

Technical Product Information No. 09.02

Product/Version	CamDisc HNVR 10, CamDisc SVR 4s, CamDisc SVR 10s, CamServer 2, CamDisc SVR 4, CamDisc SVR 10, CamTel SVR 4, CamTel SVR 10, Cam4mobile 4, Cam4mobile 10
Date	June 2009
Topic	Parameter configurations for IP cameras
Short description	Parameter configurations for IP cameras with CamControl LITE or CamControl PRO
Download current firmware version	CamDisc SVR 4s, CamDisc SVR 10s, CamServer 2: http://www.heitel.com/en/service/upgrades/firmware/camdisc-svr-s-camserver-2 CamDisc SVR 4, CamDisc SVR 10, CamTel SVR 4, CamTel SVR 10, Cam4mobile 4, Cam4mobile 10: http://www.heitel.com/en/service/upgrades/firmware/camtel-svr-camdisc-svr-cam4mobile
Download CamControl LITE demo version	http://www.heitel.com/en/service/downloads/CamControl LITE
Download CamControl PRO demo version	http://www.heitel.com/en/service/downloads/CamControl PRO

1. Introduction

The launch of firmware 1.74 and the **CamControl LITE** and **CamControl PRO** version 3.83 software means that IP cameras from different manufacturers will be supported by the **CamTel SVR**, **CamDisc SVR**, **CamDisc SVR s**, **Cam4mobile**, **CamServer** and **CamDisc HNVR** device range. A compatibility list is available in the HeiTel Partner Forum.



At present only the JPEG or MJPEG image format is supported for the transfer of images from the IP camera to the HeiTel device. Ensure therefore that your camera transfers the images in a suitable format. Compressed video transfers with the standards H.264 or MPEG-4 are currently not supported. Please also refer to the latest manual for **CamControl LITE** and **CamControl PRO**.

There are two levels to the integration of IP cameras to HeiTel video systems:

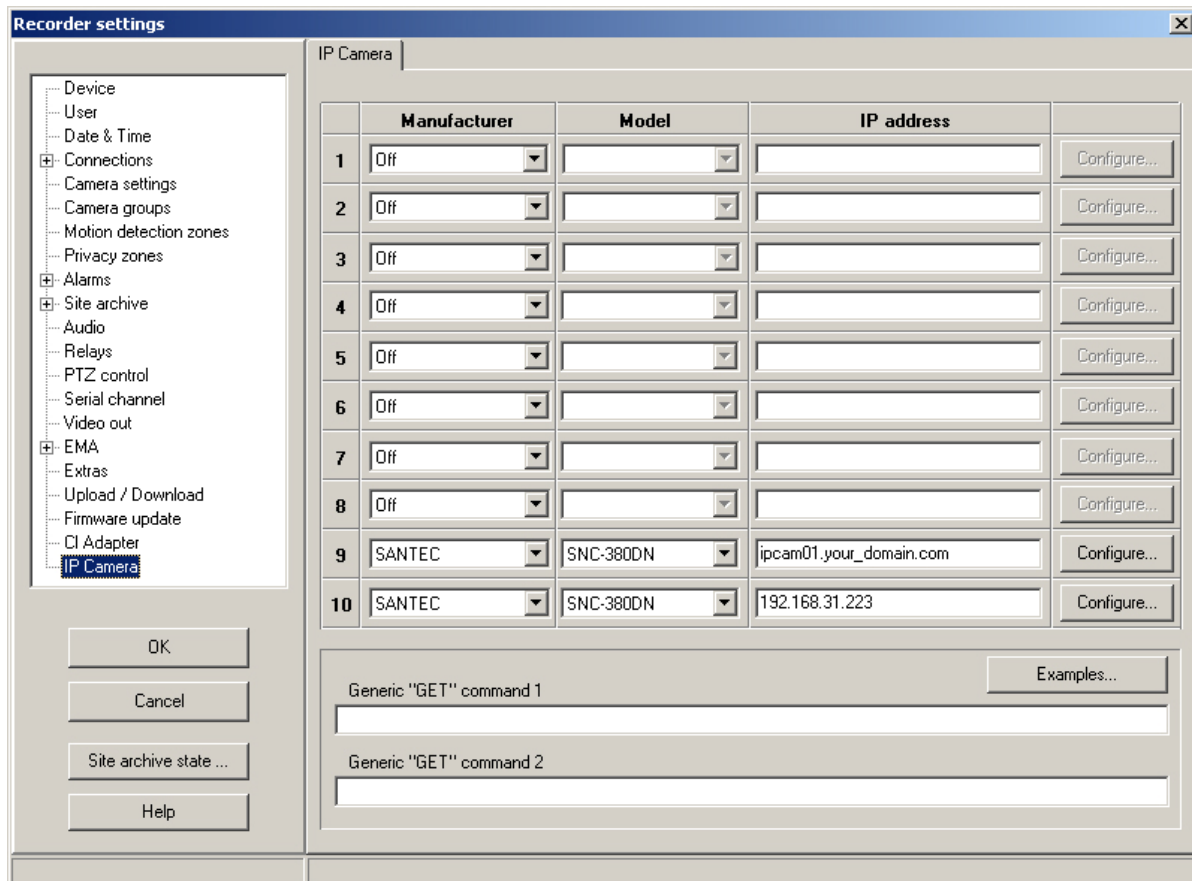
- Integration via the device firmware
- Integration via generic "GET" commands

