

Dresser™ Sync Software Manual



MC3

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1 SYNC Software Introduction

This manual provides instructions for installing and using the Dresser™ Sync desktop software.

This software is used to configure the Dresser MC3 Electronic Volume Corrector (referred to as a “unit” in this manual). The software is installed on a computer or other Windows device. You can communicate locally with the unit by using a serial IrDA cable or remotely via a modem or other available connection.

1.1 System Requirements

Table 1: System Requirements

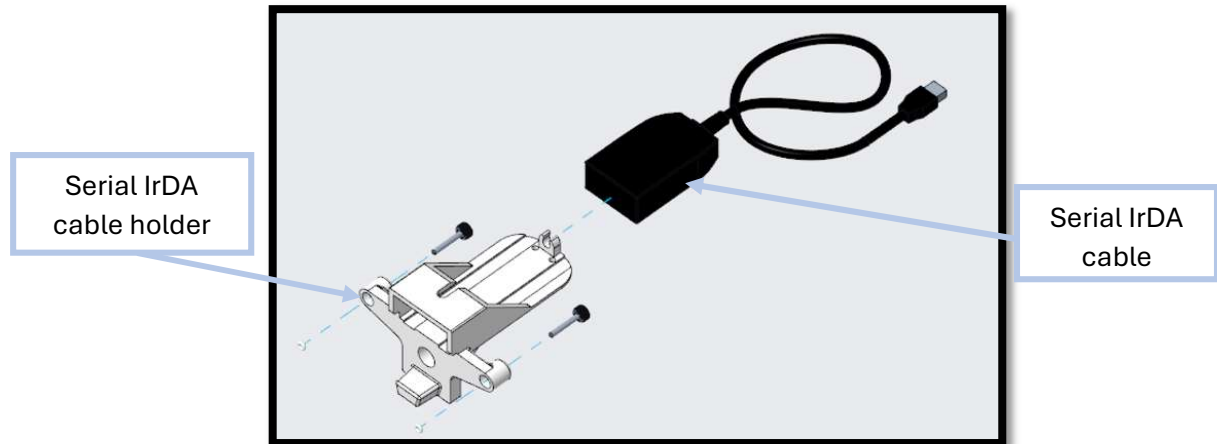
Requirement	Criteria
Operating System	Microsoft Windows 10 or higher
Processor	64-bit architecture
Memory (RAM)	512 MB minimum 1 GB or more recommended
Storage Space	250 GB minimum
Connections	USB port (2.0 or higher)
Display Screen Resolution	800 x 600 or better
User Access (Windows)	Administrator accounts for permissions to install Standard user account to use

1.2 Required Equipment

The Dresser™ IrDA Communications Kit (Part Number 063158-000) is needed to perform the steps in this section. Contact Customer Service to request these parts or assistance.

Table 2: Communications Kit Contents

Item	Part	Purpose
1	Serial IrDA cable holder	Aligns the IR adapter with the unit’s IR window and holds it in place
2	Serial IrDA cable	Connects the IR (infrared) adapter to the computer’s USB port



**Figure 1: MC3 Serial IrDA Communications Kit
(Part Number 063158-000)**

1.3 Install SYNC Software for use with MC3 Correctors

1. Close all programs currently open on your computer. **Do not turn off your computer.**

Note: Do not plug in the serial IrDA cable until you are instructed to do so.

2. Click Register to request software from <https://sync.dresserfusion.com/>

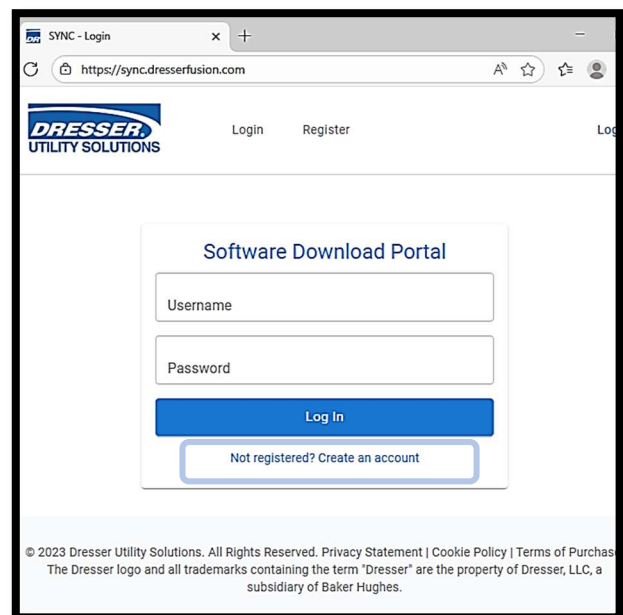
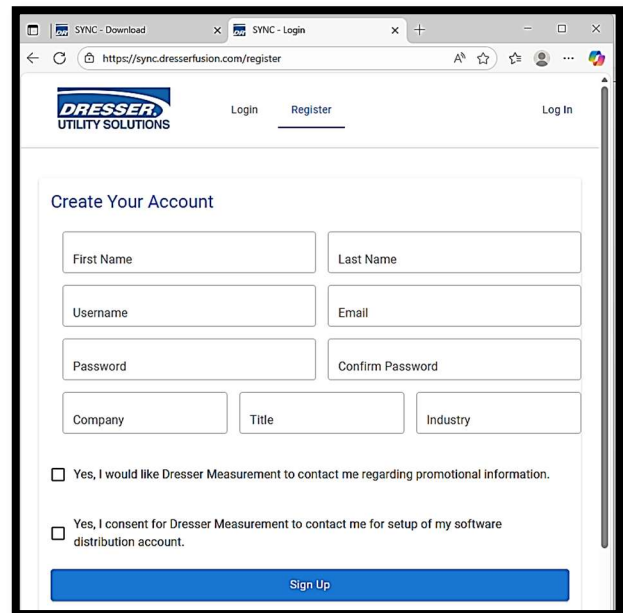


Figure 1: Click to Register for Download

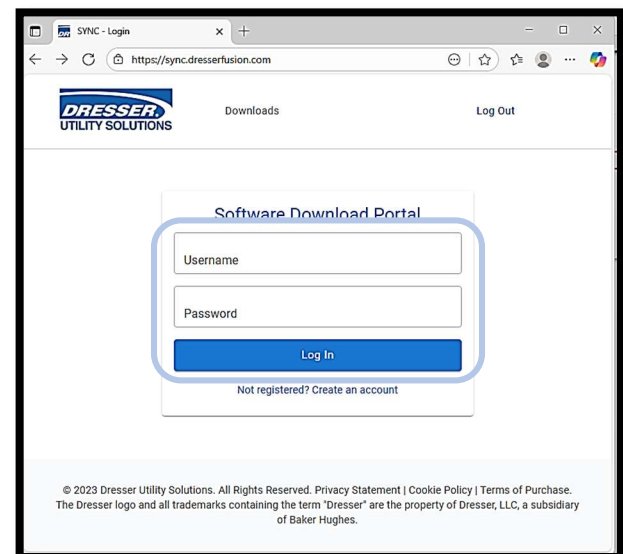
3. Once accepted, you will need to register by filling out the registration form.
There will be two check boxes, the first is for promotional information.
The second box is to provide permission for Dresser to contact you about the software account.
4. Once registered you will need to email the Following to gain access:
meterstechservices@dresserngs.com



The screenshot shows a web browser window with the URL <https://sync.dresserfusion.com/register>. The page features the Dresser Utility Solutions logo and navigation links for 'Login', 'Register', and 'Log In'. The main content area is titled 'Create Your Account' and contains several input fields: 'First Name', 'Last Name', 'Username', 'Email', 'Password', 'Confirm Password', 'Company', 'Title', and 'Industry'. Below the fields are two checkboxes with associated text: 'Yes, I would like Dresser Measurement to contact me regarding promotional information.' and 'Yes, I consent for Dresser Measurement to contact me for setup of my software distribution account.' A blue 'Sign Up' button is located at the bottom of the form.

Figure 2: Register for Software Account

5. Once approved, you will need to login with your new credentials.



The screenshot shows a web browser window with the URL <https://sync.dresserfusion.com>. The page features the Dresser Utility Solutions logo and navigation links for 'Downloads' and 'Log Out'. The main content area is titled 'Software Download Portal' and contains a login form with 'Username' and 'Password' input fields, a blue 'Log In' button, and a link that says 'Not registered? Create an account'. At the bottom of the page, there is a copyright notice: '© 2023 Dresser Utility Solutions. All Rights Reserved. Privacy Statement | Cookie Policy | Terms of Purchase. The Dresser logo and all trademarks containing the term "Dresser" are the property of Dresser, LLC, a subsidiary of Baker Hughes.'

Figure 3: Login to Account

6. Read the 'End Use Agreement' by scrolling until the end. Once read, click "Accept" to proceed.

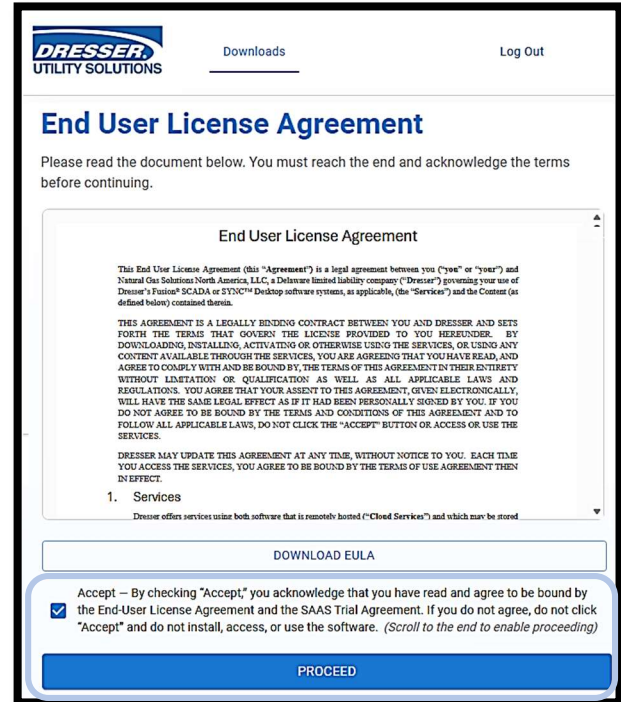


Figure 4: Accept End User Agreement

7. Next, you will navigate to the "Downloads" page. Choose "Fusion Desktop Software", then Click Download.

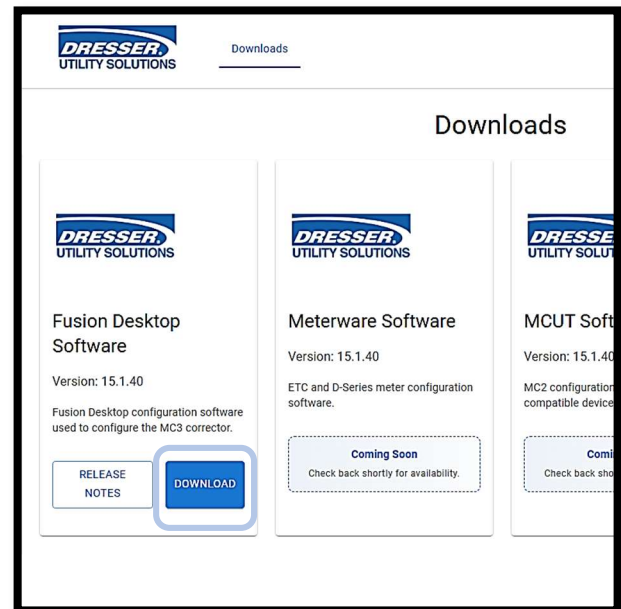


Figure 5: Download Software

8. On the Windows File Explorer screen, select the directory to which you saved the Fusion Installation folder.

Note: The default location is usually the users "Download" folder.

