VIDEOJET 1000

Manual

Edition: May 2003 (Version 2.5)

Contents

Preface

1

These installation and operating instructions are intended for persons authorised to install and operate the VideoJet 1000. International, national and any relevant regional regulations relating to electronics must be observed at all times. The operating instructions explain the installation and operation of the VideoJet 1000.

Conventions

In this manual, the following symbols and notations are used to draw attention to special situations:

Warning! or **Attention!**

This symbol indicates that failure to follow the safety instructions given may directly endanger people, cause damage to the system or to other equipment. The symbol represents a direct threat of danger.

Note

This symbol indicates tips and notes that make using the device easier and more convenient.

Note

This symbol indicates that you might have to find out special information to be able to make the settings or start up the system correctly.

The following typographic conventions are used in this manual:

Configuration	Window and menu names, parameters and buttons
[Enter], [C]	Key names
[Ctrl] + [C]	Two or more keys that are pressed simultaneously.
ping	Command line input and output

Intended use

The Network Video Server VideoJet 1000 serves to transmit video, audio and control signals via data networks (Ethernet LAN, Internet). Due to the integrated hard disk the device provides DVR functionality. It is designed for use in CCTV systems. The connection of an external alarm generator allows various functions to be triggered automatically. Other applications are not permitted.

In the event of questions concerning the use of the server which are not answered in this manual, please contact:

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EU Guidelines

The Network Video Server VideoJet 1000 complies with the specifications of European Guidelines 89/336 (Electromagnetic Compatibility) and 73/23, amended by 93/68 (Low-Voltage Guideline).

Rating plate

For exact identification, you will find the model designation and serial number on the rating plate on the bottom of the housing. Please note this information here before installation in order to have it to hand in the event of queries or spare parts orders.

Safety Information

2

Electrical shock hazard

- Never attempt to connect the unit to any power network other than the one for which it was intended.

- Do not open the housing of the unit.

- Disconnect the unit from the mains power supply and from all other devices if a fault occurs.

- Install the unit only in a dry place protected against the elements.

- If you are uncertain about the safe operation of the unit, shut it down immediately and secure it to prevent any unauthorised start-up. Safe operation is no longer possible, for example,

  – if damage is visible to the unit or the cables,

  – if the unit no longer operates correctly,

  – if the server has been exposed to rain or moisture,

  – if objects have penetrated inside the unit,

  – after long storage under improper conditions or

  – after heavy demands during transport.

Have the system checked in such cases.

Installation and operation

- All applicable electrical codes and regulations must be observed and followed at all times during the installation.

- Before installing or operating the system, ensure that you have read and understood the documentation for other equipment connected to the unit, e.g. cameras. These contain important safety notices and information concerning permissible applications.

- Perform only the installation and operating work described in this manual. All other work beyond this may lead to injuries to persons and damage to the system or other equipment.

Repairs and maintenance

- Never open the housing of the VideoJet 1000. The unit contains no parts which you can repair or replace.

- Ensure that only qualified, specialist personnel (electrical technicians) are permitted to carry out maintenance or repair work.

Product Description

3

Supplied components

- Network Video Server VideoJet 1000 incl. mains cable
- RS232 Null modem cable
- Brief description "First Steps" German/English
- German/English handbook on CD-ROM
- software on CD-ROM
- 3.5" hard drive

System requirements

- Computer with Windows 98/2000/XP operating system and access to network and
- Web browser Microsoft Internet Explorer (version 5 or higher) or free serial interface port and terminal program

Configuration requirements

- Computer with Windows 98/2000/XP operating system and access to network and
- Web browser Microsoft Internet Explorer (version 5 or higher) or decoder software, e.g. VIDOS

Operational requirements

- Computer with Windows 98/2000/XP operating system and access to network and

- Web browser Microsoft Internet Explorer (Version 5 or higher) or decoder software, e.g. VIDOS

  or

- VideoJet 1000 acting as receiver and video monitor

Functional overview

Network video server

The VideoJet 1000 is a network video server. Its primary function is to decode and encode video, audio and control data for transmission over an IP network. Because it uses existing networks, rapid and simple integration into CCTV installations via local networks can be achieved.

The VideoJet 1000 is designed either as a desktop unit or for building into equipment cabinets. Using the appropriate mounting frame, installation of a single unit or two units alongside each other on a 19" shelf is possible.

Two units, i.e. a VideoJet 1000 as transmitter and a VideoJet 1000 as receiver, can form a stand alone system for data transfer without a PC. The system can be extended to include additional transmitters and receivers so that video images from one transmitter can be simultaneously received on a number of receivers.

Receiver

The appropriate VideoJet 1000 or a computer with installed decoding software, e.g. VIDOS or with the installed web browser Microsoft Internet Explorer, can be used as a receiver.

DVR

Due to the integrated hard disk the VideoJet 1000 can also function as a digital video recorder allowing for local long-time recording.

Video encoding/ Multicast

The VideoJet 1000 operates with the video compression standards MPEG-2 and MPEG-4. Thanks to efficient MPEG-2 encoding, the data bit rate remains low even with high image quality and, in addition, can be matched into the local environment within wide limits. In this process, simultaneous encoding of the video signal according to MPEG-4 is supported, so that concurrent transmission using low bandwidth, e.g for Internet streaming, is possible.

In suitably configured networks, simultaneous transmission in real time to a number of receivers is possible using the Multicast function. A requirement here is the implementation of the UDP and IGMP protocols on the network.

Remote control

For the remote control of external equipment, e.g. remote pan and tilt heads or motorized zoom lenses, the control data are transmitted via the bidirectional serial interface of the VideoJet 1000. This interface is also available for the transmission of transparent data.

Configuration

Configuration of the VideoJet 1000 can be carried out using a browser via the local network (Intranet) or from the Internet.

Similarly, firmware updates and rapid loading of equipment configurations are also possible.

Snapshots

Individual video frames (snapshots) can be called up in JPEG format by the VideoJet 1000, stored on the computer hard drive or can be displayed in a separate browser window.

Back-up

Can be accomplished from either the livepage or directly from the HDD-Replay mode through a simple mouse click.

Summary   The main functions of the VideoJet 1000 can be summarized as follows:

- Video, audio and data transmission via IP data nets

- Multicast function for simultaneous transmission to a number of receivers

- Analog BNC composite video input (PAL/NTSC)

- Analog BNC composite video output (PAL/NTSC)

- Audio input and output (Stereo)

- Video and audio encoding to the international standards MPEG- 4, MPEG-2 and MPEG-1

- Integrated Ethernet interface (10/100 Base-T)

- Two transparent bidirectional data channels via serial interface ports RS232/RS422/RS485 and RS232

- Local long-term recording on integrated 3,5" hard disk

- Remote control of all internal functions via TCP/IP

- Password protection to prevent unauthorized connection or alterations to configuration

- Closed contact input for external sensor (e.g. door contact)

- Closed contact output for external equipment (e.g. lights or acoustic alarms)

- Event driven automatic connection setup (e.g. on switch-on and with alarms)

- Integrated video sensor for motion alarms

- Video signal monitoring

- Rapid and user friendly configuration via web browser

- Firmware update through flash memory

Rear panel connectors
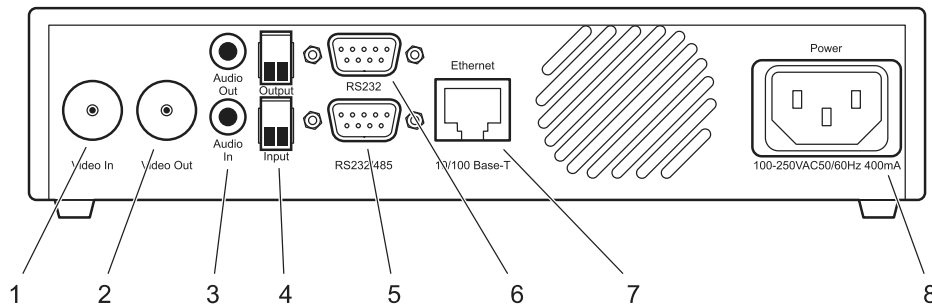
1 Video input **Video In**
BNC socket for video source

2 Video output **Video Out**
BNC socket for an analog video monitor

3 Audio connectors **Audio Out** and **Audio In**
3.5 mm stereo jack sockets for connection of a loudspeaker and microphone

4 Screw connectors **Output** and **Input**
for external sensors or switches and
for switching external equipment (e.g. lights or acoustic alarms)

5 Serial interface port **COM1: RS232/485**
9-pin sub-D socket (m) for control data transmissions
(protocols RS232, RS422 and RS485) and for configuration
using terminal software

6 Serial interface port **COM2: RS232**
9-pin sub-D socket (m) for control data transmissions
(protocol RS232) and for configuration using terminal software

7 RJ45 **Ethernet** connector
for connecting to the network

8 Socket **Power**
mains cable connector

Front panel
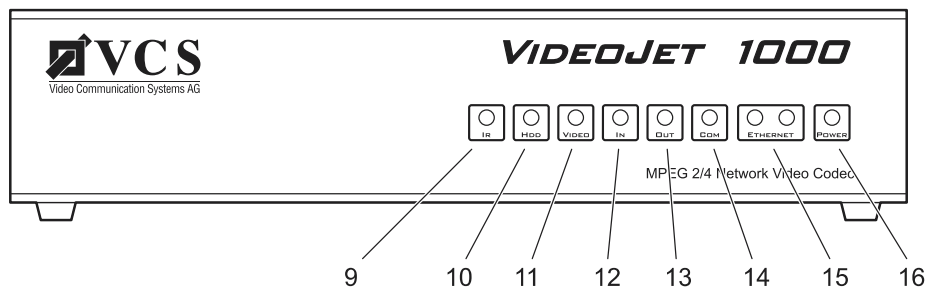
9 Diode **IR**
Infrared receiver (for future development)

10 LED **HDD**
flashes red during data transmissions to/from the hard drive

11 LED **VIDEO**
lights up green if a video signal is present on the input

12 LED **IN**
lights up red to indicate active alarm, green to indicate alarm ready

13 LED **OUT**
lights up green to indicate switched relay

14 LED **COM**
flashes yellow during active data transmissions on the serial interface ports

15 LEDs **ETHERNET**
green LED lights up with physical network connection
red LED flashes when data packets are being transmitted

16 LED **POWER**
lights up green to indicate operationally ready

Additional information on the LEDs can be found on page 137.

Installation

4

Due to its compact design and small footprint, the VideoJet 1000 can be used as a desk top unit occupying minimum space.

Using the mounting shelf unit, Accessory Kit 19" Rack, it is also possible to mount the unit into a standard 19" equipment cabinet.

Warning!

The unit is intended for internal use. Select a suitable location for installation where the equipment is not subjected to either extreme temperatures nor to extreme humidity. The ambient temperature must be between 0 and +50 °C, the relative humidity may not exceed 80% (non-condensing).

The equipment becomes warm in normal operation. Ensure that ventilation is adequate and also that there is sufficient clearance between it and heat sensitive objects or equipment.

The following installation requirements must be satisfied:

- Do not mount the equipment in close proximity to heaters or other sources of heat. Avoid locations subject to direct sunlight.

- Allow sufficient space for laying of cables.

- Ensure adequate ventilation of the equipment. When installing in equipment cabinets with other equipment, make allowances for the total heat load.

- Only use the cables supplied when connecting up the equipment or, if necessary, use cables suitably screened for interference.

- Position and lay all cables where they will not be subject to damage and ensure strain relief is provided where necessary.

Rack mounting

The VideoJet 1000 is adapted for installation into a standard 19" equipment rack. Either a single unit or two units secured together alongside each other can be mounted on a single shelf.

For rapid and secure installation, use the appropriate mounting set

● Accessory Kit 19" Rack order no. 1412,
  Mounting set for one or two units

Warning!

In the case of rack mounting ensure adequate ventilation for all units: free space around the equipment must be at least 5 cm left and right and must be at least 10 cm to the rear.

The ambient temperature must be between 0 and +50°C, the relative humidity may not exceed 80%.

The equipment generates heat during normal operation. Make sure there is sufficient clearance where necessary to heat sensitive objects or equipment.

When installing additional equipment, direct contact with the VideoJet 1000 is only permitted if the surface temperature of the neighboring equipment does not exceed +50 °C.

Single unit   For the installation of a single unit, one short and the long angle
                         bracket from the Mounting Kit are required.

☞   Screw the two brackets to the sides of the unit housing.

☞   If necessary, remove the rubber feet from the base of the unit if any
           other equipment is to be mounted directly underneath.

☞   Mount the unit into the rack and secure the angle brackets using
           four screws.

☞   Plug the supplied mains cable into the **Power** socket on the rear of
           the unit.

**Two units**   For the installation of two units, the two short angle brackets and
                         the two rails from the Mounting Kit are required.

   The two units must first of all be bolted together.

☞   Lay the two units alongside each other on their backs and secure
           the two rails to the units using four screws for each unit.

☞   Screw the two short angle brackets to the outsides of the two units.

☞   If necessary, remove the rubber feet from the base of the unit if any
           other equipment is to be mounted directly underneath.

☞   Mount the units into the rack and secure the angle brackets using
           four screws.

☞   Plug the supplied mains cables into the **Power** sockets on the rear
           of the two units.

Mounting of a single unit
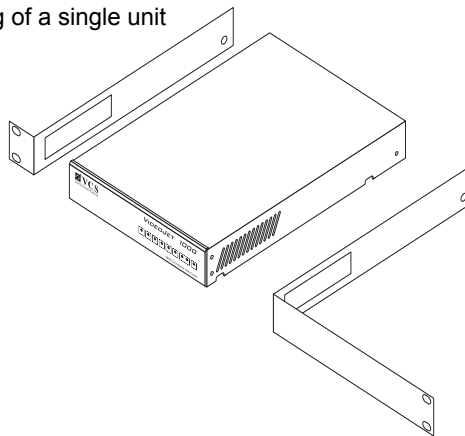
Mounting of twin units
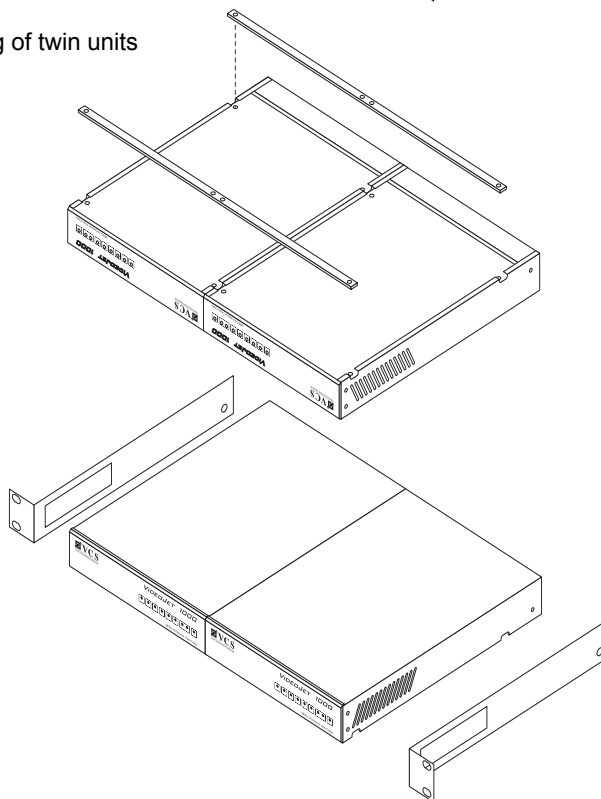
Connections

Camera Any standard video source (CCTV camera) can be connected to the VideoJet 1000. All cameras and any video source which delivers a standard PAL or NTSC signal are suitable.

☞ Connect the camera or other video source using video cable (75 Ohm, BNC connector) to the BNC socket **Video In**.

Note

For information on the setting of the video input termination please see page 38 or page 86.

Monitor The VideoJet 1000 has an analog monitor output for connection to a suitable PAL or NTSC monitor when the unit is to be used as a receiver.

☞ Connect the video monitor using video cable (75 Ohm, BNC connector) to the BNC socket **Video Out**.

