Section 1 M00-20-4438 - SiteSentinel® Integra® and iSite® Software Upgrade Procedure

1.1 Integra Upgrade Procedure

This procedure shows the necessary steps to upgrade the Integra console software.

NOTE: This procedure applies to software Version 191, CPU 326 and FPGA 19 upgrade and higher.

NOTE: See the "iSite Software Upgrade" on page 15 section for the procedure to upgrade the iSite Tank Gauge system.

NOTE: The software version number will be shown on the Compact Flash card that comes in the upgrade kit.

Upgrade Needs Chart for Integra 100/500

Current Software	Upgrade(s) Needed	Parts Needed	Instructions Needed
Older than V175	FPGA CPU Software	CF Card (ATP) with V191a USB Key (ATP) with upgrade files Latest CABs	Instructions for CPU and FPGA upgrade Instructions for CAB upgrade* **IMPORTANT**: Unit will need to be reprogrammed after upgrade
V175-V189	FPGA CPU Software	CF Card (ATP) with V191a USB Key (ATP) with upgrade files Latest CABs	M00-20-4438 Integra Software Upgrade Procedure Instructions for CAB upgrade*
V191 - V195	Software	Latest CABs	Instructions for CAB upgrade*
V16Q3.1	Software	Latest CABs	Instructions for CAB upgrade*

* See M2021 SiteSentinel Integra Configuration Guide, Firmware Section for the upgrade procedure.

NOTES:

Integra and iSite versions older than V175 will not back up and restore.

Integra and iSite software starting with V16Q3.1 has an encrypted database.

You CANNOT backup an unencrypted database version and restore to an encrypted database version. This holds true on full database and configuration only restores.

You must use a CAB upgrade to move from unencrypted to encrypted databases.

The upgrade from V175-V189 to the latest is a 2 step process. First the upgrade to V191a using M00-20-4438 then a CAB to the latest version.

For Integra versions older than V175 the unit will have to be reprogrammed from scratch. The FPGA and CPU upgrades would have to be completed and the unit must be reprogrammed.

The same procedure is followed for an SSR upgrade and CAB upgrade.

