Using the E2 Setpoint Conversion Tool when Retrofitting E2 with Supervisory or E3 Controllers: Using the Latest Version of UltraSite32™

Note: Conversion of E2 setpoints should be done using a .003 setpoint file extension.

3rd party integrations are not supported by this conversion process.

When retrofitting E2 with supervisory controllers, a backup/restore process should be performed on the E2 controller. The supervisory controller will run the same devices and applications as the E2, but instead of manually entering the information, the setpoints and configurations can be automatically converted from the E2 to the supervisory controller using *the latest version of UltraSite*.

- The conversion tool can be expected to convert 80% or more of your E2 backup file.
- The conversion process will take between 10 to 20 minutes depending on the complexity of the backup file.
- You must do a side-by-side comparison of the E2 backup file and the newly converted Supervisor file to verify there are no errors. It will be necessary to review all setpoints and alarms for consistency in addition to the error log report and restore comparison log (*see* **Figure 16**) that is generated at the end of the conversion process to ensure your new system will run properly.
- Licensed features *will not convert* if your new controller does not have the licenses or features installed.
- Note that some complex schedules and Flex Combiners may not be converted.

If you feel there is something that should have been converted but did not, or if there is an error that shows a setpoint or parameter did not convert correctly, please contact Copeland Technical Support.

For any firmware version below 3.05F05, it is recommended to upgrade in the order listed below to at least 3.08F03, then do a backup (.003) to restore to the Site Supervisor or E3.

1st upgrade	3.05F05
2nd upgrade	3.08F03
3rd upgrade	3.09F04
4th upgrade	Current release

Note: Once the conversion process is started, it is recommended not to interact with the E3 until the process has fully completed. Interacting with the E3 unit while the converted applications are still being applied can have adverse effects on the conversion process.

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Step 1: Cleanout the E3 or Site Supervisor Unit

Perform the cleanout process shown below prior to converting the E2 setpoints.

E3 Reset and Clean Out on the Main Circuit Board

Open the E3 controller panel to access the circuit board on the back of the front panel door.

There are two buttons located at the bottom left on the main board labeled **RESET** and **CLEANOUT**.

- **RESET** - The button labeled **RESET** on the main board resets the controller. Pressing and holding this button for one second will cause the E3 to reset and retain all programmed applications, logs, and other data stored in memory.
- **CLEANOUT** - The button labeled **CLEANOUT** on the main board is used to perform a function called **clean out.** Using this button in conjunction with the **RESET** button will cause a cleanout, which is a reset that **erases all data from memory**. The E3 will reboot after a cleanout with all programmed applications, logs, and other data erased.
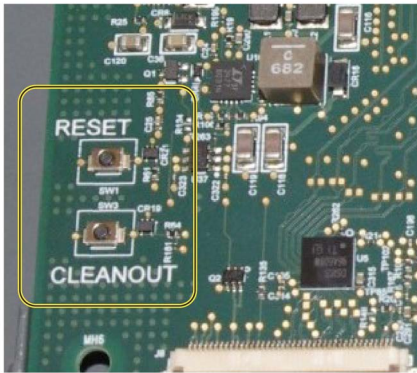

Figure 1 - E3 Main Circuit Board Reset and Cleanout Button

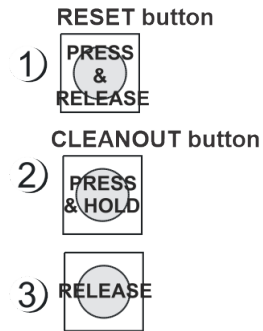| ⚠ CAUTION	*A clean out will erase all programmed parameters from memory. Do not follow these instructions unless you are absolutely sure you wish to remove all applications and logs from memory. Best practices is to Backup prior to a clean out.*

Performing a Clean Out

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Figure 2 - Performing a Cleanout

1. Press and release the **Reset** button quickly. The screen will clear.
2. Press and hold the **Cleanout** button.
3. After approximately 30 seconds, the LEDs on the front of the E3 will start alternating between orange and green.
4. Release the **Cleanout** button.

