



**Title:**

i-Controller 2.0 Firmware Loading Using Windows 10

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This work instruction describes how to configure a Windows 10 PC for field loading an update to the firmware in the i-Controller 2.0. There are two application files associated with the i-Controller 2.0 firmware update:

1. CONFIG\_1.txt - Site specific parameters
2. Autorun.ap1 - i-Controller firmware, display screens, and communications maps

An automatic i-Controller reboot will occur if a new Autorun.ap1 file is loaded during a firmware update.

If both application files are loading into the i-Controller 2.0, they must be loaded in this order: Autorun.ap1, CONFIG\_1.txt. Once the Autorun.ap1 file is loaded, the controller will automatically reboot. After the controller reboot, upload the CONFIG\_1.txt to the controller and then import the file into the controller.

If a CONFIG\_1.txt is uploaded into an i-Controller 2.0 without a new Autorun.ap1 file. The user will then need to import the file into the controller.

If a new CONFIG\_1.txt file is loaded into previously configured i-Controller, settings in the previously configuration i-Controller will be overwritten by the new CONFIG\_1.txt 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 2.0

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 2.0 is powered 'ON'.
3. Connect an Ethernet cable between the PC Ethernet port and i-Controller 2.0 Ethernet port.

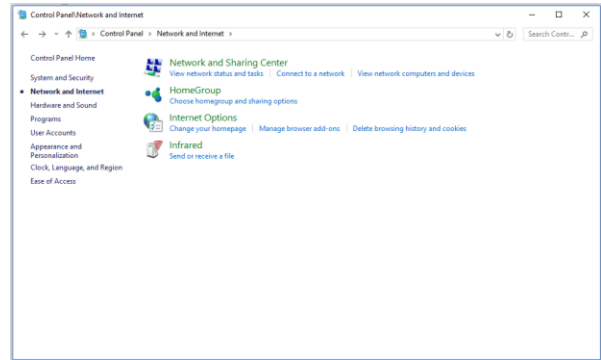


Figure 2. Network and Internet

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

### Configuring the Ethernet connection

Perform the following steps to configure your PC for the FLō i-Controller 2.0:

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

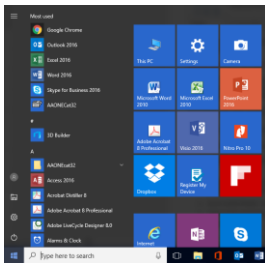


Figure 1. Windows 10 Start Menu

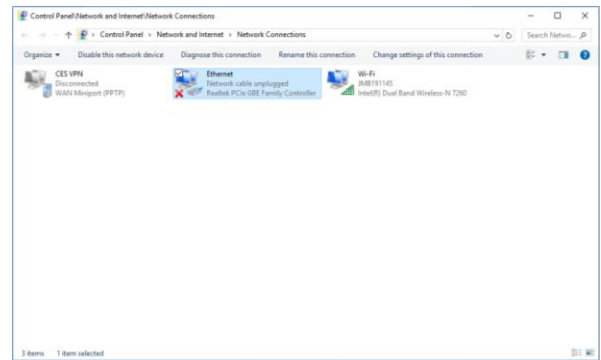


Figure 3. Internet Network Connections

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

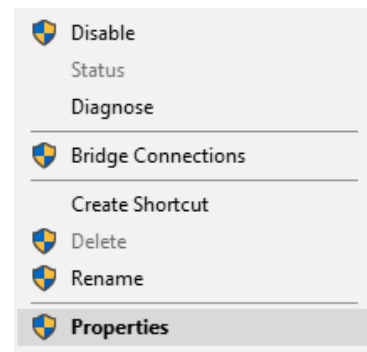


Figure 4. Properties Popup Menu

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

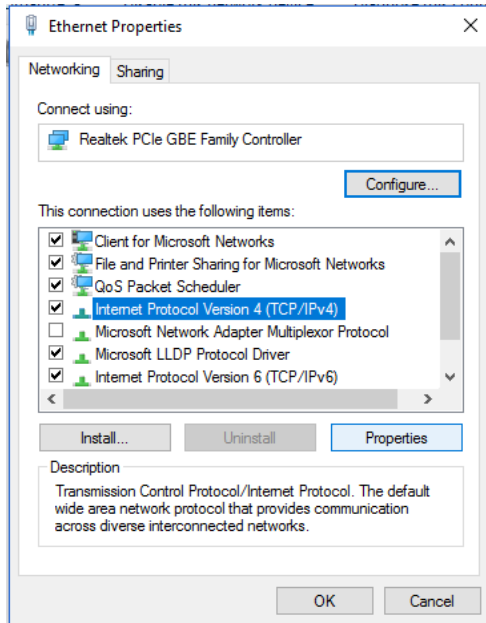


Figure 5. Ethernet Properties Dialog

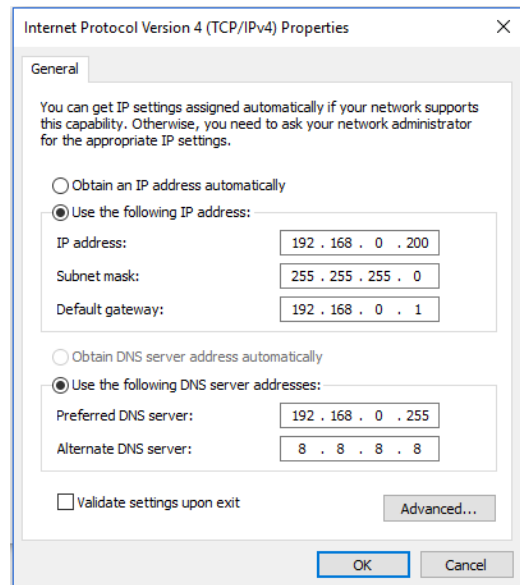


Figure 6. TCP/IPv4 Properties Dialog

## Configuring the Ethernet connection - *continued*

1. Within the Ethernet Properties, select the 'Use the following IP address' radial button.
2. Configure the IP Address, Subnet Mask and Default Gateway as seen in figure 6.
3. Within the Ethernet Properties, select 'Use the following DNS server address' radial button.
4. Configure the Preferred and Alternate DNS servers as seen in figure 6.

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

**NOTE:** To verify the Ethernet connection, type the following hyperlink into your browser: <http://192.168.0.150>

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. FLō i-Controller Webpage

## Loading Firmware Files via Web Server

**NOTE:** Load the i-Controller 2.0 application files in this order:

1. Autorun.ap1
2. CONFIG\_1.txt

### Loading the *Autorun.ap1* file

1. Using the Windows 10 PC, connect to the i-Controller 2.0 using an Ethernet connection.
2. Open a Web browser.
3. Type the IP address into your web browser:  
<http://192.168.0.150>
4. The Windows Viewer will be displayed as seen in figure 7.
5. Select the “UPGRADE” button located on the menu as seen in figure 8.



Figure 8. FLō i-Controller Website

6. When prompted, enter the login credentials:  
**USER:** Service  
**PASSWORD:** 2846
7. Select the “Choose File” button as seen in figure 9.

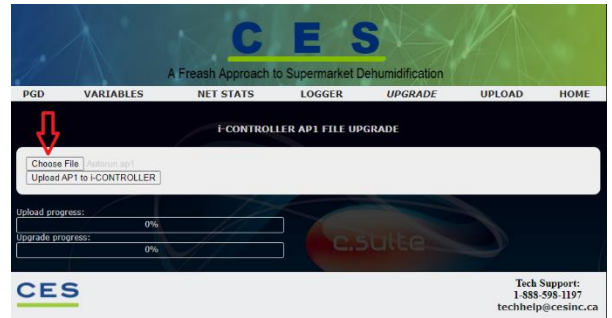


Figure 9. FLō i-Controller Website

8. In the Windows viewer, navigate and select the **Autorun.ap1** file from its storage location and select “Open”.
9. After the file has been selected, press “Upload AP1 to i-Controller”.
10. Once the file upload has finished, the upgrade process will automatically start.
11. When the upgrade process has finished, an “Upgrade completed successfully” message will appear, and the controller will reboot. As seen in figure 10.

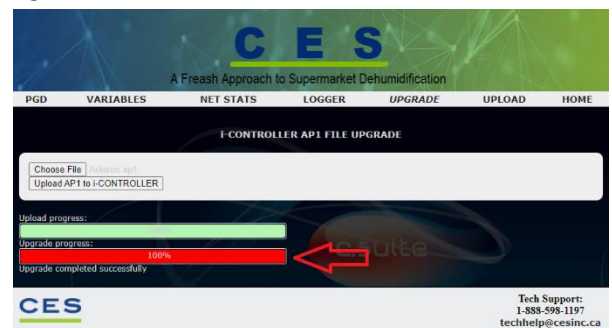


Figure 10. FLō i-Controller Website

12. It will take the controller 30-seconds for the controller to reboot.

Loading of the Autorun.ap1 file is complete.

## Loading the *CONFIG\_1.TXT*

- Using the Windows 10 PC, connect to the i-Controller 2.0 using an Ethernet connection.
- Open a Web browser.
- Type the IP address into your web browser:  
<http://192.168.0.150>
- The Windows Viewer will be displayed as seen in figure 7.
- Select the “UPLOAD” button located on the menu as seen in figure 11.



Figure 11. Flō i-Controller Website

- When prompted, enter the login credentials:  
**USER:** Service  
**PASSWORD:** 2846
- Select the “Choose File” button as seen in figure 12.

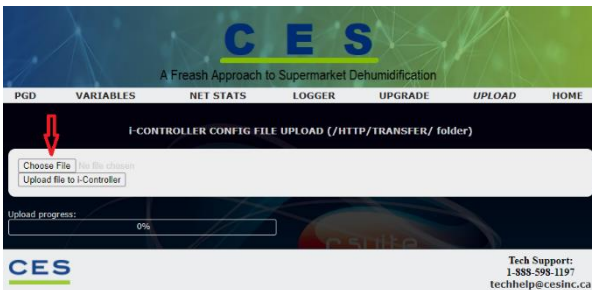


Figure 12. Flō i-Controller Website

- In the Windows viewer, navigate and select the **CONFIG\_1.txt** file from its storage location and select “Open”.
- After the file has been selected, press “Upload file to i-Controller”.