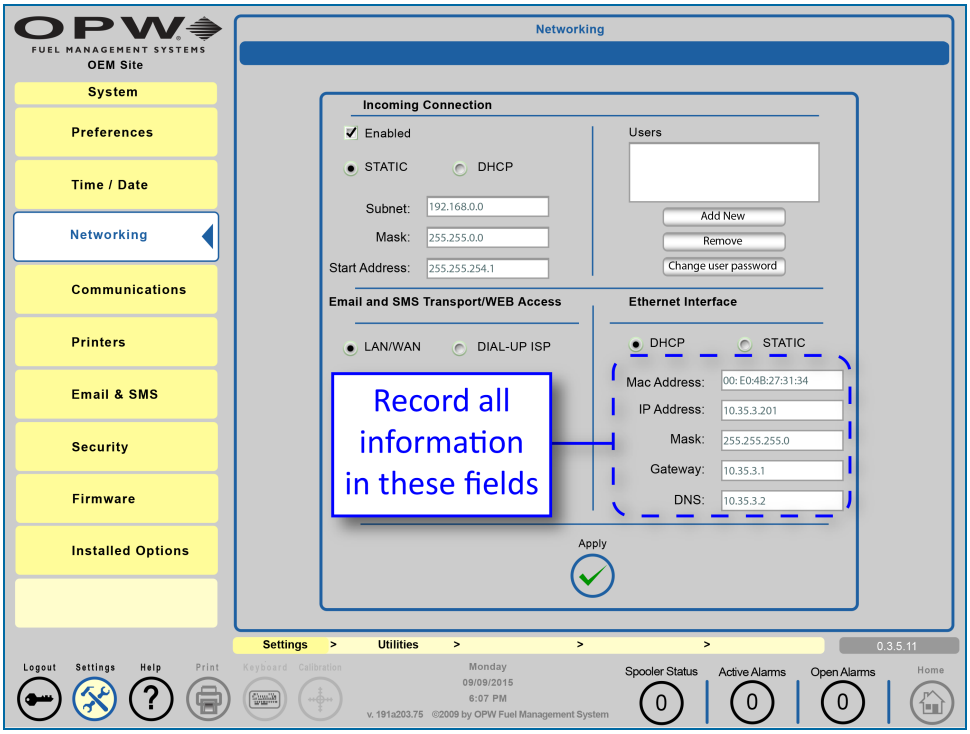
Components

The upgrade kit will contain the components shown below

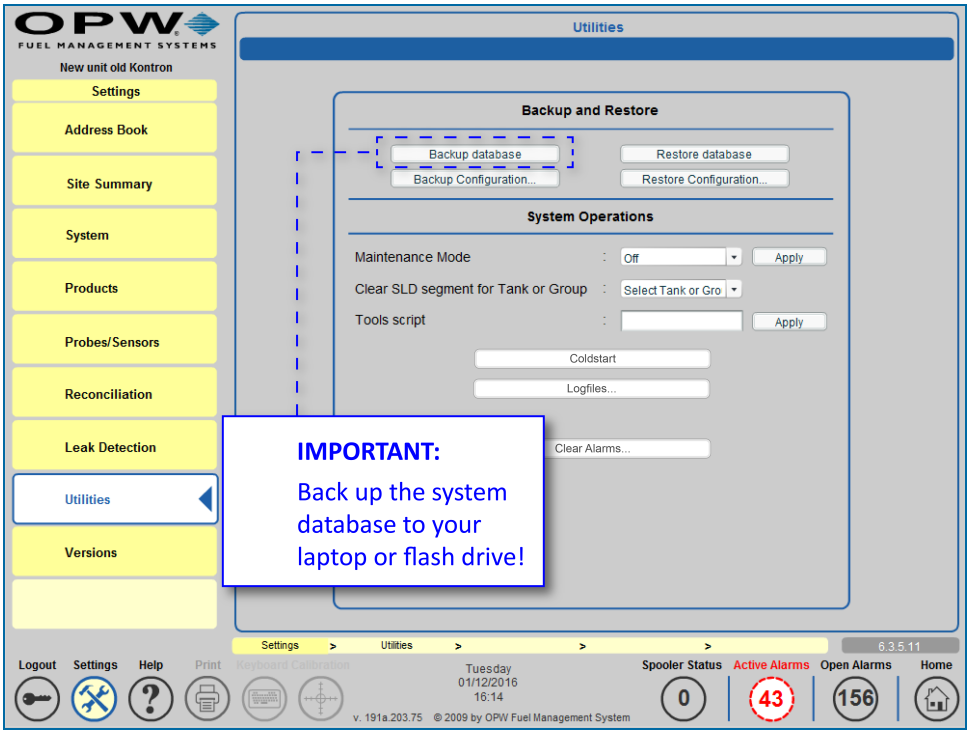
- New Compact Flash (CF) Card (with the latest version software).
- New USB Key (for database log & .cab files).

IMPORTANT: You must use a VNC Viewer if a laptop PC is used for this procedure. This procedure cannot be done in a browser window.

Record and Backup

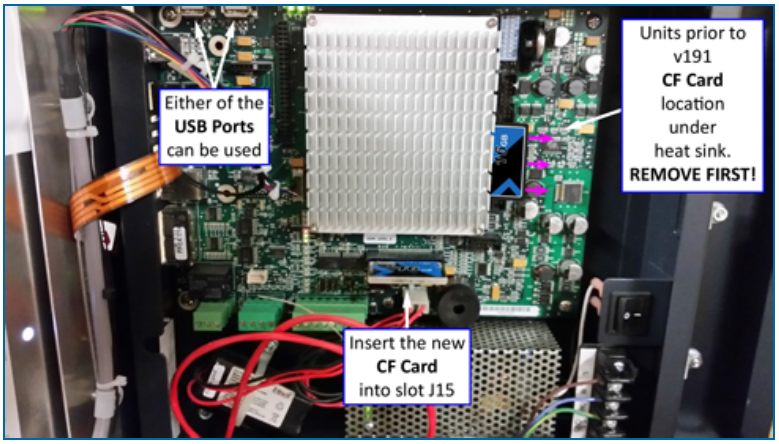


1. Record your Network Settings (these settings will not restore).
    a. Log in as an Administrator to access the Network Settings.
    b. Navigate to: Settings > System > Networking.
    c. Record all network settings as in the illustration above (you can print this information if you have a printer installed).



2. Back up the database to your PC or a portable drive.
    a. Go to: Settings > Utilities.
    b. Click the **Backup database** button.
3. Power down the unit.