Network The VideoJet 1000 can be connected to a 10/100 Base-T network either directly or via a hub. For this purpose use standard UTP Cat 5 cable with RJ45 connectors.

☞ Connect the network cable to the socket **Ethernet.**

Alarm input The alarm input is provided for switching an external alarm generator, e.g. a door contact or sensor. Using the appropriate configuration an alarm generator, for example, can activate the automatic connection setup between the VideoJet 1000 and a remote location.

A voltage free closing contact or switch can be used as activator.

Note

Where possible, a switch with minimum contact bounce should be used as activator.

☞ Remove connector block from **Input** socket.

☞ Insert conductor into connector and secure tightly – check that screws are securely tightened.

☞ Replace the connector firmly back onto the **Input** socket.

Switched output   The VideoJet 1000 is provided with a relay output for switching external equipment, e.g. lamps or acoustic alarms. This switched output can be manually activated during an active connection with the VideoJet 1000. In addition, when suitably configured the output can be activated as a response to an alarm signal, for example, to automatic acoustic alarms or to other devices.

Warning!

The maximum rating of the relay contact is 40 V and 0.8 A.

☞ Remove connector block from **Output** socket.

☞ Insert conductor into connector and secure tightly – check that screws are securely tightened.

☞ Replace the connector firmly back onto the **Output** socket.

Microphone/ loudspeaker The VideoJet 1000 is provided with an audio interface via the two stereo jack sockets.

The bidirectional audio signals are simultaneously transmitted along with the video signals. This can be used to drive a loud-speaker or door communication system as required.

☞ Connect the microphone to the jack socket **Audio In**.

☞ Connect the loudspeaker to the jack socket **Audio Out**.

Data interfaces The bidirectional data interface ports are intended as control ports for equipment connected to the VideoJet 1000, e.g. a dome camera with motorized lens.

The port **COM1: RS232/485** supports RS232, RS422 and RS485 transmission protocols.

The availability of equipment which can be controlled in this way is constantly being extended. Specific information for the installation and control of such units can be obtained from the manufacturer of the equipment involved.

Warning!

Pay particular attention to any associated documentation relating to the installation and operation of equipment being controlled. These documents contain important safety instructions and information regarding permitted applications.

Note

The transmission of transparent data is only possible when a connection has been established.

Pin assignment

	COM1 RS232	COM1 RS422/485	COM2 RS232
1	-	-	-
2	RxD (receive data)	RxD+ (receive data plus)	RxD (receive data)
3	TxD (transmit data)	TxD- (transmit data minus)	TxD (transmit data)
4	-	-	-
5	GND (ground)	GND (ground)	GND (ground)
6	-	-	-
7	RTS (ready to send)	TxD+ (transmit data plus)	-
8	CTS (clear to send)	RxD- (receive data minus)	-
9	-	-	-

Switching on/off

Mains connection   Included with the VideoJet 1000 is a power cable with the correct matching plug.

Warning!

Ensure that the mains supply is free from interference such as over voltages, spikes, or brownouts by using suitable mains conditioners where necessary.

Only connect the VideoJet 1000 to the power source after all other connections have been established.

The VideoJet 1000 is not provided with a power switch. The unit is ready for operation as soon as the unit is connected to the power and has rebooted.

☞   Insert the mains socket into the connector **Power**.

☞   Connect the mains cable into an earthed socket.
The green LED **Power** on the front panel of the VideoJet 1000 lights up, the unit is ready for operation.

If the network connection has also been established correctly, the green **Ethernet** LED also lights up. A flashing red LED signals the transport of data packages over the network.

Setup using a terminal program

Data terminal
A data terminal may be connected to the VideoJet 1000 for setup and local control. The data terminal usually consists of a computer with suitable terminal software. A standard serial cable is required for the connection.

HyperTerminal, which comes with Windows, can be used as the terminal program.

Note

Information on the installation and use of HyperTerminal can be found in the documentation or in the Online Help for MS Windows.

☞ Before working with the terminal program, isolate the unit from the data network.

☞ Connect the sub-D socket COM1 **RS232/485** of the VideoJet 1000 to a free serial port on the computer.

Terminal configuration
To establish communications between the Terminal program and the VideoJet, the transmission parameters must be correctly setup. The following parameters should be selected in the Terminal program:

● 19,200 Baud

● 8 Data bits

● No parity check

● 1 Stop bit

● No protocol

Command entry After the connection has been established and the username `ser-vice` has been entered, call up the main menu. Additional sub-menus and functions are called up using the onscreen commands.

- Switch local echo off so that values entered are not repeated.

- Enter only one command at a time.

- When a value is entered (e.g. IP address) recheck the characters entered and only then press the [ENTER] key to transmit the value to the VideoJet 1000.

IP address To operate the VideoJet 1000 on a network, an IP Address valid for the network must be provided.

The following address has been preset at the factory:

192.168.0.1

☞ Start up the terminal programm, e.g. HyperTerminal.

☞ Enter `service` as username.

☞ Enter `?`. The main menu will be displayed.

☞ Enter `1`. The submenu for network configuration will be displayed.

☞ Enter `1` a second time. The current IP address will be displayed; you will be required to enter a new IP address.

☞ Enter the new IP address and press [ENTER]. The new IP address will be displayed.

☞ The new IP address (as the subnet mask and the gateway, too) will only be valid after a reboot! Therefore realize it immediately by

- entering `#reset` in the HyperTerminal and pressing [ENTER] or

- disconnecting temporarily the power supply of the VideoJet 1000 (pull out the plug for a few seconds)

```
VideoJet 1000 - HyperTerminal                                    _ □ ×
Datei  Bearbeiten  Ansicht  Anrufen  Übertragung  ?

 D   ☞   ☎ 3   □ 🖰   🖳

?
-------------------------------------------------
|                    VJ1000
-------------------------------------------------

' 0'  Main Menu
' 1'  IP
' 2'  Mpeg2 encoder
' 3'  Mpeg4 encoder
' 4'  Misc
' 5'  Rcp plus

-------------------------------------------------
1
-------------------------------------------------
|                    VJ1000
-------------------------------------------------

' 0'  Exit menu IP
' 1'  local IP            192.168.0.12
' 2'  local subnet mask  0.0.0.0
' 3'  local gateway       0.0.0.0
' 4'  tx multicast group 0.0.0.0
' 5'  remote IP           0.0.0.0

-------------------------------------------------
1
local IP            192.168.0.12  -> 192.168.0.12
192.168.0.12

Verbunden 00:00:39        Autom. Erkenn.   19200 8-N-1   RF  GROSS   NF  Aufzeichnen    Druckerecho
```

| **Additional parameters** | Using the terminal program, additional basic parameters can be checked and modified where necessary. The onscreen commands displayed in the various submenus are used for this purpose. |

Configuration with
Web Browser

5

Establishing the connection

The integrated HTTP Server provides the option of configuration of the unit with a web browser over the network. This option offers considerably more possibilities and is more user friendly than configuration using terminal software. In addition, live video images may be displayed.

Note

In order to decode live video images, the required special ActiveX control must be installed on the computer. The latest version of the ActiveX control can be obtained from customer service

In addition, for decoding MPEG encoded video and audio data, a suitable MPEG decoder must be installed in the computer where it can also be used, for example, to replay DVD material. If not present, such a decoder may be installed from the supplied software CD.

Instructions for the operation of the web browser will be found under the online help of the web browser.

System requirements

- Microsoft Internet Explorer (version 5 or higher)
- Monitor resolution 1024 × 768 pixels
- Access to network (Intranet or Internet)

MPEG decoder installation
If no video images are displayed when MPEG-2 or MPEG-4 is selected, installation of a current MPEG decoder is probably necessary. Suitable software for this can be found on the supplied program CD.

☞ Insert the CD into the ROM drive of the computer. The CD runs automatically. If the CD does not start automatically, open the CD folder in Windows Explorer and double click on **mpegax.exe**.

☞ Follow the onscreen instructions.

Establishing the connection
To use the VideoJet 1000 on a network, it must be provided with an IP address.

The following address has been preset at the factory:
192.168.0.1

☞ Start up the web browser.

☞ For the URL, enter the IP address of the VideoJet 1000.
The livepage with the video image will be displayed (see page 122).

Selecting the configuration mode

A variety of possibilities are provided for configuration of the VideoJet 1000 or to check the current setup:

● the Installation Wizard

● the System Overview

● the Expert Mode.

All settings are retained in VideoJet 1000 memory, so that they remain stored even with power interruptions.

Installation Wizard
For initial setup of the unit, operation with the installation wizard is recommended. This takes you step by step through the necessary stages. Important settings for correct operation will not be passed to see. In addition, at each stage short instructions are given to help with the setup process.

System Overview   To obtain a rapid overview, the most important parameters can be displayed in related groups. Setup parameters can also be changed here. However, a particular sequence is not specified.

Expert Mode   The Expert Mode is only recommended for experienced operators or for system administrators. All unit parameters can be accessed. Operations which fundamentally affect the operation of the unit (e.g. software updates) can only be carried out in this Expert Mode.

Configuration start-up   On the livepage, click on the top of the window on the link **Settings**. A new page will be opened and the required installation mode can be selected on the menu line:

Installation wizard

The installation wizard of the VideoJet 1000 guides you step by step through the necessary procedures.

Wizard start-up   The installation wizard can be started by clicking on the link **Settings** on the livepage.

☞   Click on the link **Wizard**. A new page will be displayed.

☞   On the installation wizard field click on the button with the wizard symbol. The Wizard window will open up.

☞   Click on the button **Start** to call up the Wizard.
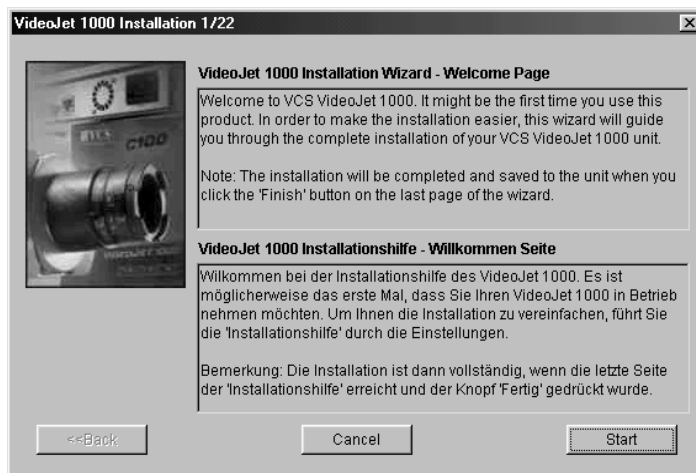
General procedures   When the installation wizard has been started, a new window will open up which contains information and in which settings can be made.

☞   Always read first the information in the upper section of the window.

☞   Click in the text boxes to enter values or else use the other elements which are available such as buttons, check boxes or list fields.

☞ Click on the button **Next >>** to continue to the next stage.

☞ To return to a previous screen to check a previous setting click on the button **<< Back**.

☞ Click on the button **Cancel**, to interrupt the process and close the installation wizard.

VideoJet 1000 Installation 2/22	✕

VideoJet 1000 Installation Wizard - Language

You can now specify on the VideoJet 1000 the language of the browser user interface. English and German language are available.

Note: Please select your language, so this will made the handling of the device easier for you.

VideoJet 1000 Installationshilfe - Sprachauswahl

Sie können für den VideoJet 1000 die Sprache der Webseiten wählen. Dabei lässt sich zwischen deutscher und englischer Sprache umschalten.

Bemerkung: Bitte wählen Sie eine Sprache aus.

Language/Sprache: `English/Englisch ▼`

<<Back	Cancel	Next>>

Store changes   Changes called up in the installation wizard are only effective when the button **Finish** on the last page is clicked.

The original settings are retained if the button **Cancel** is clicked.

Warning!

Carry on with the installation wizard to the final screen if possible. This is the only location where all of the changes made can be stored by clicking on the button **Finish**.

| **Additional settings** | On the last page of the installation wizard you are presented with the option of directly starting a further wizard for configuration of the livepage (application wizard). |

F   Select the option **Yes** to start the application wizard.

F   Click on the button **Finish** to close the installation wizard. The setup changes are stored and the application wizard is started immediately.

The application wizard behaves in a similar manner to that of the installation wizard.

System Overview

With the system overview it is possible to go directly to specific areas to check unit configurations. The individual configuration parameters are grouped together and displayed in separate windows.

Overview start-up The graphic display can be called up by clicking on the link **Settings**, on the livepage.

☞ Click on the link **Overview**. The page with the graphical overview is displayed.
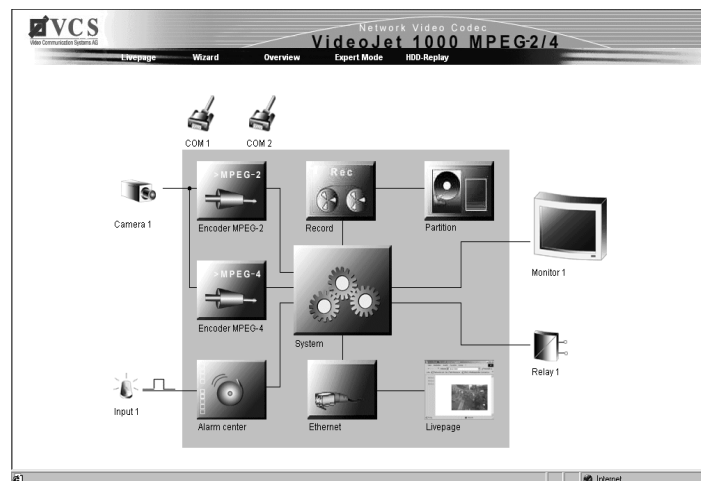
General procedures From the graphical overview page it is possible to call up the individual areas directly.

☞ Click on one of the graphic symbols. A new window will open up.

☞ Click in one of the text fields to enter a value or use any of the other entry methods, e.g. buttons, check boxes or list fields.

☞ To close a window without storing any of the changes entered, click on the Symbol **X** in the title bar of the window.

Store changes   When all changes have been entered in a window click on the button **Set** to transmit the new settings to the unit where they are saved.
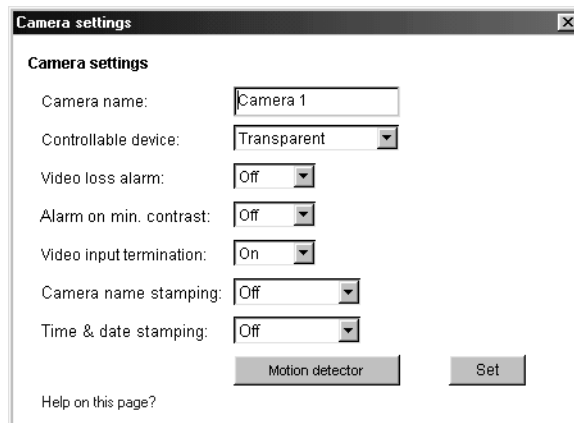
Warning!

Store the changes entered in each window using the button **Set**. Clicking on the **Set** button only stores the changes made in that particular window.

The individual windows, which can be opened by means of the graphical symbols, are described below.

Camera settings

Camera name:

Enter here the required camera name. The camera name is used for easier remote identification of the camera location, e.g. on an alarm call. Enter here an unambiguous and clear name.

Controllable device:

Make a selection here from one of the controllable devices. If it is required to use the serial port for the transmission of transparent data, select the entry **Transparent**.

Note

When a device is selected, the settings for the serial port 1 are recalled and the parameters are automatically entered in the window **COM 1 settings** and should not be changed.

Video loss alarm:

Select the option **On** to monitor the input signal from the video source (camera). If the signal drops out an alarm is generated on the VideoJet 1000.

Alarm on min. contrast:

The VideoJet 1000 can trigger an alarm in case the camera picture shows only little contrasts, e.g. when the lens was sprayed with color or covered. Choose the option **On** to activate this function.

Video input termination:

Select her the option **On**, to terminate the video input if the video signal is not to be looped through (e.g. with a T-plug).

Camera name stamping:

Here you can set the position of the camera name stamping. It can be displayed on **Top** or on **Bottom** of the image or you can define a position yourself via the Hyperterminal and activate it choosing the option **Custom**. If you do not wish the name to be displayed, select **Off**.

