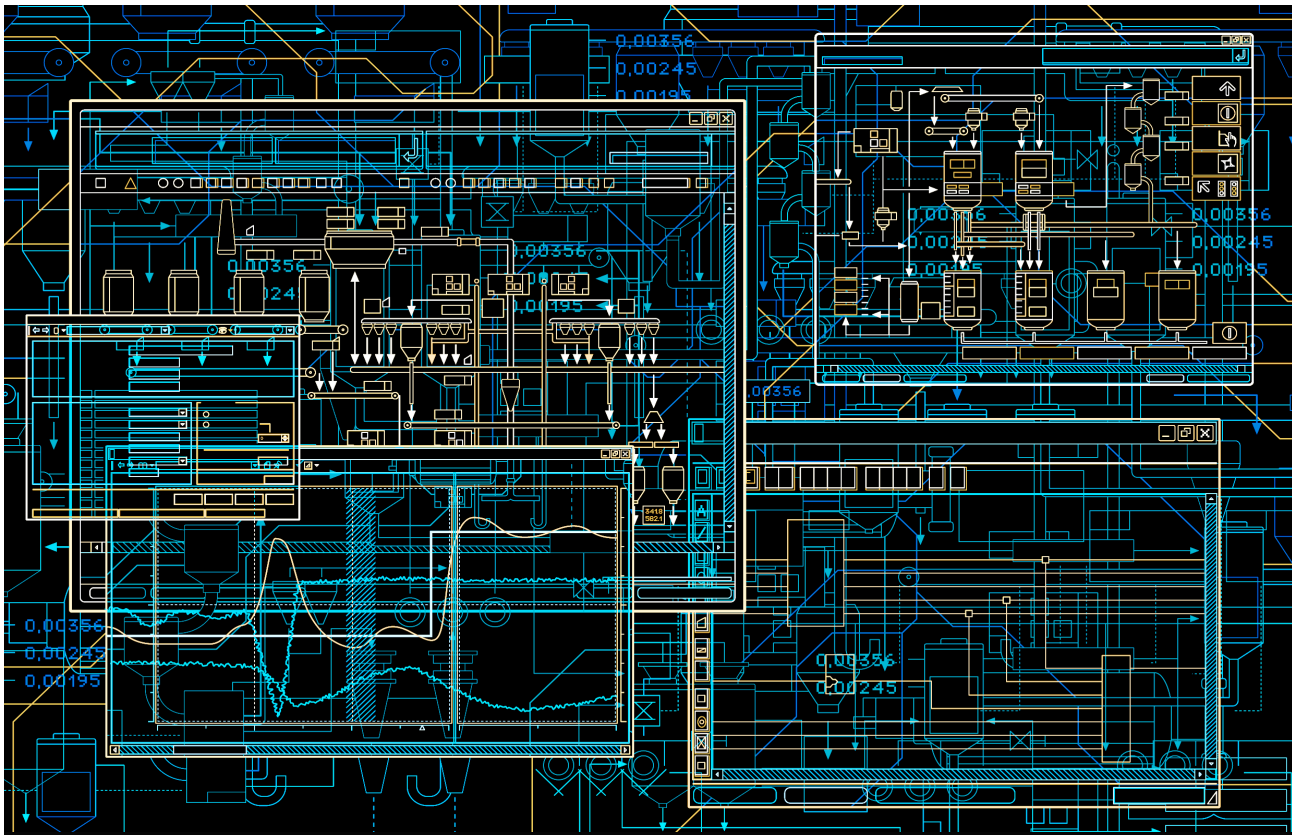


System 800xA

Release Notes
New Functions and Known Problems

System Version 6.0.2

Power and productivity
for a better world™

System 800xA

Release Notes
New Functions and Known Problems

System Version 6.0.2

NOTICE

This document contains information about one or more ABB products and may include a description of or a reference to one or more standards that may be generally relevant to the ABB products. The presence of any such description of a standard or reference to a standard is not a representation that all of the ABB products referenced in this document support all of the features of the described or referenced standard. In order to determine the specific features supported by a particular ABB product, the reader should consult the product specifications for the particular ABB product.

