ADPRO V3100 Hybrid Video Security System

ADPRO V3100 Hybrid video security system manual
until version 2.00.xxxx

Xtralis. The sooner you know

ADPRO®
by ◆ xtralis™

SECURITY SOLUTIONS

Table of contents.

Safety instructions

CAUTION

**RISK OF ELECTRIC
SHOCK, DO NOT OPEN!**

CAUTION: TO REDUCE THE RISK OF ELECTRICAL SHOCK, DO NOT REMOVE COVERS. NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

The lightning flash with an arrowhead symbol within an equilateral triangle is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

1 Features

V3100 Hybrid
- Accepts analogue cameras and IP cameras, up to 16 in total. For analogue cameras, one or two A/V cards have to be inserted. Two different A/V cards are available; one with 4 A/V inputs and one with 8 A/V inputs. For IP cameras, a HIPI card will be required. Up to 2 HIPI cards can be installed. Each HIPI card can handle up to 8 IP cameras. A/V cards and HIPI cards can be mixed, but the maximum number of cameras is always limited to 16.
- Down the coax PTZ control through an optional DTC card (for 19 inch model only)
- Real Time compression
- Integrated Web configuration and visualisation

OTB I/O (On The Box Inputs & Outputs)
- Internal Main IO card (MIO) and Extension IO card (EIO), offering 20 balanced inputs, 8 relay outputs and control signals for either VM22A equipment (audio output switcher) or PTZ cameras (RS485 output)
- Second set with Main IO and Extension IO card, doubles the number of inputs to 40 and outputs to 16, and adds an output for PTZ cameras.

Up to 8 Ethernet I/O modules with PoE
- Din Rail installation
- Connects to the local IP network
- 4 to 16 digital inputs per module
- 4 to 16 relay outputs NC/NO per module
- three Led's for operational status of V3100 Hybrid
- Watchdog and sounder

Multi-site V3100 configuration
- Integration of up to 10.000 V3100 video security systems
- Remote video and audio, live video and consultation of recordings
- Compatibility with S3100, Presidium, VSKwin® ,VCP and M3000
- SDK for third party integration

1.1 Technical specifications

Max number of cameras	16 (analogue and IP cameras all together)

Analogue cameras	4, 8, 12 or 16 analogue A/V inputs
	Video
	    PAL or NTSC
	    BNC connectors (1.0 Vp-p; 75 Ohm)
	    Max. Cable length: 350m (with RG59); 610m (with
	    RG11)
	Audio
	    1 input per analogue camera
	    BNC on desktop; screw connectors on 19" model
	    input level: 2.0 Vp-p, 1000 Ohm

IP cameras	up to 16 IP cameras on dedicated IP network. Requires an optional network interface (one HIPI card for 8 IP cameras). Only cameras which can handle H264 video streaming can be used. Cameras with audio input are supported.
Video output	VGA connector; adjustable resolution (up to SXGA)
Video compression	H.264
Analogue cameras Video resolution (PAL)	176 x 144 (QCIF)
	352 x 288 (CIF)
	704 x 288 (2CIF)
	528 x 384 (DCIF)
	704 x 576 (4CIF)
Analogue cameras Video resolution (NTSC)	176 x 120 (QSIF)
	352 x 240 (SIF)
	704 x 240 (2SIF)
	528 x 320 (DSIF)
	704 x 480 (4SIF)
Analogue cameras Images/second	CIF, 2CIF, DCIF (PAL): 25 ips/camera SIF, 2SIF, DSIF (NTSC): 30 ips/camera
	4CIF (PAL): 15 ips/camera 4SIF (NTSC): 15 ips/camera
IP cameras Video resolution and ips	depends on camera type, up to HD resolution
Bandwidth consumption	6 ips CIF/SIF: 70kb/sec, 12ips 4CIF/4SIF: 400kb/sec in optimum quality
Bandwidth	Remotely adjustable: compression, ips and quality A bandwidth limit can be specified
Motion detection	4 zones adjustable per camera
Analogue cameras Audio compression	OggVorbis Codec 16Kbps
IP cameras Audio compression	depends on type of camera
Relay outputs	4 relay outputs on MAIN I/O card; 4 relay outputs on EXTENSION I/O card
Command inputs	8 monitored inputs on Main I/O card; 12 monitored inputs on EXTENSION I/O card
External I/O	Up to 128 inputs and 128 outputs through Ethernet IO modules

System	PC platform - Linux OS
Network protocols	TCP, UDP, TELNET, HTTP, SMTP, RTSP, RTP, NTP...
Application update	Local and remote
Web server	Integrated
COM ports	4 USB interfaces, used for:
	PTZ control (requires an USB to RS485 convertor)
	modem (PSTN or ISDN)
Ethernet	10/100/1000 Base-T, auto detection,
	full duplex, RJ45
Storage	Up to 4 devices (connected through SATA interfaces), following arrangements are possible:
	1 to 4 internal hard disks (500GB to 2TB)
	For the standard 19" model and the desktop model: an external USB DVD writer or USB memory stick. The USB connector is accessible on the back.
	For the small 19" model, an external USB DVD writer or USB memory stick; the USB connector is accessible on the front.
Recording type	Continuous, event (input, motion detection,..)
	Alarm over IP (S3100), Presidium
Remote visualisation	Internet Explorer; Windows XP, Vista, Windows 7
	Server 2003
PTZ cameras	Yes, extensive list available - see chapter 9.1.1
Management	Internet browser (installs a V3100 Client)
	VSKwin software
	M3000 software
Power supply	100~240 VAC, 50/60 Hz (+80% efficiency)
	THE PANEL HAS TO BE CONNECTED TO A 230VAC/16A MAINS OUTLET WITH PROPER EARTH, APPLYING A SEPARATE LOCALLY APPROVED POWER CORD!
Operating temperature	5 ~ 40°C (also read chapter 1.3)
Humidity	20 ~ 93% (non-condensing)
Dimensions	desktop model: without feet: 450 x 135 x 420mm (WxHxD)
	with feet: 450 x 145 x 420mm (WxHxD)
	19" model 445 x 132.5 x 500 (WxHxD) (without brackets)
	19" S (small) 445 x 132.5 x 300 (WxHxD) (without brackets)
	445 x 135 x 300 (WxHxD) (with adhesive rubber feet fixed on the bottom to use it as desktop unit; feet are included)

Limitations on live video streaming

There is one separate video processor for each group of 4 analogue cameras (video in 1-4, 5-8, 9-12, 13-16). If 4CIF resolution is applied to at least one camera within the same group, following limitations will apply to live streaming within this group of cameras (due to processor limits):

number of enabled cameras within the same group	Live streaming quality
1 to 2	no limits
3	select only QCIF or CIF (25 ips); or same quality as recording (hard disk stream)
4	select only QCIF (25 ips) or same quality as recording (hard disk stream)

Live streaming quality is programmed under System > CONNECTIONS > Video inputs > Network: Default Live preset.

1.2 Current consumption

Estimated current consumption depends on which components have been installed and on the system load:

Motherboard	**12W (Asus) / 16W (Intel)**
Processor	**25W (Asus: 45W max.) (Intel DG31 & DG41: 65W max.)(Intel DH55: 73W max)**
4-channel video/audio card	**3.5W**
8-channel video/audio card	**7W**
Western digital RE hard disk	**11W**
Western digital RE2 hard disk	**12W**
Main I/O card	**1W**
Extension I/O card	**1W**
HIPI card (for IP cameras)	**3W**
DTC card	**0,5W**

Example

Motherboard	**12W**
Processor	**25W**
4x WD RE2	**48W**
2x 8-channel V/A card	**14W**
2x I/O card	**2W**
Total	**101W (on secondary)**
On mains input (total current consumption divided by 0.8, which is the efficiency of the PS)	**126W (on primary) (0.53A/230VAC)**

1.3 Fan speed selection

Two large fans are provided to dissipate the heat. The fans have a switch to select the speed: low/medium/fast. To set the fan speed, consult the following table

	ambient temperature <30°C	ambient temperature >30°C
Asus motherboard	low	fast
Intel motherboard (19" model)	medium	fast
Intel motherboard (19" S model)	medium	medium
Intel motherboard (desktop model)	medium	fast

1.4 Extension boards

Type	Description	See datasheet for more details
HIPI	PCI Express extension board for 8 IP cameras	**195x1930**
4ch/8ch DS40xx	PCI extension board for 4 or 8 analogue cameras, including audio inputs	
4ch/8ch DS42xx	PCI Express extension board for 4 or 8 analogue cameras, including audio inputs	
MIO	Main Input Output board: USB extension board, inserted in a free PCI or PCI Express connector	**195x1920**
EIO	Extension Input Output board: extension board, inserted in a free PCI or PCI Express connector and linked to the MIO board, extending the number of inputs and outputs.	**195x1920**
		x= 0 (Dutch), 1 (French), 3 (English)
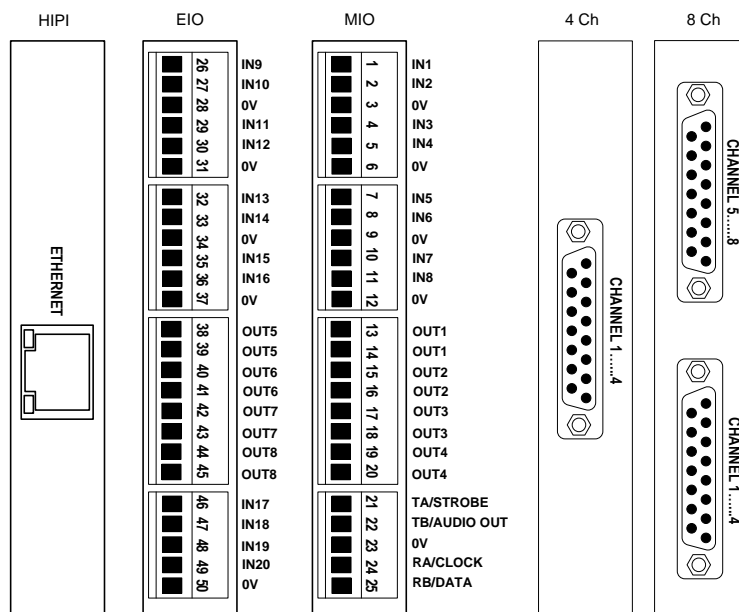
General rules

The desktop model offers 4 extension slots: two PCI Express slots and two PCI slots.
The 19" model offers 6 extension slots.
For Asus M2A-VM, Intel DG31PR and Intel DG41TY motherboard: two PCI Express slots, two PCI slots and two physical slots.
For Intel DH55TC motherboard: three PCI Express slots, one PCI slots and two physical slots.
The HIPI cards can only be inserted in a PCI Express slot.
The A/V cards type DS40xx requires a PCI slot.
The A/V cards type DS42xx requires a PCI Express slot.
MIO and EIO cards can be inserted anywhere (any free slot left unused); the MIO card is connected to an internal USB connector and the EIO card is connected to the MIO card through a flat cable.

2 Desktop model

2.1 With ASUS M2A-VM motherboard (only supports software versions up to V1.01 - V3100FT)

2.1.1 Network/monitor/keyboard

⚠ /dev/ttyU1 is reserved for an external modem
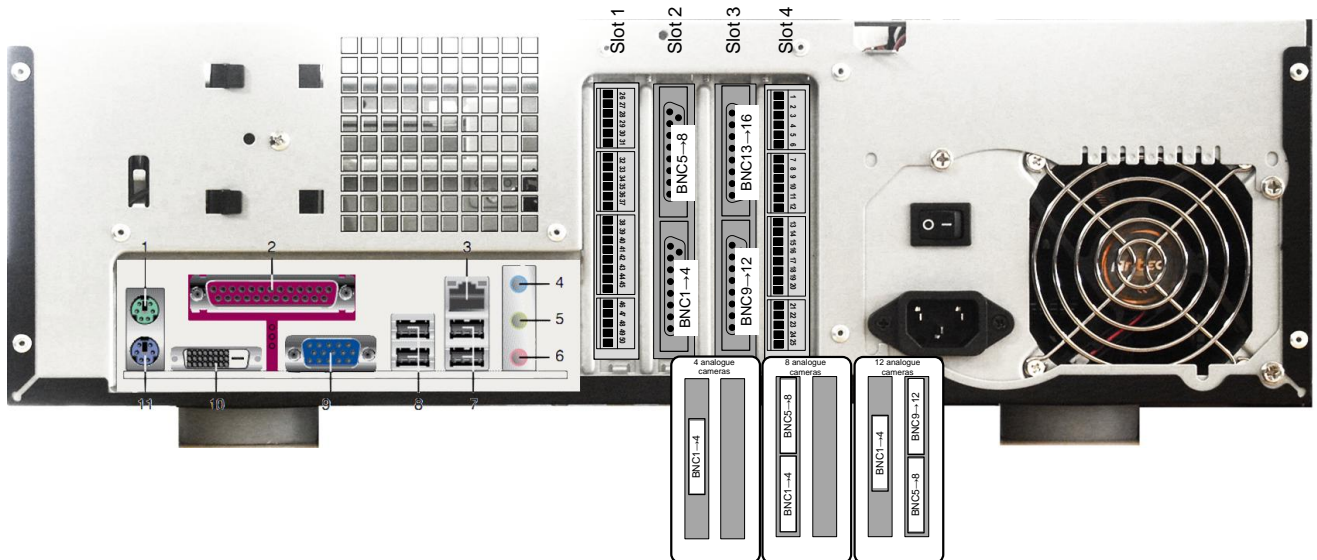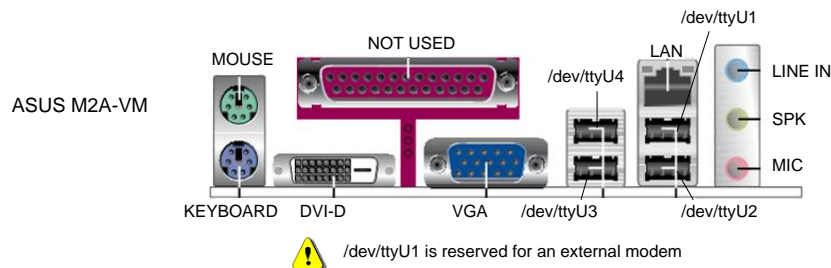
2.1.2 Extensions slots - model with Asus M2A-VM motherboard

Slots	Slot 1	Slot 2	Slot 3	Slot 4
Type	PCI Express	PCI	PCI	PCI Express
	Accepts MIO/EIO	Accepts MIO/EIO/4CH AV or 8CH AV	Accepts MIO/EIO/4CH AV or 8CH AV	Accepts MIO/EIO

2.2 With Intel DG31PR motherboard

2.2.1 Network/monitor/keyboard

INTEL DG31PR

⚠ /dev/ttyU1 is reserved for an external modem

2.2.2 Extensions slots - model with Intel DG motherboard

Slots	Slot 1	Slot 2	Slot 3 (*)	Slot 4
Type	PCI Express	PCI Express	PCI	PCI
	Accepts MIO/EIO or HIPI (ETH1) for 8 IP cameras	Accepts MIO/EIO or HIPI (ETH2) for 8 IP cameras	Accepts MIO/EIO/4CH AV or 8CH AV	Accepts MIO/EIO/8CH AV

(*) put the 4-channel AV card only in this slot!!

2.3 With Intel DG41TY motherboard
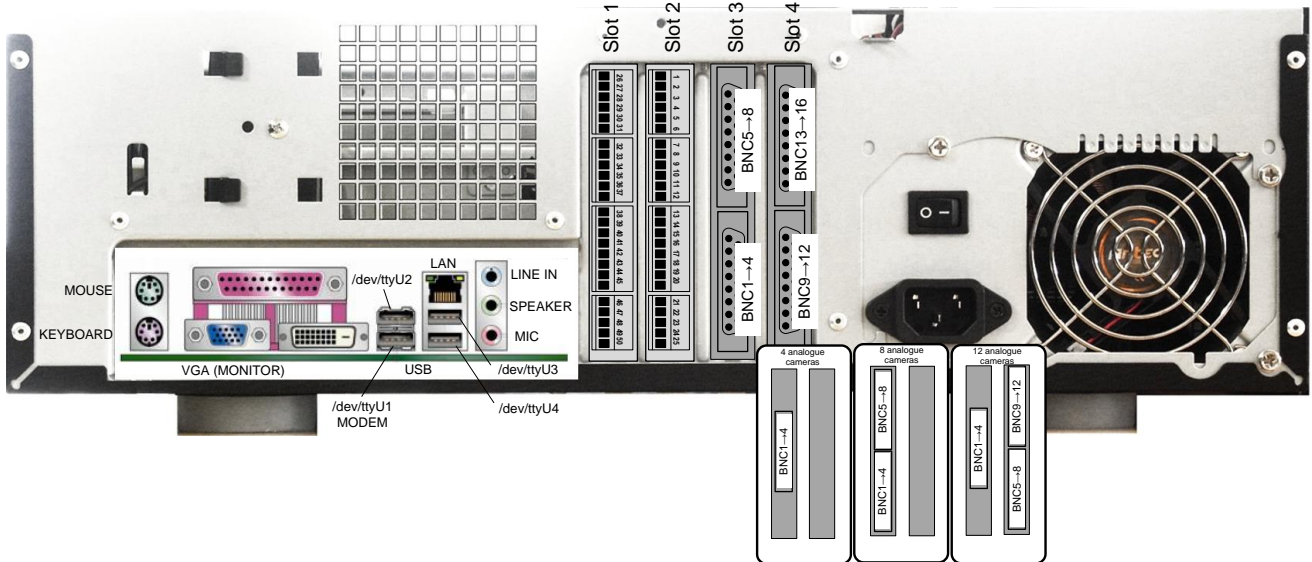
2.3.1 Network/monitor/keyboard

2.3.2 Extensions slots - model with Intel DG motherboard

Slots	Slot 1	Slot 2	Slot 3 (*)	Slot 4
Type	PCI Express	PCI Express	PCI	PCI
	Accepts MIO/EIO or HIPI (ETH1) for 8 IP cameras	Accepts MIO/EIO or HIPI (ETH2) for 8 IP cameras	Accepts MIO/EIO/4CH AV or 8CH AV	Accepts MIO/EIO/8CH AV

(*) put the 4-channel AV card only in this slot!!

2.4   Octopus cable

On the desktop model, video and audio sources apply a specific cable. All inputs use BNC connectors.
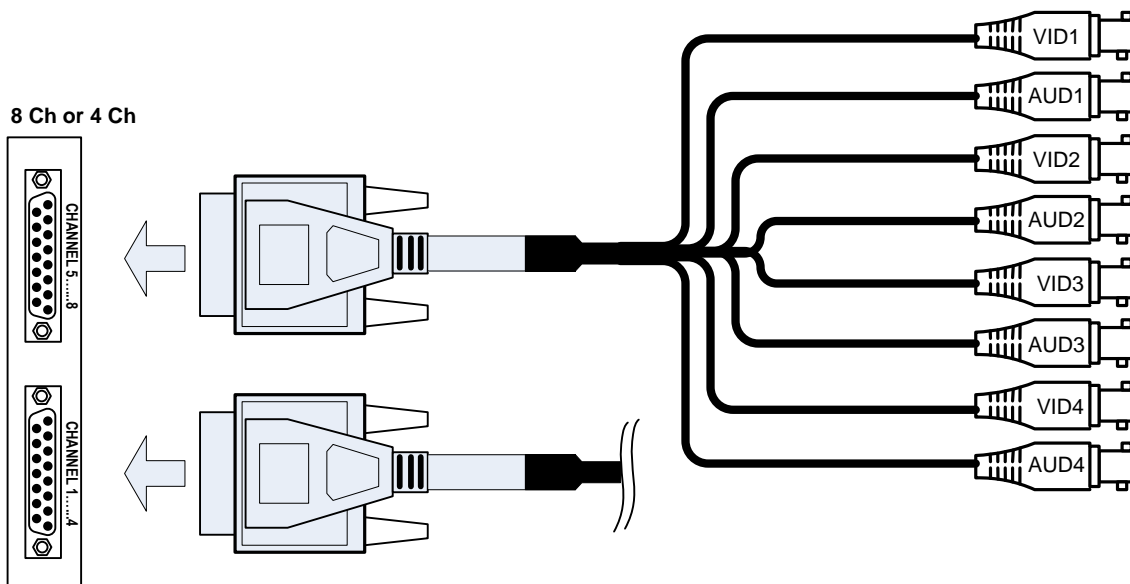
2.4.1 Ferrite Core

The supplied ferrite cores are clipped onto the octopus cables in order to suppress high frequency noise - see figure.
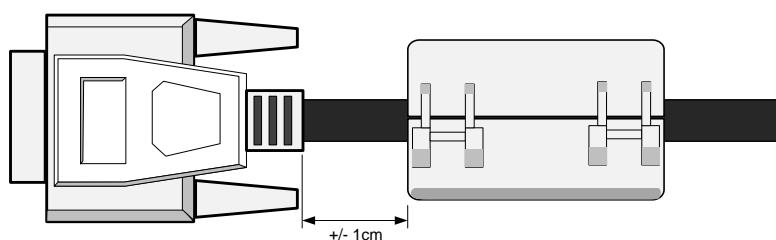
3 19-inch model

3.1 With Asus M2A-VM motherboard (only supports software versions up to V1.01 - V3100FT)
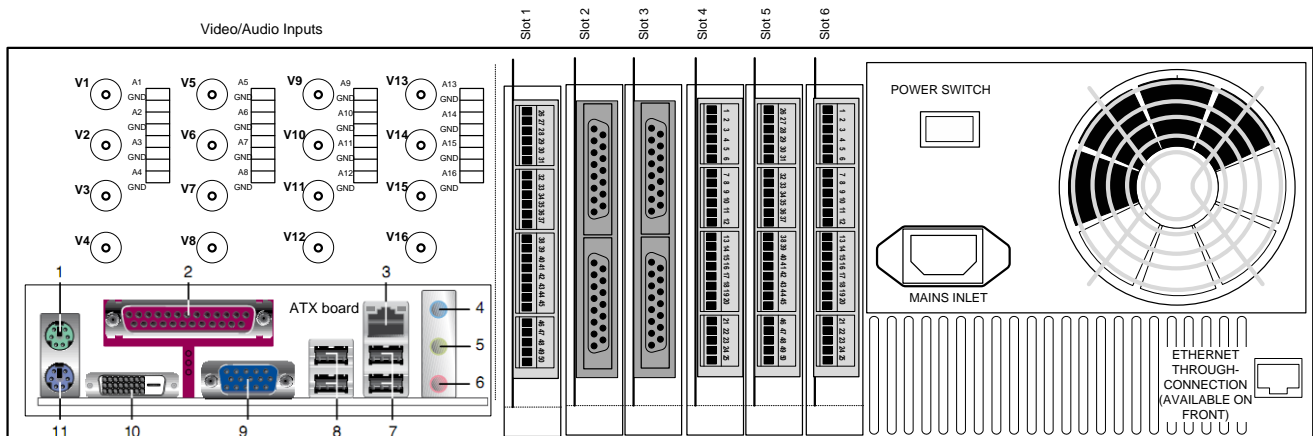
The installation of the 19" model in a rack requires safety precautions regarding the way of disconnection from the mains circuit.

3.1.1 Network/monitor/keyboard

⚠ /dev/ttyU1 is reserved for an external modem

3.1.2 Extensions slots - model with Asus M2A-VM motherboard

Slots	Slot 1	Slot 2	Slot 3	Slot 4	Slot 5 (19" only)	Slot 6 (19" only)
Type	PCI Express	PCI	PCI	PCI Express		
	Accepts MIO/EIO	Accepts MIO/EIO/4CH AV or 8CH AV (lowest camera number (cam1 ► 4/8)	Accepts MIO/EIO/4CH AV or 8CH AV (highest camera numbers (from cam 5/9 ►16)	Accepts MIO/EIO	Accepts EIO	Accepts MIO

3.2 With Intel DG31PR motherboard

3.2.1 Network/monitor/keyboard

INTEL DG31PR

⚠️ /dev/ttyU1 is reserved for an external modem

3.2.2 Extensions slots - model with Intel DG motherboard

Slots	Slot 1	Slot 2	Slot 3 (*)	Slot 4	Slot 5 (19" only)	Slot 6 (19" only)
Type	PCI Express	PCI Express	PCI	PCI		
	Accepts MIO/EIO or HIPI (ETH1) for 8 IP cameras	**Accepts MIO/EIO or HIPI (ETH2) for 8 IP cameras**	**Accepts MIO/EIO/4CH AV or 8CH AV (highest camera numbers (from cam 5/9 ► 16)**	**Accepts MIO/EIO/8CH AV (lowest camera number (cam1 ► 8)**	**Accepts EIO**	**Accepts MIO**

3.3 With Intel DG41TY motherboard
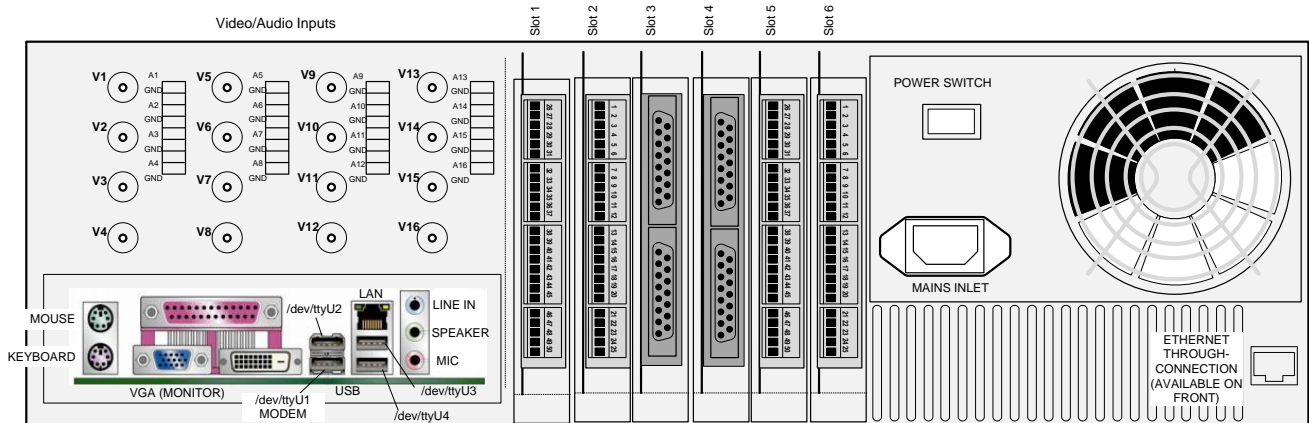
3.3.1 Network/monitor/keyboard

3.3.2 Extensions slots - model with Intel DG motherboard

Slots	Slot 1	Slot 2	Slot 3	Slot 4	Slot 5 (19" only)	Slot 6 (19" only)
Type	PCI Express	PCI Express	PCI	PCI		
	Accepts MIO/EIO or HIPI (ETH1) for 8 IP cameras	**Accepts MIO/EIO or HIPI (ETH2) for 8 IP cameras**	**Accepts MIO/EIO/4CH AV or 8CH AV (lowest camera numbers (from cam 1►4 or 1►8)**	**Accepts MIO/EIO/8CH AV (highest camera number (cam9►16)**	**Accepts EIO**	**Accepts MIO**

3.4 With Intel DH55TC motherboard
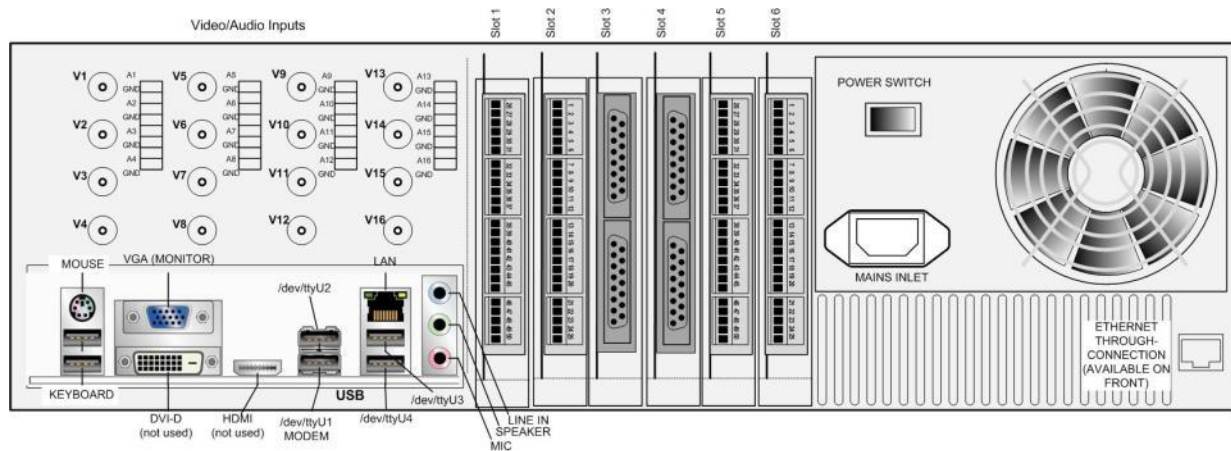
3.4.1 Network/monitor/keyboard
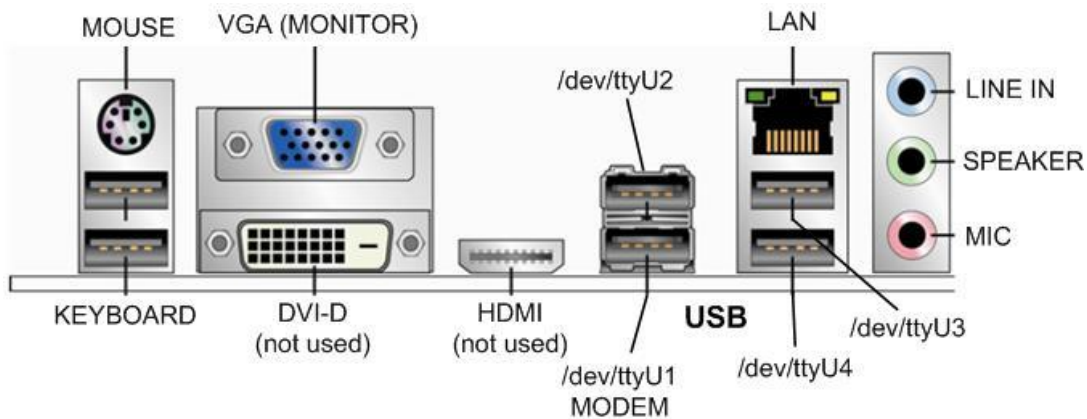
3.4.2 Extensions slots - model with Intel DH55TC motherboard

Slots	Slot 1	Slot 2	Slot 3	Slot 4	Slot 5 (19" only)	Slot 6 (19" only)
Type	PCI Express	PCI Express	PCI Express	PCI		
	Accepts MIO/EIO or HIPI (ETH1) for 8 IP cameras	**Accepts MIO/EIO/4CH AV or 8 CH AV (lowest camera numbers (from cam 1►4 or 1►8)or HIPI (ETH2) for 8 IP cameras**	**Accepts MIO/EIO/4CH AV or 8CH AV**	**Accepts MIO/EIO**	**Accepts EIO**	**Accepts MIO**

Remark

Only the A/V cards type DS42xx are allowed on the Intel DH55TC motherboard

3.5 Video & Audio connections
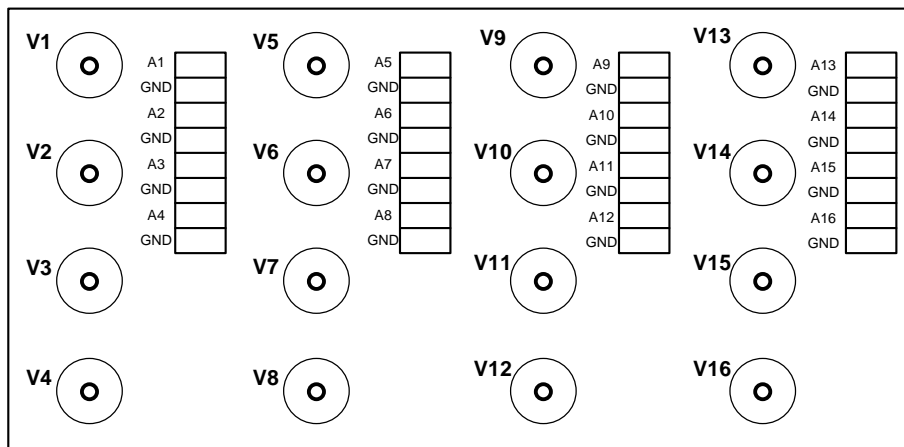
3.6   Front LED indicators (19" version only)

Red LED	⬛	**Storage media activity**
Yellow LED	⚠	**Fault**
Green LED	⏻	**Power on**

Remark

When the 3 LED's are flashing simultaneously this means that the system is busy updating the recordings disc('s). Do not turn the power off in that case!!

