



Title:

i-Controller Firmware Update Using Windows 10

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This work instruction describes how to configure a Windows 10 PC and a USB thumb drive to update the firmware in the i-Controller. There are six application files associated with the i-Controller firmware update:

1. parameters.conf - Site specific parameters
2. bacnetMSTP.conf - BACnet communication parameters
3. bacnet.conf - BACnet parameter map
4. modslave.conf - Modbus parameter map
5. template.bin - Visograph screens
6. isadix - i-Controller firmware

An automatic i-Controller reboot will only occur if a new isadix file is loaded during a firmware update.

If all five application files are loading into the i-Controller, they must be loaded in this order: parameters, bacnetMSTP.conf, bacnet.conf, template and then isadix. Once the isadix file is loaded, the controller will automatically reboot.

If a parameter.conf or a template.bin or both are loaded into an i-Controller without a new isadix file. The user must manually reboot the i-Controller to initiate the update.

If a new parameters.conf file is loaded into previously configured i-Controller, upon reboot, offsets and settings in the previously configuration i-Controller will be overwritten by the new parameters.conf file. Ensure all sensors are re-calibrated, offsets are entered (if required) and settings are updated after the firmware update.

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Configuring the Windows 10 PC

Connecting the Windows 10 PC to the i-Controller

1. Verify the PC Ethernet port used to connect to the i-Controller is configured as seen in figure 6.
2. Verify the i-Controller is powered 'ON'.
3. Connect an Ethernet cable between the PC Ethernet port and i-Controller Ethernet port.

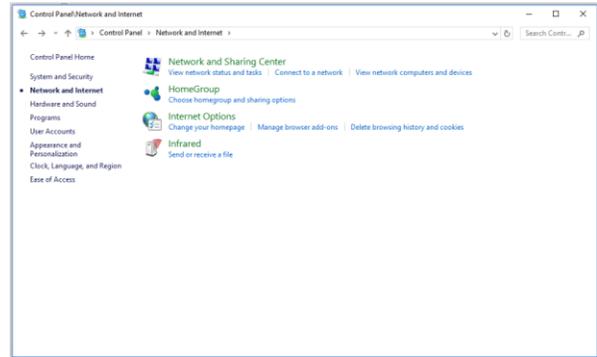


Figure 2. Network and Internet

Configuring the Ethernet connection

Perform the following steps to configure your PC for the FLō i-Controller:

1. Select the Windows icon in the lower left corner of the desktop to display the start menu.



Figure 1. Windows 10 Start Menu

2. Using the start menu, scroll down and select the Windows System Folder.
3. Within the Windows System Folder, select Control Panel.
4. Within the Control Panel, select Network and Internet.
5. Within Network and Internet, select Network and Sharing Center.

6. Within the Network and Sharing Center, select Change Adapter Settings.

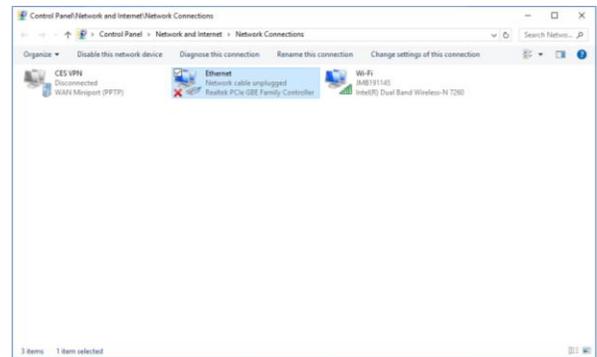


Figure 3. Internet Network Connections

7. Right click the network adapter you wish to configure and select Properties from the popup menu.

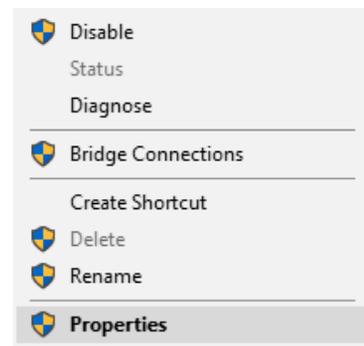


Figure 4. Properties Popup Menu

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8. Within the Properties dialog, select Internet Protocol Version 4 (TCP/IPv4).
9. With Internet Protocol Version 4 (TCP/IPv4) highlighted, select the Properties button.

