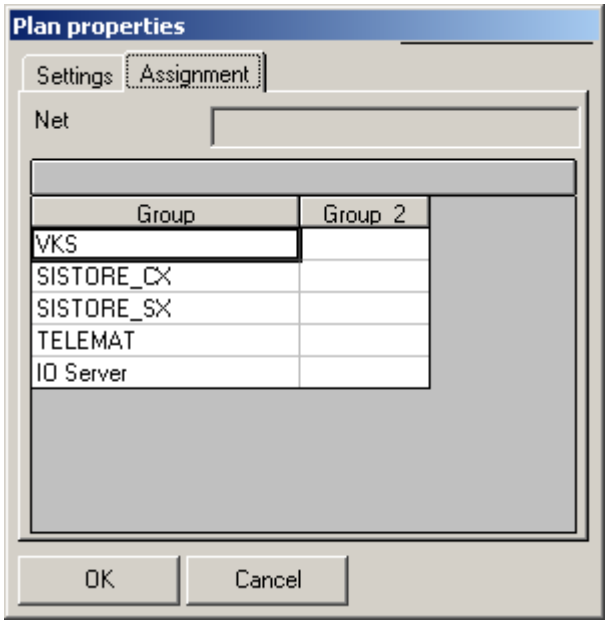


Fig. 142 Plan properties - Assignment

5. Select the device or group to which you want to assign the plan:
   - General group (select by double-clicking on the grey bar above the column headers, e.g. Group 1, Group 2, etc.).
   - Assignment to a group (select by double-clicking the desired column header box (e.g. Group 1 or Group 2).
   - Assignment to a device (select by double-clicking on a device in the group, e.g. VKS).
6. Click **OK**.

16 Configuration of the Software Monitor

A software monitor is a component that is used to play digital live images on a VGA monitor.

1. Select **Software monitors** in the **System configuration** menu.

   ➔ The following dialog box opens:

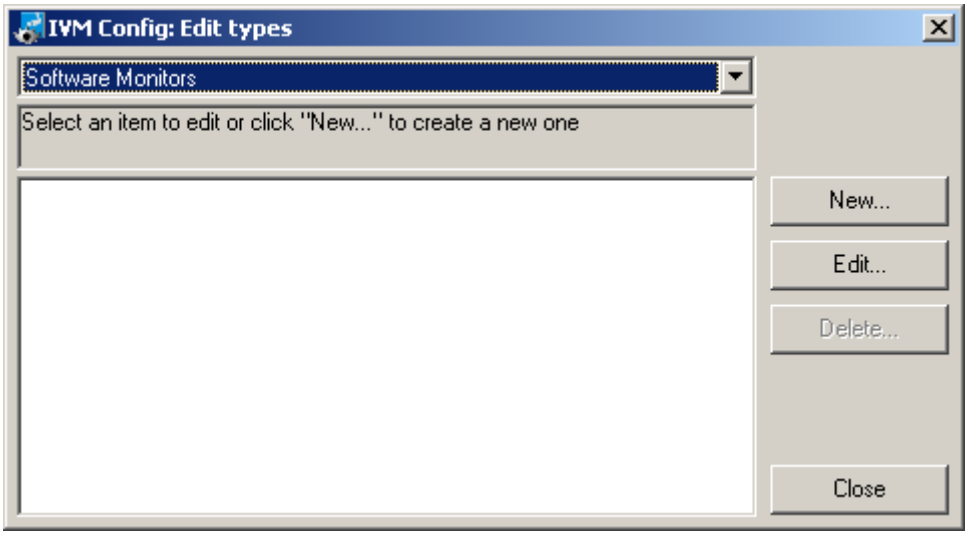
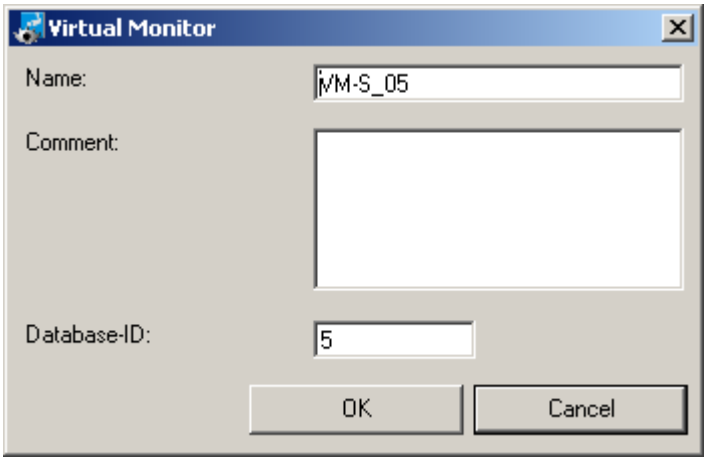


Fig. 143 Software Monitors

2. Click **New** to add a new entry or **Edit** if you want to edit an existing entry.

   ➔ The following dialog box opens:



3. Enter the name of the software monitor, a comment and the database ID.
4. Click **OK**.

17 Scheduler

With the scheduler function it is possible to execute specific commands at specific times. The scheduler events can be configured from the operator terminals according to the following criteria:

- at certain times (date/time)
- on certain days of the week
- on certain days of the month

The events may be carried out only once or recurrently at specific times/dates. The number of events is limited by the type of command. Basically, the number of commands configured per minute should not exceed 20.

The timer control commands are saved in the SQL or Access database.

17.1 Configuring scheduler entries

1. Select **Scheduler** in the **System configuration** menu.
   ➔ The following dialog box opens:

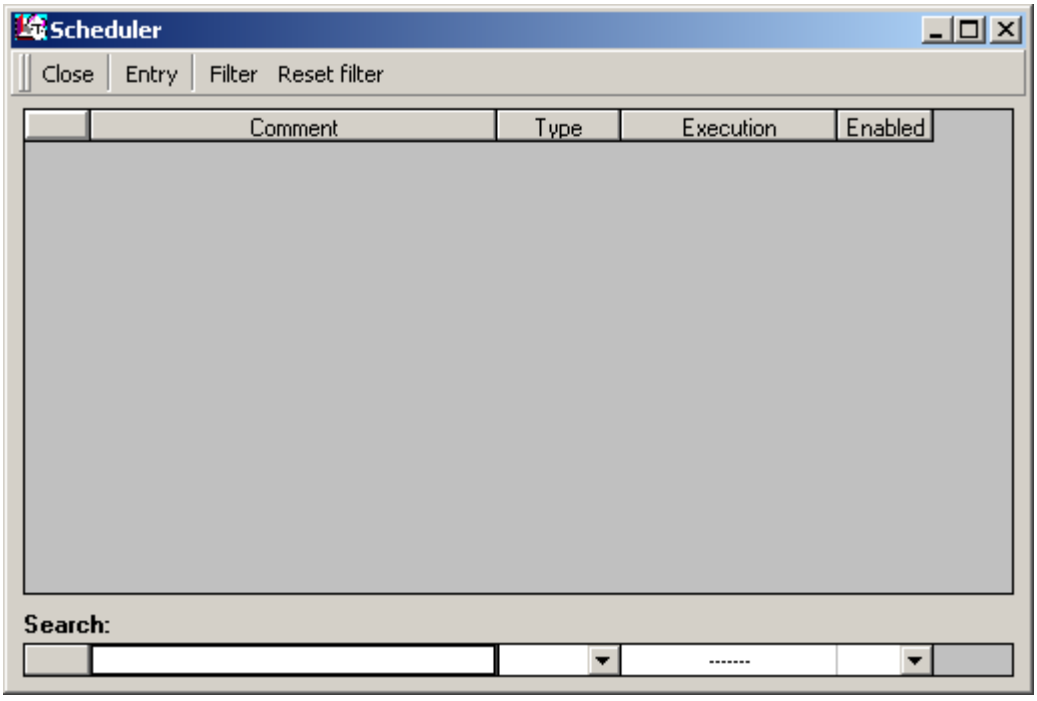


Fig. 144 Scheduler

2. Select **New** in the **Entry** menu
   ➔ This opens the window in which single execution or serial execution, the command, the date, the time and specific functions of the scheduler can be configured.

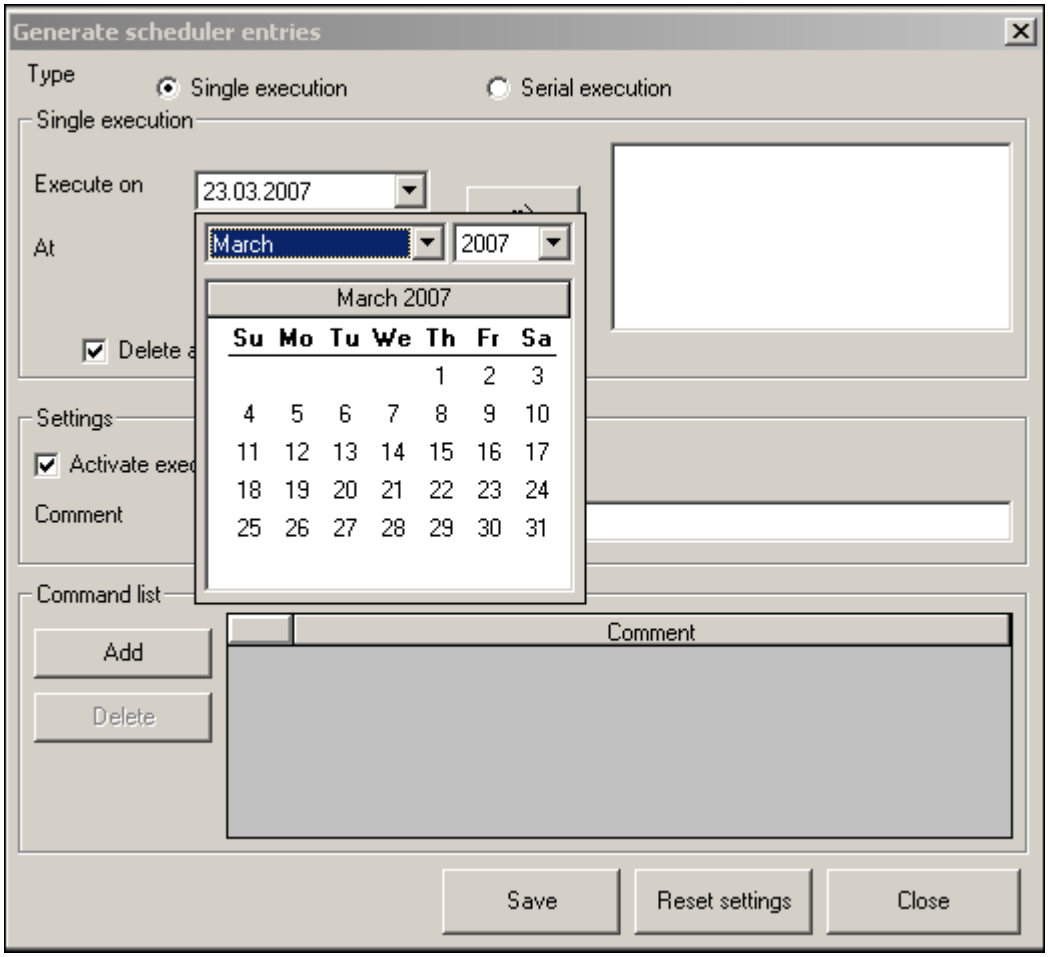


Fig. 145 Single execution Scheduler

If single execution is selected, the command will be executed only once. If the command is to be executed recurrently on specific days, the "Serial execution" option must be selected. The box "Activate execution" must be checked as otherwise the command will not be executed. The function "Delete after execution" can be used to delete the entry when it has been executed.

For a better clarity a comment should be assigned to each command.

Serial configuration permits a wide range of possible configurations, for instance:

- Daily
- Weekly
- Monthly
- Yearly
- User defined

Daily: With this command, an action can be performed daily at a certain time.

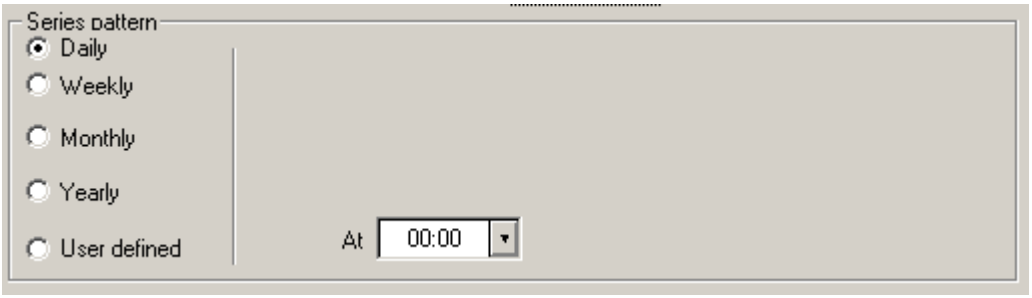


Fig. 146 Daily

Weekly: With this command, an action can be performed on a certain day of the week.

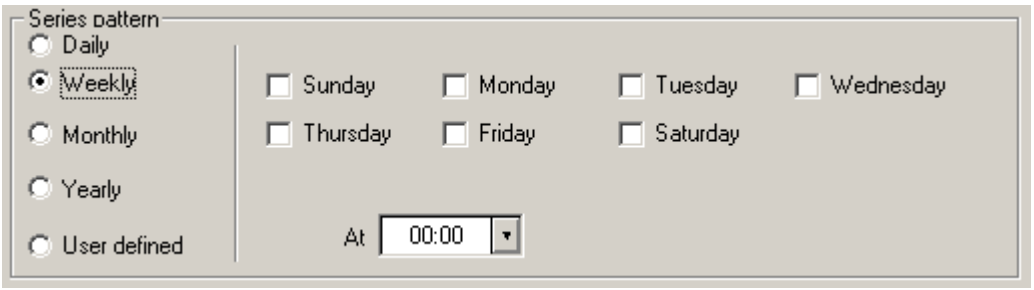


Fig. 147 Weekly

Monthly: With this command, an action can be performed on a certain day of the month.

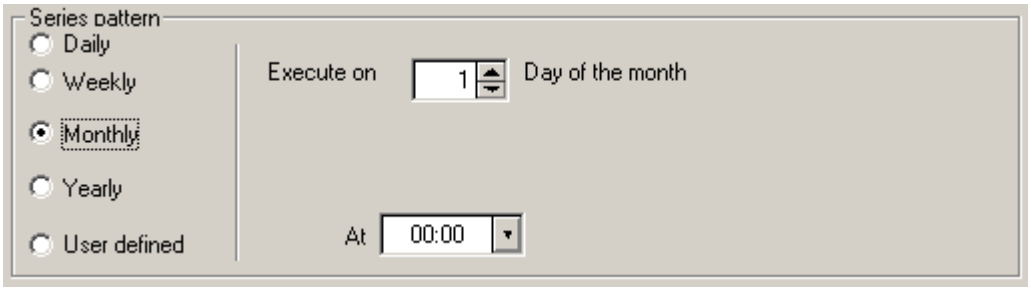


Fig. 148 Monthly

Invalid entries, e.g. 31 February, are not executed by the IVM server and are not automatically deleted either. The IVM server does not check the validity of a command!
The system administrator is responsible for the avoidance of such commands.

Yearly: With this command, an action can be performed on a certain day of the year.

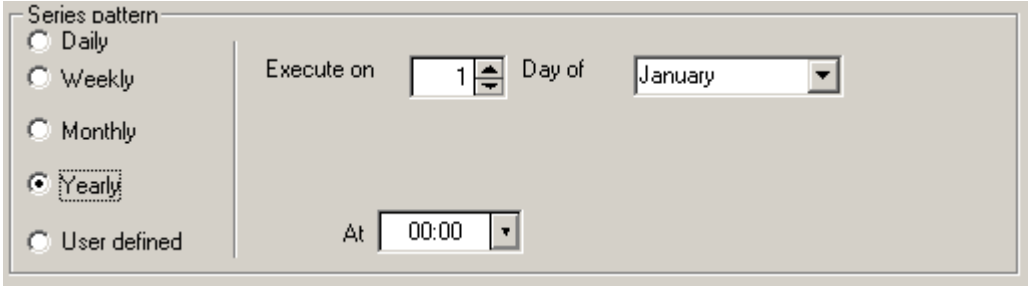


Fig. 149 Yearly

User defined: It is possible to generate a specific command. If wildcards "*" are set instead of values, the command will be executed repeatedly. For example, if no value is set for the day of the week, the IVM server will execute this command on each day of the week. The fewer wildcards used, the more specific is the command execution.

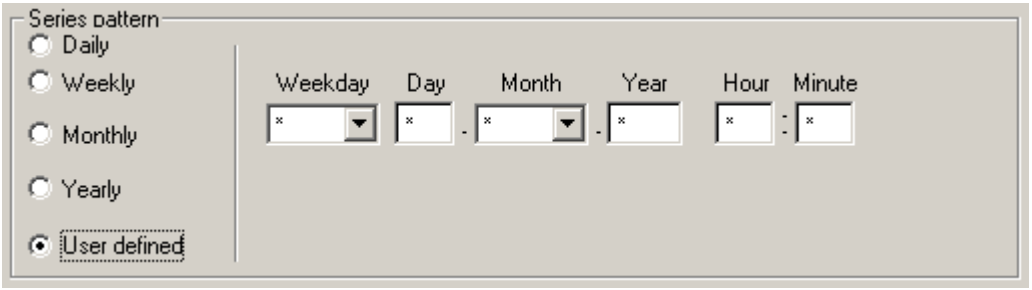


Fig. 150 User defined

It also applies here that invalid entries will not be executed by the IVM server. In general, no wildcards should be used. The system administrator is responsible that meaningful commands are generated.

Click **Add**. When the time criteria have been configured, the command must be selected from a list. The command type can be set for simpler selection.

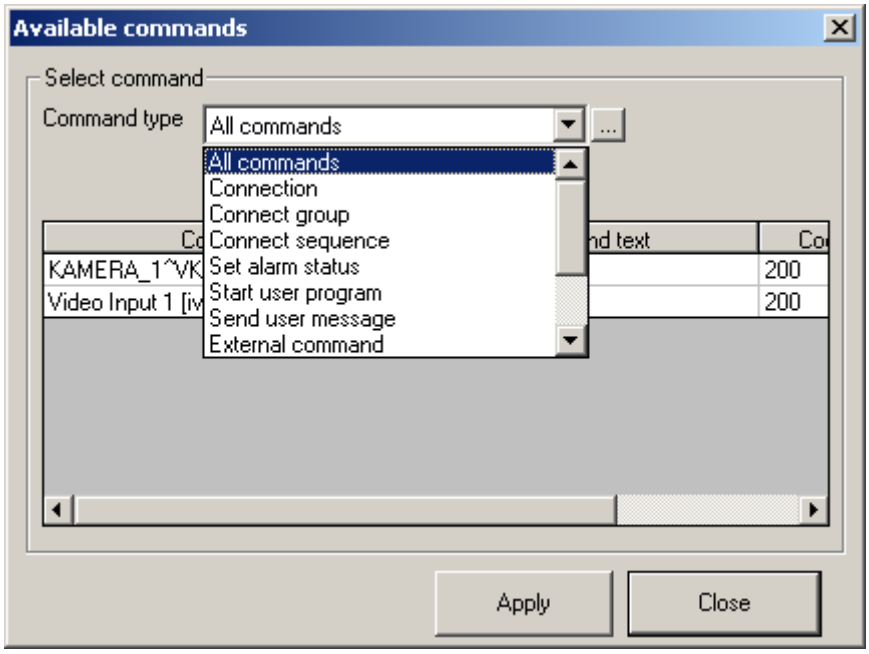


Fig. 151 Scheduler commands

18 SIMATRIX integration

The SIMATRIX device family incorporates various system sizes of analog video matrix switchers. These are controlled by IVM in terms of the system design concept.

The SIMATRIX is connected to the IVM server via a COM port.

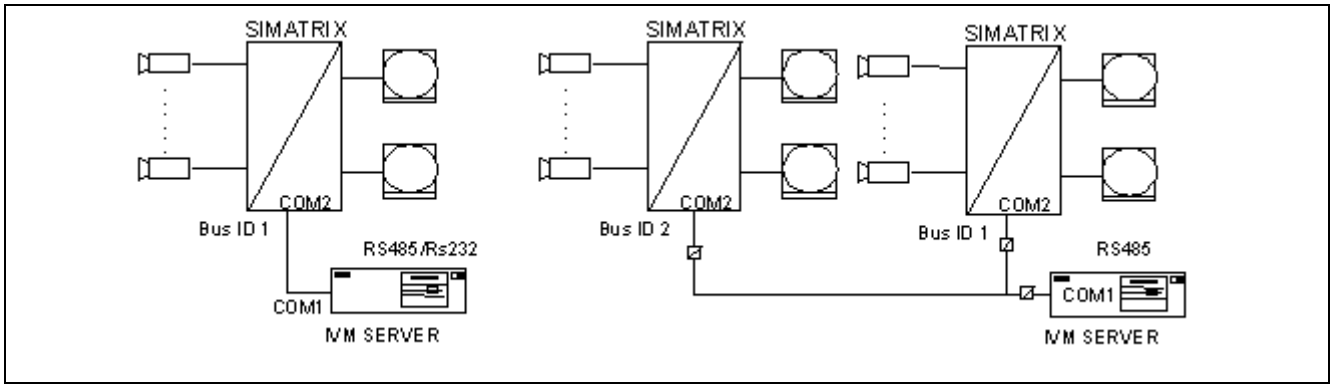


Fig. 152 SIMATRIX –IVM server connection options

The IVM server can only be connected to the SIMATRIX on COM2.

18.1 Adding and configuring SIMATRIX

Prerequisite:

The **video matrix** (SIMATRIX) needs to be configured in the database with the COM port of the computer.
Cameras and monitors can be connected directly to a SIMATRIX or they can be cascaded with other components.

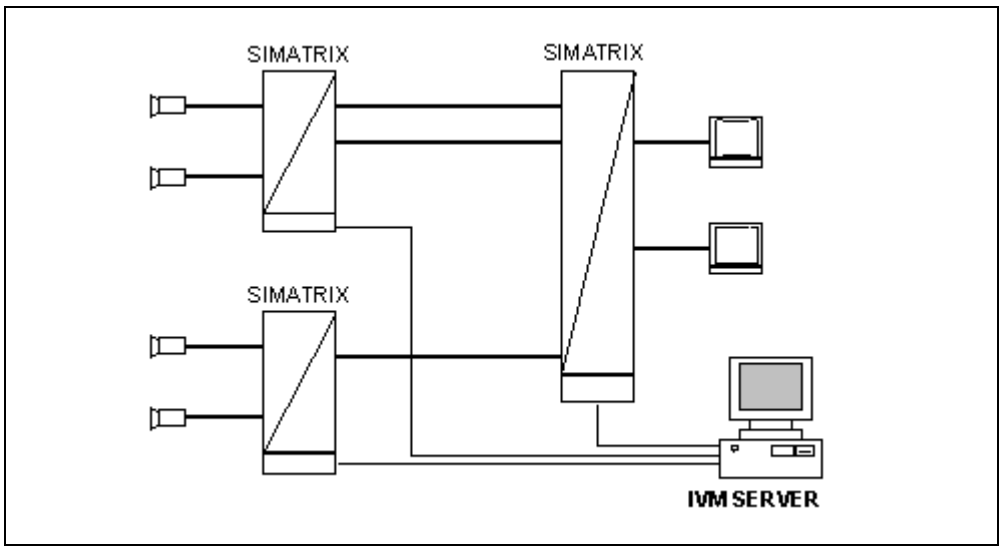


Fig. 153 Example for the cascading of video matrix switchers

1. Start **IVM Config**.

2. Click the icon  **Add new component**.

➔ The following dialog box opens:

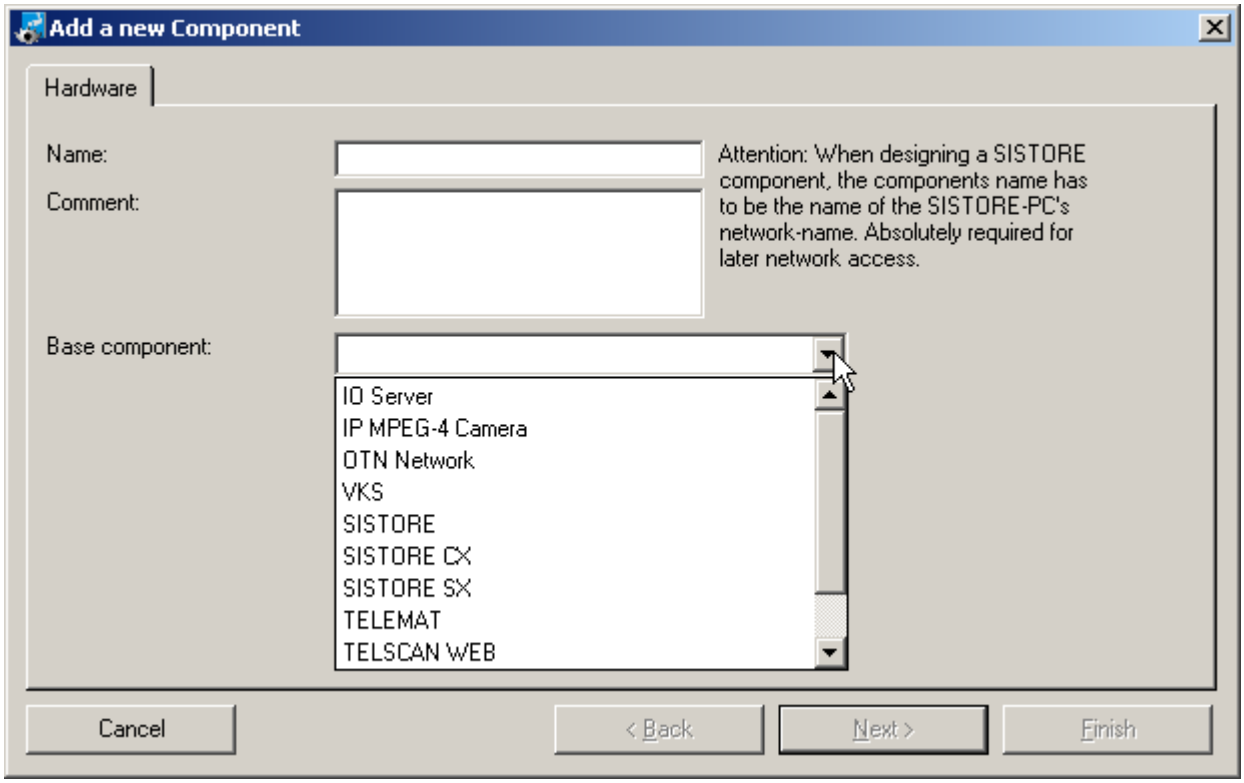


Fig. 154 Add a new component

3. Select **VKS** in the list box **Base component**.

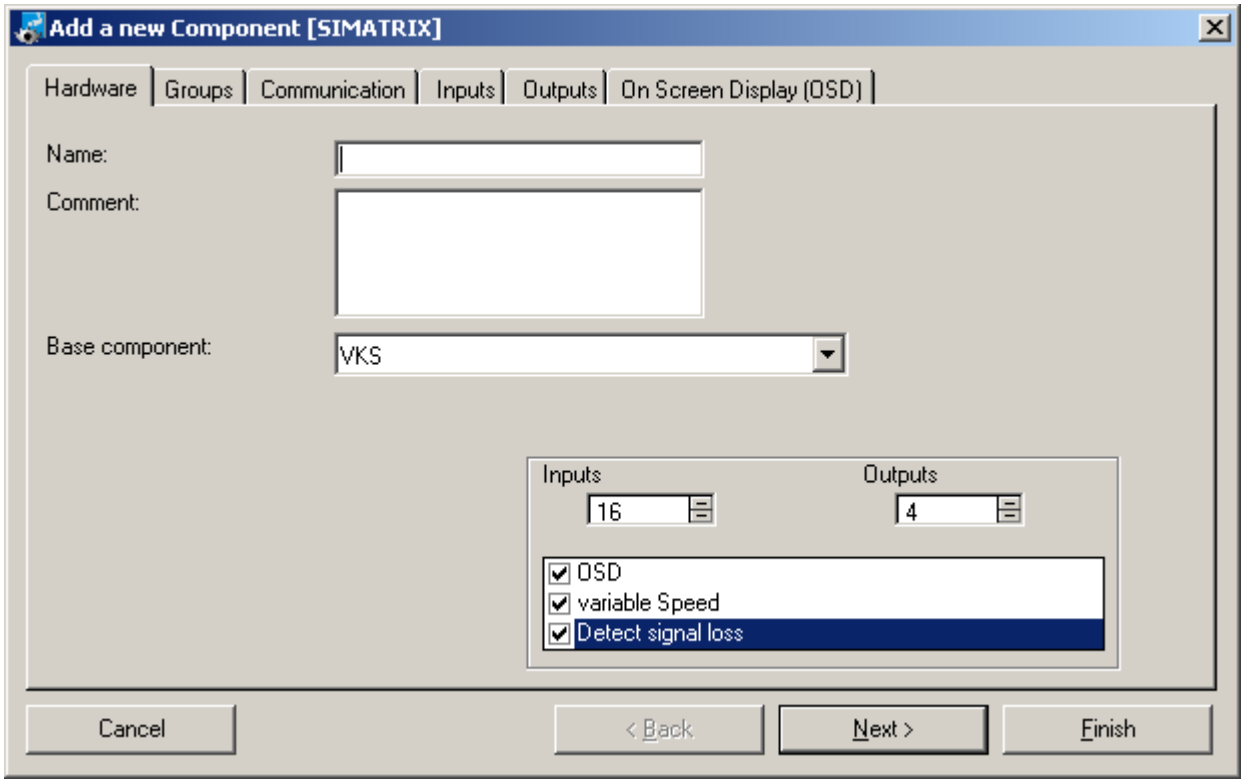


Fig. 155 Hardware – Video matrix

4. Make the following settings in the dialog box:

Name	Enter the name of the video matrix in this field.
Comment	The addition of a comment is optional.
Base components	Select **VKS**.
Inputs	Select the number of inputs.
Outputs	Select the number of outputs.
OSD	The device supports OSD text overlay. See Section 6.1.5: On-screen display (OSD).
Variable speed	The device supports variable-speed camera control