Upgrade

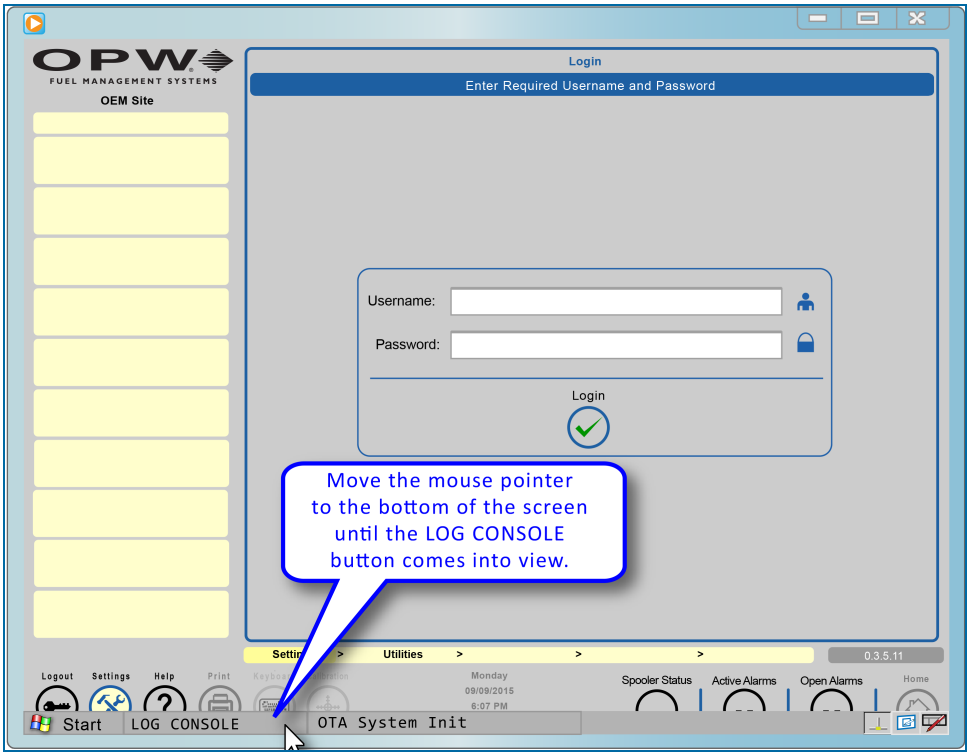


1. Remove the CF card and USB drive that are installed in the Main Board. See the illustration above for these locations.

IMPORTANT: In units built before Version 191, the CF card is located in a slot behind the main board heat sink in the lower right corner. The CF card currently installed in that slot must be removed before the new CF card is installed into slot J15 (see illustration above).

2. Install the new CF card that contains the latest software and the new USB drive into the Main Board.
3. Plug a USB mouse into one of the USB ports on the side of the console.
4. Power up the console.

IMPORTANT: Note the time that the unit completes the reboot cycle. It can take as long as two (2) minutes before the scripts *start* to run in the background. Once the scripts start, you must wait a minimum of four (4) minutes from this point for the console to complete all of the scripts.



5. To watch the scripts run (and to know when it has started and completed), move your mouse pointer all the way to bottom of the screen. Select the LOG CONSOLE button when it comes into view. The log monitor will come up and you can see the progress of the boot sequence as it occurs.

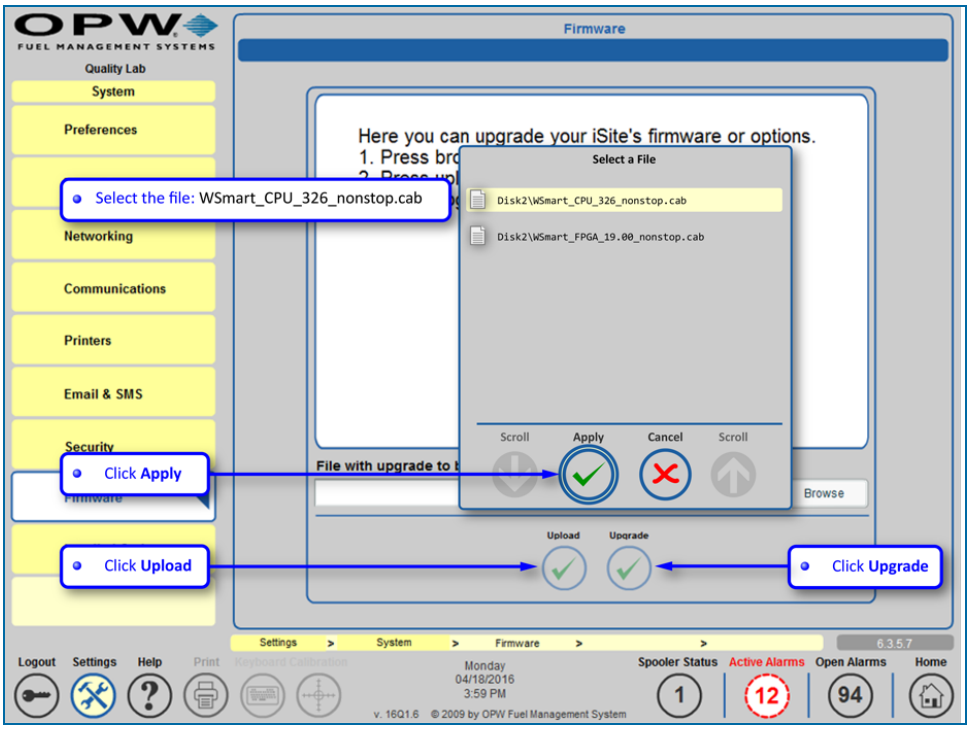
REMINDER: This will take approximately four (4) minutes once it has started.

6. When the log stops for more than 90 seconds, click at the bottom of the window to close it.

NOTE: Before you can restore the database, complete the CPU and FPGA upgrades as shown below. The CPU upgrade should be completed first and the FPGA upgrade second.

CPU Upgrade

NOTE: This upgrade will take approximately 20 minutes.

