

System 800xA

System Feature Pack Update Tool

User Manual

Introduction

The System Feature Pack Update Tool (FUT) is a wizard for installing a System Feature Pack for System 800xA on a node-by-node basis.

The System Feature Pack Update Tool will:

- Display the pre-installation instructions for the system and the node.
- Perform a maintenance stop on the node.
- Displays Optional Product Page.
- Analyze the node to identify the affected software.
- Uninstall the base version of products that require it before installing the revision and Feature Pack.
- Install the updated software in the correct order.
- Display the post installation instructions for the system and the node.
- Generate a node report.
- Support both 32-bit and 64-bit operating systems.
- Install SQL Server 2008 SP4.
- Update Oracle to the latest supported version including the critical patch update.

Related Documentation

Related instructions to this document are as follows:

- *System 800xA 5.1 FP 4 Revision E Release Notes (2PAA109967-514)*
- *System 800xA 5.1 Manual Installation (3BSE034678*)*
- *System 800xA 5.1 Automated Installation (3BSE034679*)*
- *System 800xA 5.1 Upgrade (3BSE036342*)*
- *System 800xA 5.1 Post Installation (3BUA000156*)*
- *System 800xA 5.1, 5.0, 4.x, 3.1 Third Party Software (3BUA000500)*

Pre-Installation



It is recommended to back up the system before starting the installation. Refer to *System 800xA Maintenance (3BSE046784*)* for more information.



Virus scanning must be disabled during installation of System 800xA software and updates.



Stop all third party and other non-800xA clients connected to the 800xA system (such as third party OPC DA, HDA, and AE clients that are accessing the 800xA System) as these will disturb the update.



Close the Plant Explorer and other 800xA application windows.



Before updating the system to the current Feature Pack release, open all custom libraries. Refer [Opening the User-defined Library](#) on page 5, for more information.

1. Verify that all scheduled batches are completed or terminated.
2. If used, it is recommended to install Crystal Reports 2008.
 - **For Fresh Installation:** Install Crystal Reports 2008 SP5 full build package.
 - **For Upgrading Crystal Reports:** Refer to [Third Party Software used in 800xA 5.1 Feature Pack](#) on page 6.
3. Upgrading to Office 2013 or 2010 is optional since Office 2007 is still supported in the current system release. Refer to [Third Party Software used in 800xA 5.1 Feature Pack](#) on page 6.

800xA for DCI

Perform the following steps to shut down the full DCI system before updating 800xA for DCI nodes.

1. Select **Start > All Programs > ABB Industrial IT 800xA > 800xA OCS Systems > DCI > DCI Maintenance**.
2. Select **Basic > Full ABB 800xA for DCI <installed version> Shutdown**.
3. Click **Yes** to confirm the shutdown.

4. Close the DCI Maintenance Utility.
5. Start the Windows Task Manager and select **Processes**.
6. On the list of tasks verify that **DualWatchdog.exe** is still running.
7. Select the **DualWatchdog.exe** and click **End Process** to stop the task.

800xA for Harmony

Execute the following command in the 32-bit 800xA for Harmony nodes before starting the installation.

1. Open the Windows Command Prompt.
2. Enter: **regsvr32 %SystemRoot%\system32\atl.dll**

Engineering Studio Add-Ins

Before updating/upgrading the system from previous release to the latest release ensure the Engineering Studio Add-Ins are listed in **Active Application Add-Ins** in Microsoft Excel.

If the Add-ins are not listed, perform [Step 3](#) through [Step 5](#) to enable them in the Microsoft Excel:

1. Start Microsoft Excel.

2. Navigate to **File > Excel Options > Add-Ins > Active Application Add-ins**. Refer to [Figure 1](#) to view the Engineering Studio Add-ins.