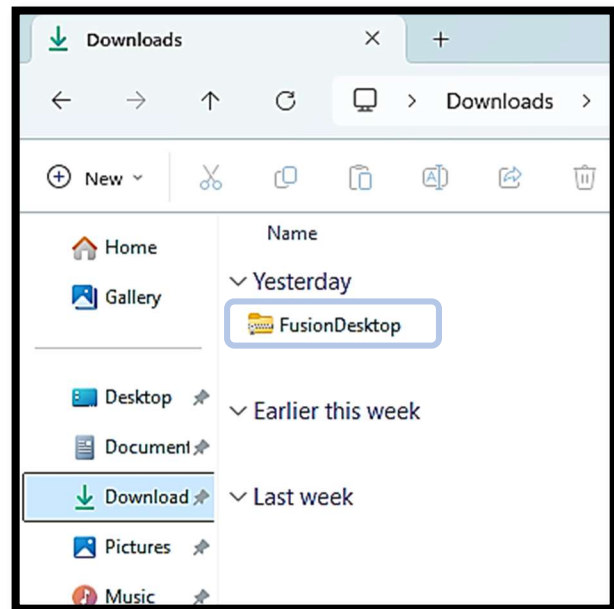


Figure 6: Locate Download

9. Right-click the file and select Extract All.

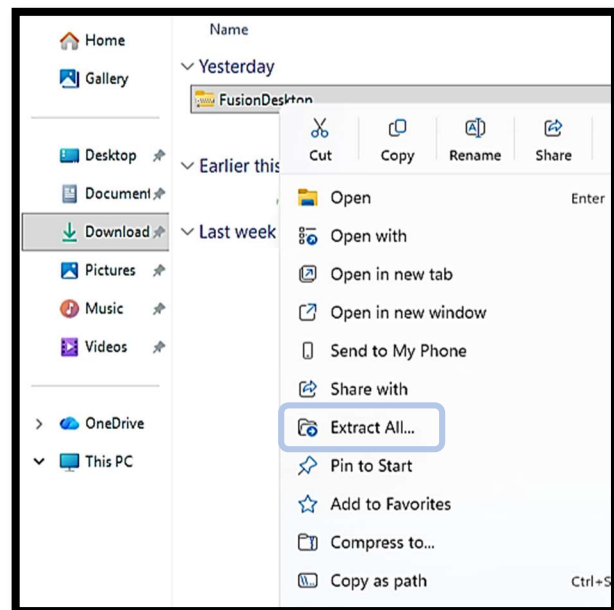


Figure 7: Extract Files

10. Select the folder in which you want to save the extracted files. Enter the path to the folder or click **Browse** to navigate to it.

Note: Be sure to choose a folder you will remember.

11. Click **Extract** to continue.

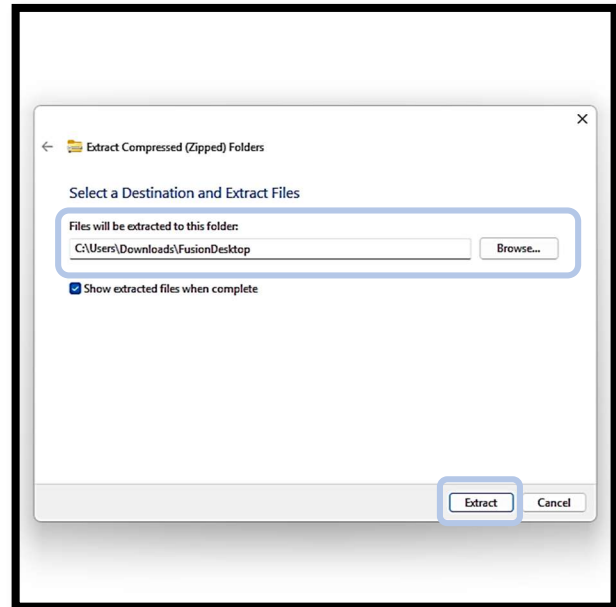


Figure 8: Select location and extract files

12. Navigate to the folder that contains the extracted Fusion installation files.
13. Double-click to open the **Dependencies** folder.

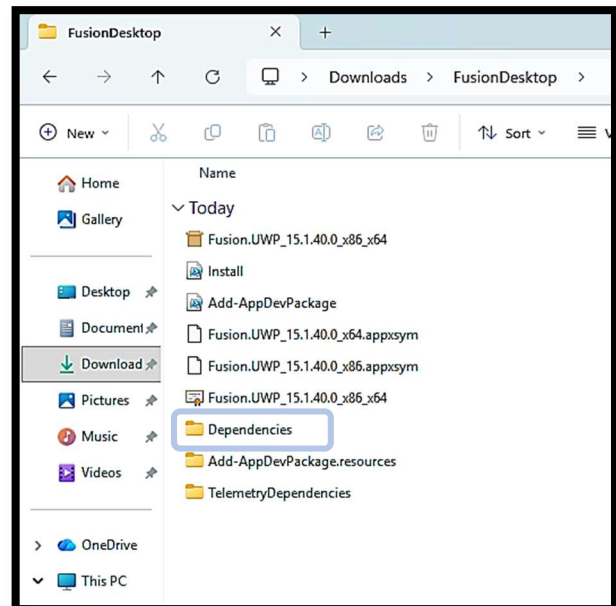


Figure 9: Open the Dependencies folder

14. You will need your Windows Operating System version for the following steps.

To determine your Windows System Version, enter 'System Information' in the Windows Search bar and check the System Information Field value on the System Information screen.

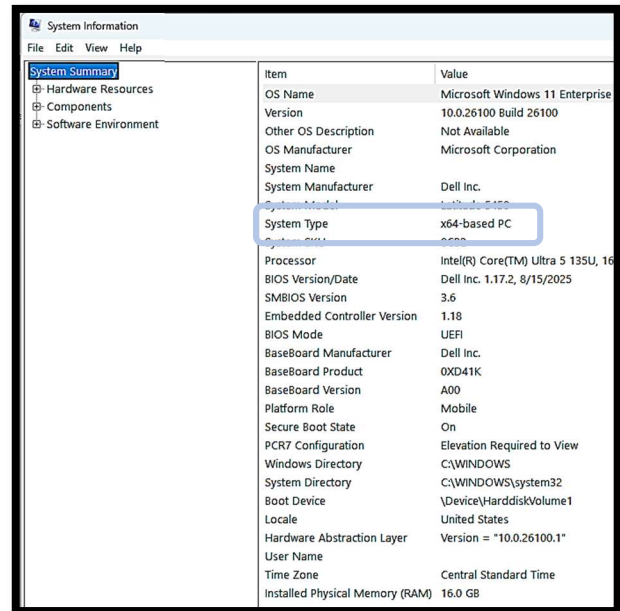


Figure 10: Determine Windows Version

15. In the **Dependencies** folder, double-click to open the folder for the correct Windows System Type for your computer.

- **arm:** Windows ARM
- **arm64:** Windows ARM-64
- **Win32:** Windows 32-bit
- **x64:** Windows 64-bit
- **x86:** Windows 86-bit

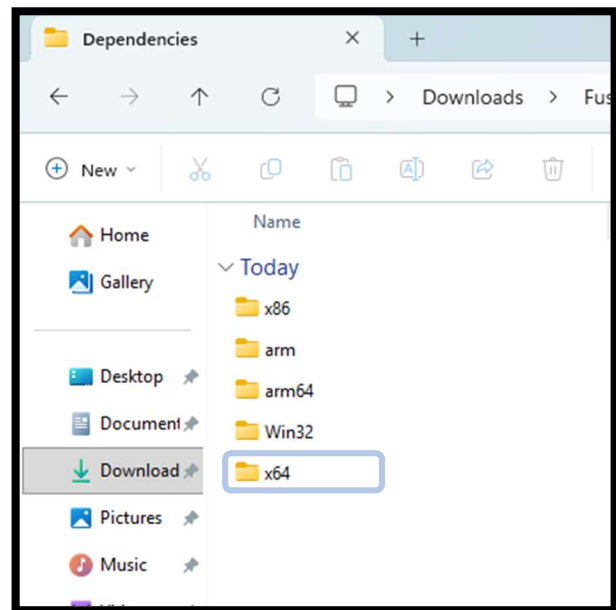


Figure 11: Open Windows System Type

16. In the architecture's Dependencies folder, double-click and install each of the .appx files until all the files in the directory are successfully installed.

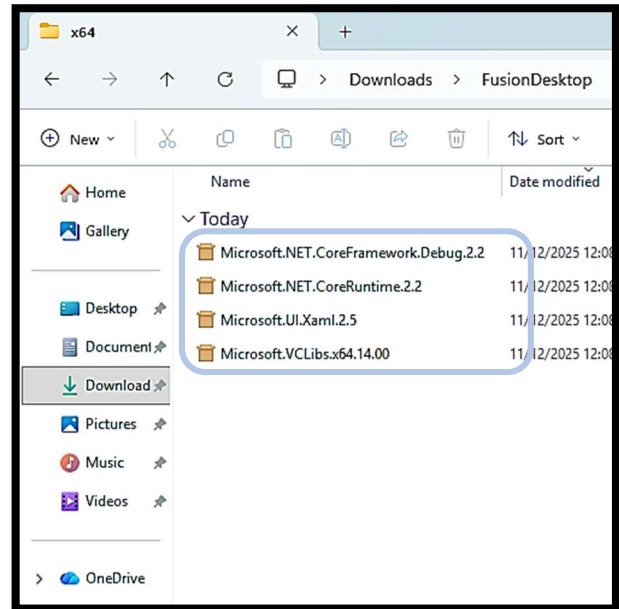


Figure 12: Install all .appx dependency files

17. Figure 13 shows an example of an install screen.

Note: *If a screen advises that newer versions of the files are already installed, the dependency is already available on the system. Use the currently installed version and do not install the provided file.*

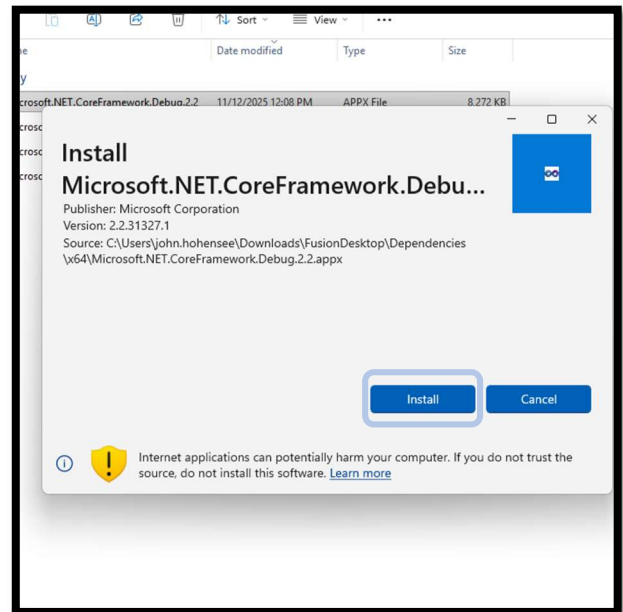


Figure 13: Example of .appx file Install Screen

18. In the Fusion installation files folder, double-click the " Fusion.UWP_15.1.40.0_x86_x64" file. (The exact file name varies by version.)