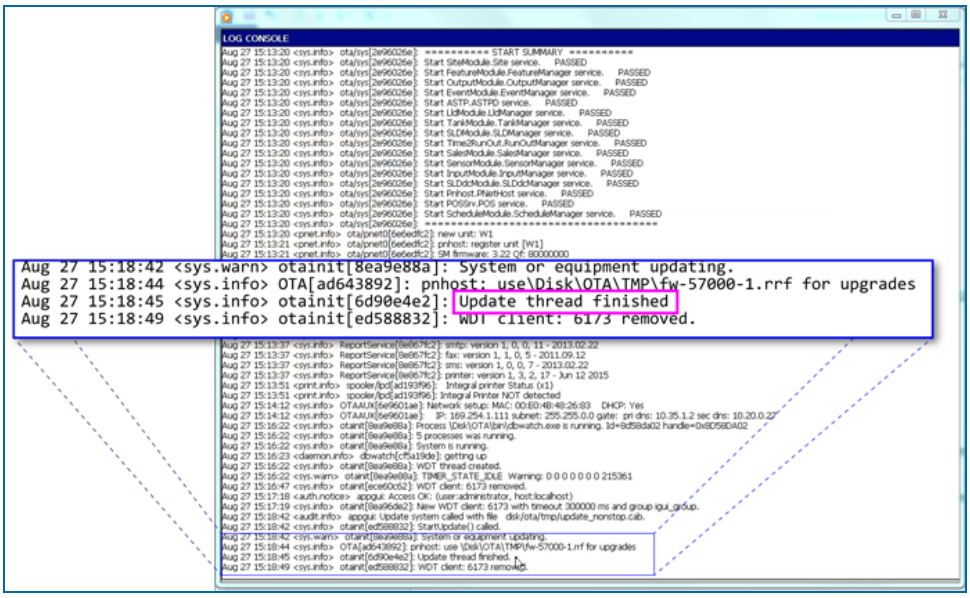


1. Close the system log monitor window.
2. Log out and then log back in as an Administrator.
3. Navigate to Settings > System > Firmware.
4. Click the **Browse** button.
5. If the USB key was recognized by the unit you will see two .cab files.
6. Select the file **WSmart_CPU_XXX_nonstop.cab** (where XXX is the version number).
7. Click the **Apply** button.
8. Click the **Upload** button.
9. Wait for the screen to show **Upgrade file is ready to be applied**. Click the **Upgrade** button.
10. A **Ready to upgrade** dialog box will come into view. Click the **Yes** button.

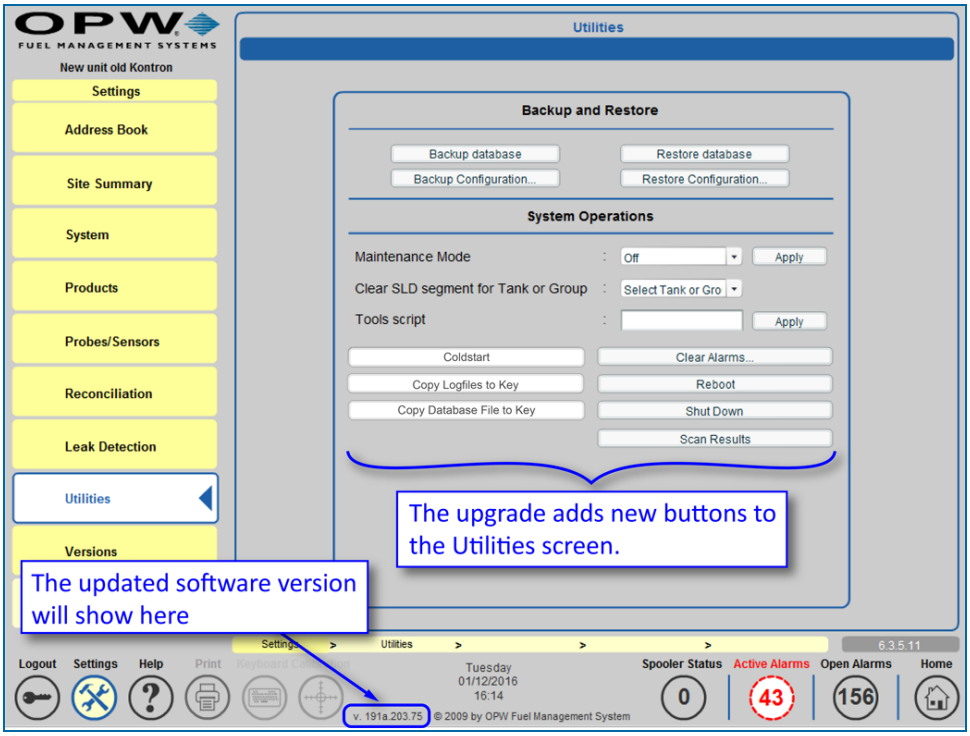
11. A screen will come up that shows **Upgrade complete**. This indicates that the software has been staged for installation.

12. Click **OK** to close the dialog box. The unit will show the sign-on screen.

13. Move your mouse pointer all the way to bottom of the screen. Select the LOG CONSOLE button when it comes into view. The log monitor will come up and you can see the progress of the upgrade as it occurs.



14. The log will pause and the screen will show **Update thread finished** in the log monitor text.



15. Use the steps that follow to correctly shut down the unit.
    a. Click LOG CONSOLE to close the log monitor.
    b. Log out and then log back in as an Administrator.
    c. Navigate to Settings > Utilities > Shut Down.
    d. Click **Yes** in the dialog box that comes up.
    e. The Unplug system icon will come into view.
    f. Turn the power switch to the **OFF** position. Wait for the unit to completely power down. Make sure that all Main Board LED lights are off.

