Cathexis KBD-3000 Installation and Setup Manual

Contents

1 Introduction

This document details the installation and setup of the Cathexis KBD-3000 Keyboard.[1] For information regarding the operation of the keyboard, please consult the KBD-3000 Operation Manual.

a. Requirements

- CathexisVision software version 5041f1 (pre-2014), and CathexisVision 2014 and newer.
- **RS232** cable [this is not supplied]. Must be straight through, with male and female DB9 connectors. One on each end. [maximum length of 15m].
- **RS422** cable [not supplied]. Must be twisted pair with male RJ45 connector at one end, and female DB9 connector at the other end. [maximum length 1200m].
- **Power supply cable.**
- **Compatible PTZ camera.** See www.cathexisvideo.com for list of compatible cameras.

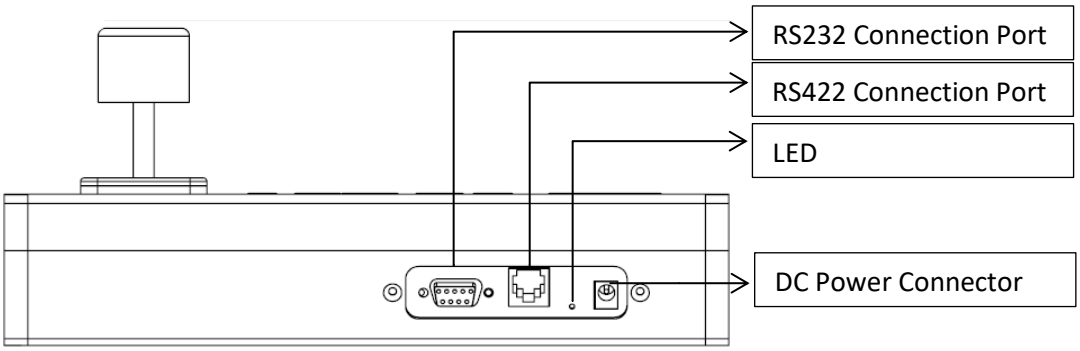
Note:

- The panic button is not supported from CathexisVision 2016 and onwards.
- The Keyboard PTZ setup button is only supported by legacy Analogue PTZ cameras. For new IP PTZ cameras, advanced functions need to be configured by accessing the camera via a web browser. Please see the KBD-3000 Operation Manual for more information.

[1] While Cathexis has made every effort to ensure the accuracy of this document, there is no guarantee of accuracy, neither explicit, nor implied. Specifications are subject to change without notice.

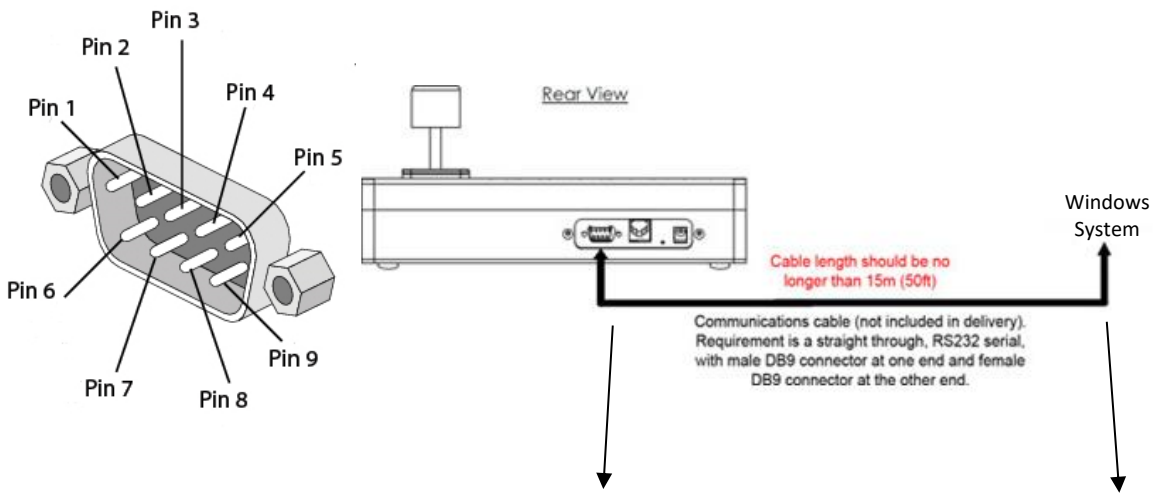
2 Connect the Keyboard

Connect the keyboard to the CathexisVision unit using the appropriate cable. Then connect the keyboard to a power supply. See the connection diagram below.