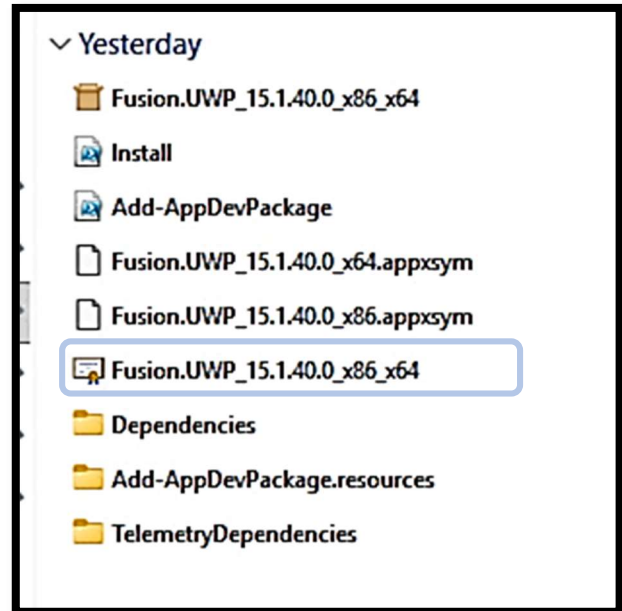


Figure 14: Select the security certificate

19. On the Open File - Security Warning screen, click **Open**.

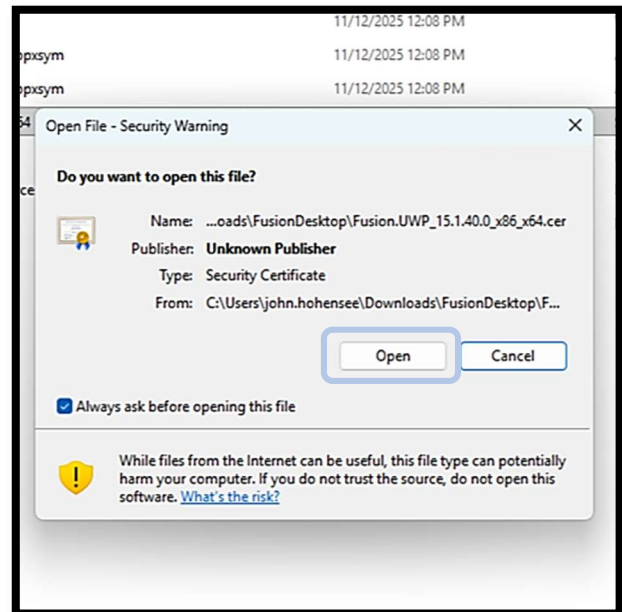


Figure 15: Open the security certificate

20. On the Certificate screen, click **Install Certificate**.

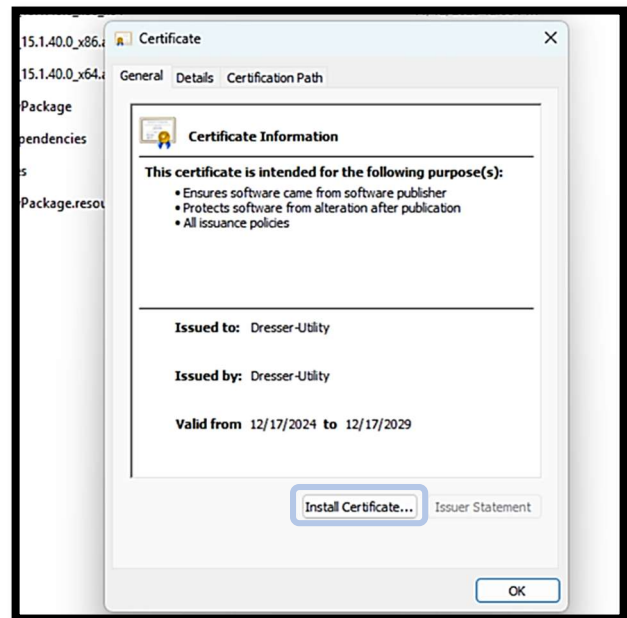


Figure 16: Install the security certificate

21. On the Welcome to the Certificate Import Wizard screen, select **Local Machine** as the location (certificate store) in which to keep the certificate. Click next.



Figure 17: Select Local User

22. On the Certificate Store screen, select **Place all certificates in the following store**. Click **Browse**.

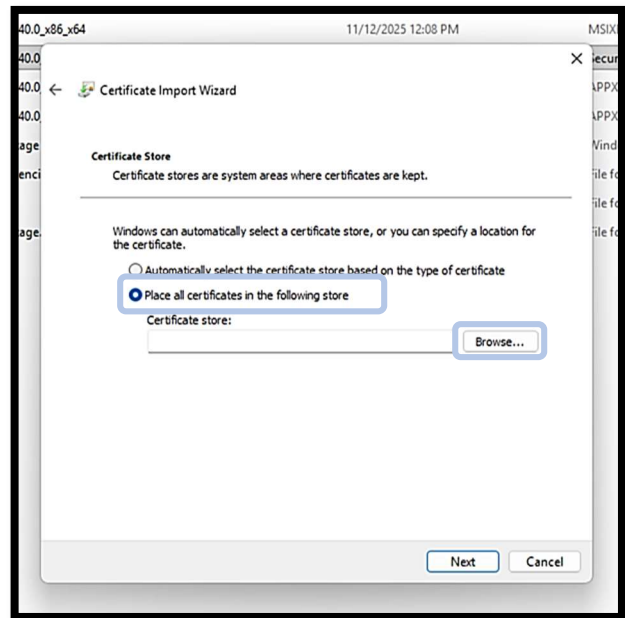


Figure 18: Select Certificate Store Location

23. In the Select Certificate Store dialog, select **Trusted Root Certification Authorities**. Click **OK**.

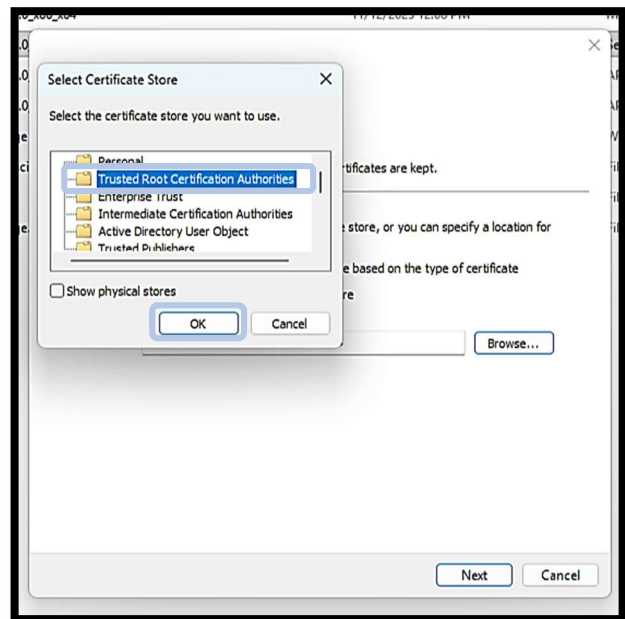


Figure 19: Select Trusted Root Certification Authorities

24. On the Certificate Store screen, verify the selected store is displayed, and click Next.

If the incorrect certificate store is displayed, click Browse to select the correct one.

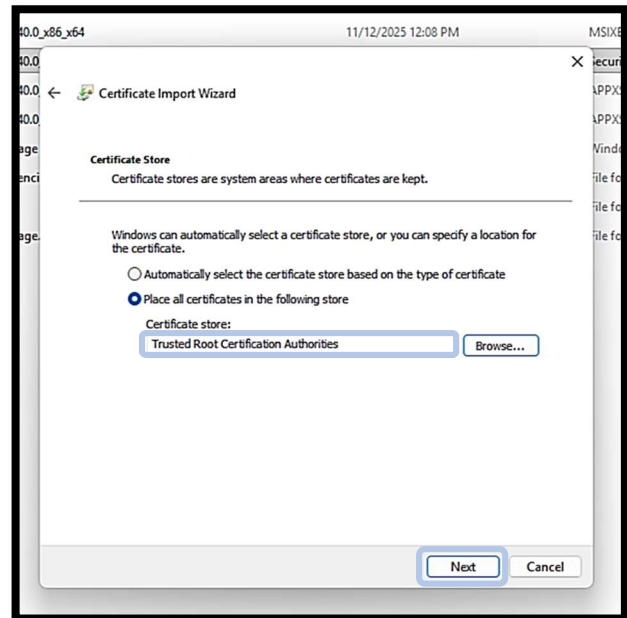


Figure 20: Select certificate store

25. On the "Completing the Certificate Import Wizard" screen, verify the settings are correct and click Finish.

If the settings are not correct, click the back icon to return to the previous screens to change the settings.



Figure 21: Verify settings finish certificate import

26. If the certificate install completes correctly, an “import was successful screen” is displayed. Click OK.

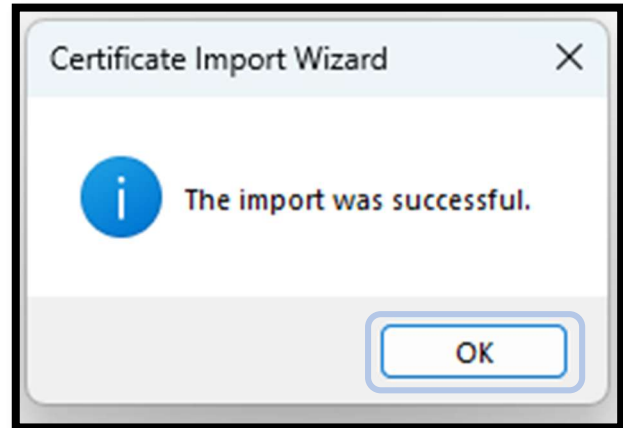


Figure 22: Certificate installation complete

27. In the Fusion installation files folder, double-click the " Fusion.UWP_15.1.40.0_x86_x64" file. The exact file name varies by version.

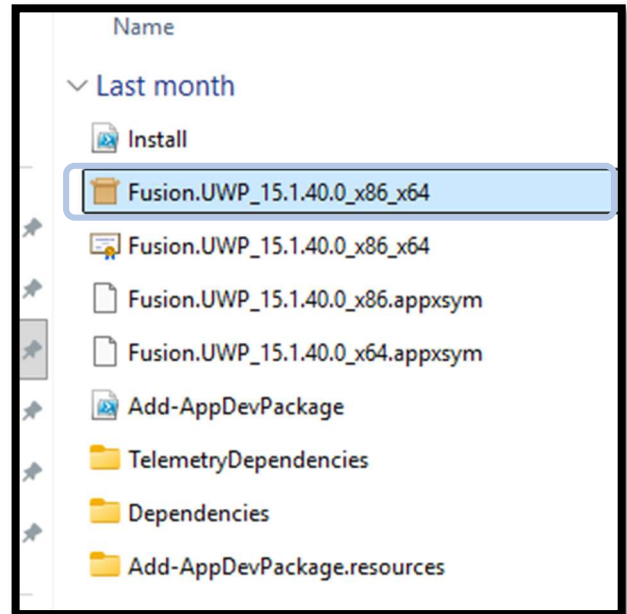


Figure 23: Select installation .msix file

28. (Optional) Select the **Launch when ready** check box to start the Dresser Sync software when installation finishes.

29. On the Install Dresser SYNC screen, click Install.

After installation is complete, login screen will display.