Time & date stamping:

Here you can set the position of the time and date stamping. It can be displayed on **Top** or on **Bottom** of the image or you can define a position yourself via the Hyperterminal and activate it choosing the option **Custom**. If you do not wish time and date to be displayed, select **Off**.

Motion detector The VideoJet 1000 contains an integrated video sensor, which on the basis of the video processing can register changes in the video signal. These changes are primarily initiated by movement in the field of view of the camera.

The sensitivity of the video sensor can be adjusted, so that an alarm is generated only if a given threshold is exceeded.

In order for the alarm to operate, the following conditions must be fulfilled:

- The motion detection must be activated.

- At least one cell must be activated.

- Individual parameters must be matched to the environmental conditions and to the required responses.

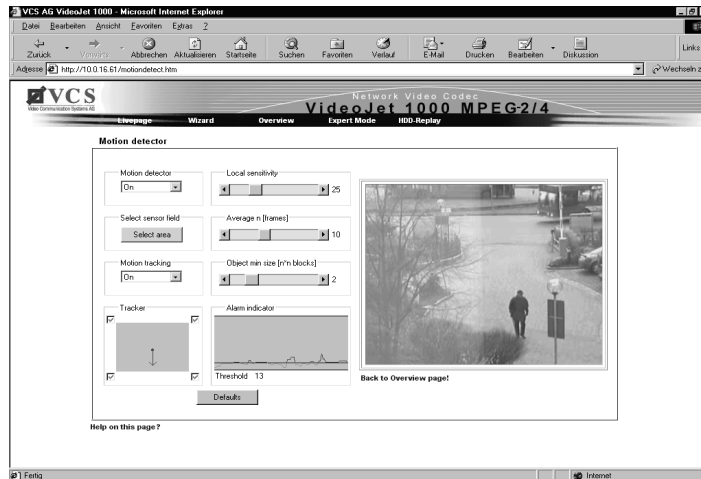- The sensitivity must be set to a value >0.

Warning!

Light reflections (e.g. in glass facades), switching on or off of flood-lights or light level changes caused by cloud movement in bright daylight can cause undesirable responses from the video sensor and thereby generate false alarms. Carry out a number of tests for different day and night time conditions in order to ensure correct operation of the video sensor.

For surveillance of indoor areas, ensure a constant lighting of the areas during the day and at night.

Uniform surfaces without contrast can trigger false alarms even with uniform lighting.

☞ Click on the button **Motion detector**, to open the page for the configuration of the video sensor.

☞ If required, click on the button **Defaults**, to reset all values on this page to standard values.

☞ When configuration of the video sensor is complete, click on the link **Overview** on the navigation bar to return to the graphical overview.

Motion detector

Select here the option **On** to activate the video sensor.

Select sensor field

The areas of the image to be monitored by the video sensor are selected here. The video frame is subdivided into 396 quadratic cells. Each of these cells can be activated or deactivated. If it is necessary to exclude particular regions of the camera field of view from the monitoring process because of, say, continuous movement (e.g. due tree movement in a wind), the relevant cells can be deactivated.

☞ Click on the button **Select area**, to configure the sensor cells. A new window is opened up.

☞ If necessary, click on the button **Clear all** first in order to clear the current selection (cells indicated in red).

☞ Using the left mouse button, click in those cells which are to be activated. Activated cells are indicated in red.

☞ If required, click on the button **Select all** to monitor the entire video frame.

☞ Using the right mouse button, click on those cells which are to be deactivated. Inactivated cells are indicated in white.

☞ Click on the button **Set** to store the configuration.

☞ Click on the title bar of the window on the symbol **X** to close the window without storing any of the changes entered.

Local sensitivity

The basic sensitivity of the video sensor can be adapted for the ambient camera conditions.

The sensor reacts to brightness variations in the video image. The darker the observation range, the greater the value that must be selected here.

☞ Adjust the sensitivity by moving the slider to the desired setting with the mouse key held down.

Average n [frames]

It is possible to define the number of frames during which a movement is monitored in order to generate an alarm. In this way, it is possible to prevent generating a false alarm, e.g. by a bird flying across the surveillance area.

☞ Select the desired value by moving the slider to the desired position with the mouse key held down.

Object min size [n*n blocks]

The number of sensor cells, which a moving object must cover in order to generate an alarm, can be specified. In this way it is possible to prevent too small objects from producing an alarm.

For this, the minimum recommended value is 2 (2 × 2 sensor fields).

☞ Select the desired value by moving the slider to the desired position with the mouse key held down.

Alarm indicator

To prevent false alarms, a motion signal can be matched to a given alarm threshold. In this way, for example, it is possible to filter out effects caused by the background noise generated in the camera itself.

The blue line indicates the alarm threshold. Any value greater than this will produce an alarm signal. The components of the motion signal generating the alarm are indicated in red.

The alarm threshold can be varied to suit individual requirements.

☞ Take note of the amplitude of the movement signal displayed in the window over a long period and at all light levels likely to be encountered in practice.

☞ Move the mouse pointer onto the blue line.

☞ Holding the left mouse button pressed, move the blue line to the required position.

Motion tracking

For certain applications, it can make sense to generate an alarm only if movement takes place in a particular direction. You can activate the motion detection and select the direction of movement required to generate an alarm.

☞ Select here the option **On**, in order to activate the motion tracking feature of the video sensor.

Tracker

In the **Tracker** field you see an arrow, which indicates the current motion in the video image. By means of check boxes in the four corners, the desired direction can be activated. If, for example, all movements to the "left" and "upwards" are to activate an alarm, then mark the top left corner. If all movement to the "left" is to activate the alarm, then check the left upper and the lower left corners.

☞ Note the movements indicated by the arrow in the video image over a long period and at all light levels likely to be encountered in practice.

☞ Click the check box in order to activate the corresponding directional component.

COM1 settings

The parameters for the serial interface port **COM1: RS232/485** can be configured to suit individual requirements.

Serial port function:

Select one of the controllable devices from the list. If the port is required to transmit data transparently, select the entry **Transparent**.

Note

After selection of a device, the remaining parameters in the window are automatically set and should not be altered.

Baud rate:

Select the value for the Transmission rate in bits/s.
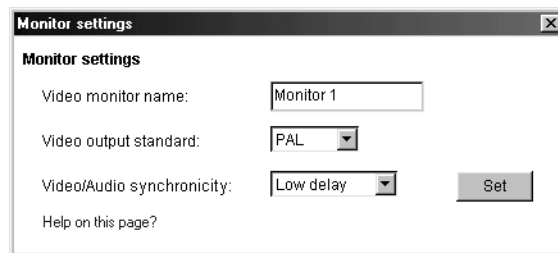
Data bits:

Select the number of data bits per character.

Stop bits:

Select the number of stop bits per character.

Parity check:

Select the type of parity check.

Interface mode:

Select the desired protocol for the serial port.

Half-duplex mode:

Select here to suit the individual application.

COM2 settings
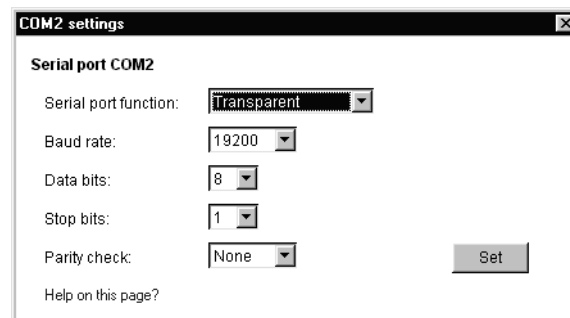
The parameters for the serial interface port **COM2: RS232** can be configured to suit individual requirements.

Serial port function:

Select the function for serial port 2. Select **Terminal** if the unit is to be operated from a terminal. If the port is required to transmit transparent data, select the entry **Transparent**.

Baud rate:

Select the value for the Transmission rate in bits/s.

Data bits:

Select the number of data bits per character.

Stop bits:

Select the number of stop bits per character.

Parity check:

Select the type of parity check.

Monitor settings

Video monitor name:

Enter here the required monitor name.

Video output standard:

For devices which also function as a receiver, select the video standard for monitor output (**PAL** or **NTSC**).

Video/Audio synchronicity:

Choose **Synchron** when you emphasize synchronicity of video and audio resp. **Low delay** when the main focus is on quickest possible transmission.

**Relay output
settings**

The switching conditions for the relay output can be configured. The function of an open switching relay (normally closed contact) or a closed switching relay (normally open contact) can be specified.

It is also possible to specify whether the output should operate as a bistable or as a monostable. In bistable operation, the activated state of the relay remains as switched. In monostable operation, the time can be selected after which the relay is to revert to its steady state.

Various events can be selected to automatically activate the output. In this way, for example, it is possible to switch on a floodlight when a motion alarm has been detected and to switch the light off again at the end of the alarm.

Idle state:

Select **Open** if the relay is to operate as a normally open contact or **Closed** if it is to operate as a normally closed contact.

Operating mode:

Select the operating mode for the relay.

If, for example, a lamp is switched on by an alarm and is to remain on when the alarm has ended, select **Bistable**. If an acoustic signal activated by an alarm is to remain on for a period of, for example, 10 sec, select **Monostable 10 s**.

Relay follows:

Select a particular event by which the relay is to be activated as required. The following events can activate the relay:

- **Off**: No relay triggering by events
- **Connection**: Triggering if any connection is established
- **Video alarm**: Triggering caused by loss of the video signal
- **Motion alarm**: Triggering by the motion alarm
- **Local input**: Triggering caused by an external alarm sensor
- **Remote input**: Triggering by a switching contact from a remote location

Relay name:

The relay can be assigned a name from here. The name will be shown on the Overview page and, dependent upon configuration, also on the livepage.

Trigger relay:

Click on the button **Relay** to manually switch the relay (e.g. for test purposes or to operate a door opener).

**Alarm input
settings**

Input name:

A designation can be assigned here for the alarm input which will
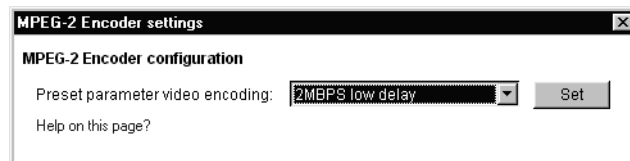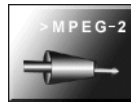appear onscreen on the livepage on alarm activation.

Alarm input:

Select here the option **On** in order to activate the alarming by
means of an external alarm sensor. Otherwise select **Off**.

Input active state:

Here can be specified whether the alarm is to be activated by a
High or **Low** voltage level**.**

MPEG-2 Encoder settings
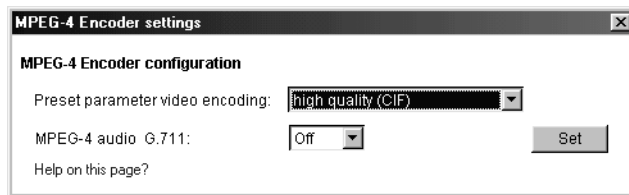

Preset parameter video encoding:

MPEG-2 data transmissions can be configured to suit the local operating environment (e.g. network architecture, bandwidth, data structures).

As an aid for this purpose, pre-programmed profiles are provided, each with different features emphasized.

- **2MBPS low delay**
  2 MBit/s transmission rate with low delay on image refresh

- **3.5MBPS low delay**
  3.5 MBit/s transmission rate with low delay on image refresh

- **5MBPS low delay**
  5 MBit/s transmission rate with low delay on image refresh

- **2MBPS high quality**
  2MBit/s transmission rate with high picture quality

- **3.5MBPS high quality**
  3.5 MBit/s transmission rate with high picture quality

- **5MBPS high quality**
  5 MBit/s transmission rate with high picture quality

- **2MBPS with audio**
  2 MBit/s transmission rate with associated audio recording

- **3.5MBPS with audio**
  3.5 MBit/s transmission rate with associated audio recording

☞ Select the desired option from the list.

MPEG-4 Encoder settings

Preset parameter video encoding:

MPEG-4 data transmissions can be configured to suit the local operating environment (e.g. network architecture, bandwidth, data structures).

As an aid for this purpose, several pre-programmed profiles are provided, each optimized for different transmission paths.

- **high quality (CIF)**
  high quality for connections with high bandwidth

- **high resolution (2CIF)**
  high resolution for connections with high bandwidth

- **small resolution (QCIF)**
  low resolution for connections with high bandwidth

- **DSL**
  for DSL connections

- **ISDN (2B)**
  for ISDN connections over two B channels

- **ISDN (1B)**
  for ISDN connections over one B channel

- **MODEM**
  for analoge modem connections

- **GSM**
  for GSM connections

☞ Select the desired option from the list.

MPEG-4 audio G.711:

Choose **On** if you wish for transmission of audio data.

Alarm connections

Options are provided to specify the behavior of the VideoJet 1000 in the event of an alarm.

The VideoJet 1000, for example, can establish the connection to a predefined IP address (VideoJet 1000 receiver or PC with receiver software) automatically. You can enter up to 10 IP addresses to be contacted in turn in case of an alarm until a connection has been established.

Connect on alarm:

☞ Select **On**, to automatically establish the connection to a predefined IP address in the event of an alarm.

Connection type:

Depending upon the operating environment (network configuration), select here the transmission standard for the alarm connection to the defined IP address.

Note here the selections for MPEG-2 and MPEG-4 (see previous section).

☞ Click here the radio button for the desired standard.

No. of video receiver address:

Here you can assign the numbering for the IP addresses that shall be contacted in case of an alarm. The device contacts the addresses in the order of the numbering until a connection has been established.

Live video receiver IP address:

Enter here the IP address to which a connection is to be established in the event of an alarm.

Remote receiver password:

Here you can enter the receiver password in case the receiver is protected by one.

Live video auto-connect:

Select here the option **On** if it is required to re-establish a connection to the previously specified IP address after each restart, e.g. after a connection breakdown or network dropout.

Direction of alarm connection:

Select here if an outgoing, incoming or bidirectional connection is to be established in case of an alarm.

Display alarm stamping:

Select here the option **On** if it is required to display a text in case of an alarm.

Displayed alarm message:

Enter the text that is to be displayed in case of an alarm. It can contain up to 31 characters.

First/Second SNMP destination address:

Enter the IP addresses of up to two chosen receivers here if the alarm message is to be sent via SNMP-traps.

Partition

In the basic setup the hard disk is configurated as one single partition which is adequate for most of the applications.

If permanent storage of video sequences on the hard disk is necessary the setup of more than one partition is crucial because after recording of the regarding sequences another partition can be activated to eliminate any possibility of overwriting.

The hard disk of the VideoJet 1000 can handle up to 8 partitions, configured in the same way a typical hard disk for a computer is. With each partition the parameters can be individually defined in ways like size, quality, type of video recording and compression standard. Changes in these parameters result in a complete reorganization and as a result previously saved data on the partition will be deleted.

All the partitions can be viewed in the table on the page **Partition** listed by name, order number, recording format/video quality, recording type and partition size.

This page also provides a complete overview of the hard disk infor- mation. It provides the total size of the hard disk, total number of partitions created on the hard disk, how much space has been used for partitions, and the size of idle hard disk memory in MBytes.

A pie chart is also provided giving a visual graphic of how the hard disk has been allocated. It differentiates between MPEG-2, MPEG- 4, I-Frame and free space.
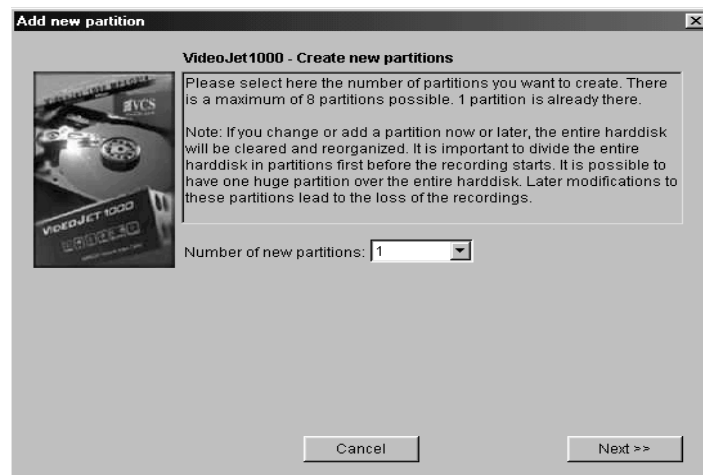
Note

You can only activate one partition on the hard disk at a time for recording.