ABB may have one or more patents or pending patent applications protecting the intellectual property in the ABB products described in this document.

The information in this document is subject to change without notice and should not be construed as a commitment by ABB. ABB assumes no responsibility for any errors that may appear in this document.

Products described or referenced in this document are designed to be connected, and to communicate information and data via a secure network. It is the sole responsibility of the system/product owner to provide and continuously ensure a secure connection between the product and the system network and/or any other networks that may be connected.

The system/product owners must establish and maintain appropriate measures, including, but not limited to, the installation of firewalls, application of authentication measures, encryption of data, installation of antivirus programs, and so on, to protect the system, its products and networks, against security breaches, unauthorized access, interference, intrusion, leakage, and/or theft of data or information.

ABB verifies the function of released products and updates. However system/product owners are ultimately responsible to ensure that any system update (including but not limited to code changes, configuration file changes, third-party software updates or patches, hardware change out, and so on) is compatible with the security measures implemented. The system/product owners must verify that the system and associated products function as expected in the environment they are deployed.

In no event shall ABB be liable for direct, indirect, special, incidental or consequential damages of any nature or kind arising from the use of this document, nor shall ABB be liable for incidental or consequential damages arising from use of any software or hardware described in this document.

This document and parts thereof must not be reproduced or copied without written permission from ABB, and the contents thereof must not be imparted to a third party nor used for any unauthorized purpose.

The software or hardware described in this document is furnished under a license and may be used, copied, or disclosed only in accordance with the terms of such license. This product meets the requirements specified in EMC Directive 2004/108/EC and in Low Voltage Directive 2006/95/EC.

TRADEMARKS

All rights to copyrights, registered trademarks, and trademarks reside with their respective owners.

Release: May 2016
Document number: 2PAA111899-602 A

Table of Contents

Section 3 - Known Problems

Appendix A - Batch Unit Diagram using Diagram Editor

Revision History

About This Release Note

General

Any security measures described in this Release Note, for example, for user access, password security, network security, firewalls, virus protection, etc., represent possible steps that a user of an 800xA System may want to consider based on a risk assessment for a particular application and installation. This risk assessment, as well as the proper implementation, configuration, installation, operation, administration, and maintenance of all relevant security related equipment, software, and procedures, are the responsibility of the user of the 800xA System.

This release note describes the new functionalities and the known problems for the current revision of System 800xA 6.0.

Release Note Conventions

Microsoft Windows conventions are normally used for the standard presentation of material when entering text, key sequences, prompts, messages, menu items, screen elements, etc.

Warning, Caution, Information, and Tip Icons

This Release Note includes Warning, Caution, and Information where appropriate to point out safety related or other important information. It also includes Tip to point out useful hints to the reader. The corresponding symbols should be interpreted as follows:

Electrical warning icon indicates the presence of a hazard that could result in *electrical shock.*

Warning icon indicates the presence of a hazard that could result in *personal injury.*

Caution icon indicates important information or warning related to the concept discussed in the text. It might indicate the presence of a hazard that could result in *corruption of software or damage to equipment/property.*

Information icon alerts the reader to pertinent facts and conditions.

Tip icon indicates advice on, for example, how to design your project or how to use a certain function

Although Warning hazards are related to personal injury, and Caution hazards are associated with equipment or property damage, it should be understood that operation of damaged equipment could, under certain operational conditions, result in degraded process performance leading to personal injury or death. Therefore, fully comply with all Warning and Caution notices.

Terminology

A complete and comprehensive list of terms is included in *System 800xA System Guide Functional Description (3BSE038018*)*. The listing includes terms and definitions that apply to the 800xA System where the usage is different from commonly accepted industry standard definitions and definitions given in standard dictionaries such as Webster's Dictionary of Computer Terms.