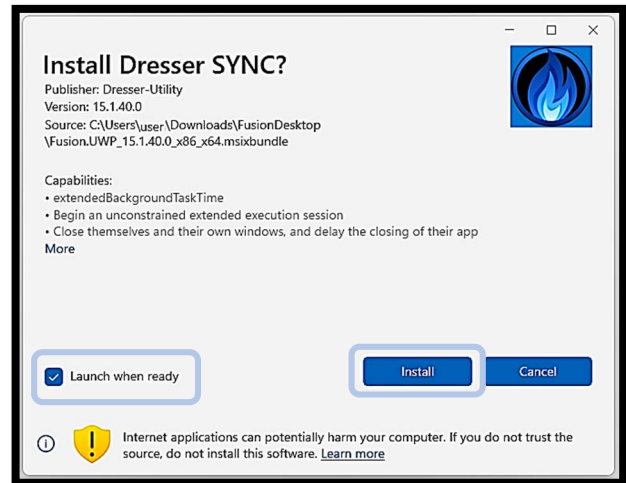


Figure 24: Click Install

2 Log in to the Software

A username and password are required to log into the SYNC software. The role assigned to the username determines what features you can view and change.

2.1 Create Account

1. Double-click the **Dresser Sync Utility** icon to start the SYNC software.



Figure 1: Double-click Dresser Sync Utility icon

2. After opening the software, this screen will show. The username and password for the first time setup will be
Username: super
Password: super
- Then click Login to move on to the next step.

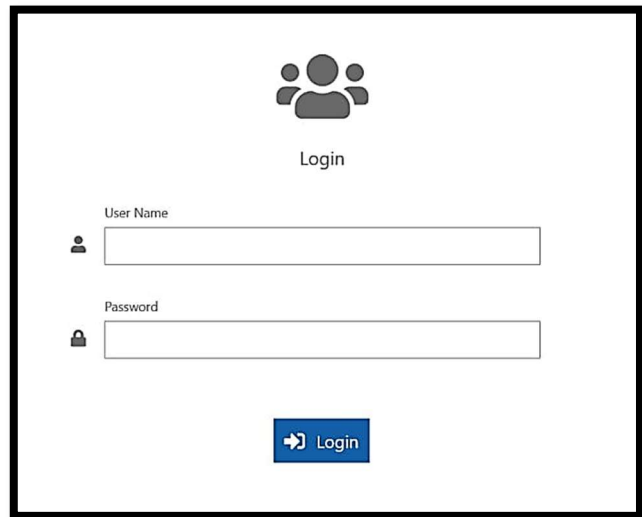


Figure 2: Temporary Login

3. If you are logging in with a username for the first time, the Password Reset screen displays.
- If this occurs, enter the password you want to use in the New Password field and then again in the Reenter Password field.
- The password must be at least 8 characters, have at least one uppercase letter, one lowercase letter, and one number.
- Click **Update** to reset the password.

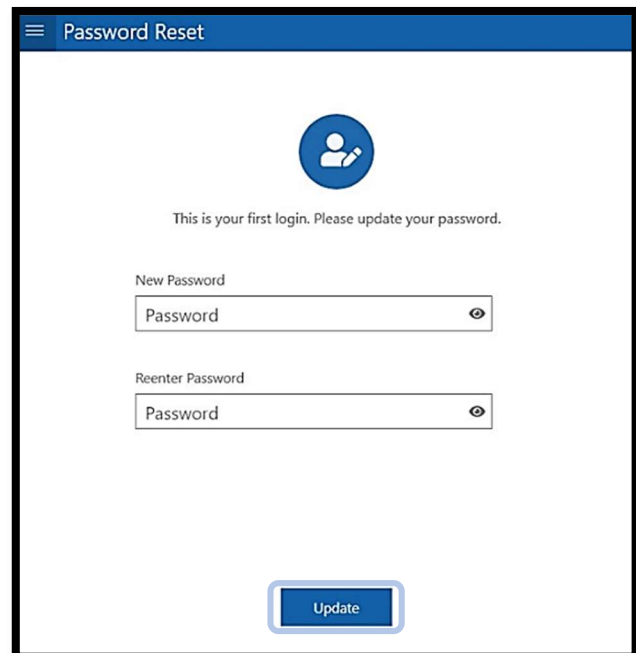


Figure 3: Password Reset screen

4. When successfully logged in, a screen displays. Click OK.

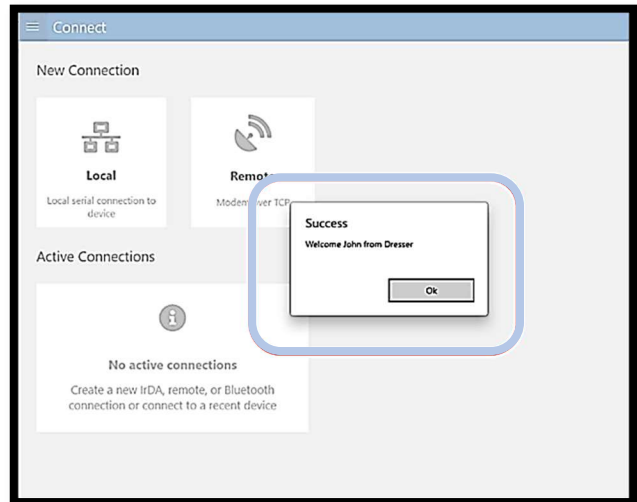


Figure 4: Successful login screen

5. Once you click on **Update**, you have finished setting up your account.
Next time you open the software, you will use the username and password you previously setup to login.

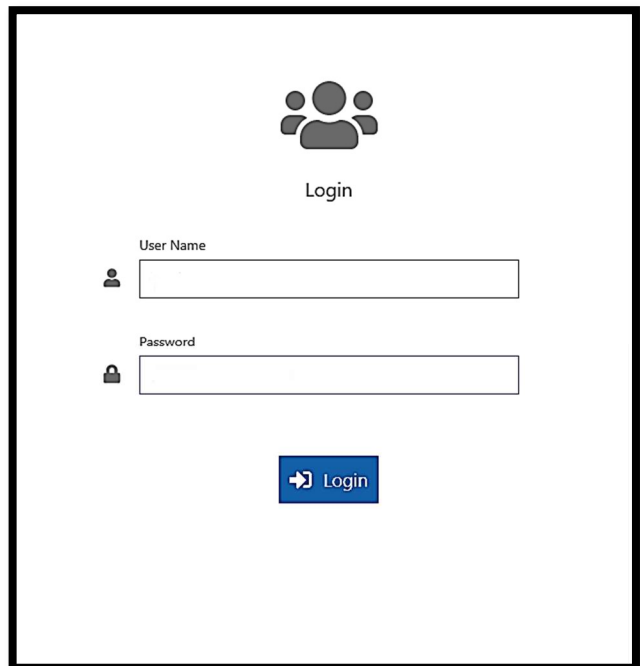


Figure 5: Account Setup Complete

2.2 Forgot Password

1. If you have forgotten your password, you must complete sections 1 and 2 to reinstall software and set up login information.

3 Connect to MC3 Corrector with Dresser Communications Kit

1. To connect the cable included in the communications kit (PN 063158-000) to the MC3, insert the dovetail of the MC3 cable holder into the slot underneath the MC3. Next, secure the thumb screws into the threaded holes found on the MC3 faceplate. Finally, make sure the MC3 comms cable is tucked into the holder so it can sit flush with the MC3.

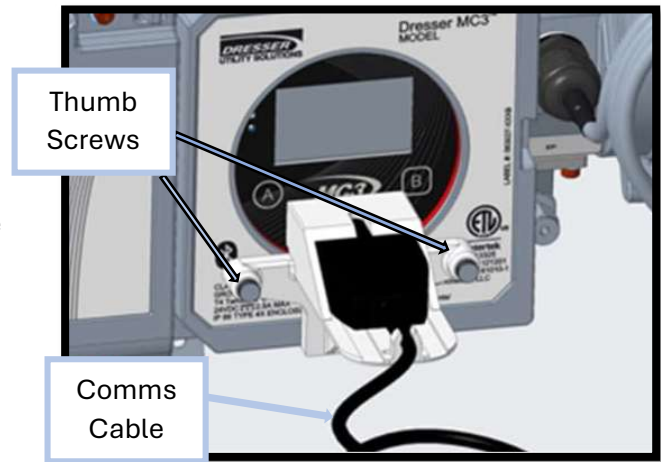


Figure 1: Login Screen

2. Next, connect the comms cable to your computer and then load the SYNC software and log in with your account.

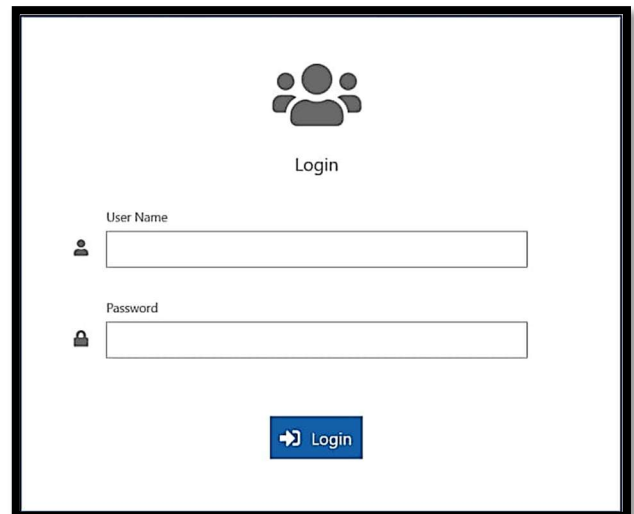


Figure 2: Login Screen

3. After you have logged in, click on the Local connection button.

NOTE: If you clicked on this before you connected the cable, go back to the Connect screen and click on the Refresh button, in the top right corner, to refresh the connections. Then, you can proceed to click on Local.

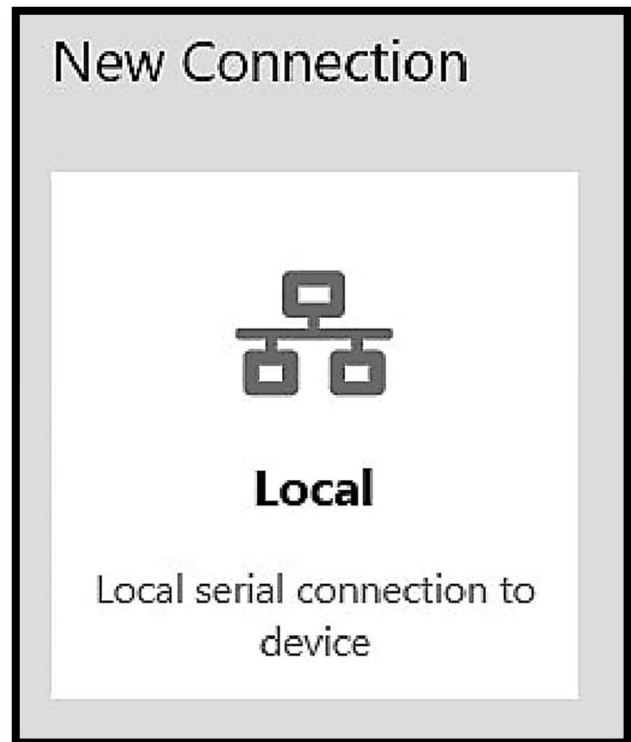


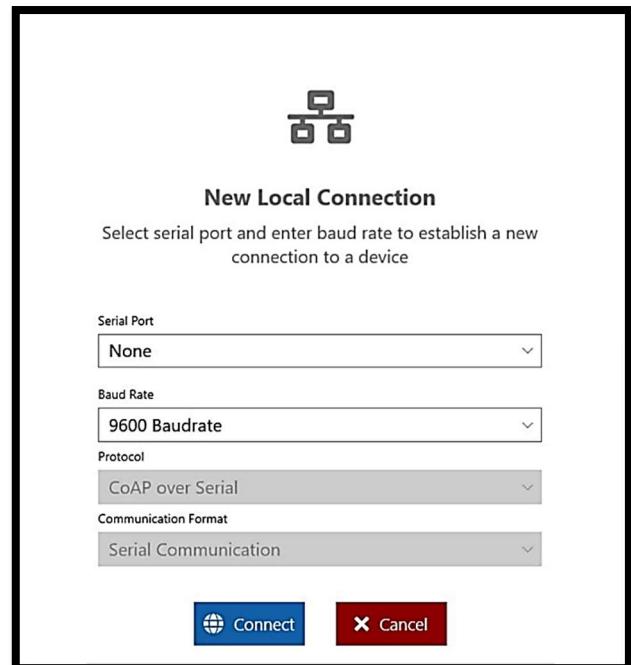
Figure 3: Local Connection

4. On this screen, you will select the serial (COM) port that the cable is on as well as selecting 9600 for the Baud Rate.