3.7   DTC board

The DTC board offers Down The Coax PTZ control. This board is inserted on the back of the audio/video connection board (for 19" model only)

3.8   Mounting brackets

Mounting brackets are included to support the back of the video system. These brackets are fixed to the rail of the rack with two M6 screws. The next illustration is only suggestive, feel free to place the brackets in a way that best fits your needs, but keep in mind that the casing has to be levelled.
The small 19" model does not include mounting brackets (racks may have different depths).

V3100 19' REAR

19" rack
Perforated rail

M6 cage nut

M6 screw

Part 17291200
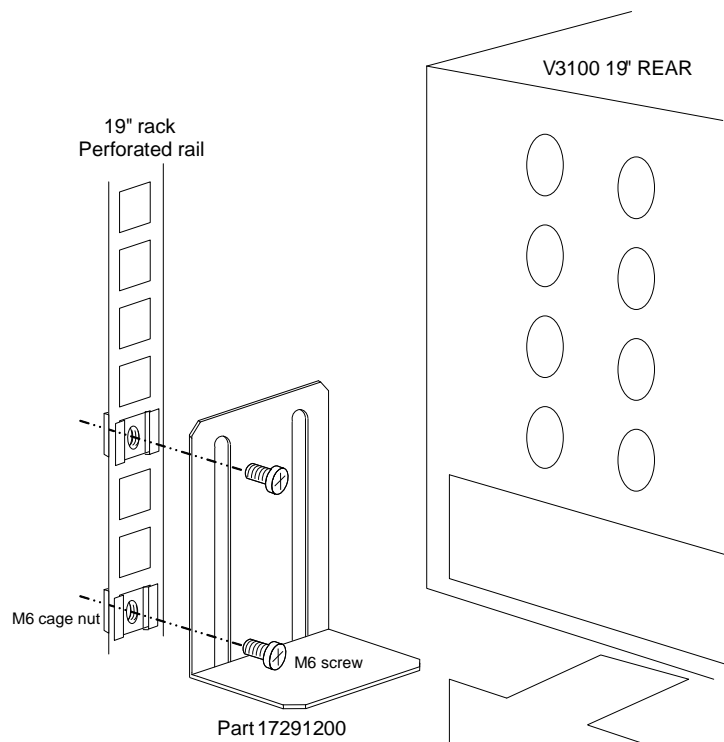
Notice:
Both 19" models (standard and small) always have to be supported, to prevent damage to the rack. For the small 19" model, use universal L shaped brackets (included with the 19" rack)
Standard 19" model: use the included brackets or the universal L shaped brackets

4   Available configurations

V3100 HYBRID Desktop with Intel DG31PR						
Slot number (back view)	1	2	3	4		
Type	PCI Express	PCI Express	PCI	PCI		
Analogue cameras: 4/8/12/16 Ch	EIO 1 / MIO 2	MIO 1	4 ch 1 / 8 ch 2	8 ch 1		
IP cameras: 8/16 Ch	HIPI 1	HIPI 2	EIO 1 / MIO 2	MIO 1		
Hybrid 12 Ch	HIPI 1	EIO 1 / MIO 2	4 ch 1	MIO 1		
Hybrid 16 Ch	HIPI 1	EIO 1 / MIO 2	MIO 1	8 ch 1		

V3100 HYBRID 19" with Intel DG31PR						
Slot number (back view)	1	2	3	4	5	6
Type	PCI Express	PCI Express	PCI	PCI		
Analogue cameras: 4/8/12/16 Ch	EIO 2	MIO 2	4 ch 1 / 8 ch 2	8 ch 1	EIO 1	MIO 1
IP cameras 8/16 Ch	HIPI 1	HIPI 2	EIO 2	MIO 2	EIO 1	MIO 1
Hybrid 12 Ch	HIPI 1	EIO 2	4 ch 1	MIO 2	EIO 1	MIO 1
Hybrid 16 Ch	HIPI 1	EIO 2	MIO 2	8 ch 1	EIO 1	MIO 1

V3100 HYBRID Desktop with Intel DG41TY						
Slot number (back view)	1	2	3	4		
Type	PCI Express	PCI Express	PCI	PCI		
Analogue cameras: 4/8/12/16 Ch	EIO 1 / MIO 2	MIO 1	4 ch 1 / 8 ch 1	8 ch 2		
IP cameras: 8/16 Ch	HIPI 1	HIPI 2	EIO 1 / MIO 2	MIO 1		
Hybrid 12 Ch	HIPI 1	EIO 1 / MIO 2	4 ch 1	MIO 1		
Hybrid 16 Ch	HIPI 1	EIO 1 / MIO 2	8 ch 1	MIO 1		

V3100 HYBRID 19" with Intel DG41TY						
Slot number (back view)	1	2	3	4	5	6
Type	PCI Express	PCI Express	PCI	PCI		
Analogue cameras: 4/8/12/16 Ch	EIO 2	MIO 2	4 ch 1 / 8 ch 1	8 ch 2	EIO 1	MIO 1
IP cameras 8/16 Ch	HIPI 1	HIPI 2	EIO 2	MIO 2	EIO 1	MIO 1
Hybrid 12 Ch	HIPI 1	EIO 2	4 ch 1	MIO 2	EIO 1	MIO 1
Hybrid 16 Ch	HIPI 1	EIO 2	8 ch 1	MIO 2	EIO 1	MIO 1

V3100 HYBRID 19" with Intel DH55TH						
Slot number (back view)	1	2	3	4	5	6
Type	PCI Express	PCI Express	PCI Express	PCI		
Analogue cameras: 4/8/12/16 Ch A/V cards type DS42xx	EIO 2	4 ch 1 / 8 ch1 DS42xx	8 ch 2 DS42xx	MIO 2	EIO 1	MIO 1
IP cameras 8/16 Ch	HIPI 1	HIPI 2	EIO 2	MIO 2	EIO 1	MIO 1
Hybrid 12 Ch	HIPI 1	EIO 2	4 ch 1	MIO 2	EIO 1	MIO 1
Hybrid 16 Ch	HIPI 1	EIO 2	8 ch 1	MIO 2	EIO 1	MIO 1

V3100 HYBRID Desktop with Asus M2A-VM						
Slot number (back view)	1	2	3	4		
Type	PCI Express	PCI	PCI	PCI Express		
Analogue cameras 4/8/12/16 Ch	EIO 1 / MIO 2	4 ch 1 / 8 ch 1	8 ch 2	MIO 1		
V3100 HYBRID Desktop with Asus M2A-VM						
Slot number (back view)	1	2	3	4	5	6
Type	PCI Express	PCI	PCI	PCI Express		
Analogue cameras 4/8/12/16 Ch	EIO 2	4 ch 1 / 8 ch 1	8 ch 2	MIO 2	EIO 1	MIO 1

A sticker below each slot, visible from the back of the appliance, indicates which card has been installed at that position.

5 Setup and configuration of a V3100 system

⚠️ **When installing the V3100 client software on a Vista OS, configure IE as follows: either add the V3100 IP address as Trusted zone (IE > Tools > Internet Options > Security). Example: http://10.0.0.10**
or switch off Protected Mode (IE > Tools > Internet Options > Security)

5.1 V3100 Client software - minimum system requirements

Hardware   Pentium 4; 1.6GHz
                    512MB RAM
                    It is recommended to use a graphics card that is compatible with DirectX7 and that allows YUV surfaces and hardware stretching. If not compatible, the client will force the graphics card to GDI mode, which will increase CPU load!
Software   Windows XP (SP2) or Vista
                    Internet Explorer 7
                    Directx 7

The V3100 Client version 2.xx.xxxx is compatible with the V3100 Hybrid (V2.xx.xxxx) , and backwards compatible with previous V3100 server versions. Some menus will look different depending on the connected video system.

Remark

It is recommended to install the latest drivers of your graphics card!
For NVIDIA cards, check the website http://www.nvidia.com
For ATI cards, check the website http://ati.amd.com

The client can be forced to GDI mode (not recommended). Add the line 'gdi=1' in the [General] section of the 'hydra.ini' file, which is located in your work folder.

5.2   Installation of the client software on your computer

◻ The V3100 is by default on IP address **10.0.0.10**; subnet mask 255.255.255.0. On the computer, change the IP address to a value within the range of the V3100's IP address (example: set computer on IP address 10.0.0.1, subnet mask 255.255.255.0) . To change the IP address on a computer running under Windows XP, click **Start** > **Control Panel** > **Network connections**. Right click **Local Network Connections** and click **Properties**. Select *Internet protocol (TCPIP)* and click **Properties**. Select *Use the following IP address*, and enter the IP address and subnet mask. Click **OK**.

◻ Connect the computer to the V3100 with an RJ45 network cross cable

◻ Open Internet Explorer
◻ type the IP address of the V3100 in the Address bar (including the setup page: example http://10.0.0.10/setup.php)

❑   Click setup.exe

❑   Click **Run**.
❑   On the License Agreement window , click **I Agree**.
❑   Click **Next**

❑   Accept or modify the work directory. Select the appropriate language. Click **Install**.
❑   Upon completion of the installation, click **Close**

Remark

The V3100 Client version 2.xx.xxxx is compatible with the V3100 Hybrid (V2.xx.xxxx) , and backwards compatible with previous V3100 server versions. Some configuration menus, like Video inputs and Recording behaviour, show some differences depending on which V3100 system you are setting up.

If the IP address has been changed and is unknown, read chapter 40.1 to find out the current IP address!

5.3   Launch application in IE

- Open Internet Explorer
- Type the IP address of the V3100 in the Address bar (initial address 10.0.0.10 / subnet mask 255.255.255.0)
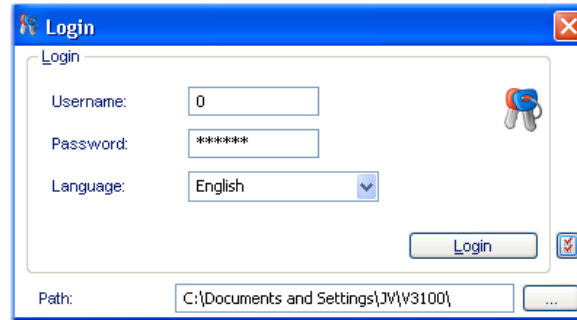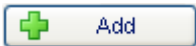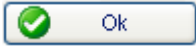
- Type user name and password (initial values 0 and 666777). Change your language, if required. Also mind the work folder (this is the folder in which downloaded and local recordings are stored).
- Click Login.

5.4   Launch V3100 client software in its own window

	On the desktop, double click the V3100 Client shortcut
Settings	Click to modify your language, to change the skin (the appearance of the program) and the folder where stills and footages are stored.
41 49 default	Select a V3100 video system from the list
Connect	Click this button to connect to it.

5.4.1 To add a V3100 system to the list

	On the desktop, double click the V3100 shortcut
Add	Click to add a new video system
Name: v3100 IP Address: 10.0.0.22 RTSP Port: 554 Control Port: 2000 Connection Type: TCP Username: 0 Password: ••••••	Enter a name. Enter the IP address of the V3100. The default IP address is 10.0.0.10. Set RTSP and CTRL ports (use the same ports as specified under the V3100 Ethernet settings - see chapter 7 for more details.) Select TCP or UDP (TCP may be required if the connection goes through routers that block UDP packets) Enter the user number and password of an existing user. Default user is 0, with password 666777.
Ok	Save the added device.

6 Users

System ►GENERAL ►Users	Open the Users menu
Add	The system allows to create 32 users. User 0, 1 and 15 are already defined. User 15 is reserved for the technician. A technician can only log on after authorization from another user. Click Add to add a new user.

User Id 3 Username johan
Type Administrator
Password ••••••••
Confirm password ••••••••
	Enter the user name.
	Type the password (6 digits) and retype it to exclude typing errors. Select the level
	    ◻ Administrator (has all rights)
	    ◻ Technician (adjustable - see chapter User rights)
	    ◻ User (adjustable)
	For secure passwords, tick the option Increased password security. See chapter Solid passwords for more information.

Save	Click **Save**. ⚠ Save your configuration (see page 70)

6.1 Strong passwords

Tick the **Increase password security** option to compel selected users to choose strong passwords

☑	Increased Password Security
0	Maximum password age (0= NA)
3	Nr of invalid login attempts (0= NA)
60	Nr of seconds user is blocked

A strong password has to obey the following rules:
    ◻ it is at least eight characters long
    ◻ it includes upper and lower case letters
    ◻ it contains at least one digit

Optionally, additional limitations can be enforced on their use:
    ◻ a limited time of validity, compelling the user to modify his password regularly
    ◻ a limited number of retries to logon, leading to a temporary blocked account.
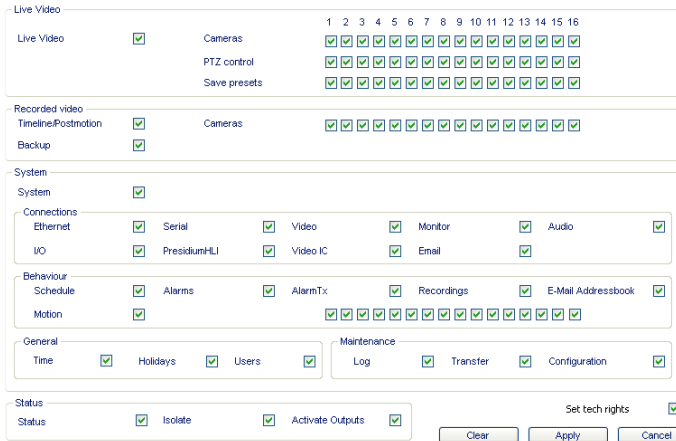
Examples of solid passwords
    Tmus0001cl
    12rtSV5km

Parameter	units	range	default value
maximum password age	days	0 - 120	0
Nr of invalid login attempts		0 - 10	3
Nr of seconds user is blocked	seconds	0 - 3600	60

6.2   User rights

◄ select the cameras that can be watched by the users

◄ select the video recordings that can be reviewed by the users

◄ select which menus/submenus are authorized for this users

HINT

Double-click the title bar to maximize the client window.
Under System, all items that have not been saved yet will be marked by an asterisk: Open the marked item and click Save.

6.3   Authorize the technician

System ► GENERAL ►Users	Open the Users menu
	Click **Enable**.
Save	Click **Save**. ⚠ Save your configuration (see page 70)

7 Network connections

The V3100 video system can be connected to a local network or to a remote network (PPP dial-in network) applying an external modem.
To set up the network connections, open **System ►CONNECTIONS ► Ethernet/PPP**
Click **Save** to apply your new settings.
To store the new settings, open **System ►MAINTENANCE ►Configuration**, select the configuration to overwrite and click **Save**.

Parameter	Description	Default value
Ports		
Telnet port	The IP port used to make a Telnet connection.	23
RTSP port	Real time streaming protocol port: port used by the client software to control the video streaming.	554
Control port	The IP port that is used to exchange information between the V3100 video system and the client software. Eg display status of inputs and outputs. *For RTSP and Control port, use the same values as specified in the V3100 client (Site list window - see chapter 5.4.1.)*	2000
Video IC port	Port used to interconnect with S3100 security panels; allows to start a recording on an alarm detected on the security panel - use the same port as the one selected in the S3100 configurator-.	10002
Network IO port	Port used to poll the NetIO modules	3041
Webserver port	Port used for the http protocol	80
Ethernet		
Mac address	Shows the Mac address from the system	
IP address	Set the IP address. Do not use reserved addresses.	10.0.0.10
Subnet mask	Set the subnet mask	255.255.255.0
Gateway	Set the IP address of the gateway	10.0.0.1
Max Bandwidth	Limits the total bandwidth used by the video system. May affect image rate, but not quality, during live viewing. Value expressed in kbps.	0 (no limit)
Current video data	Shows the current bandwidth usage. Value expressed in kbps.	

IP address filter		
Whitelist Blacklist	To limit access to the V3100 video system, you can either enter a list of authorized clients (whitelist) or a list of non-authorized clients (blacklist option), whichever is the most convenient for your situation (eg if you want to allow all but one computer to connect to the V3100, use the Blacklist). Select the desired option (Whitelist or Blacklist) and click Add to add an IP address to the selected list. Repeat for other addresses.	empty
PPP	configure PSTN or ISDN modem connection	
Enable PPP modem	Check this option if a modem is connected to the video system. The modem is always connected to the first USB port /dev/ttyU1.	not checked
Max bandwidth usage	Limits the bandwidth used by the video system. May affect image rate, but not quality, during live viewing. Value expressed in kbps. **If bandwidth is set to a value below 128 Kbps, audio will be suppressed when watching live images from this site**.	33 (suitable for V34 modem)
PPP username PPP password	Username and password to specify on the client when he makes a connection to the video system	v3100 666777
modem type	Select Generic modem for a PSTN modem or AT modem for an ISDN modem. The modem is always connected to the /dev/ttyU1 USB bus. See chapter 1.1.	
Current video data	Shows the current bandwidth usage. Value expressed in kbps.	
Dial in/out	**V3100 dial in**	
V3100 IP server address	This is the IP address that will be assigned to the V3100 video system when a remote connection has been established by the client.	192.168.10.10
Dial in/out	**V3100 dial out (only for transmission of events and emails)**	
Destination 1 IP	The IP address of the computer to which alarms have to be sent	
Telephone number	Number to dial to connect to the monitoring site	
Destination 2 IP	The IP address of the computer to which alarms have to be sent, in case the first IP address did not answer.	
Advanced	**Includes advanced modem and PPP settings**	
Data rate	Sets the baud rate of the modem	115200

Dial timeout	Sets the time in which a connection has to established with the remote client. If not successful, the video system will retry to make the connection, but the number of attempts is limited - see parameter *Connection retries* . Be aware that a PPP connection over PSTN can easily take 30 to 60 seconds.	35
Answer rings	Incoming call: sets the number of rings before hooking off	0 (do not answer any call)
Initialization string	Hayes command string to initialize the modem	
Connection retries	When the video system cannot connect to the CMS, it will retry for a limited number as specified by this parameter	3
Connection idle timeout	When connected with the CMS, the video system will disconnect if no more data is exchanged, after the delay specified by this parameter.	30
Minimal authentication protocol	Selects the authentication protocol that will be used during the setup of a remote connection: PAP/CHAP/MSCHAPv1/MSCHAPv2.	MS CHAPv1

Also read chapter 13 for connecting to the CMS.

8   Set up an IP camera

For V3100FT Hybrid only (V1.02 or higher)
IP cameras are connected to the HIPI card. Each HIPI card can handle up to 8 cameras
To set up an IP camera:
First connect the camera to the network
Open **System ►CONNECTIONS ►Video inputs**
Choose a free camera number from the list.
Tick the **IP cam** option.
Select camera protocol, IP address, username and password.
Click **Enable**.
Click **Save** to apply your new settings.

Parameters	Description
Type: Enable/disable	Click to enable or disable this video input. If no camera is connected, disable the video input in order to avoid faults.
General: Name	Assigns a description to the camera (max 20 characters)
Overlay: local time ; camera name; site name; text Text brightness	Tick the information that you want to display for that camera Note: camera name and time has to be set in the ip camera, for time select the V3100HYB ip address as the ntp server. Text brightness is an option only available for analogue cameras. This parameter can be set in the settings from the IP camera via the web browser See also emark in chapter 8.2
Network: Default live preset	When watching live images from a camera, the quality can be adjusted at any time by clicking the right mouse button. The initial quality, applied the first time that this camera will be selected, has to be specified with this parameter You can choose between different preset qualities, depending the supported camera. See section 8.2 Supported IP Cameras If you choose Hard disk stream, live pictures will follow the same quality as continuous recordings: so only two streams are required.
[...]	The button next to the Default live stream parameter opens all available quality

	presets. Depending the supported camera quality preset can be modified: Quality settings include:
	fps (frames per second)
	resolution of the picture
	quality: VBR quality (Qlow, Qnormal or Qhigh) or CBR bit rate (20 to 2048 kbps). The higher the value, the better the quality, but the more bandwidth will be.
	Remark: for stable required picture quality, apply VBR.
Network: Only Multicast Multicast address Multicast port	Use multicast protocol (see below) Warning: each camera should be allocated a unique multicast address or multicast port. ***Multicast option:** Multicast is the delivery of information to a group of destinations simultaneously using the most efficient strategy to deliver the messages over each link of the network only once. The 224.0.0.0 to 239.255.255.255 address range is assigned for multicasting on the local LAN.*
PTZ	*Use PTZ control*: Tick this option for a PTZ camera.
Continuous/Pre/Post Quality	Sets the quality for continuous recordings or for pre- and post recording on event recordings. Fps: number of images per second (1 to 25) Resolution: number of pixels per image: depending the supported camera VBR: selects variable bit rate compression: quality can be set in Qlow, Qnormal or Qhigh (lower quality results in smaller file sizes but is lower image quality) or CBR: selects constant bit rate compression: value from 20 - 2048 kbps. Lower values result in higher compression, but with loss of quality. Compression levels will fluctuate in order to obtain a constant flux of data, therefore file size is predictable, but image quality may vary in function of video contents. (VBR, quality Qnormal is recommended) Click OK
Event Quality	Sets the recording quality during event recording.

8.1   Configure and update HIPI card

The HIPI card offers an isolated LAN network (10/100/1000 Mbps on RJ45) to connect IP cameras.
HIPI cards are automatically detected by the V3100 HYBRID system. Each HIPI card is assigned to an
IP address and gateway. All IP cameras connected to it (through a switch) should be in the same IP range.
To configure your HIPI card, open **System ►MAINTENANCE ► HIPI Config**. Select the HIPI card from the
list and click **Configuration**. Enter IP settings and click **Save**.

Mac address	00:d0:3b:00:72:d9
Ip address	192.168.10.135
Subnet mask	255.255.255.0

Save   Cancel

Software update

The current software version loaded in the installed HIPI cards is shown in the lower windows pane. To
update the HIPI card to a newer version, log on as technician, open **System ►MAINTENANCE ► HIPI,**
click and select the file with the latest HIPI software version (file with extension hui). The software
version of the selected file will be shown. Click Transfer to load this version in your HIPI card.

8.2 Supported IP cameras (H.264)

Brand	Model	Protocol	Number of H264 streams
Axis	M1011; M1011-W; M1031-W; M3011; M3014	VAPIX 3.0	2
Axis	P1311; Q6032-E	VAPIX 3.0	3
Axis	P3301; P3301-V; P3343; P3343-V; P3343-VE; P3344; P3344-V; P3344-VE; Q1755; Q7401; Q6032-E; M1054	VAPIX 3.0	4
Sony	SNC-CH140; SNC-CH180; SNC-CH240; SNC-DH140; SNC-DH180; SNC-DH240; SNC-RH124; SNC-RH164	Sony H264	2
Sony	SNC-RS44N; SNC-RS44P; SNC-RS46N; SNC-RS46P; SNC-RS84N; SNC-RS84P; SNC-RS86P	Sony H264	3
Arecont	AV8185 (only from version 2.01.xxxx)	Arecont panoramic	2
Arecont	AV3105 (only from version 2.01.xxxx)	Arecont	4

Note for the Axis Q7401 encoder:
Possibilities: Video in; Audio in over IP; Audio out via V3100Hybrid; all inputs; all outputs; PTZ (download of the compatible camera manufacturer driver is required).

For an updated list of IP cameras, supported by your current version, including the number of video streams they can handle, open **System ►Transfer ► Camera Definition ► Get**. A text file with extension 'def' will be created in the V3100 folder.
For an updated list of IP cameras supported by the Adpro V3100HYB, check the document "Supported IP cams Adpro V3100HYB" at the "www.xtralissecuritysolutions.com" site.
IP cameras can simultaneously transmit 2 to 4 video streams, each with its unique quality, depending on their performance. Video streams are handled as follows:
A video stream is used for event recording
A video stream is used for continuous recording
A video stream is used for analytics (motion detection, tamper detection, quad alarm, postmotion, loitering,video out, …) (CIF resolution on 5ips or better)
A video stream is used for live viewing.
If your model only supports 2 streams, only event recording quality can be selected freely. Continuous recording will use the video stream intended for analytics, and live video quality can only be set to one of the two available video streams.
If your model supports 3 video streams, continuous and event recording quality can be set independently, but the quality of live video can only be set according to one of the 3 available video streams.

Exceptions: Arecont does not support the analytics stream, so motion, quad alarm, postmotion, loitering and video out is not supported.

Remark

Before using the IP camera, you need to set up a static IP address in the camera, create a password for user 'root', and set the date and time. For date and time you can adjust the time manually, or you can select NTP to the V3100 Hybrid.
See the manual provided with the camera for more information on setting up the IP address, password and clock.

