

X Series Application Note 43:

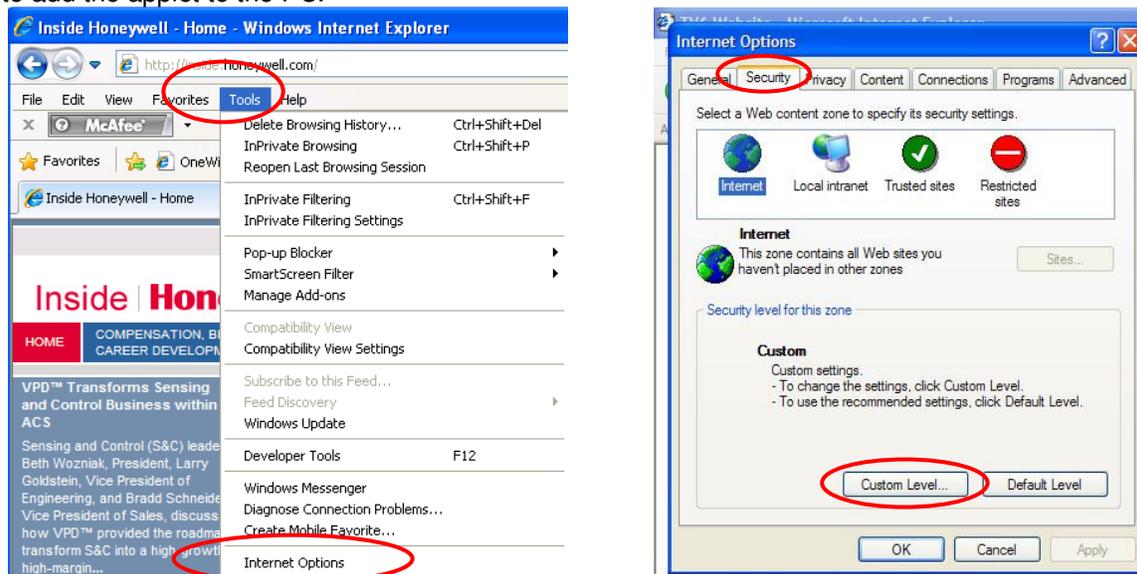
Using the Remote Viewing & Web Pages of the X - Series & GR Series Recorders

The Remote Viewing function of the X-Series and GR Series Recorders provide the user with the ability to view the recorder screen remotely from a PC and control what is being viewed as if the user were in front of the recorder pushing the buttons. The Remote Viewing function allows the user to easily view the recorder to check status and process parameters from the convenience of their office or remote location without using any special software program. Access is achieved using a standard Internet browser like Internet Explorer and linking to the recorder over the Internet. The Remote Viewing function requires that this option be enabled using the “Credits” function in the recorder and the recorder’s Password system be enabled if the user wants to access the recorder and change screens or configuration parameters.

Supported internet explorer versions: IE 10 and earlier; currently IE11 is not supported.