NOTE: To find out what COM port the cable is on, search for Device Manager on Windows and then look under Ports (COM & LPT).

Next, wake up the MC3 by holding down the "B" button on the touch screen of the MC3. A blue light will flash once and then once again. Once you see the second flash release the "B" button.

Lastly, click on Connect and the



software will begin connecting with the MC3.

Figure 4: Local Connection

4 Software User Interface

Note: Because of differences in devices, operating systems, screen sizes, resolution, role access, software version, and other factors, your display might appear different than the screens shown in this manual.

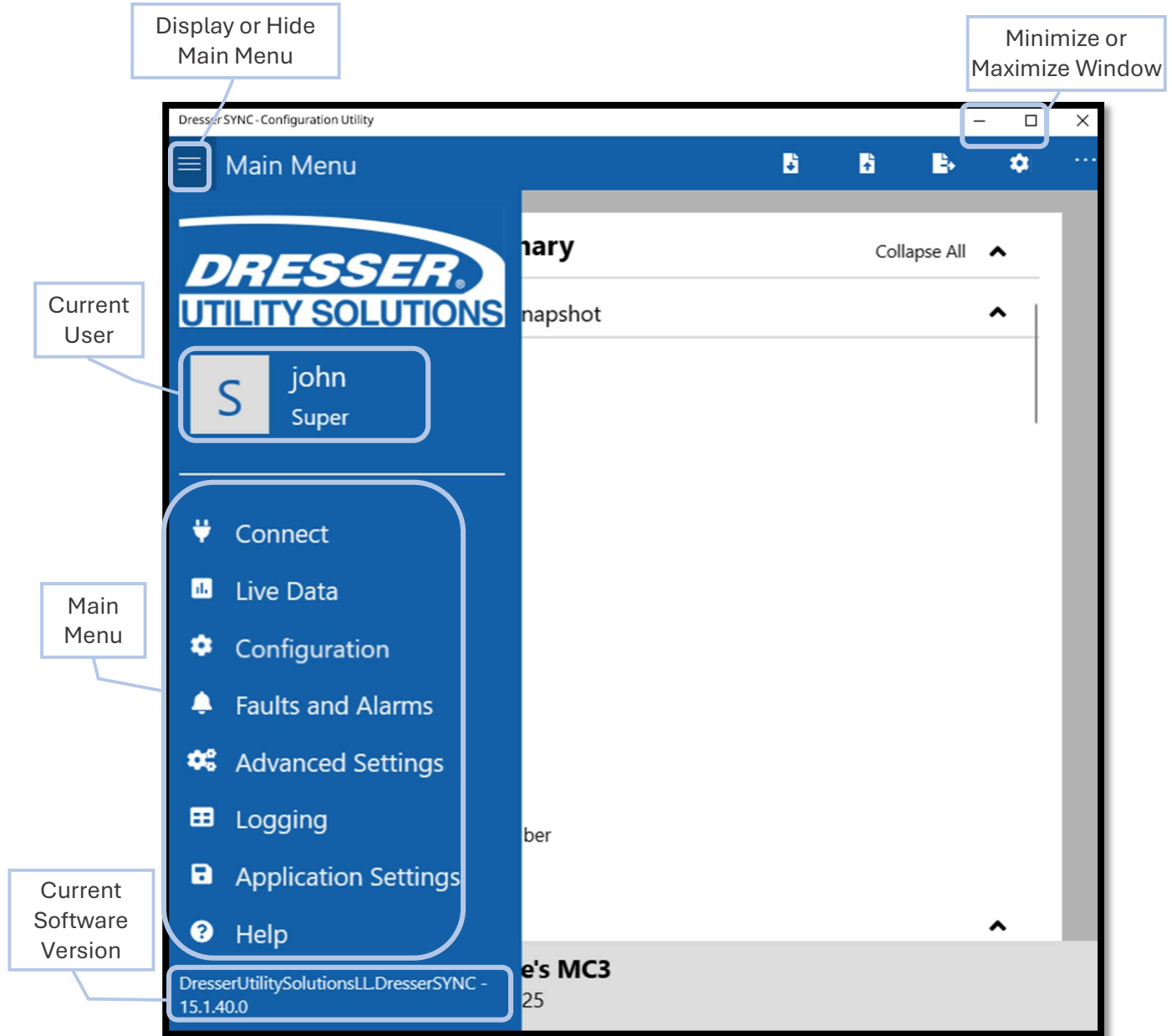


Figure 1: SYNC Software Interface

5 Viewing and Setting Configuration Settings

This section provides information about configuring the unit. The Configuration section includes two screens configuration summary screen and the configuration settings screen.

5.1 View Configuration Settings

1. To access the Configuration Summary Screen, select **Configuration** on the main menu (Figure 1).

Configuration settings are retrieved from the unit you are currently connected to.

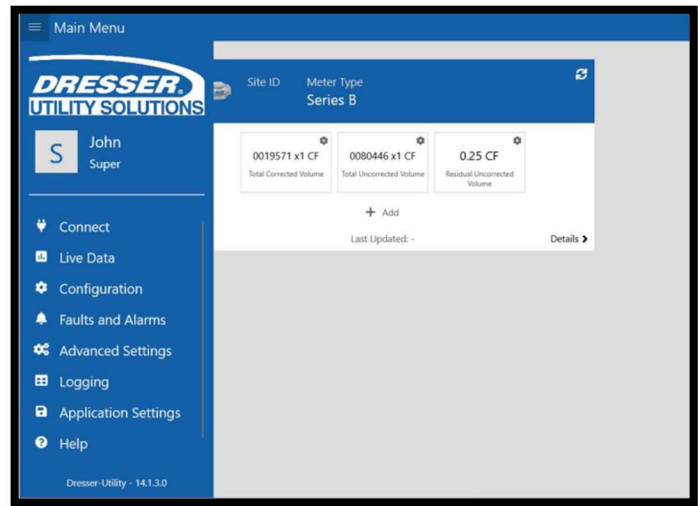


Figure 1: Access Configuration Menu

2. The Configuration Summary screen is divided into several sections and has the following features:

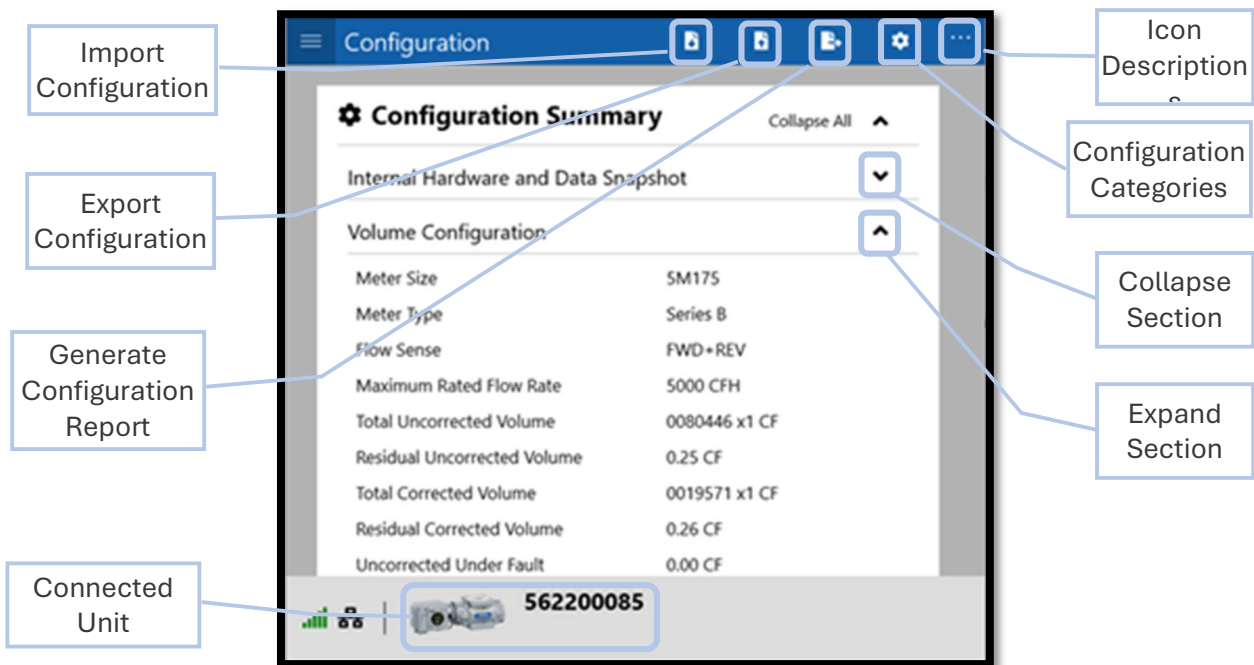




Figure 2: Configuration Icons

5.2 Change Configuration Settings

On the Configuration Summary screen, click in a data section or the settings icon  at the top of the screen to access the Configuration Settings screen to change data settings.

NOTE: Settings on the unit are not changed until they are uploaded from the software to the connected unit.

Perform the following steps to change settings on the Configuration Settings screen:

1. Click the settings icon  to see all configuration settings.

In this example, we are going to change the Sleep Timeout interval.