IP Address: 192.168.0.200
 Subnet Mask: 255.255.255.0
 Default Gateway: 192.168.0.1
 Preferred DNS: 192.168.0.200
 Alternate DNS: 8.8.8.8

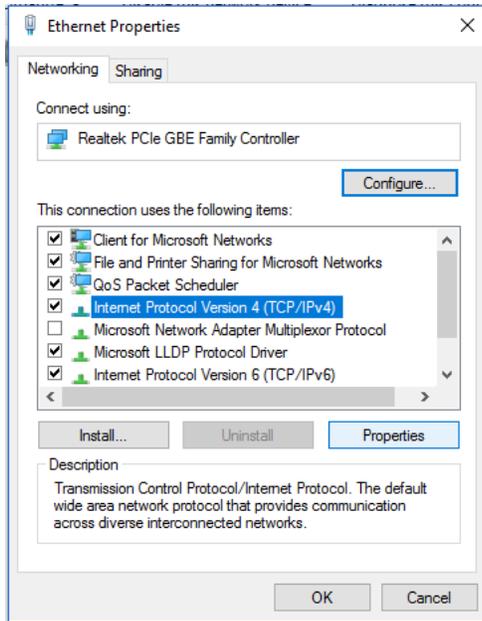


Figure 5. Ethernet Properties Dialog

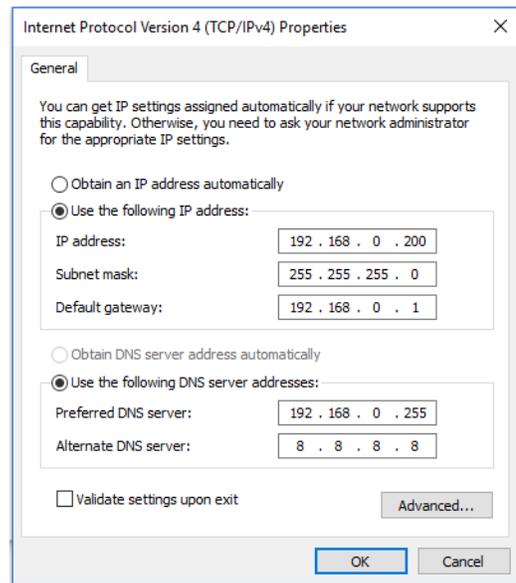


Figure 6. TCP/IPv4 Properties Dialog

Configuring the Ethernet connection - *continued*

10. Within the Ethernet Properties, select the 'Use the following IP address' radial button.
11. Configure the IP Address, Subnet Mask and Default Gateway as seen in figure 6.
12. Within the Ethernet Properties, select 'Use the following DNS server address' radial button.
13. Configure the Preferred and Alternate DNS servers as seen in figure 6.

14. Select 'OK' to accept the TCP adapter settings.
15. This concludes the PC configuration portion of the work instructions.

NOTE: To verify the Ethernet connection, type the following hyperlink into your browser:
<http://192.168.0.250>

If the connection is configured correctly, the Webpage in figure 7 will appear. If the iPro Configuration & Analysis Webpage does not appear, verify the Ethernet connection.

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Figure 7. Emerson iPro -Configuration & Analysis Webpage

Loading Application Files via Web Server

NOTE: Load the i-Controller application files in this order:

1. parameters.conf
2. bacnetMSTP.conf
3. bacnet.conf
4. template.bin
5. isadix

Loading the *parameters.conf* file

1. Using the Windows 10 PC, connect to the i-Controller using an Ethernet connection.
2. Open a Web browser.
3. Type the IP address into your web browser: <http://192.168.0.250>
4. The Windows Viewer will be displayed as seen in figure 7.
5. Select the login button and enter the login credentials:

USER: admin

PASSWORD: Dixell

6. Select the “Files” button located on the left-hand menu as as seen in figure 8.
7. Select the ‘Send and Update” button as seen in figure 9.
8. In the Windows viewer, navigate and select the parameter.conf file from its storage location and select “Open”.
9. A dialog box will appear as seen in figure 10, “OK to upload parameter.conf?”; select “OK”.
10. In the Windows viewer, navigate and select the parameter.conf file from its storage location and select “Open”.
11. After the parameters.conf file has been loaded, select the “Advanced” tab.
12. Select “Reboot the machine” to reboot the controller.
13. It will take the controller 60-seconds to reboot.

Loading of the parameter.conf file is complete.



Figure 8. Emerson iPro -Configuration & Analysis Website

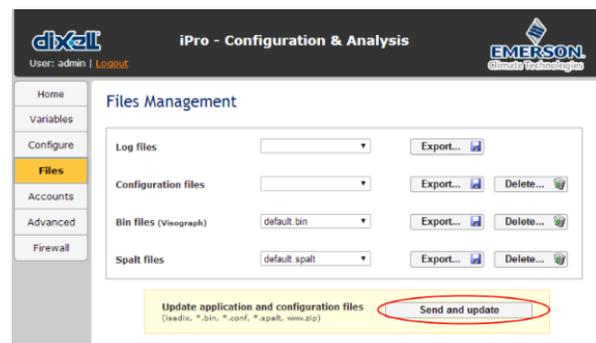


Figure 9. Emerson iPro -Configuration & Analysis Website

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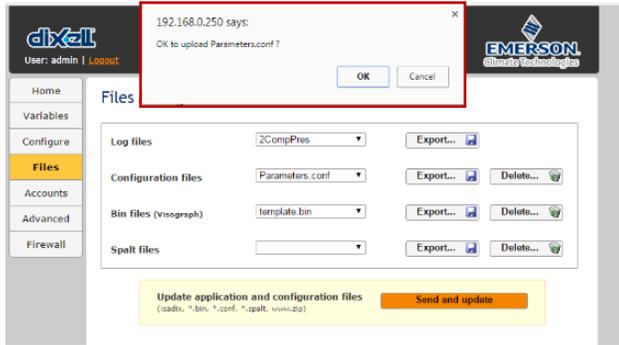