Note: If the motherboard does not have an onboard serial port, it is necessary to use a USB to serial port converter. This is not supplied with the keyboard and must be sourced independently.

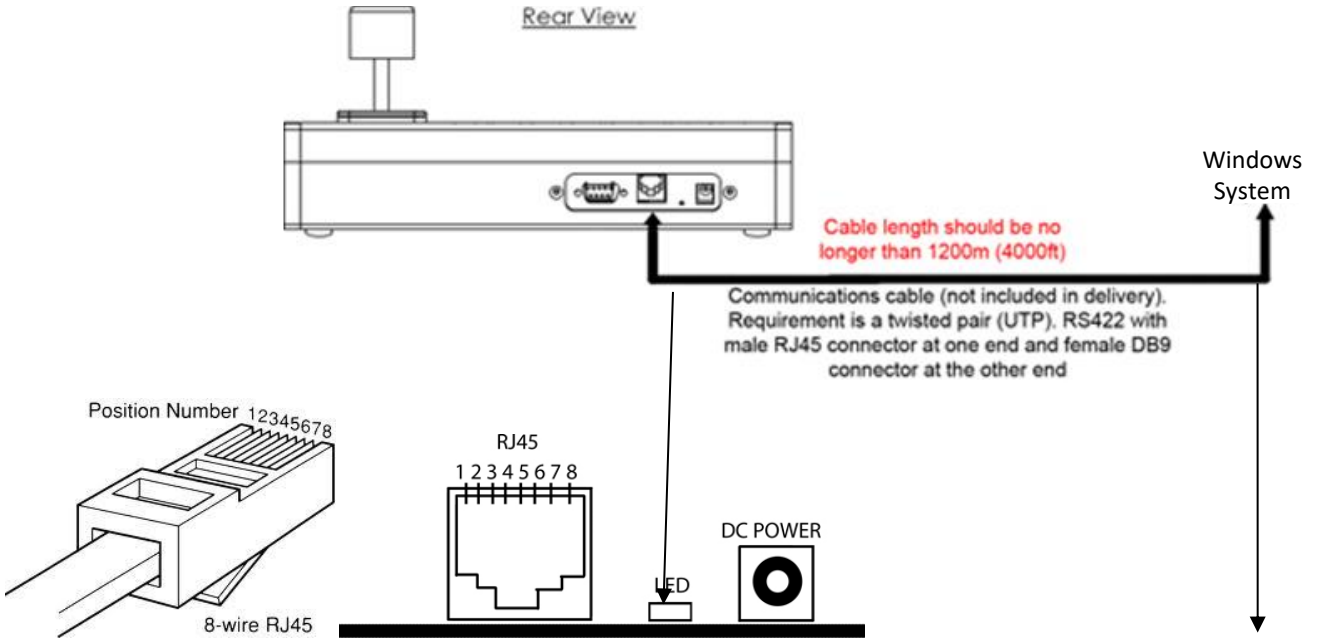
a. Connecting via RS232



There is no handshake required between the keyboard and the PC. Connect as follows:

KBD (DCE)	PC (DTE)
5 (GND)	5 (GND)
2 (TXD)	2 (RXD)
3 (RXD)	3 (TXD)