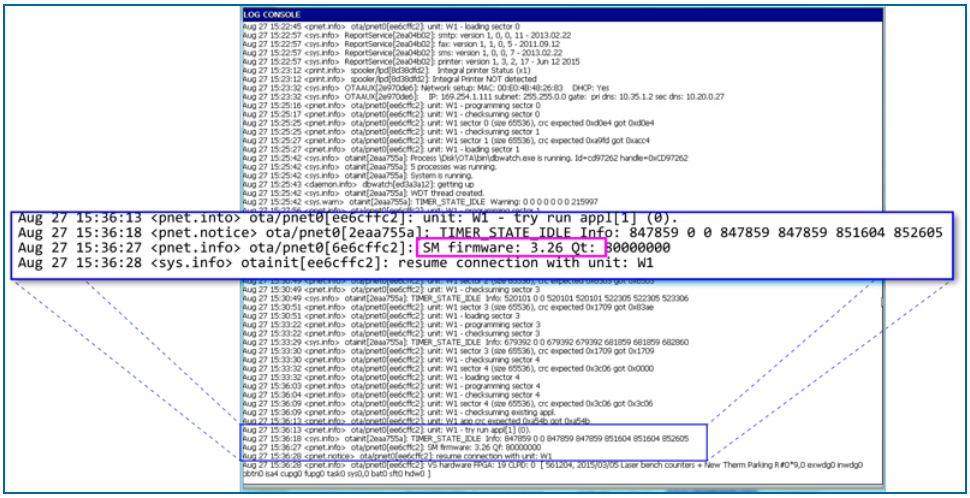
IMPORTANT: Do not unplug the battery!

16. Power on the Integra and the CPU upgrade will continue automatically.
17. When the Home screen comes up, move your mouse pointer all the way to bottom of the screen. Select the LOG CONSOLE button when it comes into view. The log monitor will come up and you can see the progress of the CPU update as it occurs.

REMINDER: This upgrade will take approximately 20 minutes to complete. Please be patient.

NOTE: Watch the scripts as they run in the log to see when the CPU has been updated (the last sector is 4).

18. When the upgrade is complete the CPU will restart without a complete system reboot.

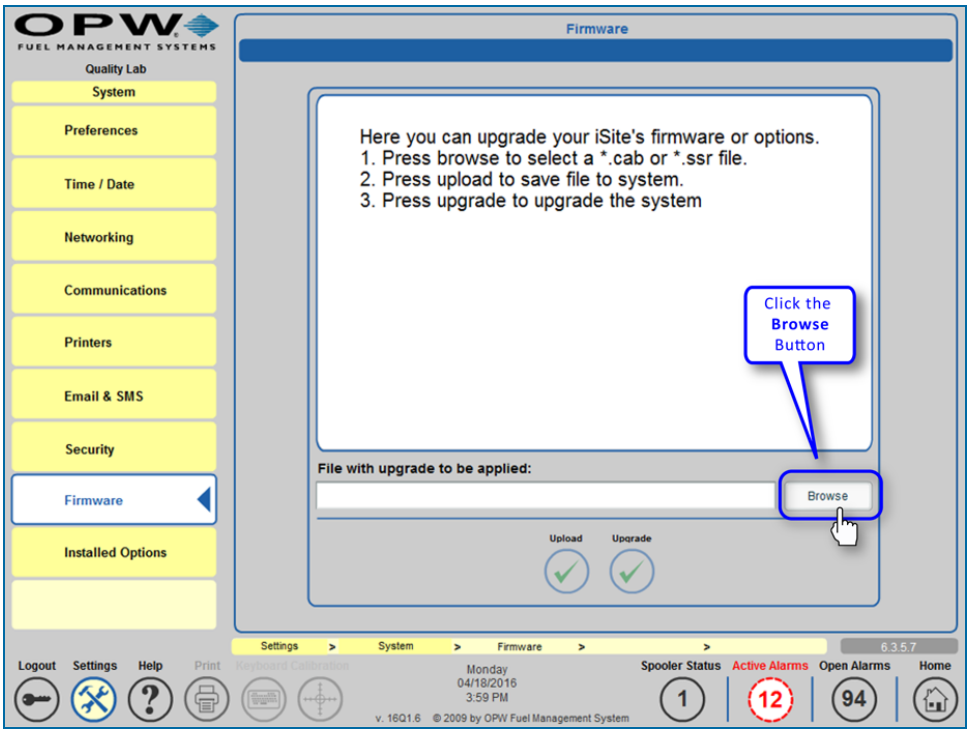


19. Watch the log until the new Firmware version shows. When the reboot is complete, Check the log to make sure the **Firmware** version number is correct. In the example above, the Firmware version is 3.26 (this can usually be seen 3-4 lines up from the bottom of the log).