Clean Out from the UI for E3 and Site Supervisor

⚠ CAUTION	*A clean out will erase all programmed parameters from memory. Do not follow these instructions unless you are absolutely sure you wish to remove all applications and logs from memory. Best practices is to Backup prior to a clean out.*

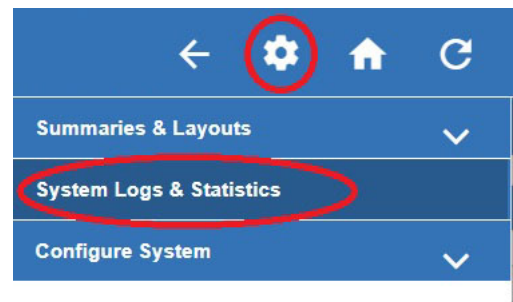1. Login and click the gear icon > **System Logs & Statistics** > **Service Log** screen.

Figure 3 - Cleanout from the UI

2. Click the **Cleanout** button. **Cleanout**
3. A login prompt will appear. Enter your username and password to proceed.
4. A warning message will appear and ask if you are sure. Select **Yes** or **Cancel**.
5. Click **Cleanout** to proceed.

Step 2: Set up Supervisor in UltraSite

1. Log into UltraSite as user/pass.
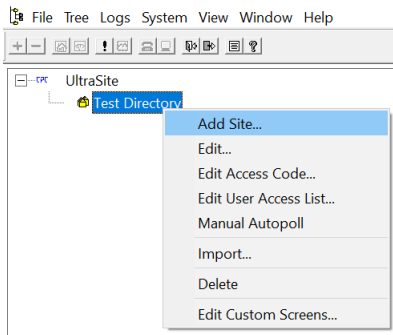2. Add Supervisor as a Site (right-click **Directory** and click **Add Site**).

Figure 4 - Click Add Site

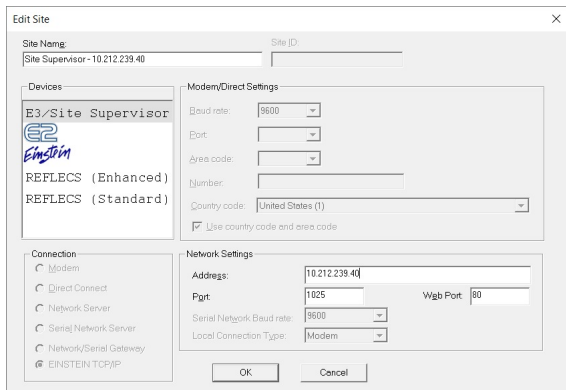3. The Add Site window displays:

Figure 5 - Site Configuration

4. Enter a **Site Name**.
5. Enter the **Site Supervisor IP Address** in the address field under **Network Settings**.
6. Select the Supervisor controller under **Devices**. Confirm **Site Supervisor** is highlighted under **Devices**, if it is not highlighted, select **Site Supervisor**.
7. Confirm **EINSTEIN TCP/IP** is auto-selected under **Connection** and confirm that **Port** and **Web Port** are correct (these values should match your Site Supervisor).
8. Click **OK**.
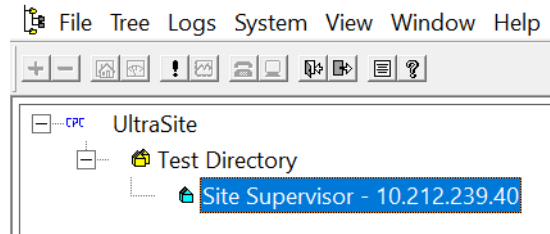9. Confirm the **Site Name** is listed under the Directory in the tree:

Figure 6 - Verify the Site Name is Located Under the Appropriate Directory

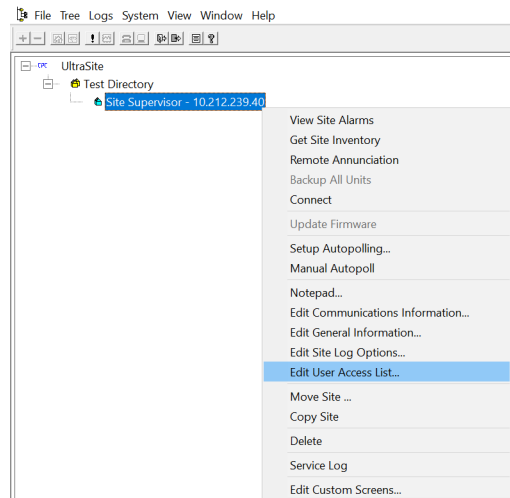10. Right-click the **Supervisor** and click **Edit User Access List:**

Figure 7 - Verify the Site Name is Located Under the Appropriate Directory

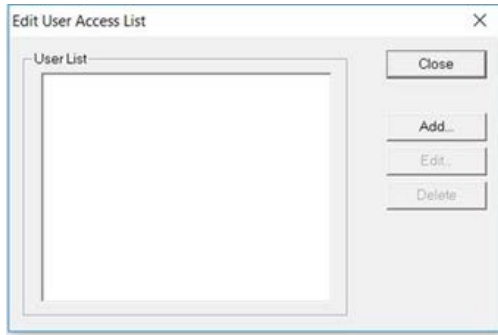11. From the *Edit User Access List* window, click **Add**:

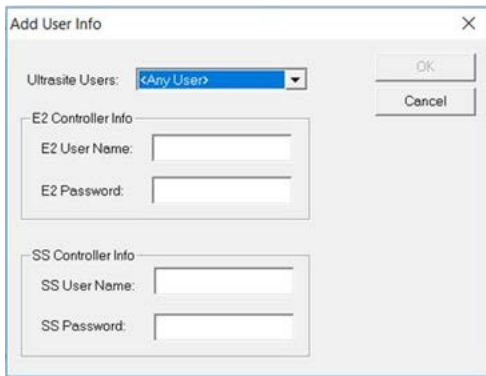*Figure 8 - Click Add*
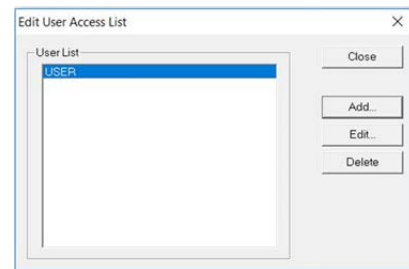
12. The **Add User Info** window opens:

Figure 9 - Add User Info

13. Select your UltraSite user name from the **UltraSite Users** drop-down list or leave it as **Any User**.
14. Enter the user name and password for E2 (The **OK** button will not enable without also entering a user name/password for E2. Note that user/pass can be entered).
15. Enter the user name and password for the Supervisor you are restoring to.

16. Click **OK**:

Figure 10 - Click OK

17. The *Edit User Access* window displays, then click **Close.**

Figure 11 - Click Close

18. Right-click the **Supervisor** site name and click **Connect** to connect to the Supervisor.

Note that the Site Synchronization window will briefly display while connecting to Supervisor.

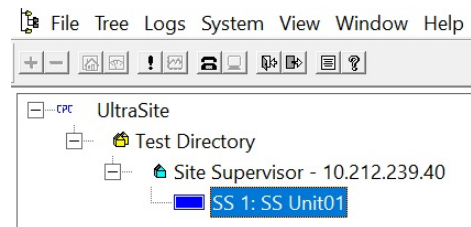19. The Supervisor Unit Name will be listed under the Site:

Figure 12 - Supervisor Unit Located Under the Site

Step 3: Run UltraSite to Supervisor Restore Process

1. Right-click the **Supervisor** and select **Restore** (the **Restore** option is only enabled after connection and site synchronization to the Supervisor has occurred):

Figure 13 - Right-click and Select Restore

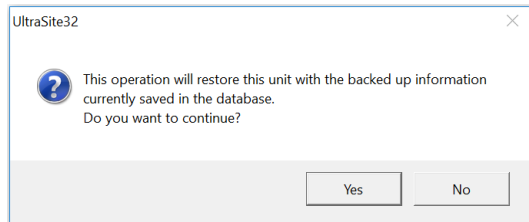2. The following message will display:

Figure 14 - Restore Process

3. Click **Yes**.
4. A browser window will display.
5. Select the setpoint file you wish to restore and click **Open**. Please note that a .003 backup file type is recommended.
6. A status bar of the restore process will display (wait time is dependent on the file size):
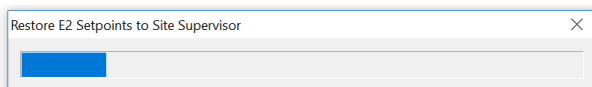

Figure 15 - Restore Process Status Bar

7. When completed, a **Site Supervisor Restore Error List** *(Figure 16)* will display and contain a Summary Error List of any of the following:
   - Unsupported or applications that cannot be converted.
   - Invalid properties.
   - Mismatched properties, points, parameters, and more.
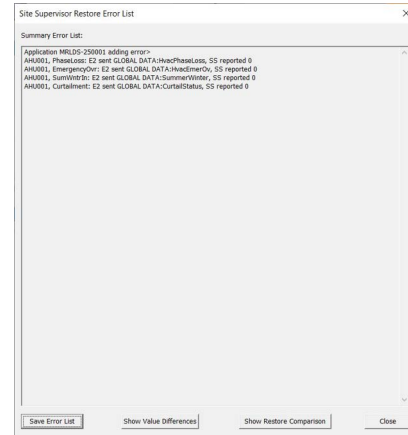   - Applications that encountered issues during the restore.

Figure 16 - Site Supervisor Restore Error List

8. Click **Save Error List** to save the Summary Error List in a .csv file.
9. Click **Show Value Differences** to show an html view of the Summary Error List.
10. Click **Show Restore Comparison** to open a .csv file of all the points sent by the E2 with a side-by-side comparison of the Supervisor values. This file can be saved or closed.
11. Click **Close** or the **X** at the top right to close the *Site Supervisor Restore Error List* window.
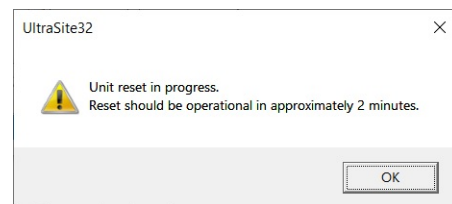12. The following message will display:

Figure 17 - UltraSite32 Unit Reset Message

13. Click **OK** to start the Supervisor reboot process and confirm the Site Supervisor has rebooted successfully.

Step 4: Restore Errors Listed on the Site Supervisor Restore Error List

1. In UltraSite, connect to the E2 with the setpoints that were restored to the Supervisor.
2. For each application/device listed in the *Site Supervisor Restore Error List*, right-click and select **Edit Application**.
3. For each error, compare the properties and their values to the same application/device in the **Supervisor** tab point names and values (for Site Supervisor, always click **Advance**).
4. Change or add the Supervisor's value, setpoints, devices, applications, parameters to match the E2.
5. It is recommended to check all points for proper conversion after the conversion process has completed.

Troubleshooting

ACK timeout - During conversions of especially large E2 setpoints or setpoints containing a large number of Analog/Digital/ Flexible Combiners, Analog/Digital Sensor Controls, or Loop/Sequence Controls, the error **ACK timeout** can sometimes be seen on the E3 display or when interacting through the web browser. These errors are usually not an issue and will clear themselves during the reboot at the end of the conversion process. If the issue still exists after the reboot has completed, follow the steps below to address this issue:

1. In the case of this issue occurring on the E3 display, press the green arrow in the upper left hand corner of the E3 display and then click on **Back to this unit's homepage**.
2. In case of this issue occurring when accessing the controller via a web browser, refresh the browser by pressing **F5** on your computer keyboard.

Visit our website at **copeland.com/en-us/products/controls-monitoring-systems** for the latest technical documentation and updates.

For Technical Support call **833-409-7505** or email **ColdChain.TechnicalServices@Copeland.com**

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