Assign the video matrix to a group

1. Select the **Groups** tab.

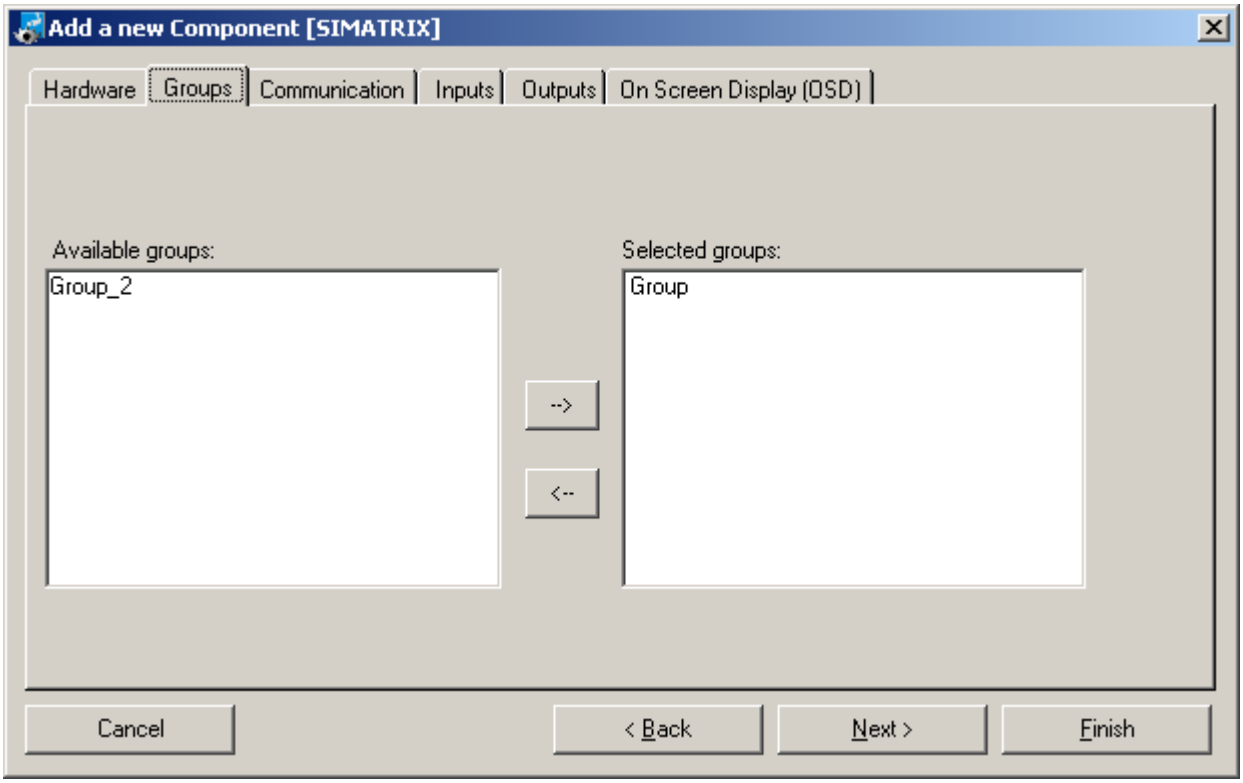


Fig. 156 Groups

2. Assign the component to the selected **Group** using the arrow button or by double clicking on the group.

Set type of protocol and port

1. Select the **Communication** tab.

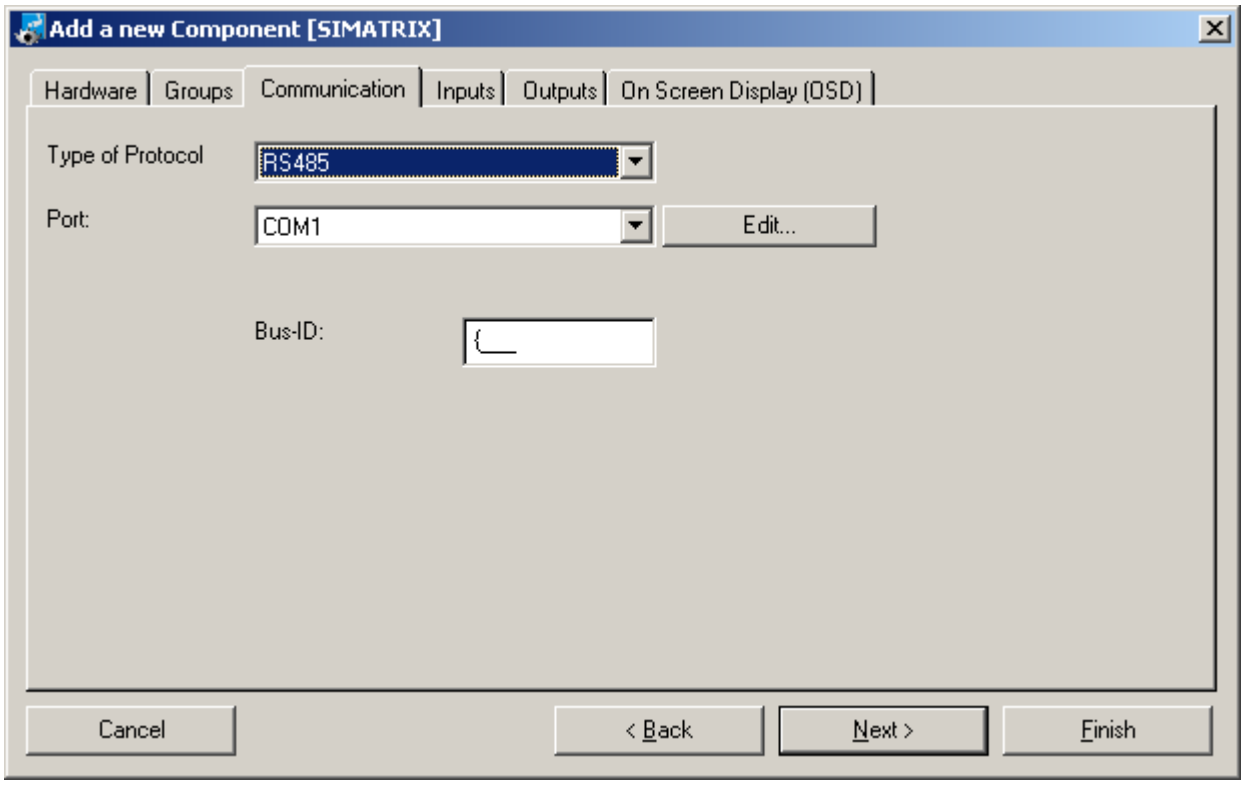
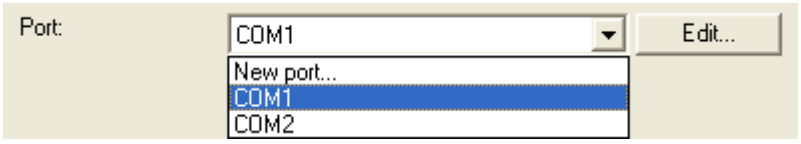


Fig. 157 Communication

2. Select the **Type of Protocol**: RS232, RS485 or TCP/IP.
3. Select the appropriate **Port**.



4. Select **New port…** if you wish to create a new port.
5. To edit a port, click on **Edit…**. See Section 7.1: Configuring ports.

➔ The following dialog box opens:

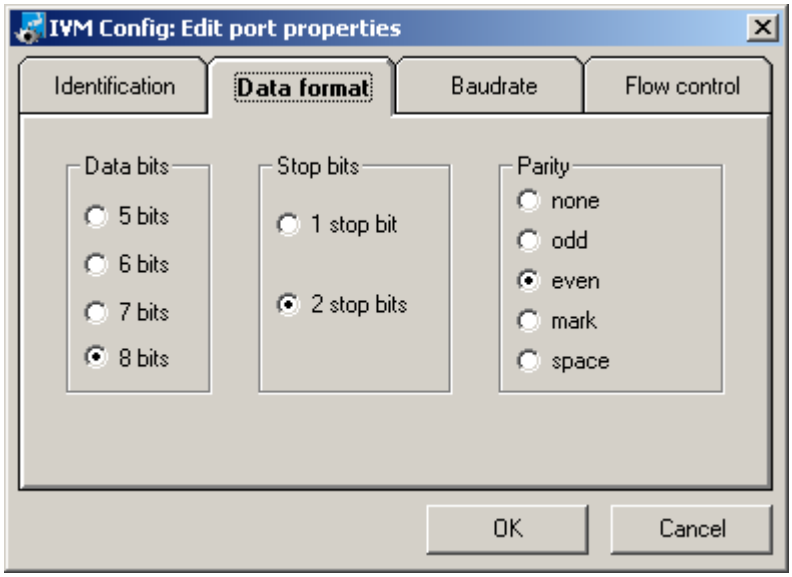


Fig. 158 Edit port properties – Flow control

The standard settings for the port are **8 data bits**, **2 stop bits**, **even parity**, **19200 baud** with software flow control.

6. Enter the **Bus ID**.

7. Select the **Flow control** tab.

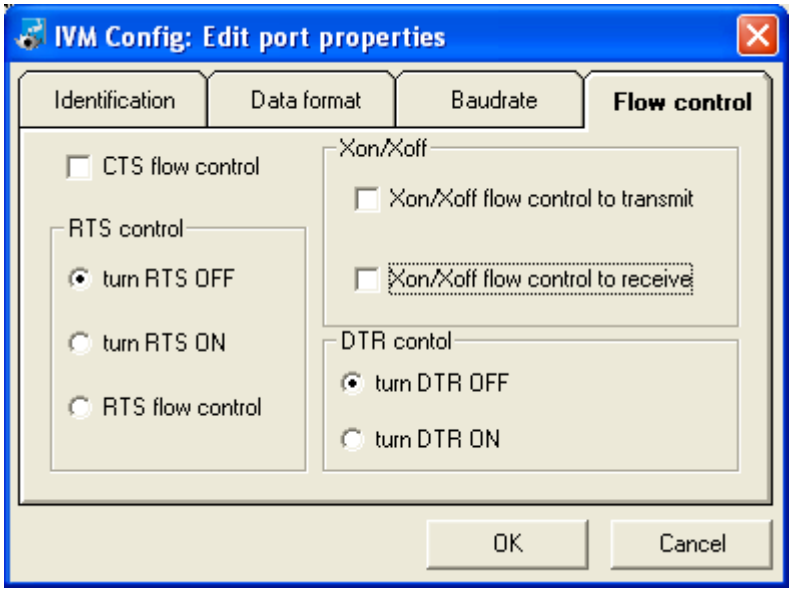


Fig. 159 Port properties - Flow control

8. Unmark the checkboxes **Xon/Xoff flow control to transmit** and **Xon/Xoff flow control to receive**.

Configure inputs and outputs

1. Select the **Inputs** tab.

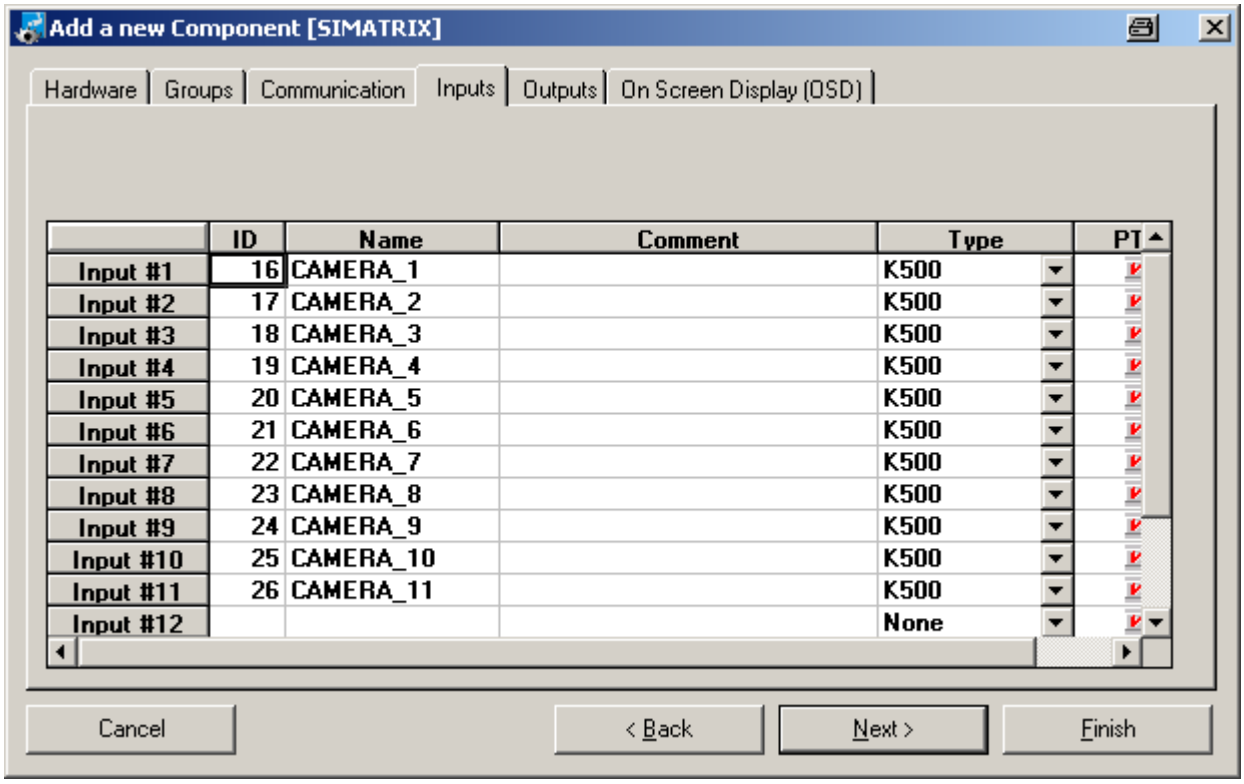


Fig. 160 Inputs

2. Make the following settings in the dialog box:

ID	Assigned by the system.
Name	Enter the name of the video matrix in this field. During configuration attention should be paid to a uniform naming scheme, since this contributes to clear organization of the system.
Comment	The addition of a comment is optional.
Type	Select the type:  Any connections to outputs and other devices can also be entered here. Select the type **Connection**. ➔ In the dialog which opens you can select a device and an output. Connection to outputs on the same device is not possible!
PTZ control	Tick the checkbox if the camera features PTZ control.

3. Select the **Outputs** tab.

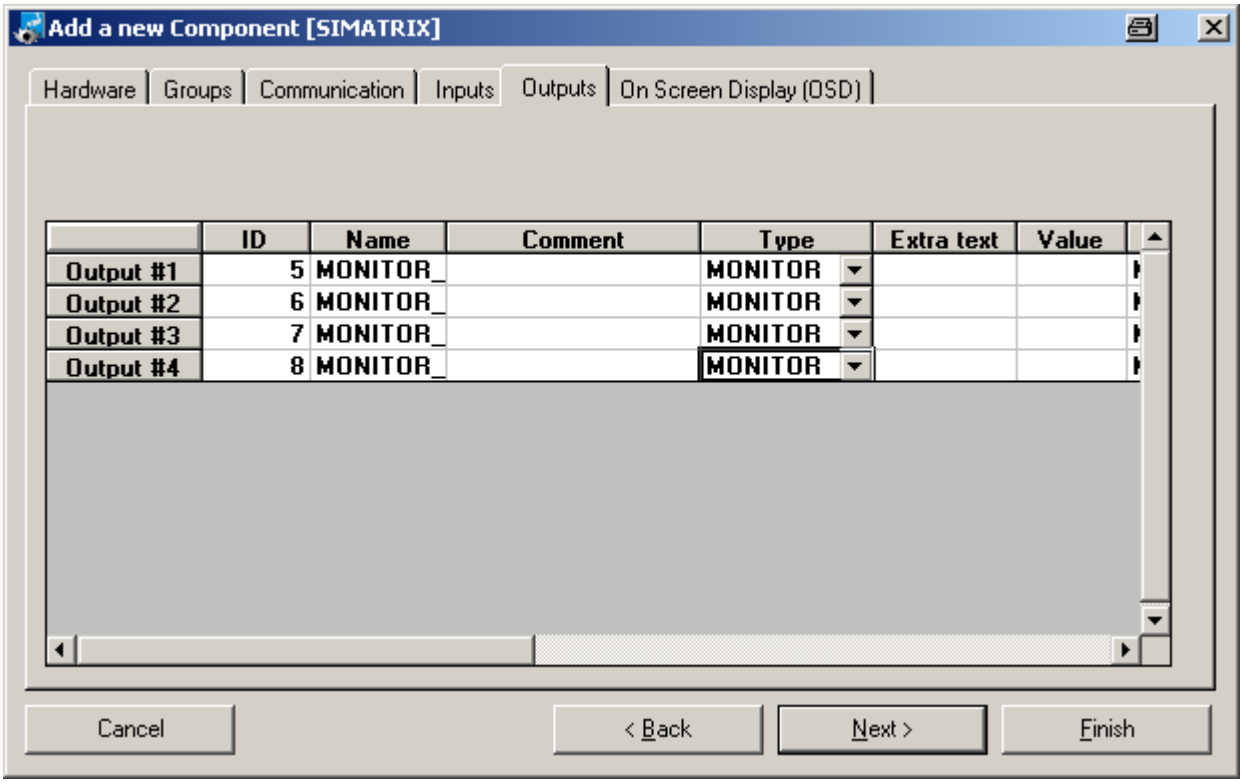
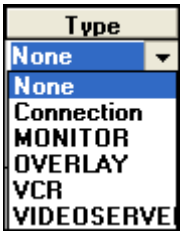
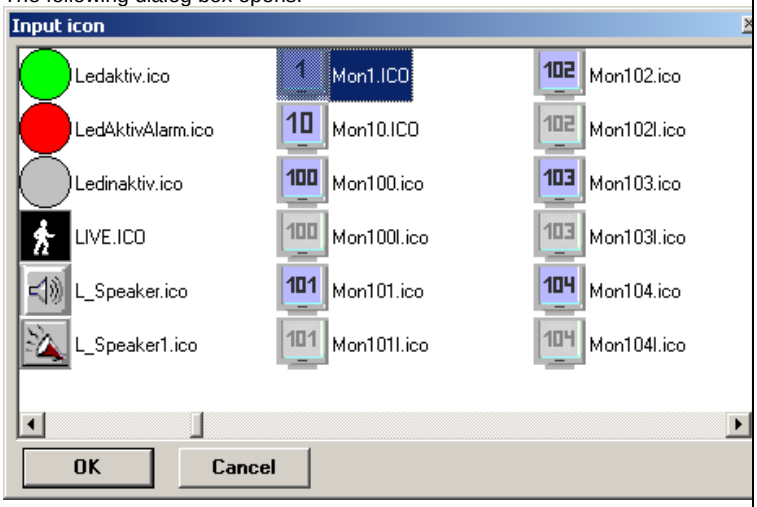


Fig. 161 Outputs

4. Make the following settings in the dialog box:

ID	Assigned by the system.
Name	Enter the name of the output in this field. During configuration attention should be paid to a uniform naming scheme, since this contributes to clear organization of the system.
Comment	The addition of a comment is optional.
Type	Select the type:  Any connections to outputs and other devices can also be entered here. Select the type **Connection**. ➔ In the dialog which opens you can select a device and an output. Connection to outputs on the same device is not possible!

Icon Standard **"Busy" icon** **"Record" icon** **"Fail" icon** **"Alarm" icon**	Select an icon for the output. **1.** Click the  button. ➔ The following dialog box opens:  **2.** Select the desired icon.

5. Click **Apply**.

➔ Your settings are saved.

For more information, see Section 6: Configuring components.

18.2 Configuration of SIMATRIX using VM_WIN8

The program **VM_WIN8.exe** which can be found in the Tools group in Setup is used for SIMATRIX configuration.

Two configuration files **ivm_nt.DAT** and **IVM_without_camera_text.DAT** (D:\Cevis\Simatrix\) are available, which can be adjusted according to the system configuration. Use of COM2 on the SIMATRIX is the default setting. Proceed as follows:

1. Start the program **VM_WIN8.exe**

   ➔ The following dialog box opens:

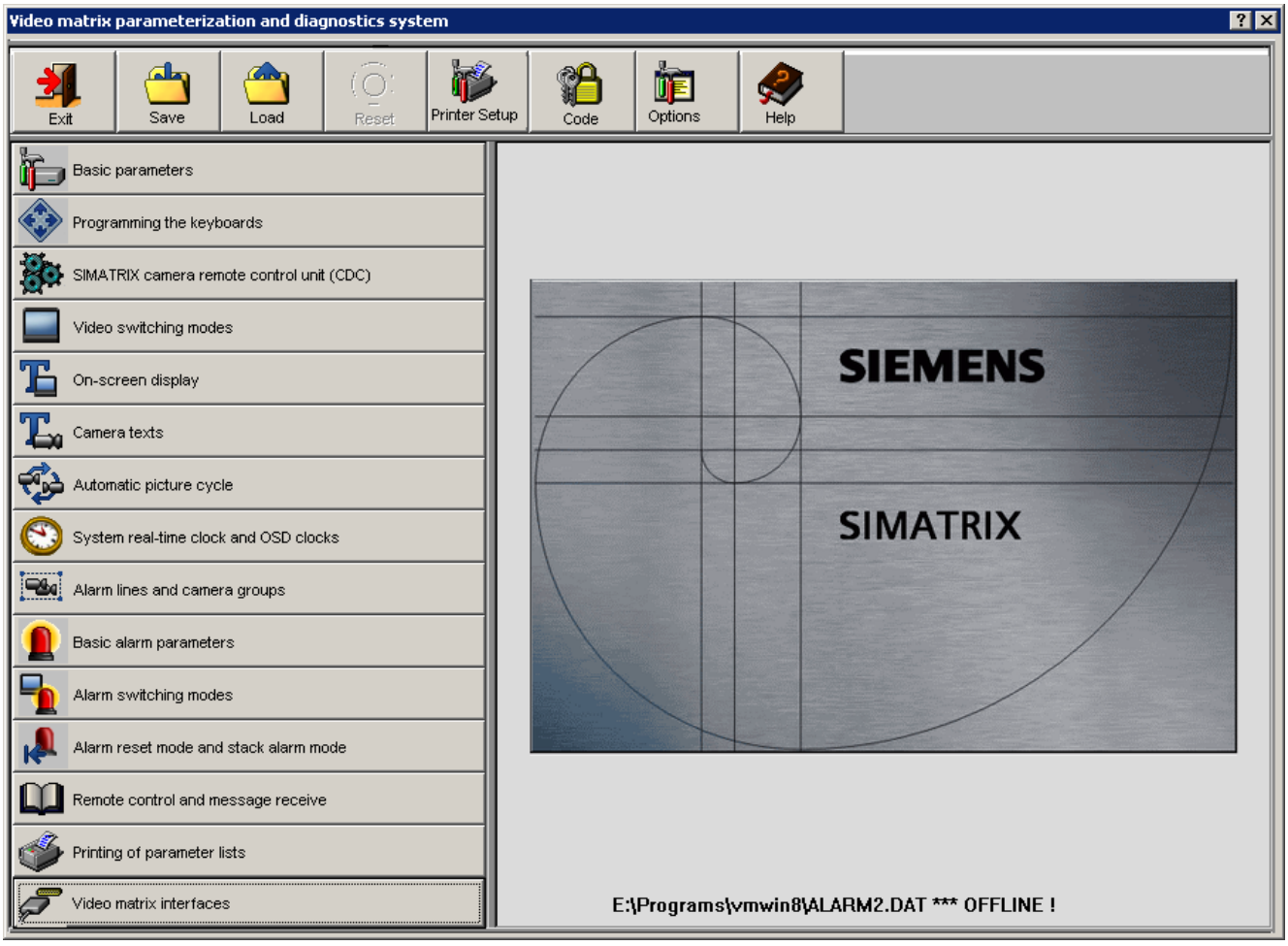


Fig. 162 Video matrix

2. Click the **Load** icon 

.

➔ The following dialog box opens:

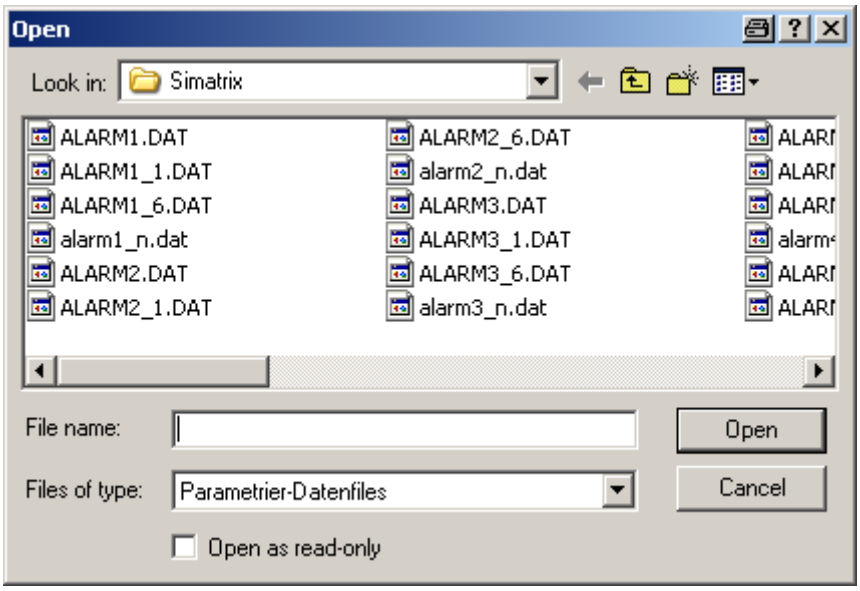
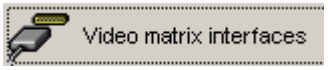


Fig. 163 Open config file

3. Select **IVM_NT.DAT.**

➔ The program will be loaded.

It is especially important that all of the SIMATRIX ports used by the IVM are set to operate without message repetition and that the port configuration, including the RS485 Bus ID corresponds to the IVM configuration. These settings can be edited in VM_WIN8.exe on the “Protocol” tab.

4. Click 

Video matrix interfaces.

➔ The following dialog box opens:

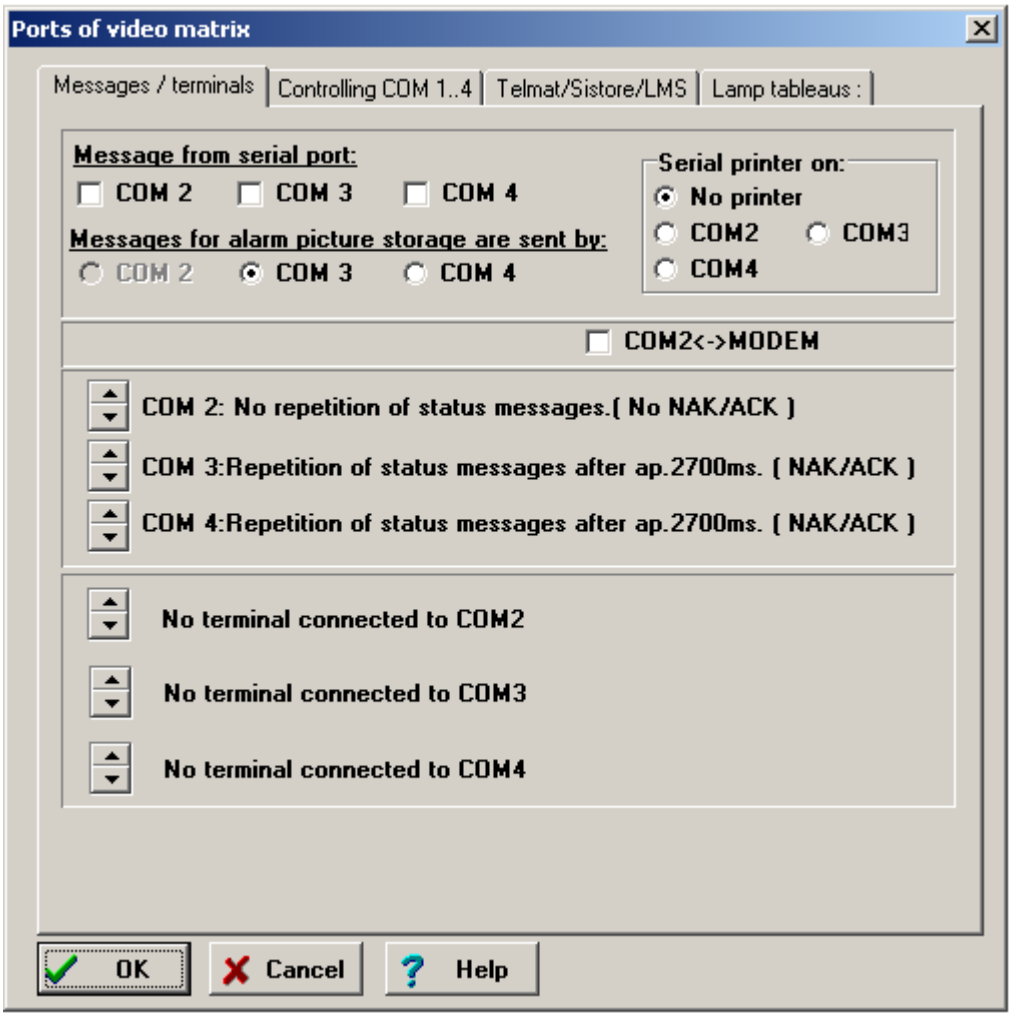


Fig. 164 Ports

5. Select the **Controlling COM1…4** tab.

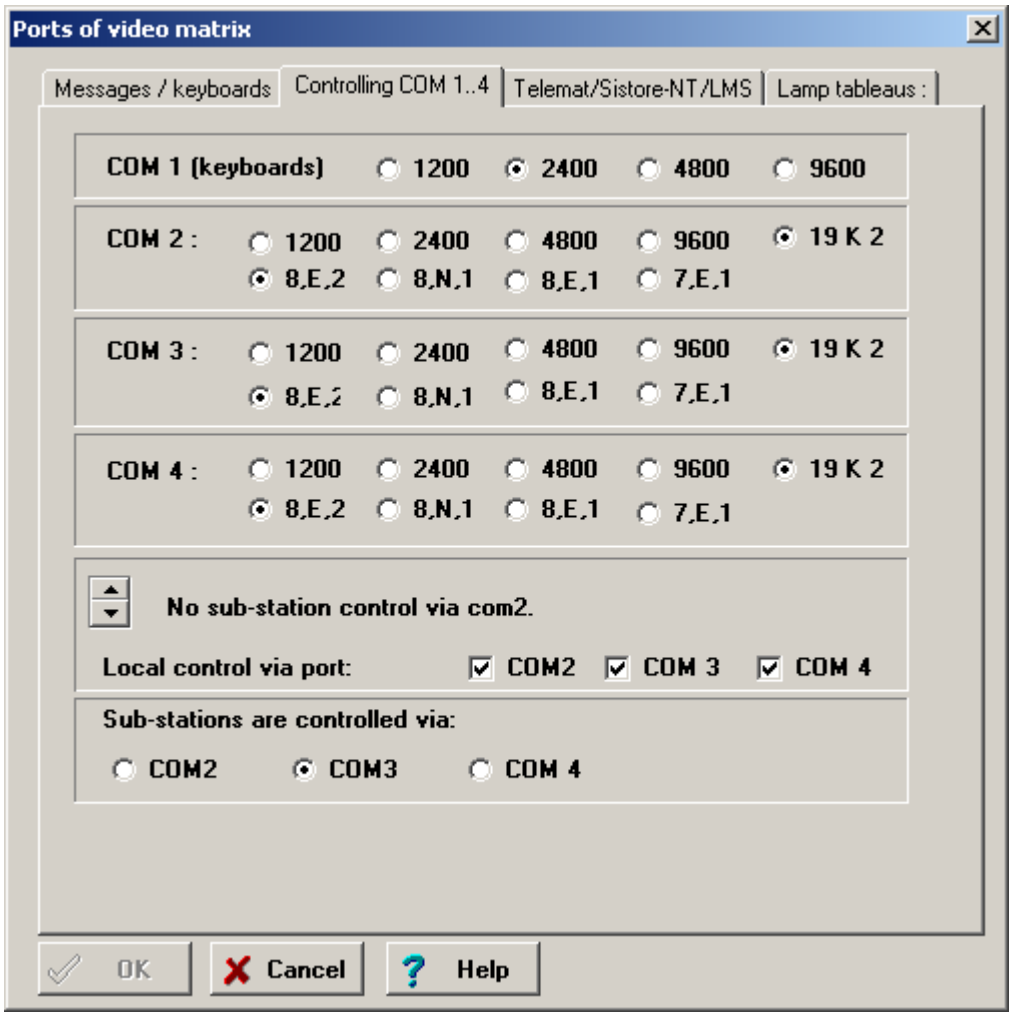


Fig. 165 Controlling COM1..4

6. Click on  to set the **Address** of the bus ID.

The address corresponds with the **Bus ID** of the COM2 port in RS485 mode (see Fig. 157).