Released User Manuals and Release Notes

A complete list of all User Manuals and Release Notes applicable to System 800xA is provided in *System 800xA Released User Manuals and Release Notes (3BUA000263*)*.

System 800xA Released User Manuals and Release Notes (3BUA000263)* is updated each time a document is updated or a new document is released. It is in pdf format and is provided in the following ways:

- Included on the Documentation media provided with the system and published to ABB SolutionsBank when released as part of a major or minor release, Service Pack, Feature Pack, or System Revision.

- Published to ABB SolutionsBank when a User Manual or Release Note is updated in between any of the release cycles listed in the first bullet.

A product bulletin is published each time *System 800xA Released User Manuals and Release Notes (3BUA000263*)* is updated and published to ABB SolutionsBank.

Section 1 Release Notes

Introduction

This document represents the Release Notes for the System 800xA 6.0.2 release.

This document describes the functionality changes and new functionalities introduced for this product in this release. It also enumerates known problems encountered in the final testing of this product release and identifies workarounds that help overcome the problem. The document contains additional notes that may be valuable to the customers and service personnel working with the product.

The latest version of the Release Notes is available in the ABB SolutionsBank.

Known Problems are divided into categories by individual Functional Area or product. The categories are:

- Installation
- Administration
- Configuration
- Operation
- Instruction Manual Changes
- Miscellaneous

Some known issues are more important than others. Pay attention to the Workarounds, Clarifications and Helpful Hints provided, particularly for the issues that are marked *Important*.

Products Participating in This Version

The following products are participating in the System 800xA 6.0.2 release.

- System Installation
- AC 800M

Release Notes Safety Notices

Failure to follow all Warnings and Instructions may lead to loss of process, fire, or death.

Read Release Notes carefully before attempting to install, operate, or maintain this software.

Install the software within the design limitations as described in the installation and upgrade instructions. This software is designed to operate within the specifications of the 800xA System. Do not install this software on systems that exceed these limits.

Follow your company's safety procedures.

These Release Notes are written only for qualified persons and are not intended to be a substitute for adequate training and experience in the safety procedures for installation and operation of this software. Personnel working with this software must also exhibit common sense and good judgment regarding potential hazards for themselves and other personnel in the area. Should clarification or additional information be required, refer the matter to your ABB sales representative and/or local representative.

File these Release Notes with other instruction books, drawings, and descriptive data of the 800xA System. Keep these Release Notes available for the installation, operation, and maintenance of this equipment. Use of these Release Notes will facilitate proper operation and maintenance of the 800xA System and its software and prolong its useful life.

All information contained in Release Notes are based on the latest product information available at the time of printing. The right is reserved to make changes at any time without notice.

Related Documentation

The documents to be used in conjunction with this release note document are:

- *System 800xA Release Notes Resolved Issues (2PAA112277*)*: Contains the known problems from the previous release that were fixed in the current release along with the fixes in previous System 800xA 6.0 releases.
- *Third Party Software System 800xA (3BUA000500*)*: Details the third party software that has been evaluated for use with System 800xA including Microsoft operating system software, Microsoft software, service packs, and hot fixes.

Product Support

Contact ABB technical support or your local ABB representative for assistance in problem reporting.

Section 2 Functionality Changes

Introduction

This section describes the functionality changes for the 800xA Base System, and the Functional Area software with changes in the current revision of System 800xA 6.0. The Release Notes includes the new features added in System 800xA, after the release of System 800xA 6.0 version. For all the new functions introduced in feature packs for 5.1, refer *System 800xA 5.1 Feature Pack 4 Rev D Release Notes (2PAA109967*)*.

Visual Basic Process Graphics (VBPG) is not supported in System Version 6.0. VBPG was replaced with Process Graphics in 5.0 SP2 RevA. Graphics migration must be done before upgrading to System Version 6.0.

Support for new Operating Systems

System Version 6.0 supports Windows 8.1 and Windows Server 2012 R2.