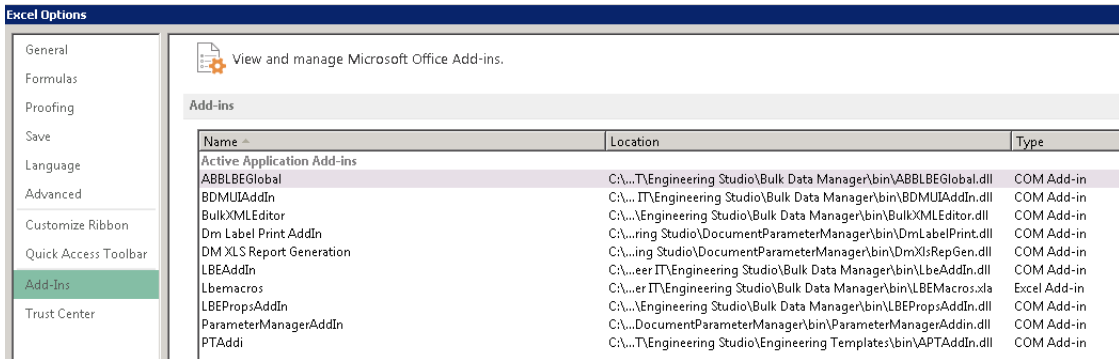


Figure 1. Engineering Studio Add-Ins

3. Select **COM Add-ins** from **Manage** drop-down and click **Go...** List of COM Add-ins window appears.
4. Select all the Engineering Studio Add-ins from the list and click **OK**.
5. View the Add-Ins in the **Active Application Add-ins** panel on the Excel Options window.

User-defined Library

User-defined or custom libraries are created by the user using the existing standard libraries available in the 800xA System.

The custom libraries are not included as part of the standard 800xA System installation or its related software.

All the libraries in the system are listed in the path, *Object Type Structure > Object Types > Control System > AC 800M/C Connect > Libraries*.

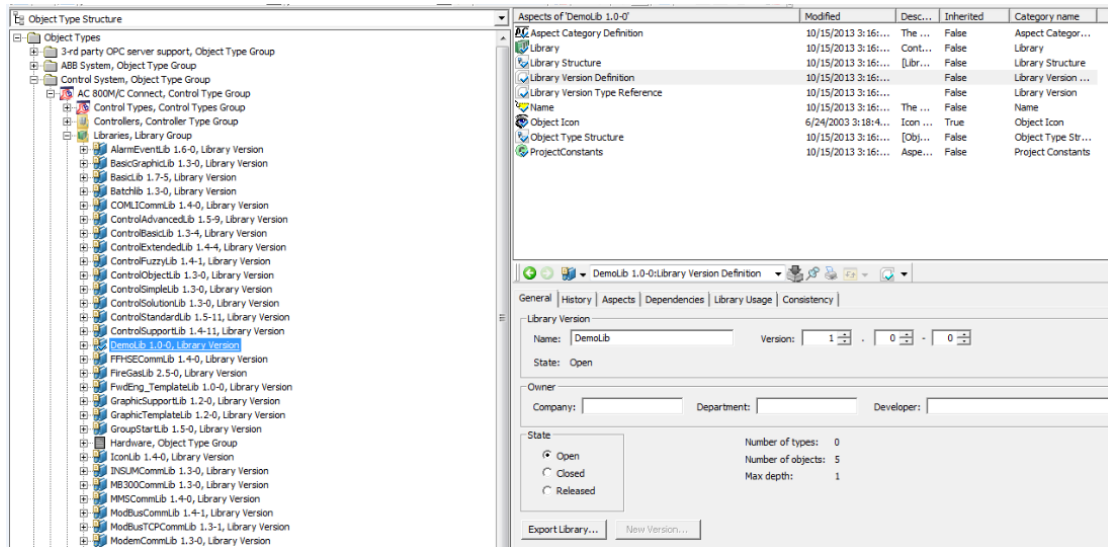


Figure 2. Opening the Custom Library

Opening the User-defined Library

If the user-defined library is in **Closed** or **Released** state, it needs to be opened by executing the following the steps:



Opening a released library increments the version of the library.



If the user-defined libraries are secured, remove the security to change the state of the library.

1. Navigate to the path, *Object Type Structure > Object Types > Control System > AC 800M/C Connect > Libraries*.
2. Select the user-defined library and change the state to **Open**.
3. Click **Apply**.

Closing the User-defined Library

After the system is updated/upgraded, change the state to **Closed** or **Released**.