IMPORTANT

The main Ethernet connection on the V3100 video system and the Ethernet connections of the HIPI cards have to be assigned to separate IP ranges.
IP cameras can be connected to any of the available networks.
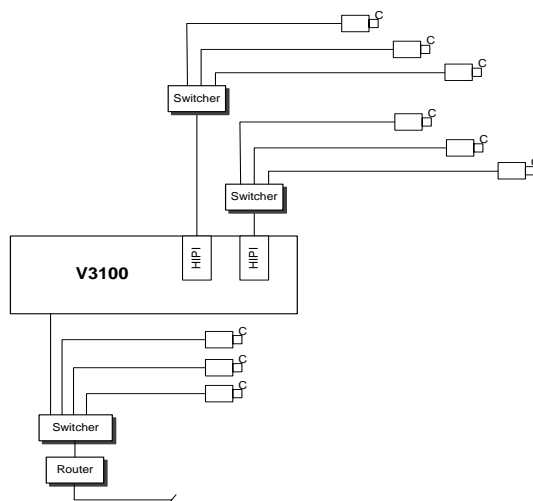
9 Set up an analogue camera

To set up an analogue camera, open **System ►CONNECTIONS ► Video Inputs**
To add a new camera, choose a free camera number from the list.
Tick the *Analogue* option, choose the BNC video input to which the camera has been connected, enable the camera and enter all parameters.
Click **Save** to apply your new settings.
To store the new settings, open **System ► MAINTENANCE ► Configuration Management**, select the configuration to overwrite and click **Save**.

⚠️ If you don't see cameras, check if your license has been correctly loaded (see page 94).

Parameters	Description
Type: Enable/disable	Click to enable or disable this video input. If no camera is connected, disable the video input in order to avoid faults.
General: Name	Assigns a description to the camera (max 20 characters)
Overlay: local time ; camera name; site name; text Text brightness	Tick the information that you want to display for that camera Choose the colour of the characters. Select a colour that guarantees the best readability
Network: Default live preset	When watching live images from a camera, the quality can be adjusted at any time by clicking the right mouse button. The initial quality, applied the first time that this

	camera will be selected, has to be specified with this parameter You can choose between 10 preset qualities. If you choose Hard disk stream, live pictures will follow the same quality as recordings: so only one video codec is required.

[...]	The button next to the Default live stream parameter opens all available quality presets (max 10). Each quality preset can be modified: Quality settings include:
	    fps (frames per second)
	    resolution of the picture QCIF, CIF, 2CIF, 4CIF , DCIF
	    quality: VBR quality (Qlow, Qnormal or Qhigh) or CBR bit rate (20 to 2048 kbps). The higher the value, the better the quality, but the more bandwidth will be required.
	Remark: for stable picture quality, apply VBR.

Network: Only Multicast Multicast address Multicast port	Use multicast protocol (see below) Warning: each camera should be allocated a unique multicast address or multicast port. ***Multicast option:*** *Multicast is the delivery of information to a group of destinations simultaneously using the most efficient strategy to deliver the messages over each link of the network only once. The 224.0.0.0 to 239.255.255.255 address range is assigned for multicasting on the local LAN.*
PTZ	*Use PTZ control*: Tick this option for a PTZ camera. *Protocol*: Select the PTZ protocol (depends on the used camera model - read the camera instructions for more information -). *Address:* Specify the identification number of the PTZ camera (the same number that was programmed on the camera - read the camera instructions for more information -). For Down the Coax protocols, the identification number is not required.
Continuous/Pre/Post Quality	Sets the quality for continuous recordings or for pre- and post recording on event recordings. **Only for the V3100 Hybrid version!** Fps: number of images per second (1 to 25) Resolution: number of pixels per image: QCIF, CIF, 2CIF, 4CIF, DCIF VBR: selects variable bit rate compression: quality can be set in Qlow, Qnormal or Qhigh (lower quality results in smaller file sizes but is lower image quality) or CBR: selects constant bit rate compression: value from 20 - 2048 kbps. Lower values result in higher compression, but with loss of quality. Compression levels will fluctuate in order to obtain a constant flux of data, therefore file size is predictable, but image quality may vary in function of video contents. (VBR, quality Qnormal is recommended) Click OK
Event Quality	Sets the recording quality during event recording. Only for the V3100 Hybrid version!

9.1.1 PTZ settings

9.1.1.1 Serial PTZ
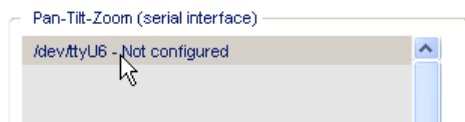
System ► CONNECTIONS ► Pan-Tilt-Zoom	Open the PTZ menu
Pan-Tilt-Zoom (serial interface) /dev/ttyU6 - Not configured	Select the appropriate serial interface (*)
Edit	click **Edit**.
Properties Protocol: JVC Name: /dev/ttyU6 Baudrate: 9600 Stopbits: 1 Databits: 8 Parity: even Flowcontrol: none Hide unknown protocol settings: ☑ [Apply] [Cancel]	Select the PTZ protocol (**) that corresponds to the used cameras. Set baud rate, stop bits, data bits, parity and flow control according to the used equipment. These settings are normally preset according to the selected PTZ protocol standards. Uncheck the Hide unknown protocol settings only if you want to set up the port beyond standards.
Apply	
Save	

(*) Remark

Check chapter 2 and 3 to locate the external USB ports, used for PTZ control, at the rear of both the desktop and 19" model. In all cases, a convertor will be needed to convert USB to RS232 or RS485.
For internal MIO cards, the PTZ control ports can be selected as /dev/ttyU6 (for the first MIO CARD) and /dev/ttyU8 (for the second MIO card, which is only possible on a 19 inch model)

IMPORTANT

Telemetry station manufacturers provide a variety of models and features. The ADPRO V3100HYB provides PTZ control ability for a number of popular models and where possible, supports the features provided by the manufacturer. Due to the number of models available on the commercial market, details of connection and use for individual models have been provided on the web site.

WEBSITE: For information regarding connection and features of specific telemetry station, please refer to the literature section on the website at:
http:// www.xtralissecurity.com and select in Information Type: Adpro Tech Tips
or contact yours nearest distributor for a copy.

9.1.1.2 *List of available PTZ protocols*

(**)The following PTZ protocols are supported (for V3100 Hybrid version only; on V3100FT, only the protocols marked *** are available):

360vision	**Dennard 2050**	**Mark Mercer**	**Sensormatic Controller**
Amux IEC	**Diamond**	**Molynx**	**Sensormatic**
Baxall ZMX	**Digital Sprite**	**Molynx Variable Speed**	**Speeddome VII**
Baxall ZTX	**Elbex**	**Pacom**	**Siemens**
BBV	**Ernitec**	**Panasonic**	**Synectics**
Burle	**GPS**	**(conventional)**	**Unidex**
COHU	**Grundig**	**Panasonic (new)**	**VCL**
Conway	**Harris**	**Pelco D (***)**	**Vicon**
CS Lilin	**JVC (***)**	**Pelco P (***)**	**Video Switch**
CS Lilin2	**Kalatel (***)**	**Samsung**	**Visca (***)**
		Sensormatic	**Vista Powerdome**

9.1.1.2.1 *USB converters*

Device	Order number	Pin assignment
USB to RS-485 converter	20415490	**RS-485 Pin assignment (DB9 male connector)** **1 485-** **2 485+** **5 GND**
USB to RS-232 converter	**20415510**	**RS-232 Pin assignment (DB9 male connector)** **1 Received Line Signal Detect** **2 Received Data** **3 Transmitted Data** **4 DTE Ready** **5 Signal Ground** **6 DCE Ready** **7 Request to Send** **8 Clear to Send** **9 DCE Ready** **RS-232 is only used on some PTZ cameras, such as the Philips G3 Autodome camera. Cable length is limited to 50 feet (or higher : cable capacitance should be kept below 2500 pF)!**

9.1.1.2.2 Serial PTZ on MIO card - wiring
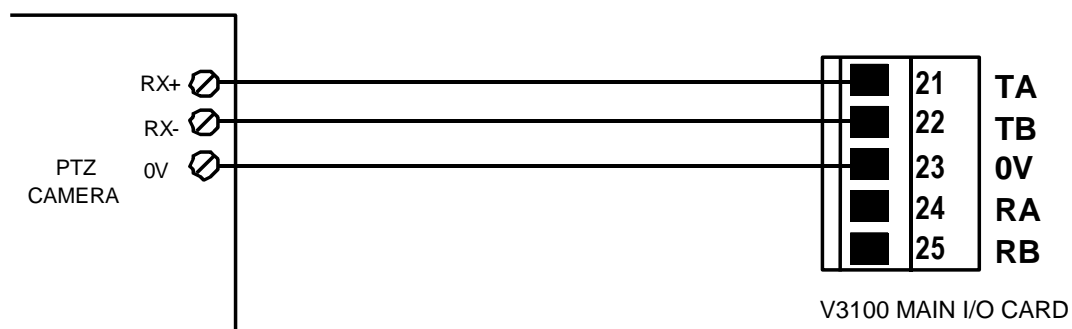
Note:
Connecting PTZ-cams from the same RS485 on to multiple V3100 -> change the strap settings on the MIO to
RS485 – 2 wires(PTZ): (RS485 cable length max.1200m)
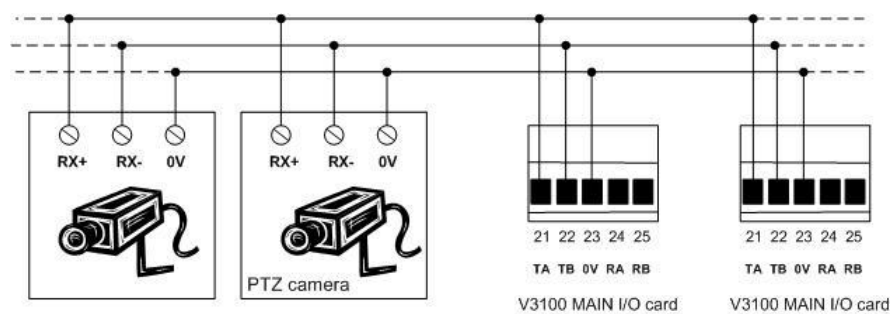
9.1.1.3 DTC PTZ

System ► CONNECTIONS ► Pan-Tilt-Zoom	Open the PTZ menu
	Check if DTC card is present.

Remark

The current software version loaded in the DTC card is shown in the list. To update the DTC card to a newer version, log on as technician, open **System ►CONNECTIONS ► Pan-Tilt-Zoom**. Click **Update** and locate the file dtc.img with the latest software version. Click **Apply**.

The following PTZ protocols are supported on the DTC card:
Down-the-Coax (Pelco Ext.)
Down-the-Coax (Baxall Std.)
Down-the-Coax (Baxall Alt.)
Down-the-Coax (BBV coax)

9.1.2 Video input termination (75 Ohms/High impedance)

Only available on the latest version of the 8 channel video cards! Jumpers JP1 - JP8 select whether the corresponding video input is terminated with 75 Ohms (strap placed) or not (strap removed).

9.1.3 Audio in

System ► CONNECTIONS ►Audio	Open the Audio menu
Camera 1	All audio inputs that are connected have to be checked.
Send Live audio stream	(Available from version 1.02.0030). Gives the possibility to enable/disable live streaming of audio for the selected cameras. It can be useful to disable audio streaming over low bandwidth connections. Notice: in previous versions, audio was automatically disabled when the bandwidth was lower than 128kbps.
Audio server port 3000 Audio server mode TCP Full duplex mode ☐	Audio server port: selects the port (default 3000) that will be used to transmit audio from the client to the video system. Audio server mode: selects the protocol (UDP or TCP; UDP by default) that will be used to transmit audio from the client to the video system. Full duplex mode: forces full duplex mode when ticked.
Save	

9.1.3.1 Recommended microphones

Crown all-weather microphone PZM-11LLWR

Specifications
technology: electret condenser
designed for outdoor use : -10 ~ +60°C
power supply 12~24VAC or DC
current consumption 4mA
dimensions 11.5x7x4.4mm

Wiring diagram
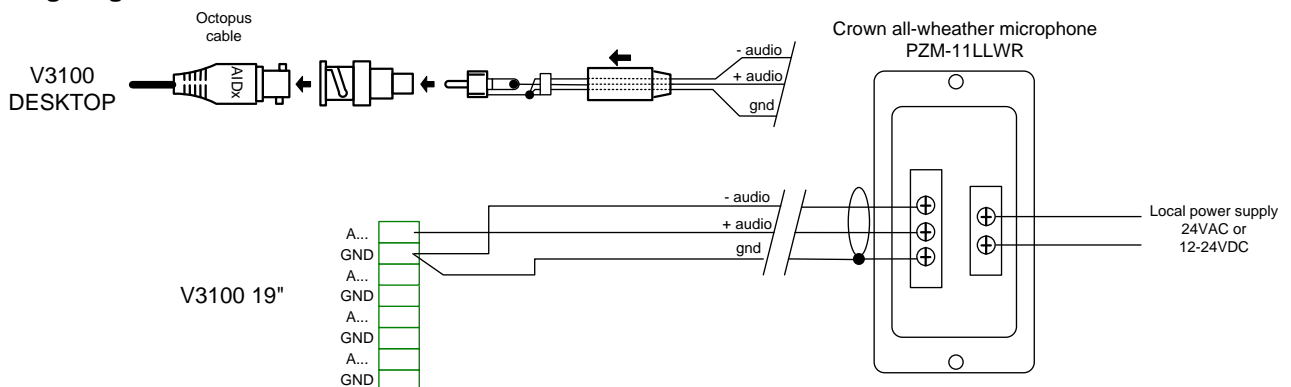
ADPRO microphones IMUSTD; IMUPIR; IMUTEMP

Specifications
IMUSTD: standard microphone
IMUPIR: microphone with PIR appearance
IMUTEMP: microphone with heat detector appearance
designed for indoor use
power supply 12VDC from regulated PS
current consumption 200~400mA

Wiring diagram
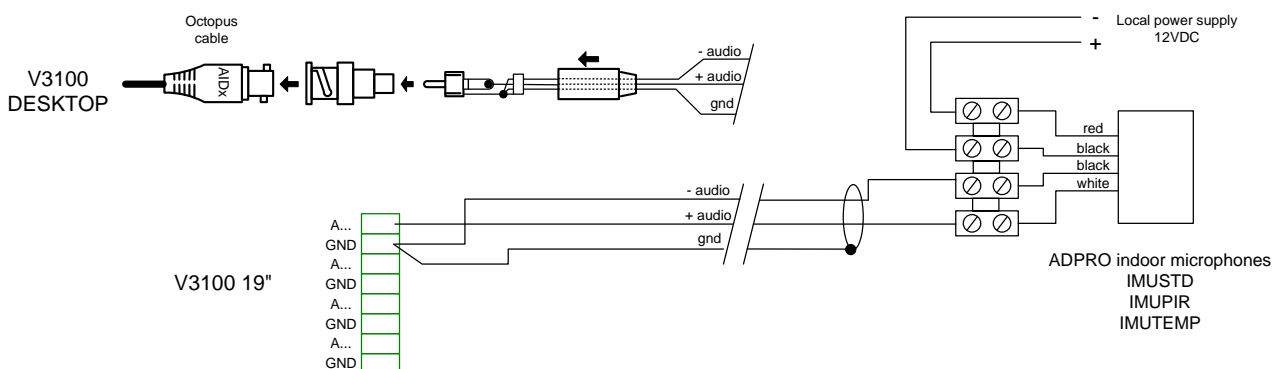
ADPRO Audio unit

Specifications

Audio module : microphone and speaker, for V3100

Can be connected directly to the V3100 system since it includes a built-in amplifier. The amplifier can be bypassed (switch S1) if an external amplifier is available (for instance if connected to the VM-22A)

Separate volume setting for microphone and speaker.

Microphone amplifier adjustable up to +47dB (220x) (line level)

Output impedance 100 Ohm, AC coupled.

Loudspeaker amplifier adjustable from 0 to +27db (22x)

Suited for line level outputs.

Input impedance with amplification: 10 KOhm

Input impedance without amplification: 8 Ohm.

Max loudspeaker output = 2W.

Power supply 10 … 14VDC (I idle = 6mA, I peak = 500mA)

Dimensions : 110 x 110 x 55mm

Weight : 420g

Color : white

temperature range: 0°C ... 40°C, max. humidity 93% (non-condensing)

Product number: 49841020

Wiring diagram
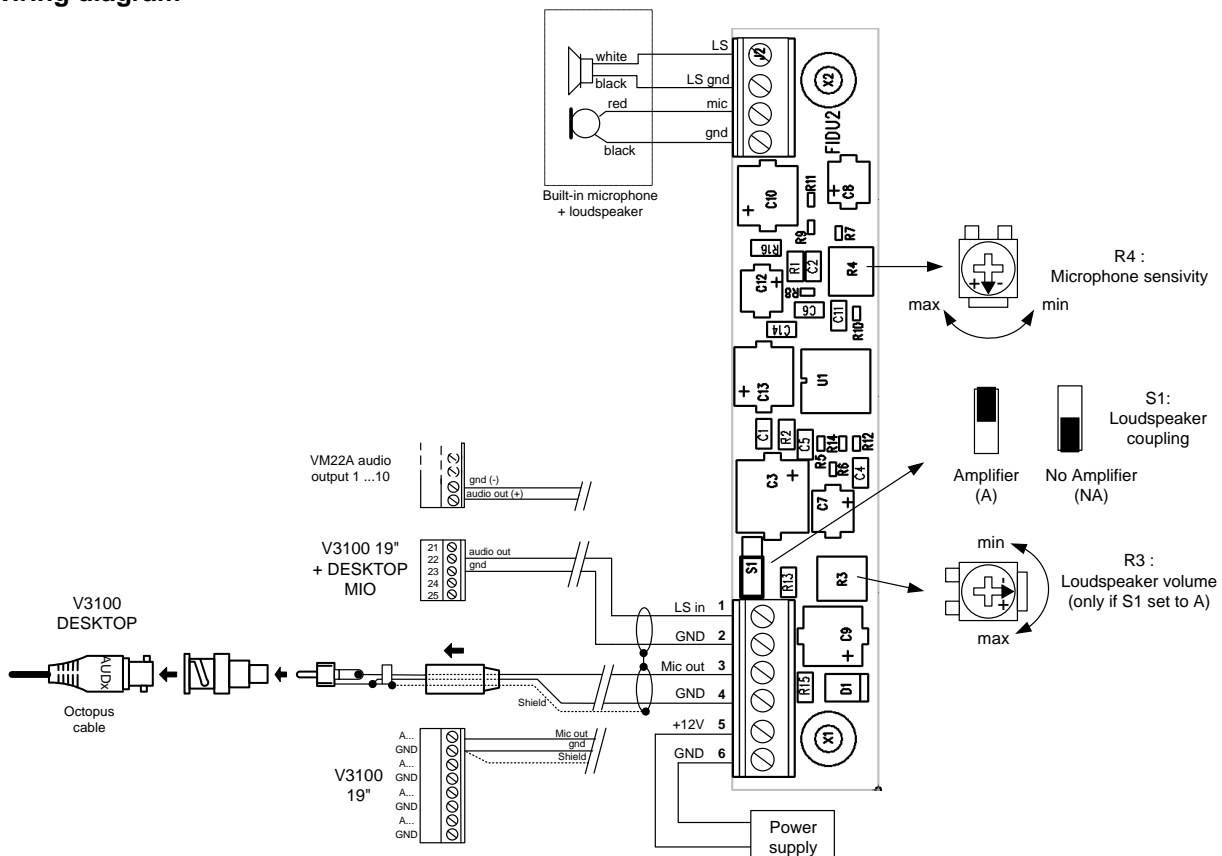
9.1.4 Audio Out

Audio outputs are available on one or two VM22A units, connected in cascade. Unit 0 is controlled by the Main IO card that is inserted in the video system and drives the loudspeakers 1 to 10. Unit 1 connects to the first unit through the Extension IO loop connecter, and drives loudspeakers 11 to 20. See the ADPRO VM22A manual for more information.

Each loudspeaker is associated to a the camera with the matching number. Loudspeaker 17 to 20 are not selectable since the video system is limited to 16 cameras.

To talk back to a person on the remote site, launch the client software, open the Live page, select a camera by clicking on its image, click the [🎤] button and keep it pressed down, and start talking through the microphone that is connected to the MIC input of the computer. (-see remark-)

The following parameters pertain to the audio output (click System > Connections > Audio to modify):

Audio server port: selects the port (default 3000) that will be used to transmit audio from the client to the video system.

Audio server mode: selects the protocol (UDP or TCP; UDP by default) that will be used to transmit audio from the client to the video system.
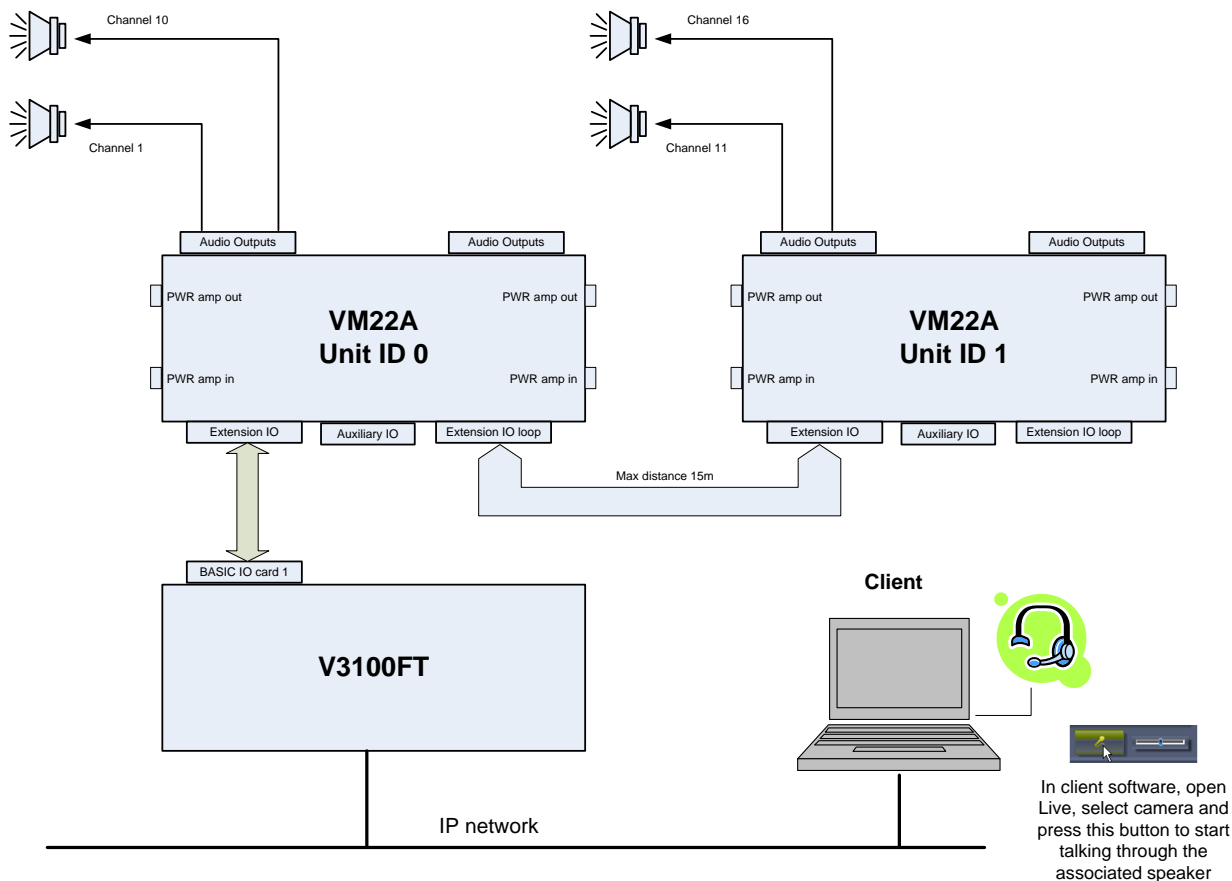
If only one loudspeaker is needed on the site, you can do without the VM22A switch. Just connect an amplified loudspeaker to the audio out plug of the motherboard (the green 2.5" jack).

Remark:

If talk-back does not work, check following points:

1) routers may block UDP packets (use TCP or configure the router to allow UDP packets)
2) use the PC headphones plug instead of the PC microphone plug.
3) the microphone on your computer is not correctly configured:

Windows XP
1. In the **Control Panel**, select **Sounds and Audio Devices**.
2. Now select the **Voice** tab in the **Sounds and Audio Devices Properties** dialog box.
3. The **Default device** should be the device you want to use for the v3100
4. Next, click the **Volume** button under the **Voice recording** heading.
5. Adjust the vertical volume slide on the **Mic Volume** or **Line Volume** depending on which device you are using.
6. Click **OK** twice and close the **Control Panel**.

7. Test with **Sound Recorder**

Windows Vista
1. Open **Control Panel,** click on **Hardware and Sound.**
2. When you are in the **Hardware and Sound** list, click on **Sound.**
3. In the **Sound** window you have three tabs: click on the **Recording** tab.
4. Once you are in the **Recording** tab, right click on the microphone device you just plugged in and select the *'Set as Default Device'* option.
5. Now, to test and see if it really works, tap the microphone with your finger a few times. In the **Sounds** window, the empty lines next to the default microphone should fill up with a green color.

9.1.4.1 Connection of VM22A audio switch to V3100 system

A specific cable is used to connect the VM22A to the V3100 video system. On the back of the V3100 video system, locate the MAIN IO card. Make the connections as indicated below, respecting the colours.

VM22A Extension IO

Pin 1: white
Pin 9 : shield
Pin 14 : red
Pin 7: green
Pin 15: yellow or black

Cable reference number 21760700
Length = 1m

yellow or black — STROBE
white — AUDIO OUT
shield — 0V
red — CLOCK
green — DATA

V3100FT MAIN IO CARD
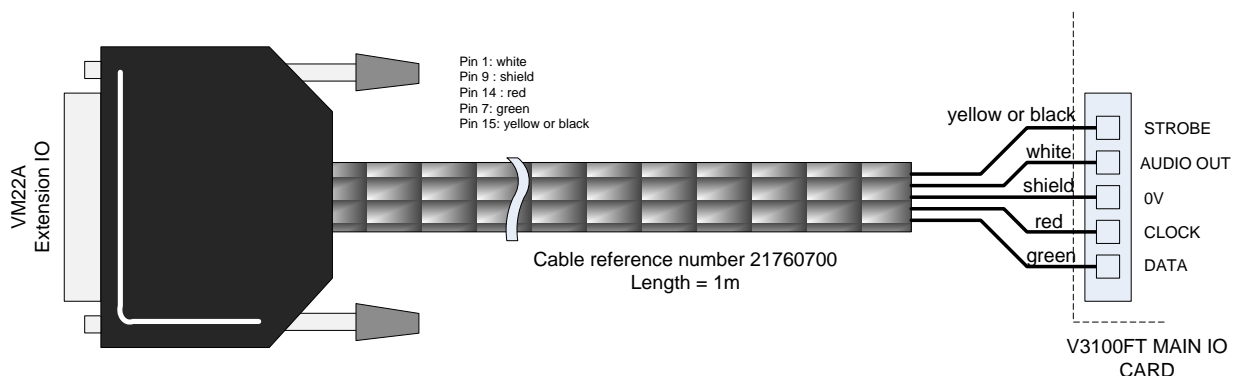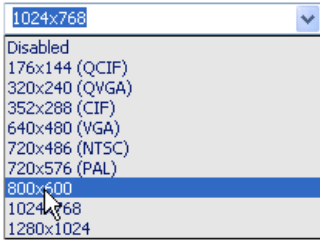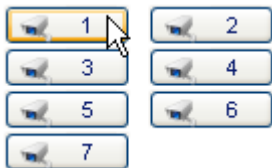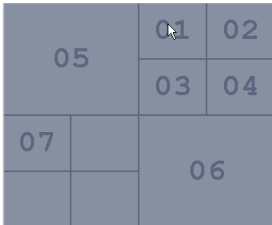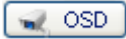
10 Video monitor

10.1 Connection

A monitor can be connected to the SVGA interface of the V3100 server.
For a video monitor, an external VGA to PAL convertor can be used.

10.2 Configuration

System ► **CONNECTIONS ►** **Monitor**	Open the Matrix menu
1024x768 Disabled 176x144 (QCIF) 320x240 (QVGA) 352x288 (CIF) 640x480 (VGA) 720x486 (NTSC) 720x576 (PAL) 800x600 1024x768 1280x1024	Select the monitor resolution.
	Select the desired virtual matrix layout.
1 2 3 4 5 6 7	Click to select a camera
05 01 02 03 04 07 06	In the virtual matrix preview window, click in the box where the selected camera image has to appear. Right click to remove the associated camera. Warning: each camera can only be assigned once!
OSD	If OSD (On Screen Display) is needed (indication of camera name), click the OSD button and click on the camera image in the virtual matrix preview window to turn on OSD for that camera. The indication OSD appears in the left upper corner.
	Repeat previous steps for all other cameras that should be displayed on the video matrix.
Save	Click **Save** to apply the new settings.