Activation of another partition is not automatic, it must be done manually.

☞ Click on the button **Add partition** to start the wizard.

General procedures

Once the wizard is started you will see a new pop-up window appear. In this window you will get information and make the choices as to how the new partition should be configured.

☞ Always read the information listed at the top of the window before making your choices.

☞ Click on the text field to insert values or use other available controls as buttons, scrollbars or check boxes.

☞ Once you have made your choice click the **Next >>** button to go to the next page.

☞ Click the **<< Back** button to return and view the previous page.

☞ Click on the **Cancel** button to end the wizard without accepting the changes.

Making changes

To activate the changes made with the wizard you have to click the **Finish** button on the last page.

If you click the **Cancel** button the previous settings will remain unaffected.

Attention!

Complete the wizard to the last page. Only then you have the possibility to save all the changes that have been made on previous pages by clicking the **Finish** button at the end.

Note

For every partition that is created on the hard disk the wizard must be completed from beginning to end.

Therefore after starting the wizard you are asked for the total number of partitions you want to install. The wizard will be restarted automatically until all partitions are configured.

Parameters

For each partition a variety of parameters can be chosen.

Partition name:

Input the chosen name for your partition. When creating more than one partition it would be helpful to choose a unique name that will help you in finding specific recordings later.

Recording format:

Here you choose the recording format of the partition: MPEG-2, MPEG-4 or I-Frames.

Video quality:

You can choose for each compression format between several different transfer rates thereby deciding what level of video quality you desire.

For recordings in MPEG-2 format the following profiles can be selected:

- **2MBPS low delay**
  2 MBit/s transmission rate with low delay on image refresh

- **3.5MBPS low delay**
  3.5 MBit/s transmission rate with low delay on image refresh

- **5MBPS low delay**
  5 MBit/s transmission rate with low delay on image refresh

- **2MBPS high quality**
  2MBit/s transmission rate with high picture quality

- **3.5MBPS high quality**
  3.5 MBit/s transmission rate with high picture quality

- **5MBPS high quality**
  5 MBit/s transmission rate with high picture quality

- **2MBPS with audio**
  2 MBit/s transmission rate with associated audio recording

- **3.5MBPS with audio**
  3.5 MBit/s transmission rate with associated audio recording

For recording in MPEG-4 format the following profiles can be selected:

- **high quality (CIF)**
  high quality for connections with high bandwidth

- **high resolution (2CIF)**
  high resolution for connections with high bandwidth

- **small resolution (QCIF)**
  low resolution for connections with high bandwidth

- **DSL**
  for DSL connections

- **ISDN (2B)**
  for ISDN connections over two B channels

- **ISDN (1B)**
  for ISDN connections over one B channel

- **MODEM**
  for analoge modem connections

● **GSM**
for GSM connections

Partition type:

Choose here in which mode the recordings will be saved on the partition.

Time lapse mode:

The recordings will be saved to the partition as planned in the recording scheduler. However once the maximum storing capacity has been met for the partition the recording process will stop. In that case further recording on this partition is only possible if the partition is reorganised.

Ring mode:

In Ring mode the newest recordings are recorded over the oldest recordings once the maximum storage capacity has been achieved. E.g. if the maximum storage capacity of the partition allows for a recording of 24 hours to be saved the recordings will then run in a continues 24 hour loop. Only the last 24 hours of recordings will be able to be viewed.

Partition size:

Here is where you need to choose how many alarms can be recorded on the partition (max. 128) and the alarm pre- and post-recording time lengths.

Also here you can select the partition size either by choosing how long of a recording time you require or by setting the amount of MBytes you would like to use in this partition - in both cases the missing value will automatically be set.

If you have chosen to use the entire hard disk as one partition or you are configuring the last partition you require just click the **Use all** check box. The rest of the hard disks capacity will then be configured into that partition for use.

Note

When dividing the hard disk into the maximum of 8 partitions, then the complete hard disk space should be utilized. Otherwise the remaining space can not be utilized without reorganization of the hard disk.

Changing the configuration

The configuration of the partitions can be changed any time.

☞ Double click in the list on the partition you wish to make changes to. This will open the **Partition Property** window with the information on the partition selected.

☞ Make the necessary changes.

☞ Save the changes you have made by clicking the **Set** button

or

☞ Stop any changes from being activated by clicking on the **Cancel** button.

Warning!

Any changes made on a partition regarding name, type of recording, video recording and quality, the number of alarms and alarm-recording will result in a complete reorganization of that partition and all previously saved recordings will be deleted.

Before making any changes to a partition first check to see if any important information has been previously saved to it and make a back-up recording of those sequences to the hard disk of your computer.

In the **Partition Property** window changes can be made to the name, the type of recording, the video recording and quality, the number of alarms and the alarmrecording.

The complete recording time or the partition size can only be changed using the wizard. However all data stored on the partition will be lost.

Note

In the event the maximum of 8 partitions has been reached the wizard can only be restarted once one of the partitions has been deleted.

Warning!

Changes to the size or number of partitions will result in a reorganization of the complete hard disk and the deletion of all saved information on it.

Before every change to any parameter a check should first be made for all important information saved to the hard disk and if necessary a back-up of the regarding sequences should be made to the local hard disk of your computer.

Changes to the partition settings are saved by clicking on the **Set** button. Only then are they transmitted to the VideoJet 1000.

Record

Here you setup the parameters for local recording onto the hard disk. Recordings can be predefined to take place uninterruptedly over specified periods or only in case of an alarm.

Partition selection:

First choose the partition that shall be active, i.e. on which the recordings shall be stored. Once you have completed setting your recording times this partition can then be activated by clicking on the **Start** button.

Note

You can only activate one partition on the hard drive at a time.

The activation of a different partition is not possible automatically. Only manual activation is possible.

Time recording:

This is where the periods will be set for the continuous recordings to the hard drive. To do so mark one or more time slots for each day by dragging with the depressed mouse button.

By clicking on the **Clear** button all previously set time slots will be cancelled, clicking on the **Set** button will transmit the data to the VideoJet 1000.

Alarm recording:

This is where you program the time spans where the alarm triggered recordings will be active.

The VideoJet 1000 disposes of a special recording mode for alarm recording to optimize storage capacity utilization: with the beginning of a respective time slot continuous recording starts on a segment the size of a complete alarm sequence (pre- and post-alarm). This segment on the partition works like a ring buffer and is overwritten again and again until an alarm is actually triggered. After that recording on this segment will go on for the time predefined for post-alarm recording and then a new segment will be used in the same way.

For this reason the recorded alarm file is always complete in length when saved to the hard drive and the recording space necessary for each alarm recording can be calculated easily. A partition can record up to 128 alarm activations; when the partition is in ring mode it will always contain the most recent alarm recordings in the predefined number.

Note

When the time slots for time recording and alarm recording overlap each other the time recording schedule will always take priority.

Alarm activations that occurred during time recording are specially marked on the playback bar for easy identification when playing back recorded sequences.

Properties:

For a quick overview you have access to the properties of the active partition directly from the recoding scheduler.

Recording activ:

This is a quick way to know if currently recording on the hard drive is active. In this case the symbol for the hard drive is animated. If it is not animated no recording is taking place.

System settings
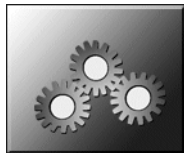
Unit name:

Enter here a name for the unit to facilitate identification in major installations. This name will be displayed in the video image, depending on the configuration.

Note

The unit name is used to identify the device remotely, for example, in the event of an alarm. Assign a designation which easily and unambiguously identifies the unit location.

Unit ID:

Each VideoJet 1000 should be assigned a unique identifier which can be additionally used to identify the unit.

Website language:

Here you select the desired language of the HTML pages.

Password level:

The access to a VideoJet 1000 is generally protected with a password in order to prevent unauthorised use of the device. The transmitters operate with three authorisation levels: **Live**, **Service** and **User**.

In the authorisation level **Service**, you can change all the configuration settings after entering the corresponding password.

With the authorisation level **User** you can operate but not configure the device. You can have a live picture or the configuration settings displayed, but you cannot change them.

With **Live** you can display a live video but neither change the configuration nor for example control a camera.

Password:

You can define and change passwords for access to the device when you are working with the authorisation level Service or if the device is not protected with a password. You can change only one of the three passwords at a time. In order to change the password of another level, you have to call up this configuration page again.

Password confirm:

Enter the new password again to rule out the risk of typing errors.

System date and **System time:**

If a number of VideoJet 1000 units are combined in a system, it is important that the internal clocks of the separate units are all synchronized. Only if all units operate with the same time it is possible, for example, to correctly identify and evaluate events which have occurred simultaneously.

Enter the current date and time. As the system time is controlled by the internal calendar clock, the day of the week does not have to be entered. It is added automatically.

Click on the button **Synchron.** to transfer the system time of the computer to the VideoJet 1000.

Time zone and **Time server IP address:**

The VideoJet 1000 can receive a time signal from a TIME server (NTP server) and use it to set the internal clock. The device calls up the time signal automatically every two hours.

Here you select the current time zone your device is situated in and enter the IP address of a TIME server.

Ethernet settings

The settings on this page are used to integrate the unit into an existing network.

Internet IP address:

Enter here the required IP address for the VideoJet 1000. The IP address must be valid for the network.

Warning!

Changes in IP address, subnet mask and/or gateway IP address are transferred to the device by clicking on the button **Set**, but they are only valid after a reboot!

For a reboot simply enter the old IP address into the address bar of the Browser followed by `/reset`, after that the unit can only be accessed via the new IP address.

Subnet mask:

Enter here the corresponding subnet address if the unit is to communicate via a subnet.

Gateway IP address:

Enter here the appropriate IP address if the unit is to independently establish a connection outside of the local network. This field can otherwise remain empty (0.0.0.0).

Video/Audio transmission:

If the device is used in front of a firewall, transmission over **TCP (Port 80)** should be selected. If used in a local network select **UDP**.

Warning!

Multicast operation is only possible using the UDP protocol. The TCP protocol does not support any multicast connection.

Multicast streaming:

Along with a 1:1 connection between a transmitter and a receiver, (unicast) the VideoJet 1000 provides the option of connecting a number of receivers to simultaneously receive the video signal. This is achieved either by a duplication of the data stream in the unit with subsequent distribution to a number of receivers (multi-unicast) or by distribution of a single data stream on the network itself to a number of receivers in a defined group (multicast).

Select here the option **On** in order to activate the multicast function.

Note

Requirement for multicast operation is a multicast compliant network with implementation of the UDP protocol and the IGMP protocol. Other group management protocols are not supported. The TCP protocol does not support any multicast connection.

The VideoJet 1000 supports for MPEG-4 the multi-unicast operation up to a maximum of 5 simultaneously connected receivers. For MPEG-2 only one multi-unicast connection is possible.

The transparent data connection is maintained from the first unit. However, after 15 seconds of inactivity the data connection is automatically suspended and another unit can exchange transparent data with the transmitter.

For multilink operation, the network is not required to be multicast compatible as the VideoJet 1000 is also multi-unicast compatible. Duplication of the data in the unit requires considerable processor power and, under certain circumstances, leads to limitations in the picture quality.

With the settings **Multicast streaming: On** and **Multicast group IP address: 0.0.0.0** the VideoJet 1000 operates in the multi-unicast mode (duplication of the data stream in the unit).

With the settings **Multicast streaming: On** and a valid multicast group IP address, the unit operates in the multicast mode (duplication of the data stream over the network).

Multicast group IP address:

A precondition for the multicast mode in a multicast-compatible network is the establishment of a special IP address (class D address).

The network must support the establishment of a group IP address and the Internet Group Management Protocol (IGMP). The address range is from 224.0.1.0 to 238.255.255.255.

Multicast port MPEG-2:

With simultaneous data streams in the MPEG-2 format and in the MPEG-4 format, the data streams must be assigned for different ports.

Enter here the port address for the MPEG-2 data stream.

Multicast video port MPEG-4:

With simultaneous data streams in the MPEG-2 format and in the MPEG-4 format, the data streams must be assigned for different ports.

Enter here the port address for the MPEG-4 video stream.

Multicast audio port MPEG-4:

In MPEG-4 format, the streams for video and audio are transmitted over separate ports. If you want to transmit MPEG-4 with audio you must assign a dedicated audio port.

Enter here the port address for the MPEG-4 audio stream.

Note

For MPEG-4 audio transmission the option **MPEG-4 audio G.711** in the MPEG-4 Encoder settings must be activated (see page 51).

Multicast packet TTL:

By setting the parameter you determine the life span of the data packets in the network. If multicast is operated over a router the value must be greater than 1 to guarantee transmission of the packets.

Livepage settings

In this window, the livepage can be setup to suit individual require-ments. Options are provided here to display different information and operating elements along with the video picture.

In addition, individual background images for the main window and for the upper screen area (banner) can be used.

Note

For the background image you can use the file types GIF and JPEG. The file paths must correspond to the type of access (for access to a locally stored file, for example, C:\Images\Logo.gif, for access to an Internet/Intranet file, for example, http://www.sld.co.uk/images/logo.gif).

Note that with Internet/Intranet access, the connection must be maintained in order to continually display the image. The image files are not stored in the VideoJet 1000.

☞ Click in the check boxes of those elements which are to be displayed on the livepage. The selected elements are marked with a tick.

☞ Check on the livepage to see if and how the required elements are displayed.

Startpage background URL:

Enter here the file path to a suitable background image. The image can be stored on a local computer, on a local network or at an Internet address.

☞ If necessary, click on the button **Search**, in order to find a suitable image on the local network.

Startpage logo URL:

Enter here the file path to a suitable image for the upper screen area (banner). The image can be stored on a local computer, on a local network or at an Internet address.

☞ If necessary, click on the button **Search**, in order to find a suitable image on the local network.

Note

If it is required to recall the original image, simply delete the entries in the fields **Startpage background URL** and **Startpage logo URL**.

Panorama (Sony camera only):

If you are using a Sony camera EVI-D100 or EVI-D30/31 by clicking into this check box you can activate the display of a panorama on the video livepage that is generated automatically each time the livepage is called up and can be updated any time (see page 124).

Save alarm logfile to harddisk:

Select this option to store alarm data in a text file on the local computer.

These text files can be viewed in the usual Office programs (for example, MS Word or MS Excel), and printed out.

Save general logfile to harddisk:

Select this option to store the logfile in a text file on the local computer.

These text files can be viewed in the usual Office programs (for example, MS Word or MS Excel), and printed out.

Note

When you activate the option to store log files (e. g. **Save alarm logfile to harddisk**), these are placed on the Desktop as text files in the basic setup. In the Expert Mode the path for storing can be changed (see page 116).

Expert Mode

In the Expert Mode, all parameters of the VideoJet 1000 can be configured. If any of the configuration pages are called up, the current settings will be displayed. The settings can be altered by entering new values or by selecting from a predefined value in a list field.

Navigation The Expert Mode is selected by clicking on the link **Settings** while displaying the Live Image screen.

☞ Click on the link **Expert Mode**. The start page is opened.

☞ Click on one of the links on the left border of the window. The corresponding page will be opened up.
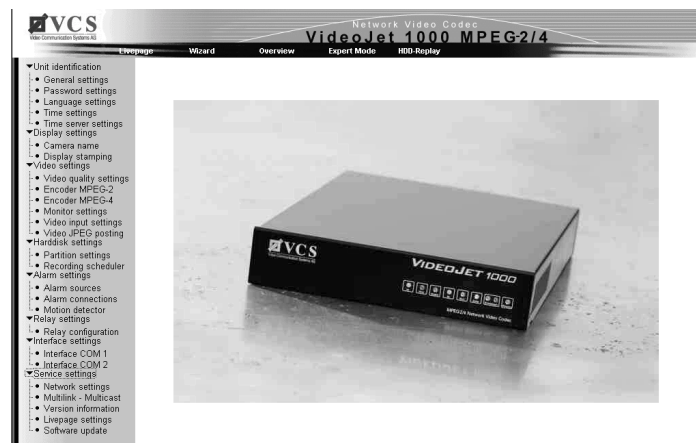
Store changes When a change has been entered, click on the associated button **Set** in order to store the change.