On SIMATRIX 164 and 648 a signal loss is detected only if a sequence has been activated for one of the outputs; on SIMATRIX SYS signal loss is detected automatically.

19 SISTORE CX/AX/MX integration

This chapter describes the integration of SISTORE AX/MX/CX into IVM. The components of the SISTORE xX series are digital video recorders which can be controlled via IVM.

The description below refers to the current product versions:

SISTORE MX	2.70
SISTORE AX	3.5
SISTORE CX	3.6

SISTORE is integrated into IVM as a component. SISTORE and the IVM server communicate over the Winsocket TCP/IP interface. Using the IVM Client the SISTORE video sequences can be played and recording started and stopped.

In the case of combined systems (IVM, SISTORE) make sure that the same user name and the same password are used for all systems. Otherwise communication problems may result.

Switching several cameras with one event, it is proposed to assign only one SISTORE SX rule to each camera.

19.1 Modes of operation

There are two possible ways of integrating SISTORE device:

- Integration of SISTORE behind a video matrix (not applicable to SISTORE AX/MX)
- Integration of SISTORE before a video matrix

The possible ways of integration are shown in the following diagrams.

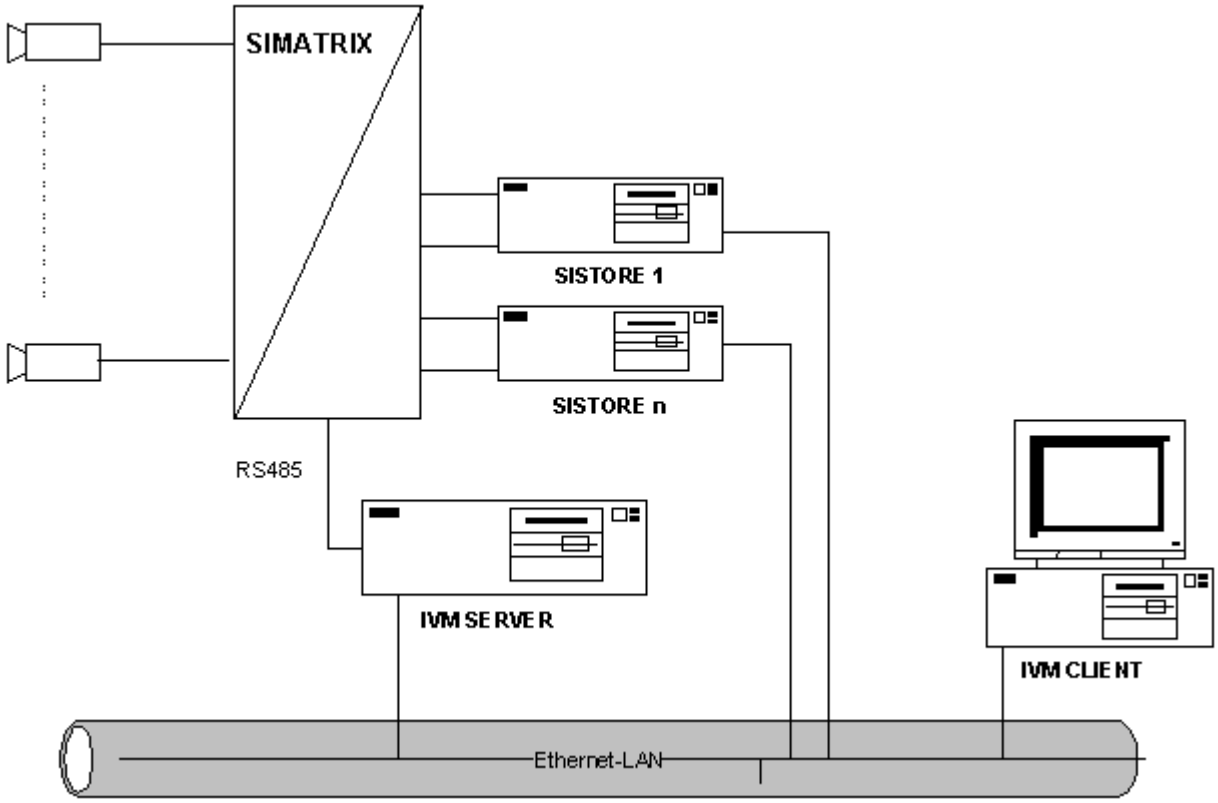


Fig. 166 Block diagram of IVM with SISTORE (behind the video matrix)

The operating mode "Behind the video matrix" is not supported for SISTORE AX and SISTORE MX!

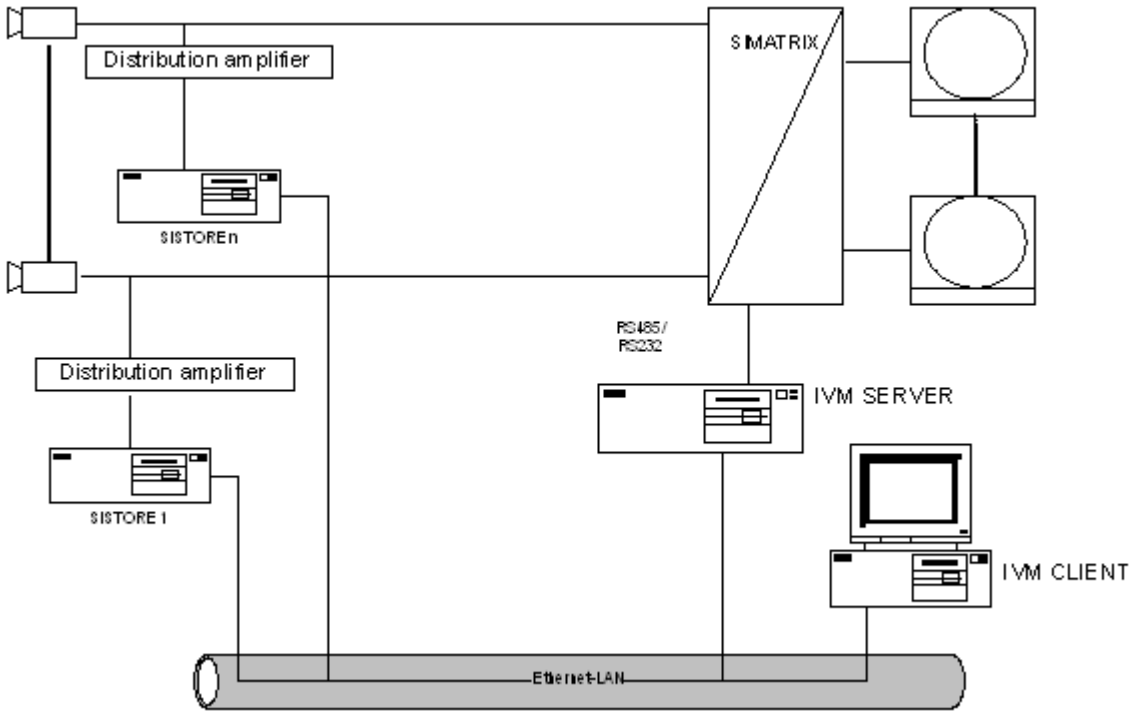


Fig. 167 Block diagram of IVM with SISTORE (before the video matrix)

19.2 Adding and configuring a SISTORE CX

There are two possible ways to add a SISTORE CX:

- Adding a SISTORE CX automatically. See Section 19.2.1: Adding a SISTORE CX automatically .

  – OR –

- Adding a SISTORE CX manually. See Section 19.2.2: Adding a SISTORE CX manually.

19.2.1 Adding a SISTORE CX automatically

1. Start **IVM Config**. See Section 4.11: Starting IVM Config.
2. Click the icon  **Add new component**.

   ➔ The following dialog box opens:

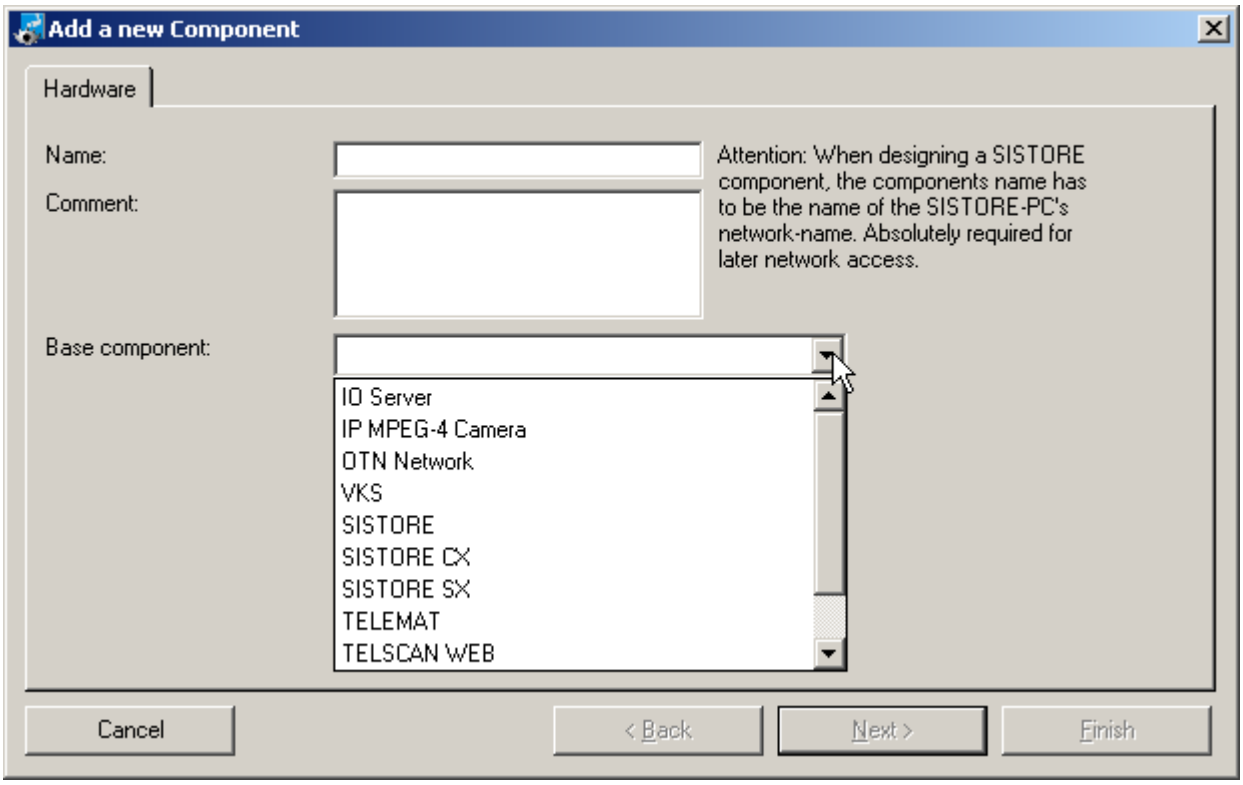


Fig. 168 Add a new component

3. Select SISTORE CX in the **Base component** list box.

➔ You can now make further settings for the selected device:

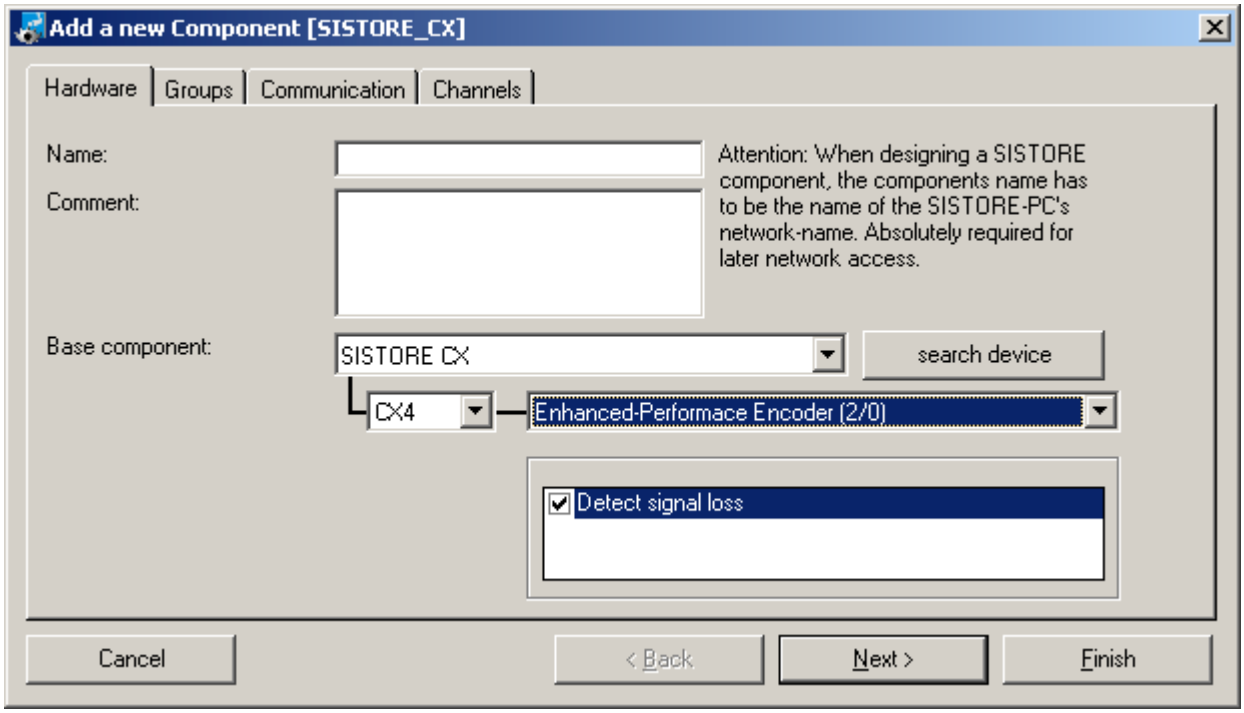


Fig. 169 SISTORE CX – Hardware

4. If signal loss is not to be reported for this SISTORE device, unmark the checkbox **Detect signal loss**.
5. If you wish to perform a ping check before the connection is set up, mark the checkbox **Check with ICMP echo request before connecting**.
6. Click on **search device**.

➔ The following dialog box opens:

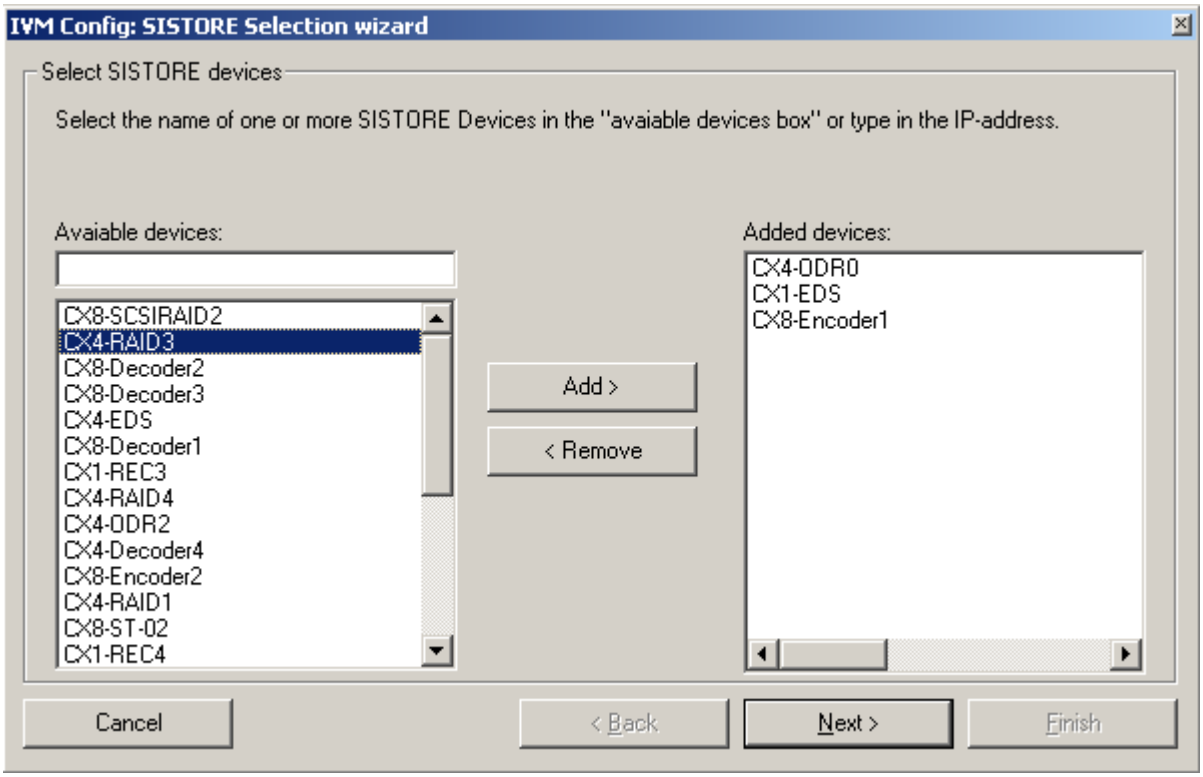


Fig. 170 SISTORE CX – Selection wizard

7. Select the SISTORE devices you wish to add from the list box.

– OR –

Enter the IP address of a SISTORE device in the text field.

8. Click **Add**.

➔ The SISTORE devices are now selected.

9. Click **Next >**.

➔ The data of the selected CX devices will be retrieved:

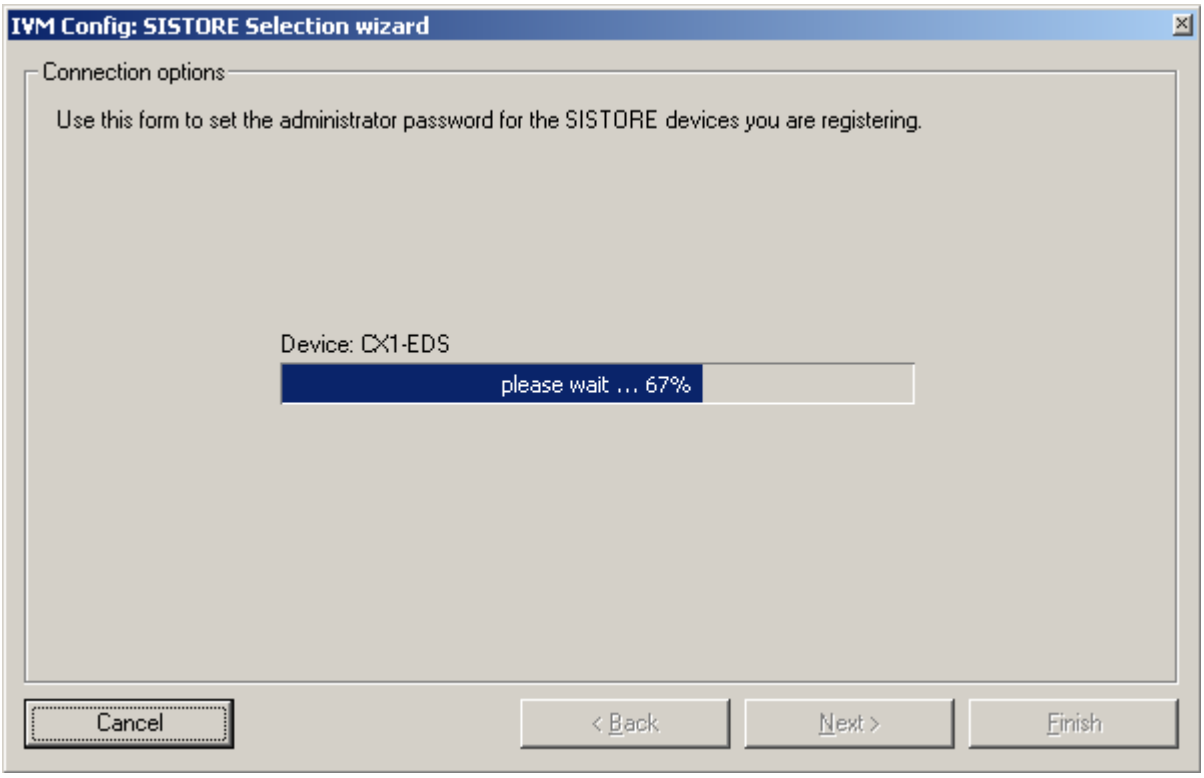


Fig. 171 SISTORE CX – Selection wizard - Connection options

10. Wait until the system has retrieved all information (100 %).

11. Click **Apply**.

➔ The SISTORE device has been added automatically.

19.2.2 Adding a SISTORE CX manually

1. Start **IVM Config**. See Section 4.11: Starting IVM Config.
2. Click the icon  **Add new component**.

➔ The following dialog box opens:

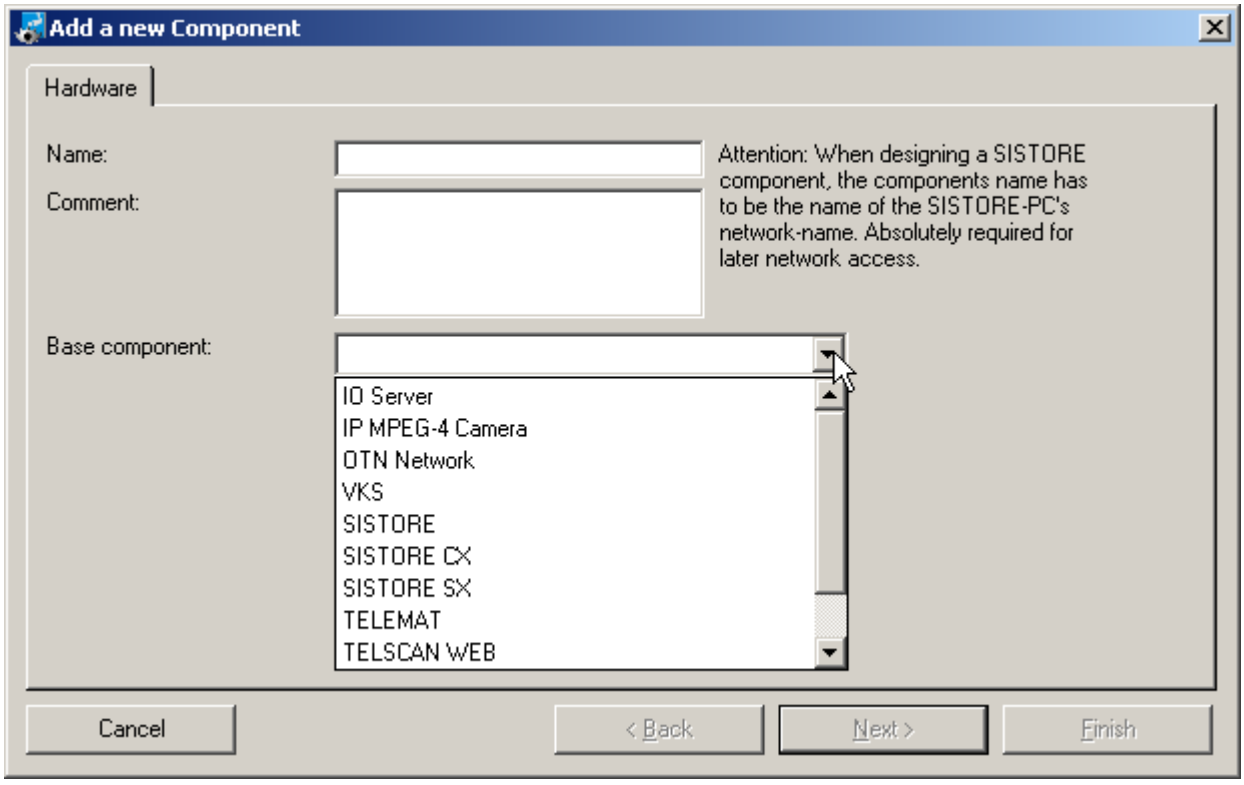


Fig. 172 Hardware

3. Select SISTORE CX in the **Base component** list box.

➔ You can now make further settings for the selected device:

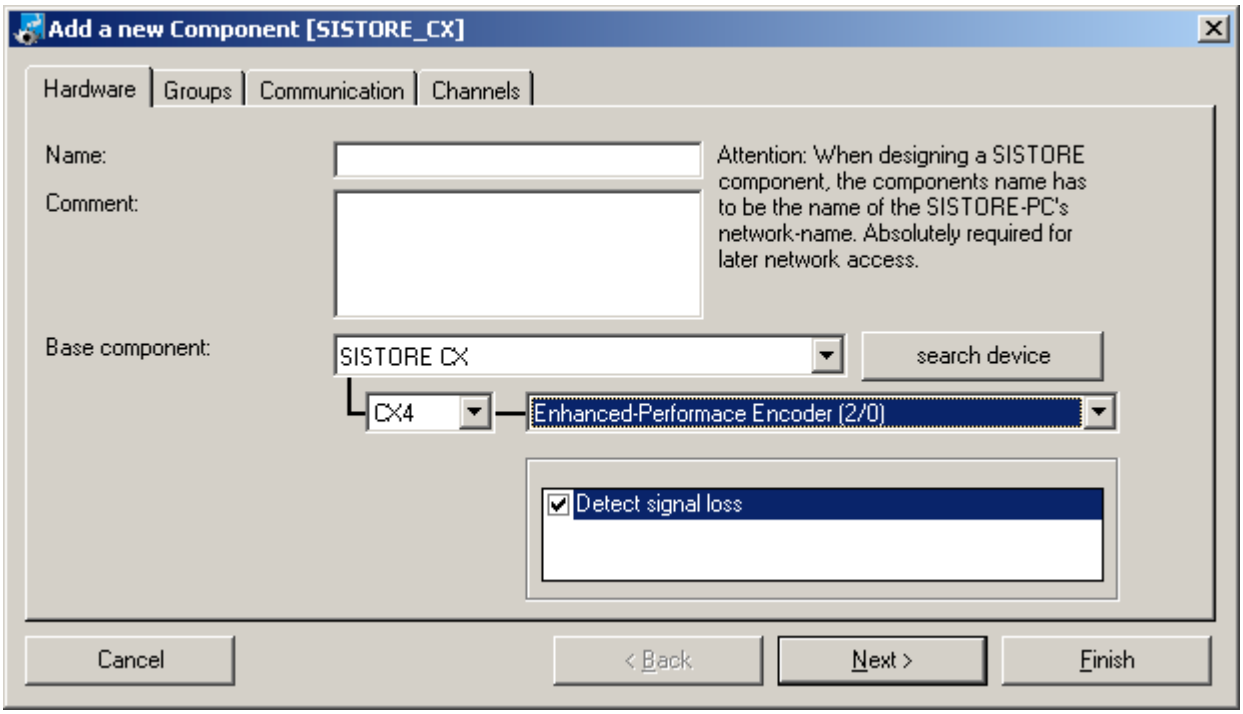


Fig. 173 SISTORE CX – Hardware

⚠	**IMPORTANT**	**Malfunctioning in case of incorrect naming** If the devices are named differently malfunctioning will result. ● Always assign the device name you have defined in the network settings in SISTORE Config.

4. Enter the name of the device in the **Name** field.
5. If you wish to add further information (e.g. the site where the device is in operation), you can enter a comment in the **Comment** field.

ℹ It is important that the SISTORE CX hardware configuration is made correctly since standard rules are automatically generated in the SISTORE CX depending on the hardware configuration, and these rules are accessed for standard applications via the IVM system.