Improved Security

System 800xA supports Windows UAC (User Account Control) in default state. Installation and configuration needs administrator privileges whereas normal operation should be performed with standard user privileges to maintain a secure operation environment.

System 800xA 6.0 is compatible with Microsoft Windows DEP (Data Execution Prevention). DEP is a security feature preventing malicious code from executing in data memory, typically buffer overflow attacks storing instructions in data memory.

All executable are now digitally signed and carry ABB branding and copyright information.

Installation

The installation of System 800xA has been improved. Configuration and deployment is performed centrally from one node in the system. No need to visit each node except when the software is initially put on to the node, which can be performed in parallel. Deployment of the configuration is fully automated and unattended, which means it can be completed quickly. A more effective and automated installation not only saves significant time, but also improves quality since it makes it easier to be consistent.

Rename PC nodes

Renaming from Plant Explorer or renaming when restoring a backup from the Configuration Wizard, is currently not supported for 800xA system nodes, clients and servers.

The procedure to rename a system node is to use Configure System task to remove the node from the system first. Then reinstall the node, prepare it with the Node Preparation tool, add the node to the system and allocate the appropriate functions to it.

Engineering Studio installation supported without Microsoft Office as a Pre-requisite

Prior to System Version 6.0 release, System 800xA and Engineering Studio required Microsoft Office as a pre-requisite for installation. From 6.0 onwards, System 800xA can be installed on an 800xA node, even if Microsoft Office is not installed. This reduces the 3rd party software footprint.

On System 800xA nodes, which do not have Microsoft Office installed, features integrated with Microsoft Office products like Control Builder M documentation, Excel Reports, Bulk Data Manager, Bulk SPL and Document Manager functionality are not available.

ABB Start Menu

The new ABB Start Menu is used in Windows 8.1 to display a Windows 7 style start menu for the ABB products. The start menu executes only in the desktop environment.

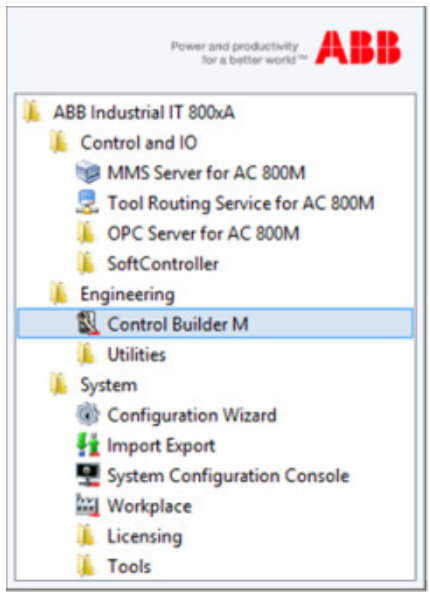


Figure 1. ABB Start Menu

Base System

Trends

The Trends feature is enhanced in this version with:

- The possibility to tilt the supporting lines using the slope function. This feature is useful to monitor a curve change for a ramped value.
- Automatic scaling function in trend displays.
- Coloring of trend curve in alarm state. When an object is in alarm state the curve is drawn in the alarm color.

Alarm List Readability

Alarm list readability has been improved by allowing color grouping of alarm lines in alarm list.

Advanced Graphical Elements

New advanced graphical elements are made available in graphics builder. The Grid element makes it possible to organize information or input as a grid on a graphic display. The Tab Content element can display tabs on a graphic display or element where each tab contains a tab page with content. The possibility to draw advanced geometries using new drawing functions in graphics builder.

New Video Server Version

The New Video Server version for System 800xA 6.0. has performance improvements for storing recorded videos and preparation for the new video formats.

Multisystem Integration

A High Integrity controller running version 6 or later can be operated using Confirmed Write from a Multi System Integration subscriber system. Refer to Confirmed Write with Multi System Integration, page 33.

System Services

This section includes the functionalities that are changed for System Services.