Warning!

Store all changes with the associated button **Set**. By clicking on the button **Set** only the changes in the relevant field are stored (blue frame). Changes in any of the other fields are ignored.

Unit identification

| rd | Overview | Expert Mode | HDD-Replay | |

Unit identification

Unit name: [   ]

Unit ID: [   ]   [Set]

Help on this page?

Unit name:

Enter here a name for the unit to facilitate identification in major installations. This name will be displayed in the video image, depending on the configuration.

Unit ID:

Each VideoJet 1000 should be assigned a unique identifier which can be additionally used to identify the unit.

Password settings

| rd | Overview | Expert Mode | HDD-Replay | |

Password settings

Password level: [▼]

Password: [   ]

Password confirm: [   ]   [Set]

Help on this page?

Password level:

The access to a VideoJet 1000 is generally protected with a password in order to prevent unauthorised use of the device. The transmitters operate with three authorisation levels: **Live**, **Service** and **User**.

In the authorisation level **Service**, you can change all the configuration settings after entering the corresponding password.

With the authorisation level **User** you can operate but not configure the device. You can have a live picture or the configuration settings displayed, but you cannot change them.

With **Live** you can display a live video but neither change the configuration nor for example control a camera.

Password:

You can define and change passwords for access to the device when you are working with the authorisation level Service or if the device is not protected with a password. You can change only one of the three passwords at a time. In order to change the password of another level, you have to call up this configuration page again.

Password confirm:

Enter the new password again to rule out the risk of typing errors.

Language selection

Website language:

Here you select the desired language of the HTML pages.

Date and time

If a number of VideoJet units are combined in a system, it is important that the internal clocks of the separate units are all synchronized. Only if all units operate with the same time it is possible, for example, to correctly identify and evaluate events which have occurred simultaneously.

Unit date:

Enter the current date here. As the system time is controlled by the internal calendar clock, the day of the week does not have to be entered. It is added automatically.

Unit time:

Enter the current time here or click the button **Synchr. PC** to synchronize the VideoJet 1000 with the system time of your computer.

Time server

The VideoJet 1000 can receive a time signal from a TIME server (NTP server) and use it to set the internal clock. The device calls up the time signal automatically every two hours.

Time zone:

Here you select the current time zone.

Time server IP address:

Enter the IP address of a TIME server here. If a valid IP address has been entered then the date and time are automatically synchronised every two hours.

Camera name

Camera:

Enter here the required camera name. The camera name is used for easier remote identification of the camera location, e.g. on an alarm call. Enter here an unambiguous and clear name.

Display stamping

Camera name stamping:

Here you can set the position of the camera name stamping. It can be displayed on **Top** or on **Bottom** of the image or you can define a position yourself via the Hyperterminal and activate it choosing the option **Custom**. If you do not wish the name to be displayed, select **Off**.

Time stamping:

Here you can set the position of the time and date stamping. It can be displayed on **Top** or on **Bottom** of the image or you can define a position yourself via the Hyperterminal and activate it choosing the option **Custom**. If you do not wish time and date to be displayed, select **Off**.

Alarm mode stamping:

Select here the option **On** if it is required to display a text in case of an alarm.

Video watermarking:

Select here the option **On** if the transmitted video pictures are to be watermarked. When activated all pictures are signed with a green **W**. A red **W** indicates that the displayed sequence (live or recorded) has been manipulated.

Displayed alarm message:

Enter the text that is to be displayed in case of an alarm. It can contain up to 31 characters.

Camera name
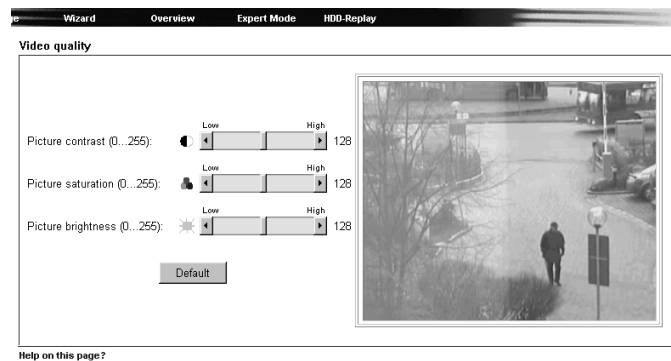
You can set up the video picture to meet your own particular requirements. To enable you to control the current video picture it is shown in a small window beside the sliders. The changes are effective immediately.

☞ If necessary click the **Default** button to return the configuration back to the standard settings.

Picture contrast:

You can adjust the contrast of the video picture to suit the working environment.

Picture saturation:

You can use this function to set the color saturation and achieve the most realistic color reproduction on the monitor.

Picture brightness:

You can use this function to adjust the brightness of the video picture to suit the working environment.

MPEG-2 Encoder configuration

The data transmission parameters can be configured to suit the local operating environment (e.g. network architecture, bandwidth, data structures). For MPEG-2 eight pre-programmed profiles are available with emphasis on different features.

You can change these profils individually by inserting the parameter values wanted. It is advisable to give a new name to the modified profile to facilitate recognition. The profile is active when the parameter values have been transmitted to the VideoJet 1000 clicking on the button **Set**.

☞ If necessary click the **Default** button to return the configuration back to the standard settings.

Preset parameter video encoding and **Preset parameter name:**

Depending on the selected number a special parameter setting is chosen which name is displayed automatically in the field **Preset parameter name**:

- Number **1** is equivalent to **2MBPS low delay**
  2 MBit/s transmission rate with low delay on image refresh

- Number **2** is equivalent to **3.5MBPS low delay**
  3.5 MBit/s transmission rate with low delay on image refresh

- Number **3** is equivalent to **5MBPS low delay**
  5 MBit/s transmission rate with low delay on image refresh

- Number **4** is equivalent to **2MBPS high quality**
  2MBit/s transmission rate with high picture quality

- Number **5** is equivalent to **3.5MBPS high quality**
  3.5 MBit/s transmission rate with high picture quality

- Number **6** is equivalent to **5MBPS high quality**
  5 MBit/s transmission rate with high picture quality

- Number **7** is equivalent to **2MBPS with audio**
  2 MBit/s transmission rate with associated audio recording

- Number **8** is equivalent to **3.5MBPS with audio**
  3.5 MBit/s transmission rate with associated audio recording

☞ Select the desired option from the list.

Datarate:

The datarate value is displayed automatically when the profile is selected. You can insert a value individually and choose if it is to be constant or variable.

GOP structure:

Enter here the desired structure for the Group of Pictures. You can choose between **I**, **IP**, **IPB**, or **IPBB** depending on whether you emphasize low delay (I- and P-frames) or low use of bandwidth (B-frames, too).

GOP length:

If not only I-frames are transmitted here you can define how many frames a group shall include up to the proximate I-frame.

Video streaming type:

Here you can choose if a video elementary stream **VES** or a program stream **PRG** is transmitted.

Video resolution:

Select the desired resolution.

MPEG-4 Encoder configuration

The data transmission parameters can be configured to suit the local operating environment (e.g. network architecture, bandwidth, data structures). For MPEG-4 eight pre-programmed profiles are available with emphasis on different features.

You can change these profils individually by inserting the parameter values wanted. It is advisable to give a new name to the modified profile to facilitate recognition. The profile is active when the parameter values have been transmitted to the VideoJet 1000 clicking on the button **Set**.

☞ If necessary click the **Default** button to return the configuration back to the standard settings.

Preset parameter video encoding and **Preset parameter name:**

Depending on the selected number a special parameter setting is chosen which name is displayed automatically in the field **Preset parameter name**:

- Number **1** is equivalent to **high quality (CIF)**
  high quality for connections with high bandwidth

- Number **2** is equivalent to **high resolution (2CIF)**
  high resolution for connections with high bandwidth

- Number **3** is equivalent to **small resolution (QCIF)**
  low resolution for connections with high bandwidth

- Number **4** is equivalent to **DSL**
  for DSL connections

- Number **5** is equivalent to **ISDN (2B)**
  for ISDN connections over two B channels

- Number **6** is equivalent to **ISDN (1B)**
  for ISDN connections over one B channel

- Number **7** is equivalent to **MODEM**
  for analoge modem connections

- Number **8** is equivalent to **GSM**
  for GSM connections

☞ Select the desired option from the list.

Datarate:

The datarate value is displayed automatically when the profile is selected. You can insert a value individually and choose if it is to be constant or variable.

P-Frame quality settings:

You can define the P-frame quality by choosing the option **Manual** and moving the slider to the desired setting, or by activating the option **Auto** for automatic quality setting.

I-Frame quality settings:

You can define the I-frame quality by choosing the option **Manual** and moving the slider to the desired setting, or by activating the option **Auto** for automatic quality setting.

Intra frame distance:

Here you can define the number of frames up to the proximate I-frame.

Warning!

If recordings are to be made a value greater than **0** must be chosen here.

Video skip ratio:

The chosen number defines which frames are encoded and transmitted. Choosing **4** e.g. only every fourth frame is encoded, the following three frames are skipped. Especially with narrow bandwidth this can be of advantage.

Video resolution:

Select the desired resolution.

MPEG-4 audio:

Choose **On** if you wish for transmission of audio data.

**Monitor settings/
Monitor display**

Video monitor name:

Enter here the required monitor name.

Video output standard:

For devices which also function as a receiver, select the video standard for monitor output (**PAL** or **NTSC**).

Video/Audio synchronicity:

Choose **Synchron** when you emphasize synchronicity of video and audio resp. **Low delay** when the main focus is on quickest possible transmission.

Display transmission disturbance:

Choose **On** to display a text in case of transmission disturbances.

Disturbance sensitivity level:

Here you can define at what level the text display is triggered.

Notification text:

Enter the text that is to be displayed on the monitor. It can contain up to 31 characters.

Video input settings

Video input settings

Video input termination: Off ▼   Set

Help on this page?

Video input termination:

Select her the option **On**, to terminate the video input if the video signal is not to be looped through (e.g. with a T-plug).

JPEG settings

JPEG settings

JPEG format:	XL (704x576) ▼
File name:	Increment ▼
JPEG posting time slice:	0 (seconds; 0=off)
FTP server IP address:	10.0.45.1
FTP login name:	anonymous
FTP password:	
Path on FTP server:	/ Set

Help on this page?

You can store video images in JPEG format at certain intervals on an FTP server. These images can be called up again later, thus enabling for example alarm events to be reconstructed.

JPEG format:

Here you can choose the format of the JPEG pictures:

                  S   176 × 144 pixel
                  M   352 × 288 pixel
                  L   704 × 288 pixel
                  XL   704 × 576 pixel

File name:

You can set what file names are to be generated for the transmitted snapshots.

- **Overwrite**: The same file name is always used. The existing file is continuously over-written with current data.

- **Increment**: A number from 000 to 255 is attached to the file-name. This automatically increases by 1 every time a new file is created. When 255 is reached the numbers begin again at 000.

- **Date/Time suffix**: A date and time code are automatically incor-porated into the file name. When choosing this setting take care that the device's date and time are set correctly.
  Example: the file snap120401_114530.jpg was saved on 12th April 2001 at 11.45 and 30 seconds.

JPEG posting time slice:

Enter the time interval here at which the single images are to be sent. Enter zero, if no single images are to be sent.

FTP server IP address:

Enter here the IP address of the FTP server on which the images are to be stored.

FTP login name:

Enter your login name for the FTP server here.

FTP password:

Enter the password for the access to the FTP server here.

Path on FTP server:

Enter the exact path here under which the images are to be stored on the FTP server.

Partition settings

Partition Name	Number	MPEG-2/4 Quality	Type	Size [MByte]	Free [MByte]
Partition 1	01	2MBPS low delay MPEG-2	Timelapse	50000	100%
Partition 2	02	2MBPS low delay MPEG-2	Timelapse	25312	100%
Partition 3	03	2MBPS low delay MPEG-2	Ringmode	80000	100%

Add partition   Delete partition

Harddisk information

Harddisk size total:	156234.0 MByte[s]
Number of partitions:	3 of 8 partitions created
Harddisk total partition size:	155312.0 MByte[s]
Harddisk free size available:	922 MByte[s]

MPEG-2
MPEG-4
I-Frame
Not used

Set

Help on this page?

In the basic setup the hard disk is configurated as one single partition which is adequate for most of the applications.

If permanent storage of video sequences on the hard disk is necessary the setup of more than one partition is crucial because after recording of the regarding sequences another partition can be activated to eliminate any possibility of overwriting.

The hard disk of the VideoJet 1000 can handle up to 8 partitions, configured in the same way a typical hard disk for a computer is. With each partition the parameters can be individually defined in ways like size, quality, type of video recording and compression standard. Changes in these parameters result in a complete reorganization and as a result previously saved data on the partition will be deleted.

All the partitions can be viewed in the table on the page **Partition settings** listed by name, order number, recording format/video quality, recording type and partition size.

This page also provides a complete overview of the hard disk information. It provides the total size of the hard disk, total number of partitions created on the hard disk, how much space has been used for partitions, and the size of idle hard disk memory in MBytes.

A pie chart is also provided giving a visual graphic of how the hard disk has been allocated. It differentiates between MPEG-2, MPEG-4, I-Frame and free space.
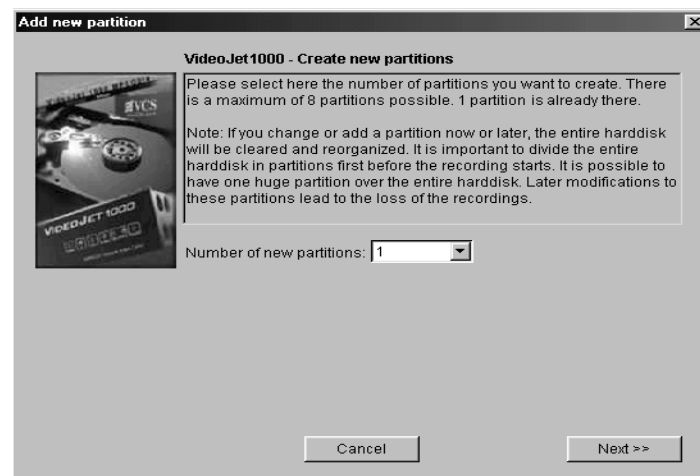
Note

You can only activate one partition on the hard disk at a time for recording.

Activation of another partition is not automatic, it must be done manually.

☞ Click on the button **Add partition** to start the wizard.

General procedures

Once the wizard is started you will see a new pop-up window appear. In this window you will get information and make the choices as to how the new partition should be configured.

☞ Always read the information listed at the top of the window before making your choices.

☞ Click on the text field to insert values or use other available controls as buttons, scrollbars or check boxes.

☞ Once you have made your choice click the **Next >>** button to go to the next page.

☞ Click the **<< Back** button to return and view the previous page.

) Click on the **Cancel** button to end the wizard without accepting the changes.

Making changes

To activate the changes made with the wizard you have to click the **Finish** button on the last page.

If you click the **Cancel** button the previous settings will remain unaffected.

Attention!

Complete the wizard to the last page. Only then you have the possibility to save all the changes that have been made on previous pages by clicking the **Finish** button at the end.

Note

For every partition that is created on the hard disk the wizard must be completed from beginning to end.

Therefore after starting the wizard you are asked for the total number of partitions you want to install. The wizard will be restarted automatically until all partitions are configured.

Parameters

For each partition a variety of parameters can be chosen.

Partition name:

Input the chosen name for your partition. When creating more than one partition it would be helpful to choose a unique name that will help you in finding specific recordings later.

Recording format:

Here you choose the recording format of the partition: MPEG-2, MPEG-4 or I-Frames.

Video quality:

You can choose for each compression format between several different transfer rates thereby deciding what level of video quality you desire.