6. Select the type of component from the list.

7. Select the operating mode of the SISTORE device to be integrated from the drop-down list:

CX1	CX4	CX8
Enhanced-Performace Encoder (1/0) Enhanced-Performace Encoder (1/0) Standard-Performace Decoder (0/1) EDS Enhanced-Performace Tracking and Encoder (1/0) EDS Standard-Performace Tracking and Encoder (1/0)	Standard-Performace Encoder (4/0) Standard-Performace Encoder (4/0) Enhanced-Performace Encoder (2/0) Standard-Performace Decoder (0/2) Enhanced-Performace En/Decoder (1/1) Standard-Performace En/Decoder (2/1) EDS Enhanced-Performace Tracking and Encoder (2/0) EDS Standard-Performace Tracking and Encoder (2/0) EDS Standard-Performace Tracking and Encoder (4/0)	Standard-Performace Encoder (8/0) Standard-Performace Encoder (8/0) Enhanced-Performace Encoder (4/0) Standard-Performace En/Decoder (6/1) Enhanced-Performace En/Decoder (3/1) Standard-Performace En/Decoder (4/2) Enhanced-Performace En/Decoder (2/2) Standard-Performace Decoder (0/4) EDS Enhanced-Performace Tracking and Encoder (4/0)

ℹ The number of inputs and outputs is defined once with the configuration of the SISTORE. Once you have clicked "Finish", it is not possible to change the hardware configuration. The Account data cannot be changed either.

CX1

Operating mode	Video input	Video output	IP cameras	4CIF	2CIF	CIF	QCIF
Enhanced-performance encoder	1	0	–	max. 25 ips	max. 25 ips	max. 25 ips	max. 25 ips
Standard-performance decoder	0	1	–	max. 25 ips	max. 25 ips	max. 25 ips	max. 25 ips
EDS enhanced-performance tracking and encoder	1	0	–	max. 3.12 ips	max. 6.25 ips	max. 12.5 ips	max. 25 ips
EDS standard-performance tracking and encoder	1	0	–	max. 6.25 ips	max. 12.5 ips	max. 25 ips	max. 25 ips
ODR and standard-performance encoder	1	0	–	max. 6.25 ips	max. 12.5 ips	max. 25 ips	max. 25 ips

CX4

Operating mode	Video input	Video output	IP cameras	4CIF	2CIF	CIF	QCIF
Standard-performance encoder	4	0	1	max. 12.5 ips	max. 25 ips	max. 25 ips	max. 25 ips
Enhanced-performance encoder	2	0	1	max. 25 ips	max. 25 ips	max. 25 ips	max. 25 ips
Enhanced-performance encoder/decoder	1	1	2	max. 25 ips	max. 25 ips	max. 25 ips	max. 25 ips
Standard-performance encoder/decoder	2	1	2	max. 12.5 ips (output also max. 25 ips)	max. 25 ips	max. 25 ips	max. 25 ips
Standard-performance decoder	0	2	–	max. 25 ips	max. 25 ips	max. 25 ips	max. 25 ips
EDS enhanced-performance tracking and encoder	2	0	2	max. 3.12 ips	max. 6.25 ips	max. 12.5 ips	max. 25 ips
EDS standard-performance tracking and encoder	2	0	2	max. 6.25 ips	max. 12.5 ips	max. 25 ips	max. 25 ips
EDS standard-performance tracking and encoder	4	0	2	max. 1 ips	max. 3.12 ips	max. 6.25 ips	max. 25 ips
ODR and standard-performance encoder	4	0	2	max. 1 ips	max. 3.12 ips	max. 6.25 ips	max. 25 ips

CX8

Operating mode	Video input	Video output	IP cameras	4CIF	2CIF	CIF	QCIF
Enhanced-performance encoder	4	0	2	max. 25 ips	max. 25 ips	max. 25 ips	max. 25 ips
Enhanced-performance encoder/decoder	2	2	4	max. 25 ips	max. 25 ips	max. 25 ips	max. 25 ips
Enhanced-performance encoder/decoder	3	1	3	max. 25 ips	max. 25 ips	max. 25 ips	max. 25 ips
Standard-performance encoder	8	0	2	max. 12.5 ips	max. 25 ips	max. 25 ips	max. 25 ips
Standard-performance encoder/decoder	6	1	3	max. 12.5 ips (output also max. 25 ips)	max. 25 ips	max. 25 ips	max. 25 ips
Standard-performance encoder/decoder	4	2	4	max. 12.5 ips (output also max. 25 ips)	max. 25 ips	max. 25 ips	max. 25 ips
Standard-performance decoder	0	4	–	max. 25 ips	max. 25 ips	max. 25 ips	max. 25 ips
EDS enhanced-performance tracking and encoder	4	0	4	max. 3.12 ips	max. 6.25 ips	max. 12.5 ips	max. 25 ips
EDS standard-performance tracking and encoder	4	0	4	max. 6.25 ips	max. 12.5 ips	max. 25 ips	max. 25 ips
EDS standard-performance tracking and encoder	8	0	4	max. 1 ips	max. 3.12 ips	max. 6.25 ips	max. 25 ips
ODR and standard-performance encoder	8	0	4	max. 1 ips	max. 3.12 ips	max. 6.25 ips	max. 25 ips

8. If signal loss is not to be reported for this SISTORE device, unmark the checkbox **Detect signal loss**.
9. If you wish to perform a ping check before the connection is set up, mark the checkbox **Check with ICMP echo request before connecting**.

19.2.3 SISTORE CX configuration

Prerequisite:

A SISTORE device has been added. See Section 19.2.1: Adding a SISTORE CX automatically or Section 19.2.2: Adding a SISTORE CX manually.

Assign a SISTORE device to a group

1. Now select the **Groups** tab.

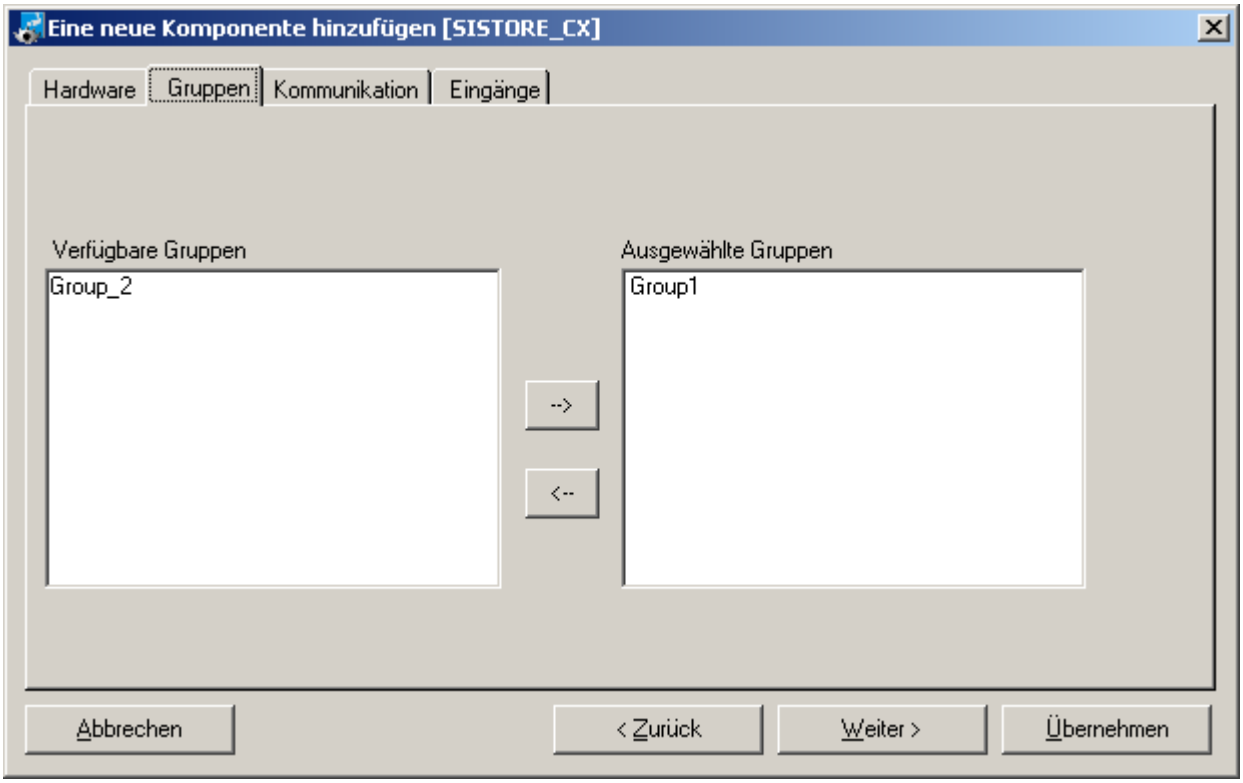


Fig. 174 SISTORE CX – Groups

2. Select the group which the SISTORE MX device is to be assigned to in the **Available groups** list.
3. Click the arrow button  .
   ➔ The group will be displayed in the **Selected groups** field.
   ➔ The SISTORE device is now assigned to the selected group.

Set IP address

1. Select the **Communication** tab.

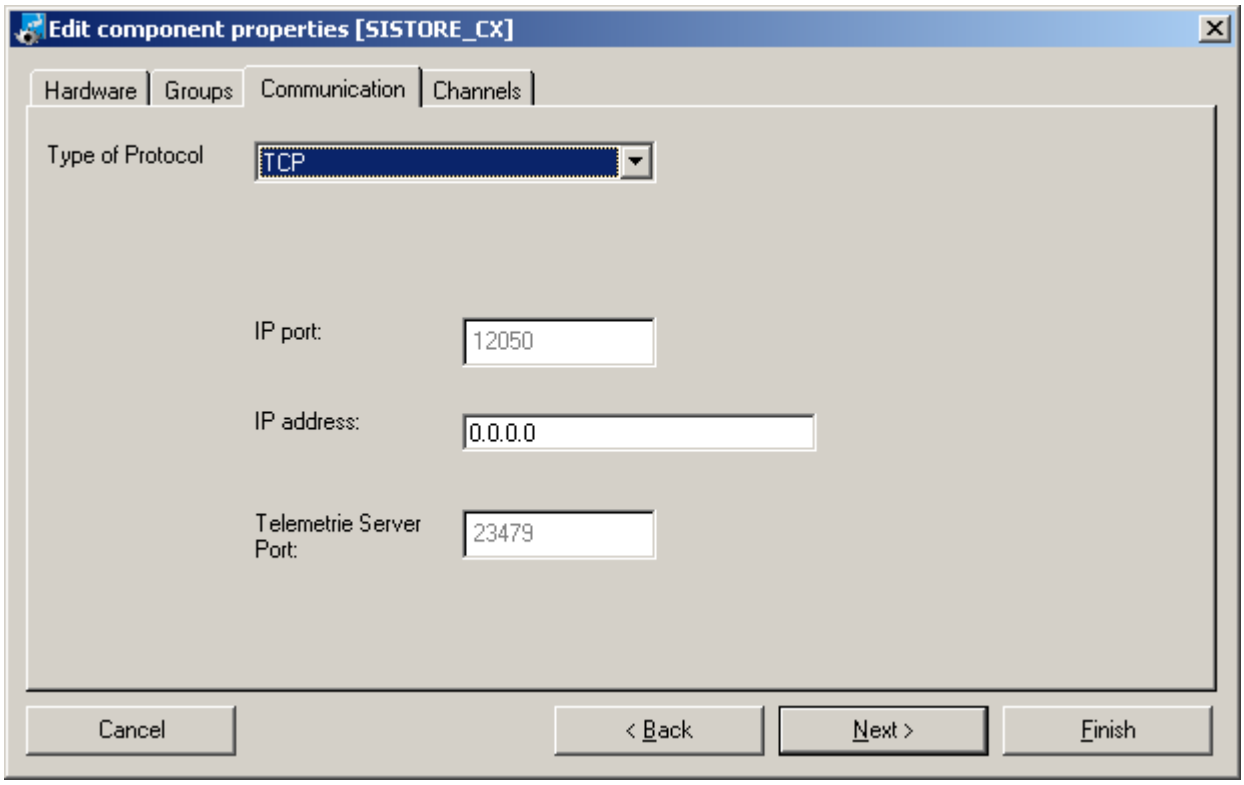


Fig. 175 SISTORE CX – Communication

The **IP port** and the **Telemetry Server Port** are entered automatically.

2. Enter the address of the SISTORE device in the **IP address** text field.

➔ The IP address has been set.

Assign inputs

1. Select the **Inputs** tab.

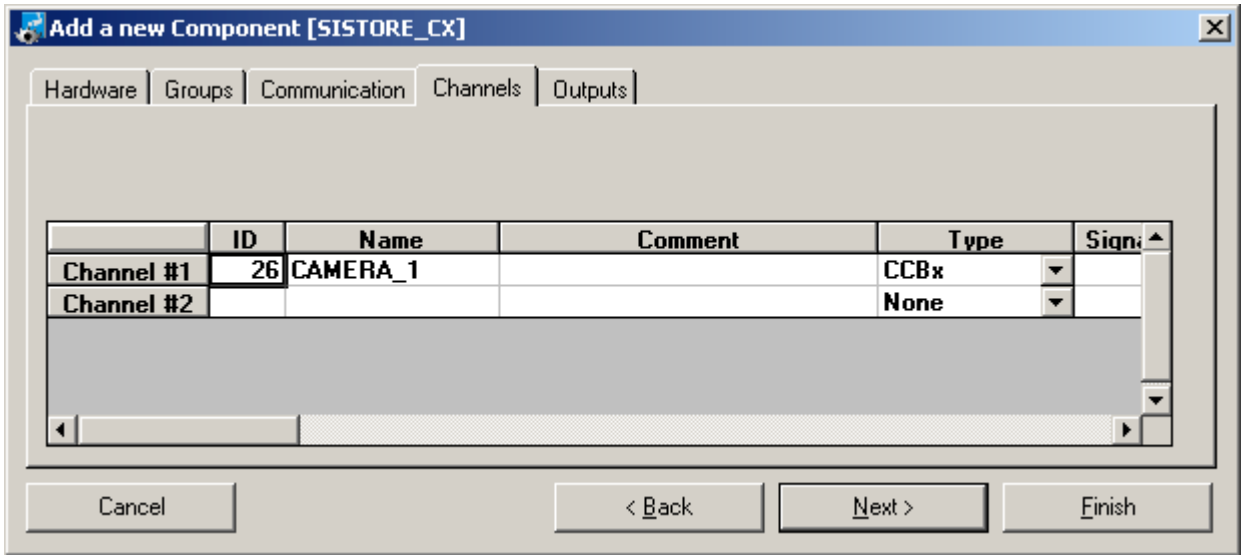
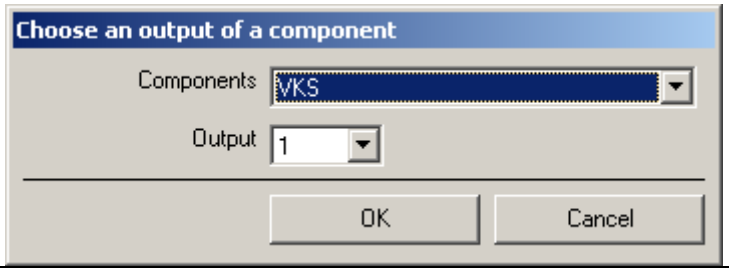
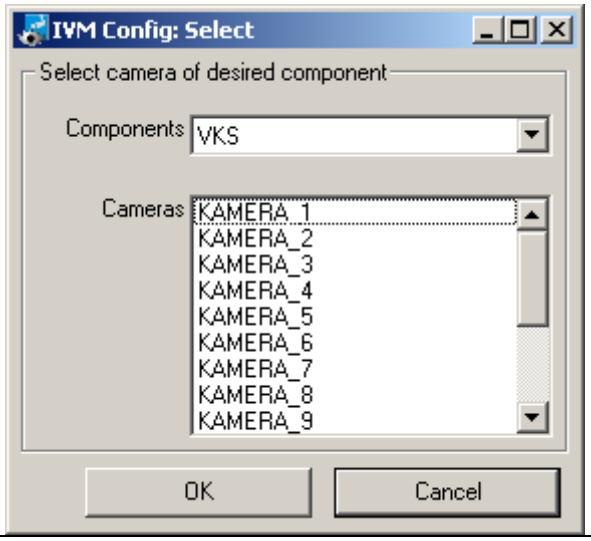


Fig. 176 SISTORE CX – Inputs

2. Select the **Type** of the connection.

The following connection types are available:

None	Select "None" if this input is not to be used to establish a connection.
Connection	Select "Connection" if the component is to be connected behind the video matrix. 
Split Camera	Select "Split Camera" if the component is to be connected before the video matrix. The camera is connected to SIMATRIX and to SISTORE CX. 
CCBx **K500** **K505**	For cameras that are directly connected to SISTORE.

➔ A standard name will be entered automatically.

3. If you want to change a standard name, you can overwrite it in the **Name** column.

4. Other information can be added in the **Comment** text box.
This information is also evaluated in the SISTORE CX archive.

The **ID**, the **Signal ID** and the **Rule ID** are assigned automatically by the system .

5. Select the appropriate entries from the **Management** list box.

You can choose between the following:

– **Automatic**
The inputs are assigned automatically by IVM as part of the alarm management, i.e. any available inputs are used for alarm recording.

For the inputs to be controlled manually, the checkbox "Use manual SISTORE channels on alarm“ in the "General settings“ dialog must be ticked. See Section 4.13.3: Set operating mode.

– **Manual**
The user assigns the inputs manually, i.e. the inputs are used by the server only on demand and can also be used by the IVM Client.

6. If a current recording is not to be interrupted by a higher priority request, select **No** in the **Interruptible** list box.
7. If the camera is not a PTZ camera, untick the checkbox in the **PTZ** list box.

Selecting remote inputs (IP cameras)

When the operation mode **Standard Performance Decoder** is selected, the **Remote input** tab will not appear. See Section 19.2.2: Adding a SISTORE CX manually.

1. Select the **Remote input** tab.
   ➔ Depending on the mode of operation and the SISTORE device, 1 to 4 inputs will be displayed. See Section 19.2.2: Adding a SISTORE CX manually.

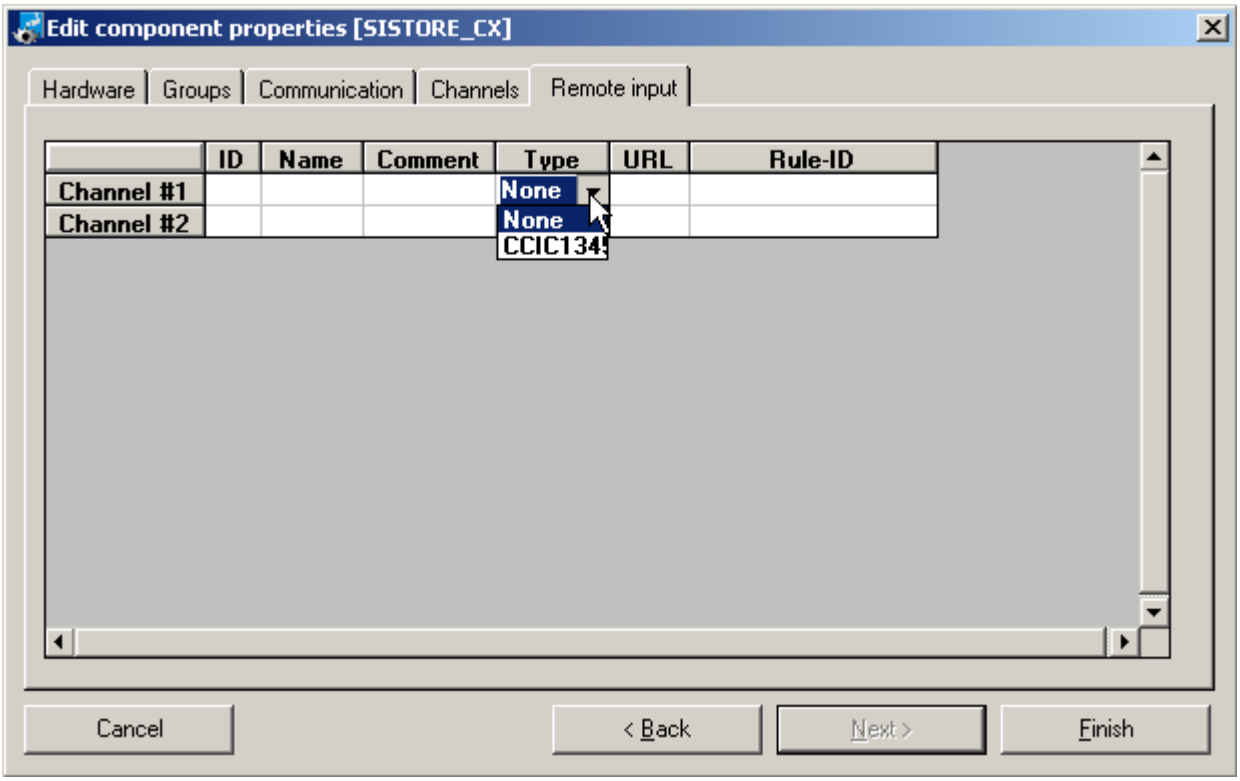


Fig. 177 SISTORE CX – Remote input

2. Select the type of IP camera in the **Type** column.
3. The ID, the name and the database are entered automatically.
4. In the **URL** column, enter the host name or the IP address and the port in the following manner:
   rtsp://[Host name or IP address]:[Port]

Terminating configuration

1. Click **Apply**.
   ➔ Your settings are saved.
   ➔ The SISTORE device has been added and configured.

19.3 SISTORE AX integration

19.3.1 Adding a SISTORE AX

The password **12345678** is used to access SISTORE AX from the IVM. Make sure that the password is configured correctly for all SISTORE AX devices.

1. Start **IVM Config**. See Section 4.11: Starting IVM Config.
2. Click the icon **Add new component**.
   ➔ The following dialog box opens:

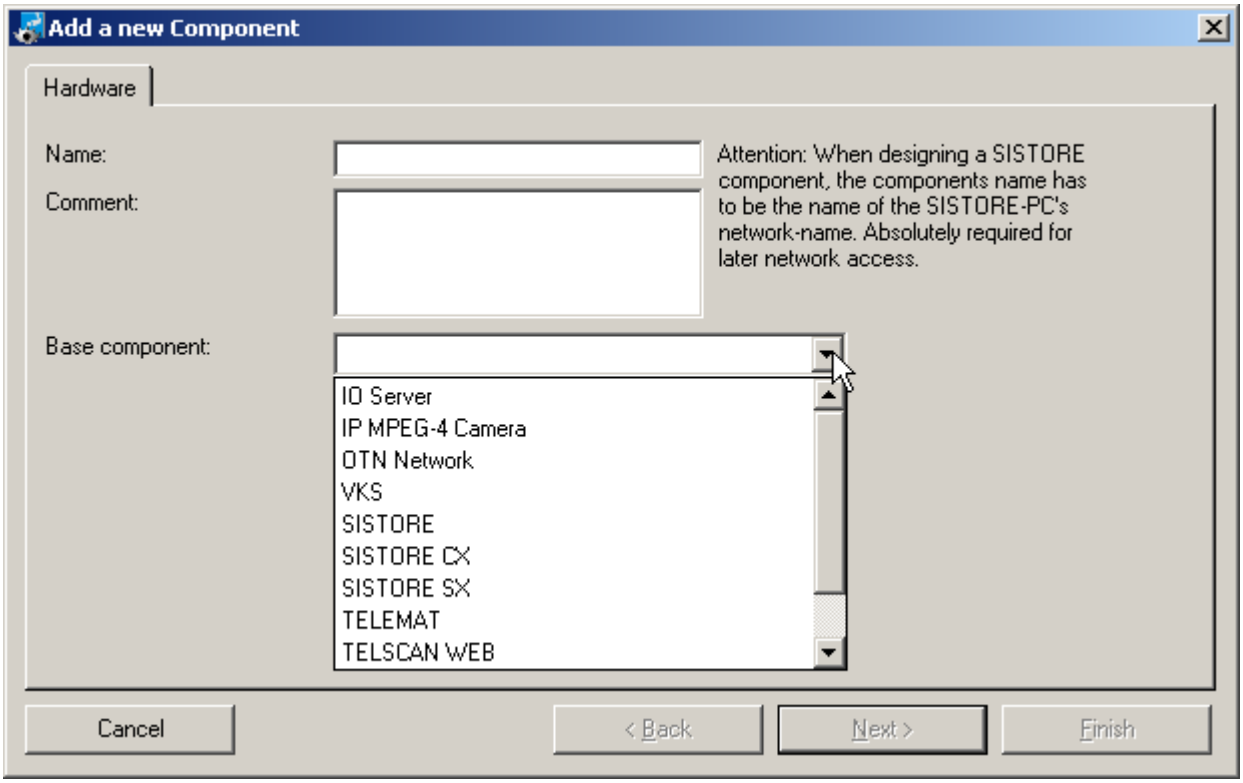


Fig. 178 Hardware

3. Select **SISTORE** in the list box.

➔ You can now make further settings for the selected device:

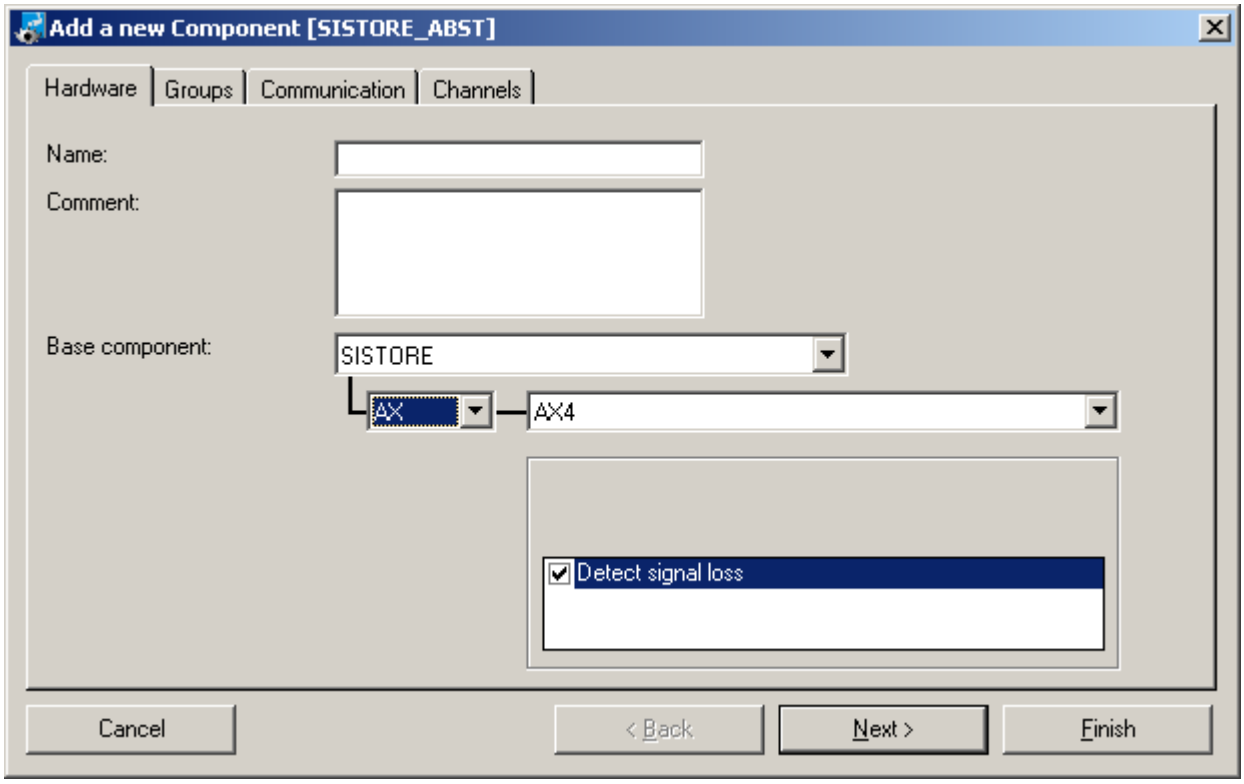


Fig. 179 SISTORE AX – Hardware

Make sure that the name entered corresponds with the name of the SISTORE AX PC that is to be integrated.

4. Enter the name of the device in the **Name** field.

5. If you wish to add further information (e.g. the site where the device is in operation), you can enter a comment in the **Comment** field.

6. Select an **AX** from the list.

It is important that the SISTORE AX hardware configuration is made correctly since standard parameters are automatically generated in the SISTORE AX server.

7. Select the device type from the list.

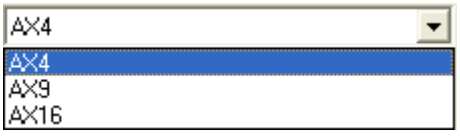


Fig. 180 Drop-down list SISTORE AX Hardware configuration

The number of inputs and outputs is defined once with the configuration of the SISTORE. Once you have clicked **Finish**, it is not possible to change the hardware configuration. The "Account" data cannot be changed either.

8. If signal loss is not to be reported for this SISTORE device, unmark the checkbox **Detect signal loss**.

19.3.2 SISTORE AX configuration

The following parameters have to be set:

- Network name
- IP address
- Connection video matrix/SISTORE AX

Prerequisite:

A SISTORE device has been added. See Section 19.3.1: Adding a SISTORE AX.