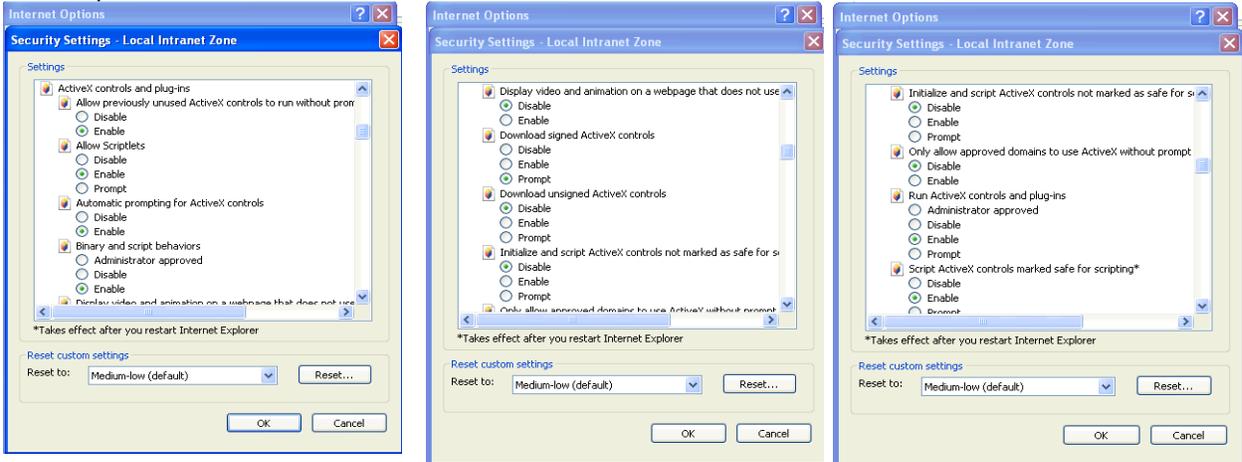
Setting up the PC for Remote Viewing

When using the Remote Viewing function, the recorder will write a small applet to the PC that allows you to access the recorder remotely. In order for this to happen, there are certain security settings that must be set in the PC otherwise you will not be able to use the Remote Viewer. The user may need permission for their IT Administrator before being able to make these changes in their PC. If you are unsure about changing these settings, it is best to consult with your IT Administrator. If you have administrative rights to make the changes, open Internet Explorer and go to the Tools tab at the top of the Internet Explorer window and click on “Tools”. Select Internet Options, which opens a new window called “Internet Options” as shown below; select the Security Tab and click on Custom Level to access the settings that need to be changed to allow the recorder to add the applet to the PC.



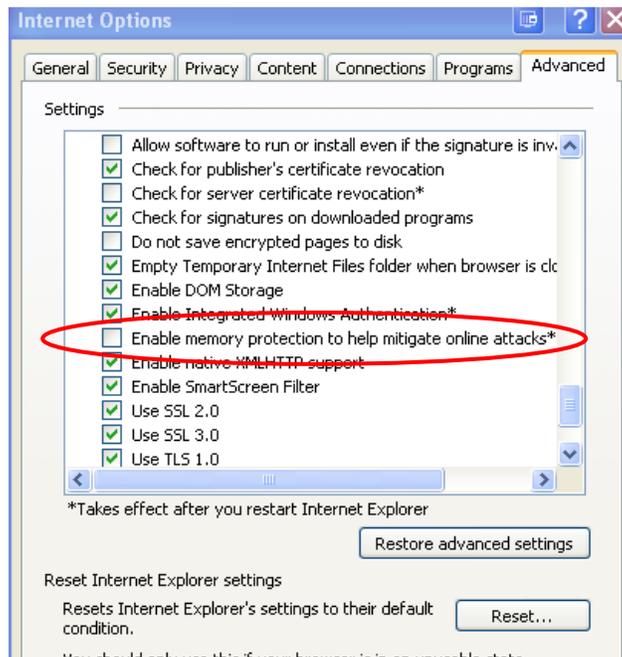
Once you have clicked on the “Custom Level” button, this will bring up a window that gives you access to the security settings you need to change on your PC. You will need to set the “Active X Controls and plug-ins” features to Enable or at least Prompt for most of the settings so the recorder can download it’s applet allowing you to view the recorder screens.

The screens below show settings, if all the settings are “Disable”, this prevents the recorder from being able to write the applet to the PC; the settings would need to be changed to “Enable” or “Prompt” to allow this. Click OK and close out these windows.



PC Screen showing Active X Control Settings to allow install of signed Active X Component

In some instances, particularly with the addition of the new functionality to print from Internet Explorer, the user may need to uninstall the previously installed Active X control component on their PC before using the remote viewer application with the new print capability. To do this, close Internet Explorer (if it is open); go To “C:\WINDOWS\Downloaded Program Files” in your PC and delete the file “RemoteDisplayActiveX.ocx”. When you use the Remote Viewer function the next time, you will need to install the new Active X control component when asked to do so. If you find that the Active X file does not install, you may need to go into your “**Advanced**” Internet Explorer settings and for the setting for “**Enable memory protection to help mitigate online attacks**” unchecked this setting to allow the new Active X component to install. You can enable this setting after the Active X component has been installed if required.



Internet Explorer Advance Setting Screen

Setting up the Recorder for Remote Viewing

To use the Remote Viewing function, the recorder needs to have the Firmware Credits for the Remote Viewing function enabled along with Passwords if you plan to do the Remote Control part of this function. Passwords need to be set to prevent unauthorized access to the recorder over the Internet, providing a level of security so that unauthorized individuals do not gain access to the recorder. The user can still access the standard Web Pages of the recorder without enabling the password system. This allows viewing of the separate web pages of General Recorder Information, Pen Values, Alarms, Hardware information, and the current graphic information being displayed on the recorder. To build on this functionality, you can enable the password function (each added user must be granted sufficient security level for access) on the recorder to allow complete control of the recorder just as if you are standing at the recorder using the touch screen interface.