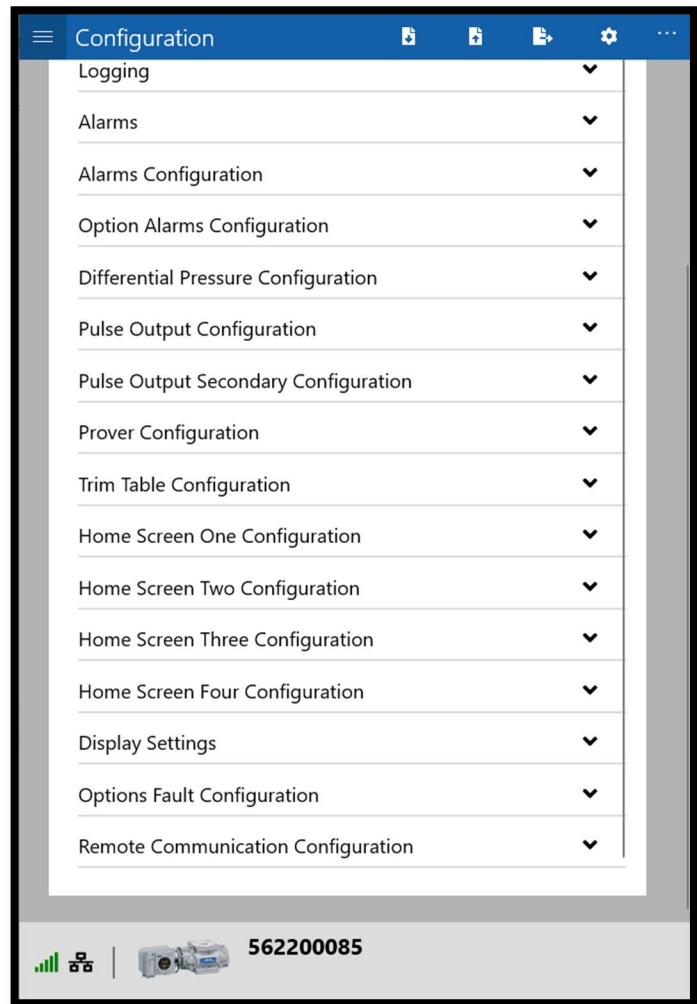


Figure 1: Configuration Menu

2. Select **Display** on the configuration summary screen.

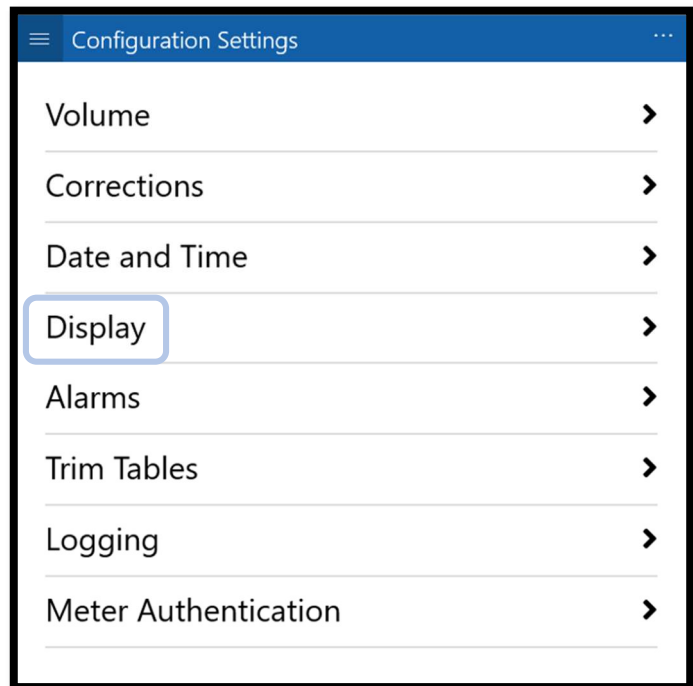


Figure 2: Select Display

3. In this example, the **Screen Options** menu shows the setting for controlling the unit display.

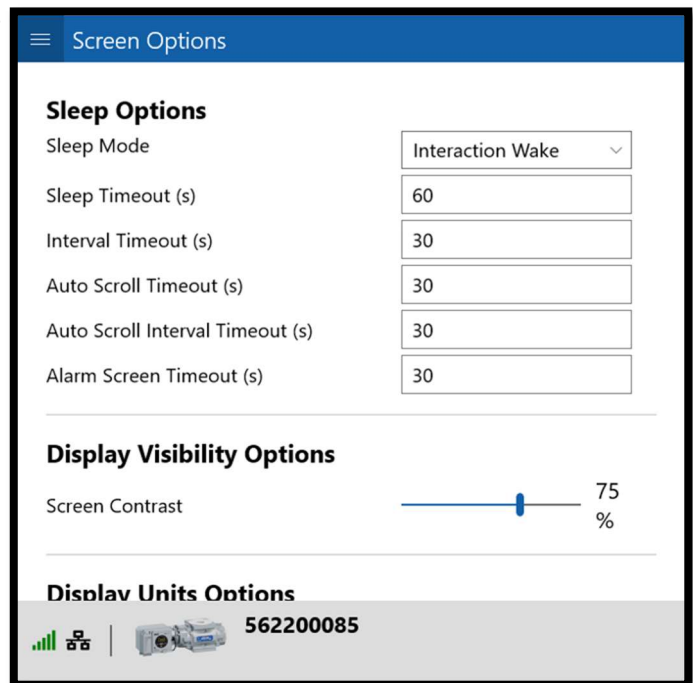


Figure 3: Screen Options Menu

4. In this example, we are going to change the **Sleep Timeout** value from **60** seconds to **120** seconds.

The method of selecting the field value depends on the setting being changed.

- For **text** fields, enter the value. A message should indicate if you enter an incorrect value, such as out of the allowable range.
- For **slider** fields, such as for the Screen Contrast setting, click and drag the slider to the desired setting.
- For **menu** fields, click the menu icon ∇ and select an option from the drop-down menu.
- For **toggle** fields (such as on), click the field to turn on/enable or turn off/disable the setting.

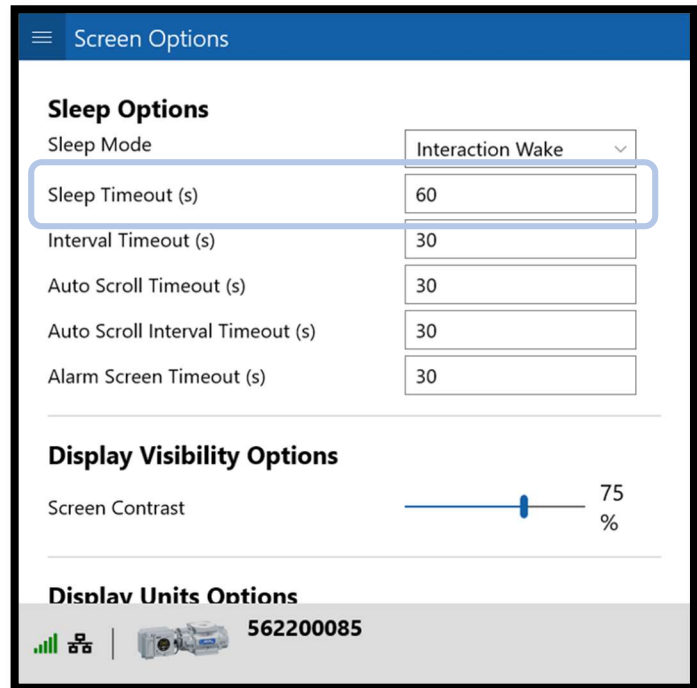


Figure 4: Screen Options Menu Example

Note: Although you can change several settings on the same or different settings screens during one session, all changes must be uploaded at once when you return to the Configuration Summary screen. If you are making multiple changes, you should make changes in multiple sessions to verify them as you upload them.

5. Click the previous screen icon \leftarrow in the upper left corner of the screen once or twice to return to the configuration summary screen.

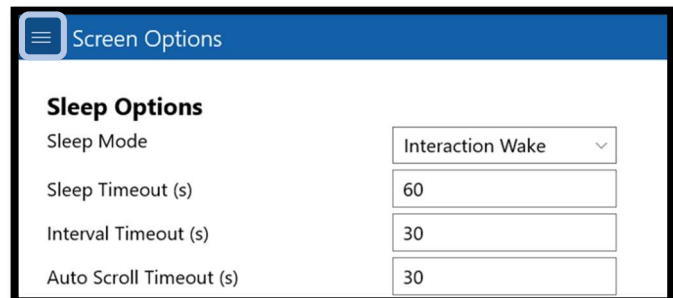


Figure 5: Return to Configuration Summary

6. A message displays to advise changes must be uploaded to the unit or cleared to proceed. Click OK.

Tip: Click Do Not Show Again if you do not want to see this reminder dialog again.

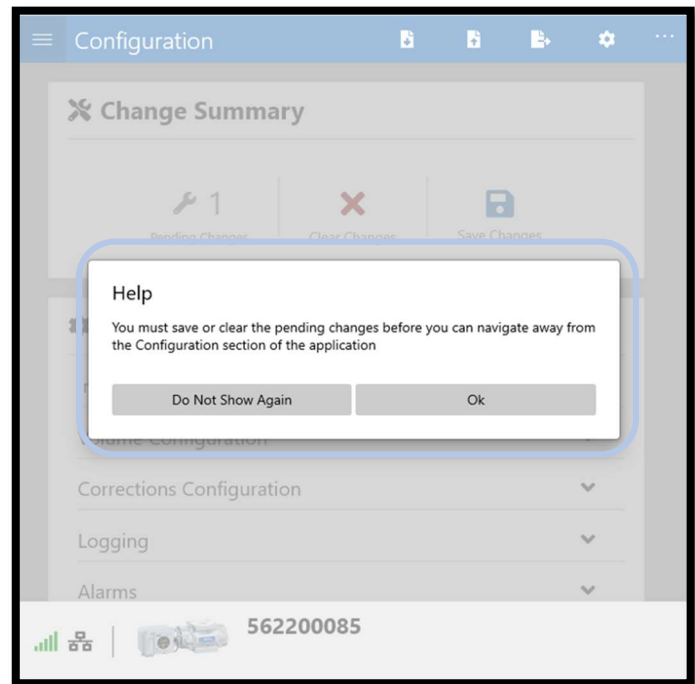


Figure 6: Save or Clear Changes Notification

7. A Change Summary screen displays to review the pending changes to determine if you want to upload them to the unit. Click **Details** to view more information.

Choose whether you want to **Save** the changes or Click **Clear Changes** if you do not want to make all the changes.

If clearing changes, you cannot select which specific changes you want to make or discard.

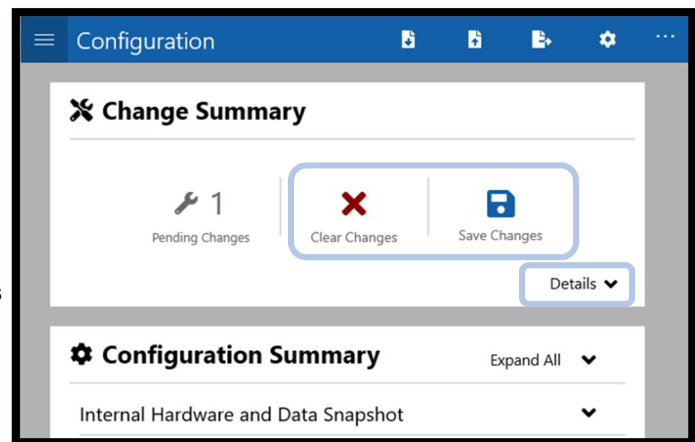


Figure 7: Save or Clear Changes Verification

- Changes are either discarded or uploaded, depending on your choice.

If you choose to discard changes, when prompted, click to confirm.

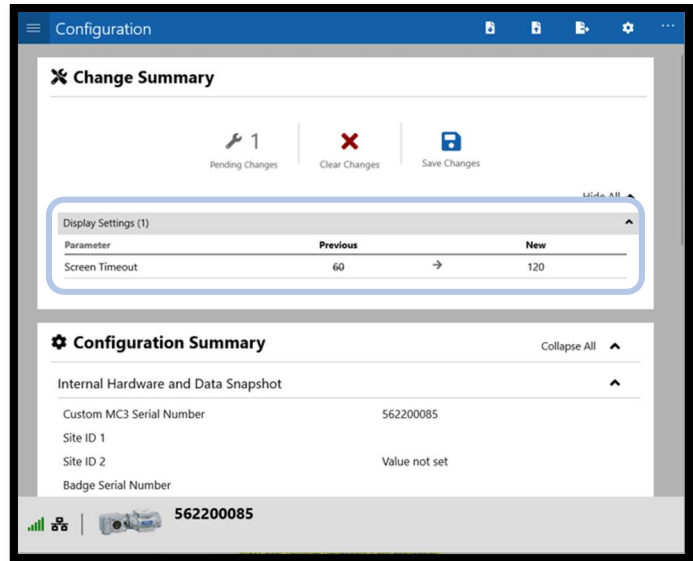



Figure 8: View Change Details

5.3 Save a Configuration File

NOTE: After configuring a unit, save (export) a configuration file for the unit and save it to a location for future reference or to reload (import), if needed.

- Select Configuration  on the main menu.
The Configuration Summary screen displays.

Current configuration settings are retrieved from the connected unit.