Perform the following steps:

1. Navigate to the path, *Object Type Structure > Object Types > Control System > AC 800M/C Connect > Libraries*.
2. Select the user-defined library and change the state to **Closed** or **Released**.
3. Click **Apply**.

Third Party Software used in 800xA 5.1 Feature Pack



Hot fixes, service packs, and updates for third party prerequisites that the 800xA System software has been found to be compatible with are listed in *System 800xA 5.1, 5.0, 4.x, 3.1 Third Party Software (3BUA000500)*. This document can be found in ABB SolutionsBank.

The following third party software are new or differently used in 800xA 5.1 FP 4:

Microsoft Office Integration

800xA 5.1 Feature Pack latest release supports the integration with 32-bit version of Microsoft Office 2007, 2010, and 2013. Specific service packs of Microsoft Office is supported for the release.

Information Management

Complete the Office upgrade and if required add the ABB DataDirect (ABBDirect) add-in manually. For more information, refer to [Step 6](#) in [Known Problems and Restrictions](#) on page 13.

Engineering Studio

Complete the Office upgrade and if required add the Bulk Data Manager add-in manually. For more information, refer to [Step 7](#) in [Known Problems and Restrictions](#) on page 13.

SQL Sever 2008 SP4

The System Feature Pack Update Tool automatically updates the system with SQL Server 2008 SP4.

Oracle Updates

The System Feature Pack Update Tool automatically updates the Oracle to the 11R2 installation with the latest critical patch update (released in Jan 2012).

- Oracle 11R1 is updated to 11R2 with the latest critical patch update in the 800xA 5.1 Base System.
- The latest critical patch update is applied to the Oracle 11R2 installations in all other versions of 800xA System.

Crystal Reports 2008

The system supports all three versions of Crystal Reports as mentioned in both the scenarios. Crystal Reports is installed when users update the system in the following scenarios.

1. If Crystal Reports is installed for the first time - Install Crystal Reports 2008 Service Pack 5 (SP5), which is a full build installation package.

Browse SAP Business Objects web site, navigate to **Service Pack** section of **SAP Business Objects - Crystal Reports Runtime Packages** to find the installation package.

2. If Crystal Reports was already installed on the following 800xA versions, then no change.

800xA 5.1 Revision A and 64-bit

- Crystal Reports 2008 SP3 Full Build +
- Crystal Reports 2008 Fix Pack 3.3

800xA 5.1

- Crystal Reports 2008 Base +
- Crystal Reports 2008 SP1 +
- Crystal Reports 2008 SP2 +
- Fix Pack 2.7

Internet Explorer

Microsoft has announced that from January 12 2016 they will only support one Internet Explorer version per operating system.

It is mandatory for users to update to latest Internet Explorer versions as mentioned in the [Microsoft announcement](#) to continue receiving Security Updates.

For System 800xA 5.1 Feature Pack this means that it will only support the following versions of Internet Explorer:

- **Internet Explorer 11** - On Windows 7 SP1 (32- and 64-bit), Windows Server 2008 R2 64-bit.
- **Internet Explorer 9** - On Windows Server 2008 SP2 32-bit.



Users running 32-bit 800xA Systems can have two Internet Explorer versions in the same system (IE 9 for Windows 2008 SP2 and IE 11 for Windows 7 SP1 32-bit).

For more information, refer to *System 800xA 5.1 - Ceased Internet Explorer Support - Update Product Update (3BSE083144)* in ABB Library.

To have a seamless update to Internet Explorer 11, perform the following steps:

1. Install Internet Explorer 11 mandatory pre-requisites (which include Updates, hotfixes and Security Updates) as provided in the link: <http://support.microsoft.com/kb/2847882> and restart the node.
2. Download and install Internet Explorer 11 and restart the node.



To have a seamless update to Internet Explorer 9

- Install Internet explorer 9 mandatory pre-requisites (which includes Updates, hotfixes and Security Updates) as provided in the link: <https://support.microsoft.com/en-in/kb/2399238>
- Download and Install Internet Explorer 9 and restart the node.