11 Configure OTB IO (Main IO & Extension IO card)

All connected OTB IO cards are automatically detected by the V3100 server. To configure these inputs and outputs, click **System ►CONNECTIONS ► I/O**
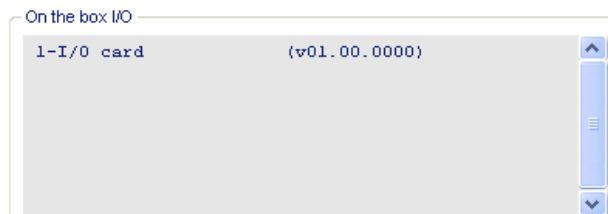
The illustrated list reveals the presence of a MIO card.

Select a card from the list and click **Configuration**.

Configure inputs as NEOL/SEOL/DEOL with NO or NC contact. (see data sheet)

Configure outputs for Normal or Failsafe operation (if Failsafe, the relay is actuated during idle state and drops when the output is driven. The advantage is that Failsafe outputs will drop to 'alarm state' when the power supply is cut).

Configure outputs for Watchdog operation. All selected outputs will be driven when the OTB IO card is not polled anymore by the video system for a specific time as selected by parameter Timeout (output activation), displayed in the same screen. This condition may occur of the V3100 video system hangs. Timeout values are specified in seconds. Optionally, the buzzer can be activated during a watchdog alarm.

A watchdog alarm can also generate a reset (if the Timeout -reset activation- option has been selected), after a specified delay. With this option, the video system will actually restart.

Click **Save** to activate the new settings.

11.1 Update MIO card

The current software version loaded in the installed MIO card is shown in the list. To update the MIO card to a newer version, log on as technician, open **System ►CONNECTIONS ► I/O,** click and select the file with the latest MIO software version (file usbio.img). The software version of the selected file will be shown. Click **Update** to load this version in your MIO card.

11.1.1 OTB IO address range

Main IO and Extension IO: set 1

I2560	IO card absent	C2560	green led (*)
		C2561	yellow led (*)
		C2562	red led (*)
		C2563	buzzer (*)
I2576 / I2596	alarm/tamper on input 1	C2576	output 1
I2577 / I2597	alarm/tamper on input 2	C2577	output 2
I2578 / I2598	alarm/tamper on input 3	C2578	output 3
I2579 / I2599	alarm/tamper on input 4	C2579	output 4
I2580 / I2600	alarm/tamper on input 5	C2580	output 5
I2581 / I2601	alarm/tamper on input 6	C2581	output 6
I2582 / I2602	alarm/tamper on input 7	C2582	output 7
I2583 / I2603	alarm/tamper on input 8	C2583	output 8
I2584 / I2604	alarm/tamper on input 9		
I2585 / I2605	alarm/tamper on input 10		
I2586 / I2606	alarm/tamper on input 11		
I2587 / I2607	alarm/tamper on input 12		
I2588 / I2608	alarm/tamper on input 13		
I2589 / I2609	alarm/tamper on input 14		
I2590 / I2610	alarm/tamper on input 15		
I2591 / I2611	alarm/tamper on input 16		
I2592 / I2612	alarm/tamper on input 17		
I2593 / I2613	alarm/tamper on input 18		
I2594 / I2614	alarm/tamper on input 19		
I2595 / I2615	**alarm/tamper on input 20**		

(*) status of front LED indicators and buzzer!

Main IO and Extension IO: set 2

I2624	IO card absent	C2624	green led (**)
		C2625	yellow led (**)
		C2626	red led (**)
		C2627	buzzer (**)
I2640 / I2660	alarm/tamper on input 1	C2640	output 1
I2641 / I2661	alarm/tamper on input 2	C2641	output 2
I2642 / I2662	alarm/tamper on input 3	C2642	output 3
I2643 / I2663	alarm/tamper on input 4	C2643	output 4
I2644 / I2664	alarm/tamper on input 5	C2644	output 5
I2645 / I2665	alarm/tamper on input 6	C2645	output 6
I2646 / I2666	alarm/tamper on input 7	C2646	output 7
I2647 / I2667	alarm/tamper on input 8	C2647	output 8
I2648 / I2668	alarm/tamper on input 9		
I2649 / I2669	alarm/tamper on input 10		
I2650 / I2670	alarm/tamper on input 11		
I2651 / I2671	alarm/tamper on input 12		
I2652 / I2672	alarm/tamper on input 13		
I2653 / I2673	alarm/tamper on input 14		
I2654 / I2674	alarm/tamper on input 15		
I2655 / I2675	alarm/tamper on input 16		
I2656 / I2676	alarm/tamper on input 17		
I2657 / I2677	alarm/tamper on input 18		
I2658 / I2678	alarm/tamper on input 19		
I2659 / I2679	**alarm/tamper on input 20**		

(**) front LED indicators and buzzer are always controlled by set 1!

12 Network IO modules

For detailed information, consult datasheet 19531880.

12.1 Network IO modules: address range

The V3100 can be linked to 8 network IO modules. These modules are connected to the local network, and powered by PoE or with a local adapter. Each IO module receives a number from 1 to 8 when it is added to the list, and offers 4 inputs and 4 outputs. Each IO module can be extended with 1 to 3 submodules, to obtain up to 16 inputs and outputs.
Network IO modules also have LED indicators and a buzzer which are controlled by the V3100.
Network IO modules return fault conditions on 4 separate addresses. Faults include:

- module is starting up
- module has been reset
- module power fault
- module not present
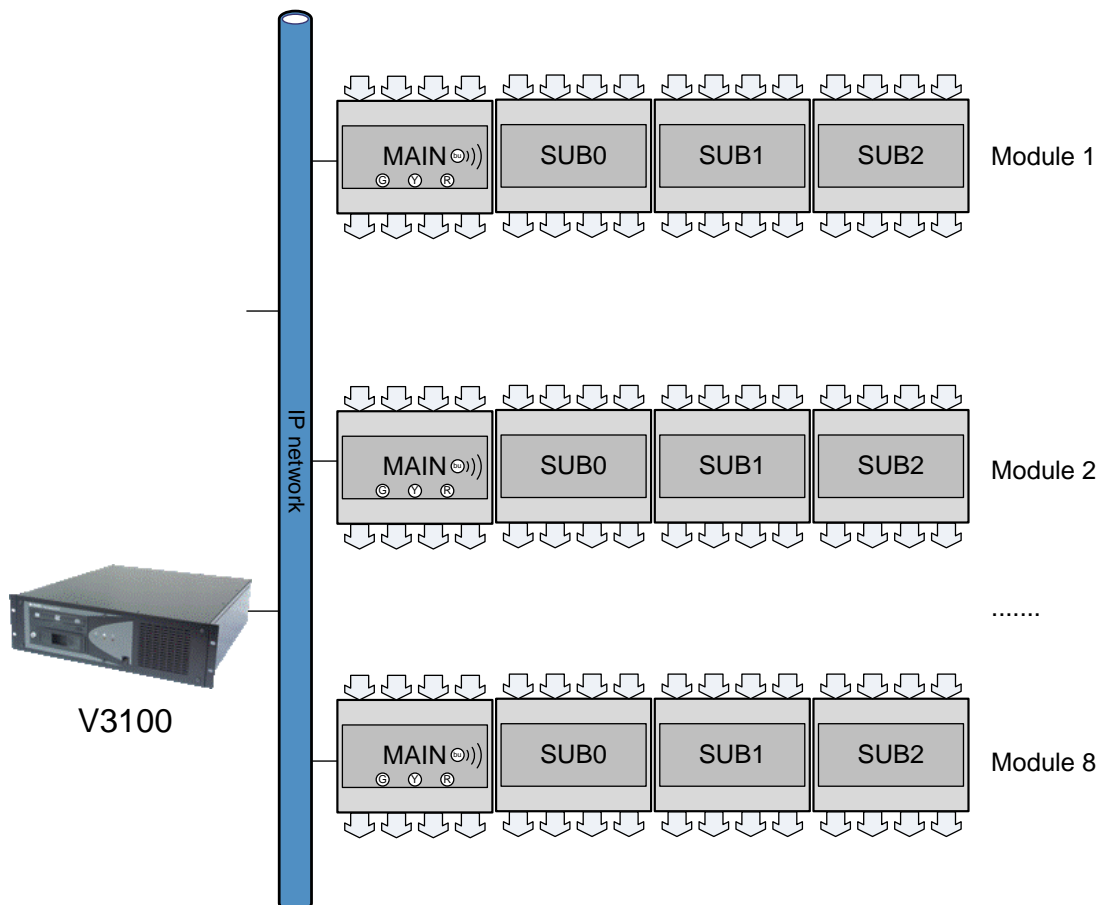
12.1.1 Network IO INPUT / OUTPUT ADDRESSES

INPUTS

address

alarm	1	2	3	4	5	6	7	8	
1	2050	2114	2178	2242	2306	2370	2434	2498	**MODULE POWER LOSS**
2	**2051**	**2115**	**2179**	**2243**	**2307**	**2371**	**2435**	**2499**	**MODULE PRESENCE FAULT**
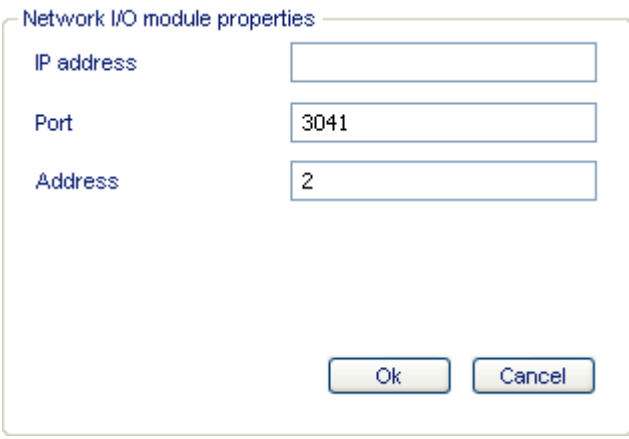
							digital inputs									
adr	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	**16**
1	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	**2095**
2	2144	2145	2146	2147	2148	2149	2150	2151	2152	2153	2154	2155	2156	2157	2158	**2159**
3	2208	2209	2210	2211	2212	2213	2214	2215	2216	2217	2218	2219	2220	2221	2222	**2223**
4	2272	2273	2274	2275	2276	2277	2278	2279	2280	2281	2282	2283	2284	2285	2286	**2287**
5	2336	2337	2338	2339	2340	2341	2342	2343	2344	2345	2346	2347	2348	2349	2350	**2351**
6	2400	2401	2402	2403	2404	2405	2406	2407	2408	2409	2410	2411	2412	2413	2414	**2415**
7	2464	2465	2466	2467	2468	2469	2470	2471	2472	2473	2474	2475	2476	2477	2478	**2479**
8	2528	2529	2530	2531	2532	2533	2534	2535	2536	2537	2538	2539	2540	2541	2542	**2543**
	main module				**sub0 module**				**sub1 module**				**sub2 module**			

OUTPUTS
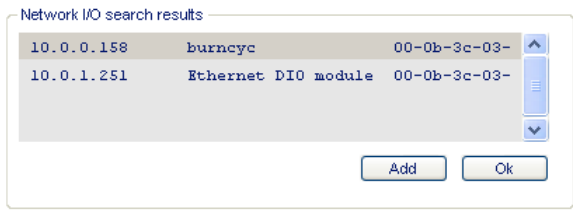
address

OUT	1	2	3	4	5	6	7	8	
0	2048	2112	2176	2240	2304	2368	2432	2496	**GREEN LED**
1	2049	2113	2177	2241	2305	2369	2433	2497	**YELLOW LED**
2	2050	2114	2178	2242	2306	2370	2434	2498	**RED LED**
3	**2051**	**2115**	**2179**	**2243**	**2307**	**2371**	**2435**	**2499**	**BUZZER**

							relay outputs									
adr	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	**16**
1	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	**2095**
2	2144	2145	2146	2147	2148	2149	2150	2151	2152	2153	2154	2155	2156	2157	2158	**2159**
3	2208	2209	2210	2211	2212	2213	2214	2215	2216	2217	2218	2219	2220	2221	2222	**2223**
4	2272	2273	2274	2275	2276	2277	2278	2279	2280	2281	2282	2283	2284	2285	2286	**2287**
5	2336	2337	2338	2339	2340	2341	2342	2343	2344	2345	2346	2347	2348	2349	2350	**2351**
6	2400	2401	2402	2403	2404	2405	2406	2407	2408	2409	2410	2411	2412	2413	2414	**2415**
7	2464	2465	2466	2467	2468	2469	2470	2471	2472	2473	2474	2475	2476	2477	2478	**2479**
8	2528	2529	2530	2531	2532	2533	2534	2535	2536	2537	2538	2539	2540	2541	2542	**2543**
	main module				**sub0 module**				**sub1 module**				**sub2 module**			

12.2 Add a network IO module with known IP address

System ►CONNECTIONS ► I/O	Open the I/O configuration menu.
Add	Click **Add** to add a network IO interface.
	Enter IP address, port number (the port to which the IO module is listening) and order number (1 - 8) of each IO module) Click **OK**.
Save	Click **Save**.

12.3 Search for network IO modules on the local network

System ►Connections ► I/O	Open the IO configuration menu.
Search	Click **Search** to search for present network IO interfaces
	Select a network IO module from the list.
	Click to add the selected IO module to the list. Click **OK**.
Save	Click **Save**.

12.4 Modify settings of a network IO module
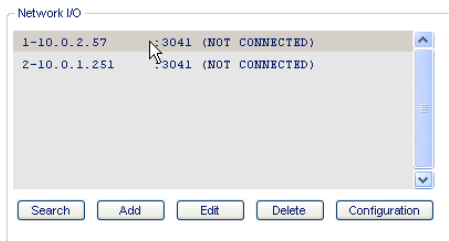
System ►Connections ► I/O	Open the IO configuration menu.
	Select a Network IO module from the list.
Edit	Click **Edit** to change the settings of the selected IO module
	Change IP address, port number, and order number (a number from 1 to 8).
OK	
Save	Click **Save**.

12.5 Program network inputs and outputs

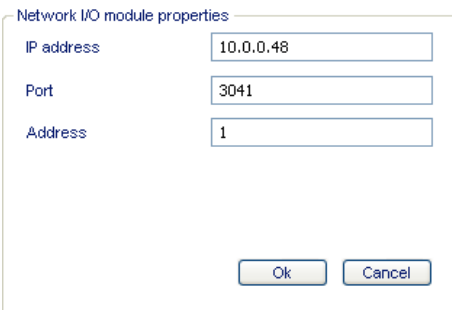|	
System ►Connections ► I/O	Open the IO configuration menu.
Network I/O 1-10.0.2.57 :3041 (NOT CONNECTED) 2-10.0.1.251 :3041 (NOT CONNECTED) [Search] [Add] [Edit] [Delete] [Configuration]	Select a Network IO module from the list.
Configuration	Click **Configuration** to program: inputs : NO or NC outputs: failsafe
General Name Ethernet DIO module	Modify the name of the network IO module
Network I/O protocol Port 3041 Timeout *(Sec)* 60	Modify the port of network IO module (has to be the same port as the one selected when the IO module was added)
NetFinder protocol Port 3040	Modify the port used by the Netfinder tool (an external tool used to program the IP address of the IO modules and to update their software, you can find this tool on the CD delivered with the system or download it form www.xtralissecurity.com
Digital inputs 1 2 3 4 Inverted ☐ ☐ ☐ ☐	Invert inputs (NC). If unticked, the input is configured as NO.
Digital outputs 1 2 3 4 Fail safe ☐ ☐ ☐ ☐ Watchdog ☐ ☐ ☐ ☑	Select outputs that will be used for: failsafe operation: relay is inverted (activated when idle) watchdog outputs: activated on communication time-out (network IO protocol time out)
Save	Click **Save**.

13 Alarm transmission

To set up main and backup alarm transmission channels, open **System ► BEHAVIOUR ► Alarm transmission**
Modify settings and click **Save** to apply your new settings.
To store the new settings, open **System ► MAINTENANCE ► Configuration**, select the configuration to overwrite and click **Save**.

Parameter	Description	Default
activate alarm transmission	no transmission: transmission is disabled primary Ethernet: the video server connects to the CMS through a LAN connection primary PPP: the video server connects to the CMS through a dial-up connection (applying an external modem connected to USB port /dev/ttyU1) primary Ethernet/secondary PPP: the video server connects to the CMS through a LAN as main connection and a dial-up network as backup connection. The backup connection is used when transmission on the main connection is unsuccessful.	no transmission
CMS ID	Sender signature (this number has to match the number programmed in the alarm management software)	3141593
V3100 Unit ID	Site identification number (number from 1 to 9999). This number has to be unique for each video system that sends alarms to the same computer.	0
Site name	Name of the site. This information is required if connecting to Central Video software. The site name can also be displayed on the camera images.	
Connection timeout	Disconnects automatically if no more data is exchanged for the specified duration.	3 (seconds)
Hold time	Specifies a delay, expressed in seconds, before re-attempting to make a connection when a connection error occurred. If 0, the system will not try again (only recommended if a backup connection is available).	600
Settings for the main and backup connection		
Line test (site pulse)	None Interval: sends a life check message each x minutes Start time: sends a life check message each day at the specified moment. `H020017-10-08 09:07 + Z000 0034 SYST 001 SYSTEM        |PRIMARY LIFECHECK   |0a000229305f0049` Warning: for dial-up networks, a high value is recommended: eg 1 day.	
Destination IP address and destination IP port	When the alarm transmission is active, a primary IP address and IP port is required. This is the IP address of the computer that will receive alarms. Optionally, a second IP address can be provided. Alarm reception requires an appropriate alarm management software on the computer; eg VSKwin, M3000, VCP	

| Auto-negotiate IP address | Only for a dial-up network: IP addresses are assigned by negotiation: the CMS will assign IP addresses to the V3100, during the time of the communication. This option is required if the CMS uses the Video Central Platinum software. | not selected |

14 Arm/disarm video system

Events on the V3100 can be classified in the following groups:
- system messages: these are internal events, eg hard disk error, power supply fault, communication errors
- camera messages: video signal missing, contrast level too low, motion detected, ...
- network inputs: alarm inputs connected to external NetIO modules
- inputs, alarm inputs connected to the OTB IO card, accessible at the back of the video system
- virtual inputs: events detected on interconnected FOXnet security panels.

Events have to be handled in a different way when the building is left unattended. Therefore, the building has to be armed. Arming can be done in four ways:
- automatically on a time table
- by a user, who has to activate a switch
- by the CMS (execution of the DN command line in TELNET - hint: type HE for syntax help)
- using the SDK

To define the behaviour of an alarm input during armed and disarmed state, modify the alarm profile that is assigned to this input.

14.1 Arm/disarm schedule

To modify the arm/disarm schedule, open **System ► Behaviour ► Arm/disarm Schedule**.
By default, the system will be disarmed during all days.
To arm the system automatically for a given period, select the *Armed* entry mode and drag the mouse pointer over the desired period. The selected period will be indicated with a red bar.
Click **Save** to apply your new settings.
To store the new settings, open **System ► MAINTENANCE ►Configuration Management**, select the configuration to overwrite and click **Save**.
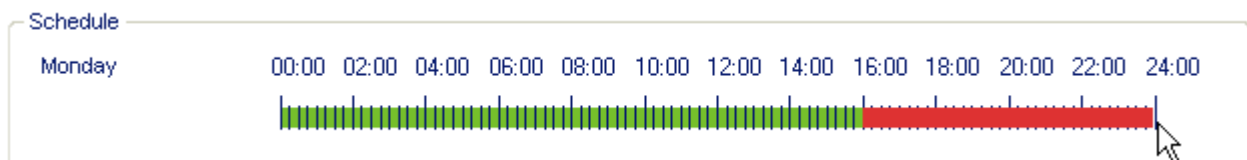
HINT

To zoom in on a part of the day, position the mouse pointer on the time scale, press the left mouse button and drag to the right (drawing a blue line). Release the mouse button.
To zoom out, position the mouse pointer on the time scale and press the right mouse button.

Mark a period by dragging the mouse pointer over the time scale.	
Releasing the mouse button will zoom in on the marked period	

Warning

The video system will be armed/disarmed at the beginning of the programmed time zone. A switch can always force the system to another state.

14.2 Arm/disarm switch

To define an arm/disarm switch , open **System ►Behaviour ►Input/output behaviour**:
Select an input or network input from the list. Apply a filter to reduce the list.
Check the **Arm/disarm input** option.
Click **Save** to apply your new settings.
To store the new settings, open **System ►MAINTENANCE ►Configuration Management**, select the configuration to overwrite and click **Save**.

15 Alarm inputs

To define alarm inputs, open **System ► Behaviour ► Input/output behaviour**
Since the number of inputs and outputs is very long, it will be easier to apply a filter to limit your selection within a specific group of inputs/outputs.
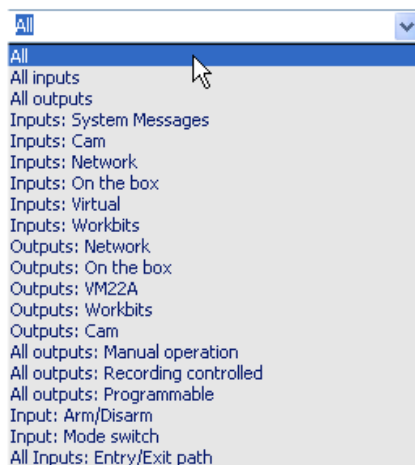
- ◻ **On the box**: inputs and outputs on the OTB IO cards, with alarm and tamper state, 20 inputs on the first Main IO and Extension IO card, 20 inputs on the second Main IO and Extension IO card
- ◻ **Network**: inputs/outputs on Network IO modules, connected to the Ethernet.
- ◻ **System Messages**: internal events and states, such as hard disk error, modem error, ...
- ◻ **Cam**: camera alarms, including no video alarm, contrast error, motion alarm, ...
- ◻ **Virtual**: events detected on the interconnected S3100 alarm panel. Virtual inputs are selected by alarm profile (see FCU configurator for details)
- ◻ **Arm/Disarm**: select all inputs that have been programmed for arming/disarming
- ◻ **Mode switch**: select all inputs that have been programmed for mode switching
- ◻ **Entry/Exit path**: select all inputs that have been programmed within the entry/exit path (delayed events)

Modify the alarm parameters of the selected input and click **Apply** to apply your new settings.
To store the new settings, open **System ► MAINTENANCE ►Configuration**, select the configuration to overwrite and click **Save**.

Parameter	Description
Name	enter a name (20 characters) to describe the alarm
Profile	select an alarm profile. The alarm profile defines the behaviour of the input.
Alarm Hold time	Sets the minimum time of activation of the alarm (in seconds). End-of-alarm will only be detected after this delay. This parameter will suppress a flow of events caused by a rattling alarm contact.
Cameras	select the relevant cameras (cameras which may reveal important information on the event)
Camera view style	select which video resources are available to the CMS: Live video: the CMS can open a connection with the site to watch live images on the relevant cameras Quad alarm: the CMS can retrieve pictures from the video system (3 stills are stored on the video system, taken from the relevant camera, with an adjustable interval) (*) Duress: both live images and pictures are available (*) to adjust the time between successive pictures, open System ► Connections ► Video inputs and modify the parameter (Quad image interval) (value expressed in seconds).
Arm/disarm input	This input will be used to arm and disarm the video system (arms the system when activated)
Mode selection input	This input will be used to switch the video system between mode 1 / mode 2. The mode of operation affects the behaviour of video recording.
Input in entry/exit path	Set this option if this alarm has to be delayed. The delay is specified by the parameter Entry/exit hold time. On entry to the building, the video system has to be disarmed within this time to avoid alarms on the delayed inputs. On exit, the building has to be abandoned within this time counting from the moment when it is armed.

16 Alarm profiles (behaviour of alarm transmission)

To modify the alarm transmission of inputs, modify its associated alarm profile: open **System ► BEHAVIOUR ► Alarm profiles**.
Select the alarm profile from the list and click **Edit**.
Click **Save** to apply your new settings.
To store the new settings, open **System ► MAINTENANCE ► Configuration**, select the configuration to overwrite and click **Save**.

Parameter	Description
profile name	enter a name (20 characters) to describe the alarm profile
active sensor output	If checked, triggers I201 if active. Input I201 can be used to inform the user that some sensors are still active (used to avoid arming the system while sensors are still in alarm).
operational state	disarmed: inputs are only monitored when system is disarmed armed: inputs are only monitored when system is armed armed/disarmed: inputs are always monitored
alarm transmission behaviour	primary transmission: send event to CMS via the main connection backup transmission: send event to CMS via the backup connection (if available). The backup connection will only be used if transmission on the main connection failed tx end of alarm: send message when input return to normal state Repeat alarm: send reminders at regular times (each 15 minutes) if alarm is sustained

TIP

To activate an output on I201, open **System ►BEHAVIOUR ► Input/Output behaviour**, select an output (check Network outputs to see only the physical outputs) and choose *Programmable*. Select I201 (Active sensor) as input. All sensors, assigned to an alarm profile that triggers I201, have to return to idle state in order to reset the selected output. When this condition is fulfilled, the user can arm the video system without triggering a false alarm.

17 Mode of operation (behaviour of recordings)

The video system can be switched to 4 different modes of operation.
Each mode affects the behaviour of the video recorders.
Mode selection is done:

- automatically on a time table
- by a user, who has to activate an input
- by the CMS (execution of the IP command in TELNET - type HE for syntax help)
- using the SDK

To create a video recording that behaves different in function of the selected mode, read the chapter *Creating a recording on event*.
To select an input for mode switching, read chapter *Alarm profiles*

17.1 Mode schedule

To modify the mode schedule, open **Settings ► BEHAVIOUR ► Recording Mode Schedule** .
By default, the system will be operating in mode 1 during the whole schedule.
To define a period where another operational mode is required, select the desired mode and drag the mouse pointer over the desired period. The selected period will be indicated in another colour:

red   mode 1
green   mode 2
yellow   mode 3
blue   mode 4

Click **Save** to apply your new settings.
To store the new settings, open **System ► Maintenance ► Configuration**, select the configuration to overwrite and click **Save**.

17.2 Additional settings

For additional settings, open **Settings** > **Behaviour** > **Recording Mode schedule**.

Parameter	Description
Use switch	tick this option to select whether the operational mode of the video system will be selected by a switch or by a schedule. Info: when using a switch you can only choose between 2 modes. To define the inputs that will be used to switch between the 2 modes, open System > Behaviour > Input/output behaviour - Option Mode selection input. Read chapter 15 for more information.
Mode name 1..4	enter a name (20 characters) to describe each mode: eg day - night - holidays - urgency

18 Activate outputs

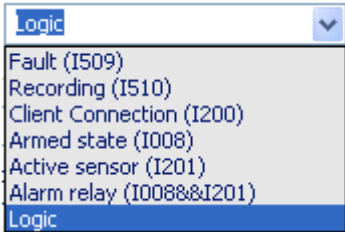To activate an output, open **System ► Behaviour ► Input/Output behaviour**
Apply a filter for an easier selection of the desired output. Select an output from one of the following groups:
- **On the box outputs**: outputs on the OTB IO cards, 8 outputs on the first Main IO and Extension IO card, 8 outputs on the second Main IO and Extension IO card
- **network outputs**: available on NetIO modules, connected to the Ethernet.
- **VM22A outputs**: an output that activates the corresponding loudspeaker.
- **workbits**: virtual outputs, can be used to store internal states

Modify the output parameters and click **Save** to apply your new settings.
To store the new settings, open **System** > **Maintenance** > **Configuration Management**, select the configuration to overwrite and click **Save**.
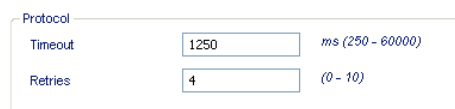
Warning: outputs that are already used for another operation cannot be modified here!