For recordings in MPEG-2 format the following profiles can be selected:

- **2MBPS low delay**
  2 MBit/s transmission rate with low delay on image refresh

- **3.5MBPS low delay**
  3.5 MBit/s transmission rate with low delay on image refresh

- **5MBPS low delay**
  5 MBit/s transmission rate with low delay on image refresh

- **2MBPS high quality**
  2MBit/s transmission rate with high picture quality

- **3.5MBPS high quality**
  3.5 MBit/s transmission rate with high picture quality

- **5MBPS high quality**
  5 MBit/s transmission rate with high picture quality

- **2MBPS with audio**
  2 MBit/s transmission rate with associated audio recording

- **3.5MBPS with audio**
  3.5 MBit/s transmission rate with associated audio recording

For recording in MPEG-4 format the following profiles can be selected:

- **high quality (CIF)**
  high quality for connections with high bandwidth

- **high resolution (2CIF)**
  high resolution for connections with high bandwidth

- **small resolution (QCIF)**
  low resolution for connections with high bandwidth

- **DSL**
  for DSL connections

- **ISDN (2B)**
  for ISDN connections over two B channels

- **ISDN (1B)**
  for ISDN connections over one B channel

- **MODEM**
  for analoge modem connections

- **GSM**
  for GSM connections

Partition type:

Choose here in which mode the recordings will be saved on the partition.

Time lapse mode:

The recordings will be saved to the partition as planned in the recording scheduler. However once the maximum storing capacity has been met for the partition the recording process will stop. In that case further recording on this partition is only possible if the partition is reorganised.

Ring mode:

In Ring mode the newest recordings are recorded over the oldest recordings once the maximum storage capacity has been achieved. E.g. if the maximum storage capacity of the partition allows for a recording of 24 hours to be saved the recordings will then run in a continues 24 hour loop. Only the last 24 hours of recordings will be able to be viewed.

Partition size:

Here is where you need to choose how many alarms can be recorded on the partition (max. 128) and the alarm pre- and post-recording time lengths.

Also here you can select the partition size either by choosing how long of a recording time you require or by setting the amount of MBytes you would like to use in this partition - in both cases the missing value will automatically be set.

If you have chosen to use the entire hard disk as one partition or you are configuring the last partition you require just click the **Use all** check box. The rest of the hard disks capacity will then be configured into that partition for use.

Note

When dividing the hard disk into the maximum of 8 partitions, then the complete hard disk space should be utilized. Otherwise the remaining space can not be utilized without reorganization of the hard disk.

Changing the configuration

The configuration of the partitions can be changed any time.

☞ Double click in the list on the partition you wish to make changes to. This will open the **Partition Property** window with the information on the partition selected.

☞ Make the necessary changes.

☞ Save the changes you have made by clicking the **Set** button

or

☞ Stop any changes from being activated by clicking on the **Cancel** button.

Warning!

Any changes made on a partition regarding name, type of recording, video recording and quality, the number of alarms and alarm-recording will result in a complete reorganization of that partition and all previously saved recordings will be deleted.

Before making any changes to a partition first check to see if any important information has been previously saved to it and make a back-up recording of those sequences to the hard disk of your computer.

In the **Partition Property** window changes can be made to the name, the type of recording, the video recording and quality, the number of alarms and the alarmrecording.

The complete recording time or the partition size can only be changed using the wizard. However all data stored on the partition will be lost.

Note

In the event the maximum of 8 partitions has been reached the wizard can only be restarted once one of the partitions has been deleted.

Warning!

Changes to the size or number of partitions will result in a reorganization of the complete hard disk and the deletion of all saved information on it.

Before every change to any parameter a check should first be made for all important information saved to the hard disk and if necessary a back-up of the regarding sequences should be made to the local hard disk of your computer.

Changes to the partition settings are saved by clicking on the **Set** button. Only then are they transmitted to the VideoJet 1000.

**Recording
scheduler**

Here you setup the parameters for local recording onto the hard
disk. Recordings can be predefined to take place uninterruptedly
over specified periods or only in case of an alarm.

Partition selection:

First choose the partition that shall be active, i.e. on which the
recordings shall be stored. Once you have completed setting your
recording times this partition can then be activated by clicking on
the **Start** button.

Note

You can only activate one partition on the hard drive at a time.

The activation of a different partition is not possible automatically.
Only manual activation is possible.

Time recording:

This is where the periods will be set for the continuous recordings
to the hard drive. To do so mark one or more time slots for each day
by dragging with the depressed mouse button.

By clicking on the **Clear** button all previously set time slots will be
cancelled, clicking on the **Set** button will transmit the data to the
VideoJet 1000.

Alarm recording:

This is where you program the time spans where the alarm triggered recordings will be active.

The VideoJet 1000 disposes of a special recording mode for alarm recording to optimize storage capacity utilization: with the beginning of a respective time slot continuous recording starts on a segment the size of a complete alarm sequence (pre- and post-alarm). This segment on the partition works like a ring buffer and is overwritten again and again until an alarm is actually triggered. After that recording on this segment will go on for the time predefined for post-alarm recording and then a new segment will be used in the same way.

For this reason the recorded alarm file is always complete in length when saved to the hard drive and the recording space necessary for each alarm recording can be calculated easily. A partition can record up to 128 alarm activations; when the partition is in ring mode it will always contain the most recent alarm recordings in the predefined number.

Note

When the time slots for time recording and alarm recording overlap each other the time recording schedule will always take priority.

Alarm activations that occurred during time recording are specially marked on the playback bar for easy identification when playing back recorded sequences.

Properties:

For a quick overview you have access to the properties of the active partition directly from the recoding scheduler.

Recording activ:

This is a quick way to know if currently recording on the hard drive is active. In this case the symbol for the hard drive is animated. If it is not animated no recording is taking place.

Alarm sources

The possible alarm activators of the VideoJet 1000 (alarm input and video signal monitoring) can be configured.

Video loss alarm:

Select here the option **On** if the unit is to activate an alarm when the video signal is interrupted.

Alarm on min. contrast:

The VideoJet 1000 can trigger an alarm in case the camera picture shows only little contrasts, e.g. when the lens was sprayed with color or covered. Choose the option **On** to activate this function.

Motion alarm:

Select here the option **On** if the unit is to activate an alarm when the motion alarm is triggered.

The configuration of the motion detector can be done on a separate page (see page 101).

Alarm input 1:

Select here the option **On** in order to activate the alarming by means of an external alarm sensor. Otherwise select **Off**.

In addition, it is also possible to select if the alarm is to be activated by a **Active high** or **Active low** voltage level.

Enter into the text field a designation for the alarm input which will then be displayed onscreen if an alarm is activated.

First/Second SNMP host address:

Enter the IP addresses of up to two chosen receivers here if the alarm message is to be sent via SNMP-traps.

Alarm connections

Help on this page?

Options are provided to specify the behavior of the VideoJet 1000 in the event of an alarm.

The VideoJet 1000, for example, can establish the connection to a predefined IP address (VideoJet 1000 receiver or PC with receiver software) automatically. ou can enter up to 10 IP addresses to be contacted in turn in case of an alarm until a connection has been established.

Connect on alarm:

Select **On**, to automatically establish the connection to a predefined IP address in the event of an alarm.

Connection type:

Depending upon the operating environment (network configuration), select here the transmission standard for the alarm connection to the defined IP address.

Note here the selections for MPEG-2 and MPEG-4 (see page 63).

Number of video receiver address:

Here you can assign the numbering for the IP addresses that shall be contacted in case of an alarm. The device contacts the

addresses in the order of the numbering until a connection has been established.

Live video receiver IP address:

Enter here the IP address to which a connection is to be established in the event of an alarm.

Remote receiver password:

Here you can enter the receiver password in case the receiver is protected by one.

Live video auto-connect:

Select here the option **On** if it is required to re-establish a connection to the previously specified IP address after each restart, e.g. after a connection breakdown or network dropout.

Direction of alarm connection:

Select here if an outgoing, incoming or bidirectional connection is to be established in case of an alarm.

Motion detector

The VideoJet 1000 contains an integrated video sensor, which on the basis of the video processing can register changes in the video signal. These changes are primarily initiated by movement in the field of view of the camera.

The sensitivity of the video sensor can be adjusted, so that an alarm is generated only if a given threshold is exceeded.

In order for the alarm to operate, the following conditions must be fulfilled:

- The motion detection must be activated.

- At least one cell must be activated.

- Individual parameters must be matched to the environmental conditions and to the required responses.

- The sensitivity must be set to a value >0.

Warning!

Light reflections (e.g. in glass facades), switching on or off of flood-lights or light level changes caused by cloud movement in bright daylight can cause undesirable responses from the video sensor and thereby generate false alarms. Carry out a number of tests for different day and night time conditions in order to ensure correct operation of the video sensor.

For surveillance of indoor areas, ensure a constant lighting of the areas during the day and at night.

Uniform surfaces without contrast can trigger false alarms even with uniform lighting.

Motion detector

Select here the option **On** to activate the video sensor.

Select sensor field

The areas of the image to be monitored by the video sensor are selected here. The video frame is subdivided into 396 quadratic cells. Each of these cells can be activated or deactivated. If it is necessary to exclude particular regions of the camera field of view from the monitoring process because of, say, continuous move-ment (e.g. due tree movement in a wind), the relevant cells can be deactivated.

☞ Click on the button **Select area**, to configure the sensor cells. A new window is opened up.

☞ If necessary, click on the button **Clear all** first in order to clear the current selection (cells indicated in red).

☞ Using the left mouse button click in those cells which are to be acti-vated. Activated cells are indicated in red.

☞ If required, click on the button **Select all** to monitor the entire video frame.

☞ Using the right mouse button, click on those cells which are to be deactivated. Inactivated cells are indicated in white.

☞ Click on the button **Set** to store the configuration.

☞ Click on the title bar of the window on the symbol **X** to close the window without storing any of the changes entered.

Local sensitivity

The basic sensitivity of the video sensor can be adapted for the ambient camera conditions.

The sensor reacts to brightness variations in the video image. The darker the observation range, the greater the value that must be selected here.

☞ Adjust the sensitivity by moving the slider to the desired setting with the mouse key held down.

Average n [frames]

It is possible to define the number of frames during which a movement is monitored in order to generate an alarm. In this way, it is possible to prevent generating a false alarm, e.g. by a bird flying across the surveillance area.

☞ Select the desired value by moving the slider to the desired position with the mouse key held down.

Object min size [n*n blocks]

The number of sensor cells, which a moving object must cover in order to generate an alarm, can be specified. In this way it is possible to prevent too small objects from producing an alarm.

For this, the minimum recommended value is 2 (2 × 2 sensor fields).

☞ Select the desired value by moving the slider to the desired position with the mouse key held down.

Alarm indicator

To prevent false alarms, a motion signal can be matched to a given alarm threshold. In this way, for example, it is possible to filter out effects caused by the background noise generated in the camera itself.

The blue line indicates the alarm threshold. Any value greater than this will produce an alarm signal. The components of the motion signal generating the alarm are indicated in red. The alarm threshold can be varied to suit individual requirements.

☞ Take note of the amplitude of the movement signal displayed in the window over a long period and at all light levels likely to be encountered in practice.

☞ Move the mouse pointer onto the blue line.

☞ Holding the left mouse button pressed, move the blue line to the required position.

Motion tracking

For certain applications, it can make sense to generate an alarm only if movement takes place in a particular direction. You can activate the motion detection and select the direction of movement required to generate an alarm.

☞ Select here the option **On**, in order to activate the motion tracking feature of the video sensor.

Tracker

In the **Tracker** field you see an arrow, which indicates the current motion in the video image. By means of check boxes in the four corners, the desired direction can be activated. If, for example, all movements to the "left" and "upwards" are to activate an alarm, then mark the top left corner. If all movement to the "left" is to activate the alarm, then check the left upper and the lower left corners.

☞ Note the movements indicated by the arrow in the video image over a long period and at all light levels likely to be encountered in practice.

☞ Click the check box in order to activate the corresponding directional component.

**Relay action/
Relay operation**

The switching conditions for the relay output can be configured. The function of an open switching relay (normally closed contact) or a closed switching relay (normally open contact) can be specified.

It is also possible to specify whether the output should operate as a bistable or as a monostable. In bistable operation, the activated state of the relay remains as switched. In monostable operation, the time can be selected after which the relay is to revert to its steady state.

Various events can be selected to automatically activate the output. In this way, for example, it is possible to switch on a floodlight when a motion alarm has been detected and to switch the light off again at the end of the alarm.

Idle state:

Select **Open** if the relay is to operate as a normally open contact or **Closed** if it is to operate as a normally closed contact.

Operating mode:

Select the operating mode for the relay.

If, for example, a lamp is switched on by an alarm and is to remain on when the alarm has ended, select **Bistable**. If an acoustic signal activated by an alarm is to remain on for a period of, for example, 10 sec, select **Monostable 10 s**.

Relay follows:

Select a particular event by which the relay is to be activated as required. The following events can activate the relay:

- **Off**: No relay triggering by events
- **Connection**: Triggering if any connection is established
- **Video alarm**: Triggering caused by loss of the video signal
- **Motion alarm**: Triggering by the motion alarm
- **Local input**: Triggering caused by an external alarm sensor
- **Remote input**: Triggering by a switching contact from a remote location

Relay name:

The relay can be assigned a name from here. The name will be shown on the Overview page and, dependent upon configuration, also on the livepage.

Trigger relay:

Click on the button **Relay 1** to manually switch the relay (e.g. for test purposes or to operate a door opener).

COM1 serial data port/interface settings

The parameters for the serial interface port **COM1: RS232/485** can be configured to suit individual requirements.

Serial port function:

Select one of the controllable devices from the list. If the port is required to transmit data transparently, select the entry **Transparent**.

Note

After selection of a device, the remaining parameters in the window are automatically set and should not be altered.

Baud rate:

Select the value for the Transmission rate in bits/s.

Data bits:

Select the number of data bits per character.

Stop bits:

Select the number of stop bits per character.

Parity check:

Select the type of parity check.

Interface mode:

Select the desired protocol for the serial port.

Half-duplex mode:

Select here to suit the individual application.

COM2 serial data port/interface settings

The parameters for the serial interface port **COM2: RS232** can be configured to suit individual requirements.

Serial port function:

Select the function for serial port 2. Select **Terminal** if the unit is to be operated from a terminal. If the port is required to transmit transparent data, select the entry **Transparent**.

Baud rate:

Select the value for the Transmission rate in bits/s.

Data bits:

Select the number of data bits per character.

Stop bits:

Select the number of stop bits per character.

Parity check:

Select the type of parity check.

Network settings

The settings on this page are used to integrate the unit into an existing network.

Unit IP address:

Enter here the required IP address for the VideoJet 1000. The IP address must be valid for the network.

Warning!

Changes in IP address, subnet mask and/or gateway IP address are transferred to the device by clicking on the button **Set**, but they are only valid after a reboot!

For a reboot simply enter the old IP address into the address bar of the Browser followed by `/reset`, after that the unit can only be accessed via the new IP address.

Subnet mask:

Enter here the corresponding subnet address if the unit is to communicate via a subnet.

Gateway IP address:

Enter here the appropriate IP address if the unit is to independently establish a connection outside of the local network. This field can otherwise remain empty (0.0.0.0).

Video/Audio transmission:

If the device is used in front of a firewall, transmission over **TCP (Port 80)** should be selected. If used in a local network select **UDP**.

Warning!

Multicast operation is only possible using the UDP protocol. The TCP protocol does not support any multicast connection.

Ethernet link type:

When the VideoJet 1000 is connected to the network with a switch both devices have to have the same settings for the Ethernet link type. Ask your network administrator for the setting of the respective switch if necessary.

You can choose 10 or 100 MBit/s each with full- or half-duplex mode (**FD** resp. **HD**) or you can choose **Auto** if the link type is to be flexible.

Warning!

There can be failures like image interferences and the like if the setting of the VideoJet 1000 differs from the setting of the connected switch, e.g. if the switch is set on **Auto** but the VideoJet 1000 is set on **10 MBit/s HD**.

Multicast settings

| rd | Overview | Expert Mode | HDD-Replay | |

Multicast settings

Multicast streaming:	Off ▼	
Multicast group IP address:	224.1.7.76	
Multicast port MPEG-2:	50000	
Multicast video port MPEG-4:	60000	
Multicast audio port MPEG-4:	55000	
Multicast packet TTL:	1	Set

Help on this page?

