

## **ConfigXt – CATx Remote Unit Firmware Upgrade & Configuration Utility**

V1.0 (Beta) 26 January 2004

### **Introduction**

ConfigXt is a Windows utility that enables CATx KVM Extender Remote Units to have their firmware upgraded and video configuration adjusted via a simple serial connection.

- Reports current firmware version and Remote unit configuration
- Upgrade firmware
- Save and restore video configuration settings to/from a file (use for large installations)
- Reports current video configuration settings and allows adjustments to be made and saved to EEPROM.

ConfigXt is intended for use on a PC/Notebook for configuration/upgrade purposes and not on the main machine you are using the KVM extender to operate.

### **Installation**

1. Run **Setup** to install the ConfigXt utility which is compatible with all versions of Microsoft Windows.
2. In order to use ConfigXt the Microsoft .NET runtime framework needs to be installed. If this is not already installed on your system the setup utility will quit.

In order to obtain the .NET framework, please use the following hyperlink:

[Download Microsoft .NET Framework](#)

**Note:** This is a fairly large download and you may need to consider installing an additional language pack for non-english speaking locales.

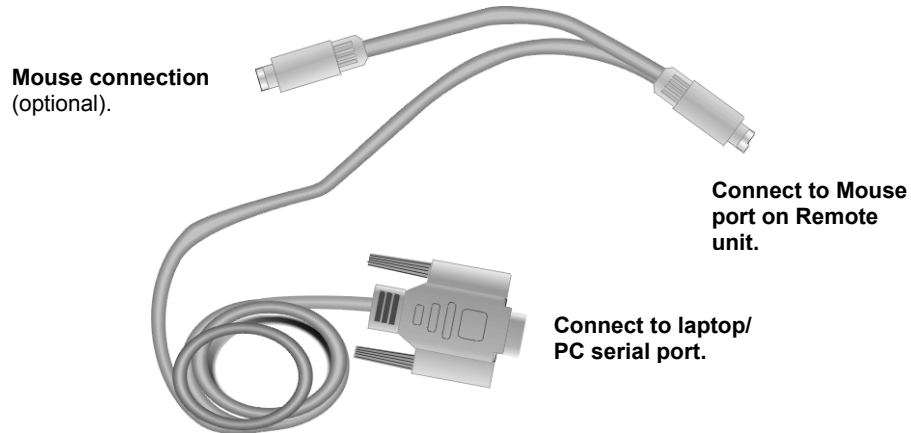
Install the .NET framework and then run ConfigXt **Setup** again.

## Connection

1. In order to use ConfigXt, the Remote Unit needs to be powered and a special configuration cable connected between the configuration computer's serial port and the mouse port on the CATx Remote Unit.

This cable is available through your dealer. Please see below for connection details.

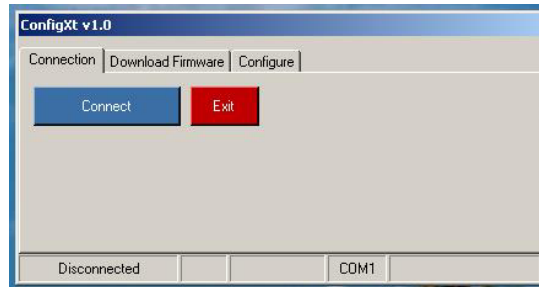
If you want to construct your own cable, a simplified pin-out is detailed at the end of this document.



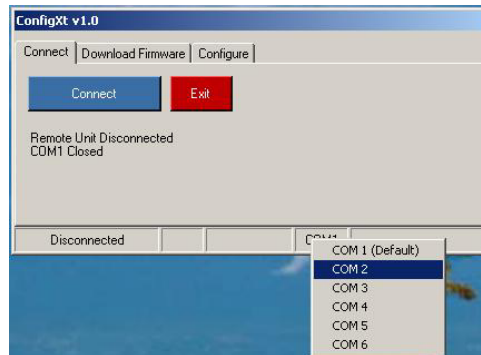
2. The Remote Unit does not have to be connected to the Local Unit in order to upgrade the firmware or save/restore a video configuration. If however, you want to experiment with adjusting the video settings using the CATx interface then you should obviously connect the Remote Unit to the Local Unit and display some kind of test screen.

## Operation

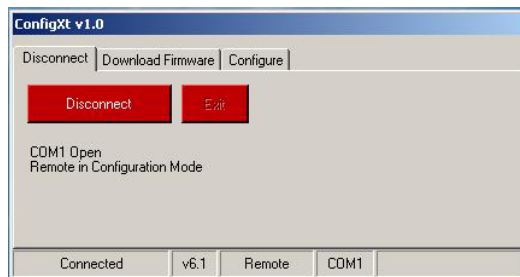
1. To run ConfigXt, click on the icon placed on your desktop. The following screen should be displayed:



2. Select the COM Port you want to use by 'right-clicking' on the appropriate section of the status bar. The selected COM Port will be remembered by ConfigXt.



3. Ensure the CATx Remote unit is connected to the selected COM Port and powered. Now click on **Connect** to open a session with the Remote Unit.