Figure 10. Figure 10. Emerson iPro -Configuration & Analysis Website

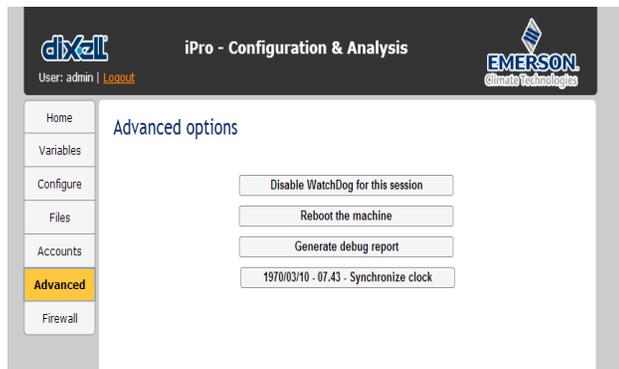


Figure 11. Emerson iPro -Configuration & Analysis Website

Loading the *bacnetMSTP.conf*, *bacnet.conf* and *modslave.conf* files (if applicable)

1. Using the Windows 10 PC, connect to the i-Controller using an Ethernet connection.
2. Open a Web browser.
3. Type the IP address into your web browser: <http://192.168.0.250>
4. The Windows Viewer will be displayed as seen in figure 7.
5. Select the login button and enter the login credentials:
USER: admin
PASSWORD: Dixell
6. Select the “Files” button located on the left-hand menu.

7. Select the “Send and Update” button.
8. Navigate and select the bacnetMSTP.conf file from its storage location and select “Open”. A dialog box will appear with the prompt, “OK to upload template?”; select “OK”.
9. Select the “Send and Update” button, and navigate and select the bacnet.conf file from its storage location and select “Open”. A dialog box will appear with the prompt, “OK to upload template?”; select “OK”.
10. Navigate and select the modslave.conf file from its storage location and select “Open”. A dialog box will appear with the prompt, “OK to upload template?”; select “OK”.

If you are updating **only** the bacnetMSTP.conf, bacnet.conf and modslave.conf files, you must reboot the controller or if you are loading additional files, this step is complete.

11. After the bacnetMSTP.conf, bacnet.conf and modslave.conf files have been loaded, select the “Advanced” tab.
12. Select “Reboot the machine” to reboot the controller.
13. It will take the controller 180-seconds for the Visograph screens to load.

Loading of the BACnet files is complete.

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Loading the *template.bin* file

1. Using the Windows 10 PC, connect to the i-Controller using an Ethernet connection.
2. Open a Web browser.
3. Type the IP address into your web browser: <http://192.168.0.250>
4. The Windows Viewer will be displayed as seen in figure 7.
5. Select the login button and enter the login credentials:

USER: admin
PASSWORD: Dixell

6. Select the “Files” button located on the left-hand menu.
7. Select the “Send and Update” button.
8. Navigate and select the template.bin file from its storage location and select “Open”.
9. A dialog box will appear with the prompt, “OK to upload template?”; select “OK”.

If you are updating **only** the template.bin file, you must reboot the controller or if you are loading additional files, this step is complete.

10. After the template.bin file has been loaded, select the “Advanced” tab.
11. Select “Reboot the machine” to reboot the controller.
12. It will take the controller 180-seconds for the Visograph screens to load.

Loading of the template.bin file is complete.

Loading the *isadix* file

1. Using the Windows 10 PC, connect to the i-Controller using an Ethernet connection and open a Web browser.
2. Type the IP address into your web browser: <http://192.168.0.250>
3. The Windows Viewer will be displayed as seen in figure 7.
4. Select the login button and enter the login credentials:

USER: admin
PASSWORD: Dixell

5. Select the “Files” button located on the left-hand menu.
6. Select the “Send and Update” button.
7. In the Windows viewer, navigate and select the isadix file from its storage location and select “Open”.
8. A dialog box will appear as seen in figure 9, “OK to upload isadix?”; select “OK”.



Figure 12. Emerson iPro -Configuration & Analysis Website

9. Once the isadix file is loaded, wait 2-minutes then, open your web browser.
10. Navigate to the Emerson iPro – Configuration & Analysis website.
11. The ‘Application Release’ will read ‘iPro-CESDYearRevXXX’, where ‘XXX’ is the version loaded in the instruction 8.

Loading and verification of the isadix file is complete.