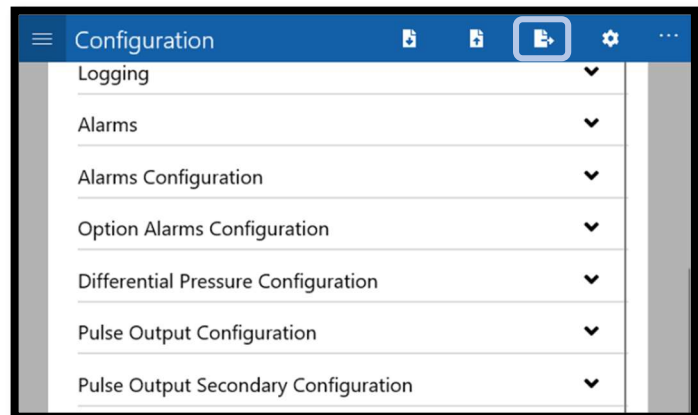



Figure 1: Configuration Summary Screen

2. On the Configuration screen, click export file icon  on the upper right corner of the screen.

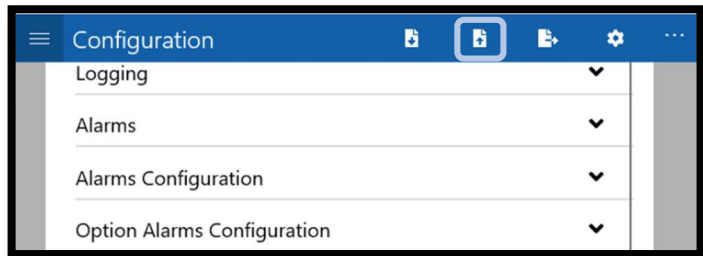


Figure 2: Export File Icon

3. In the Save As window, enter a file name and select a location for the generated .config file. Name the file and select a location that you will remember.

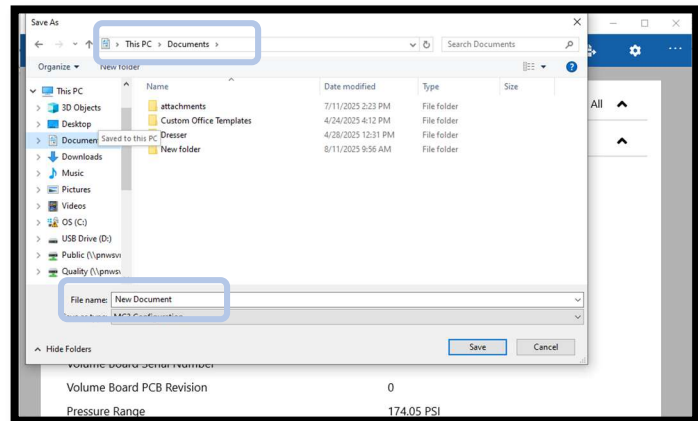


Figure 3: Config File Save Location

4. A notice displays to show the configuration settings have been exported successfully. Click OK.

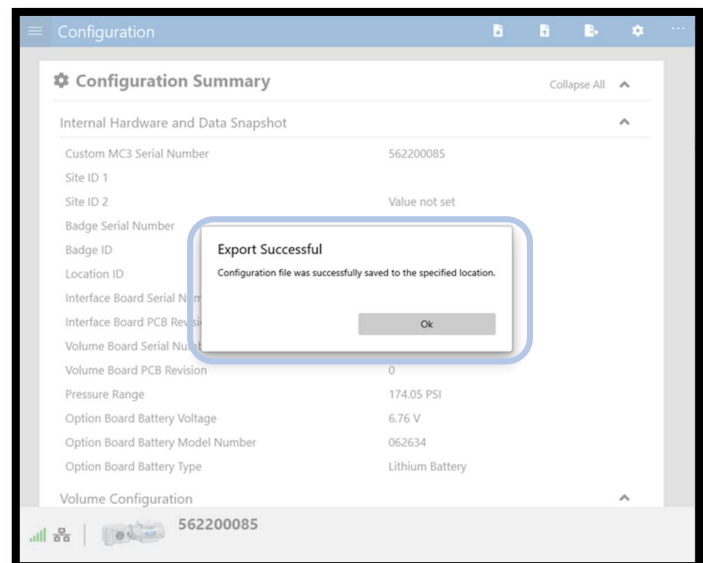


Figure 4: Export Successful Notification

5.4 Upload a Configuration File

1. Select Configuration on the main menu.

The Configuration Summary screen displays.

Current configuration settings are retrieved from the connected unit.

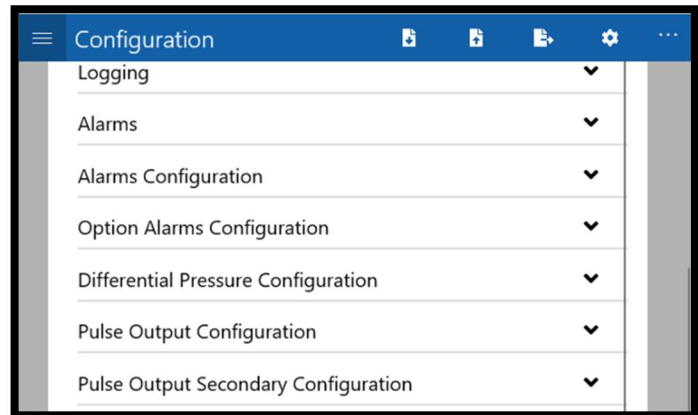


Figure 1: Configuration Summary Screen


2. On the Configuration screen, click import file icon  in the upper right corner of the screen.



Figure 2: Import File Icon

3. A notice displays asking you to confirm if you want to import a configuration file to the unit.

Importing a configuration file will overwrite the unit's current configuration settings.

Click **Yes** to continue.

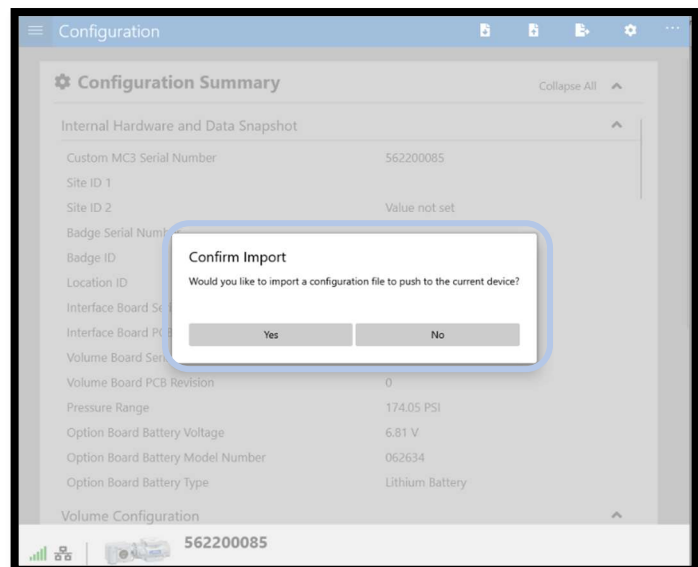


Figure 3: Confirm File Import

4. In the Open window, select the **.config** file that has the configuration settings you want to import and click **Open**.

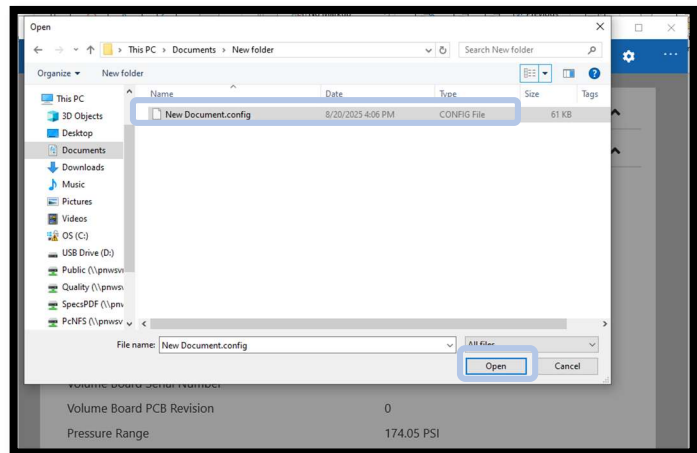


Figure 4: Select File to Import

5. A screen displays to show the configuration settings have been imported successfully. Click **OK**.

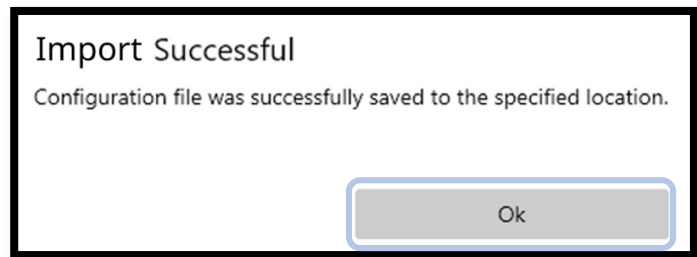


Figure 5: Config Import Successful

6 Viewing Live Data

Note: You must be logged in and connected to the unit before performing the steps in this section.

6.1 View Live Data

Live data provides a snapshot view of the unit's data values at a specific time.

To access the Live Data screen, select Live Data on the main menu (Figure 2).

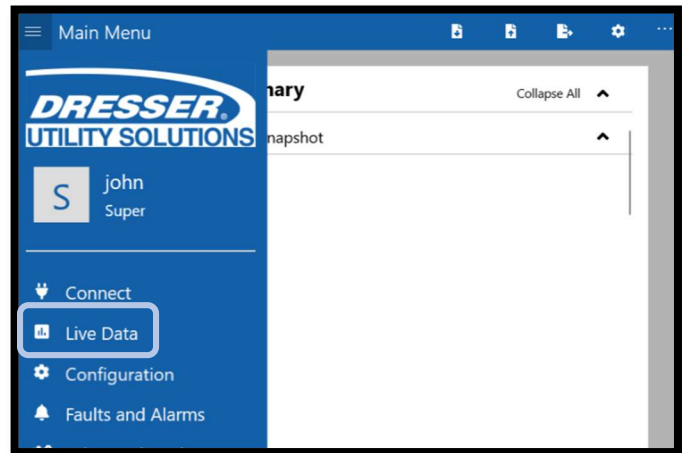


Figure 1: Selecting Live Data

The Live Data Dashboard screen shows unit, status, and connection information (Figure 2).