Assign SISTORE AX to a group

1. Select the **Groups** tab.

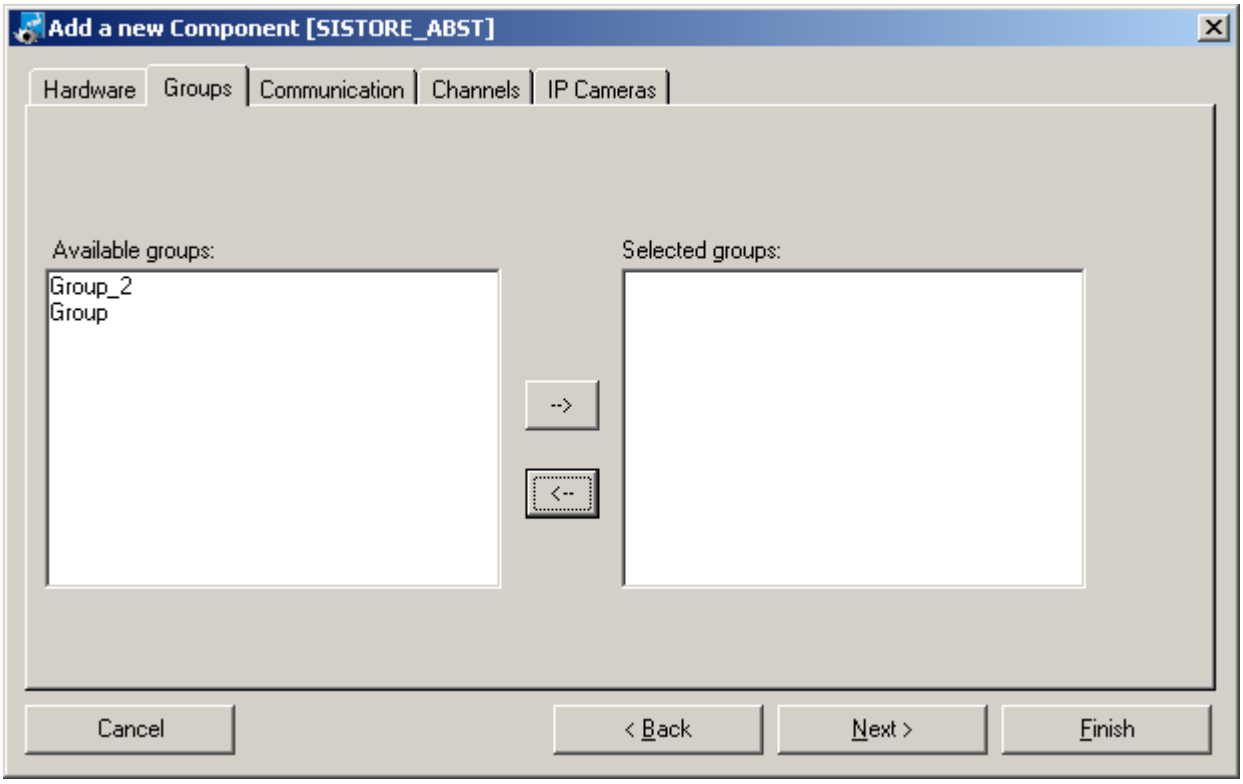


Fig. 181 SISTORE AX – Groups

2. Select the group which the SISTORE AX device is to be assigned to in the **Available groups** list.

3. Click the arrow button  .

➔ The group will be displayed in the **Selected groups** field.

➔ The SISTORE AX device is now assigned to the selected group.

Set IP address

1. Select the **Communication** tab.

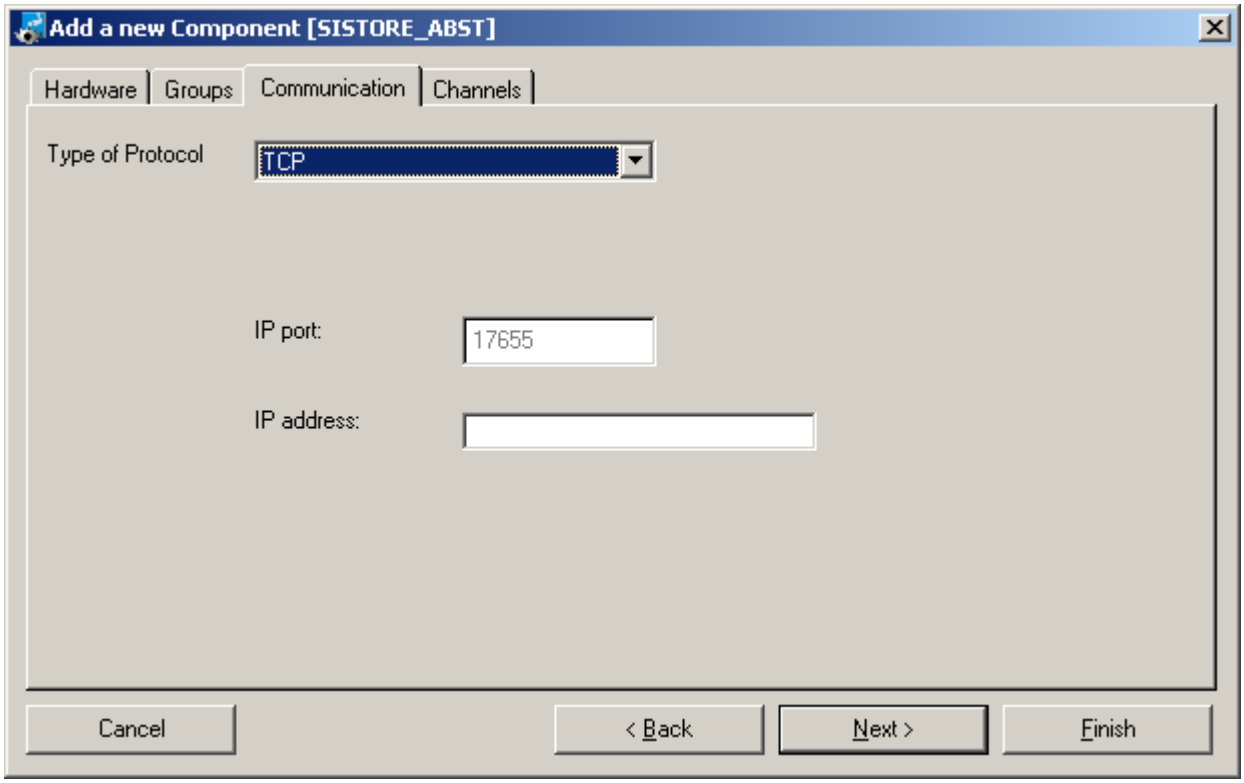


Fig. 182 SISTORE AX – Communication

IP port 17655 is set by default.

2. Enter the address of the SISTORE AX device in the **IP address** text field.

➔ The IP address has been set.

Assign inputs

1. Select the **Inputs** tab.

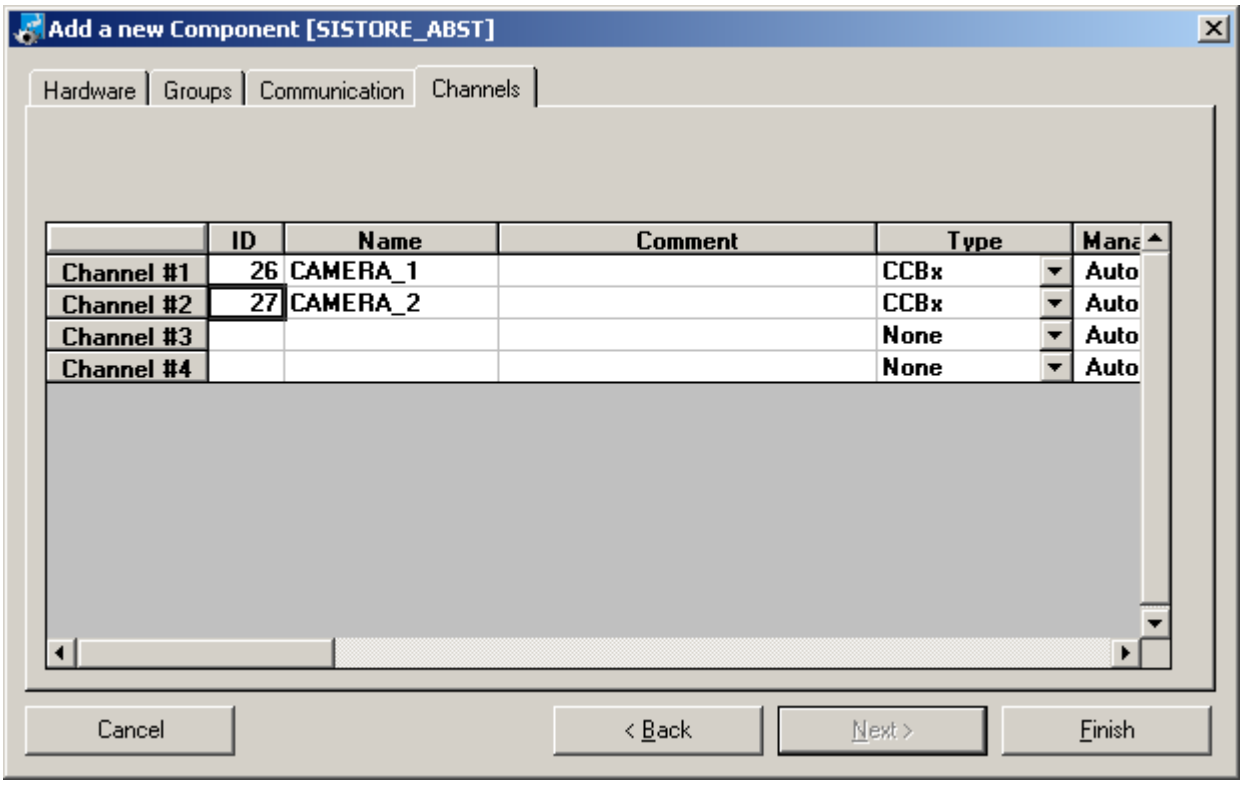
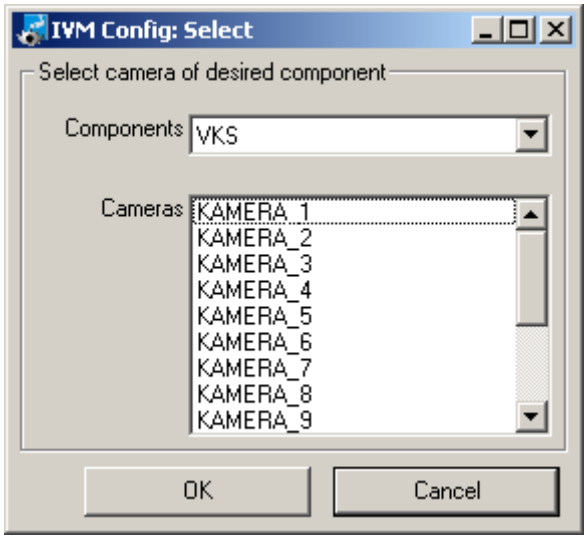


Fig. 183 SISTORE AX – Inputs

2. Select the **Type** of the connection.

The following connection types are available:

None	Select "None" if this input is not to be used to establish a connection.
Split Camera	Select "Split Camera" if the component is to be connected before the video matrix. The camera is connected to SIMATRIX and to SISTORE AX. 
CCBx **K500** **K505**	For cameras that are directly connected to SISTORE.

➔ A standard name will be entered automatically.

3. If you want to change a standard name, you can overwrite it in the **Name** column.
4. Other information can be added in the **Comment** text box.

   This information is also evaluated in the SISTORE AX archive.

The ID, the Signal ID and the Rule ID are assigned automatically by the system.

5. Select the appropriate entries from the **Management** list box.
   You can choose between the following:
   – **Automatic**
     The inputs are assigned automatically by IVM as part of the alarm management, i.e. any available inputs are used for alarm recording.

For the inputs to be controlled manually, the checkbox "Use manual SISTORE channels on alarm" must be ticked. See Section 4.13.3: Set operating mode.

   – **Manual**
     The user assigns the inputs manually, i.e. the inputs are used by the server only on demand and can also be used by the IVM Client.
6. If a current recording is not to be interrupted by a higher priority request, select **No** in the **Interruptible** list box.
7. Click **Apply**.

➔ Your settings are saved.

➔ The SISTORE AX device has been added and configured.

19.4 SISTORE MX integration

19.4.1 Configuring SISTORE MX using SISTORE MX software

1. Open the **SISTORE MX Configuration** dialog.

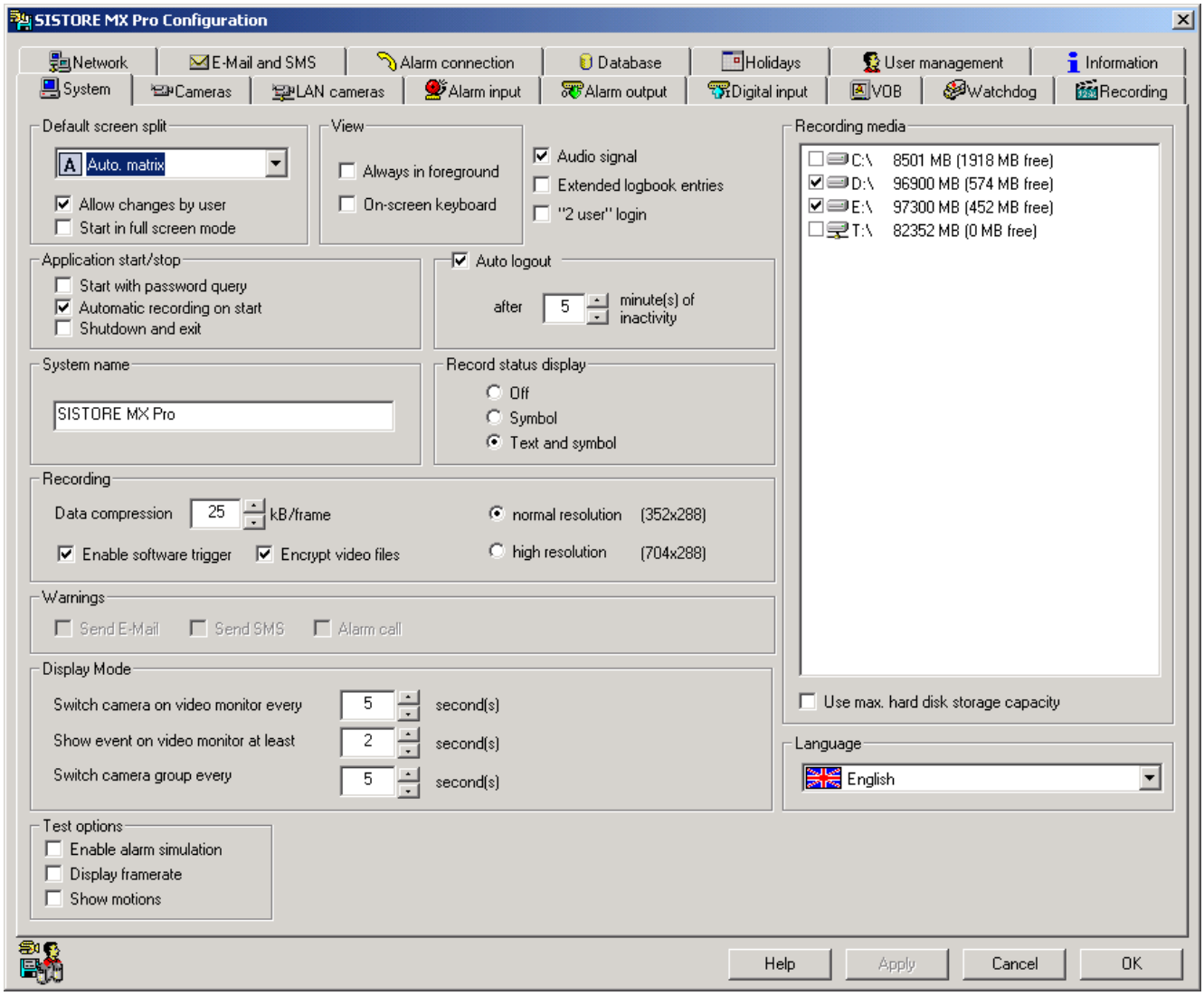


Fig. 184 SISTORE MX Configuration

2. Activate the check box **Enable software trigger** in the **System** tab.
3. Select the **User management** tab.

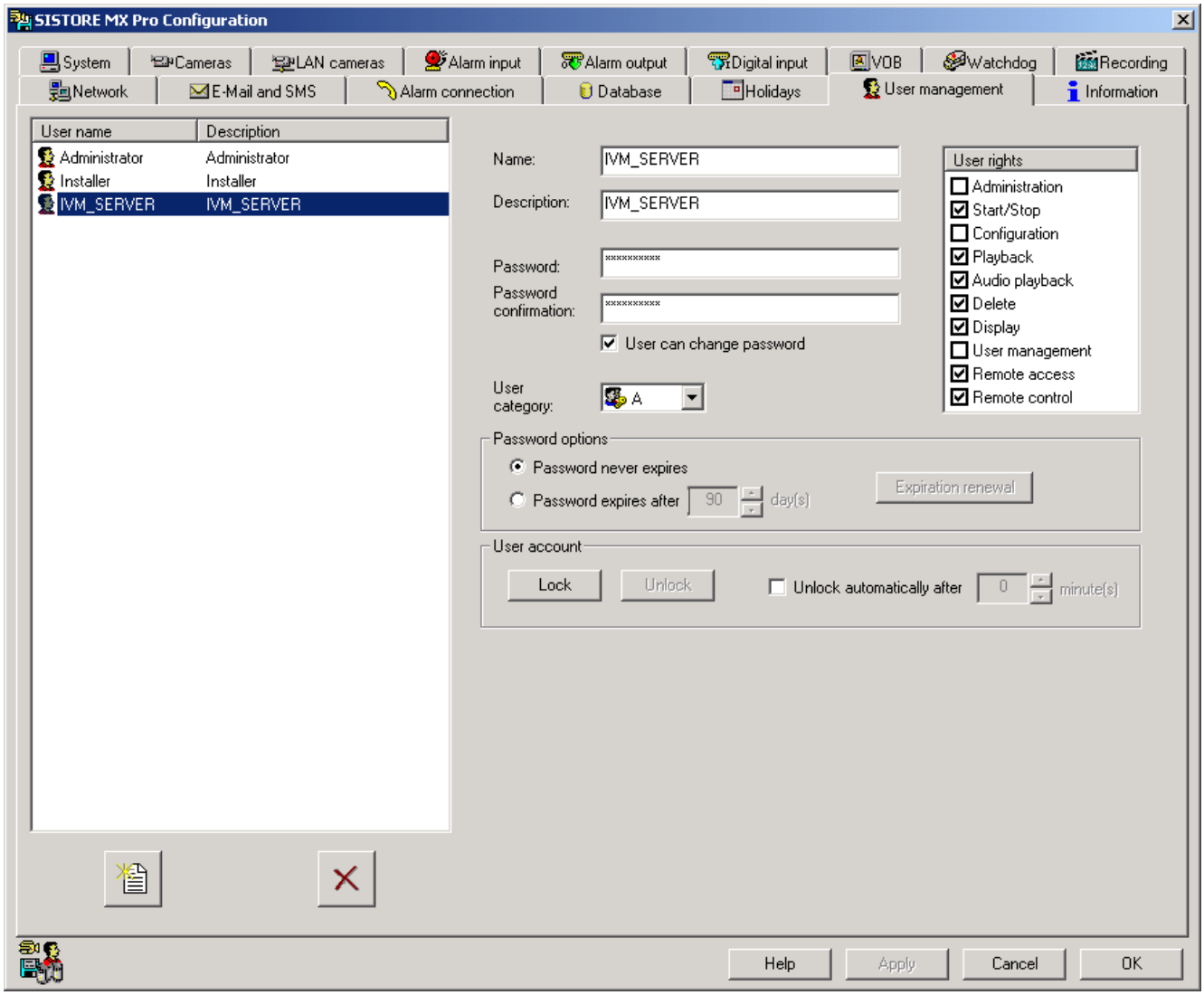


Fig. 185 User management

4. Set up a new user with the user name **IVM_SERVER**.
5. Make the appropriate settings is the dialog as shown in Fig. 185 above.

   In SISTORE MX Pro, there are two users defined: the "Administrator“ with the password "Administrator“, and the "Installer“ with the password "Installer“. Information on user management can be found in the User Manual for the Digital video recorder SISTORE MX Pro.

Make sure that the same user name and the same password are used for all systems. Otherwise communication problems may result.

With the integration of SISTORE MX, only one IVM server has access to a SISTORE MX; otherwise communication problems will occur.

19.4.2 Adding a SISTORE MX

When configuring SISTORE MX NVR types, select any SISTORE MX.
You can configure up to 16 IP cameras in the **IP camera** tab.

1. Start **IVM Config**. See Section 4.11: Starting IVM Config.
2. Click the icon  Add new component.
   ➔ The following dialog box opens:

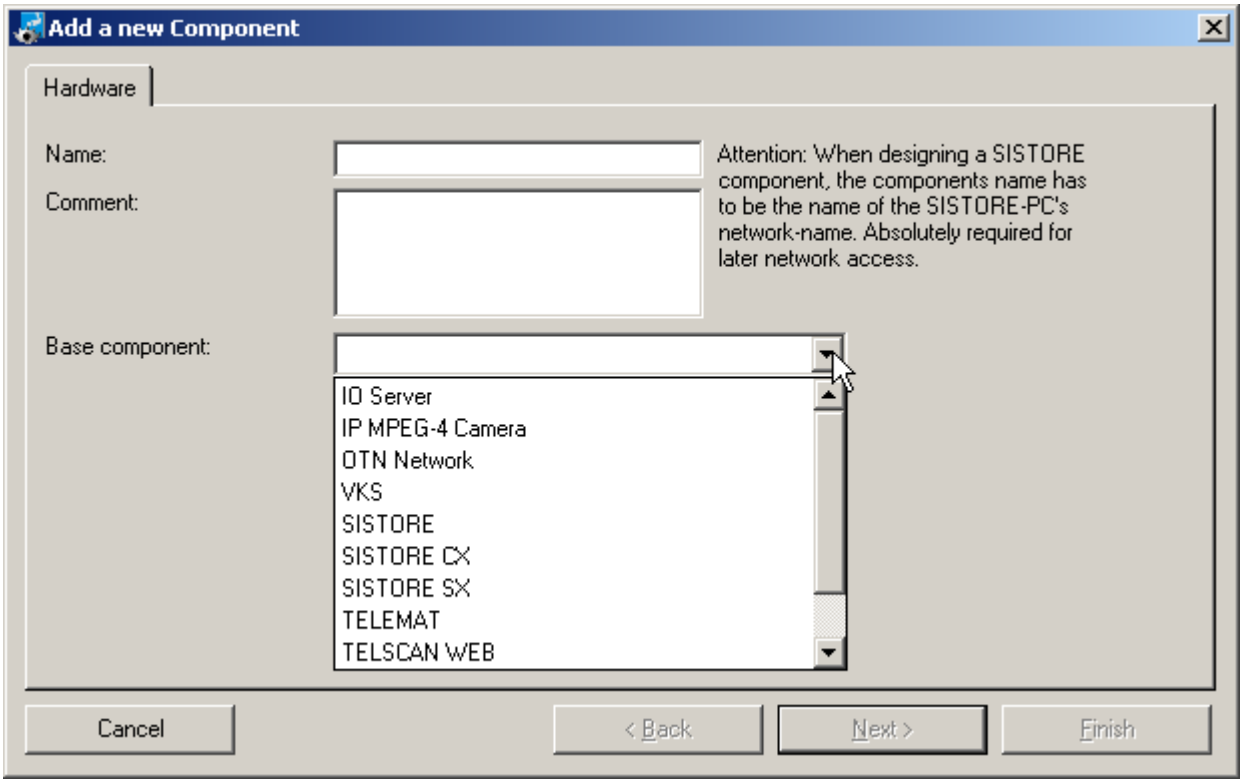


Fig. 186 Hardware

3. Select SISTORE in the **Base component** list.

➔ You can now make further settings for the selected device:

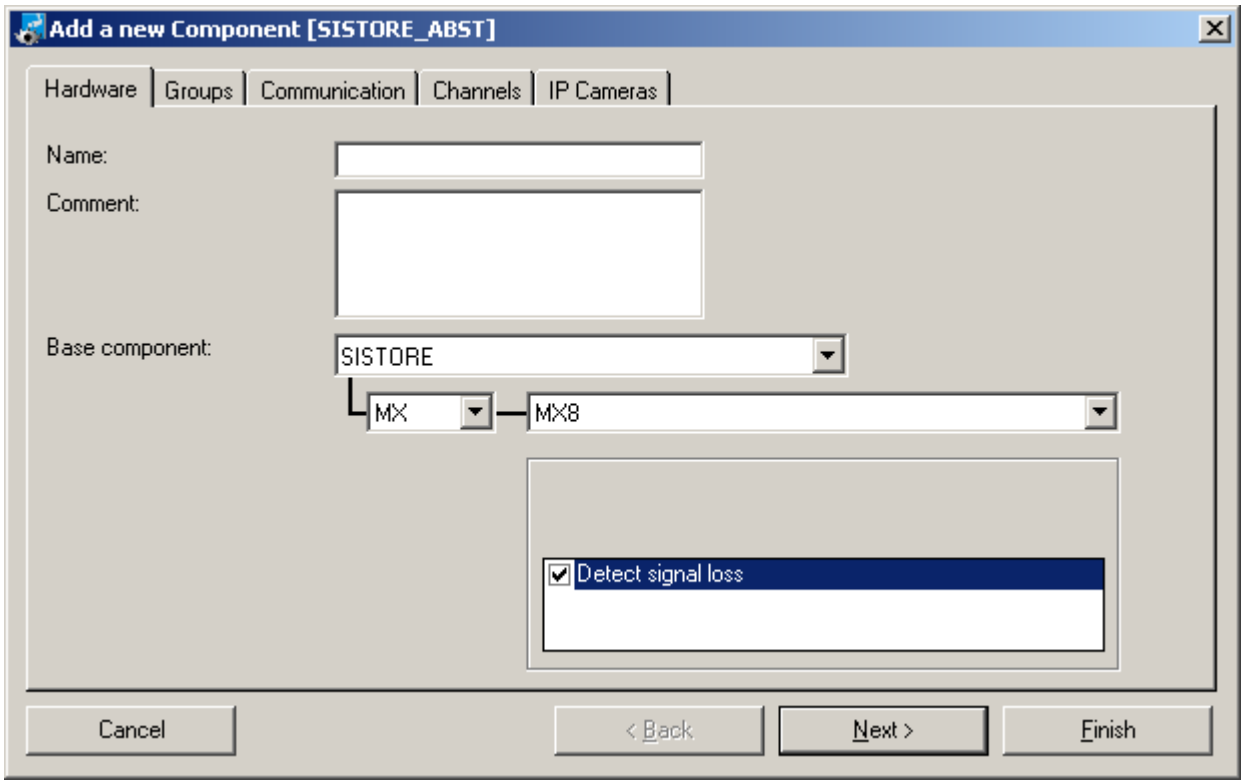


Fig. 187 SISTORE MX – Hardware

Make sure that the name entered corresponds with the name of the SISTORE MX server PC that is to be integrated.

4. Enter the name of the device in the **Name** field.
5. If you wish to add further information (e.g. the site where the device is in operation), you can enter a comment in the **Comment** field.

It is important that the SISTORE MX device type is selected correctly since standard parameters are automatically generated in the SISTORE MX depending on the device type.

If your device is an MX24, select MX32 and configure only 24 inputs.

6. Select the device type from the drop-down list.

Fig. 188 Selection of SISTORE MX device type

The number of inputs and outputs is defined once with the configuration of the SISTORE. Once you have clicked **Finish**, it is not possible to change the hardware configuration. The "Account" data cannot be changed either.

7. If signal loss is not to be reported for this SISTORE device, unmark the checkbox **Detect signal loss**.

19.4.3 Configuring SISTORE MX

The following parameters have to be set:

- Host name
- IP address

Prerequisite:

A SISTORE device has been added. See Section 19.4.2: Adding a SISTORE MX .

1. Select the **Groups** tab.

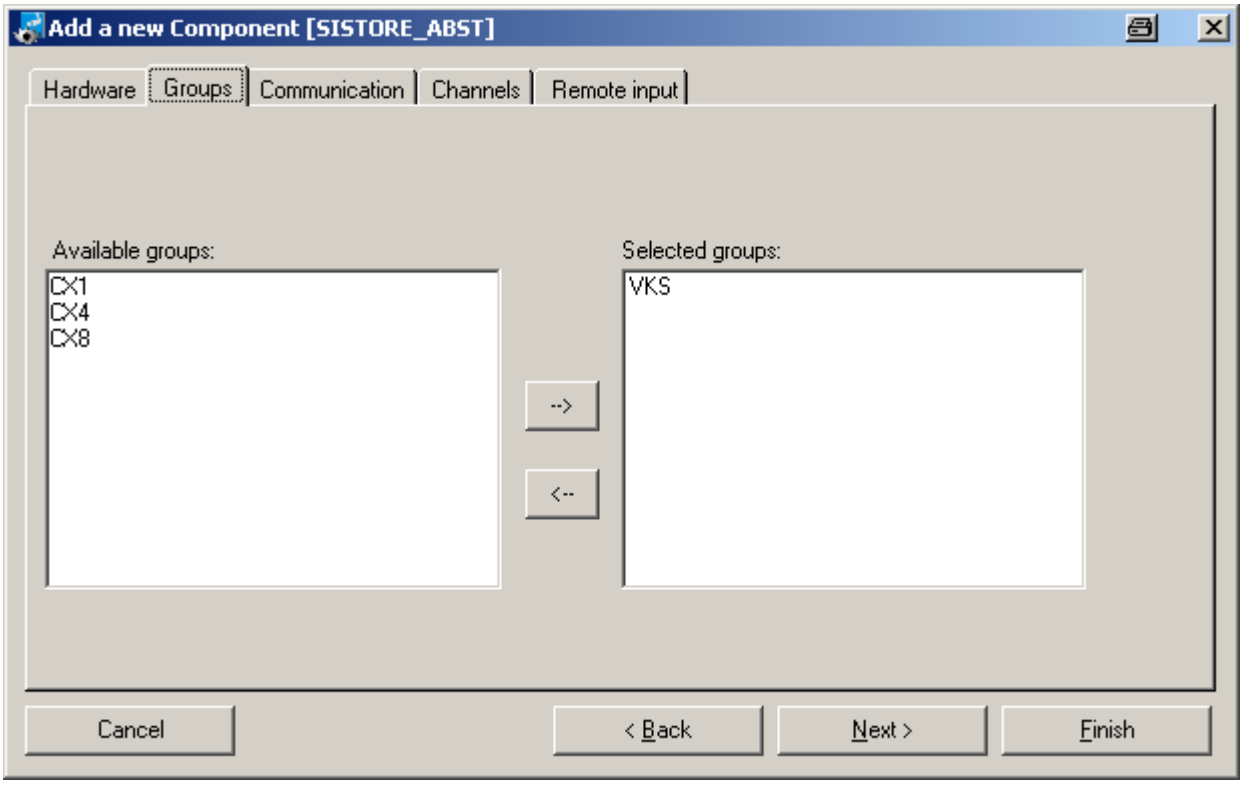


Fig. 189 SISTORE MX – Groups

2. Select the group which the SISTORE MX device is to be assigned to in the **Available groups** list.

3. Click the arrow button  .

➔ The group will be displayed in the **Selected groups** field.