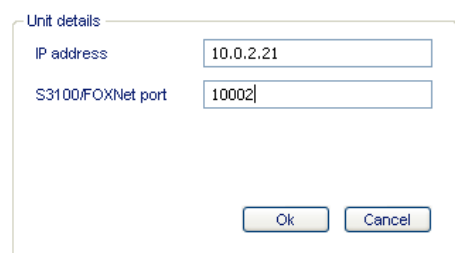| Parameter	Description

Manual operation	The output is switched by the user from the client software (status page)
	    reset: reset output when client software is terminated
	    latch: keep output in selected state when client is terminated

Recording controlled	This output will be used by the recorders
Programmable	This output will be driven in function of a condition or event. The condition is specified in the drop-down list. Logic Fault (I509) Recording (I510) Client Connection (I200) Armed state (I008) Active sensor (I201) Alarm relay (I008&&I201) Logic For the last selection (Logic), a specific condition can be specified, selecting particular inputs linked together with AND and OR functions. Brackets allow to modify the order of evaluation (which is normally from left to right). The state of an input can be inverted (NOT function) and the isolate state of an alarm can be selected (ISOLATE). Select an input from the list and click ADD to insert it at the current position. On error, click the DEL key. To clear the whole line, press the CLEAR key. Press the NOT key before adding an input if you want to invert its state. Press the ISOLATE key just after adding an input if you want to read its operational state (isolated or not). The letter M appears before the number of the selected input. Example: I2144.AND.I2145.OR.M2146.AND..NOT.I2145

19 Video IC (interconnection with S3100 systems)

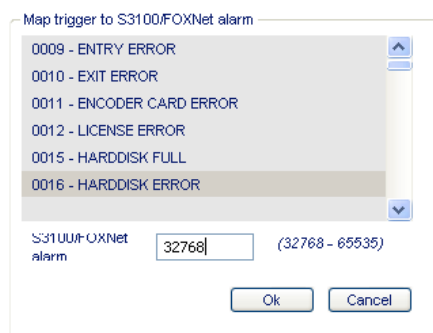|	
System ► CONNECTIONS ► Video interconnection	Open the Video IC menu.
	Set protocol timeout and retries. Timeout value can be increased on slower networks if you observe communication faults between interconnected devices.
	Click Add to add an S3100 security panel: specify the panel's IP address and the VIC port (as defined in the security panel) Click OK. Remark: each S3100 alarm panel can activate one of eight available virtual inputs on the V3100 video system (see FCU; alarm profiles), which can be used to start a video recording.
	Click **Add** to add a trigger. Triggers are activated by a specific event, such as a hard disk error, and can be associated to an S3100 output.
Save	Click **Save**.

Hint

In the S3100 configurator, open Video triggers and click **New** to associate the trigger to an output (see sample below):

Remark

Interconnection also works with FOXnet security panels.

20 Email server

If the video system will be used to send email to specific recipients on detection of an event, the email server and sender email address have to be specified.

System ►CONNECTIONS ►Email	Open the email server configuration menu.
	Enter the IP address of the mail server, the SMTP port and the email address of the sender (this account must exist on the mail server)
Save	Click **Save**.

20.1 Add recipients

System ►Behaviour►Email Addressbook	Open the address book menu.
Add	Click **Add** to add a recipient
	Enter the recipient's name and email address. Select which events (triggers) to send to this recipient.
Save	Click **Save**.

Remark

The event may not have a silent alarm profile.

21 Set time zone, time and date

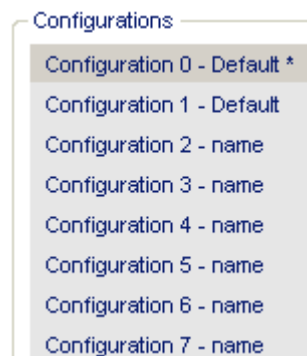| System ►General ►Date/Time	Open Time menu
	Select time zone, automatic daylight saving time, NTP server address (if available). Select date. Enter time (hours, minutes, seconds).
Save	Click **Save**. Warning: if turning back the clock, recordings may be lost!

When an NTP server has been defined, the video system must be restarted!

22 Store/Activate a configuration

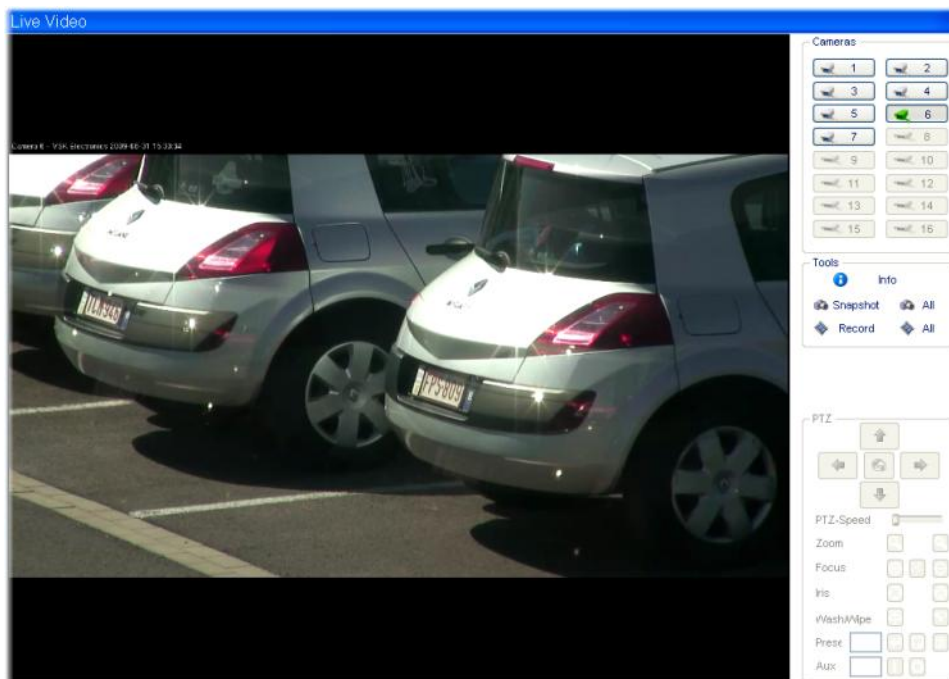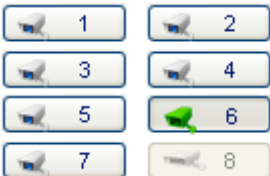|	
System ► Maintenance ► Configuration Management	Open the list of configurations. The system can store 8 different configurations. Only 1 configuration is active. The active configuration is marked with an asterisk.
	Select a configuration by clicking it. Click **Save** to store the current settings to the selected configuration. Click **Rename** to rename the selected configuration. Click **Activate** to activate the selected configuration Click **System restart** to reset the system Click **System halt** to stop the system (recommended before disconnecting the power supply)
Copy & **Paste**	Copy and Paste are used to copy all settings of the selected configuration to another configuration. ▢ Select a configuration from the list. ▢ Click Copy. ▢ Select another configuration. ▢ Click Paste.

Important
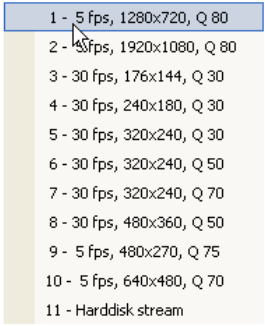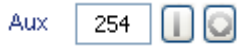
Save your configuration before switching off power, otherwise all previous settings will be lost!

23 Live

Click **Live Video** to watch live images from one or several cameras.

Function	Description
	Click to open live video streaming.
	Select a video source. Click on a numbered button to view the video from the corresponding camera. If video multiplexing is automatic and more than one camera is selected, the display window will be re-arranged in order to watch all selected cameras.
	Clicking this button displays the camera name and number of images per second of the displayed source. Video streaming status (green/red/grey) green - connection ok red - connection error grey - not connected Camera 1 — Camera name 2CIF 5 Fps — resolution and number of images per second local recording (red/grey) - see button Record audio (green/grey) recording on the hard disk of the V3100 system (red/grey) tamper alarm - camera lens covered (green/grey)

(M)	motion detection (green/grey)

1 - 5 fps, 1280x720, Q 80 2 - fps, 1920x1080, Q 80 3 - 30 fps, 176x144, Q 30 4 - 30 fps, 240x180, Q 30 5 - 30 fps, 320x240, Q 30 6 - 30 fps, 320x240, Q 50 7 - 30 fps, 320x240, Q 70 8 - 30 fps, 480x360, Q 50 9 - 5 fps, 480x270, Q 75 10 - 5 fps, 640x480, Q 70 11 - Harddisk stream	Right click on the camera picture to alter the video quality. Video quality presets are defined in System > Connections > Video inputs (click the [...] button to open the list with presets). See also chapter 1.1 - Limitations on live streaming
Snapshot All	When clicking the Snapshot button, a Snapshot is taken from the selected camera. First select a video source by clicking the desired camera image (the selected camera will be marked by a red border). The still image can be saved to the hard disk in a '.jpg' file or printed out on paper. In the pop-up window, the date and time are displayed. Snapshots are stored in the work folder that has been specified during installation. Click All to select all camera images.
Record All	Click on the Record button to start a local recording (recording on the hard disk of the client computer) of the selected camera ('Record live stream'). First select a video source by clicking the desired camera image (the selected camera will be marked by a red border). The sequence is saved in the work folder of the local computer. To record all cameras click the All button. - see remark -
(audio level slider)	The audio level slider. First select a video source by clicking the desired camera image (the selected camera will be marked by a red border), than click on the speaker button to start the audio streaming (the speaker button turns green when active). To adjust the volume for the speakers, click and hold mouse button on the slider and move the mouse to the desired level.
(PTZ controls)	The PTZ controls. Use this button to control the selected PTZ camera. Click on the arrows to move camera to the left or to the right and up or down. The '+' and '-' symbols are used to zoom in or out. The Home button in the middle of the control pad moves the camera to the selected preset position.
PTZ-Speed	This slider adjusts the moving speed of the PTZ camera when using the player's built-in controls.
Prese 1	Open the drop-down list to select one of the 4 possible camera preset positions. Click on the floppy disk button to store the actual camera position in the selected preset position.
Focus	Click the middle button to manually adjust the focussing. Use the - and + buttons to adjust.
Iris	Click to manually adjust the iris. Use the - and + buttons to adjust.
Wash/Wipe	Click to wash/wipe the lens of outdoor cameras with this feature.
Aux 254	Enable or disable the selected auxiliary function on the camera. Auxiliary camera functions vary depending on the camera model. Please read the ADPRO Tech Tips for more information.

Remark

Recordings are stored in your work folder. File are named as follows:
cam01_2008_03_13_13_49_17.hvc
The file name contains the camera number and the moment at which the recording was launched (year-month-day-hour-minutes-seconds)

Still pictures are stored in your work folder, and are named as follows:
Cam01_2008_04_07_16_07_45.jpg
The file name contains the camera number and the moment at which the still was taken (year-month-day-hour-minutes-seconds)

23.1 PTZ shortcut keys

arrows keys (up,down,left,right) (seperate arrow keys or arrow keys on numeric keyboard with num lock off)
middle key (5) on numerical keyboard = PRESET HOME (num lock off)
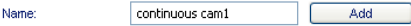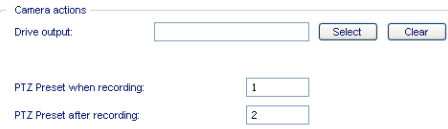HOME = ZOOM IN
PAGE UP = ZOOM OUT
END = FOCUS NEAR
PAGE DOWN = FOCUS FAR
SHIFT = shift key active (only for new PTZ control)
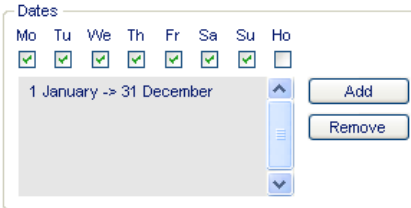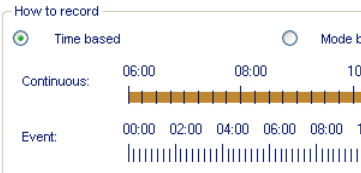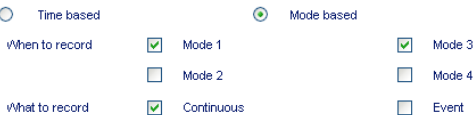
24 Create continuous recording

System ► BEHAVIOUR ► Recordings behaviour	
Name: [continuous cam1] [Add]	add a new recording
Cameras	select camera(s)
Camera actions Drive output: [ ] [Select] [Clear] PTZ Preset when recording: [1] PTZ Preset after recording: [2]	Click on the camera number to: ▫ activate an output (the output is activated for the duration of the recording; see Input/output behaviour to select outputs) ▫ go to a preset position (1►4) when the recording is started (PTZ cameras) ▫ return to a preset position (1►4) when the recording ends (PTZ camera)
[Continuous/Pre/Post quality] (**for the FT version only**; on the Hybrid version, recording quality of analogue cameras is defined under System > Connections > Video inputs)	Set quality parameters: Fps: 1 .. 25 images / second Resolution: QCIF, CIF, 2CIF, 4CIF, DCIF VBR quality 1 - 80 or CBR bit rate 1 - 2048 kbps (VBR is recommended for sustained quality) Click OK
Dates Mo Tu We Th Fr Sa Su Ho ☑ ☑ ☑ ☑ ☑ ☑ ☑ ☐ 1 January -> 31 December [Add] [Remove]	To apply this recording only on specific days, select the desired days (Monday > Sunday, holidays). The recording is by default active during the full year, to apply only for limited periods, delete the listed period and add a customized period.
⦿ Time based	Select *Time based* to activate the recorder in function of a time schedule. For mode selection, see chapter 17
TIME BASED — How to record ⦿ Time based ○ Mode b Continuous: 06:00 08:00 10: Event: 00:00 02:00 04:00 06:00 08:00 1	Drag the mouse pointer over the *Continuous* time scale to mark the time zone during which the recording should be active. To correct for errors, right-click to clear the time zone and retry. Up to 8 time zones can be defined.
MODE BASED — ○ Time based ⦿ Mode based When to record ☑ Mode 1 ☑ Mode 3 ☐ Mode 2 ☐ Mode 4 What to record ☑ Continuous ☐ Event	When selecting Mode based, choose for which operational mode this recording will apply. Tick the Event option, For more information on mode of operation, read chapter 17

OK	Click **OK**.
Save	Activate the recorder

25 Create recording on event
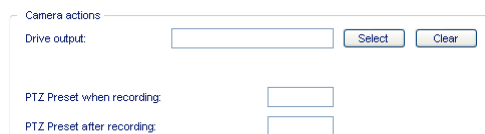
System ► BEHAVIOUR ► Recordings behaviour	
Name: [motion cam1] [Add]	Add a new recording
Cameras ☑ [📹1]	Select camera(s).
Camera actions Drive output: [____] [Select] [Clear] PTZ Preset when recording: [____] PTZ Preset after recording: [____]	Click on the camera number to: ▪ activate an output (the output is activated for the duration of the alarm and post alarm recording) ▪ go to a preset position when the recording is started (PTZ cameras) ▪ return to a preset position when the recording ends (PTZ camera)
[Continuous/Pre/Post quality] (**for FT version only**; on the Hybrid version, recording quality of analogue cameras is defined under System > Connections > Video inputs)	Click on **Continuous Quality** and enter quality settings for pre- and post alarm recordings
[Event quality] (**for FT version only**; on the Hybrid version, recording quality of analogue cameras is defined under System > Connections > Video inputs) **Dates** Mo Tu We Th Fr Sa Su Ho ☑ ☑ ☑ ☑ ☑ ☑ ☑ ☐ 1 January -> 31 December [Add] [Remove]	Click on **Event Quality** and enter quality settings for alarm recordings.. To use this recording condition only on specific days, click Data and select the desired days (Monday > Sunday, holidays). The recording is by default active during the full year, to apply only for limited periods, delete the listed period and add a customized period.
Lock: ☑	Check the Lock option if the recording should only be deleted on demand. WARNING: this option is only available for event recording, not for continuous or mixed recordings. Locked recordings may cause the hard disk to fill up until it is full. At this state, an alarm will be generated. (15 HARD DISK FULL).

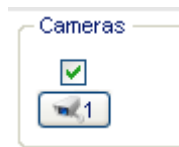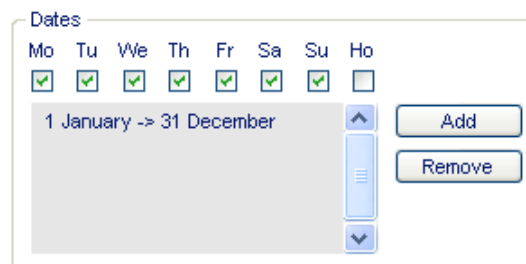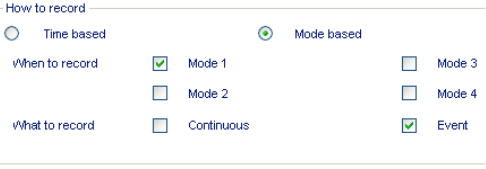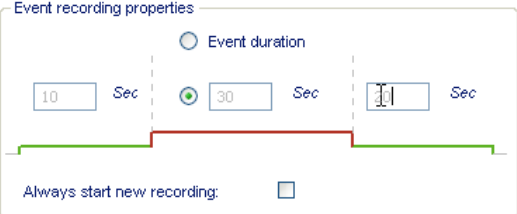|		
TIME BASED	Time based	Select *Time based* to activate the recorder in function of a time schedule
	Event: 00:00 02:00 04:00	Drag the mouse pointer over the Event time scale to mark the time zone during which the recording should be active. To correct for errors, right-click the drawn time zone and retry. Up to 8 time zones can be defined.
MODE BASED	How to record ○ Time based ● Mode based When to record ☑ Mode 1 ☐ Mode 3 ☐ Mode 2 ☐ Mode 4 What to record ☐ Continuous ☑ Event	When selecting Mode based, choose for which operational mode this recording will apply. Tick the Event option, For more information on mode of operation, read chapter 17. Remark: you could also tick the Continuous mode to create a mixed recording: such a recording will record continuously at the chosen quality and will switch to another quality on the selected event(s).
	Events 1034 - CAM01 MOTION1 [Add] [Remove] [Invert] Combination: OR	In the section *Event recording properties*, click Add and select a trigger for the recording. Ex. CAM01 MOTION1 is triggered when motion is detected in zone 1 on camera 1. Several conditions may be ANDed or ORed.
	Event recording properties ○ Event duration 10 Sec ● 30 Sec [ ] Sec Always start new recording: ☐	Set duration of pre-alarm, alarm, and post-alarm recording. Tick the *Always start new recording* option to force the system to create separate video recordings for each trigger. If not ticked (recommended), overlapping video recordings, caused by successive triggers, will melt to one single recording.
OK		Save the recorder.
Save		Activate the recorder.

Remark

If recordings with different quality settings overlap, the highest quality and image rate will be applied.

The video system is limited to **1000** events a day. If more events occur on the same day, it will automatically switch to continuous recording for all cameras. This will be seen on the time scale as blue bars. All these recordings will have a CIF resolution, 25 ips and quality 75 (level of compression).

25.1 Add holidays

The calendar allows adjusting the behaviour of the video system during holidays. It affects:

- your video recorders
- the operational mode of the video system, if managed by a schedule
- the arm/disarm schedule

System ► GENERAL ► Calendar	Open the calendar.
	Click Add to add a date. Select the date from the calendar and click OK. To remove a date, select the date from the list and click Remove.
Save	Click **Save** to save the entered dates.
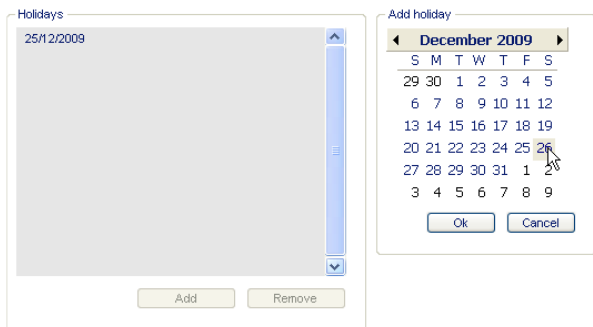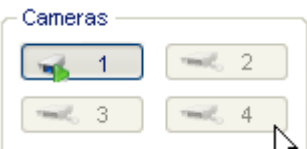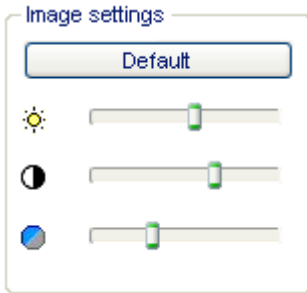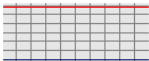
26 Video Motion Detection (VMD)

Each camera allows to define up to 4 areas in which motion can be detected. Motion detection triggers an alarm input, which can be sent to a monitoring station or start a video recording.

System ►BEHAVIOUR ►Analytics► Motion/Sabotage	Click to open the motion detection configurator
	Select a camera
	Correct brightness, contrast and hue if needed
	Up to 4 zones can be defined per camera. Click Add to add a motion zone.
	A square appears in the left upper corner of the camera image. Use the mouse to place and resize the detection zone.
	For **analogue** cameras: When motion is detected inside the detection zone, it will turn green. Also a graph displays the activity within the selected zone. Adjust sensitivity and threshold if needed. Sensitivity sets the change in luminance required to detect an object Threshold sets the number of pixels that should change in order to detect motion. This parameter sets the size of the objects that should be detected, and allows to suppress false events such as small animals passing by. In most cases, sensitivity and threshold have to be adjusted by trial.
	For **IP** cameras: When motion is detected inside the detection zone, it will turn green. Time: sets a delay: min= reacts immediately when an object starts moving inside the detection zone, max= reacts only when the object is moving for some time Min object size: Object size relative to region size: min= Even very small objects trigger motion detection max= only large objects cause motion detection
Save	Click **Save**.

Motion zones	To delete a detection zone, click it and click the **Remove** button.
Add Remove	

27 Private zones

Outdoor security cameras may unintentionally look into neighbourhood residences. To respect their privacy, these parts of the picture have to be masked.
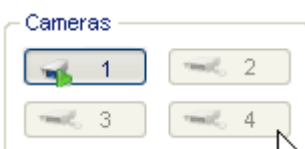
System ►BEHAVIOUR ►Analytics► Motion/Sabotage	
Cameras 1 2 3 4	Select a camera
Private zones Add Remove	Add a private zone. A black square appears on the picture. Warning: this may not always be visible on dark parts of the picture. Adjust brightness for better visibility. Up to 4 private zones can be defined.
	Position and resize the black zone with the mouse.
Save	Click **Save**.
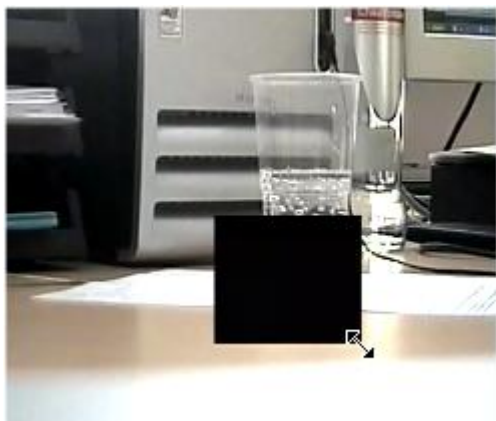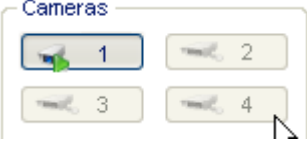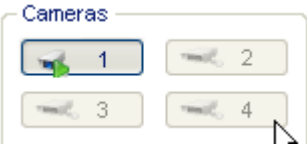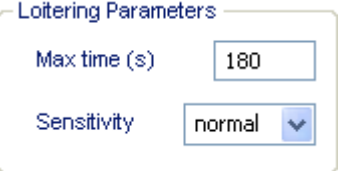
28 Detect the obstruction of the camera lens

System ►BEHAVIOUR ►Analytics► Motion/Sabotage	Click to open the motion detection configurator
Cameras 1 2 3 4	Select a camera
Covered camera Max Min	Check the *Covered camera* option, and set the black level on which a tamper alarm should be generated. In the logbook, the camera lens obstruction will be indicated as CAMERA TAMPER alarm: **08/09/10 11:41:35 I1025 - CAM01 TAMPER +**
Status Clear alarm	The camera tamper alarm has to be restored with the Clear alarm button.
Save	

29 Loitering

Loitering is a method to detect people hanging around in places like e.g. a hallway or a lobby.
When being there for more than the threshold number of seconds, a loitering alarm is raised.
The loitering ground region is definable as a polygon(even multiple).
It is also possible to define zones that are to be ignored from the loitering detection.
A separate license is needed for this functionality.

System ►BEHAVIOUR **►Analytics► Loitering**	Click to open the loitering detection configurator
Cameras 1 2 3 4	Select a camera
Drawing Tools	Use the drawing tools to define the ground region of interest and/or to mask regions
Loitering Parameters Max time (s) 180 Sensitivity normal	Adjust the Loitering parameters: Max time (in seconds): the time a person is hanging around before a loitering alarm is generated. Minimum value is 20 seconds Sensitivity: select a detection sensitivity between low, normal and high.
Info Loit chan remain 1 Detection count 0 Reset	In the info-bar you can see how many channels are left available for loitering (depending on the license) Detection count will display the amount of loitering detections for that channel. The reset button will reset the counter.
Save	Click **Save**.

30 Search a recording on the Video system's Hard disk

Open **Recorded Video** to view your video recordings
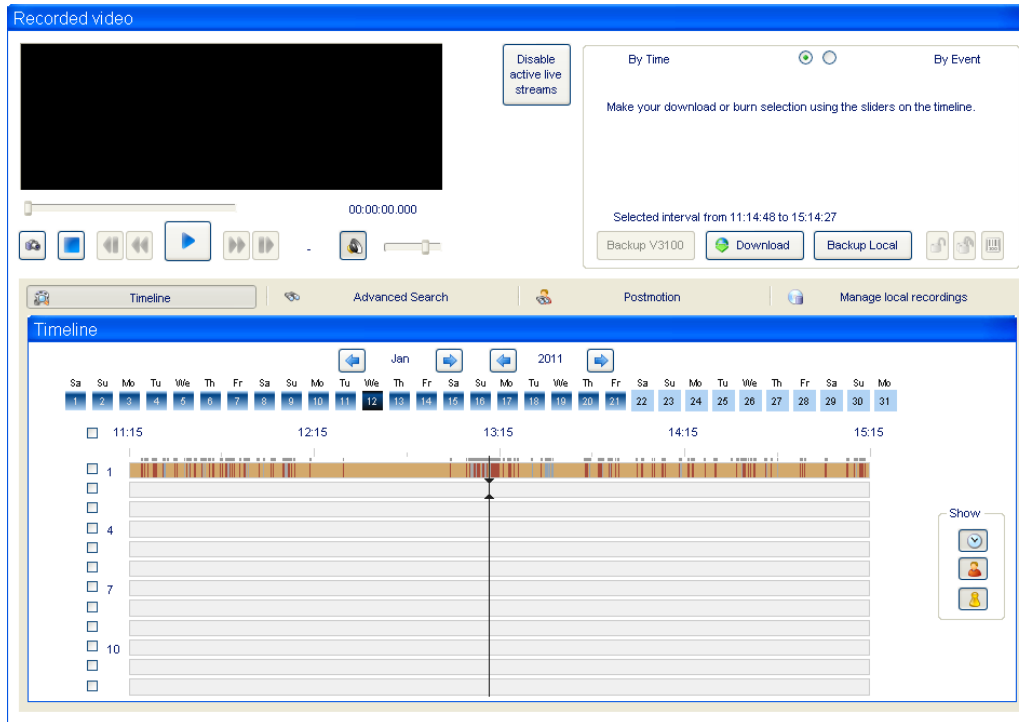
30.1 Types of recordings

Click these buttons to show only recordings of a specific type

	show/hide continuous recordings
	show/hide recordings triggered by motion detection
	show/hide recordings triggered by other events, such as events (contact input), camera synchronisation error, tamper alarms, hard disk errors, ...

30.2 Time line

Look up recordings for a specific period.
The time line will display a different colour for each kind of recording event.
Orange is for continuous recordings
Red is for recordings on motion events
Green is for recordings on inputs (Network IO/ OTB inputs and virtual inputs
Grey is for all other events
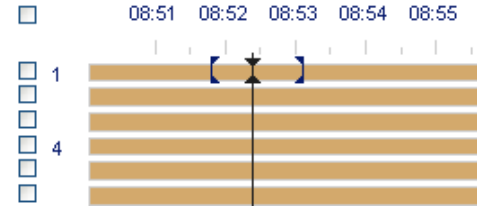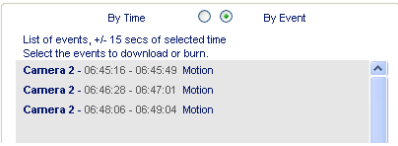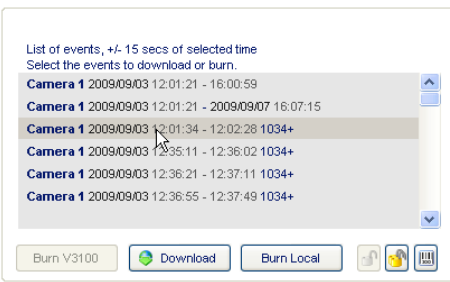
Recorded Video ►Timeline	
	Click to view only the desired video recordings
	Select month
	Select year
	Select day (only days marked in dark blue contain video recordings)
	Drag mouse pointer on hour scale to zoom in on a period of the day. Right click to zoom out.
	Click on the recording tape of the desired camera to see a still picture of a specific moment (a black arrow is displayed). Mind the camera when selecting a recording, each camera has its own line of recordings. Drag the black arrow to look up previous or further images. This allows to search the time of interest
	Selection method 1 (only for event recordings): Select a recording from the list that appears in the upper right window.
	Selection method 2: Drag the delimiters, displayed on the tape, to select start and end time of the desired footage
	Click to preview the selected footage without downloading it. Sound is not available.
	Click to download the selected fragment to the computer - see remark -
	When the selected footage has been downloaded, use available controls to start, pause, fast forward, fast rewind or stop playback of the downloaded recording. Press the speaker button to switch on/off the sound track. Use the slider to quickly jump to a specific sequence.