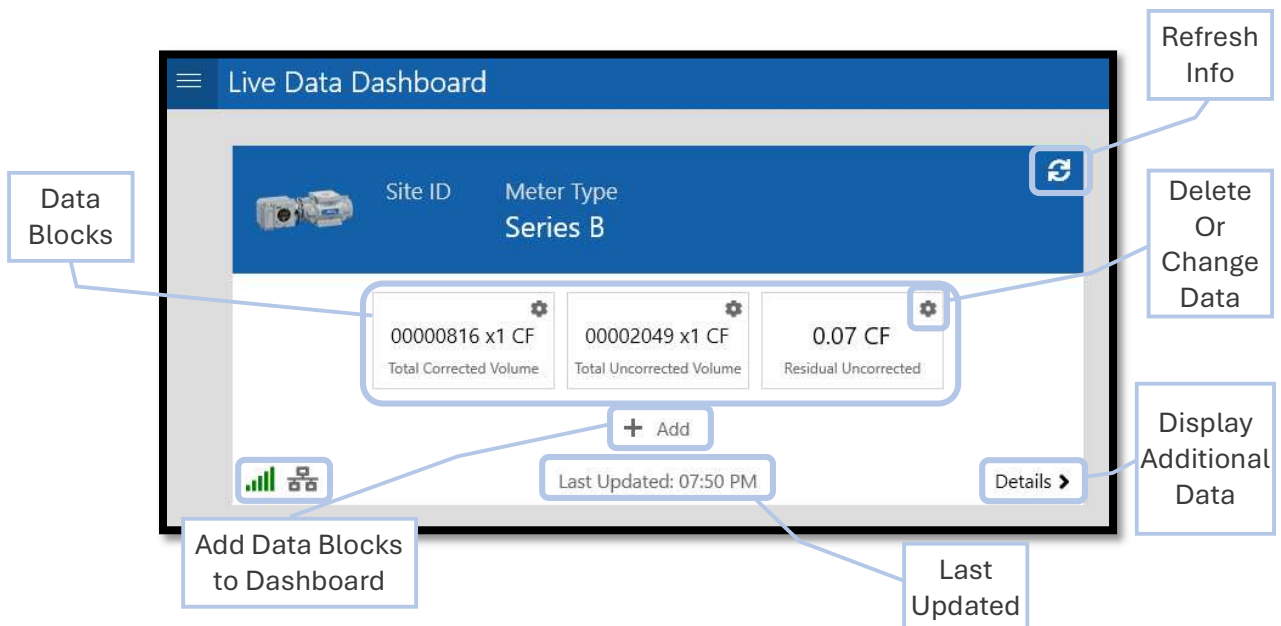


Figure 2: Live Data Dashboard

6.2 Add Data Block to Dashboard

1. Click + Add (Figure 1).
A data block is added to the view.
It will have the same value as an existing block (in this case Total Corrected Volume).

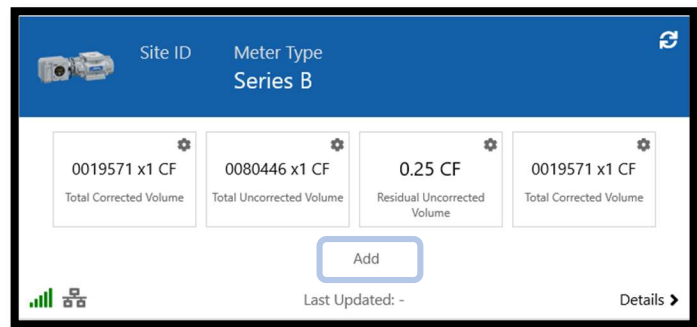


Figure 1: Add Block

2. Click the settings icon ⚙ in the new data block (Figure 2).

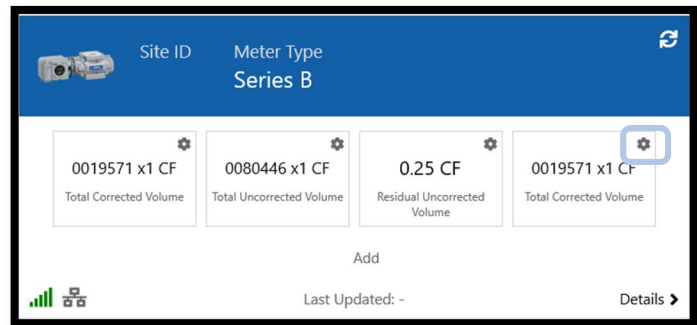


Figure 2: Settings

3. Click the menu icon ▾ and use the drop-down menu to select the data value to display (Figure 3).

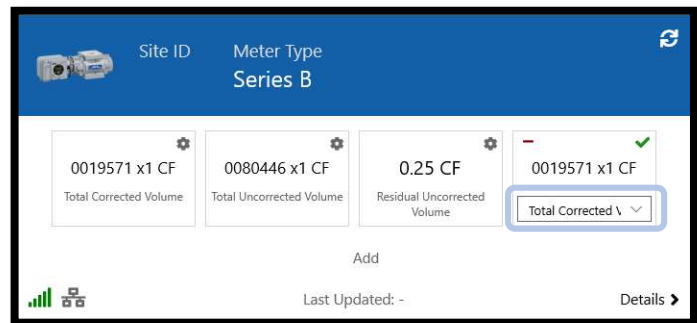
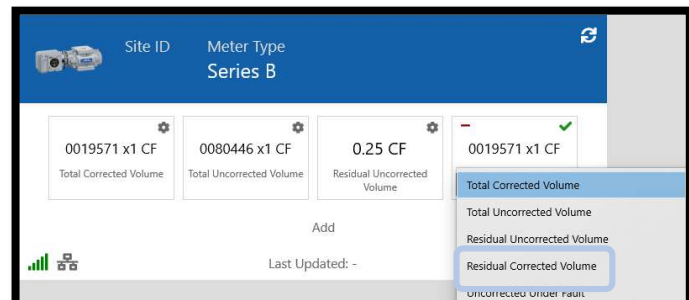



Figure 3: Drop Down Menu

In this example, Residual Corrected Volume is selected.



- Click the accept icon  to save the change (Figure 4).

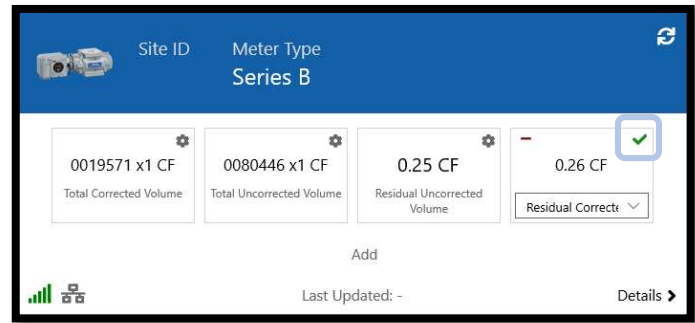



Figure 4: Save Changes

6.3 Delete a Data Block

- Click the settings icon  in the data block to delete.

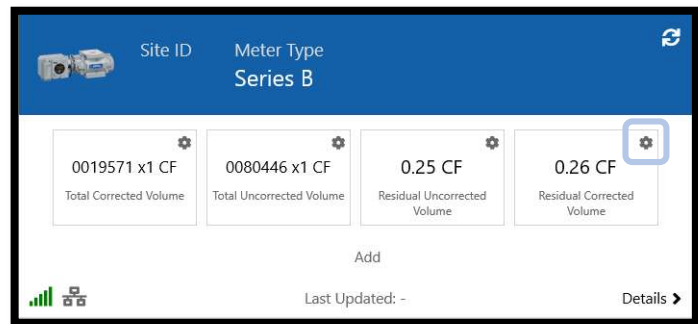



Figure 1: Settings Menu

- Click the delete icon .

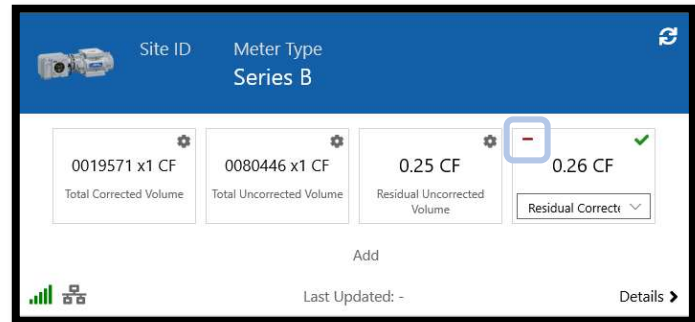
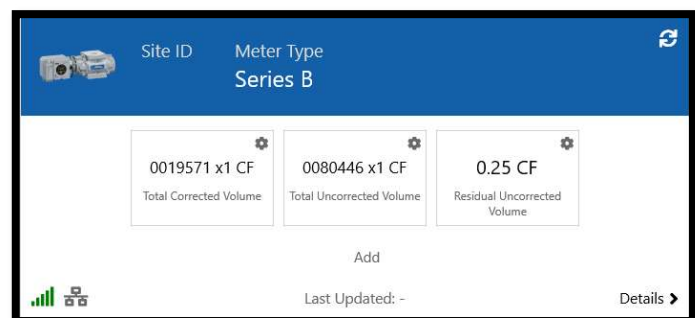


Figure 2: Delete Block

The specified data block is deleted from view.



7 Faults

Fault Type	LCD Screen Display	Occurs When	Solution
Low Battery*	Fault: Battery Low	The battery voltage drops below 4.1 V.	
Firmware Checksum	Fault: CS FW	Firmware checksum validation fails.	
Configuration Checksum	Fault: CS Config	Configuration parameters are corrupted. Checksum validation fails.	
Overspeed	Fault: Overspeed	The flow rate is at or below 125% Qmax.	
Pressure Sensor	Fault: Pressure Sensor	Communication with the Line Pressure Sensor is lost or the pressure value is out of range: Gauge: less than -0.5 bar or more than 10% range of the transducer Absolute: less than 0.3 bar or more than (10% range of the transducer + 1 bar)	Sensor may be disconnected, re-connect and try again. If this does not resolve the issue contact customer support.
Time Adjustment	Fault: Time Adj	The difference between the new and old time is more than 60 seconds.	Re-sync software. If this does not resolve the issue, contact customer support.

Temperature Sensor	Fault: Temp Sensor	Communication with the Temperature Sensor is lost or the temperature value is less than -45°C or more than 65°C.	Try reconnecting the sensor. If this does not resolve the issue, it may need to be replaced. Refer to the how-to videos on Dresser's website or the installation manual for guidance.
Volume Sensor	Fault: V Sensor	The volume board is not connected or has excessive direction changes.	Magnet board may be damaged. Magnet not spinning correctly causing fault. Contact support.
Z Table	Fault: Z Table	The temperature or pressure is outside of the range of the Z table generated.	Pressure on transducer is outside of range causing fault.

8 Alarms

Alarm Type	LCD Screen Display	Occurs When
Replace Battery*	Alarm: Replace Bat	The battery voltage drops below 4.9 V.
Low Battery	Alarm: Battery Low	The battery voltage drops below 5.3 V.
Self-Check	Alarm: Self check	Metrology self-check fails.
High Flow	Alarm: High Flow	The flow rate rises above the High Flow Rate Limit.

Low flow	Alarm: Low Flow	The flow rate drops below the Low Flow Rate Limit.
High Pressure	Alarm: High Pressure	The line pressure rises above the High Pressure Limit.
Low Pressure	Alarm: Low Pressure	The line pressure drops below the Low Pressure Limit.
High Temperature	Alarm: High Temp	The temperature rises above the High Temperature Limit.
Low Temperature	Alarm: Low Temp	The temperature drops below the Low Temperature Limit.

9 Options

Fault Type	LCD Screen Display	Occurs When	Solution
Low Battery	OB Fault: Batt Low	The battery voltage drops below 3.9 V.	Replace three batteries.
Configuration Checksum	OB Fault: CS Config	Configuration parameters are corrupted. Checksum validation fails.	Contact Dresser for support.
Firmware Checksum	OB Fault: CS FW	Firmware checksum validation fails.	Reload/reflash the correct firmware image for option board.
Board-to-Board Communication	OB Fault: Comms	Options board fails to read/write to the main board.	Upgrade firmware.
Meter DP Fault	OB Fault: Meter DP Flt	DP reading is higher than the DP fault threshold.	Replace the transducer, contact support.
DP Lock Up	OB Fault: Meter Lockup	DP reading is higher than the DP lockup threshold.	Replace the transducer, contact support.

DP Sensor	OB Fault: DP Sensor	Communication with the DP Sensor is lost or the DP value is less than -0.25 bar or more than 0.25 bar.	Check connection, contact support for further assistance.
Meter DP Zero Fault	OB Fault: DP Zero	The flow rate rises above either the user defined high flow limit or over the meter rated capacity plus 25% overspeed allowance	Confirm if DP tubing and fittings are clean. If they are, contact Dresser for support on possible transducer replacement.

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	Checked	Approved	Date