➔ The SISTORE device is now assigned to the selected group.

Set IP address

1. Select the **Communication** tab.

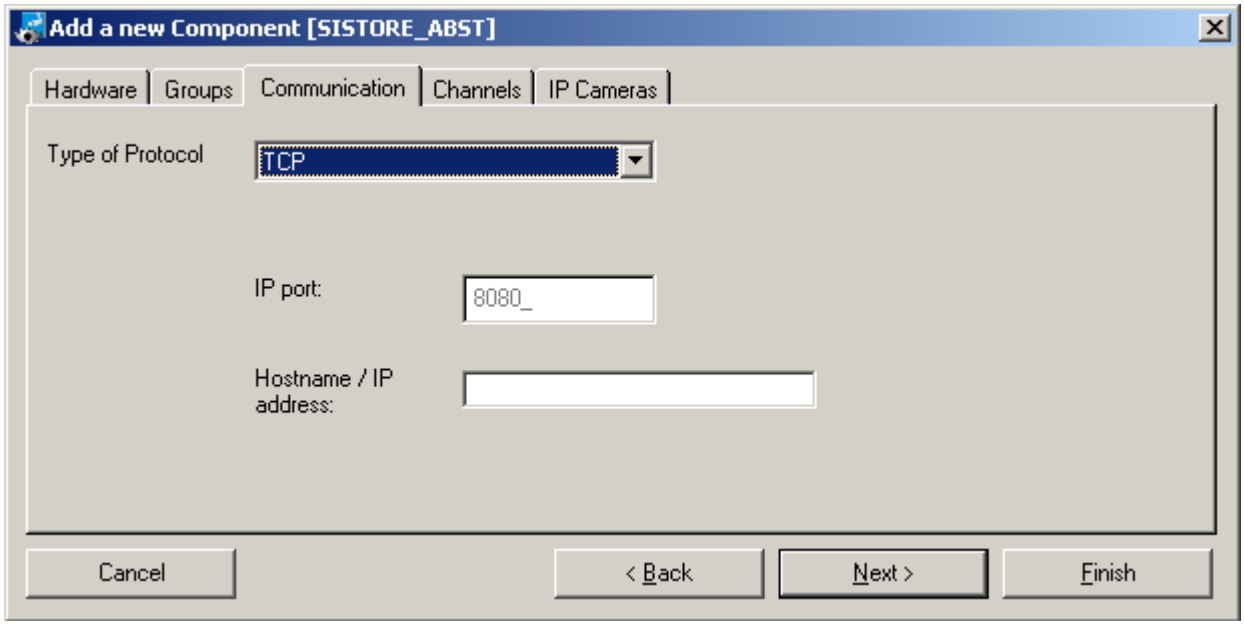


Fig. 190 SISTORE MX – Communication

IP port 8080 is set by default.

2. Enter the address of the SISTORE MX device in the **Host name/IP address** text field.

➔ The IP address has been set.

Assign inputs

1. Select the **Inputs** tab.

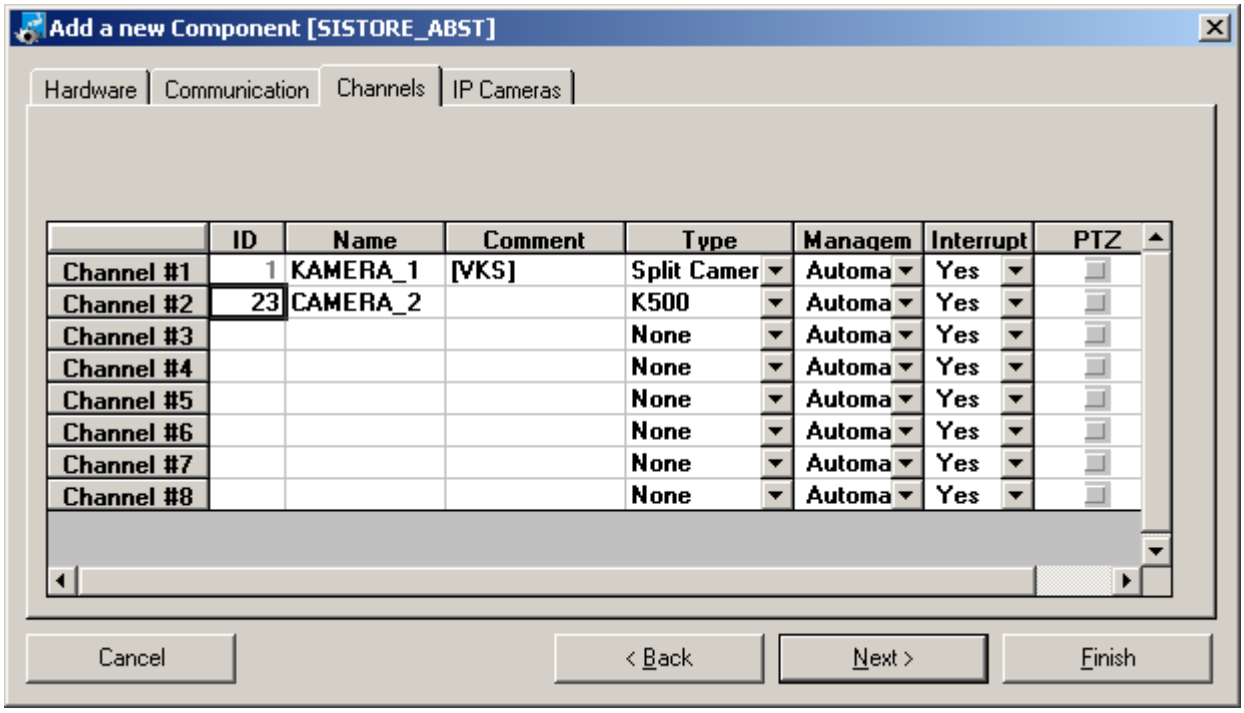
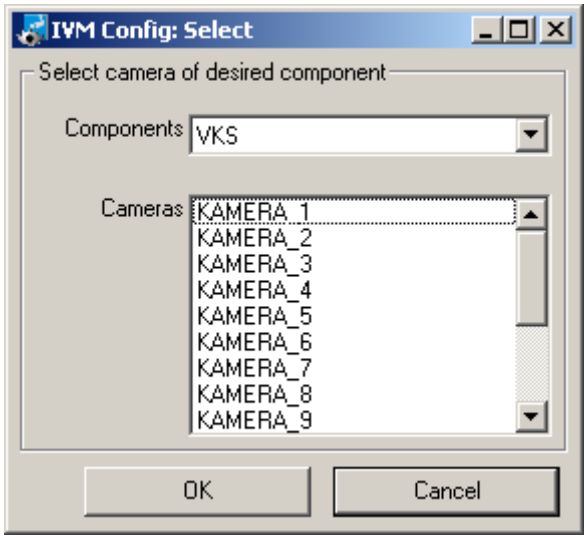


Fig. 191 SISTORE MX – Inputs

2. Select the **Type** of the connection.

The following input types are available:

None	Select "None" if this input is not to be used to establish a connection.
Split Camera	Select "Split Camera" if the component is to be connected before the video matrix. The camera is connected to SIMATRIX and to SISTORE MX. 
CCBx **K500** **K505**	For cameras that are directly connected to SISTORE.

➔ A standard name will be entered automatically.

3. If you want to change a standard name, you can overwrite it in the **Name** column.

4. Other information can be added in the **Comment** text box.
This information is also evaluated in the SISTORE MX archive.

The ID is assigned automatically by the system.

5. Select the appropriate entries from the **Management** list box.

You can choose between the following:

– **Automatic**
The inputs are assigned automatically by IVM as part of the alarm management, i.e. any available inputs are used for alarm recording.

For the inputs to be controlled manually, the checkbox "Use manual SISTORE channels on alarm“ in the "General settings“ dialog must be ticked. See Section 4.13.3: Set operating mode.

– **Manual**
The user assigns the inputs manually, i.e. the inputs are used by the server only on demand and can also be used by the IVM Client.

6. If a current recording is not to be interrupted by a higher priority request, select **No** in the **Interruptible** list box.

7. To enable PTZ control via the IVM Client, mark the checkbox in the column **PTZ**.

Select IP cameras

1. Select the **IP camera** tab.

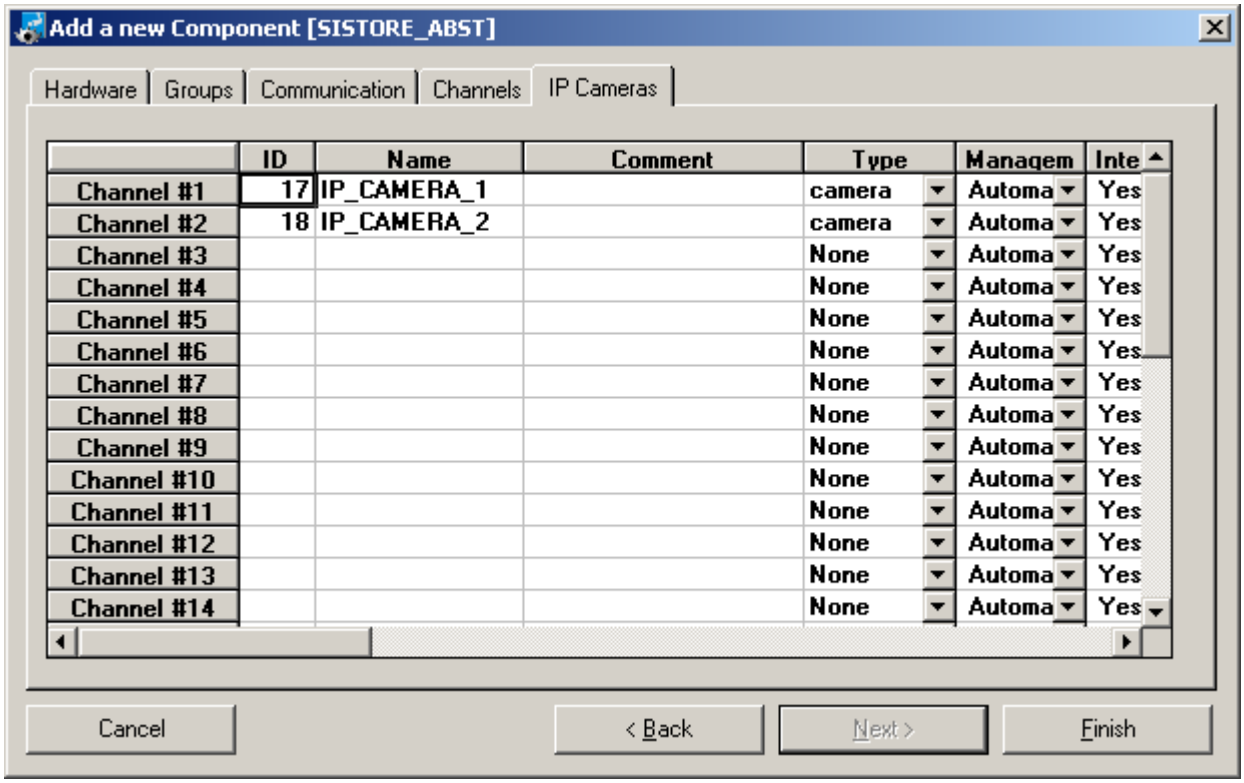


Fig. 192 SISTORE MX – IP Cameras

2. Select the input type in the **Type** column.
   The following input types are available:

None	Select "None" if this input is not to be used to establish a connection.
Camera	A camera will be connected to SISTORE MX.

3. Click **Apply**.

➔ Your settings are saved.

➔ The SISTORE MX device has been added and configured.

20 I/O server integration

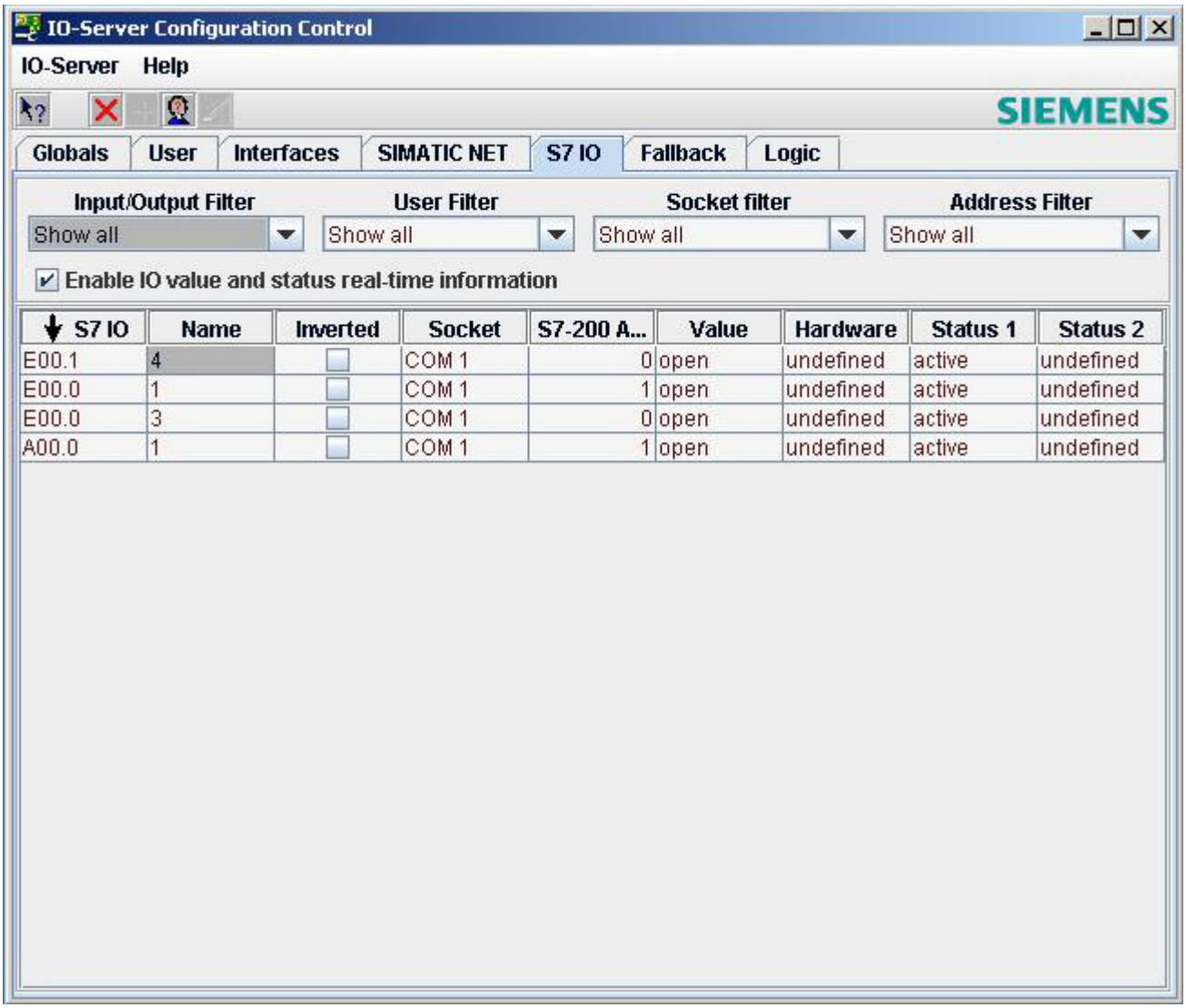
This chapter describes the integration of the I/O server into IVM.

The I/O server supports a communication interface to SIMATIC. SIMATIC S7-200 is supported as standard, and SIMATIC S7-300 can be supported as a project-specific application.

20.1 Configuration of the I/O Server using the I/O-Server configuration program

1. Start the **I/O Server configuration program** via **Start -> Programs -> Siemens Video Software Suite -> I/O Server**. Further information on this can be found in the Configuration Manual for the I/O Server.

   ➔ The following dialog box opens:



2. Select the **S7 IO** tab.

The contact names of the I/O-Server in the **Name** column must consist of numbers from **1** to **n**.

More detailed information on the application, set-up and configuration of the I/O server can be found in the I/O Server Configuration Manual.

20.2 Adding and configuring an I/O Server

1. Start **IVM Config**. See Section 4.11: Starting IVM Config.
2. Click the icon **Add new component**.
   ➔ The following dialog box opens:

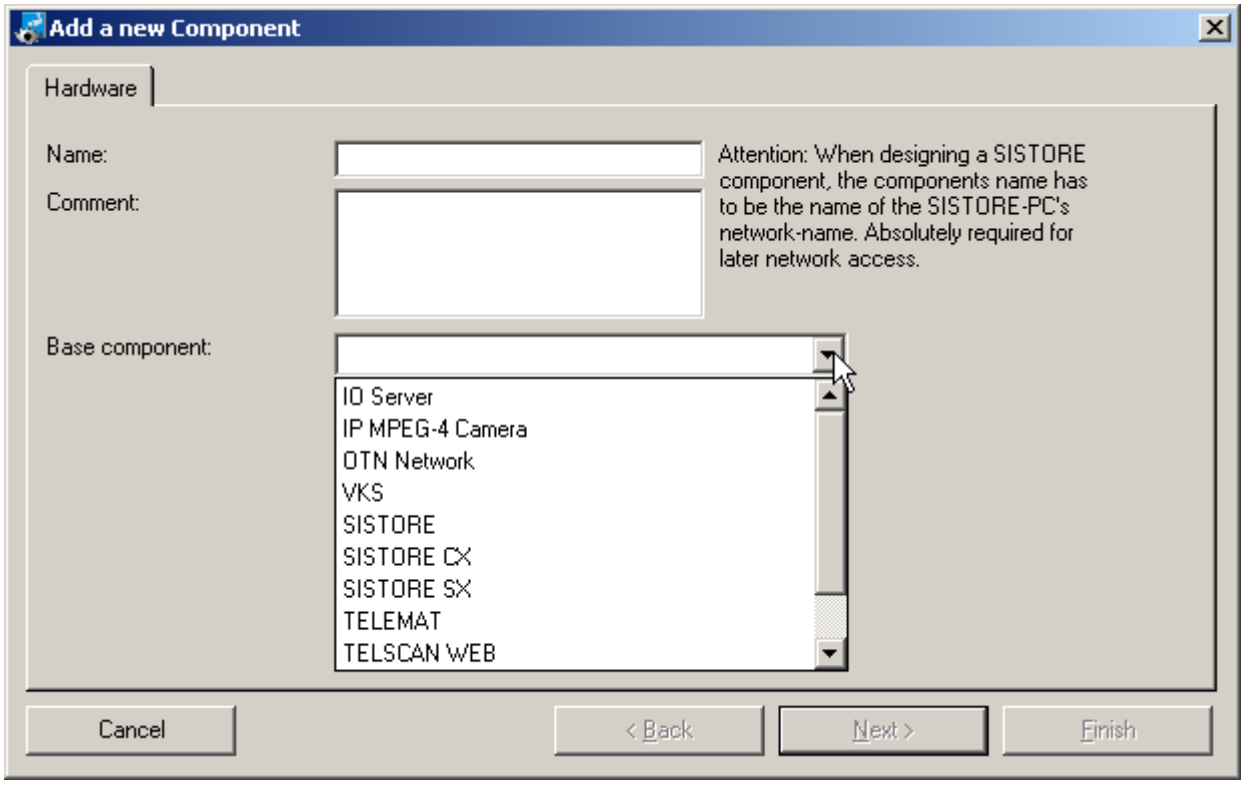


Fig. 193 Hardware

3. Select I/O Server in the **Base component** list:

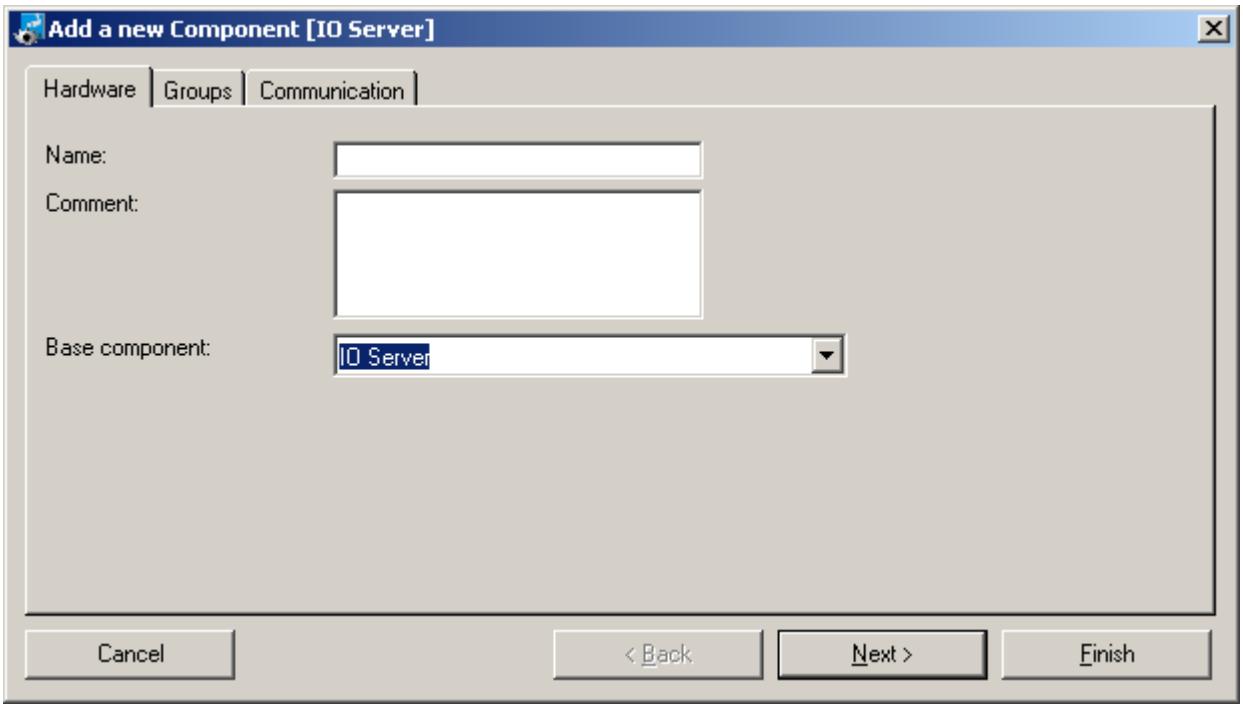


Fig. 194 I/O Server – Hardware

4. Enter the name of the I/O Server in the **Name** field.
5. If you wish to add further information (e.g. the site where the device is in operation), you can enter a comment in the **Comment** field.

Assign I/O Server to a group

1. Select the **Groups** tab.

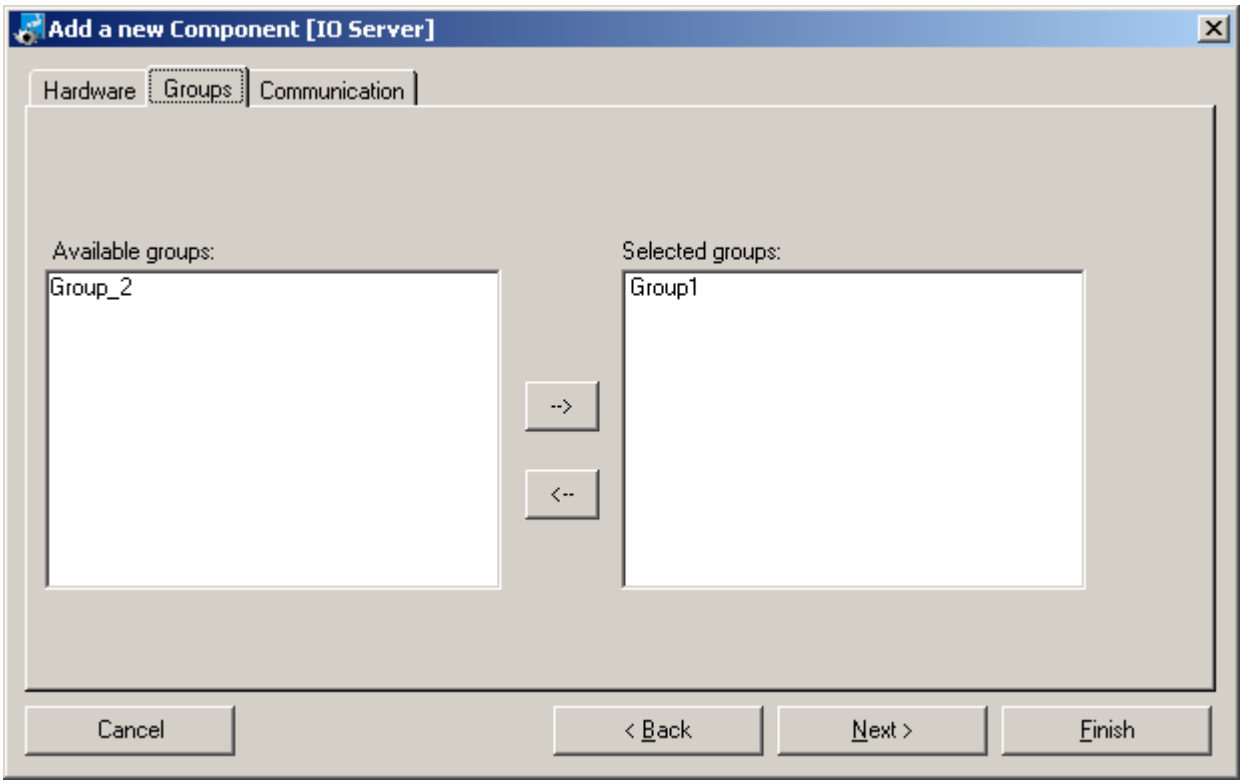


Fig. 195 I/O Server – Groups

2. Select a group in the **Available groups** list.
3. Click the arrow button  .
   ➔ The group will be displayed in the **Selected groups** field.
   ➔ The I/O Server is now assigned to the selected group.

Set IP port and IP address

1. Select the **Communication** tab.

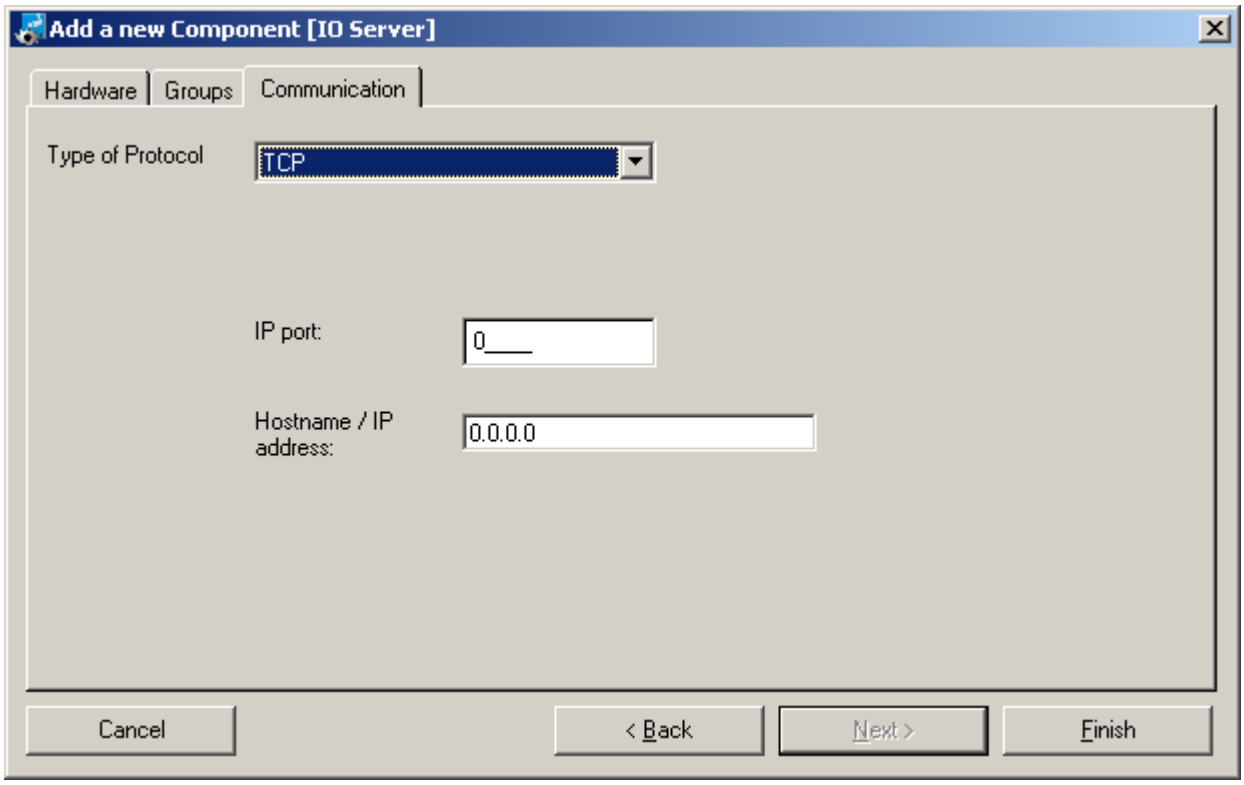


Fig. 196 I/O Server – Communication

2. Enter the socket address of the TCP/IP port in the IP port text field. Port 1234 is set by default and is therefore suggested automatically.
3. Enter the IP address or the host name of the I/O server or of the computer on which the I/O server runs in the Hostname/IP address text field.
4. Click **Apply**.
   ➔ Your settings are saved.
   ➔ The I/O Server has been added and configured.

20.2.1 Defining commands for I/O Server

In the next step, the commands for the I/O server, e.g. for opening a relay, are defined:

1. Start **IVM Config**. See Section 4.11: Starting IVM Config.
2. Select **Commands**… in the **System configuration** menu.