The first step in setting up the recorder is to make sure the Credits are enabled to allow Remote Viewing. To see if the Remote Viewer is enabled; go to the STATUS menu and check the Status of the Options by scanning down the Options list to see that the Remote Viewer is checked ON, if it is not, you need to enable this under the Configuration > Setup > Edit > General > Factory > Credits. Once this has been set, select Finish and Commit to allow these changes to take effect. The next step is to enable the Password system and set up a user or multiple users. Refer to the product manual for detailed information on enabling the Password system and setting up a user. Once the system is enabled and users are established; click Finish and Commit to allow these changes to take effect. The user will establish their own unique password when they first try to log in and gain access to secure areas of the recorder. Once this has been set, select Finish and Commit to allow these changes to take effect. At this point you have enabled the Remote view capability, once you have setup the TCP/IP address (next section of application note) you can enter the IP address or Network name of the recorder and be able to view the current screen on the recorder. If you want to be able to take complete control of the recorder from the browser screen, at this point you will need to enable the password protection option in the recorder. You should refer to the recorder user manual for this setup. The recorders have two types of password protection options; there is the Standard Security System (SSS) and the Extended Security System (ESS). Each has a little bit different setup steps when enabling this functionality.

Establishing an IP Address

Since access to the recorder's web pages or the Remote Viewer uses a web browser, the recorder's communication parameters must also be set to allow this access. The key setting is the recorder's IP address, which is set up under the Configuration > Setup > Edit > Comms > TCP/IP Settings. As the user, you need to decide if you will be using a "Fixed" - Static IP address or set it for a dynamic (DHCP) addressing scheme, where the network server provides IP addresses based on the dynamics of the network and what is the next available IP address. DHCP addressing is set by "X-ing" out the Static IP address, if the Static IP is (checked); this allows the user to set a fixed IP address for each recorder; IP addresses use a format of XXX.XXX.XXX.XXX. If the recorder is set for dynamic addressing, the IP address is assigned by the network; the IP address will be "grayed out" but can be viewed. You need to note or record this IP address, as you will need it when using the Internet Browser in order to access the specific recorder's web page and Remote Viewing function. If you are setting up the recorder with a local network and using static IP addressing, you will need to establish a compatible IP address for your PC. Depending on the Windows Operating System you have on the PC will affect how you access and set the IP address in the PC for your local network. To set the IP address on your PC, this is generally done under the Network Neighborhood, Properties, TCP/IP Protocols settings in the PC.

Accessing the Web Page and the Recorder's Remote Viewing Function

To access your recorder's web page, type the device's IP address in to a web browser such as Internet Explorer. If Microsoft WINS system (Windows Internet Name Service) is available then the device name can be used to search for the device web page. To find your recorder IP address see "TCP/IP" on page 77.

The recorder will automatically register a unique Network ID using the serial number. The format is xs-nnnnnn, where nnnnnn is the serial number of the recorder. This allows you to browse the recorder if you are using DHCP (Dynamic Host Configuration Protocol).

On recorders with password security enabled further login will be required to access Full Remote Control of the recorder from the web page and to enable a keyboard and mouse. For users with Password functionality enabled Login is required. Enter your User name and Password* in the box to gain access to the recorder web page.

For Users without Password security just choose a language option to access the web page.

Select Remote Viewer to enable a desktop user interface. This will allow you to view and control your recorder in realtime.

***NOTE:** When using the remote control function for the recorder if you need to enter password in the recorder, it is recommended that you use the external keyboard and not the Recorder SIP (Soft Input Panel).



Logging Screen for Remote Viewing

Screen to access Web Page – No Log-in

Once you have gained access to the recorder, you will see the recorder’s “General Information” web page. There are several different web pages that can be viewed; these include the Pen data, Alarm information and Hardware information. To access these other web pages, click on the link on the left hand side of the web page. The web pages will refresh automatically or they can be refreshed manually if desired. Each of the web pages for the recorder is shown below.