2. Requirements

- 2.1. One of the above-mentioned devices with firmware 1.74 or later.
- 2.2. **CamControl LITE** software 3.83 or newer; **CamControl PRO** software 3.83 or newer.
- 2.3. IP camera(s) that are included in the compatibility list and which can be accessed directly from your HeiTel video system.

3. Integration via the device firmware

The IP Camera dialogue box allows you to use an IP camera in place of an analogue camera. (Minimum requirement for HeiTel devices: firmware 1.74). Depending on the device used, 2, 4 or 10 channels will be available.

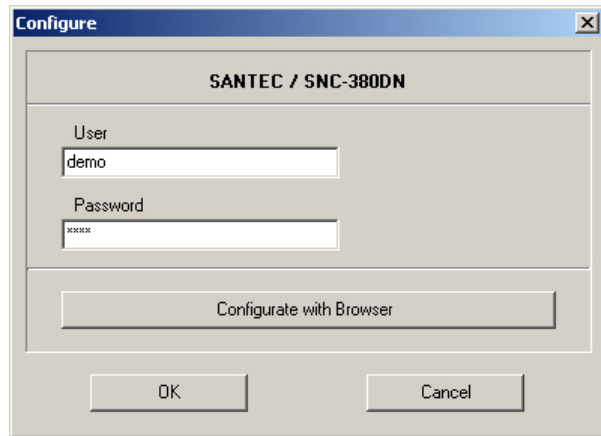


The dialog box 'Recorder settings' has a tree view on the left with 'IP Camera' selected. The main area is titled 'IP Camera' and contains a table with 10 rows. Each row has columns for 'Manufacturer', 'Model', and 'IP address', followed by a 'Configure...' button. The first 8 rows have 'Off' in the Manufacturer column. The 9th and 10th rows have 'SANTEC' in the Manufacturer column and 'SNC-380DN' in the Model column. The 9th row has 'ipcam01.your_domain.com' in the IP address column, and the 10th row has '192.168.31.223'. Below the table are two text input fields for 'Generic "GET" command 1' and 'Generic "GET" command 2', each with an 'Examples...' button to its right. At the bottom left are buttons for 'OK', 'Cancel', 'Site archive state ...', and 'Help'.

	Manufacturer	Model	IP address	
1	Off			Configure...
2	Off			Configure...
3	Off			Configure...
4	Off			Configure...
5	Off			Configure...
6	Off			Configure...
7	Off			Configure...
8	Off			Configure...
9	SANTEC	SNC-380DN	ipcam01.your_domain.com	Configure...
10	SANTEC	SNC-380DN	192.168.31.223	Configure...