➔ The following dialog box opens:

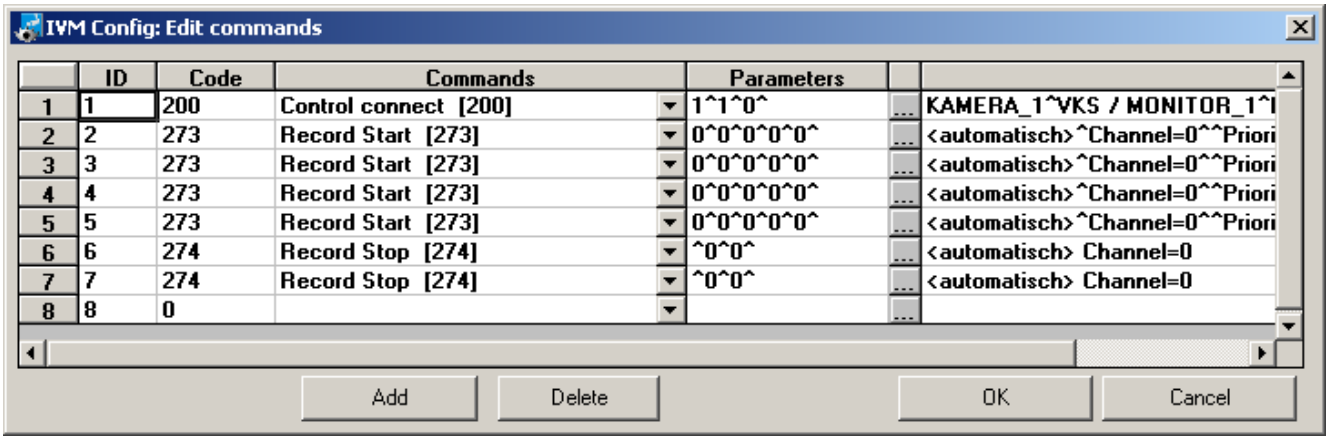


Fig. 197 IVM Configuration - Editing commands

3. Click **Add**. You can now select the relevant command in the drop-down list.

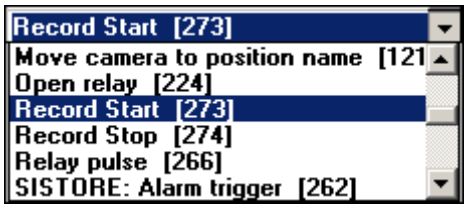


Fig. 198 Command selection

The following commands are supported for the integration of the I/O server:

Close relay (225)	Command for closing a relay
Open relay (224)	Command for opening a relay
Relay pulse (266)	Command for a relay pulse

More information on the definition of commands can be found in Section 12 Commands.

20.2.2 Defining SIMATIC alarms

A further step is the definition of alarms that were triggered by a SIMATIC system.

In this section, your attention is drawn to what is remarkable about the integration of the I/O server. For more information on alarms please refer to Section 13: Alarms.

To do this, proceed as follows:

1. Start **IVM Config**. See Section 4.11: Starting IVM Config.
2. Select the menu sequence **System configuration > Alarms...**.

➔ The following dialog box opens:

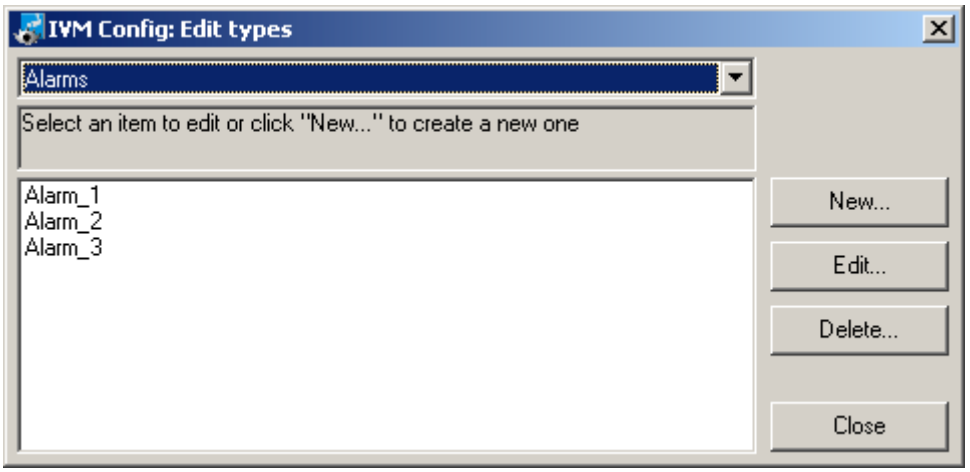


Fig. 199 Editing alarm types

3. Click **New...**

➔ The following dialog box opens:

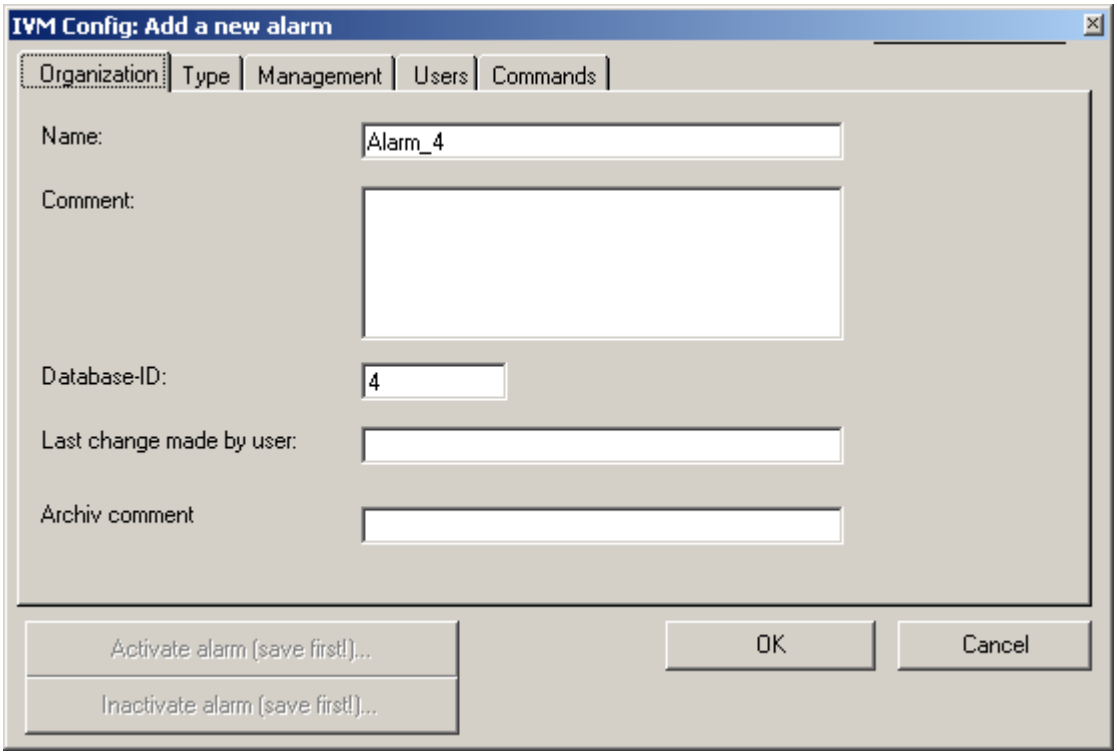


Fig. 200 Alarm types – Organization

4. Define a name for the alarm and select the **Type** tab. See Section 13: Alarms.

➔ The following dialog box opens:

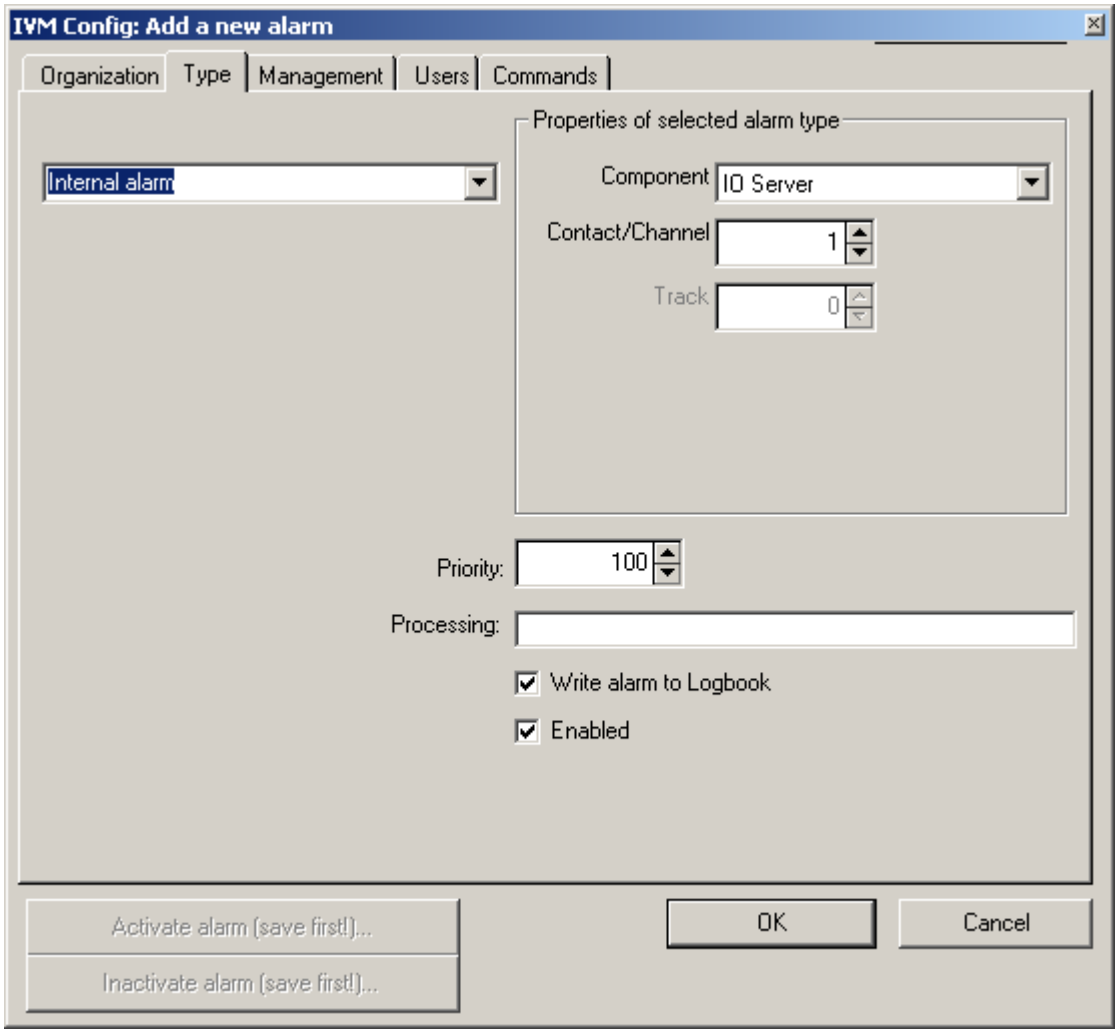


Fig. 201 Alarm types – Type

Now select the alarm type in the drop-down list box on the left. The alarm type properties may change depending on the alarm type.

For the I/O server integration only the alarm type **Internal alarm** is supported.

Information on alarm type properties:

Component	Select the desired I/O server in this field box.
Contact/Channel	The contacts defined in the I/O server are assigned in this field.
Track	Not relevant to the I/O server.

For the definitions to be made under the tabs **Organization**, **Management**, **Users** and **Commands** proceed as described in Section 13: Alarms.

21 IP camera integration

21.1 Adding and configuring an IP MPEG-4 camera

There are two possible ways to add an IP MPEG-4 camera:

- Adding an P MPEG-4 camera automatically. See Section 21.1.1: Adding an IP MPEG-4 camera automatically.

  – OR –

- Adding an P MPEG-4 camera manually. See Section 21.1.2: Adding an IP MPEG-4 camera manually.

21.1.1 Adding an IP MPEG-4 camera automatically

1. Start **IVM Config**. See Section 4.11. Starting IVM Config.
2. Click the icon  **Add new component**.

   ➔ The following dialog box opens:

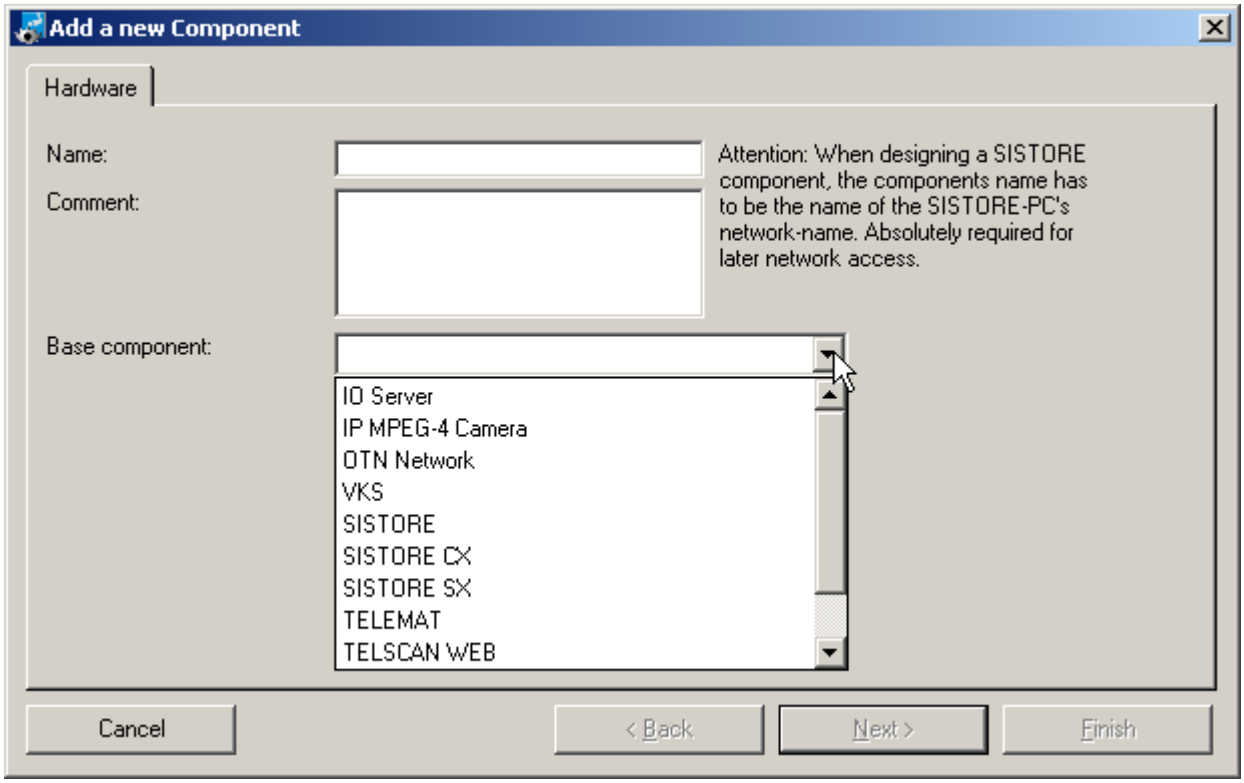


Fig. 202 Add a new component

3. Select IP MPEG-4 Camera in the **Base component** drop-down list.

➔ You can now make further settings for the selected device:

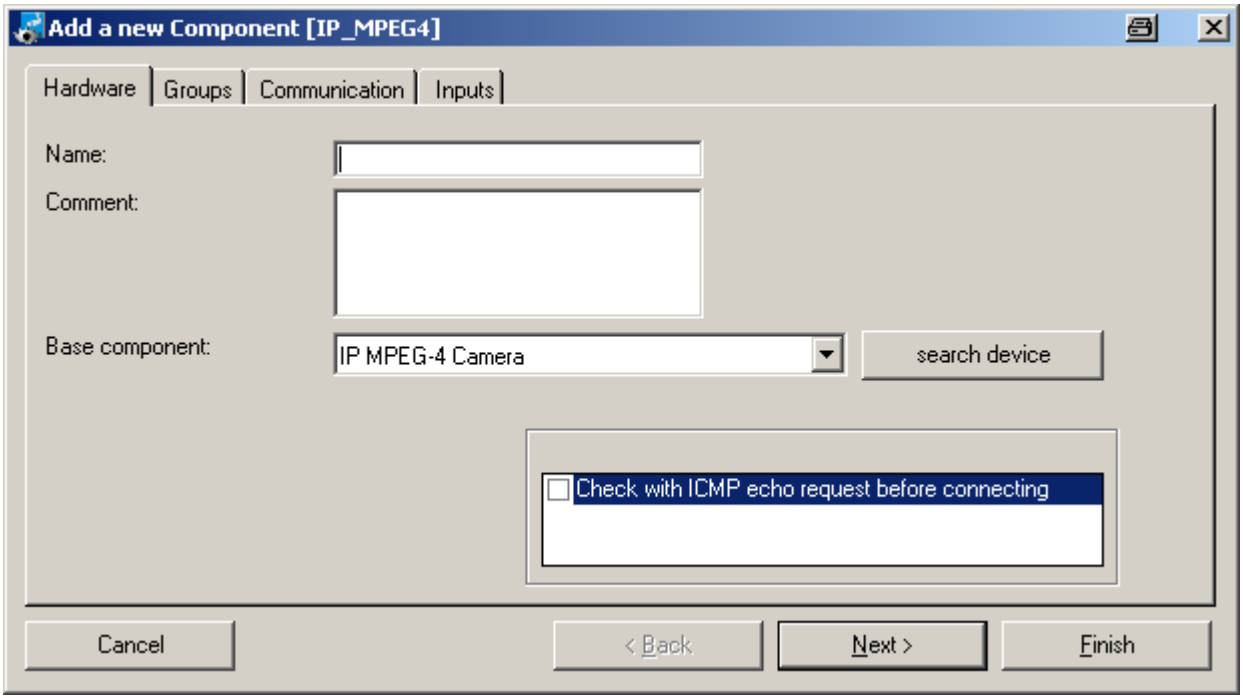


Fig. 203 IP MPEG-4 Camera – Hardware

4. If you wish to perform a ping check before the connection is set up, mark the checkbox **Check with ICMP echo request before connecting**.
5. Click on **search device**.

➔ The following dialog box opens:

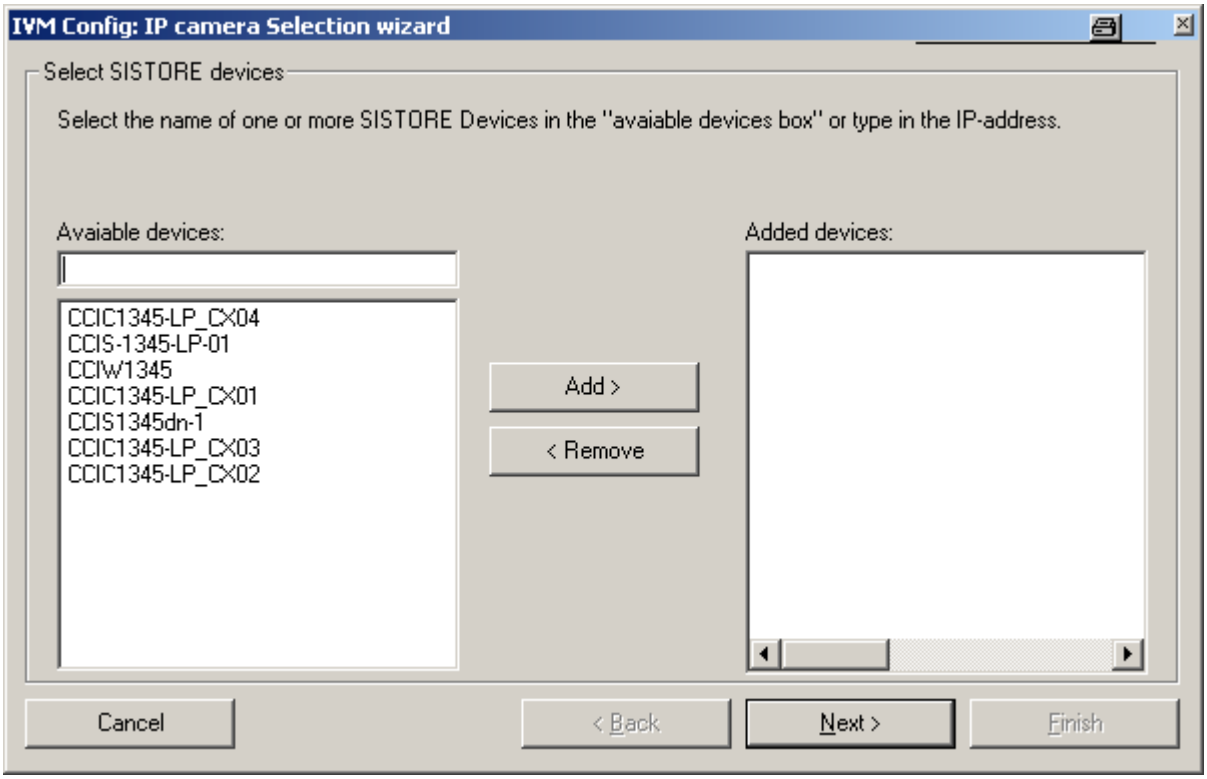


Fig. 204 IP MPEG-4 Camera – Camera Selection Wizard

6. Select the IP cameras you wish to add from the list box.
   – OR –
   Enter the IP address of an IP camera in the text field.
7. Click **Add**.
   ➔ The IP cameras are now selected.
8. Click **Next >**.
   ➔ The data of the selected IP cameras will be retrieved:

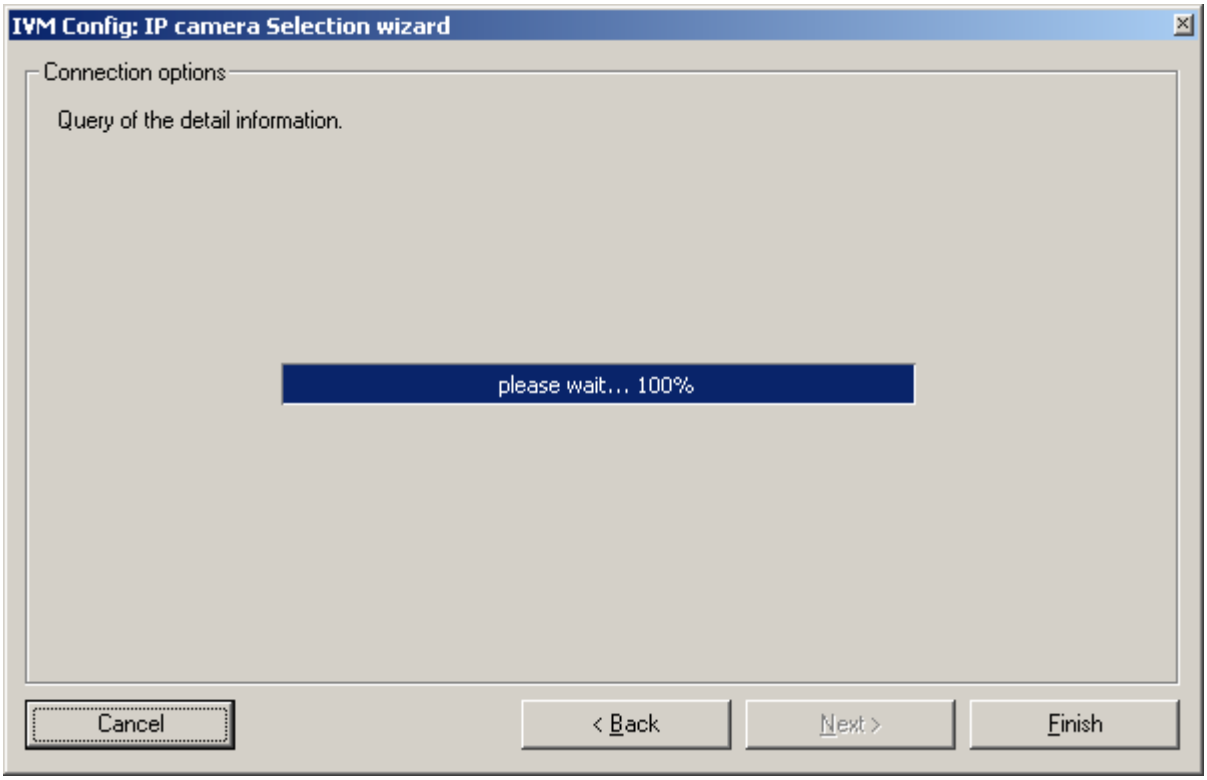


Fig. 205 IP MPEG-4 Camera – Camera Selection Wizard – Connection options

9. Wait until the system has retrieved all information (100%).
10. Click **Apply**.
    ➔ The IP camera has been added automatically.

21.1.2 Adding an IP MPEG-4 camera manually

1. Start **IVM Config**. See Section 4.11. Starting IVM Config.
2. Click the icon  **Add new component**.

➔ The following dialog box opens:

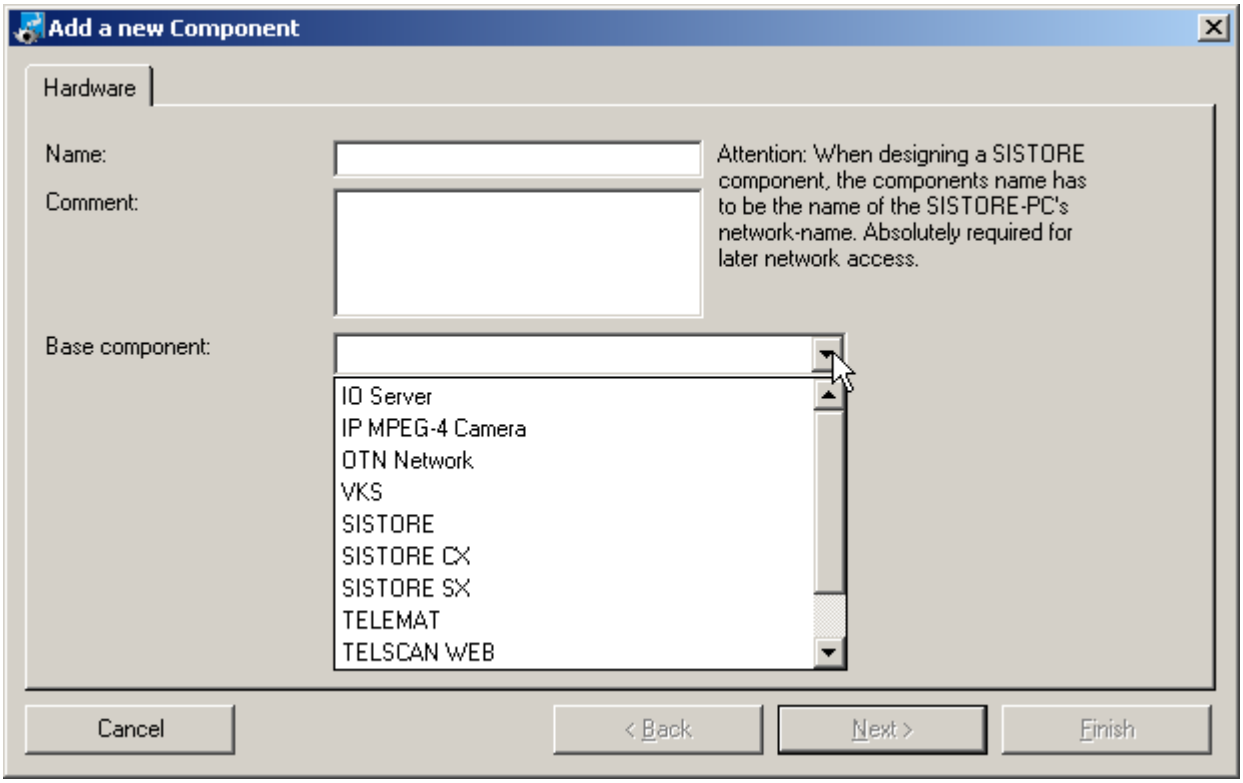


Fig. 206 Add a new component

3. Select IP MPEG-4 Camera in the **Base component** drop-down list.

➔ You can now make further settings for the selected device:

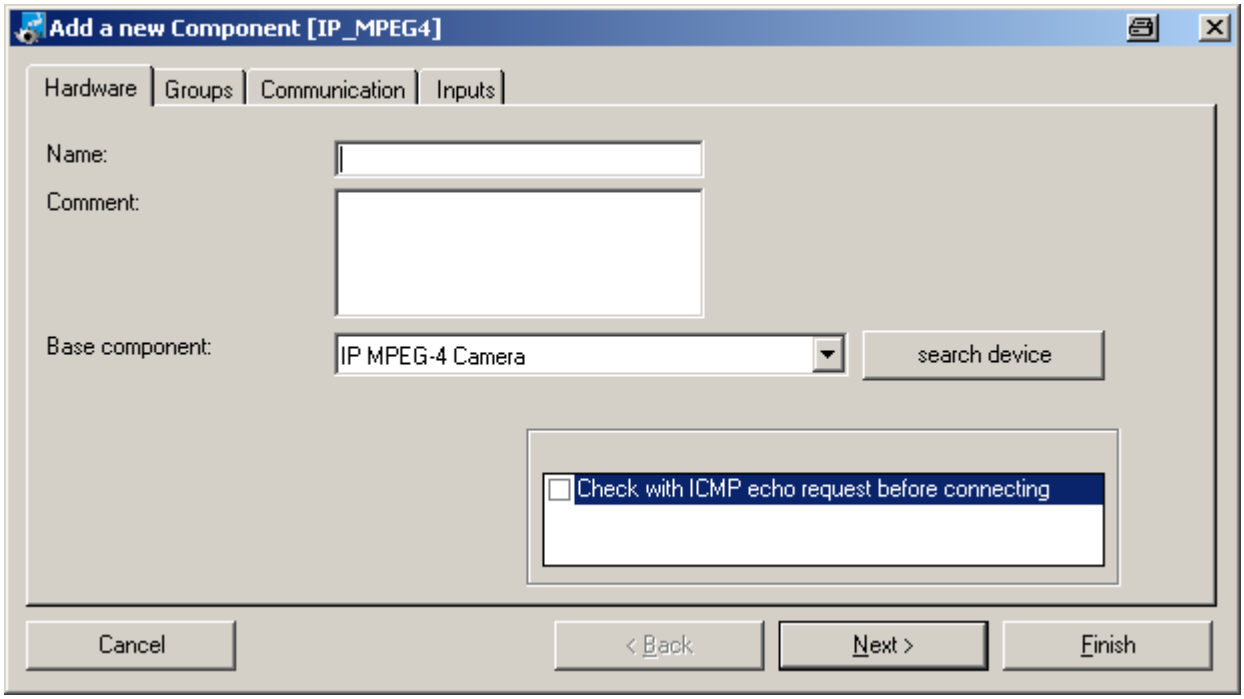


Fig. 207 IP MPEG-4 Camera – Hardware

4. Enter the name of the camera in the **Name** field.
5. If you wish to add further information (e.g. the site where the device is in operation), you can enter a comment in the **Comment** field.
6. If you wish to perform a ping check before the connection is set up, mark the checkbox **Check with ICMP echo request before connecting**.

