VideoBridge™ 8000

Web Configuration Guide

IndigoVision

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WEB CONFIGURATION

This guide explains the various configuration options provided by the Web Configuration pages for your VideoBridge unit.

Configuration Overview

To access the pages, enter the IP address of your VideoBridge 8000 unit into a web browser. The Configuration Overview page is displayed.

Note: VideoBridge units support Microsoft® Internet Explorer (version 6 or higher recommended).

To access any of the other configuration pages, click the required option on the left-hand side of the web page.

Home

This section is read-only and provides a basic configuration overview of the unit.

Note: This page is accessible to all users even if they are not authorized to access the other configuration pages.

Network

Host Name — Enter a name to identify this VideoBridge unit. This name appears at the top of all the web configuration pages.

Location — Enter a location to identify this VideoBridge unit. This location appears at the top of all web pages.

IP Address — Enter the IP address of the device.

Subnet Mask — Enter the IP network subnet mask.

Default Gateway — Appropriate default gateway for remote network access. See “Setting a Default Gateway” in the VideoBridge 8000 Hardware Guide to ensure that you set up your default gateway correctly.

Broadcast Address — Broadcast addresses are calculated automatically using your IP address and subnet mask to locate and access VideoBridge devices within a given range of network IP addresses. This value is read-only.

Ethernet Interface — Select the appropriate Ethernet interface for the switch or network hub you are connected to. If you select Auto-negotiate, ensure that your switch supports this.

Date & Time

This selects the source for date and time information for the VideoBridge unit.

Network Time Protocol — Select this option and enter the address of an NTP server. The NTP server must be on a network accessible by the unit.

Real Time Clock — Select this option if you prefer to use the real time clock embedded in the VideoBridge unit, and enter a date and time in local time.

Note: When you enter the date and time on this web page and click *Submit*, this sets the current local time of the real time clock.

Time Zone — Select the appropriate time zone.

Video

Device Type — For VP882 platforms, select transmitter or receiver as appropriate. If you select receiver, the other options on the page are greyed out, apart from Video Output Format.

Note: If you are using a VP881 platform, this option is set to transmitter and is read-only.

Bit-rate — Enter the video bit-rate you want to use.

Rate Control — This is currently set to CBR (Capped Bit Rate) and is read-only.

Transmit one frame for every x frames captured — This allows you to maintain video quality while sacrificing frame rate, especially on low bandwidth links.

I-Frame interval — This determines how often a full frame of video is transmitted, the default being every 4000ms. A lower I-frame interval provides smoother rewind on recordings made by the NVR. The default I-frame interval of 4000ms is a good compromise as it allows navigation of recordings and provides high quality live video.

Resolution — Choose from SIF, 2SIF or 4SIF.

Brightness, Contrast, Saturation and Hue — These are standard color-space controls. Adjust as required for your video.

Video Output Format — Receivers only. Set this to be the same format as the video source.

VCR Compatible — Receivers only. Check this box if the output from the receiver is to be recorded to a video recorder. You must reboot the unit for this setting to take effect.

Motion Detect

Motion Detection Enabled — Check this box to enable motion detection.

Application Type — Select the type of scene in which you are using motion detection. If you select one of the set options (car park, office, corridor, or perimeter), a predetermined set of motion detection values are used. Select *Custom* if none of these options are representative of the scene you are monitoring. If you select Custom you must specify the motion detection values.

Note: The following values are read-only if you have chosen one of the set application types. If you want to edit the following values, select *Custom* for the application type.

Sensitivity Threshold — This value specifies how sensitive the motion detection is to movement. Enter a value between 0 and 100, where 0 is the least sensitive (that is, no movement would be detected).

Minimum/Maximum Object Size — This allows you to filter out objects outside a certain range and gives you control over the types of motion which will trigger an event. The values refer to blocks in the Region of Interest Editor. (See below for more information on the editor). For example, you can filter out small insignificant motion, such as flashing LEDs, only allowing the detection of larger objects, such as human movement.

Persistence Time — This is the length of time during which sustained motion must occur for it to register. The range is 0 to 60000 ms.

Region of Interest Editor

This dialog displays the current live image from the camera you are configuring. It is divided into 22x18 blocks for PAL and 22x15 for NTSC. This allows you to specify which areas of the scene are to be observed or ignored

1 To define an area where motion will be detected:

- To set a single square to ignore motion, click it with the right mouse button. The square is shown in grey scale, and the red border changes to surround the area that is detecting motion.
- To set a single square to detect motion, click it with the left mouse button. The square is shown in full color, and the red border changes to surround the area that is detecting motion.
- To set a larger area to detect or ignore motion, click and drag over a number of squares with the left or right mouse button down. Each square that the mouse goes over will be set to detect or ignore motion.
- To clear the whole image so that motion is ignored, click *Ignore All*.
- To clear the whole image so that motion is detected, click *Detect All*.

2 When you have specified which areas you want to observe and ignore, click *Submit.*

Audio

The audio input is a mixed input of the Microphone and Line inputs. The Audio input gain is applied to both line and microphone input channels. If only one input is required, for example, Line input, then the other channel should **not** be connected to any audio source, for example, the Mic input should be left disconnected in this case.

Audio Output and Input Gain — These values depend on the sensitivity of the input/output devices you are using. Specify a number between 0 – 100, where 0 is the quietest value.

Mic Input Type — The VideoBridge 8000 supports both dynamic and condenser microphone inputs.

Audio Bit Rate — Select 32, 48 or 64 Kbps as appropriate.

PTZ (Serial)

PTZ Type — Select the type of PTZ camera you are using. The following values may not apply to all makes of camera. If your PTZ type is not listed, select *Custom*. If you are using a custom PTZ type, you must set the serial parameters to match those of your custom device.