Multicast streaming:

Along with a 1:1 connection between a transmitter and a receiver, (unicast) the VideoJet 1000 provides the option of connecting a number of receivers to simultaneously receive the video signal. This is achieved either by a duplication of the data stream in the unit with subsequent distribution to a number of receivers (multi-unicast) or by distribution of a single data stream on the network itself to a number of receivers in a defined group (multicast).

Select here the option **On** in order to activate the multicast function.

Note

Requirement for multicast operation is a multicast compliant network with implementation of the UDP protocol and the IGMP protocol. Other group management protocols are not supported. The TCP protocol does not support any multicast connection.

The VideoJet 1000 supports for MPEG-4 the multi-unicast operation up to a maximum of 5 simultaneously connected receivers. For MPEG-2 only one multi-unicast connection is possible.

The transparent data connection is maintained from the first unit. However, after 15 seconds of inactivity the data connection is automatically suspended and another unit can exchange transparent data with the transmitter.

For multilink operation, the network is not required to be multicast compatible as the VideoJet 1000 is also multi-unicast compatible. Duplication of the data in the unit requires considerable processor

power and, under certain circumstances, leads to limitations in the picture quality.

With the settings **Multicast streaming: On** and **Multicast group IP address: 0.0.0.0** the VideoJet 1000 operates in the multi-unicast mode (duplication of the data stream in the unit).

With the settings **Multicast streaming: On** and a valid multicast group IP address, the unit operates in the multicast mode (duplication of the data stream over the network).

Multicast group IP address:

A precondition for the multicast mode in a multicast-compatible net-work is the establishment of a special IP address (class D address).

The network must support the establishment of a group IP address and the Internet Group Management Protocol (IGMP). The address range is from 224.0.1.0 to 238.255.255.255.

Multicast port MPEG-2:

With simultaneous data streams in the MPEG-2 format and in the MPEG-4 format, the data streams must be assigned for different ports.

Enter here the port address for the MPEG-2 data stream.

Multicast video port MPEG-4:

With simultaneous data streams in the MPEG-2 format and in the MPEG-4 format, the data streams must be assigned for different ports.

Enter here the port address for the MPEG-4 video stream.

Multicast audio port MPEG-4:

In MPEG-4 format, the streams for video and audio are transmitted over separate ports. If you want to transmit MPEG-4 with audio you must assign a dedicated audio port.

Enter here the port address for the MPEG-4 audio stream.

Note

For MPEG-4 audio transmission the option **MPEG-4 audio** in the MPEG-4 Encoder configuration must be activated (see page 84).

Multicast packet TTL:

By setting the parameter you determine the life span of the data packets in the network. If multicast is operated over a router the value must be greater than 1 to guarantee transmission of the packets.

Version information

	Overview	Expert Mode	HDD-Replay	
Version information				
Hardware version:	92021543			
Software version:	12000105			

Help on this page?

Hardware and software version numbers are only required for information and can not be altered. Keep a record of these numbers in case technical assistance is required.

Hardware version:

The hardware version number of the VideoJet 1000 is shown.

Software version:

The software version number of the VideoJet 1000 is shown.

**Livepage
configuration**

The livepage can be setup to suit individual requirements. Options are provided here to display different information and operating elements along with the video picture.

In addition, individual background images for the main window and for the upper screen area (banner) can be used.

Note

For the background image you can use the file types GIF and JPEG. The file paths must correspond to the type of access (for access to a locally stored file, for example, C:\Images\Logo.gif, for access to an Internet/Intranet file, for example, http://www.sld.co.uk/images/logo.gif).

Note that with Internet/Intranet access, the connection must be maintained in order to continually display the image. The image files are not stored in the VideoJet 1000.

If it is required to recall the original image, simply delete the entries in the fields **Startpage background URL** and **Startpage logo URL**.

☞ Click in the check boxes of those elements which are to be displayed on the livepage. The selected elements are marked with a tick.

☞ Check on the livepage to see if and how the required elements are displayed.

Startpage background URL:

Enter here the file path to a suitable background image. The image can be stored on a local computer, on a local network or at an Internet address.

☞ If necessary, click on the button **Search**, in order to find a suitable image on the local network.

Startpage logo URL:

Enter here the file path to a suitable image for the upper screen area (banner). The image can be stored on a local computer, on a local network or at an Internet address.

☞ If necessary, click on the button **Search**, in order to find a suitable image on the local network.

Note

If it is required to recall the original image, simply delete the entries in the fields **Startpage background URL** and **Startpage logo URL**.

Panorama (Sony camera only):

If you are using a Sony camera EVI-D100 or EVI-D30/31 by clicking into this check box you can activate the display of a panorama on the video livepage that is generated automatically each time the livepage is called up and can be updated any time (see page 124).

Save event logfile to harddisk:

Select this option to store event data in a text file on the local computer.

These text files can be viewed in the usual Office programs (for example, MS Word or MS Excel), and printed out.

Save general logfile to harddisk:

Select this option to store the logfile in a text file on the local computer.

These text files can be viewed in the usual Office programs (for example, MS Word or MS Excel), and printed out.

File for saving event messages:

Enter here the path to the location where the log files for the event messages are to be stored.

☞ If necessary, click on the button **Search** in order to find a suitable folder.

File for saving general messages:

Enter here the path to the location where the log files for the general system messages are to be stored.

☞ If necessary, click on the button **Search** in order to find a suitable folder.

Path for JPEG and MPEG files:

Enter here the path to the storage location for the jpeg-snapshots and video sequences which can be stored from the Livepage or the HDD-Replay (only VideoJet 1000^F).

☞ If necessary, click on the button **Search** in order to find a suitable folder.

Software update

Wizard	Overview	Expert Mode	HDD-Replay	

Software update

Software upload:		Durchsuchen...	Upload
Upload progress:	0%		
Configuration download:			Download
Configuration upload:		Durchsuchen...	Upload

Help on this page?

Software upload:

The VideoJet 1000 is designed in such a way that its functions and parameters can be updated with firmware. In such cases, transmit the updated firmware package via the selected network to the device. On termination of the connection, the firmware will be automatically installed.

This allows a device to be remotely serviced and updated without a technician having to modify the device installation on site.

The latest firmware can be obtained from your Service centre

Warning!

Before starting the firmware upload, ensure that you have selected the correct upload file! An upload of other files can result in the device being no longer addressable and having to be replaced.

On no account interrupt the installation of the firmware. An interruption will result in damage to the flash EPROM. This can result in the device being no longer addressable and having to be replaced.

☞ Store first the update files to the hard disk of your computer.

☞ Enter the complete directory path for the update file in the text field or click on the button **Durchsuchen...** to locate and select the file.

☞ Click on the button **Upload** to begin the transmission to the unit. The progress of the download can be monitored from the status messages and from the progress bar.

After approx. 90 seconds, the message **Firmware upload finished. State: Upload complete - WAIT!** will be displayed, the new software will be unpacked and the Flash-EPROM repro-

grammed. You will see the length of time this demands from the message **Reconnecting in nn Seconds**.

On conclusion of a successful upload, the unit will automatically restart.

If the LED **IN** flashes on conclusion, the upload has been unsuccessful and must be restarted. In order to execute the upload, it is necessary to change over to a special page.

☞ In the address field of the browser behind the IP address of the unit, enter `/main.htm` in (e. g. `192.168.0.12/main.htm`).

☞ Restart the upload process.

Configuration download:

You can store the configuration setting of the device on a PC and upload stored configuration settings from a PC to the device.

☞ Click on the button **Download**. A dialog window is opened.

☞ Follow the instructions in the dialog window to save the settings.

Configuration upload:

☞ Enter the complete directory path of the file to be uploaded or click on the button **Durchsuchen...** to select the desired file.

☞ Make sure the download file is taken from a VideoJet 1000 device.

☞ Click on the button **Upload** to start the transmission of the file to the device.

After a few seconds the message **Configuration upload finished. State: Configuration upload ok. (system must be rebooted)** will be displayed and the countdown for the reconnection is shown.

At the next call-up of the configuration page **Software update** the message **Configuration upload ok** confirms the successful completion of the upload. If the message **Configuration upload failed** is displayed, the file was not correctly uploaded (e.g. because it didn't derive from the same type of device). Repeat the upload procedure, possibly with a different file.

Note

In order to activate the new configuration the system must be rebooted by entering the current IP address followed by `/reset`.

Function test

The VideoJet 1000 provides a multiplicity of configuration possibilities. Check, therefore, for correct operation of the unit after installation and configuration.

Only in this way is it possible to ensure that the VideoJet 1000 will operate correctly in an alarm situation.

Check under the following headings:

- the VideoJet 1000 can be remotely dialled up

- the VideoJet 1000 transmits the required data

- the VideoJet 1000 reacts to alarm events in accordance with the configuration

- where applicable, that the control of peripheral equipment is possible

Operation

6

Operation with MS Internet Explorer

The reception of live video images sent from the VideoJet 1000 and the replay of sequences saved on the local hard disk are possible on a computer with installed Microsoft Internet Explorer (Version 5 or higher).

Note

In order to decode video images, the required special ActiveX control must be installed on the computer. The latest version of the ActiveX control can be obtained from customer service

In addition, for decoding MPEG encoded video and audio data, a suitable MPEG decoder must be installed in the computer where it can also be used, for example, to replay DVD material. If not present, such a decoder may be installed from the supplied software CD.

Instructions for the operation of the web browser will be found under the online help of the web browser.

System requirements

- Microsoft Internet Explorer (version 5 or higher)
- Monitor resolution 1024 × 768 pixels
- Access to network (Intranet or Internet)

MPEG decoder installation

If no video images are displayed when MPEG-2 or MPEG-4 is selected, installation of a current MPEG decoder is probably necessary. Suitable software for this can be found on the supplied program CD.

☞ Insert the CD into the ROM drive of the computer. The CD runs automatically. If the CD does not start automatically, open the CD folder in Windows Explorer and double click on **mpegax.exe**.

☞ Follow the onscreen instructions.

Establishing the connection

To use the VideoJet 1000 on a network, it must be provided with an IP address.

The following address is factory installed:
192.168.0.1

☞ Start up the web browser.

☞ For the URL, enter the IP address of the VideoJet 1000. The livepage with video image will be displayed.
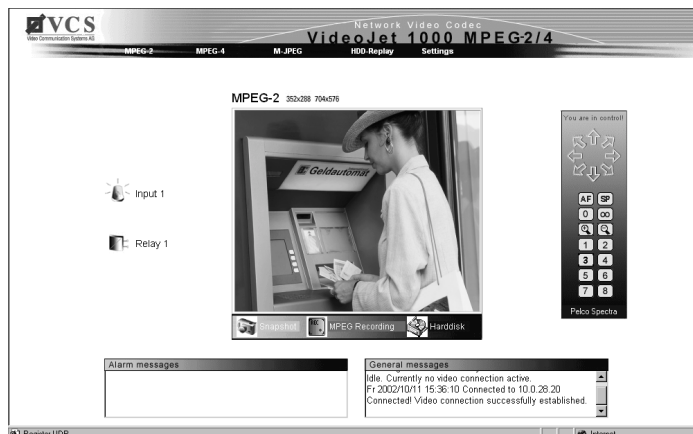
If the connection is not established, the selected transmitter is already occupied with a different destination. Depending upon network configuration and individual units, a maximum of five receivers can receive images simultaneously from one transmitter.

Image quality   With established connections, the video image is displayed in the middle of the browser window. Depending upon configuration, other information may also appear in the display (see page 122).

The VideoJet 1000 provides either a live image (MPEG format) or single video frames in JPEG format.

☞ Click on the navigation bar at the top of the screen on one of the links **MPEG-2**, **MPEG-4** or **M-JPEG**, in order to display or decode the video sequences in the corresponding image format.

☞ Above the video image, click on one of the links **352X288** or **704X576**, to display the image in the selected resolution.

Alarm   In the event of an alarm, the alarm symbol is displayed in red along with the video image. The display of alarms and other details is dependent upon the configuration of the unit (see page 114).

Output   Depending upon configuration, equipment can be switched by the relay of the VideoJet 1000 (e.g. a floodlight or door opener).

☞ To activate the relay output, click on the relay symbol beside the video image. The symbol will be displayed in red when the relay is activated.

Control functions   Possibilities for the control of peripheral equipment (e.g. pan and tilt heads) is dependent upon the installed equipment type and on the configuration of the VideoJet 1000.

If a controlled unit is connected to a VideoJet 1000 and configured, the active elements for the control of the peripheral unit (e.g. a dome camera) will be displayed alongside the video image.

Using a Sony camera EVI-D100 or EVI-D30/31 you can display a panorama of the site. To do so the parameter Panorama view on live page resp. **Show panorama view** on the Livepage configuration page has to be activated (see page 72 resp. 115).

Each time the livepage is called up automatically a panorama of the site consisting of 5 snapshots is generated and displayed above the live picture.

The snapshots can be updated anytime by clicking into the pictures with the right mouse button and selecting **Start scan**.

The update can be canceled by selecting **Stop scan** out of the same menu.

Storing snapshots

It is possible to store individual images on the computer hard drive from the current video sequence in the livepage in JPEG format.

☞ Click on the symbol **JPEG Snapshot**. The image will be stored. The storage location is specified during configuration of the unit (see page 114).

Image resolution Individual images can be displayed in different resolutions. To select the resolution, append the corresponding parameter to the command **snap.jpg:**

snap.jpg?JpegSize=XS   128 × 96 pixels

snap.jpg?JpegSize=S   176 × 144 pixels

snap.jpg?JpegSize=M   352 × 288 pixels

snap.jpg?JpegSize=XL   704 × 576 pixels

Without this additional parameter, the image size will be 352 × 288 pixels.

☞ In the field for the Internet address (URL), enter the IP address of the VideoJet 1000, followed by the command **/snap.jpg** (for example: http://192.168.0.12/snap.jpg).

☞ Press the return key on the computer. A single frame image will be displayed in a new window.

☞ Using the mouse onscreen, press the right mouse button and select the command **Save image as...** .

☞ Store the single image in the required format under a new name.

Storing MPEG sequences

It is possible to store parts from the current video sequence in the livepage on the computer hard drive in MPEG format.

☞ Click on the symbol **MPEG Recording** to start the storing. The storage location is specified during configuration of the unit (see page 114).

☞ Click on the symbol **MPEG Recording** once more to stop the storing.

Active recording is indicated by the blinking red light in the button.

Image resolution   Video sequences will be recorded with the resolution specified in the Encoder Settings for MPEG-2 resp. MPEG-4 (see page 80).

Harddisk activity

When a program is running in the background to make an automatic recording on the hard disk of the VideoJet 1000, the hard disk symbol changes to act as an indicator.

The hard disk symbol is animated to show that recording is in progress. When recording is not taking place then the symbol remains still:

Playback of recorded sequences

To play back recorded video sequences click on the HDD-Replay link available on the livepage, overview page, or expert mode page at the top of the screen.
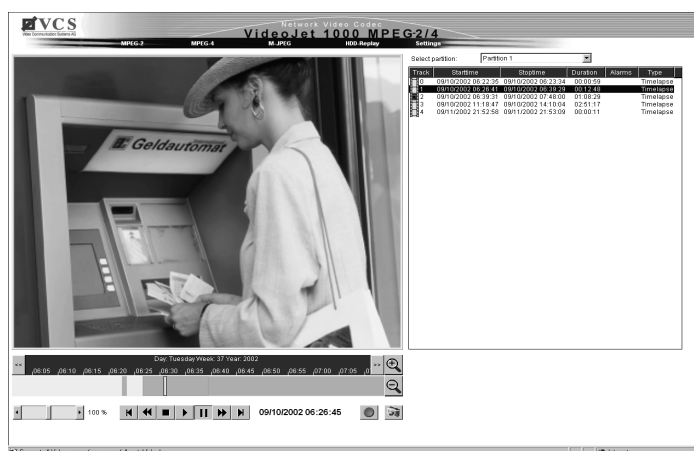

Choosing the sequence

First you have to select the partition the recorded sequence is on.