	Click on a recording in the upper right list and click this button to unlock the selected recording.
	Unlock all recordings
Backup V3100	Click Backup V3100 to backup the selected video recording on a USB stick or external CD/DVD drive connected local on the V3100.
Backup Local	Click Backup Local to backup the selected video recording on a USB/CD/DVD on your local pc
	Click to identify the hard disk on which the selected video recording is stored.

Remark

Downloaded recordings are stored on the local hard disk, in the work folder, and are named as follows:
cam01_080314_090000_080314_090959.hvc
The file name contains following information: number of the concerned camera, start time and end time of the recording (year month date _ hour minutes seconds)

30.3 Look up recordings by event

Recorded Video ►Advanced Search	
	Select camera (s)
	Select event (s)
	Select search period
	Click to start searching within the selected period
	Select recording from the displayed list
	Click to download the selected fragment to the computer
	When the video excerpt has been downloaded, use available controls to start, pause, fast forward, fast rewind or stop playback of the downloaded recording. Press the speaker button to switch on/off the sound track. Use the slider to quickly jump to a specific sequence.
	Click on a recording in the upper right list and click this button to unlock the selected recording.
	Unlock all recordings
	Click to backup the selected video recording on a USB stick or external CD/DVD drive connected local on the V3100.
	Click to backup the selected video recording on a USB/CD/DVD on your local pc
	Click to identify the hard disk on which the selected video recording is stored.

30.4 Synchronised playback

Look up recordings for multiple cameras.
Follow the same steps as point 30.2.
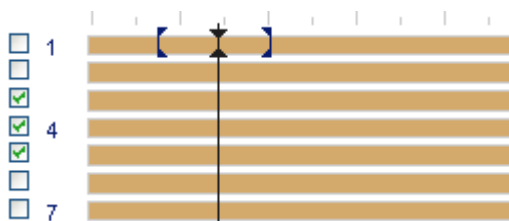
	Click on the check box in front of each camera to select the multiple cameras you wish to have the footage.
	Click to preview the selected footages without downloading it. Sound is not available.
	Now you see a synchronised playback from the selected cameras
	It can be helpful to disable the active live streams to improve the download speed for the synchronised playback.
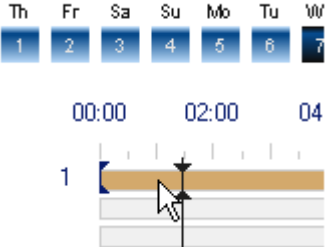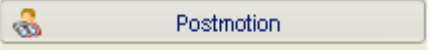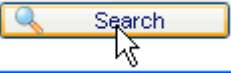
31 Post motion

The video recorder does not only store the video on the hard disk but also creates a metadata file that describes the video contents. This information allows to quickly retrieve all sequences in which an object was moving inside a specific area of the camera lens.

Recorded Video	Open the appropriate menu
Timeline	Open the Timeline tab
Tu We Th	Select the day of interest
Th Fr Sa Su Mo Tu W 00:00 02:00 04	Select a camera by clicking the appropriate reel
Postmotion	Open the Post motion tab
	Define which part of the picture to analyze. Use the mouse to position and resize the marked area.
Search	Start searching for all recordings that detected moving objects inside the selected part of the picture

31.1 Result
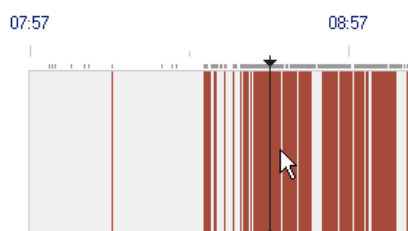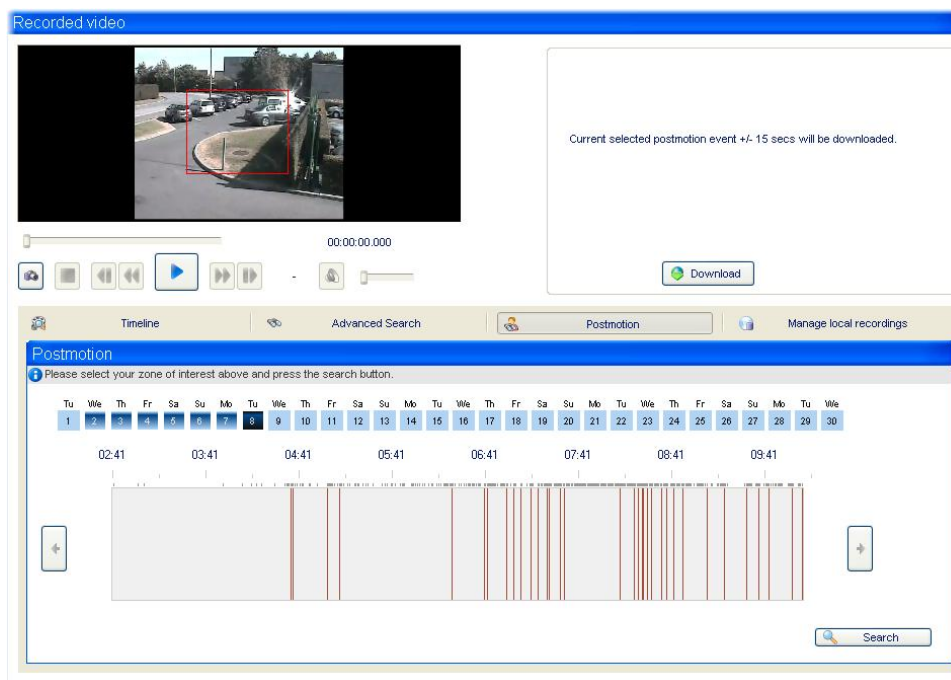
	Drag the mouse pointer on the time scale to zoom in. Click on a recording (red bar) to preview a still. Click right to zoom out.
	Click to jump to the next sequence
	Upload part of the recording (selected still +/- 15 seconds)

31.2 Management of local video recordings

All downloaded video recordings are stored in the work folder of the V3100 client on **your local** hard disk. Recordings are arranged in subfolders, a subfolder for each video system. Video systems are recognised by their identification number (the identification number is a value from 1 to 9999 and is programmed under System ► BEHAVIOUR ► Alarm transmission ► V3100 Unit ID)

To view local recordings, open **Recorded video ►Manage local recordings**.
Unfold a site to display all video recordings that have been downloaded from that site. Each filename reveals the camera and period of the recording. Select the desired video recording by clicking it.
To play back the selected footage, click the ▶ button.
To delete the selected footage, click the ✖ button and confirm the action.

To export to a USB/CD/DVD, select the desired video recording and click ➤➤. Repeat for other recordings of interest. Insert an empty CD-R or DVD-R in the CD/DVD writer or an USB key in your local pc and click ⓞ to start the burning process. Your CD/DVD/USB will contain all selected video recordings. If you have checked the "include player" checkbox, all software required for playback on any Windows compatible computer will also be included on the CD/DVD/USB.
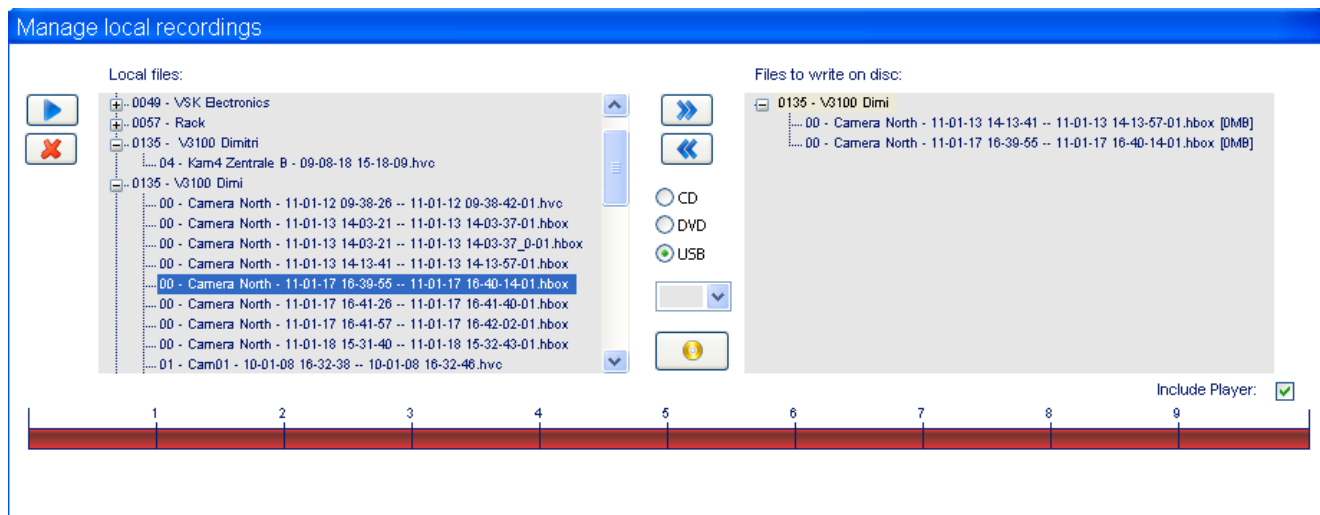
32 Logbook

Local legal requirements (eg. Law Sarkozy/France) may stipulate that a video system should keep a logbook, in which user interventions and events are logged.

System > Maintenance > Log	Click to open the logbook
Edit Time	Click Edit time to specify beginning and end of the desired period
Type Log ○ Event ⦿ Command ○	Select what kind log you wish to retrieve: Log: this will display the users that have been watching live video, multicast video, taken still images and downloaded footages. Event: this will display all the events the V3100 has generated (motion, inputs, outputs,…) Command : this will display all the commands that has been executed from users (connections, change configuration,…)
Filter Live video view ☑ Live multicast view ☑ Still image view ☑	Select a filter for the selected search criteria : Thick the tabs Live video views, Live multicast view, Still image view and recorded video view to filter the result of a search.
Search	Display the result within the selected period and parameters.

32.1 Example of a Log record

```
|Time                 |Type            |User    |Cam|Data
 2011/01/31 16:50:36  Still image view  00       02  2011/01/31 16:28:30
 2011/01/31 16:47:31  Still image view  00       02  2011/01/31 15:16:07
 2011/01/31 16:47:26  Still image view  00       01  2011/01/31 16:47:23
```
▲   ▲   ▲   ▲   ▲
time of the intervention   type of intervention   user   camera   additional information: in this case
                                                                      the moment of the still

32.2 Example of a Event record

```
|Time                 |Input/Output Behaviour    | E | T |Data
 2011/01/13 15:05:53  I0214 - RECORDING MATCH      -    L  [9D][ 9][16][7D][87]
 2011/01/13 15:05:53  I0214 - RECORDING MATCH      +    L  [9D][ 9][16][7D][87]
 2011/01/13 15:05:53  I3072 - INPUT WORKBIT 001    +    Q
 2011/01/13 15:05:53  I1034 - CAM01 MOTION1        +    Q
 2011/01/13 15:02:53  I1046 - CAM01 LOITER. EVENT  -    Q
```
▲   ▲   ▲   ▲   ▲   ▲
time of the intervention   Event identification   Start   and   Type: additional information
                                                   end   from   L=Live
                                                   the event   Q=Quad
                                                                  D=Duress
                                                                  S=System

32.3 Example of a Command record

```
|Time                 |Id  |Group        |Command        |Data
 2011/01/27 09:36:32  C07 connection      timeout         (10.0.0.47        )
 2011/01/27 09:31:49  C07 transfer        download        user data
 2011/01/27 09:31:47  C07 login           user            (00) => authorized
```
▲   ▲   ▲   ▲
time of the intervention   type of intervention with   Executed   additional information: in
                           an ID nr. All commands   command   this case ip address from
                           within the same session   pc that made the
                           will have the same ID   connection, user number
                           C = client session
                           T = telnet session

33 Set the maximum days of video recording

Local legal requirements may stipulate that a video system should only keep its recordings on the hard disk for a limited number of days, and that older recordings should be deleted automatically. To set this limit:

System ►Recording Behaviour	Open the appropriate menu
Maximum days recording: 30.0	Set the maximum number of days that video recordings should be kept.
Save	Click **Save**

34 Firmware, License, configuration files

System > Maintenance > Transfer	Click to open the file management
	Send a file to the video system. The extension reveals what information it contains: **.tar.gz** = firmware (minor update) (V3100 FT version) **.bin** = software (linux + application) (V3100 Hybrid version) **.lic** = license **.usr** = users **.prop** = configuration
	Retrieves a file from the video system, for backup and archival: license (file with extension lic) user data (file with extension usr; this file is encrypted) configuration (file with extension prop) camera Definition (file with extension def) All files are stored in your work folder. The file name includes the identification number of the selected video system This number is programmed under *Alarm Transmission*: parameter *'V3100 Unit ID'* The license is associated to the serial number of the video capturing card. If an additional video card is installed, a new license will have to be loaded.

Remark (for V3100 FT only)

If small corrections or modifications are introduced, a minor update will be issued. This is a small file (several Megabytes) that can be found on the website of the manufacturer and that is used to upgrade your system from the Transfer menu. Do not forget to uninstall your client software when reconnecting to the system.

A major update is issued for new versions with major modifications/additions. This is a much larger file (compressed several hundreds of megabytes) and it includes an update of the operating system.
A major update of the software (with an USB installer stick - see chapter 40.2) will clear all your data (license, configuration, users). Upload these files before re-installing the video system.
If you accidently loose your configuration, you will have to reprogram the video system.
However, if you loose your license, you will have to contact your supplier for a new license. To generate your license, your supplier needs to know the serial numbers of the video capturing cards. To retrieve this information, open a Telnet connection and execute the following commands:
    kb,0.666777   [log on as administrator]
    ta,encoder

Example

34.1 System license (from version V3100HYB V02.00.0000)

From version V02.00.0000 the system license has been introduced. There are three system licenses available:
- V3100Hybrid Full
  - ❑ Unlocked system, all features
- V3100Hybrid Entry level (limited functionality)
  - ❑ Support 4 analogue cameras
  - ❑ Support 0 digital cameras
  - ❑ Support 1 Hard Disk
  - ❑ Support 1 MIO card, 0 EIO card
  - ❑ All other features/functionality is supported
- V3100Hybrid Transmitter (limited functionality)
  - ❑ No continuous recordings allowed
  - ❑ No continuous event recording allowed (max 3 min.recording pre + event + post with a maximum of 1000 envents/day for all cameras, after this no continuous recordings).

A V3100HYB version V02.xx.xxxx that runs without a system license behaves as a V3100Hybrid Full with a maximum uptime of 5 days. During this period, users are informed of the license error via the event LICENSE_SYSTEM_ERROR (event with repeat and fault flag) and are shown a message when connecting via the V3100 Client.
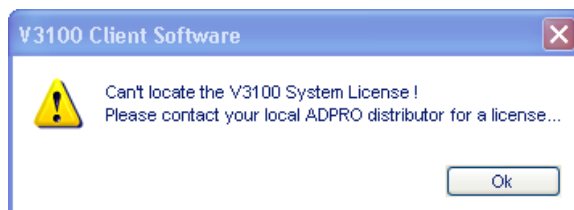
After this period the V3100HYB V02.xx.xxxx will enter a locked down state and will refuse all connections for live and recording streams. All active recordings will continue on the system. During the V3100HYB locked down state, the V3100 Client shows only the About page (to retrieve the required information to generate a license) and the Transfer page (so users can upload the required system license).
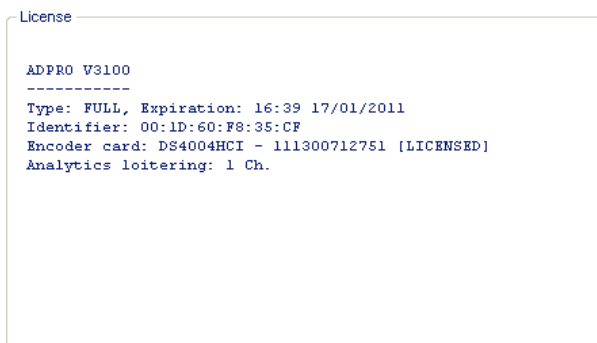
Copy this license information page and send it to your local Adpro Distributor if you do not have the system license. With this information they will be able to generate the correct system license.

The system license is locked on the V3100HYB motherboard and is therefore system specific (MAC address) When you upload the system license and your unit has already other licenses on board (eg.encoder license, loitering license,…) the V3100HYB will merge all these licenses together in one license file so it can be retrieved for backup and archival.

34.2 License types

There can be different licenses loaded in the V3100HYB.

System license (only from V02.00.0000, see also chapter 34.1)
Encoder license: This is a license for the analogue video cards in the system
Loitering license: This license is for the loitering detection)

There are two ways to get information about your licenses:
- With the "about" page in the V3100HYB client:

- With a Telnet command: ta,license

35 Video Backup

A DVD/CD writer or USB stick can be used to backup important video information direct from the V3100HYB
The backup medium connected on the V3100 system or the backup medium on your computer can be
selected.

	Open the **Recorded video** menu
	Select a video sequence by time (timeline) or by event (advanced search). If selecting by event, multiple selection is possible.
	Click Backup V3100 to backup the selected video recording on a USB stick or external CD/DVD drive connected local on the V3100. Click Backup Local to backup the selected video recording on a USB/CD/DVD on your local pc
	Select CD/DVD or USB drive. Insert a DVD-R(W) or USB stick and click **Check**.
	Click **Start** to start the copy
	Wait for completion and remove DVD-R(W) or USB stick.

Remark

The burned DVD or CD will be ejected automatically after completion. It will include all required software to
select and playback the video. The video browser is launched automatically when inserted in another computer.
Warning: All media will be (re)formatted!

35.1 Burn footage stored on local computer (see also chapter 31.2)

	Open the **Recorded video** menu and select the "Manage local recordings" tab
Manage local recordings	Browse through the footage stored on your local hard disk. The list is arranged by video system (identification number).
»	Select a footage from the left window and click this button to add it to the list. Multiple selections are allowed.
	Check the **Include Player** option if player software has to be included. The player software is needed for play back on another computer.
	Once all desired video files have been selected, insert a CD -R(W) or DVD-R(W) or USB stick and click this button to start the burning process.

36 Status

To display the status of the video system, cameras, inputs and outputs, click on **Status**.
Move the mouse pointer over the status bar to obtain detailed information of a particular input or output (a pop-up text appears when the mouse pointer is kept stationary on an input or output).
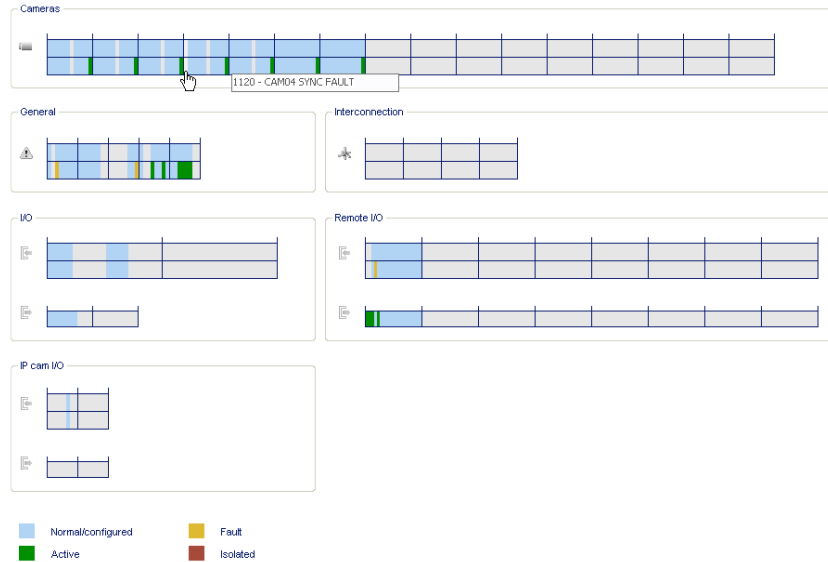
36.1 Isolate an alarm input

To isolate an alarm input, right click the desired input and click Isolate

Step 1. Move the mouse pointer over the input bar to see a description.	
Step 2. Once the desired input is found, click the right mouse button and click **Isolate** to isolate this alarm. Isolated inputs are marked with a red bar.	
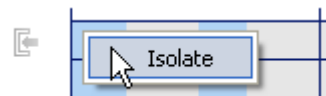
When an input is isolated, input I0511 will be activated (message 'GENERAL ISOLATION'). This message will be reminded each 24 hours.

36.2 Activate an output

To activate an output, right click on the desired output and click Activate

Step 1. Move the mouse pointer over the output bar to see the description of the outputs.	
Step 2. Once the desired output is selected, click the right mouse button and click on **Activate** to activate this output.	
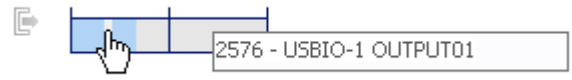
Remark

An output can only be manual activated when it has been programmed as Manual operation.
See chapter 18 Activate outputs.

36.3 General status of the video system

Cam x past analytics	Error during post motion analysis - contact your dealer
Cam x sab analytics	Error in camera tampering analysis - contact your dealer
Cam x recording	Camera images are currently being recorded to hard disk
Cam x synch fault	No video signal on camera - check camera power supply or coax cable
Cam x Contrast fault	Camera lens covered or lighting suddenly switched off
Cam x Sabotage fault	Camera displaced or lens fault or zoom/focus settings changed
Cam x event	User programmable camera event - has to be activated by a logical function
Config uncommitted	Current configuration is not yet saved. Restarting the system may cause loss of latest modifications.
Encoder card error	Video capturing card or HIPI card out of order. Could indicate a hardware fault. All cameras on associated card will not work.
License error	Wrong license has been loaded or no license at all.
HD error	Hard disk fault. Requires hard disk replacement.
HD full	Hard disk full. Too many locked recordings are stored on hard disk.
HD corrupt	Indicates corrupt data - contact your dealer
Db error	Indicates corrupt or unreadable data files - contact your dealer
Entry error	Not disarmed in time on entry
Exit error	Area not abandoned in time on exit (after arming the system)
Modem init failed	Modem not ready/not connected
Primary line fault	Primary connection not ready
Primary lifecheck	Life check sent over primary connection
Backup line fault	Backup connection not ready
Backup lifecheck	Life check sent over backup connection
AL tx queue overflow	alarm buffer overflow - too many alarms or unable to transmit alarms to CMS
Recorder overflow	too many recordings on the same day - system switches to continuous recording
Event queue overflow	too many events on the same moment
Sensor activity	critical inputs are active - system should not be armed -
Recording match	used in the VSKWin application, to associate the recorded footage to the alarm on the interconnected S3100 system that triggered the recorder.
General power	Indicator - power supply OK
General fault	Indicator - fault condition
General recording	Indicator - System is recording
General isolation	Indicator - One or more inputs have been isolated by user
General mode 1 .. 4	Indicator - System is currently in mode 1 .. 4
SMART HDD error **SMART HDD alert** **SMART HDD temperature**	Analytical information received from the hard disk (SMART)

37 Camera recording information

Open **System ► Maintenance ► Harddisks**.
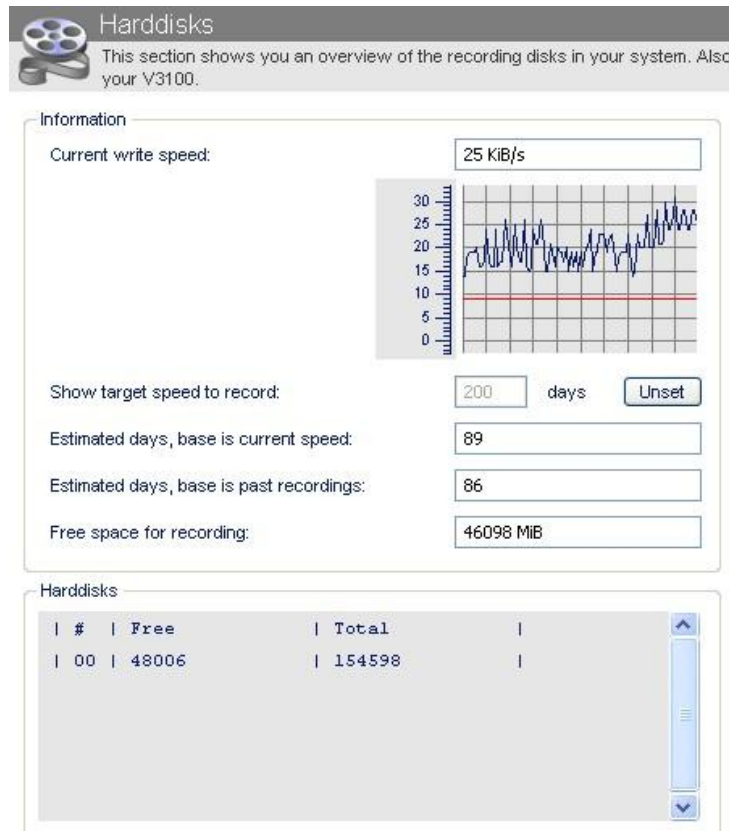
Following information is disclosed:

1) current write speed: bitrate depends on video contents and vary continuously. The average value is indicated in red.

2) estimated hard disk storage capacity, expressed in number of days, based on current measured bitrate.

3) estimated hard disk storage capacity, expressed in number of days, based on existing footage stored on hard disk.

4) free hard disk space, expressed in MB

5) list of installed hard disks, included free and total disk capacity

By entering the required number of days in the 'Show target speed to record' field and by clicking the Set button, the corresponding write speed will be calculated. The red line in the graph is displaced to the obtained result. Recording behaviour will have to be modified to obtain the estimated bit rate.

38 About

The 'About' section shows the version of the system and the client software contained in the V3100. This information is useful to define if a software update is needed.
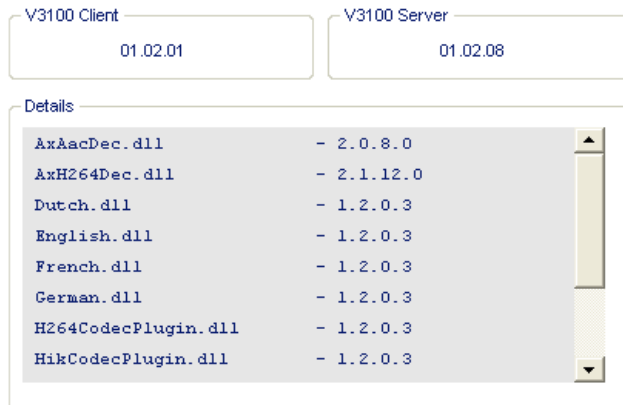
◄ Version of the Client software (the software that will be installed on your computer on the first connection) (*) and version of the V3100 video system (server)

V3100 Client
01.02.01

V3100 Server
01.02.08

Details

AxAacDec.dll	- 2.0.8.0
AxH264Dec.dll	- 2.1.12.0
Dutch.dll	- 1.2.0.3
English.dll	- 1.2.0.3
French.dll	- 1.2.0.3
German.dll	- 1.2.0.3
H264CodecPlugin.dll	- 1.2.0.3
HikCodecPlugin.dll	- 1.2.0.3

(*) If not updated yet, just click **Start** > **All programs** > **V3100** > **Uninstall**, open the internet explorer, type the IP address of the V3100 system in the address bar, and click the Setup link.

From V3100 Client version V02.00.0000 you will also see the license information.