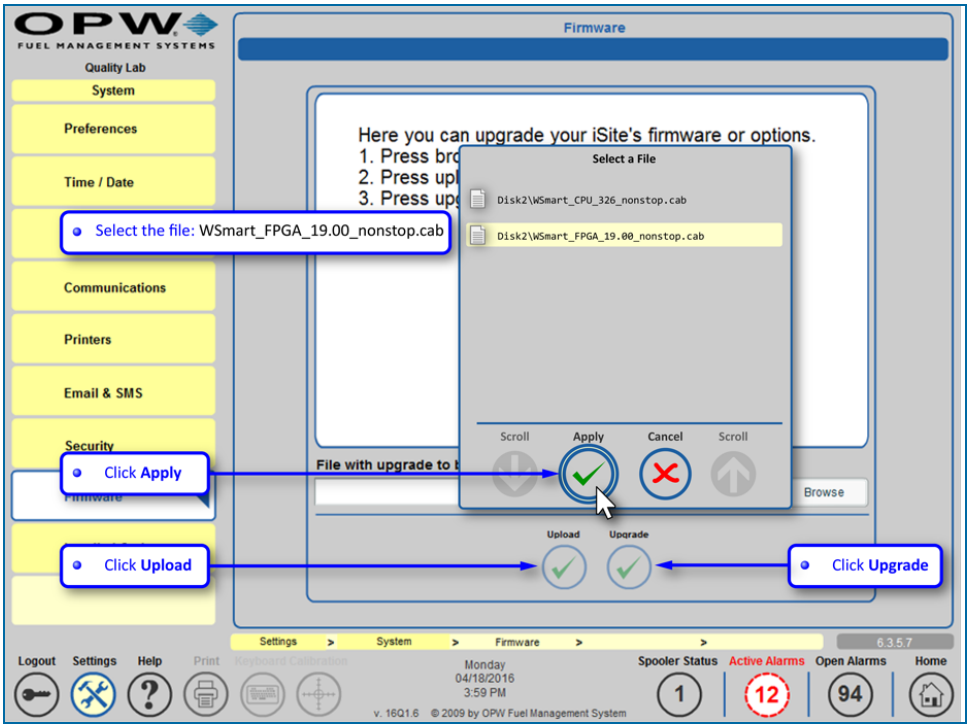
20. Use the **Reboot** button that now shows on the Utilities screen (see the Utilities screen illustration above) to manually reboot the system.

FPGA Upgrade

1. Log out of the system, then log back in to the Integra as an Administrator with the factory password (*).



2. Navigate to Settings > System > Firmware.
3. Click the **Browse** button.



4. If the USB key was recognized by the unit you will see two .cab files.

NOTE: The version numbers of these .cab files can be different than the examples.

5. Select the file **WSmart_FPGA_XX.XX_nonstop.cab** (where XX.XX is the version number..
6. Click the **Apply** button.
7. Click the **Upload** button.
8. Wait for the screen to show **Upgrade file is ready to be applied**. Click the **Upgrade** button.
9. A **Ready to upgrade** dialog box will come into view. Click the **Yes** button.
10. A screen will come up that shows **Upgrade complete**. This shows that the software has been staged for installation.
11. Click **OK** to close the dialog box. The unit will show the sign-on screen.
12. Move your mouse pointer all the way to the bottom of the screen. Select the LOG CONSOLE button when it comes into view. The log monitor will come up and you can see the progress of the upgrade as it occurs.

13. The log will pause and the screen will show **Update thread finished** in the log monitor text.
14. Use the steps that follow to correctly shut down the unit.
    a. Click LOG CONSOLE to close the log monitor.
    b. Log out and then log back in as an Administrator.
    c. Navigate to Settings > Utilities > Shut Down.
    d. Click **Yes** in the dialog box that comes up.
    e. The Unplug system icon will come into view.
    f. Turn the power switch to the **OFF** position. Wait for the unit to completely power down. Make sure that all Main Board LED lights are off.

IMPORTANT: Do not unplug the battery!

15. Power on the Integra and the FPGA upgrade will continue automatically.

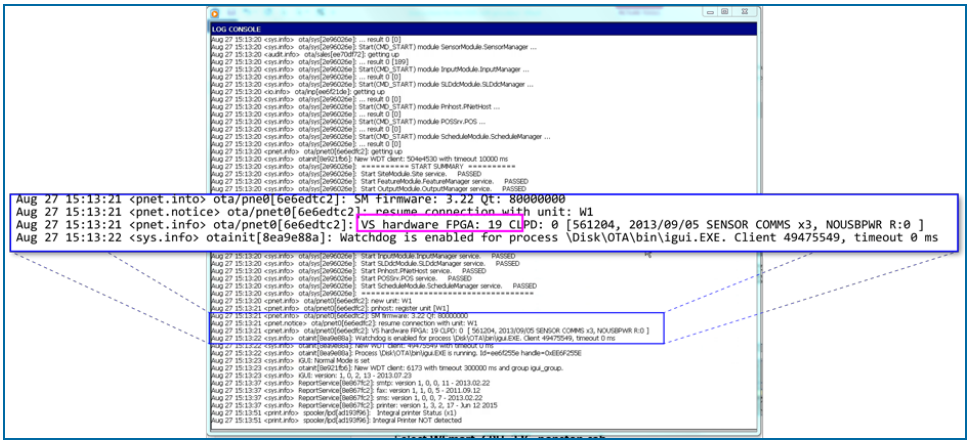
REMINDER: This upgrade will take approximately 20 minutes to complete. Please be patient.