Diagnostics Collection Tool

The System 800xA Performance Data Plug-in tool used to collect the performance related data in the standard XML format and analyzed by My Control System, has been removed in the current version of System 800xA 6.0.

Central Licensing System

New Functions in 800xA 6.0.1

There is a new licensing model introduced in System 800xA 6.0. This model tracks software and hardware delivered to each system. The license concept helps the user by indicating the features that are missing and in turn the annoyance is delayed for some time, to allow users to test the functionality early in the system life cycle. Users can test the required functions and view the usage report to update the license. The new licensing model adheres to the life cycle of an 800xA System, which in turn defined in two phases, the **Design Phase** and **Production Phase**.

New Functions in 800xA 6.0

SafeNet dongle is not supported in System 800xA version 6.0. Upgrade SafeNet dongle to Rocky dongle, if dongle is used for upgrading to 6.0.

Engineering Studio

This section includes functionalities changed for Engineering Studio.

- Simplified Upgrade step for Function Designer Diagrams.
  In cases, where application libraries have been modified, Function Designer Diagrams need to be updated. A system feature to perform that update has been introduced. The automated update process logs activities for later references.
- Support of Diagram Types in Function Designer introduced.
  Usage of Diagram Types is supported in Function Designer.

- Consolidated workflow on how to transfer Signal Parameter data.
  The additional option to "Automatic Write Allocation into CBM" has been removed.
- Advanced diagnostic for variable cross reference service.
  Function Designer checks the service state at call up. When the cross reference server does not report proper state, an option is provided to user to close or continue opening the diagram without showing variable references.
- Function Settings are retained after upgrade
  Function Settings in Object Type Structure are retained after an system upgrade to 800xA 6.0.

Process Engineering Tool Integration

Support for *Intergraph SmartPlant Instrumentation- 2013 (Version 10.0).*

Process Engineering Tool Integration from System Version 6.0 supports data exchange with *Intergraph SmartPlant Instrumentation- 2013 (Version 10.0).*

800xA for AC 800M

New Functions in System Version 6.0.2

The following information characterizes the new functions in Control Software for AC 800M, version 6.0.2.

Engineering Environment

Support for Microsoft Word 2016. Version 6.0.2 is released to be used with Microsoft Word 2010, 2013 and 2016.

Diagram Support for Batch - Single Diagrams as Batch Units. Batch Unit Diagrams can be designed graphically utilizing Control Builder Diagrams. Diagrams allow to instantiated Phase CM types and direct usage of Communication Variables to interconnect Batch Units across Applications and Controllers. Refer to Appendix A, Batch Unit Diagram using Diagram Editor for more information.

AC 800M High Integrity

Software Support for PM867 and SM812. This release adds software support for PM867 and SM812. PM867/SM812 is a high performance SIL3 capable safety controller. PM867/SM812 has 64 MB RAM, supports redundancy, and has twice the execution performance of PM865/SM811.

Stand Alone Difference Report Viewer. A new tool Difference Report Viewer is available on the installation media and can be installed on a PC without the Control Builder. It enables the possibility to read historically accepted difference reports in the same format as if they were opened from Control Builder M Professional.

Burner Library. Support for Burner Management Library, including library corrections.

BurnerLib version 1.1-2 is included in this release. Separate license required for use, see *AC 800M Burner Library Safety and User Manual (3BSE079156*)*.

Changed Conditions for Combined License . A non-SIL application in a SIL controller no longer requires a combined license if the following conditions are met.

- No variables connected to I/O signals; however it is allowed to connect to Unit Status.

- Only the following standard libraries are used: System, BasicLib, IconLib and/or AlarmEventLib.

Hence the usage of non-SIL SystemDiagnostics no longer requires a combined AC 800M High Integrity and Process Control license.

Control and I/O

Support for More S100 I/O Boards. This release adds software support for the following S100 I/O boards: DSDI 131, DSDI 141, DSDO 120, DSDO 140, DSAI 110, DSAI 135, DSAI 145, DSAI 146 and DSAI 151

Controller Redundancy. Improved fail over handling for redundant controllers, both Process and High Integrity, when low level software exceptions are detected. If CPU fail over occurs, it is important to collect Backup Controller log files for postmortem analysis.