Once connected the status bar will report the connection status and current firmware version. Any problems in connecting will be reported and you should check cabling, extender power and COM Port selection.

**Important Note:** Once connected the Remote Unit will enter **Configuration Mode** and the yellow LED on the primary interconnect will be lit. When in Configuration Mode the keyboard and mouse attached to the Remote Unit are not operational.

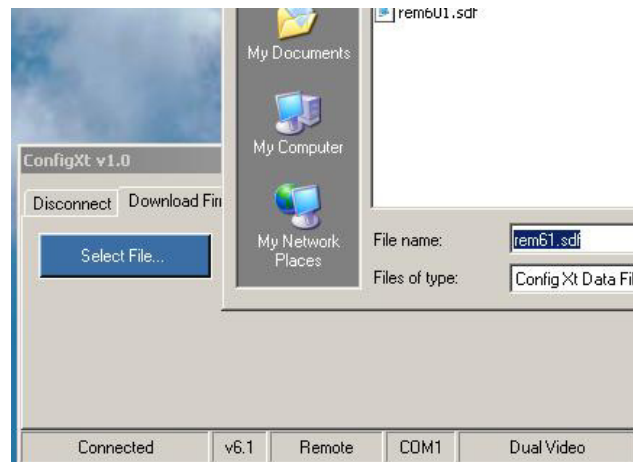
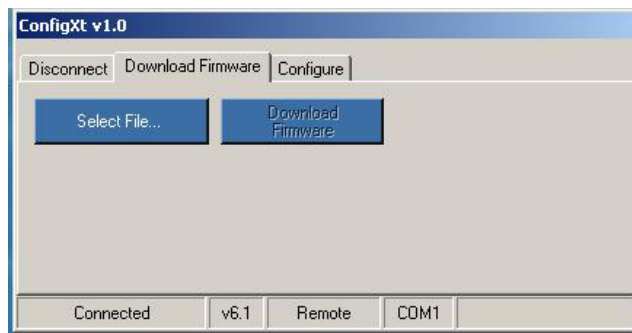
*The only way to exit Configuration Mode is by clicking on the Disconnect button. If the Remote Unit is re-powered prior to disconnection it will power back up in Configuration Mode with video disabled. This is to ensure integrity in case of an aborted firmware download.*

- Once connected, ConfigXt may be used to download new firmware or adjust video configuration settings by clicking on the appropriate tab.

**Important Note:** *In order to adjust, save or restore video configuration settings via ConfigXt, the CATx Remote Unit must have a firmware version of v6.1 (or higher). If you have an older firmware version (see status bar or label on the base of the Remote Unit). The file 'rem61.sdf' containing firmware version 6.1 is included with this release.*

## Downloading Firmware

- Click on the **Download Firmware** tab and then click on **Select File**.



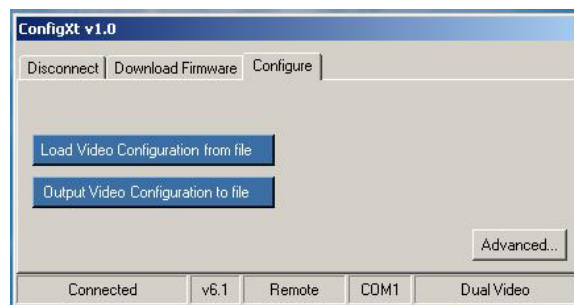
- You should now navigate to location where you previously stored the firmware upgrade file (after downloading). *The firmware upgrade file names always end in the extension .sdf. The directory and file name will be remembered by ConfigXt.*
- Now click on the **Download Firmware Button** to start upgrade the Remote Unit's firmware. A progress indicator will be shown on the status bar.
- Once complete, ConfigXt will automatically close the session. Click on **Connect** again and check the status bar to ensure the firmware has upgraded correctly. Note that installing new firmware does not affect the current video configuration.
- If you now wish to exit ConfigXt, click on the **Disconnect** tab to return to the Disconnect screen where you can quit configuration mode and then close ConfigXt.
- Alternatively, you may select the **Configure** tab to save, restore or adjust the video configuration.

## Video Configuration

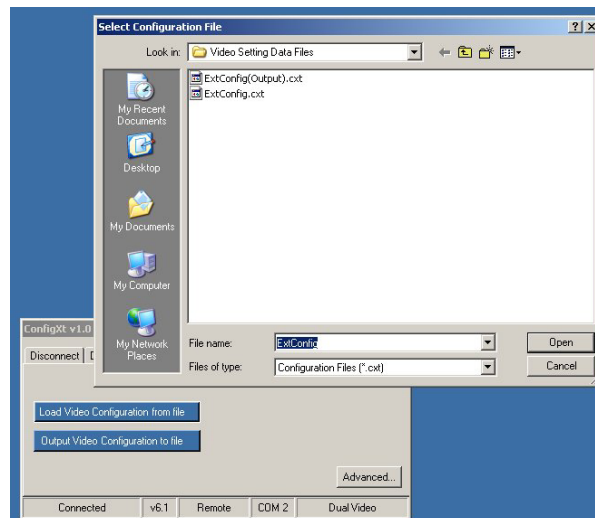
The primary purpose of this function is to enable video configuration settings (for all monitors) to be saved to (and restored from) a configuration file. One typical application for this is where a large number of CATx Remote Units are going to be used with similar length cables. The first extender should be set up using the method outlined in the User Guide. ConfigXt may then be used to save these settings and then load them into the remaining Remote units prior to installation. These Remote Units will then require only minor adjustments, saving valuable time.