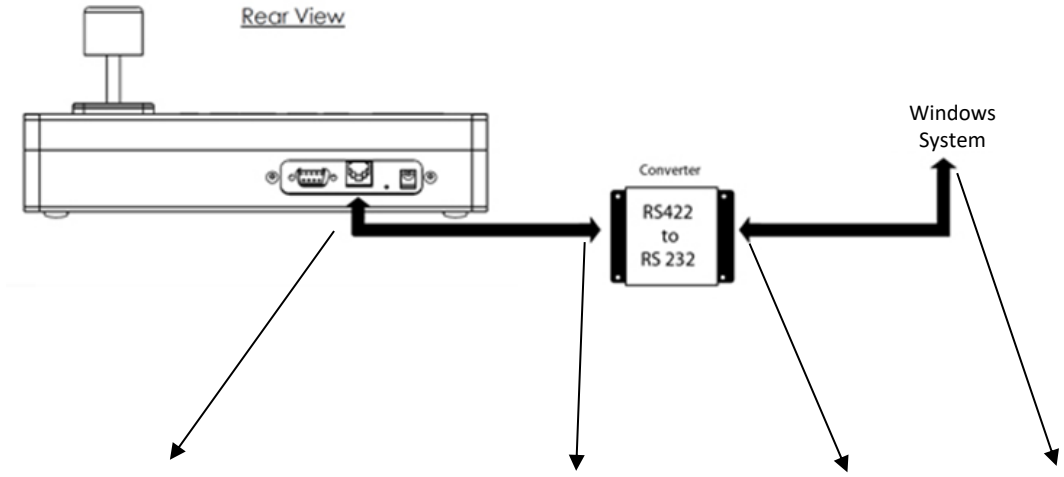
b. Connecting via RS422



There is no handshake required between the KBD-3000 and the PC. Connect as follows:

KBD RJ45	Recorder PSP-1400 DB9S
3 (RX +)	4 (TX +)
4 (TX +)	8 (RX +)
5 (RX -)	5 (TX -)
6 (TX -)	9 (RX -)
1, 8 (GND)	1 (GND)

c. Connecting via RS422–RS232 Converter



KBD RJ45	ADEMCO RS422 DB9P	Converter to RS232 cable
3 (RX +)	2 (TX +)	The RS232 cable from the
4 (TX +)	3 (RX +)	

5 (RX -)	1 (TX -)	Converter to the NVR is dependent on the converter switch settings. Contact the 3rd Party company for more information.
6 (TX -)	4 (RX -)	
1, 8 (GND)	5 (GND)	

d. Connecting Via USB to Serial Converter

Motherboards are increasingly being manufactured without on-board serial ports. For new Windows PCs without on-board serial ports, it is necessary to use USB - to serial converters as described below.

Note: The USB to serial converter must have a DB9 connector.

Install the USB to Serial Port Software

ES-U-1001-R100 /US232R-100 USB to RS121 adapter

1. Plug the converter into a USB port at the back of the motherboard.
2. Insert the driver CD into the DVD writer
3. Go to the device manager (**Start>> Control Panel >> Hardware and Sound>>Device Manager)**
4. Right click on the unknown device and go to **update driver software.**
5. Browse **My Computer** for software driver
6. Browse to the D drive and ensure that the **include subfolders option** is ticked.
7. Click **Next** and the unit will install the device from the CD.

> Windows will initialize the COM port and the device will be ready for use.

8. After installing the drivers, check the **>> Control Panel >> Hardware and Sound>>Device Manager** to identify the port number, making sure that the port is assigned to COM port 3 (COM3). If not, follow the following instructions on how to change the COM port...

- ***Set the COM port***

Note: The KBD-3000 setup can see up to a maximum of 10 COM ports. The COM port need only be changed/set if Windows picks up the COM port on a higher number than 10.

Set the COM Port

The COM port that is configured here must match the one configured in CathexisVision when enabling the keyboard.

While in the device manger (**Start → Control Panel → Hardware and Sound → Device Manager**), right click on the Prolific USB-to-Serial Bridge (COM x) → Properties → Port Settings Tab → Advanced.

e. Install Drivers

On some systems (depending on OS and internet access), drivers may be installed automatically, or they will have to be downloaded and installed manually.

If drivers do not install automatically, visit http://www.ftdichip.com/Drivers/VCP.htm to download and install.

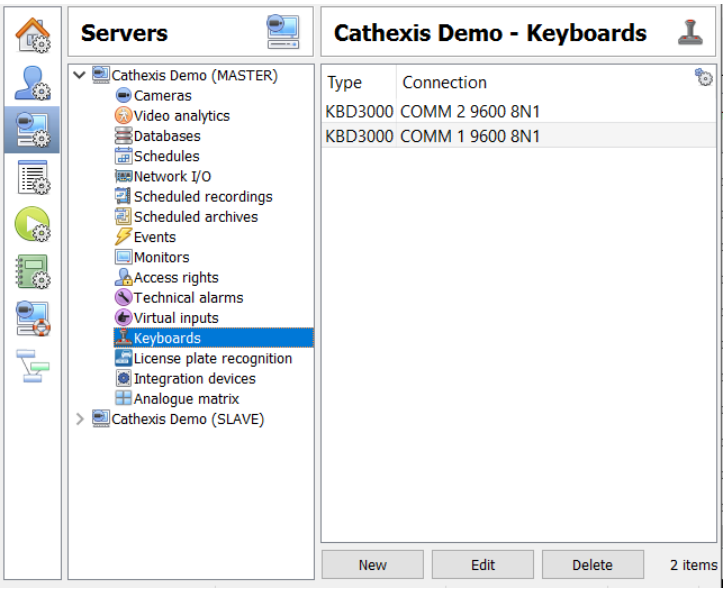
f. Disconnect/Reset the Keyboard

To disconnect/reset the keyboard, simply disconnect and then reconnect the power supply. The KBD-3000 will go through a normal power-up and return to the default state.