- Select the **Manufacturer** of your IP camera from a pull-down menu. The standard setting for all video channels is Off. If your camera is not listed among the integrated manufacturers or if you would like to display a larger/smaller resolution, go to with **Integration via generic "GET" commands**.
- After selecting the manufacturer, select the camera **Model** from the pull-down menu. It is always possible, but not necessarily the case, that other models from a manufacturer not listed here are compatible to the extent that they will work with one of the models from the list.
- Enter the IP address or the symbolic name in the **IP address** column. At present you cannot add a port number to the IP address or the symbolic name. HeiTel video systems only communicate with IP cameras via the HTTP Port 80.

- Click the **Configure** button to open a dialogue box of the same name. If you have protected access to image data on your IP camera with a user name and password, you can store this access data in the HeiTel device via the **Configure** dialogue.

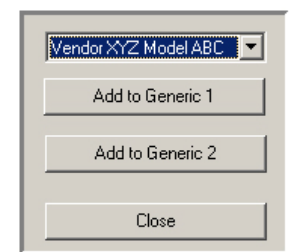


An IP camera can only be configured via a Web browser if it can be accessed directly from the receiver PC. If only the HeiTel device can be accessed directly and if the IP camera is located in a local network accessible by this device, access from the receiver PC via a Web browser is not possible. If the receiver PC also resides in this local network, access to the IP camera is also generally possible via the Web browser.

4. Integration via generic "GET" commands

These commands can be used to create commands to call up JPEG images for IP cameras that have a similar command structure to the IP cameras previously integrated. These commands allow you to integrate additional IP cameras without firmware modifications. For the manufacturer **GENERIC 1** the **Generic "GET" command 1** is used, whilst for **GENERIC 2** the **Generic "GET" command 2** is used. You can use this command to control the resolution of the images requested by making the relevant addition to each command.

- Click the **Examples...** button to open a dialogue box in which to select from examples of generic "GET" commands. Displaying the **Examples...** button is optional and depends on the `GenericExamplesIPCam.txt` file. This button is only displayed if valid examples of **generic "GET" commands** exist for this file in the program directory of your **CamControl LITE** or **CamControl PRO** software.
- Select the desired camera model. The inserted string is only an example. Authentication may be necessary, depending on the model and configuration of your IP camera. Example strings are provided for this with the user name "demo" and password "demo". Ensure that your IP camera also has this user name/password information if you select this string. In addition, you can find example strings you may use to control the resolution of the requested images.
- Use **Add to Generic 1** and/or **Add to Generic 2** to copy the relevant example string to the field in question.
- Exit this dialogue by pressing **Close**.



For additional information, please refer to the latest manual for **CamControl LITE** or **CamControl PRO**.

You can find a compatibility list and an additional document for the generic "GET" commands for implemented IP cameras in the HeiTel Partner Forum (see <http://www.heitel.com/en/partner-forum>)

For more information on authentication methods, please refer to the camera documentation. An example of a common procedure is the "Basic Authentication Scheme" in accordance with RFC 2617 - HTTP Authentication (see <http://tools.ietf.org/html/rfc2617#section-2>).

With this method the camera expects the user name and password to be Base64-encoded.

The following websites offer a free de-/encoder tool for generating a Base64-encoded string containing the user name and password: <http://www.flazh.de/base64-de-encoder.htm>, <http://ostermiller.org/calc/encode.html> or <http://rumkin.com/tools/compression/base64.php>

The aforementioned online tools all function in a similar fashion:

- 4.1. In the input window for each website, enter the user name and password in the following format: User name:Password
You must make sure that both items are joined by a colon. For example: **demo:demo**
- 4.2. Select the button to encode your entry (e.g. **Text--> Base64, Encode Base64** or **Encode to base64**).
- 4.3. The encoded line is displayed in the output window.
For example: **ZGVtbzpkZW1v**

To create a generic "GET" command you will normally need the SDK (Software Development Kit) or API (Application Programming Interface) documentation for the IP camera. Without support from HeiTel, the user will not normally be able to use this function.

5. Notes regarding use of third-party services

With the aforementioned online tools for Base64 encoding of user name and password, you are acting as the user of third-party services.

Important: *Please note that HeiTel Digital Video GmbH has no influence over and assumes no liability for the function and availability of services obtained from other parties.*