<p> General Pens Alarms Hardware Remote Viewer Info support Website </p>	<p>General Information 10:45:34 12/07/2011</p> <table border="1"> <thead> <tr> <th colspan="4">General</th> </tr> </thead> <tbody> <tr> <td>Recorder Type</td> <td>eZtrend QXe</td> <td>Product Name</td> <td>X Series</td> </tr> <tr> <td>Serial Number</td> <td>813320</td> <td>IP Address</td> <td>164.145.185.92</td> </tr> <tr> <td>Recorder Name</td> <td>eZtrend QXe</td> <td>Recorder ID</td> <td>1</td> </tr> <tr> <td>Options code</td> <td>8133200108667</td> <td>Firmware version</td> <td>JG</td> </tr> <tr> <td>Total credits</td> <td>10</td> <td>Affected Credits</td> <td>2</td> </tr> <tr> <td>Network Name</td> <td>XS-813320</td> <td>Recording</td> <td>OFF</td> </tr> </tbody> </table>	General				Recorder Type	eZtrend QXe	Product Name	X Series	Serial Number	813320	IP Address	164.145.185.92	Recorder Name	eZtrend QXe	Recorder ID	1	Options code	8133200108667	Firmware version	JG	Total credits	10	Affected Credits	2	Network Name	XS-813320	Recording	OFF	<p>General Information Web Page</p> <p>Provides general information such as the device type, name and internal serial number of the recorder.</p>
General																														
Recorder Type	eZtrend QXe	Product Name	X Series																											
Serial Number	813320	IP Address	164.145.185.92																											
Recorder Name	eZtrend QXe	Recorder ID	1																											
Options code	8133200108667	Firmware version	JG																											
Total credits	10	Affected Credits	2																											
Network Name	XS-813320	Recording	OFF																											

Pen Information

Provides current status and value for the pens. This information is periodically refreshed.

Alarm Information

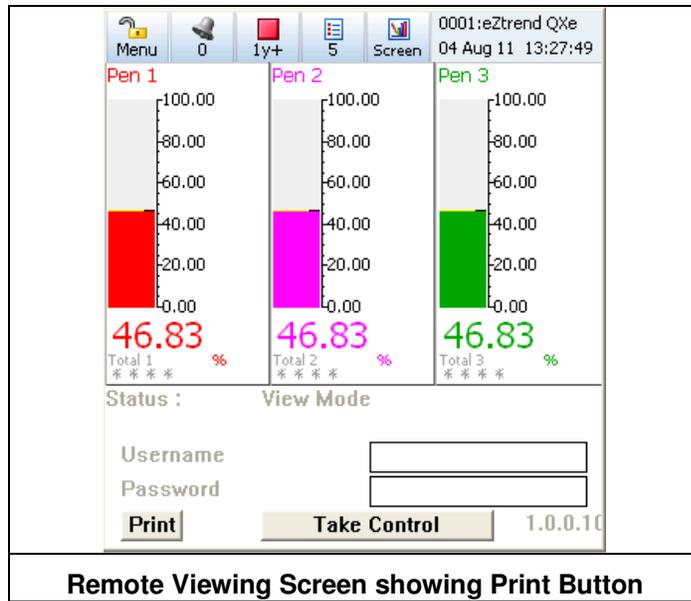
Provides current alarm status and value for the pens, showing which ones are in and out of alarm.

Hardware Information

Provides the information on which boards are installed in the recorder and which slot they are in along with general hardware information on the memory and display.

Printing from Internet Explorer

In the recorder's Remote Viewing mode, using the latest recorder product firmware, you are able to print recorder screens from Internet Explorer to a local or network connected printer. This makes it easier to quickly capture a recorder screen remotely and create a hard copy record of that screen. To do this, simply click on the Print button at the bottom of the remote viewing screen.