License

```
ADPRO V3100
-----------
Type: FULL, Expiration: TIME UNLIMITED
Identifier: 00:1D:60:F8:35:CF
Encoder card: DS4004HCI - 111300712751 [LICENSED]
Analytics loitering: 2 Ch.
```
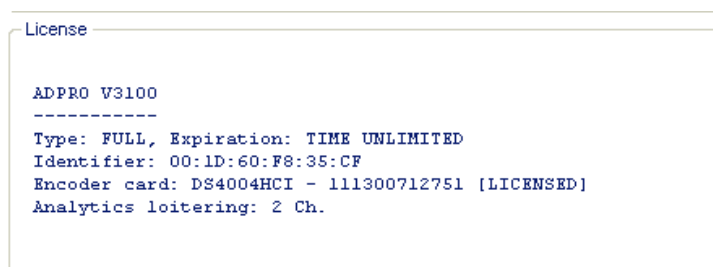
39 Presidium High Level Interface

The PresidiumHLI menu allows to associate video outputs from a Presidium to the V3100 inputs.
To setup the Presidium, open **System ► CONNECTIONS ► PresidiumHLI**.
Check the **Enabled** option.
In the *Channel configuration* list, specify which video output of the Presidium is connected to each V3100 video input.
Click **Save** to apply your new settings.
To store the new settings, open **System ► MAINTENANCE ► Configuration**, select the configuration to overwrite and click **Save**.
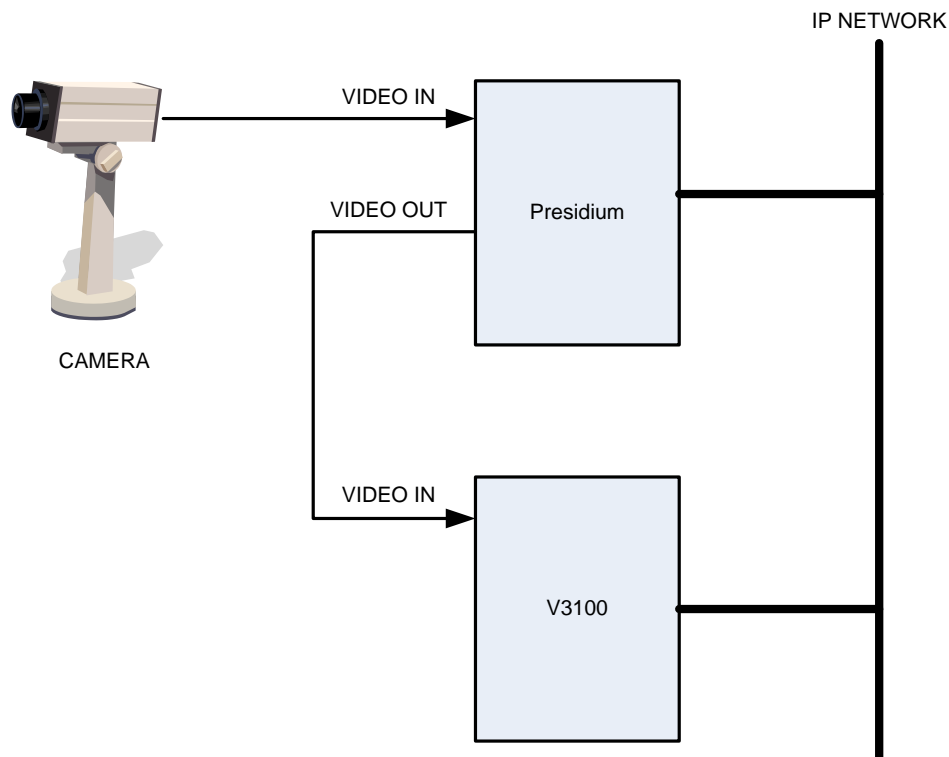
Tip

Communication settings are programmed on the Presidium. Only the IP port has to be specified on the V3100. The connection with a Presidium can activate following events on the V3100 system:
I0070 PRESIDIUM FAULT : the Presidium reports a high temperature or general fault, or the V3100 detects a wrong IP port
I0071 PRESIDIUM PRESENCE FAULT : no communication with the Presidium
Per camera, for camera 1 to 16 (addresses specified below apply only to camera 1)
I1024 CAM01 NO VIDEO : video signal missing (detected by presidium)
I1025 CAM01 CONTRAST ERROR : camera lens covered (detected by presidium)
I1033 CAM01 PRESIDIUM DET.: alarm on camera (detected by presidium)

40 Advanced information

40.1 Find the server's IP address

◻ Connect a keyboard and monitor to the V3100 Server.
◻ If the monitor is used for video monitoring, press <ctrl> <alt> <F1> to stop the video display.
◻ Restart the system: press <ctrl> <alt> <del> on the keyboard.
◻ The system will need some time to restart. The current IP address will be indicated on the welcome screen:

```
         x                               xxxx                        xxxxx xxxx
        xXx                             xXXXx                        xXXXx XXXX
       xXXXx                            xXXXx                        xXXXx XXXX
     xxxXXX  x                          xXXXx                        xXXXx xXXx
    xxxxxXXx xx                          XXXx                        xXXXx
   xxxxxxxXXX xX           xXXXx      xXXXxxXXXXXXXXX xXXXXXXx     XXXXXXXXXXxx   xXXXx xXXx   xXXXXXXXXXx
  xxxxxxxxXXXx XX          XXXXx    xXXXX XXXXXXXXXXxxXXXXXXXX  XXXXXXXXXXXx  xXXXx XXXX   XXXXXXXXXXx
 xxxxxxxxxXXx xXX          XXXXx xXXXX  xXXXXXXXXX xXXXXXXXXX XXXXXXXXXXXXx xXXXx XXXX xXXXXXXXXXxx
xxxxxxxxxxxXXX xXXX        xXXXX XXXXx   xXXXx   xXXXx xXXXx      xxXXXXX xXXXx XXXX XXXXXxxxxxxx
xxxxxxxxxxxXXXxxXXXX        xXXXXXXXx    xXXXx   xXXXx  XXXx       XXXX xXXXx XXXX XXXX
xxxxxxxxxxxxxXXXx XXXXX      XXXXXXX     xXXXx   xXXXx  XXXx   xxxxxxxXXXX xXXXx XXXX XXXXXxxxxxx
xxxxxxxxxxxxxXXXx XXXXXX      XXXXX      xXXXx   xXXXx         xXXXXXXXXXXX xXXXx XXXX xXXXXXXXXXX
xxxxxxxxxxxxxxXXXx XXXXXXx    XXXXX      xXXXx   xXXXx     xXXXXXXXXXXXX xXXXx XXXX  XXXXXXXXXXX
xxxxxxxxxxxxxXXXx XXXXXx      XXXXXXx    xXXXx   xXXXx     XXXXxxxxxXXXX xXXXx XXXX    xxxxxxXXXX
xxxxxxxxxxxxXXXx XXXXx       xXXXXXXXx   xXXXx   xXXXx     XXXX   XXXX xXXXx XXXX           xXXX
xxxxxxxxxxxXXX xXXXx        xXXXXXXXX    xXXXx   xXXXx     XXXXx   XXXX xXXXx XXXX           xXXX
xxxxxxxxxxXXX xXXx         XXXXx xXXXX   XXXXXXX xXXXx   XXXXXXXXXXXXX xXXXx XXXX xXXXXXXXXXXX
xxxxxxxxXXx XXx          XXXXx  XXXXx   xXXXXXXXxxXXx    xXXXXXXXXXXX xXXXx XXXX xXXXXXXXXXXx
  xxxxxxXXX xXx        xXXXX    XXXXx    xXXXXx xXXXx     xXXXXXXXXXXX xXXXx XXXX xXXXXXXXXXXx
  xxxxxXXx xx
   xxxXXXx x              Video Security V3100 (V01.00.0000)
    xXXXx                 Ip:     10.0.0.10
     xXx                  Subnet: 255.255.255.0
      x                   Gateway: 10.0.0.1
```

40.2 Installation / major update procedure using an USB Installer stick (for version 1.00 and 1.01 only).

WARNING:
Don't forget to backup your license and configuration files before starting the procedure.

IMPORTANT:
The described procedure only applies to V3100 video systems version 1.01 or lower. For version 1.02 and later, read the next chapter.

STEP 1) USB Installer stick creation:
(This step can be skipped for future install/update procedures as long as there are no new versions!)
- Start the V3100Flash.exe application (located on V3100 Release CD)
- Select the V3100_yyyymmdd.img image. (located on V3100 Release CD)
- Select the USB stick. All USB sticks are marked [REMOVABLE]! (512MB or larger)
- Create the USB Installer stick.
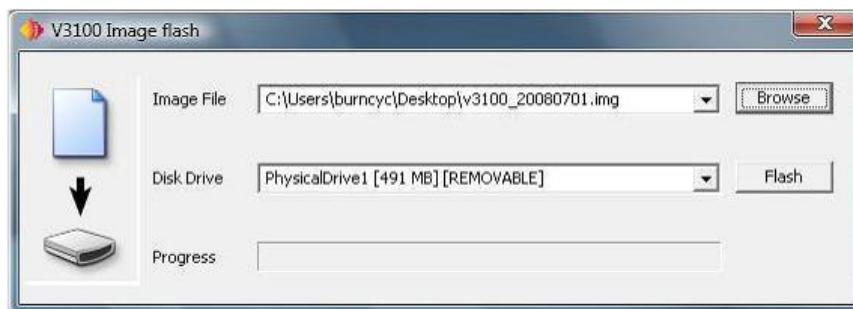
STEP 2) Booting the USB Installer stick:
- Connect a keyboard and monitor to the V3100Server.
- If the monitor is configured as video monitor, press <ctrl> <alt> <F1> to stop the video display
- Insert the USB Installer stick into a free USB port.
- Press <ctrl> <alt> <del> to restart the system.
- During restart, press and hold the F8 key to open the boot menu.
- Select the USB Installer stick, boot the system and proceed to the next step.

STEP 3) Installation:
- Select " Install current system to USB or HD" and press enter.
- The system will ask you to remove the Installer USB stick after completion.

STEP 4) Post installation:
- Reboot the V3100Server
- Upload the license (and configuration) to the V3100Server using the V3100Client.

40.3 V3100 Hybrid installation and V3100FT to HYBRID update procedure: (version 1.02 and higher)

SCOPE
This document describes
- the steps required to update a V3100FT to a V3100Hybrid version.
- the procedure to install a V3100 Hybrid.

REQUIREMENTS
Windows PC
V3100FTHy image (extension img)
V3100ImageFlash application (V3100ImageFlash.exe version 1.0.3 or higher)
V3100 USB stick (512MB or larger)
Monitor
Keyboard

PROCEDURE
Note: Don't forget to backup your V3100FT license file, configuration file and user file.

BOOT STICK
Remove the boot stick from the V3100.
Plug it in on your Windows computer.
Copy the image and flash tool to the Windows computer

Important: The V3100Hybrid is factory equipped with a DANE-ELEC memory stick. Note that Kingston DataTraveler memory sticks have been proven unreliable, please don't use this type or other non-approved types.

Start the application:
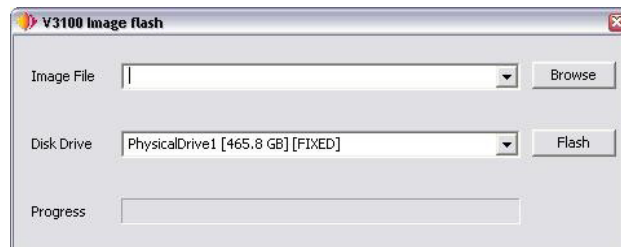
Select the image file:

Select the usb stick (check for REMOVABLE flag):
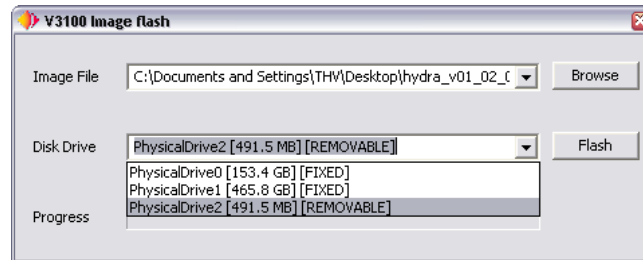
Flash the usb stick!

CONFIGURATION
Place the hipi card(s) if you have to connect IP cameras (see V3100 hipi datasheet)
Insert the V3100Hybrid usb stick in the V3100 USB connector located on top of the hard disk cage.
Attach monitor and keyboard.
Start the V3100Hybrid and wait for the boot screen!
>Select V3100 Installer
>Select "Update current system"
>Select "Format (all) recording disk(s)" (this can take some time...)
>Select "Main menu"
>Select "Reboot"
The V3100Hybrid will reboot with default settings. The IP address is 10.0.0.10 by default. Send the license to the V3100Hybrid.

RESTORE SETTINGS
- uninstall your V3100 client on your computer
- connect with IE to address 10.0.0.10 to install the new client
- open the transfer page, send license, user and configuration files to your V3100 Hybrid.

Note -
Unlike a V3100FT, updating a V3100Hybrid can always be done from the V3100 client through a network connection, because it updates the complete software (Linux included) and not only the V3100 application .
This is a simple procedure (see chapter 34)

Compatibility issues when moving from FT to Hybrid
- PTZ must be redefined
- recordings must be checked for quality settings (see video input page)

40.4 V3100 Hybrid Version 2 installation and V3100HYBRID update procedure: (version 1.02 and higher to version 2.xx)

40.4.1 For Asus: not supported

40.4.2 For Intel DG31PR and DG41TY

40.4.2.1 Installation V3100HYB Version 2

SCOPE

This document describes
- the procedure to install a V3100 Hybrid Version 2.

REQUIREMENTS
Windows PC
V3100FTHy image (extension img)
V3100ImageFlash application (V3100ImageFlash.exe version 1.0.3 or higher)
V3100 USB stick (512MB or larger)
Monitor
Keyboard

PROCEDURE
Note: Don't forget to backup your V3100FT license file, configuration file and user file.
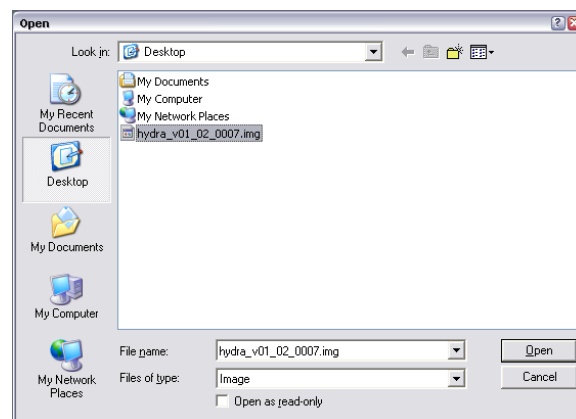
BOOT STICK
Remove the boot stick from the V3100.
Plug it in on your Windows computer.
Copy the image and flash tool to the Windows computer

Important: The V3100Hybrid is factory equipped with a DANE-ELEC memory stick. Note that Kingston DataTraveler memory sticks have been proven unreliable, please don't use this type or other non-approved types.

Start the application:

Select the image file: V3100Hybrid_V02_xx_xxxx.img

Select the usb stick (check for REMOVABLE flag):

Flash the usb stick!

CONFIGURATION
Insert the V3100Hybrid usb stick in the V3100 USB connector located on top of the hard disk cage.
Attach monitor and keyboard.
Start the V3100Hybrid and wait for the boot screen!
>Select V3100 Installer
>Select "Update current system"
>Select "Format (all) recording disk(s)" (this can take some time...)
>Select "Main menu"
>Select "Reboot"
The V3100Hybrid will reboot with default settings. The IP address is 10.0.0.10 by default. Send the license to the V3100Hybrid.

RESTORE SETTINGS
- uninstall your V3100 client on your computer
- connect with IE to address 10.0.0.10 to install the new client
- open the transfer page, send license, user and configuration files to your V3100 Hybrid.

Note -
Unlike a V3100FT, updating a V3100Hybrid can always be done from the V3100 client through a network connection, because it updates the complete software (Linux included) and not only the V3100 application .
This is a simple procedure (see chapter 34)

40.4.2.2 Upgrade V3100HYB Version 1 to V3100HYB Version 2
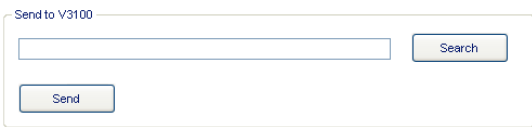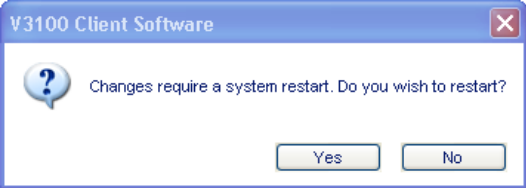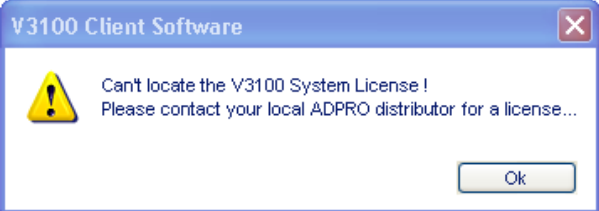
SCOPE

This document describes
- the procedure to upgrade a V3100 Hybrid Version 1 to a V3100 Hybrid Version 2.

PROCEDURE
Note: Don't forget to backup your V3100FT license file, configuration file and user file.

System > Maintenance > Transfer	Click to open the file management
Send to V3100 — Search / Send	Send the upgrade.bin file to the video system. **.The upgrade file will initially be an .exe file. First execute this file to convert it to a .bin file**
V3100 Client Software — Changes require a system restart. Do you wish to restart? Yes / No	Restart the system
V3100 Client Software — There is a new version of the V3100 client software available for download. You can upgrade your client software by deinstalling the current software and connecting again to the V3100 server using a webbrowser! [Current version 02.01.0000 - available version 02.01.0001] Ok	Uninstall the current V3100 Client and connect with IE explorer to install the newer V3100 Client software
V3100 Client Software — Can't locate the V3100 System License ! Please contact your local ADPRO distributor for a license... Ok	Once connected you will get the System licence notification. Load the system license as described in chapter 34.1

40.4.3 For Intel DH55TC

SCOPE

This document describes
- the installation/recovery procedure for a V3100 Hybrid Version 2.

REQUIREMENTS
Windows PC
V3100HYB Version 2 image (extension img)
V3100ImageFlash application (V3100ImageFlash.exe version 1.0.3 or higher)
2.5" Hard drive enclosure SATA
SSD disk
Monitor
Keyboard

PROCEDURE
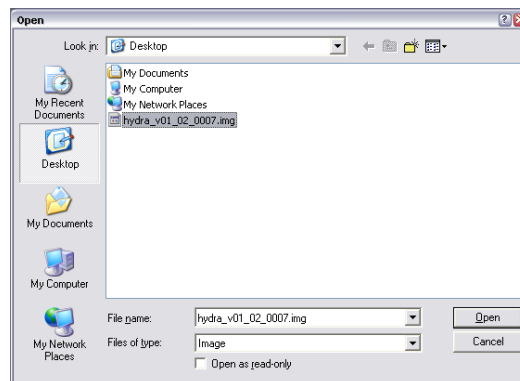Don't forget to backup your V3100FT license file, configuration file and user file if possible.
The Intel DH55TC motherboard is now fitted with a SSD instead an USB key to boot the Adpro V3100HYB.
A 2.5" Hard drive enclosure SATA is required to program the SSD from your computer.

BOOT SSD
Remove the boot SSD from the V3100.
Plug it in on the 2.5" Hard drive enclosure SATA connected on your Windows computer.
Copy the image and flash tool to the Windows computer

One the SSD is plugged in the computer, there are two possiblities:
- a) You don't see a Letter for the drive so you first have to create a partition.
  to become a Letter:
  Control panel > Admin. Tools > Computer Management >
  Disk management > create new partition > select FAT32 > naar 2)
- b) We zien een drive letter > ga naar 2)

Start the flash tool application and select the new drive letter (in this case G:)
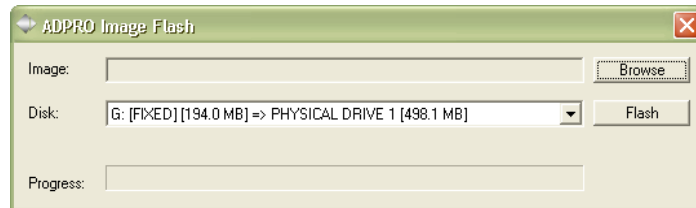
Select the image file: V3100Hybrid_V02_xx_xxxx.img
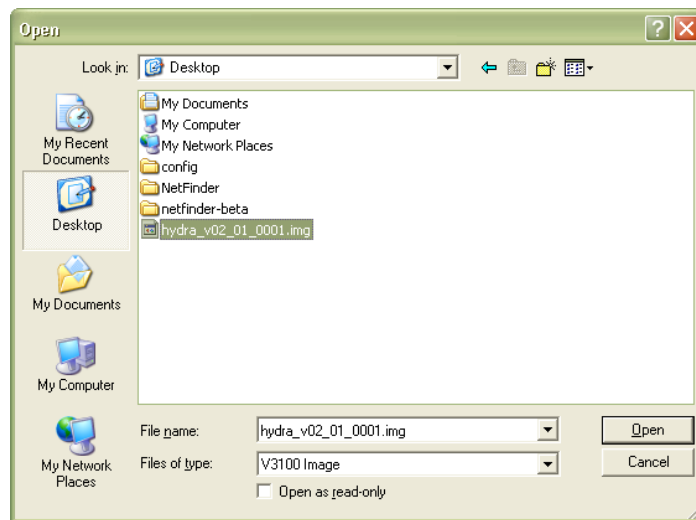
Flash the SSD
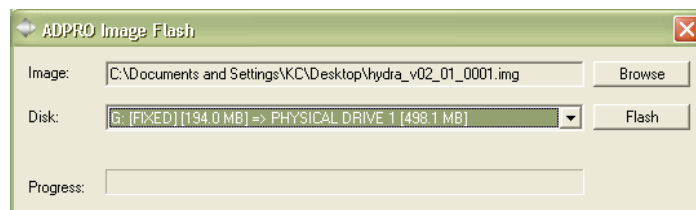
The boot SSD is now ready. Remove the SSD from the computer in a proper way.

CONFIGURATION
Insert the V3100Hybrid boot SSD in the V3100HYB.
Attach monitor and keyboard.
Start the V3100Hybrid and wait for the boot screen!
>Select V3100 Installer
>Select "Update current system"
>Select "Format (all) recording disk(s)" (this can take some time...)
>Select "Main menu"
>Select "Reboot"
The V3100Hybrid will reboot with default settings. The IP address is 10.0.0.10 by default. Send the license, configuration and user files to the V3100Hybrid.

40.5 Camera URLs

To open a player menu or a camera in a web browser, type the following line in the address bar:
http://ip address/index.php?parameter1&parameter2&...

40.5.1 Parameters

Open a player (sub)menu:
page=
subpage=

Following page names are allowed:

page	subpage
live	
timeline	
postmotion	
status	
settings	motion
	recording
	addressbook
	matrix
system	ethernet
	video
	audio
	alarms
	io
	serial
	videoic
	alarmtx
	email
	clock
	config
about	
file	

Open a camera:

autostartmask=value
 value = a binary coded decimal number:
 example: 3 (binary 0011) selects camera 1 and 2; 8 (binary 1000) selects camera 4

Login information (user name and password)

username=value
password=value

Download a recording:

uid=0a0000f7a45a6500

   => download the selected recording

uid_save_filename=

   => the name of the file in which the downloaded recording has to be stored (optional)

TCP or UDP mode
By default the TCP will be applied, to force UDP , add the following parameter to the URL:
 notcp

Simplified visualisation (hide the menu)
 nogui

Example
Open camera 1 (UDP)

http://10.0.2.41/index.php?autostartmask=1&username=0&password=666777&notcp&nogui

40.6 Required hard disk space

As there are a lot of configuration possibilities, a hard disk space calculator is available.
You can find this calculator on the CD provided with your system or download it from www.xtralissecurity.com

Attention: this HD calculator is an estimating tool only. Figures are indicative and depend on scene content.

40.7 Network load

Application		bandwidth/volume
Alarm transmission		**negligible**
Remote control		**negligible**
Software update		**volume of 6MB**
Configuration update		**volume of 150KB**
Video streaming (*)	4CIF/25ips	**400Kbps / camera**
	4CIF/6ips	**140Kbps / camera**
	CIF/25ips	**80Kpbs / camera**
	CIF/6ips	**43Kpbs / camera**
	QCIF/25ips	**17Kbps / camera**
	QCIF/6ips	**6Kbps / camera**
Audio in		**16Kbps / camera**
Audio out		**8Kbps**

(*) video streaming H.264, VBR, quality set to medium

40.8 V3100 BIOS settings

40.8.1 Motherboard M2A-VM

1) Choose: Main
        Select: System Time: Allows you to set the system time.
                  System Date: Allows you to set the system date.
                  Legacy Diskette A: Disabled

2) Choose: Advanced
        Select: - PCIPnP:
                  Plug & Play O/S: Yes
                  - Onboard Device Configuration:
                  Front Panel Type: AC97
                  Primary Display Adapter: Onchip Vga

3) Choose: Power
        Select: - APM Configuration:
                  Restore on AC Power Loss: Power-On
                  - Hardware Monitor:
                  Q fan controller: Enabled

4) Choose: Exit
        Select: Exit & Save Changes: Yes

Note: All the other parameters can be left to the default settings.

40.8.2 Motherboard DG31PR and DG41TY

1) Choose: Main
        Select: System Time: Allows you to set the system time.
                  System Date: Allows you to set the system date.

2) Choose: Advanced
        Select: - Boot:
                  Numlock: Off

3) Choose: Power
        Select: After Power Failure: Power-On

4) Choose: Boot
        Select: Boot USB Devices First: Enable

5) Choose: Exit
        Select: Exit & Save Changes: Yes

Note: All the other parameters can be left to the default settings.

40.8.3 Motherboard DH55TC

1) Choose: Main
        Select: System Time: Allows you to set the system time.
                System Date: Allows you to set the system date.

2) Choose: Advanced
        Select: Boot:
                Numlock: Off
        Select: Drive configuration:
                Smart: Disable
                Config.AHCI: On
        Select: Event log:
                Event logging: Disable
        Select: Chipset configuration:
                HPET: Disable

3) Choose: Power
        Select: After Power Failure: Power-On

4) Choose: Exit
        Select: Exit & Save Changes: Yes

Note: All the other parameters can be left to the default settings

40.9 Diagnostics

In case of major troubles with the V3100HYB system, the system allows to generate a lot of traces.
In some cases, after contacted the Xtralis Support Division, you will asked to activate and to capture some traces and files that can be helpful to resolve the trouble.

Retrieve traces:
The V3100HYB can output its internal trace buffer to harddisk to allow tracing for longer periods of time without losing the date. This happens with the telnet command "tr,output,file".
To easy retrieve these files enter the IP address from the system in your webbrowser and add /log.php after the address. For e.g. a unit with ip 10.0.0.10 : http://10.0.0.10/log.php
Here you can download the generated log files.

Retrieve reports:
To download the report file, enter the IP address from the system in your webbrowser and add /report.php after the address. For e.g. a unit with ip 10.0.0.10 : http://10.0.0.10/report.php
This will generate a complete debug report from the system.

Please contact your local Adpro dealer or Xtralis Support Division for more assistance.

41 Repair/update procedure

41.1 Replace motherboard

Switch off power supply	
Replace motherboard	
The system reboots applying the MAC address of the new motherboard.	

41.2 Replace/add hard disk

When you have a hard disk error on the video system (see Client software - Status page), proceed as follows:

Open telnet, log on and execute the command **ta,hd**.
The faulty hard disk will be indicated as Not OK. Its serial number is listed under Mount points. By checking the serial numbers stuck on the installed hard disks, you will be able to identify this faulty hard disk.
	```P0: V3100 <STANDARD-E> 14-11-08 11:19 V01.00.0011 [0049 VSK Electronics]```
	```¼kb,0.666777```
	```KEYBOARD 0 OPEN AT 14/11/2008 11:19:11```
	```¶ ta,hd```
	
	```Total free space: 283613 MB. Current write speed: 10 KBPS```
	
	```/dev/sda2 /hydra00 299490 MB 425 MB 283852 MB Status: NOk```
	
	```Mount points:```
	```WCARW4137662 : /hydra00```
	```¶```

Switch off the power supply	
Replace the faulty hard disk (or add a new hard disk)	
Connect a monitor and keyboard to the video system and switch back on the power supply	
During startup, select <V3100 Installer>	Select <Update current system> Select <Manage recording disks > Select new hard disk from list and press <Enter> Press <TAB> to select <format and use selected disk> Select <Main menu> Select <Reboot>

41.3 Replace/add video card

41.3.1 Replace a video card

Faulty video card

Check your license (open a telnet connection to execute the command line **ta,license**)
Trace the faulty video card (try to view Live images of the connected cameras in the client software)
If no license information is listed, your license may have been deleted by accident.
*Contact your dealer for a new license and mention the serial numbers of your video cards (which can be obtained with the command **ta,encoder**)*
	```P0: V3100 <STANDARD-E> 14-11-08 11:19 V01.00.0011 [0049 VSK Electronics]```
	```¼kb,0.666777```
	```KEYBOARD 0 OPEN AT 14/11/2008 11:19:11```
	```¶ta,license```
	```License info:```
	``| ##
		Object	Data```
			``| 00
				ENCODER CARD	DS-4008HC-121300845158```
					``| 01
						ENCODER CARD	DS-4008HC-121300845164```
							```¶ta,encoder```
							```Encoder info:```
							``| ##
								Data```
								``| 00
									DS-4008HC-121300845158```
									``| 01
										DS-4008HC-121300845164```

Switch off the power supply	
Remove the faulty video card and return it to your reseller.	
The replacement part will include a new license. Insert the new video card in the slot where you removed the old one.	
Switch on the power supply	
Upload the received license file to the V3100 server.	See chapter 34

41.3.2 Add a video card

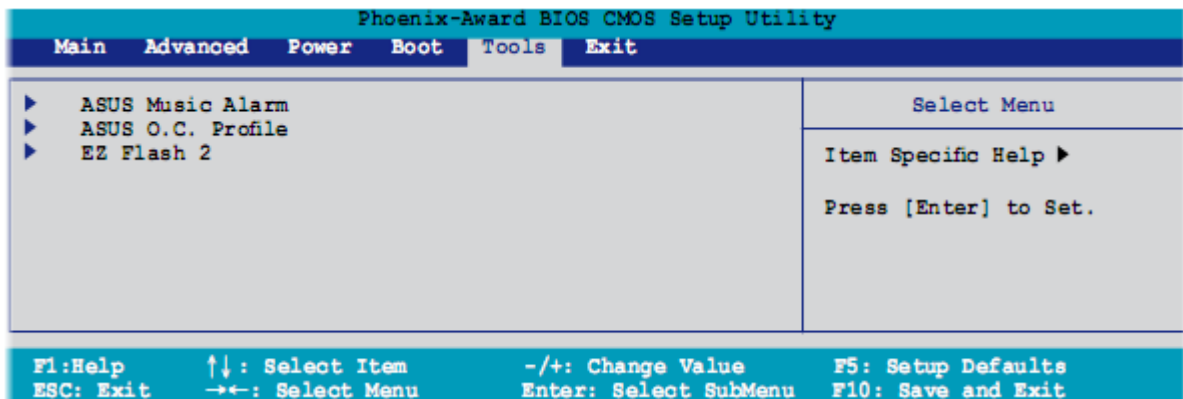|	
Your new video card will include a new license on delivery	
Switch off the power supply	
Open casing and insert the new video card	
Switch on the power supply	
Upload the received license file to the V3100 server.	See chapter 34

41.4 BIOS update procedure (ASUS M2A-VM board)

Step 1   Attach an USB Flash drive containing the new bios.
          Note: The bios file can be retrieved from the Xtralis website.