If Internet Explorer 9.0 or 11.0 is installed, the Process Portal A workplace does not function until the system is upgraded to 800xA 5.1 Feature Pack.



Install the hotfix <https://support.microsoft.com/en-us/kb/3074850> to reduce the Memory usage in Internet Explorer 11 that is introduced with MS15-032.

System Feature Pack Update Tool

The System Feature Pack Update Tool can be run using the DVD or the zip file downloaded from ABB SolutionsBank.

The System 800xA 5.1 FP updates with System Feature Pack Update Tool is distributed as the following downloadable zip files from ABB SolutionsBank:

```
3BSE084084-003_R01
_System_800xA_5.1_FP4_RevE_Updates_with_System_Feature
Pack_Update_Tool_Part_1_of_4.zip
3BSE084084-003_R02
_System_800xA_5.1_FP4_RevE_Updates_with_System_Feature
Pack_Update_Tool_Part_2_of_4.zip
3BSE084084-003_R03
_System_800xA_5.1_FP4_RevE_Updates_with_System_Feature
Pack_Update_Tool_Part_3_of_4.zip
3BSE084084-003_R04
_System_800xA_5.1_FP4_RevE_Updates_with_System_Feature
Pack_Update_Tool_Part_4_of_4.zip
```

System Feature Pack Update Tool DVD

Feature Pack 4 is available on two separate disks that contains Feature Pack 4, Revision D corrections, and the System Feature Pack Update Tool.

Perform the pre-processing step to create the media from the two DVDs onto an user defined location in the local node and start the installation using the System Feature Pack Update Tool.

Creating Feature Pack 4 Media from DVDs

Perform the following steps to create the Feature Pack 4 media using MediaReplicator tool.

1. Insert DVD8 Media and double-click on **MediaReplicator**. The **System 800xA Media Integrator** window appears.
2. Click **Browse**, select the path to copy the media content. Click **OK**.

3. Click **OK**, to copy the content to the selected folder.
Insert the disc labeled 'DVD9' into <>:\ and press OK message appears once DVD8 content is copied completely.
4. Remove DVD8.
5. Insert DVD9 and click **OK** to copy the content.
MediaReplicator closes automatically once the content is copied completely.
6. Remove DVD9 and start the Installation using the System Feature Pack Update Tool from the folder where the media is created.

zip File Downloaded from ABB SolutionsBank



Ensure to install WinZip 12 or higher version to extract the FUT zip file.

The System Feature Pack Update Tool can be used in the following ways when using the zip file downloaded from ABB SolutionsBank.

With the contents of:

```
3BSE084084-003_R01
_System_800xA_5.1_FP4_RevE_Updates_with_System_Feature_
Pack_Update_Tool_Part_1_of_4.zip

3BSE084084-003_R02
_System_800xA_5.1_FP4_RevE_Updates_with_System_Feature_
Pack_Update_Tool_Part_2_of_4.zip

3BSE084084-003_R03
_System_800xA_5.1_FP4_RevE_Updates_with_System_Feature_
Pack_Update_Tool_Part_3_of_4.zip

3BSE084084-003_R04
_System_800xA_5.1_FP4_RevE_Updates_with_System_Feature_
Pack_Update_Tool_Part_4_of_4.zip

Read Me.txt
```

Extract the following zip file:

```
3BSE084084-003
_System_800xA_5.1_FP4_RevE_Updates_with_System_Feature_
Pack_Update_Tool.zip
```

that uses the following files:

```
3BSE084084-003
_System_800xA_5.1_FP4_RevE_Updates_with_System_Feature_
Pack_Update_Tool.z01
```

```
3BSE084084-003
_System_800xA_5.1_FP4_RevE_Updates_with_System_Feature_
Pack_Update_Tool.z02
```

and

```
3BSE084084-003
_System_800xA_5.1_FP4_RevE_Updates_with_System_Feature_
Pack_Update_Tool.z03
```

to create the complete media.

- Extracted to removable media (DVD, USB drive, etc.) and with the removable media used on the node where the System Feature Pack Update Tool will be run.

-or-

- Extracted to the hard drive of the node where the System Feature Pack Update Tool will be run.

-or-

- Extracted and copied to a file server share.