Modbus RTU Redundancy at Application Level. Support for MODBUS RTU master channel redundancy at application level. A new connect function block, MBConnectR has been added in ModBusCommLib.

Communication Variable Limits Dialog. A new dialog added for configuring the compiler reaction for unresolved Communication Variables, error or warning, and enabling compilation error if certain limits of number of communication variables have been exceeded.

When upgrading from 6.0.0-0 and the compiler switch “Unresolved Communication Variables” had been changed from Warning to Error. The Error must be re-enabled using the new dialog since the compiler switch has been replaced.

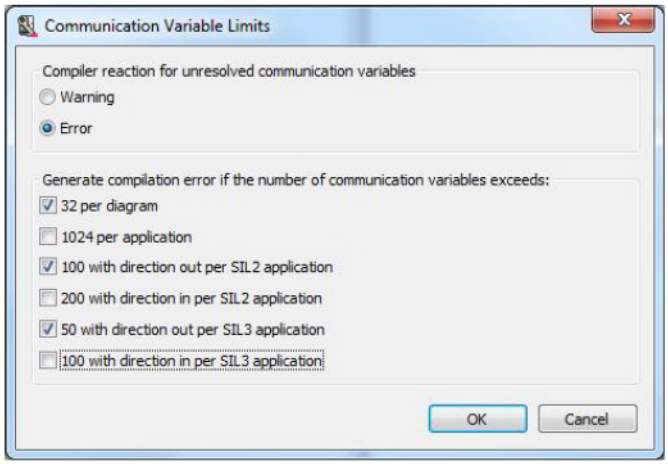


Figure 2. Communication Variable Limits Dialog

TRIO integrated in AC 800M Connect. TRIO is no longer installed as a separate feature. It has now been integrated into AC 800M Connect.

Software support for PM858. This release adds software support for the new PM858 CPU. PM858 has 16 MB RAM, supports redundancy, and has half the execution performance of PM862. PM858 can be used with BC820.

New Functions in System Version 6.0.0

The following information characterizes the new functions in Control Software for AC 800M, version 6.0.0.

Engineering Environment

Load Evaluate Go . Load Evaluate Go (LEG) is only possible if the controller firmware version is from the same system version as Control Builder.

Hardware Licensing. The previous Control Software Licensing using Controller Capacity Points has been removed. Instead, it is now required to have one license for each present AC 800M and S800 module.

Multiple Soft Controllers on the same PC. It is now possible to run up to 25 Soft Controllers simultaneously on the same PC. Peer-to-peer communication using IAC is automatically set up between the soft controllers. The Soft Controller panel has been changed so it can be used to administer and monitor the different instances. Each running Soft Controller instance requires a separate license.

Figure 3. Multiple Soft Controllers on the same PC

Diagram Editor. The auto-routing of graphical connections in the Diagram editor has been improved. The diagram layout has been improved reducing the number of crossings, unnecessary bends and long connections. Multiple connections to the same port are handled in a better way, reducing the need for manual adjustments. The below listed are the enhancements made to diagram editor.

- Connection dialogs will remember their last position, and reappear at the same position the next time they are launched.
- New Diagrams and Diagram types no longer generates error due to lacking FD code block.
- Enabling EN no longer result in bad layout of object ports.
- Enabling and then disabling EN no longer results in triangle symbol indicating that there are hidden ports.