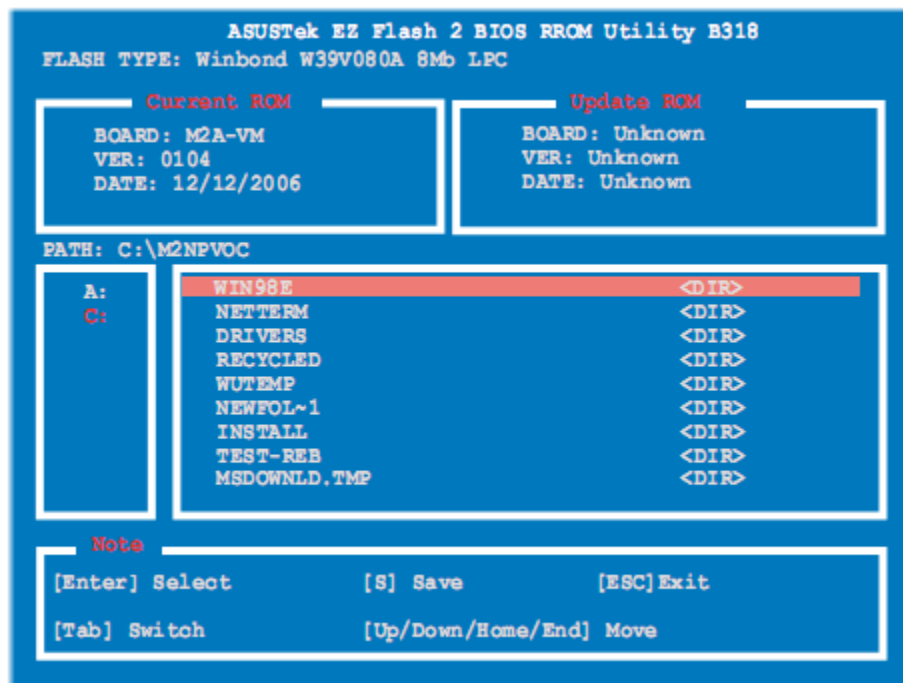Step 2   Reboot the V3100 and enter the bios menu using the Delete key.

Step 3   Start the EZ Flash 2 tool

```
              Phoenix-Award BIOS CMOS Setup Utility
    Main   Advanced   Power   Boot   Tools   Exit
                                                      ┌──────────────────────┐
  ▶   ASUS Music Alarm                                │     Select Menu      │
  ▶   ASUS O.C. Profile                               ├──────────────────────┤
  ▶   EZ Flash 2                                      │ Item Specific Help ▶ │
                                                      │                      │
                                                      │ Press [Enter] to Set.│
                                                      └──────────────────────┘

  F1:Help        ↑↓: Select Item    -/+: Change Value    F5: Setup Defaults
  ESC: Exit      →←: Select Menu     Enter: Select SubMenu  F10: Save and Exit
```

Step 4   Select the new bios from the list.
          The bios file name has the following syntax: "xxxx.bin" with "xxxx" being the bios version.
          Press enter to start the update procedure.

```
              ASUSTek EZ Flash 2 BIOS RROM Utility B318
  FLASH TYPE: Winbond W39V080A 8Mb LPC

        ── Current ROM ──              ── Update ROM ──
    BOARD: M2A-VM                    BOARD: Unknown
    VER: 0104                        VER: Unknown
    DATE: 12/12/2006                 DATE: Unknown

  PATH: C:\M2NPVOC

    A:     │  WIN98E                              <DIR>
    C:     │  NETTERM                             <DIR>
           │  DRIVERS                             <DIR>
           │  RECYCLED                            <DIR>
           │  WUTEMP                              <DIR>
           │  NEWFOL~1                            <DIR>
           │  INSTALL                             <DIR>
           │  TEST-REB                            <DIR>
           │  MSDOWNLD.TMP                        <DIR>

    ── Note ──
  [Enter] Select        [S] Save          [ESC]Exit

  [Tab] Switch          [Up/Down/Home/End] Move
```

42 Application notes V3100

42.1 VSKWin: retrieve the V3100 configuration file

The V3100 sends events to the VSKwin software.
To set up the V3100 for alarm transmission:
- connect to the V3100 using the V3100 client
- open **System ► Behaviour ► Alarm transmission**
- Select the **Primary Ethernet** option
- For **V3100 Unit ID**, specify a unique identification number (0001 to 9999)
- For **Destination 1 IP address**, enter the IP address of the VSKwin computer
- Click **Save**
- Open **System ► Maintenance ► Configuration,** select your active configuration and click **Save**.

All V3100 events can be assigned to instructions or can be associated to an alarm indicator on a map. To retrieve the list of inputs from a V3100 video system:
- Connect to the V3100 system with the V3100 client.
- Open **System ► Maintenance ► Transfer** menu.
- Select the **Configuration** option, choose your active configuration and click the **Get** button.
- The file V3100_xxxx_0.prop will be stored on your computer (xxxx is the identification number of the connected V3100 system). Use the search function in Windows to find this file.
- Copy this file to your data folder and rename it to propxxxx.cfg.

42.2 VSKWin : Create an alarm text that automatically opens a live camera image

Create a new text file under C:\Program Files\VSK Electronics\data\DETINT\Cxxxx where xxxx represents the ID number of the V3100 video system. Rename the file to Dyyyy+.HTM where yyyy represents the number of the event (example 1034 corresponds to motion detection in zone 1 on camera 1)
Edit this file with Notepad, and type the following lines (the example opens camera 1 on the video system that is on IP address 10.0.2.45):

```
<html>
<body>
<iframe src="http://10.0.2.45/index.php?autostartmask=1&username=0&password=666777&nogui" width=100%
height=100%>
</body>
</html>
```

42.3 Activate timer output on V3100

Purpose: execute a macro in VSKWin that activates an output on V3100 for x seconds.
Requires: an unused NetIO or USBIO input, eg I2595
We will use C2576 as timer output.

Step 1   Create a macro in VSKWin:
Click **Tools** > **Macro Editor**
Type the following lines: IP,+,2595
                              IP,-,2595
Save under \data\macro\V3100\active timer output.cmd

Step 2   Program input 2595 for a hold time of 30 seconds:
In VSKWin, click **Modules** > **System manager**
Open **Video panels**
Right click your V3100 video system and click **Web config**
In the Web configurator, open **System ► Behaviour ► Input/output behaviour**
Select event **I 2595**
Enter a description, select *Silent message* to suppress alarm messages, and set the alarm hold time to 30 seconds
Click **Save**

Step 3   In the V3100 system, program an output that follows the state of the chosen input
In the Web configurator, open **System ► Behaviour ► Input/output behaviour**
Select output **C2576**
Enter a description, tick the option **Logic**, and double click on the input I2595
Click **Save**

Step 4   In VSKWin, open **Modules**, **Command centre**.
Tick the video system in the left window pane and open the **Macro** tab.
Select your macro and click the **Execute** button

43 Labelling of products

DEVICE	MARKING ON DEVICE	MARKING ON PACKING
V3100 S	CE XTRALIS Security Solutions BELGIUM TYPE : ADPRO V3100 Hybrid 19" ASSY number 54VHHID0 - YYMM 100-240VAC ; 50/60Hz ; 6A FOR INDOOR USE ONLY sn. YYYY – 54VHHID0- nnnn	CE XTRALIS Security Solutions BELGIUM TYPE : ADPRO V3100 Hybrid 19" ASSY number 54VHHID0 - YYMM 100-240VAC ; 50/60Hz ; 6A FOR INDOOR USE ONLY sn. YYYY – 54VHHID0- nnnn
Explanation :		
	54VHHID0 = version dependent, see product number structure YY = year (2 digit) MM = month YYYY = year (4 digit) nnnn = sequential number	

43.1 product number structure

Each product version has an 8 digit product number which reflects the installed options.

Product number layout:

54	V	HH	I	D	0

→ Free (0)

→ DTC option

→ I/O option

→ Hard disk size
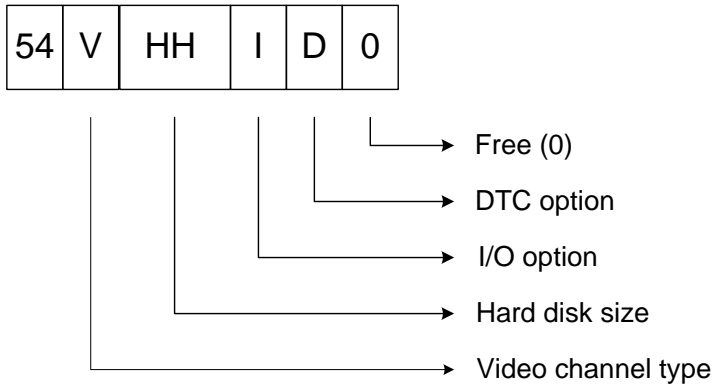
→ Video channel type

Video channel type :
- 0 = 4 analog
- 1 = 8 analog
- 2 = 12 analog
- 3 = 16 analog
- 4 = 8 IP
- 5 = 16 IP
- 6 = 4 analog + 8 IP
- 7 = 8 analog + 8 IP

Hard disk size :
- 00 = TX only (500GB)
- 01 = 500GB
- 02 = 1TB
- 03 = 2TB
- 04 = 3TB
- 05 = 4TB
- 06 = 5TB
- 07 = 6TB
- 08 = 7TB
- 09 = 8TB
- .....

I/O option :
- 0 = no I/O
- 1 = 1 MIO
- 2 = 1 MIO + 1 EIO
- 3 = 2 MIO
- 4 = 2 MIO + 1 EIO
- 5 = 2 MIO + 2 EIO

DTC option :
- 0 = no DTC
- 1 = DTC

Example : **54602200** = 4 analog cams + 8 IP cams
1TB HDD
1 MIO + 1 EIO (= 1 I/O main + 1 I/O extension)
no DTC

44 VBG (Germany): Installation instructions

Important: This is a summary VBG installation manual. Please read the complete manual for all programming and user possibilities.

44.1 V3100 Client software - minimum system requirements

Hardware	Pentium 4; 1.6GHz
	512MB RAM
	It is recommended to use a graphics card that is compatible with DirectX7 and that allows YUV surfaces and hardware stretching. If not compatible, the client will force the graphics card to GDI mode, which will increase CPU load!
Software	Windows XP (SP2) or Vista
	Internet Explorer 7
	Directx 7

The V3100 Client version 2.xx.xxxx is compatible with the V3100 Hybrid (V2.xx.xxxx) , the V3100 Hybrid (V1.02.xxxx) as well as the V3100 FT (V1.01.xxxx). Some menus will look different depending on the connected video system.

Remark

It is recommended to install the latest drivers of your graphics card!
For NVIDIA cards, check the website http://www.nvidia.com
For ATI cards, check the website http://ati.amd.com

The client can be forced to GDI mode (not recommended). Add the line 'gdi=1' in the [General] section of the 'hydra.ini' file, which is located in your work folder.

44.2 Installation of the client software on your computer
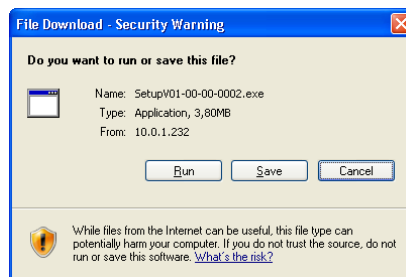
- The V3100 is by default on IP address **10.0.0.10**; subnet mask 255.255.255.0. On the computer, change the IP address to a value within the range of the V3100's IP address (example: set computer on IP address 10.0.0.1, subnet mask 255.255.255.0) . To change the IP address on a computer running under Windows XP, click **Start** > **Control Panel** > **Network connections**. Right click **Local Network Connections** and click **Properties**. Select *Internet protocol (TCPIP)* and click **Properties**. Select *Use the following IP address*, and enter the IP address and subnet mask. Click **OK**.
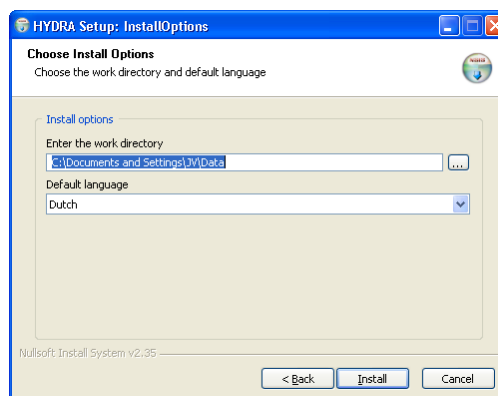- Connect the computer to the V3100 with an RJ45 network cross cable

❑ Open Internet Explorer
❑ type the IP address of the V3100 in the Address bar (including the setup page: example http://10.0.0.10/setup.php)

❑ Click setup.exe

❑ Click **Run**.
❑ On the License Agreement window , click **I Agree**.
❑ Click **Next**

❑ Accept or modify the work directory. Select the appropriate language. Click **Install**.
❑ Upon completion of the installation, click **Close**

Remark

The V3100 Client version 2.xx.xxxx is compatible with the V3100 Hybrid (V2.xx.xxxx) , and backwards compatible with previous V3100 server versions. Some configuration menus, like Video inputs and Recording behaviour, show some differences depending on which V3100 system you are setting up.

If the IP address has been changed and is unknown, read chapter 40.1 to find out the current IP address!

44.3 Users

The default configuration of a V3100 system contains 3 users, namely user 0 (Administrator), user 1 (Administrator) and user 15 (Technician). The default password of these users is 666777.

Add a user with the following properties:
- User id: 2
- Username: **vbg**
- Password: 666777
- User Type: User
- Tick Live Video (all cameras)
- Tick Timeline/Postmotion (all cameras) and Backup in Recorded video
- Untick all other checkboxes

44.4 Recording behaviour

Two recorders must be configured, recorder **Überfall** and **Verdacht.** They must record all connected cameras.

Properties of the Überfall recorder

- All connected cameras must be selected.
- Tick Mo->Su and Ho (holidays), from 1 January -> 31 December.
- Record on time based event: 00:00->24:00.
- Recordings must be locked.
- Record on event USBIO-1 input01 REAL (inputs on the box) (input 2576).
- Event recording properties: 900 sec before the event.
- Event recording properties: event duration.
- Event recording properties: 900 sec after the event.
- Do not tick 'always start new recording'.

Properties of the Verdacht recorder

- All connected cameras must be selected.
- Tick Mo->Su and Ho (holidays), from 1 January -> 31 December.
- Record on time based event: 00:00->24:00.
- Record on event USBIO-1 input02 REAL (inputs on the box) (input 2577).
- Recordings must not be locked.
- Event recording properties: 0 sec before the event.
- Event recording properties: 10 sec during the event
- Event recording properties: 0 sec after the event.
- Do not tick 'always start new recording'.

44.5 Video inputs

Using analogue cameras:
Set default live preset to 'Harddisk stream'.
Recording parameters: the event quality must be set to 5fps, resolution 4cif and quality Qnormal.
Recording parameters: the continuous/pre/post quality must be set to 5fps, resolution 4cif and quality Qnormal.

Using IP cameras:
Set default live preset to 'Harddisk stream'.
Recording parameters: the event quality must be set to 5fps, resolution 640x480 and quality Qnormal.
Recording parameters: the continuous/pre/post quality must be set to 5fps, resolution 480x360 and quality Qanalytics.

Note: This resolution is a minimum requirement. Depending on the camera type, higher resolutions are possible. Always use supported IP cameras in order to achieve the minimum resolution and stream requirements.

44.6 Inputs/outputs

The inputs USBIO-1 input01 REAL (**Überfall)** and USBIO-1 input02 REAL(**Verdacht)** are configured in section Input/Output Behaviour. Name the input, assign the profile 'NORMAL EVENT' to it and put the alarm hold time to 0.
Connect the **Überfall**-input to the main I/O card between IN1 (pin1) and ground (pin3)
Connect the **Verdacht**-input to the main I/O card between IN2 (pin2) and ground (pin3)
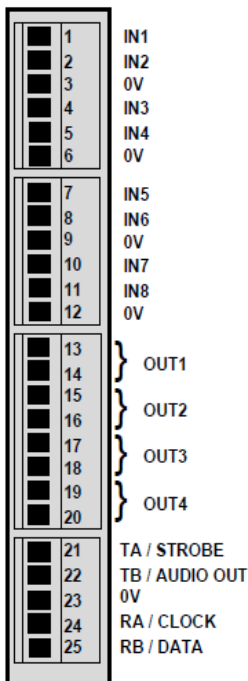
The inputs can be NO or NC (NEOL/SEOL/DEOL).
The type of input is selected in section I/O
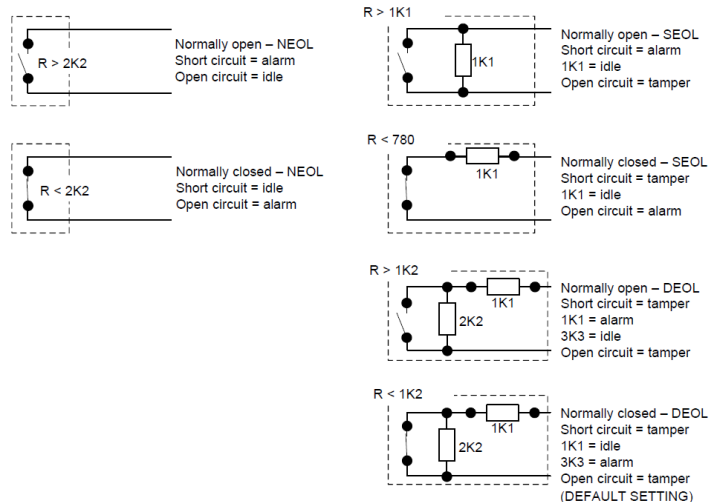
Output 1 (pin13 and 14) is activated on video loss. This is configured in the section Input/Output Behaviour. Select USBIO-1 OUTPUT01 (C2576), name the output, select 'Programmable Logic' for Behaviour and enter the following logical function:
C2576= I1024 or I1056 or etc... (for all cameras).
The type of output (NC or NO) is selected in section I/O.

44.7 Watching live cameras and take a snapshot

Click **Live Video** to watch live images from one or several cameras.

Function	Description
	Click to open live video streaming.
	Select a video source. Click on a numbered button to view the video from the corresponding camera. If video multiplexing is automatic and more than one camera is selected, the display window will be re-arranged in order to watch all selected cameras.
	Clicking this button displays the camera name and number of images per second of the displayed source. Video streaming status (green/red/grey) green - connection ok red - connection error grey - not connected Camera 1 Camera name 2CIF 5 Fps resolution and number of images per second local recording (red/grey) - see button audio (green/grey) recording on the hard disk of the V3100 system (red/grey) tamper alarm - camera lens covered (green/grey) motion detection (green/grey)

1 - 5 fps, 1280x720, Q 80 2 - 5 fps, 1920x1080, Q 80 3 - 30 fps, 176x144, Q 30 4 - 30 fps, 240x180, Q 30 5 - 30 fps, 320x240, Q 30 6 - 30 fps, 320x240, Q 50 7 - 30 fps, 320x240, Q 70 8 - 30 fps, 480x360, Q 50 9 - 5 fps, 480x270, Q 75 10 - 5 fps, 640x480, Q 70 11 - Harddisk stream	Right click on the camera picture to alter the video quality. Video quality presets are defined in System > Connections > Video inputs (click the [...] button to open the list with presets). See also chapter 1.1 - Limitations on live streaming
Snapshot All	When clicking the Snapshot button, a Snapshot is taken from the selected camera. First select a video source by clicking the desired camera image (the selected camera will be marked by a red border). The still image can be saved to the hard disk in a '.jpg' file or printed out on paper. In the pop-up window, the date and time are displayed. Snapshots are stored in the work folder that has been specified during installation. Click All to select all camera images.
Record All	Click on the Record button to start a local recording (recording on the hard disk of the client computer) of the selected camera ('Record live stream'). First select a video source by clicking the desired camera image (the selected camera will be marked by a red border). The sequence is saved in the work folder of the local computer. To record all cameras click the All button. - see remark -
[audio level slider]	The audio level slider. First select a video source by clicking the desired camera image (the selected camera will be marked by a red border), than click on the speaker button to start the audio streaming (the speaker button turns green when active). To adjust the volume for the speakers, click and hold mouse button on the slider and move the mouse to the desired level.
[PTZ control pad]	The PTZ controls. Use this button to control the selected PTZ camera. Click on the arrows to move camera to the left or to the right and up or down. The '+' and '-' symbols are used to zoom in or out. The Home button in the middle of the control pad moves the camera to the selected preset position.
PTZ-Speed [slider]	This slider adjusts the moving speed of the PTZ camera when using the player's built-in controls.
Prese 1 [buttons]	Open the drop-down list to select one of the 4 possible camera preset positions. Click on the floppy disk button to store the actual camera position in the selected preset position.
Focus [buttons]	Click the middle button to manually adjust the focussing. Use the - and + buttons to adjust.
Iris [buttons]	Click to manually adjust the iris. Use the - and + buttons to adjust.
Wash/Wipe [buttons]	Click to wash/wipe the lens of outdoor cameras with this feature.
Aux 254 [buttons]	Enable or disable the selected auxiliary function on the camera. Auxiliary camera functions vary depending on the camera model. Please read the ADPRO Tech Tips for more information.

Remark

Recordings are stored in your work folder. Files are named as follows:
cam01_2008_03_13_13_49_17.hvc
The file name contains the camera number and the moment at which the recording was launched (year-month-day-hour-minutes-seconds)
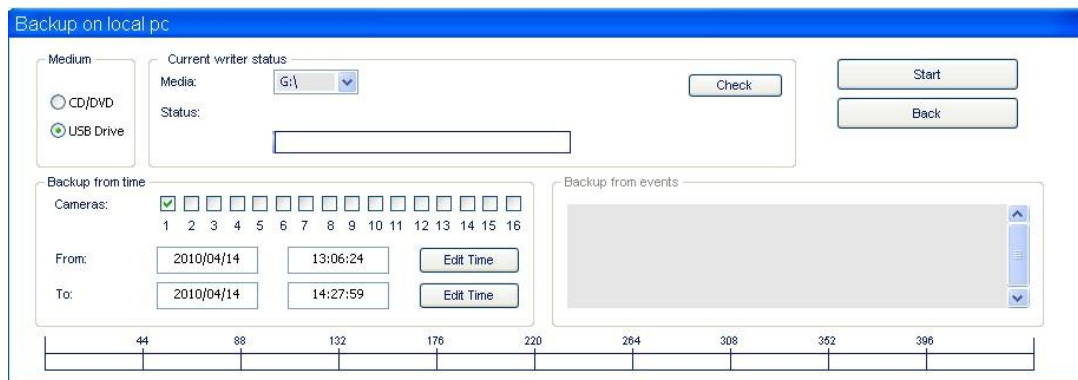
Still pictures are stored in your work folder, and are named as follows:
Cam01_2008_04_07_16_07_45.jpg
The file name contains the camera number and the moment at which the still was taken (year-month-day-hour-minutes-seconds)

44.8 Video Backup

A DVD/CD writer or USB stick can be used to backup important video information direct from the V3100HYB
The backup medium connected on the V3100 system or the backup medium on your computer can be selected.

	Open the **Recorded video** menu
	Select a video sequence by time (timeline) or by event (advanced search). If selecting by event, multiple selection is possible.
Backup V3100 Download Backup Local	Click Backup V3100 to backup the selected video recording on a USB stick or external CD/DVD drive connected local on the V3100. Click Backup Local to backup the selected video recording on a USB/CD/DVD on your local pc
Check	Select CD/DVD or USB drive. Insert a DVD-R(W) or USB stick and click **Check**.
Start	Click **Start** to start the copy
	Wait for completion and remove DVD-R(W) or USB stick.

Remark

The burned DVD or CD will be ejected automatically after completion. It will include all required software to select and playback the video. The video browser is launched automatically when inserted in another computer.
Warning: All media will be (re)formatted!

44.9 Burn footage stored on local computer (see also chapter 31.2)

	Open the **Recorded video** menu and select the "Manage local recordings" tab
Manage local recordings	Browse through the footage stored on your local hard disk. The list is arranged by video system (identification number).
»	Select a footage from the left window and click this button to add it to the list. Multiple selections are allowed.
	Check the **Include Player** option if player software has to be included. The player software is needed for play back on another computer.
○	Once all desired video files have been selected, insert a CD -R(W) or DVD-R(W) or USB stick and click this button to start the burning process.

44.10 Log off protection

Use the windows screensaver to prevent that unauthorised persons have access to the V3100 after 5 minutes of no input on the V3100.
Select 5 minutes for the parameter **Wait** and tick **On resume, password protect**.
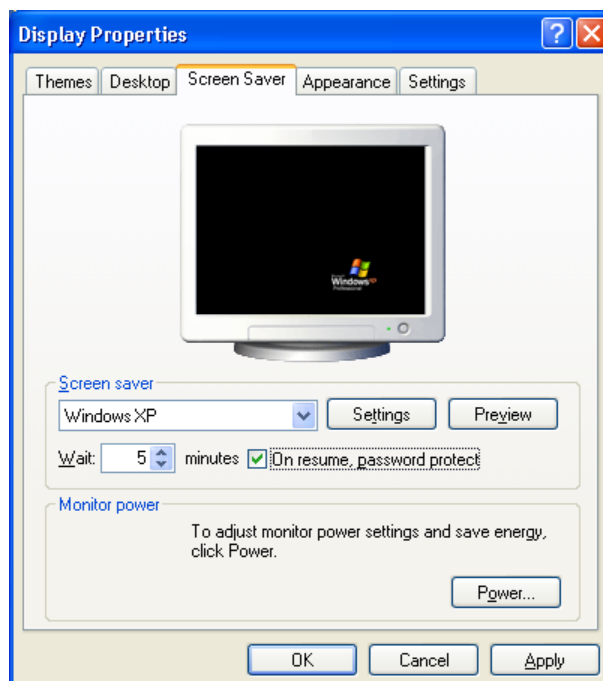
44.11   Hinweise

- Die Kameras sollen möglichst gegen Wegnahme oder Zerstörung geschützt angebracht werden.
- Um den Anreiz zu einem überfall zu reduzieren, sollen Kameras sichtbar installiert werden. Zusätzlich dürfen auch Kameras versteckt installiert werden.
- Das Bildaufzeichnungsgerät ist in einem verschlossenen oder durch gleichwertige maβnahmen gesicherten Raum aufzustellen.
- Das Bildaufzeichnungsgerät sollte möglichst an einer unterbrechungsfreien Stromversorgung betrieben werden.
- Arbeiten am System, die den Aufzeichnungsbetrieb beeinträchtigen, dürfen nur durchgeführt werden, wenn kein Kassengeschäft betrieben wird, d.h. auβerhalb der Geschäftszeiten bzw. unmittelbar nach einem Überfall.
- Bei Installation, Konfigurierung, Funktionsprüfung, Wartung und Reparatur des Videosystems ist die BGI/GUV-I 819-2 und BGI/GUV-I 819-3 zu beachten.