Double Click SystemUpdateTool.exe from the folder System Feature Pack Update Tool on the removable media (DVD,USB Drive,etc).

Node Order

System Feature Pack can be installed in a running redundant system on a node-by-node basis without stopping the entire system. This requires that the node types be updated in the following order:

1. Application Servers.
2. Connectivity Servers.
3. Aspect Servers (Primary Aspect Server last).

4. Clients.
5. Domain Controller (if System is part of a domain environment).



For Systems with 800xA for Harmony, refer to [Known Problems and Restrictions](#) for the node order.

Using a File Server Share

Security issues introduced in Internet Explorer (8.0, 9.0, and 11.0) make it necessary to perform the following in order to avoid constant Internet Explorer (8.0, 9.0, and 11.0) security warnings when installing the System software on a node.

1. Use the Engineering node as the file server share (preferred method).
2. Copy the contents of the System Feature Pack DVDs to the hard drive of the Engineering node.
3. Map each node being updated to the Engineering node in order to install the revision and Feature Pack.
4. Temporarily change the security settings in Internet Explorer (8.0, 9.0, and 11.0).
 - a. Select:
Tools > Internet Options
 - b. Select the **Security** tab.
 - c. Select the **Local Intranet Zone**. Do not change the security settings for any other zone.
 - d. Click **Custom level...**
 - e. Scroll down to `Launching applications and unsafe files`.
 - f. Change the setting from **Prompt** to **Enable**. Click **OK** to close the custom level window.
 - g. Select the **Trusted sites** and click **Sites** to add the IP address of the File Server in the website zone.

- h. Enter the IP address of the File Servers in the Add this website to the zone: and click **Add**. Click **Close** to save the settings.
- i. Change the setting back to default when the 800xA System software installation is complete.



It is mandatory to revert the settings back to the default.

Known Problems and Restrictions

The following manual installations (if applicable) must be performed.

1. Once the node is updated to 800xA 5.1 Feature Pack 4 Revision E, it is not possible to use the **Find Tool** in Plant Explorer Workplace until the **System Extensions** are applied. It is recommended to perform the Release Reservations operation before loading **System Extensions** from a node where 800xA 5.1 Feature Pack 4 Revision E is not installed.

In case, this is the last node to be updated to 800xA 5.1 Feature Pack 4 Revision E in the system, ensure that all Reservations are Released before proceeding with the update as the **Find Tool** is not available after update to 800xA 5.1 Feature Pack 4 Revision E to search for Reservations unless the **System Extensions** are applied.

2. Click **Keep Blocked** when the dialog box for the Firewall appears during the installation of the Device Management FOUNDATION Fieldbus.
3. ABB DTM S900DP can only be updated with the logged in user the same as the user who installed the product.
4. The required third party software to upgrade from 800xA 3.1, 4.1, and 5.0 SP2 to 5.1 Feature Pack. The software are as follows:
 - Microsoft Office 2007, 2010, or 2013.
 - Crystal Reports 2008. For details on the Service Packs, refer to [Third Party Software used in 800xA 5.1 Feature Pack](#) on page 6.
5. SQL Server 2008 SP4 and Oracle updates are handled by the System Feature Pack Update Tool. All other third party software is not handled by the System Feature Pack Update Tool.

6. Remove the ABB DataDirect (ABBDirect) add-in from Microsoft Excel and add it manually when updating from 800xA 5.1 and 5.1 Revision A (32-bit) to higher version.

Perform these steps on all 800xA nodes for every other user account except for the 800xA Installing User account.

- a. Start Microsoft Excel.
- b. Click the **File** in the upper left corner.
- c. Select **Options** from the bottom of the menu.
- d. Select Add-ins from the left pane.
- e. Click **Go** in the right pane.
- f. Click **Browse** and use the Browse dialog box to find and select the **ABBDirect.xla** file located in:

C:\ProgramData\ABB\IM\DataDirect\Bin\

This makes the DataDirect Add-in available in the Add-ins dialog box. Any add-ins listed in this dialog box may be **added or removed** from Excel by selecting or clearing the corresponding check box.

- g. Select the **DataDirect** check box and click **OK**.