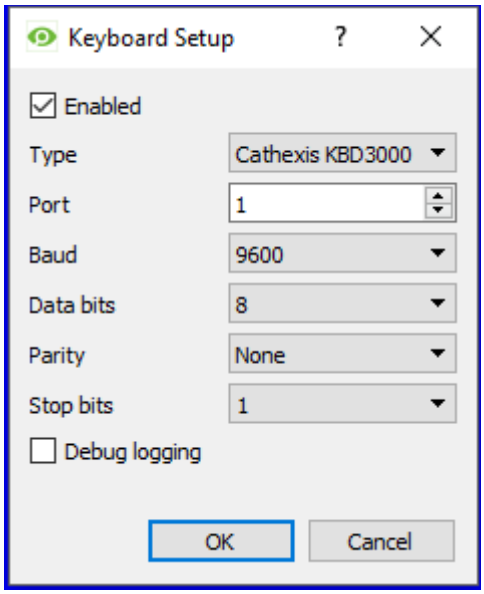
3 Configure Keyboard

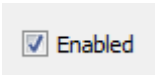
The KBD-3000 can be configured on either the Server, or on the Client PC, running the appropriate version of CathexisVision.

a. Configure in Server



Setup Tab → Configure Servers → Keyboards → New.



To use the keyboard, make sure that 

is checked.

Select the Cathexis KDB-3000 from the **Type** drop-down menu.

Set the **Port**.
Note: If connecting via USB to Serial converter, this number needs to match the COM port number configured in device manager. See above.

Set the **Baud**.

Set the **Data bits**.

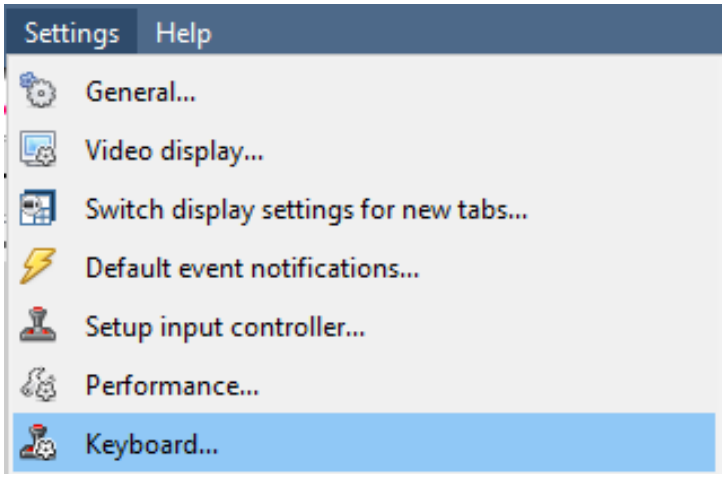
Set the **Parity**.

Set the **Stop bits**.

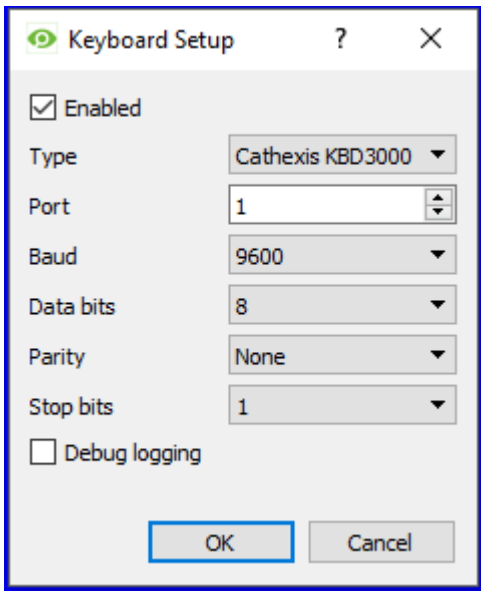
Debug logging is not supported for the KBD-3000.

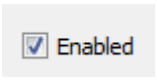
Restart CathexisVision for these settings to take effect

b. Configure in Client



Settings Menu → Keyboard…





To use the keyboard, make sure that is checked.