16. When the Home screen comes up, move your mouse pointer all the way to bottom of the screen. Select the LOG CONSOLE button when it comes into view. The log monitor will come up and you can see the progress of the FPGA update as it occurs.

NOTE: Watch the scripts as they run in the log to see when the FPGA has been updated (the last sector is 3).

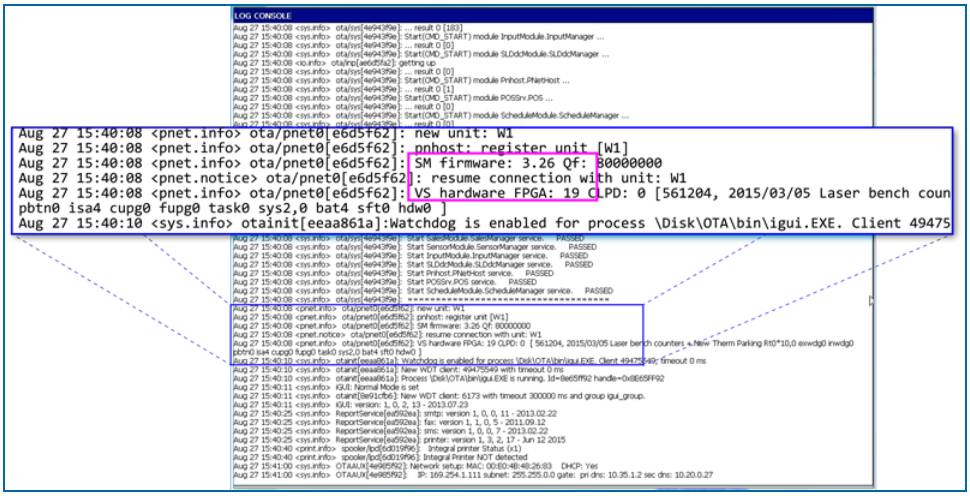
17. The gauge will automatically reboot when the upgrade is complete.

TIP: If you are using a VNC Viewer you must reconnect at this time.



18. When the reboot is complete, check the log to make sure the FPGA is the correct version number. In the example above, the FPGA version is 19.

19. Log out and then log back in as an Administrator.

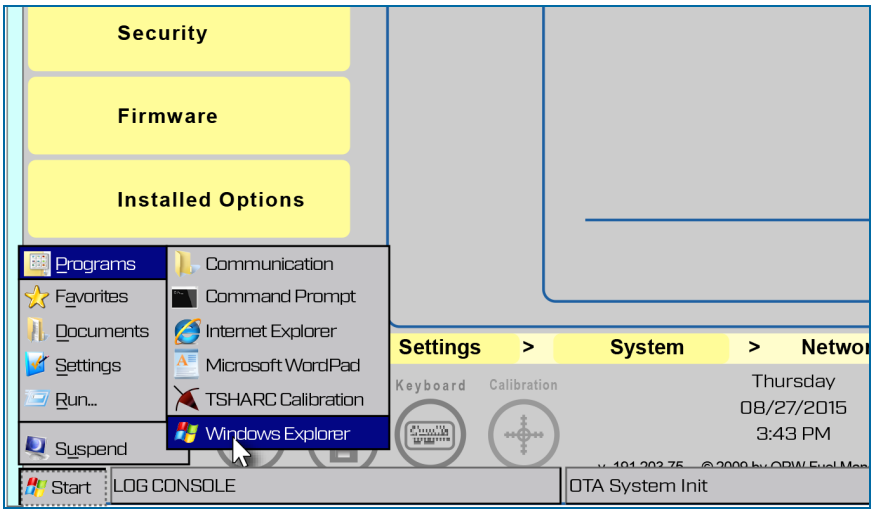


20. Make sure that both, FPGA and CPU (Firmware) version numbers are correct as in the illustration above. In this example the Firmware version is 3.26 and the FPGA version is 19.

Restore Network Settings

1. Plug in a network cable if the unit is on a network.
2. Program custom network settings through the console if the site is not set to the factory default IP address (169.254.1.111).

Remove Upgrade Files from the USB Key



1. Move your mouse pointer all the way to bottom of the screen. Click the Start button. Select, Programs > Windows Explorer.
2. Navigate to Disk 2.
3. Double click the drive icon.
4. Delete each of the files below (Right click the file and select **Delete** from the popup menu).

   WSmart_CPU_XXX_nonstop.cab, **WSmart_FPGA_XX.XX_nonstop.cab**,

   igui.ntm, **M00-20-4438.pdf**
5. Close the Explorer window (click the "X" in the top right corner).
6. Navigate to Settings > Utilities.
7. Click the **Restore database** button.
8. Make sure all data has been restored.

If more information is necessary, refer to the M2021 SiteSentinel Integra Configuration Guide on the https://www.opwglobal.com/opw-fms website.

Do not forget to clear your browser cache before and after the restore.