- Once the file upload has finished, you will see the upload progress bar go to 100% and a message below the bar will indicate upload success. See figure 13.

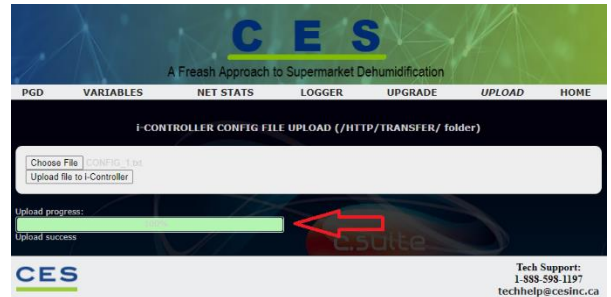


Figure 13. Flō i-Controller Website

Loading of the CONFIG\_1.txt file is complete.

## Importing the *CONFIG\_1.TXT* file

- Using the Windows 10 PC, connect to the i-Controller 2.0 using an Ethernet connection.
- Open a Web browser.
- Type the IP address into your web browser:  
<http://192.168.0.150>
- The Windows Viewer will be displayed as seen in figure 7.
- Select the “PGD” button located on the menu as seen in figure 14.



Figure 14. Flō i-Controller Website

- When prompted, enter the login credentials:  
**USER:** Service  
**PASSWORD:** 2846

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Use the display emulator for the following steps:

1. If the “Standby” screen is displayed, press the program button to go to the “Home” screen. See figure 15 and figure 16.



Figure 15. Flō i-Controller PGD Standby Screen

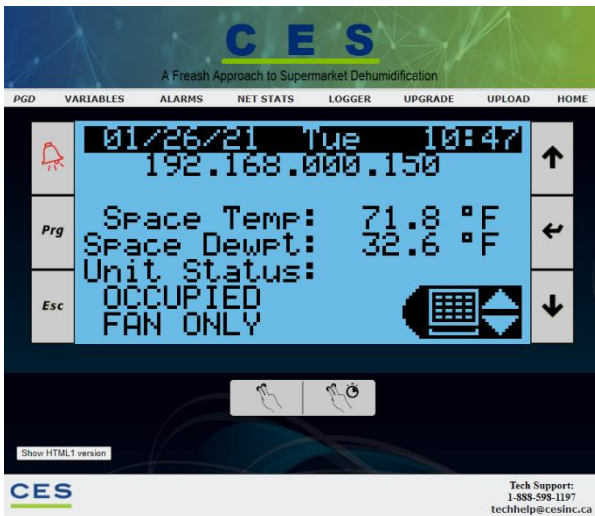


Figure 16. Flō i-Controller PGD Home Screen

2. From the “Home” screen, press the program button “Prg” three times to go to the “Settings Menu” as seen in figure 17.

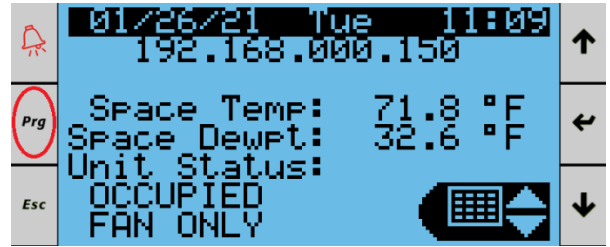


Figure 17. Display Home Screen

7. In the “Settings Menu” press the “UP” arrow to go to the “Import/Export” selection and press “Enter” button. See figure 18.



Figure 18. Display Settings Menu

8. Press the “Enter” button to move the flashing cursor to the “Import/Export:” selection. Use the “UP” arrow to set selection to “IMPORT” and press “Enter” to select change and move cursor to the next field.
9. Use the “UP” arrow to set “Memory type:” field to “INTERNAL FLASH MEMORY” and press “Enter” to select change and move cursor to the next field.
10. Use the “UP” arrow to set the “File name:” field to “CONFIG\_01” and press “Enter” to select change and move cursor to the next field.
11. The cursor is in the “Confirm” field now. Verify all settings. See figure 19.



Figure 19. Unit Configuration Settings

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12. Once settings are verified, use the “UP” arrow to set the “Confirm:” field to “Yes” and press “Enter” to begin import.
13. “Operation done” will be displayed once the import has completed. See figure 20.

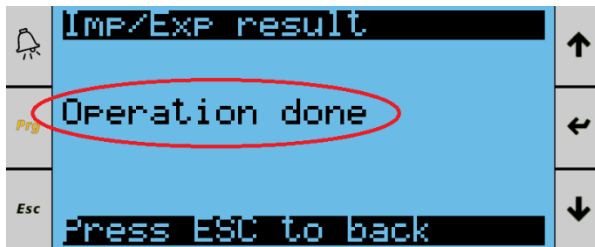


Figure 20. Import complete Screen

Importing of the CONFIG\_1.txt file is complete.