Select the Cathexis KDB-3000 from the **Type** drop-down menu.

Set the **Port**.
Note: If connecting via USB to Serial converter, this number needs to match the COM port number configured in device manager. See above.

Set the **Baud**.

Set the **Data bits**.

Set the **Parity**.

Set the **Stop bits**.

Debug logging is not supported for the KBD-3000.

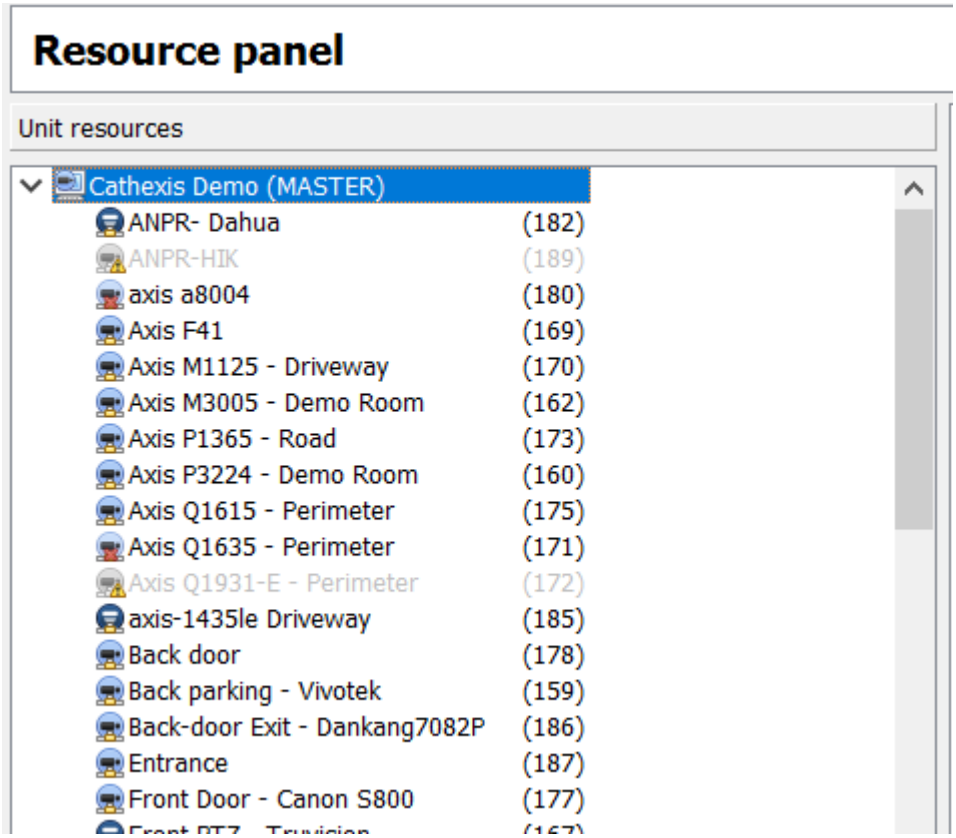
Restart CathexisVision for these settings to take effect.

4 Configure Resource IDs

If they haven't been already, cameras need to be assigned Resource IDs in CathexisVision. Keyboard users will need to know these resource IDs to switch cameras quickly.

a. Configure Resources Panel

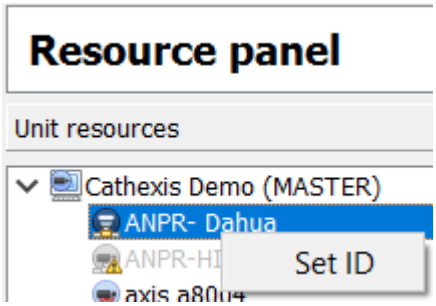
In CathexisVision, open the Setup Tab and enter the Configure Resources Panel. Select the correct server from the Unit Resources List.



The Unit Resources list will be populated with all resources available to the site.

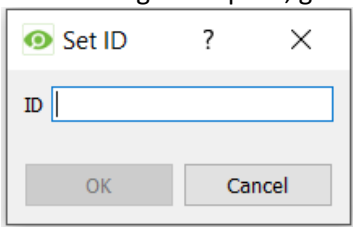
Each camera resource should be assigned a unique numerical ID in order for keyboard operators to be able to switch between cameras quickly (without having to scroll through all the cameras using the arrow keys).