All sequences stored on the selected partition will be listed. For each sequence you will see a recorded order number, the start and stop times of the recording, the length of the recording, and the number and type of alarms captured during the sequence.

Click on any of the listed sequences to start the playback of that recording in the viewing window.

Playback control
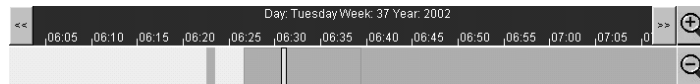
Below the video window you can see a time slice for easy orientation. After loading the HDD-Replay page the blue bar is showing the current day, week and year and a time scale with two-hours interval.

When a special sequence was selected the regarding time section is shown in the lower bar, the selected sequence is symbolized by a blue mark with a green border. The yellow slider gives the position of the currently replayed picture within the sequence.

The time slice provides various possibilities to navigate within the sequences:

☞ Change the time section displayed by clicking on the '<<'- or '>>'- button or by moving the blue bar to the left or to the right with the mouse button held down.

☞ Change the graduation by clicking on the 'zoom-in' or 'zoom out' symbol. Select between intervals of three days, one day, two hours, five minutes or one minute.

☞ Select another sequence for replay by clicking in the corresponding blue mark. The green border will signify the active sequence.

☞ You can start the replay also by positioning the mouse on the yellow strip, clicking on the mouse button and holding it down while moving the strip on the video bar to the time position you desire. Detailed information on date and time is provided by the indicator below the video bar.

You can control playback of the sequence using the buttons below the video window.The buttons have the following functions:

Jump to the beginning of the video recording, jump to the previous alarm

Fast rewind, rewind in intervals of 0.5 sec (only in Pause mode)

Stop

Play

Pause

Fast forward, forward frame by frame (only in Pause mode)

Jump to the end of the video recording, jump to the next alarm

With the slider you can control the velocity of replay. 100% gives regular velocity, lower values decelerate, higher values accelerate.

Red strips on the video bar indicate alarm activations. You can quickly jump to the alarm activations using the control buttons or the yellow slider.

Back-up

You can save video recordings that are on the hard drive of the VideoJet 1000 directly to the hard drive of your computer as back-up.

First choose which sequence you would like to save to your computers hard drive as described above. The following buttons are for recording information directly to your computers hard drive:

Back-up of a sequence directly to the hard drive of your computer

Back-up of a snapshot to the hard drive of your computer

☞ Start the playback of the sequence you want to back-up as a whole or in parts.

☞ Click on the symbol for back-up of a sequence. Storing starts at once and is indicated by slowly blinking of the symbol on the button.

☞ Click on the symbol for back-up of a sequence once more to stop recording.

You can even repeat the procedure several times within a sequence if you want to back-up several sections out of a longer sequence.

☞ Click on the button for snapshots to store individual video frames out of the sequence replayed to the hard drive of your computer.

The snapshots taken will be displayed immediately in the area to the left.

The location of the recordings on the hard drive can be selected in the settings of the VideoJet 1000 (see page).

Hardware connections
between VideoJet Units

A VideoJet 1000 with connected camera as a transmitter and a VideoJet 1000 with connected monitor as a receiver can be linked simply together over an Ethernet network. It is thus possible to link large distances with little installation or cabling effort.

Installation   With the appropriate configuration the VideoJet 1000 units can automatically establish a connection with each other. This assumes that, as a minimum, they are linked into a closed network. To install the units proceed as follows:

☞   Connect the units using Ethernet cables into the closed network.

☞   Connect power to the units.

Note

Make sure the units are configured for the characteristics of the network environment and that the transmitting unit, under the parameter **Live video receiver IP address,** is set for the IP address of the receiver (page **Alarm connections**).

Connection setup   It is possible to configure the connection using either Terminal software or by appropriate configuration via the alarm input. After a brief pause, the live image from the camera will be displayed on the connected monitor.

Note

It is only possible to establish the connection using the alarm input if the parameter **Connect on alarm** is set to **On** on the configuration page **Alarm connections** (see page 99).

☞   Activate the alarm input, or

☞ start the terminal program (see page 26); enter the command 5 to switch into the remote menu.

☞ In the remote menu enter the command 1 to establish an MPEG-2 connection or the command 2 to establish an MPEG-4 connection.

Terminate connection

Termination of the connection is only possible with the aid of the terminal program.

☞ In the remote menu, enter the command 3, to close the current connection.

Operation with Software-Decoder

The video server VideoJet 1000 in association with the program VIDOS comprises a powerful systems solution.

VIDOS is a program for the operation, control and administration of CCTV installations (e.g. surveillance systems) at remote locations. It runs under the Windows operating system. It primarily provides decoding of video, audio and control data received from a remote transmitter.

During operation of a VideoJet 1000 with VIDOS, a multiplicity of operating and configuration options are offered. For details, see the documentation provided with the software.

Maintenance

7

Network check

The connection between two IP addresses can be checked by means of the `ping` command. In this way it is possible to check whether a unit is active on the network.

☞ Open the DOS input window.

☞ Enter the command `ping` followed by the address of the unit.

When the unit is found, the response: `Reply from...`, followed by the number of bytes transmitted and the time taken for the transmission in ms is displayed. If this message is not displayed, the unit is not accessible over the network. This can be due to the following reasons:

● The network connection to the unit is not OK. In this case, check out the cable connections.

● The unit is not correctly integrated into the network. Check the IP address, subnet mask and, if necessary, the gateway IP.

Repair

Warning!

Never open the housing of the VideoJet 1000. The unit has no user serviceable parts, which can be repaired or exchanged.

Ensure that only qualified, specialist personnel (electrical technicians) are permitted to carry out maintenance or repair work or contact the Service centre.

Passing on, Disposal

The VideoJet 1000 should only be passed on together with these manual.

The unit contains environmentally harmful materials, which must be disposed of in accordance with legal requirements.

Faulty units and parts, which are no longer required, should be disposed of professionally or, if necessary, contact the local authorities for the disposal of harmful objects and substances.

Appendix

8

Faults – possible causes and remedy

If a fault can not be cleared, please contact the Customer Service

The version numbers of the internal processors can be shown on a special page. Note this information before contacting the Customer Service.

☞ In the address field of the browser behind the IP address of the unit, enter `/version.htm` (e.g. `192.168.0.12/version.htm`).

☞ Make a note of all details or print out the page.

The following table is intended to help identify reasons for malfunctions and, where possible, to suggest remedies.

Problem	Possible causes	Suggested remedy
No connection between unit and terminal program.	Faulty cable connections.	Check all leads, plugs, contacts and connections.
	The computer's serial interface is not connected.	Check other serial interfaces.
	Interface parameters do not match.	If necessary, select a different COM port, make sure that the computer's interface parameters match with those of the unit. Possibly select the following standard parameters: 19,200 Baud, 8 data bits, no parity, 1 stop bit. Subsequently turn off power to the unit and turn on again after a couple of seconds.
No picture transmission to remote station.	Defective camera.	Connect local monitor and check camera function.
	Faulty cable connection.	Check all leads, plugs, contacts and connections.

Problem	Possible causes	Suggested remedy
No connection established, no picture transmission.	Configuration of the unit.	Check all configuration parameters.
	Faulty installation.	Check all leads, plugs, contacts and connections.
	Wrong IP address.	Check IP address (terminal program).
	Faulty data transmission within LAN.	Check data transmission with the command `ping`.
	The maximum number of receivers is connected.	Wait until a new connection is possible and dial again.
No audio transmission to outstation.	Defective hardware.	Check perfect functioning of all audio devices connected.
	Faulty cable connection.	Check all leads, plugs, contacts and connections.
	Faulty configuration.	Check configuration of audio settings (interface, audio level and coding mode).
The unit does not report an alarm.	Alarm input not selected.	Select alarm input on configuration page **Alarm sources**.
	No alarm action selected.	Select alarm action on configuration page **Alarm connections**. If necessary change IP address and e-mail address.
Control of PTZ cameras or other devices not possible.	Cable connection between the RS232 interfaces and the connected device is incorrect.	Check all cable connections and ensure all plugs are properly plugged in.
	The interface parameters conflict with the other devices connected.	Make sure the settings of the devices involved agree with each other.
The unit is not ready for operation after firmware upload.	Voltage failure while the update file is being programmed.	Replace the device and have it checked.

LEDs

The VideoJet 1000 video server is equipped with several LEDs which indicate the operating status and can give indications of possible faults:

HDD   Flashing red: Data is transmitted to or from the hard drive

VIDEO   Lit green: A video signal is present at the input.

IN   Flashing slowly: No valid firmware installed.
                                   Firmware upload necessary.

               Lit green: Alarm input activated.

               Lit red: Alarm triggered.

               Not lit: Alarm input inactive.

OUT   Lit green: Output switched.

               Not lit: Output inactive (rest state).

COM   Flashing green: Data transmission via serial interface.

ETHERNET   Lit green: Physical connection to the network established.

               Flashing red: Data transmission via the network.

POWER   Not lit: The unit is switched off.

               Lit green: The unit is switched on, no connection.

               Flashing green: 600 ms (50:50) = 1 active connection
                                   300 ms (50:50) = 2 active connections
                                   150 ms (50:50) = 3 or more connections

               Green flash: (50:650) = Streaming mode is active

               Green flash: 70 ms (50:50) = External prompt, e.g. via the
                                   Video Manager

Glossary

A few brief explanations of the most important terms and abbreviations from the field of communications technology can be found below.

10/100 Base-T	IEEE 802.3 specification for 10 or 100 Mbit/s Ethernet
ARP	Address Resolution Protocol
Baud rate	Data tramsmission rate
bit/s	Bit per second, the actual data rate
CIF	Common Intermediate Format, video format with 352 × 288 pixels
DHCP	Dynamic Host Configuration Protocol: Protocol for dynamic allocation of IP addresses
DNS	Domain Name Service
FTP	File Transfer Protocol
Full duplex	Simultaneous data transmission in both directions
G.711, G.728	Standard audio coding algorithms defined by ITU-T
H.224	Standardized protocol for data communication and remote control
H.261	Standard motion video coding algorithm defined by ITU-T
HTTP	Hypertext Transfer Protocol
HTML	Hypertext Markup Language
Hub	Multiplexer to connect a number of Ethernet units to a 10 BASE-T segment
ICMP	Internet Control Message Protocol
ID	Identification: machine readable number or name
IEEE	Institute of Electrical and Electronics Engineers
IGMP	Internet Group Management Protocol

Internet protocol	The main protocol used in the Internet. Forms in conjunction with the Transfer Control Protocol (TCP) the TCP/IP
IP	*See* Internet Protocol
IP address	A 4-byte number uniquely defining each unit on the Internet. Usually written in dotted-decimal notation with periods separating the bytes
ISDN	Integrated Services Digital Network
ISP	Internet Service Provider
JPEG	Procedure to encode still images (Joint Photographic Experts Group)
kbit/s	Kilobit per second, the actual data rate
LAN	*See* Local area network
Local area network	A communications network serving users within a limited geographical area, such as a building or a campus, controlled by a network operating system and using a transport protocol.
MAC	Media Access Control
MPEG-1	Video/audio compression standard, initially hardware-dependent, now also possible with software.
MPEG-2	Enhanced video/audio compression standard, high-level compression facilitates images with studio quality, meanwhile established as broadcasting standard.
MPEG-4	Further development of MPEG-2, used for transmission of audiovisual data with very low transfer rates (e.g. via Intenet).
NAT	*See* Network Address Translator
Netmask	A mask that explains which part of an IP address is the network address and which part comprises the host address. It is usually expressed in dotted-decimal notation, e.g. 255.255.255.192
Network address translator	A proposal for IP address reuse, where the local IP address is mapped to a globally unique address.

Parameter	Values used for the configuration of the network system
Picture	A video picture that has been digitized at a given resolution
PPP	*See* Point-to-point protocol
Point-to-point protocol	A protocol allowing a computer using TCP/IP to connect directly to the Internet
QCIF	Quarter CIF, video format with 176 × 144 pixels
Server push	A continuous stream send from the transmitter to the web browser
SNMP	Simple Network Management Protocol
Subnet mask	*See* Netmask
TCP	Transfer Control Protocol
UDP	User Datagram Protocol
URL	Uniform Resource Locator
UTP	Unshielded Twisted Pair
V.24, RS-232	A list of definitions for the transmission between DTE and DCE
WAN	*See* Wide area network
Wide area network	A long distance link used to extend or connect remotely located local area networks

Specifications

Operating voltage	90 ... 250 V AC, 50/60 Hz
Power consumption	max. 33 VA
Network interface	Ethernet 10/100 Base-T auto sensing, RJ45
Data rate	1 Mbit/s ... 8 Mbit/s (MPEG-2) 9.6 kbit/s ... 1.5 Mbit/s (MPEG-4) constant and variable
Video standards	PAL, NTSC
Video resolution	MPEG-2: 720 × 576 pixels 352 × 288 pixels MPEG-4: 704 × 576 pixels 704 × 288 pixels 352 × 288 pixels 176 × 144 pixels
Coding protocols	ISO/IEC 11172-3 (MPEG-1, layer I/II) ISO/IEC 13818-2 (MPEG-2) ISO/IEC 14496 (MPEG-4)
Network protocols	RTP, RTCP, UDP, TCP, IP, HTTP, IGMP, ICMP, ARP, DHCP, SNMP
Video input	1 × BNC jack 0.7...1.2 V_{p-p}, 75 Ohm switchable, PAL/NTSC
Video output	1 × BNC jack 1.0 V_{p-p}, 75 Ohm, PAL/NTSC
Audio input	3.5 mm jack bush 3 V_{p-p}, stereo, approx. 50 kOhm
Audio output	3.5 mm jack bush 2.5 V_{p-p}, stereo, 60 mW, min. 8 Ohm
Data interface	1 × RS232/RS422/RS485, bidirectional, 9-pin sub-D, 1 × RS232, bidirectional, 9-pin sub-D

Alarm inputs	separable screw terminals 1 × control input, max. 24 V, max. activation resistance 10 Ohm
Relay output	separable screw terminals, 1 × relay, 30 V_{p-p}, 1 A
LED displays	8 × LED (HDD, VIDEO, IN, OUT, COM, 2 × ETHERNET, POWER)
Operating conditions	temperature: 0 ... +50 °C relative humidity: 20 ... 80 %, non-condensing, altitude 0 ... 3,000 m
Installation conditions	in cabinet: at least 5 cm free space on left and right hand side for cooling, at least 10 cm free space on the back- side for cooling and cabeling
Storage conditions	temperature: –20 ... +60 °C relative humidity: 0 ... 95%, non-condensing, max. altitude 10,000 m
Regulations	CE: IEC 60950, UL 1950, J 60950, AS/NZS 3548, EN 55103-1,-2, EN 55130-4, EN 55022, EN 55024, EN 61000-3-2, EN 61000-3-3, FCC 47 CFR Ch. 1 Part 15
Dimensions (w × h × d)	204.6 × 43.9 × 301.8 mm
Weight	approx. 2,700 g

Index

9

Installation 10
Installation requirements 17
IP address 27, 67, 109

L

Language 65, 76
Live video images 29, 121
Location for installation 17
Loudspeaker 23
Low-Voltage Guideline 6

M

Main functions 14
Maintenance 10
Microphone 23
Monitor 21
Monitor name 45, 85
Motion detector 40, 101
Movement alarm 38
Multicast 68, 69, 111, 112
Multicast connection 68, 110, 111
Multicast Function 13
Multicast port 69, 112
Multi-unicast 68, 69, 111, 112

N

Name 64
Network 21, 67, 109
Network connection 25
NTP server 66, 77

Switched output 22
Symbols 5
Synchronous 65, 76

T

TCP 68, 109
Test 119
Time 77
Time interval 87
TIME server 66, 77
Time signal 66, 77
Time zone 66, 77
Transmission parameter 26
Transmission rate 43, 44, 107, 108
TTL 70, 113
Typographic conventions 6

U

UDP 68, 109
Unicast 68, 111
Unit name 64
Upload file 117
URL 30, 122

V

Version 113
Video sensor 38, 101
Video source 21
Video standard 45, 85