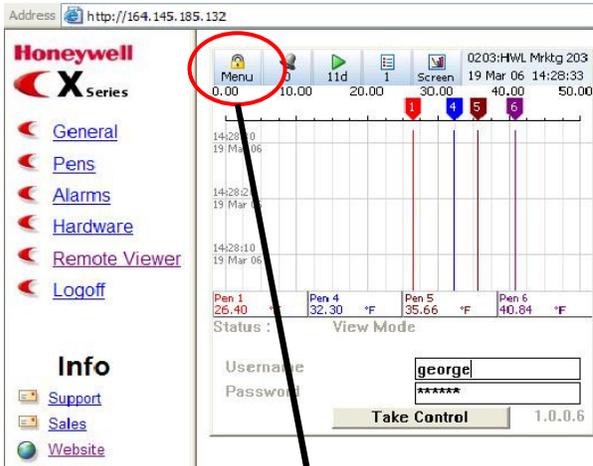


Remote Viewing Screen showing Print Button

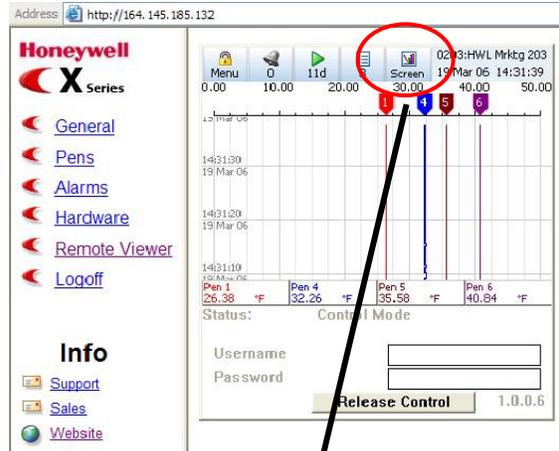
Remote Viewing

To use the Remote Viewing and Control function, click on the Remote Viewer link on the left hand side of the web page. Once you have done this, the current screen on the recorder should appear in the screen of your PC. At this point, you are in the “View Mode” which is indicated below the recorder screen alongside the Status indication. In order to take control, you must again enter a valid user name and password in the area for Username and Password and click on Take Control. Once you have control, the Status indication will change to “Control Mode”, indicating that you have control and the action button changes to “Release Control”. Once you have control, you can navigate around the recorder as if you were standing in front of the recorder pushing the buttons simply by moving the mouse to one of the recorder’s button and clicking on it.

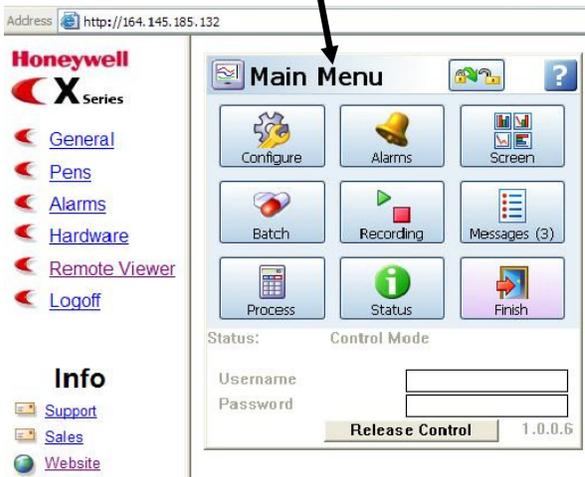
Each time you change to a different screen, the display at the PC will be updated to show the new recorder screen. Only one user can have control at any given time and the user at the recorder itself has the highest priority. Therefore, if someone at the recorder activated one of the recorder’s buttons they would automatically take control from the Remote User. You would have to log off and log back on to regain control, but you could only gain control of the recorder remotely if they had finished and returned to a normal run time screen. You can still do viewing remotely regardless of who has control. Up to three individuals can view the recorder remotely.



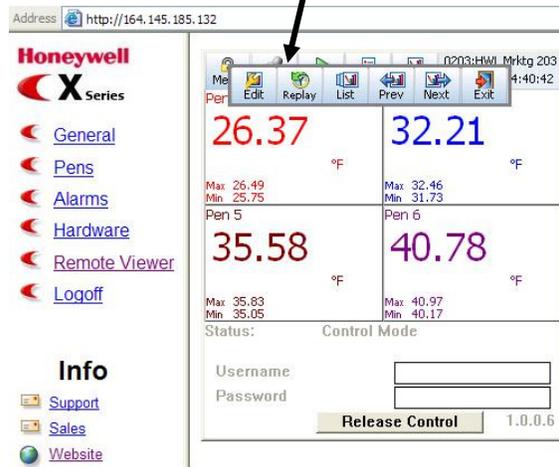
Remote Viewing – Taking Control



Remote Viewing – Control Mode



Remote Configuration



Change Screen Remotely

As you can see from the above screens, you have the ability to easily view the recorder's display remotely and to securely change screens or even the recorder configuration all under password control.