Set ID



Right click on a camera resource and select **Set ID**.

In the dialog that opens, give the resource an ID:



5 Configure Operations

a. PTZ Wash/Wipe Functions

If intending to make use of the PTZ wash/wipe functions, the camera must support auxiliary relays:

Auxiliary relay 1 must be wired for **Wash**.

Auxiliary relay 2 must be wired for **Wipe**.

b. Panic Button (pre-2016 only)

The panic button is not supported from CathexisVision 2016 and onwards.

In pre-2016 versions of CathexisVision, the Panic button can be configured to send user triggers to pre-configured IP addresses when pressed. These user triggers in turn can be configured to trigger a range of possible event actions.

For example: A keyboard user has a technical problem. He presses the Panic button, which sends a user trigger to a central unit that in turn sends a technical alarm to a control room.

Requirements for Panic Button function

- Software 5041d11, or software 5041e2 and later
- This file must be in the same directory that kserver200 is run from called: panictrigger.txt
- The DVR/PC that the keyboard is plugged into must have direct IP access to the systems at the addresses specified in the file.

Create Panic File

1. Create this file: panictrigger.txt
2. Type the content of the file as follows:

   IP address <space> trigger number (with the trigger number being 1-based)

For example:

- 10.0.0.1 1
- 10.0.0.2 4
- 10.0.0.1 16

In this example, when the panic button is pressed, the keyboard server will send user trigger 1 to 10.0.0.1, user trigger 4 to 10.0.0.2 and user trigger 16 to 10.0.0.1.

Save Panic File

1. Save the file to:
   - C:\dvs in Windows
   - usr\dvs on the DVR

2. At each of the IP addresses, configure Events based on the user triggers (see CathexisVision Setup Chapter for instructions).

6 Logging In

Depending on whether the keyboard has been configured on a Server or Client, the user may be required to log in on the actual keyboard.

a. Logging in on a Server

If the keyboard is being configured on a server, the user will have to log in on the keyboard as well as CathexisVision. There is a way to get around this; see below.

If logging in on the keyboard, the user login must have been granted sufficient camera/PTZ access rights. This can be done in **Setup Tab → Configure Servers → Access Rights**.

Log in on Keyboard

1. On the keyboard, select the LOG In/Out button to display Username and Password fields on the LCD screen.
2. Using the number pad, type the username and then press Enter. 

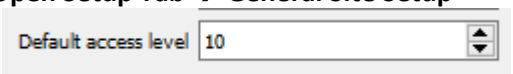
3. Type the password, and then press Enter. 

To avoid having to log in on the keyboard (and/or in CathexisVision), an administrator can configure a default site access level, for which he/she sets certain Access Rights. Thus, when the site is opened, the user is automatically logged into CathexisVision ***and*** the keyboard, with the default access level and associated access rights. The user does not have to log into either CathexisVision or the keyboard.

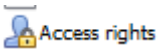
For example: An administrator sets the default site access level to Level 10 and then sets Level 10 to have PTZ and PTZ Menu access rights. This means that when the site is opened, the user is logged into CathexisVision with the default Level 10 access level and associated access rights. The user does not have to log into the software, and the keyboard pulls through the default access level login details as well.

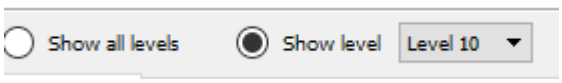
- ***Configure Default Site Access Level***

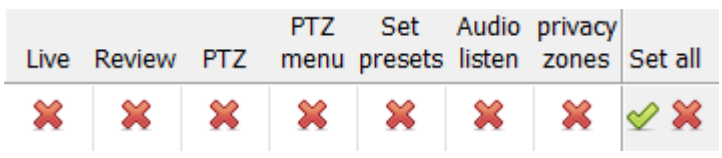
1. **Open Setup Tab → General Site Setup**  .



Set the default access level.

2. Next, open **Configure Servers → Access Rights** 





Click Show level and select the level that was chosen as the default access level.
Then set the access rights for that level.

b. Logging in on a Client

If configuring the keyboard on a Client unit, the keyboard receives the login details and access rights of the user logged into the CathexisVision Client. The user does not have to log into the keyboard; he she need only log into CathexisVision, unless a default site access level has been configured. See above.

7 Conclusion

Please remember that this appnote was designed to deal specifically with this feature. For further information about the CathexisVision software please consult the main manual (http://cathexisvideo.com/).

For support please contact support@cat.co.za