2.1 iSite Software Upgrade

All previous versions of iSite software must be upgraded. Refer to the Upgrade Needs Chart below.

iSite

Current Software	Upgrade(s) Needed	Parts Needed	Instructions Needed
Older than V175	CF Card USB Key Software	CF Card (ATP) with V191a USB Key (ATP) with upgrade files Latest CABs	Instructions for CAB upgrade* **IMPORTANT**: Unit must be reprogrammed after upgrade.
V175-V189	Software	CF Card (ATP) with V191a USB Key (ATP) Latest CABs	M00-20-4438 Integra Software Upgrade Procedure Instructions for CAB upgrade*
V191 - V195	Software	Latest CABs	Instructions for CAB upgrade*
V16Q3.1	Software	Latest CABs	Instructions for CAB upgrade*

* See M2021 SiteSentinel Integra Configuration Guide, Firmware Section for the upgrade procedure.

NOTES:

Integra and iSite versions older than V175 will not back up and restore.

Integra and iSite software starting with V16Q3.1 has an encrypted database.

You CANNOT backup an unencrypted database version and restore to an encrypted database version. This holds true on full database and configuration only restores.

You must use a CAB upgrade to move from unencrypted to encrypted databases.

The upgrade from V175-V189 to the latest is a 2 step process. First the upgrade to V191a using M00-20-4438 then a CAB to the latest version.

For iSite versions older than V175 the unit will have to be reprogrammed from scratch after the upgrade.

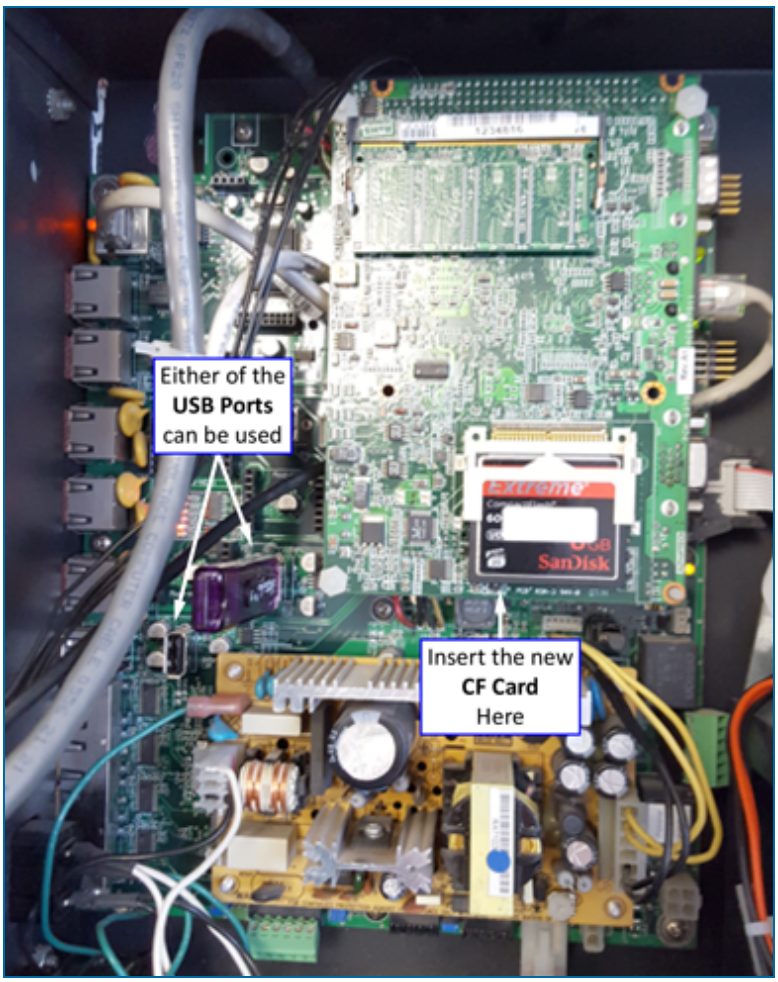
The same procedure is followed for an SSR upgrade and CAB upgrade.

IMPORTANT: THERE ARE NO FPGA OR CPU UPGRADES ON THE iSite PLATFORM.

Record and Backup

Record your Network settings as in "Record and Backup" on page 3 before you proceed. You can take a snapshot of these settings from the Networking screen for convenience.

Upgrade



The location of the iSite CF card slot and USB ports are shown above.

IMPORTANT: For iSite versions older than V175 the unit will have to be reprogrammed from scratch after the upgrade.

To reprogram the iSite refer to the M2021 SiteSentinel Integra Configuration Guide. Use the QR Code or the link below to get access to the pdf manual on the opwglobal web site.

https://www.opwglobal.com/docs/libraries/opw-fms/manuals/opw-fms-manuals/m2021-integra-configuration-guide.pdf?sfvrsn=382899c4_10

Send Serial Number to OPW-FMS

iSite users must send the Serial Number information for all units to OPW-FMS. The Serial Number can be found on the product label on the side of each unit. Email this information to Pete Neil, Global Product Manager at:

pete.neil@doverfs.com

Revisions

Revision #	ECO	Effective	Software Version	Key Changes
0	1183	6/28/2017	na	Initial Release
1	1222	8/22/2017	na	Add specific iSite information
2	1391	7/2/2018	na	Replaced page number with section of referenced manual as best practice. Added hyperlink to referenced manual.

NOTE: It is possible that older software versions might not support all features