ConfigXt also offers an advanced configuration mode that allows direct adjustment of video equalisation and delay. Adjustment of these settings is described in detail in the CATx User Guide. This advanced mode will only be of interest to more technically advanced users who wish to experiment.

1. Click on the **Configure Tab** to enter configuration mode.

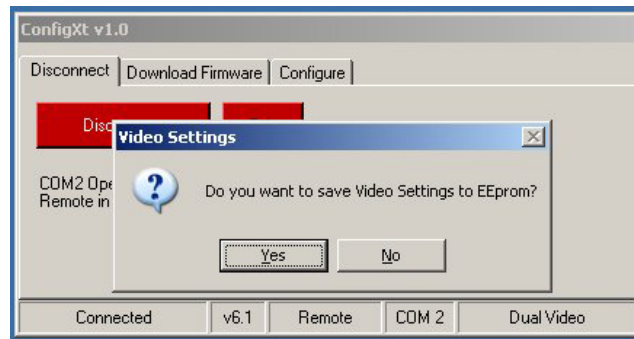


2. To save the current video configuration click on **Output Video Configuration to file**.
3. To load a previously saved video configuration click on **Load Video Configuration from file**.



4. Navigate to the location where you wish to save or restore the file. *Video configuration files names always end in the extension .cxt. The directory and file name will be remembered by ConfigXt.*
5. After selecting the appropriate file the settings will be loaded into the extender (but not saved into EEPROM).

- At this point you may quit ConfigXt by selecting the **Disconnect Tab**



Normally you would want to permanently save the video settings by clicking **Yes** to store them in the extenders EEPROM.

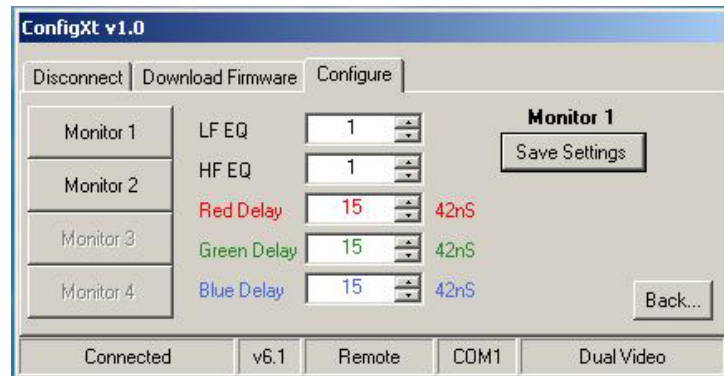
You may then quit Configuration Mode and exit ConfigXt from the Disconnect screen.

- Should you need to restore all video settings back to default (zero) a video configuration file called 'Extender\_Defaults.cxt' is included with this release.

### Advanced Video Configuration

**This mode is intended for advanced users only.**

- To examine the current video settings and manually adjust them from within ConfigXt click on the **Advanced** button in the configuration screen.



- The number of monitors supported by the Remote Unit will be shown in the status bar and you can select which the monitor for which you wish to view or edit the settings.
- The settings for the selected monitor will be shown (grayed out).
- To adjust the settings for the current monitor click on **Adjust Settings**.
- You may now adjust the equalisation (0 – 255) or delay (0 – 15) settings. If you have a Local unit connected you can immediately see the effect of changing these settings on the monitors connected to the Remote Unit.
- After making all adjustments click on **Save Settings** to store them in the extender's EEPROM.
- You can now click **Back** to save these settings to a file, or click on the **Disconnect Tab** to quit Configuration Mode and exit ConfigXt.

## Basic Configuration Cable Pin-Out

**DB9 Female**  
**(To CPU Serial Port)**

**6-Pin MiniDIN Male**  
**(To Remote Unit Mouse Port)**

2 ----- 2

3 ----- 6

5 ----- 3

7--8     Shorted Together (Optional)

1--4--6 Shorted Together (Optional)

## Technical Notes on ConfigXt 1.0 (Beta)

1. The latest Remote Unit firmware v6.1 is included with this release. The file is named **REM61(BETA).SDF**.
2. This application is written using the latest Microsoft development tools which require the .NET environment. Unfortunately, this is quite a large download (20Mb) and the version required is country dependent. We are looking into the possibility of re-writing this application using an older (pre .NET) or JAVA development environment. However, Microsoft .NET will now be included in all new releases of the Windows OS.
3. ConfigXt uses a fixed baud rate of 19.2K (8,N,1).