7. Perform these steps after updating from 800xA 5.1 and 5.1 Revision A (32-bit) to higher version.



For Office 2007 and 2010, [Step a](#) through [Step c](#) are not applicable.

- a. Start Microsoft Excel immediately after installing Office 2013.
A dialog box appears to configure excel settings.



The dialog box is visible only at the first launch of Excel after installing Office 2013.

- b. Select the recommended settings and follow the instructions.
- c. Close Microsoft Excel.
- d. Browse and run *RegVBAAddins.bat*:

C:\Program Files (x86)\ABB Industrial IT\Engineer
IT\Engineering Studio\Bulk Data Manager\bin

8. Perform the following steps (before upgrade) to resolve a known Microsoft Issue during the Upgrade of Microsoft Office 2007 to Microsoft Office 2010.
 - a. Navigate to the **3rd_Party_SW\Office Patch** in System 800xA 5.1 Feature Pack 4 media.
 - b. Double-click **111020325357820 - workaround.reg** file.
 - c. Click **Yes** on the confirmation dialog.
 - d. Click **OK** on the successful message.
9. Click **Yes** and **Yes To All** when the dialog window for the On Line Builder appears during the uninstallation of the 800xA for Advant Master. Ensure to uninstall the On Line Builder before starting the installation of 800xA for Advant Master.
10. While uninstalling and installing the ABB products using System Feature Pack Update Tool the following error messages appears.
 - **Failed to open database ! Open Failed**
 - **Failed to open View!**Click **OK** to ignore the corresponding windows and continue with the process.
11. If the system is upgraded from Internet Explorer 8.0 to Internet Explorer 9.0 or 11.0 on an 800xA for Harmony system, follow the steps:
 - a. Upgrade Internet Explorer on the Domain Controllers. Follow the procedure provided by Microsoft to upgrade Internet Explorer.
 - b. Update the Group Policy. For more information, refer to the *Group Policy Management* subsection in the *System 800xA Automated Installation (3BSE034679*)* user manual.
 - c. Run the System Feature Pack Update Tool on the Domain Controllers.
 - d. In case of Online Update, update the nodes in the following order:
 - Application Servers.
 - Connectivity Servers (Redundant first and then primary).
 - Aspect Servers (Redundant first and then primary).

- Clients.

Perform the following steps on the nodes being updated:

- Upgrade Internet Explorer on the node.
 - Run the command to force out the Group Policy updates on the node.
`gpupdate /force`
 - Log into Harmony Connectivity Servers and Harmony Configuration Servers once as the 800xA Service User account and logout.
 - Login to the 800xA Install account or other IndustrialITAdmin account.
 - Run the System Feature Pack Update Tool.
12. While upgrading the system from 800xA 5.1 to 800xA 5.1 FP 4 (32-bit) using the System Feature Pack Update Tool, if the MOD connectivity servers along with the ABB PAS system services are present in the system, then during installation of ABB Batch Management product the Windows Package Manager displays a message to restart the system.
Click **No** when prompted and continue with the installation.
13. On rare occasions, after installing the products, System Feature Pack Update Tool stops working and the following window appears.

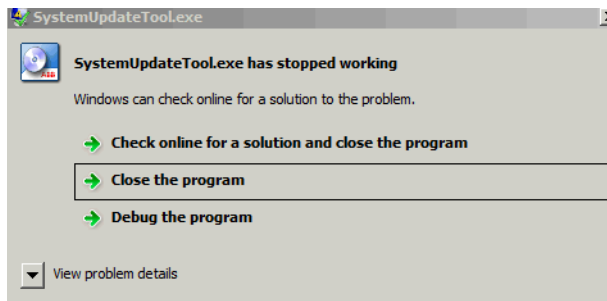


Figure 3. System Feature Pack Tool Error Window

Perform the steps to resume the update process using System Feature Pack Update Tool.

- a. Click **Close the program**.
- b. Navigate to System 800xA 5.1 Feature Pack 4 media.
- c. Double-click **AutoRun.exe** and ensure to select **Continue with Existing Update**.
- d. Click **Next** to continue the update.

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Power and productivity
for a better world™