21.1.3 Configuring an IP MPEG-4 camera

1. Select the **Communication** tab.

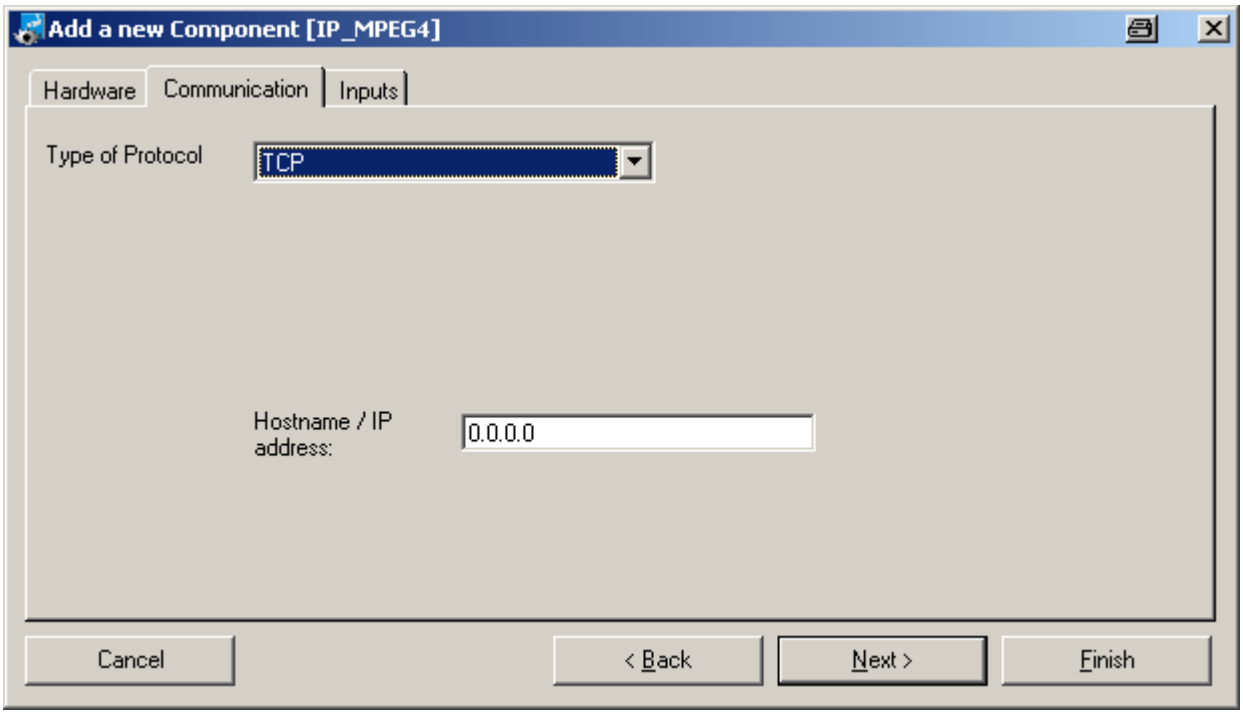


Fig. 208 IP MPEG-4 Camera – Communication

2. Enter the host name or the IP address in the **Host name/IP address** text field.
3. Select the **Inputs** tab.

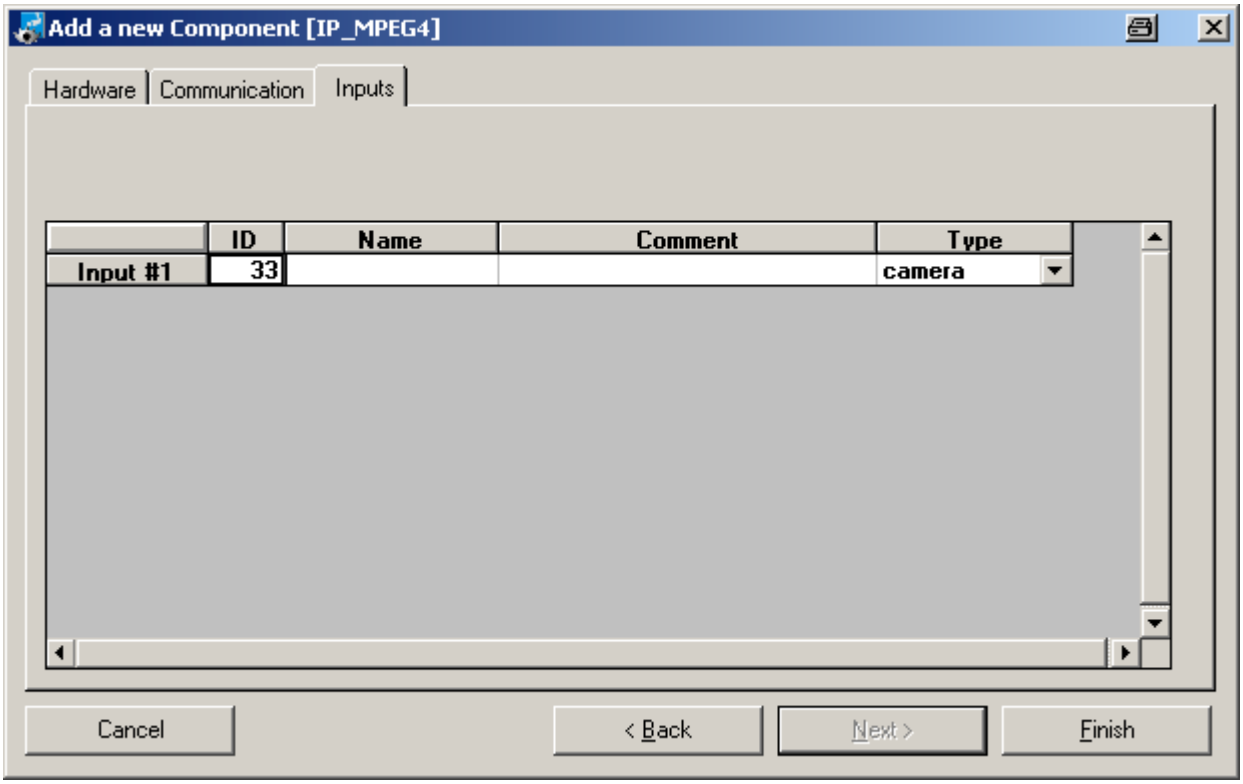


Fig. 209 IP MPEG-4 Camera – Inputs

4. Select the input type in the **Type** column.
   The following input types are available:

None	Select "None" if this input is not to be used to establish a connection.
Camera	A camera is directly integrated into IVM.

5. Click **Apply**.
   ➔ Your settings are saved.
   ➔ The IP camera has been added and configured.

21.2 Adding and configuring a Siemens MJPEG camera

Adding a Siemens MJPEG camera

1. Start **IVM Config**. See Section 4.11: Starting IVM Config.
2. Click the icon **Add new component**.
   ➔ The following dialog box opens:

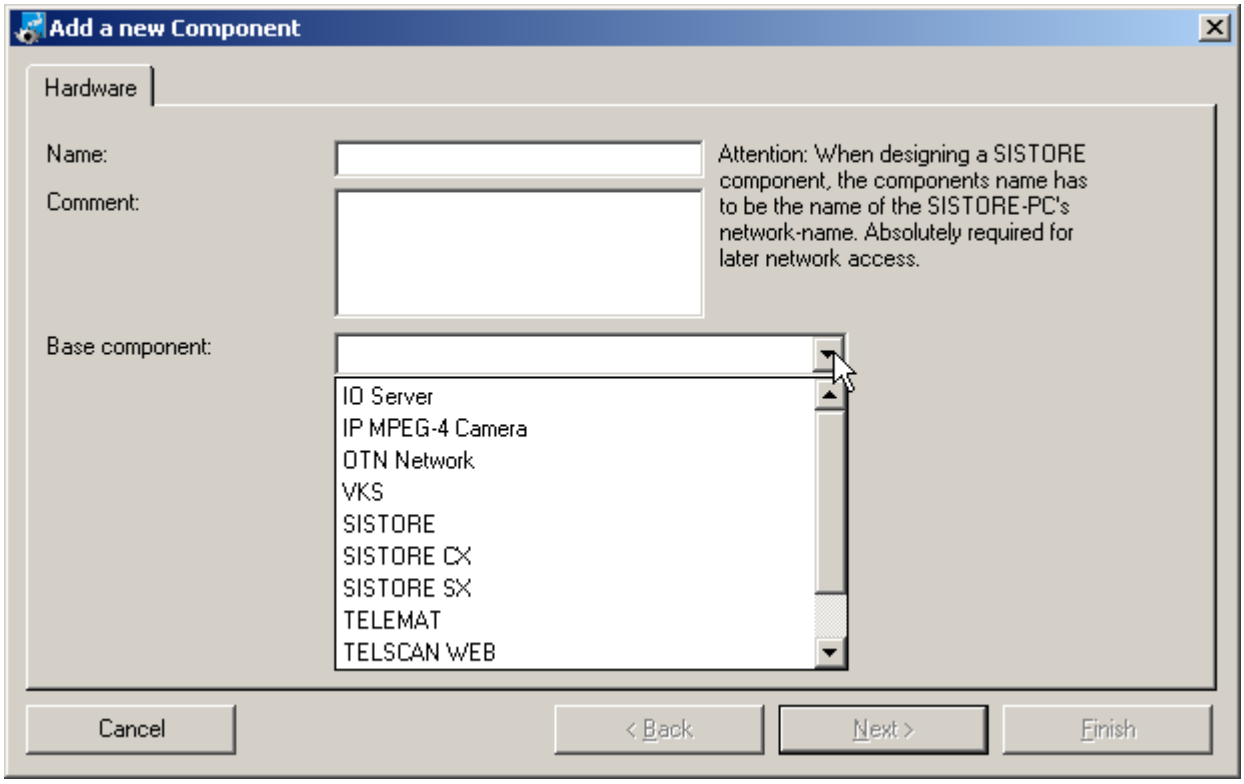


Fig. 210 Add a new component

3. Select **Siemens MJEPG Camera** in the drop-down list.

➔ You can now make further settings for the selected device:

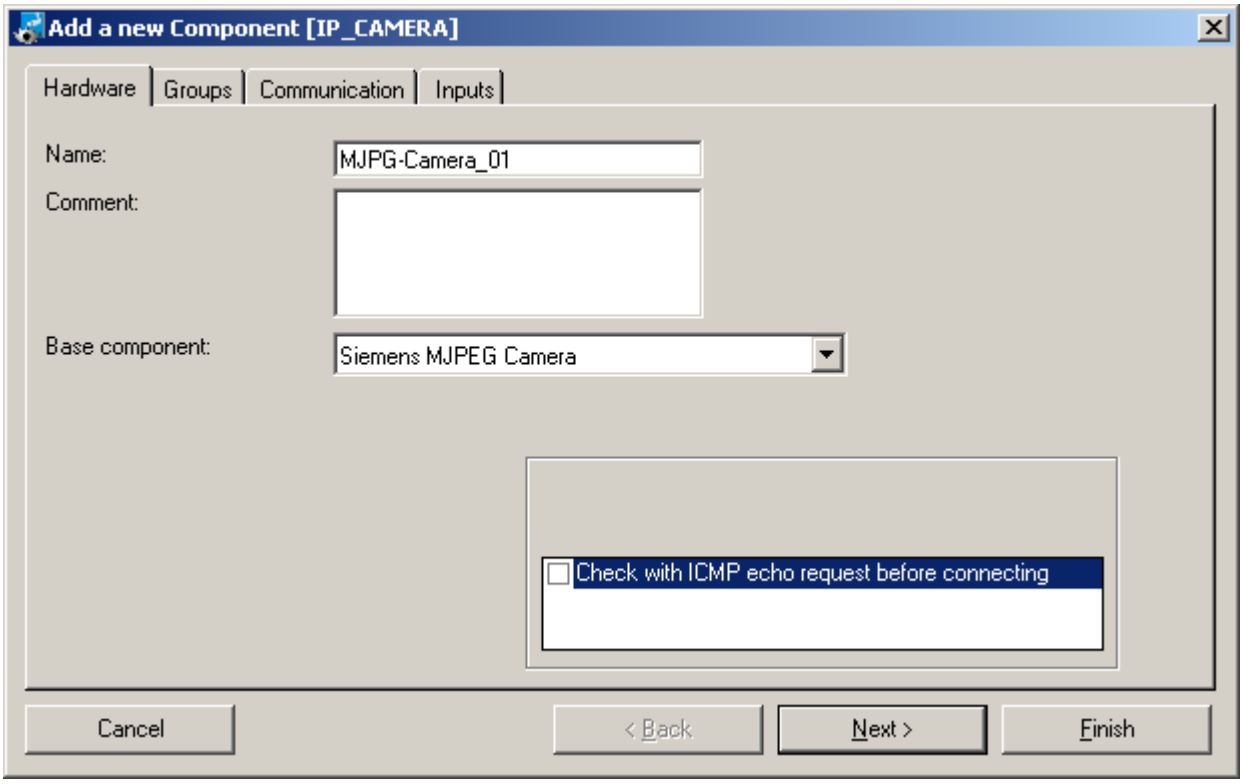


Fig. 211 IP camera – Hardware

4. Enter the name of the camera in the **Name** field.
5. If you wish to add further information (e.g. the site where the device is in operation), you can enter a comment in the **Comment** field.
6. If you wish to perform a ping check before the connection is set up, mark the checkbox **Check with ICMP echo request before connecting**.

Configuring a Siemens MJPEG camera

1. Select the **Groups** tab.

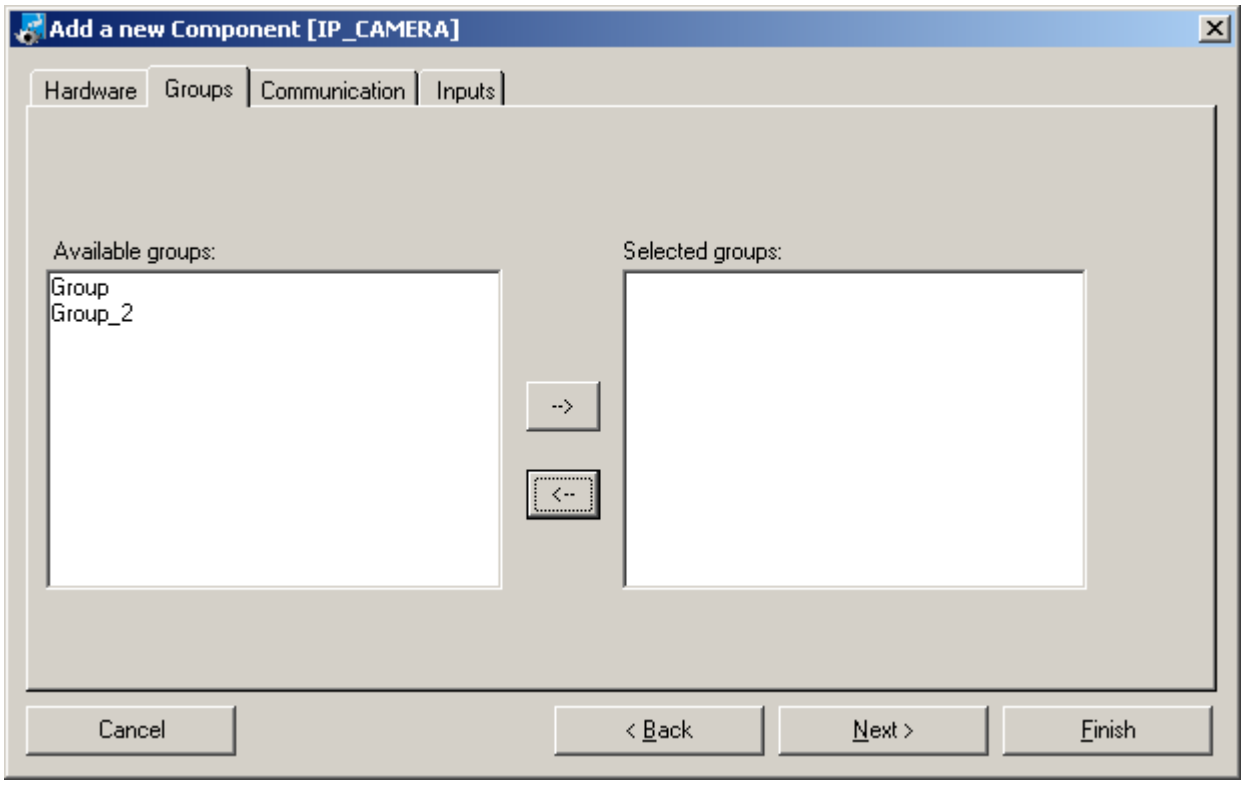


Fig. 212 IP camera – Groups

2. Select a group in the **Available groups** list.
3. Assign the camera to the selected group using the arrow button or by double clicking on the group.
   ➔ The camera has been assigned to the group and will be displayed in the **Selected groups** list.
4. Select the **Communication** tab.

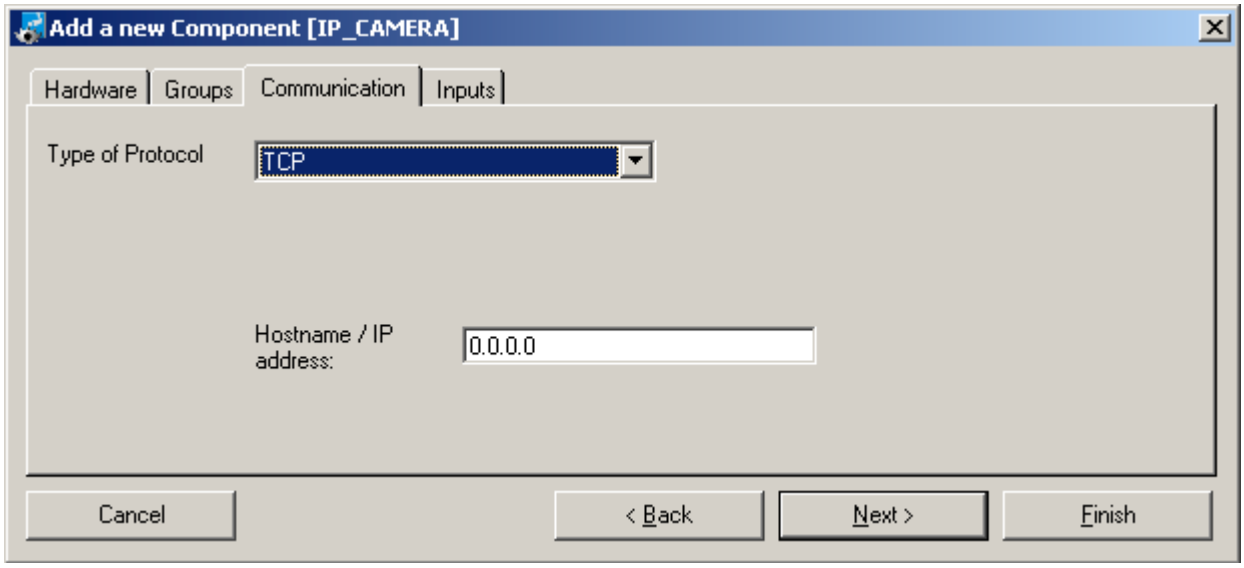


Fig. 213 IP camera – Communication

IP port **8080** is set by default.

5. Enter the host name or the IP address in the **Host name/IP address** text field.
6. Select the **Inputs** tab.

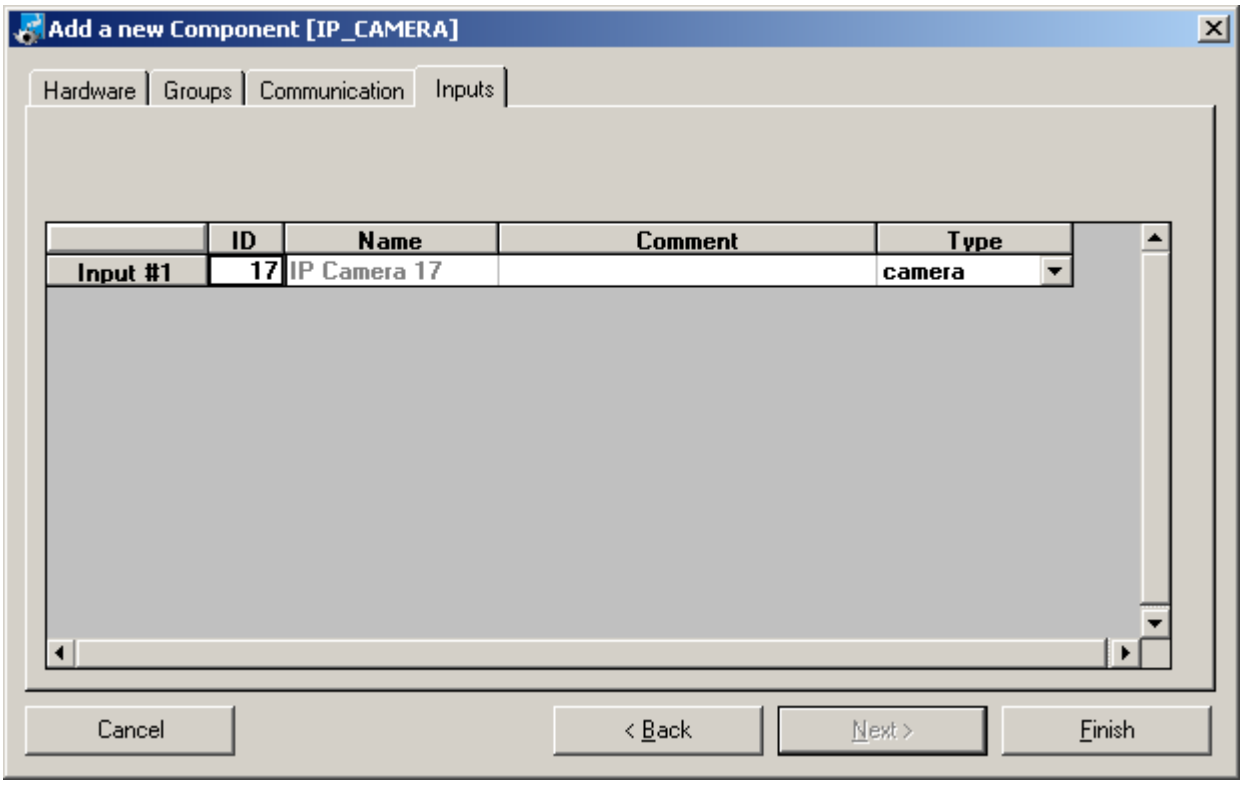


Fig. 214 IP camera - Inputs

7. Select the input type in the **Type** column.
   The following input types are available:

None	Select "None" if this input is not to be used to establish a connection.
Camera	A camera is directly integrated into IVM.

8. Click **Apply**.

➔ Your settings are saved.

➔ The IP camera has been added and configured.

22 IVM Watchdog

22.1 Summary

A Quancom **Hardware Watchdog** can be used to increase the availability of the IVM server. The internal threads of the IVM are monitored and the computer is automatically restarted if the system hangs.

This depends on the IVM being correctly installed for this to work, i.e. as a system service which runs automatically on start.

22.2 Conditions

The Watchdog is not activated by default and has to be activated by configuration in the Windows registry. If the Watchdog is to be used then the following conditions have to be met:

- The Watchdog card has to be installed.
- The QUANCOM device driver has to be installed.
- The Watchdog is activated in the IVM by entering the following Registry key:

Key	Type	Value
HKEY_LOCAL_MACHINE\Software\Siemens\IVM NT\IVM NT Server\WatchdogType	String	QUANCOM

If this key is not present, or the key is entered incorrectly, then the Watchdog is not used!

22.3 Method of operation

The IVM services are monitored by the Watchdog Service. All services being monitored have to report to (trigger) the Watchdog Service at regular intervals. The Watchdog Service, for its part, triggers a HW-Watchdog, only then, however, if all triggers from the services being monitored have been received.

If a service fails to trigger repeatedly, or if the Watchdog Service itself hangs, then the HW-Watchdog restarts the computer after a specified time.

22.4 Troubleshooting

If the Watchdog is configured, but not physically present or correctly installed physically, an error message is displayed when the IVM starts reporting “Device driver QLIBNDRV.SYS could not be loaded!”

If the error message is not cancelled, the IVM will not start correctly! If this happens, then the Watchdog needs to be correctly installed or the registry key for the IVM needs to be deactivated.

The error message originates from the QUANCOM QLIB32.dll and cannot be deactivated!

23 Special functions of IVM Config

23.1 Printing the system configuration

Using the Print function it is possible to print out the whole system configuration as a table with the database IDs.

Select **Print** in the **File** menu.

➔ The following dialog box opens:

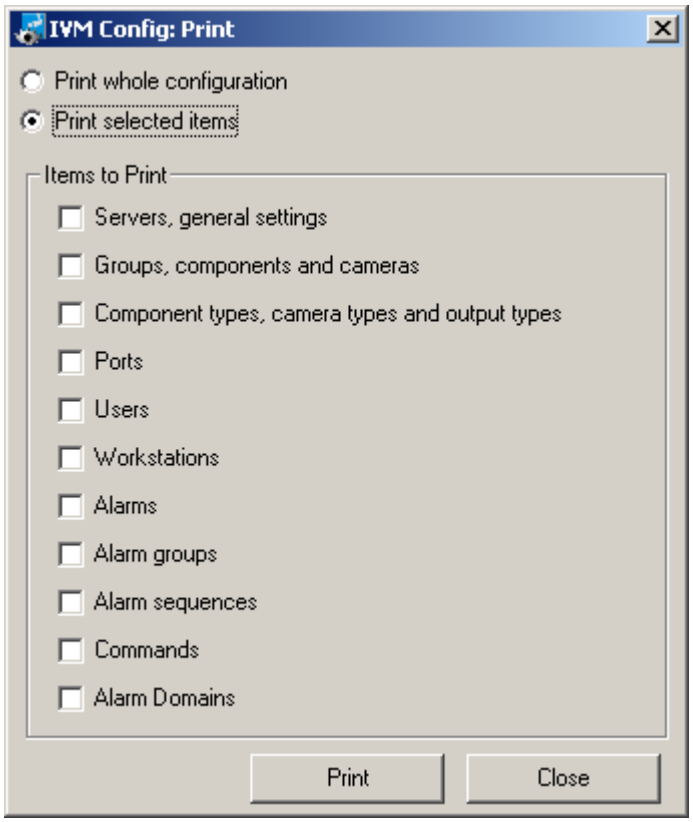


Fig. 215 Print

Print options

It is possible to print the whole configuration in one go, or to print selected configuration items, such as Users or Workstations.

23.2 Assistants

Assistants can be used to automatically define commands and to enable or disable alarms. Command generation should only be done once all inputs and outputs have been configured for the system. For the alarm commands to be activated the IVM server must be active.

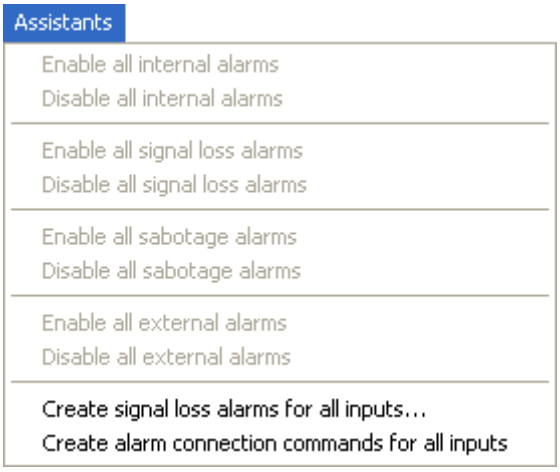


Fig. 216 Assistants

More information can be found in Section 12.2.2: Set alarm status.

24 Glossary

ASCII

American Standards Committee of Information Interchange

CCTV

Closed Circuit Television

Database ID

The automatic ID assignment by the program depends on the order of creation. It is only possible for the user to change the ID immediately after it is assigned. If the suggested Database ID is changed by the user please take note that:

because the Database ID is often intended to refer to an existing numbering system in the real system, the operator should first devise a suitable scheme to represent the system in the IVM and assign manual IDs according to this scheme.

I/O Server

The I/O Server is a Client/Server-based application for interfacing the SIMATIC world.

IVM

Interactive **V**ideo **M**anagement system.

32-bit operating system version for Windows 2000/2003/XP/VISTA.

IVM Client

Interactive Management System client program for operation and monitoring.

IVM Config

IVM Server configuration program

IVM SERVER

Interactive Management System server program, can be used as a main or sub-server depending on the configuration.

LAN

Local Area Network

ODBC

Open Database Connectivity

Priority

By assigning priority values the control of camera image display can be defined according to the user and monitors etc., i.e.: The output from a camera can be displayed due to an alarm with higher priority, replacing a lower priority display. It is not, however, possible to replace a high priority display with a new alarm with lower priority.

SIMATRIX

Video matrix switcher made by SIEMENS.

SISTORE

Digital video recorder (CCTV device made by SIEMENS)

TCP/IP

Transmission Control Protocol / Internet Protocol

TELSCAN

Video/audio/data transmission system via analog telephone networks, ISDN or digital data networks.

VKS

Video matrix switcher

VSS

Video Software Suite

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