Note: Some PTZ types may not be supported by your application software, for example, VideoBridge 8000 Control Center.

Baud Rate, Data Bits, Parity, Stop Bits, Flow Control, Port Format — When you select a PTZ type in the previous field, these values are automatically completed. If you are configuring a custom PTZ camera type, complete these values as recommended by the PTZ manufacturer.

Binary IO

For information on binary IO, see “Binary Input” in the VideoBridge 8000 Hardware Guide.

Input 1 – 4 — Set the inputs to *Low to High* and/or *High to Low* as required.

In many software applications (such as VideoBridge Control Center), events are **edge triggered**, not level triggered. This means that events occur on the rising or falling edge of the signal to the binary IO trigger pin.

- To trigger an event when the voltage changes from low to high, select *Low to High*.
- To trigger when the voltage changes from high to low, select *High to Low*.
- To trigger an event when the voltage changes in both directions, check both boxes.

Note: Input voltage is in the range 0V to 24V DC. It must be less than 1VDC for a logic low and greater than 4VDC for a logic high.

Events

This page keeps a record of the number of each type of event that has occurred and the time at which they last occurred.

To test any event, such as a motion detection event, click *Start* and simulate the motion that you want to test. An event appears in the list each time motion is detected.

Advanced Network Configuration

Multicast Address — You can normally leave this address unchanged. However, you may change it to any valid multicast address if the default is not suitable, or if it conflicts with another multicast address.

Multicast Video and Audio Port — You can normally leave these port numbers unchanged. However, you may change them to any valid port numbers if the defaults are not suitable. Multiple VideoBridge 8000 units may share the same port numbers.

Choose a **Transmitter strategy** for congested network conditions using TCP links:

- maintain the bit rate to all receivers — select this option if you have multiple receivers per transmitter.
- use the bit rate of the lowest bandwidth receiver — select this option if you have only one receiver per transmitter.

Note: These options are greyed out if the unit is a receiver.

Network Security

This page allows you to specify which network devices are authorized to access the unit. These are normally PCs used as receivers, other VideoBridge 8000 receivers, and PCs being used to configure the unit using the web pages.

Caution: When specifying which PCs may access the unit, make sure that you enter the address of the PC being used to configure the unit before enabling IP address restrictions.

Password — Enter a password for the unit. This must contain between 1 and 21 alphanumeric characters.

Note: Once you have set a password, you may change it, but you may not remove it altogether. If you forget the password, use the factory default button to remove password restrictions and set a new one. See “Factory Default Reset” in the VideoBridge 8000 Hardware Guide.

Enable IP Address Restrictions — Check this box to enable or disable network security restrictions, then click *Submit*.

Addresses Allowed — This contains all IP addresses with authorization to access this unit, and must include the address of the PC used to configure the unit.

Select an address and click *Remove* to delete it from the list. You can shift-click to select several addresses to be removed.

Add Address — Enter an IP address and click *Add* to add it to the list of authorized addresses.

Firmware Upgrade

Locate the vex file you require to upgrade your unit, then click *Perform Upgrade*. The upgrade may take a few minutes. It is important not to interrupt the upgrade or power off the unit while the upgrade is in progress.

Diagnostics

Most of these pages provide support information which may be requested by your IndigoVision supplier.

Serial Diagnostics

This page details the statistics for the traffic on the serial data. The information at the top of the page shows in particular the tx and rx counters. These counters can be used when investigating serial data transmission to check that the VideoBridge unit is sending and receiving serial data.

For example, the following output shows:

1. The console port (0) transmitted 4472 characters and received 0 characters.
2. The data port (1) transmitted 0 characters and received 0 characters.

```
0: uart:XScale UART port:0xff001000 irq:13 baud:115200
tx:4472 rx:0 RTS|CTS|DTR|DSR|CD|RI
```

```
1: uart:XScale UART port:0xff000000 irq:15 baud:9600 tx:0
rx:0 RTS|DTR|DSR|CD|RI
```

Internet Links

If you have Internet access from your network, this page provides useful links to documentation, firmware and Java support.

APPENDIX A - CONFIGURING THE DEVICE TYPE

By default, VideoBridge 8000 v2-5-0 firmware units ship as transmitters. You cannot configure the devices as receivers via the web pages. To convert a transmitter unit to a receiver or vice versa you must use the following upgrade procedure.

Note: This procedure does not alter any serial, media or network parameters currently in use on the unit.

Converting a Transmitter to a Receiver

To convert an existing VideoBridge 8000 v2-5-0 unit from a transmitter to a receiver:

1. Download the file "v2-5-0-Receiver.vex" from the IndigoVision support website.
2. Check that you can access the unit you plan to convert over your Local Area Network.

   Note: You cannot convert units over a WAN. If you attempt this, you may need to return the unit to your supplier.
3. Enter the IP address of the unit to be converted in an Internet Explorer browser, for example, if the unit has an IP address of 10.5.1.10 then enter http://10.5.1.10.
4. Click *Firmware Upgrade* on the left of the web page.
5. Click *Browse* to locate the file "v2-5-0-Receiver.vex" on your system which you downloaded in step 1.
6. Click *Open*.
7. Click *Perform Upgrade*. The unit now enters the re-programming phase required to convert it into a receiver. After a few minutes the unit reboots and is ready for use as a receiver. Do not power-down the unit while it is being programmed. If you do, you will need to return the unit to your supplier.

Converting a Receiver to a Transmitter

To convert an existing VideoBridge 8000 v2-5-0 unit from a receiver to a transmitter, repeat the above procedure but use the downloaded file "v2-5-0-Transmitter.vex" in place of the "v2-5-0-Receiver.vex" file.