- Using port visibility on a structured variable object with connected ports no longer disconnect ports.
- Auto complete functionality in connect dialog used to move the cursor last in text when text was modified, making it hard to modify the text.
- Long variable names were not shown in connect dialog since the drop down menu was too narrow.
- Auto complete functionality now shows automatically generated SFC variables like example, StepName.X.
- Direct connected variables now have menu commands for Search and References.
- Connection editor for a block now show the length of string parameters.
- Split page operation could generate internal compile error.
- Split page could result in incorrect data flow order numbers on the objects.
- Adding Split and Join blocks could cause the editor to crash if very short block names were used.
- Some menu bar and toolbar commands were not enabled for the Diagram Editor, example, Edit Parameter List.
- Find in Editor command now search inside block descriptions.
- Find and using Replace All could cause Control Builder to hang.
- Some problems with display of online values have been corrected.
- Project Documentation for Diagrams and Diagram types now include tables for hidden ports with connections, and for link variables.

Control Builder Project Explorer. In Control Builder, the alphabetic sorting order has been adjusted to comply with Windows standard and PPA. A number in an alphabetic string is considered lower if it has a leading zero.

The Type Usage dialog has been improved in several ways.

- It is now resizable, so the full paths can be viewed without scrolling.
- It is modeless, that is, it stays up after navigating to an instance.

- A separate button for navigation is added. Double-clicking still works as before.

Editors General. Control Builder editor kept open if save fails. If save operation is failing due to aspect directory failure, the Control Builder editor will stay open and investigation can be performed to avoid loosing changes.

FBD/LD Editor. I/O address and description is now displayed in the Information dialog launched from variables in FBD/LD online views.

SFC Editor. In Online mode, it is now possible to scroll an SFC transition code pane where the condition is too big to fit.

Simplified Upgrade. This release contains three new stand-alone tools aimed for simplifying an upgrade from earlier releases:

AC 800M Fingerprint automatically collects diagnostic data from all controllers on the network. The data is collected into tab-separated text files. It can be used in the existing system to verify load figures, hardware revisions and so on.

The **Start Values Analyzer** tool is used for verifying that cold retained variables are unchanged after the upgrade. It can, from version 6.0 and onwards, also pin-point variables holding settings that will revert back to initial value after the upgrade due to the wrong attributes. It can compare runtime values from different occasions and print out the differences.

The **Compiler Output File Helper** tool is used for extracting Control Builder compiler output files from an existing 800xA Aspect Server and store the files on a local disc. The tool can later restore the compiler output files from disc to an upgraded 800xA Aspect Server. The tool is useful if there is long period of time between the backup being made and the upgraded system being put into operation; the tool is required if there has been any controller downloads during this time.

New Compile Switch for Unresolved Communication Variables. There is now a configurable compile error when having unresolved communication variables.

Instance specific Initial Values. In the Control Properties aspects, it is now possible to define initial values for variables of data type time and date_and_time.

Task Analysis Tool. In the Task Analysis Tool, the warning limit for controller load at Load Evaluate Go has been increased from 70% to 90%.

Search and Navigation (minor error corrections). It was not possible to navigate to hardware items when their names contained dots (‘.’).

Communication Variables was not always shown in Search and Navigation window even if they were used in code.

Searching and navigating to variables in Diagrams was not always working as expected.

Searching and navigating in online mode in Diagrams was not always working as expected.

Time Set Menu Command Removed. The menu command "Time Set" has been removed from the Tools menu in Control Builder.

AC 800M High Integrity

Support for SM810. From this version, it is not possible to use SM810 in new projects, but still supports when upgrading projects from previous versions.

Engineering support for PM867 and SM812. This release adds engineering support for a more powerful High Integrity controller, the PM867/SM812.

The release of the PM867/SM812 software and hardware will be announced separately.

Support for PROFINET IO in AC 800M High Integrity Controller. CI871 is now available to be used in non-SIL applications in the AC 800M High Integrity.

Confirmed Write with Multi System Integration. A High Integrity controller running version 6 or later can be operated using Confirmed Write from a Multi System Integration subscriber system.

Variables in SIL Applications available as Access Variables. In the previous version, it was not possible to declare variables in SIL applications as

communication access variables. In the new version it is possible for an external system or device to read SIL variables via for example MODBUS TCP.

Compile Warning if no SIL application exist in HI controller. A High Integrity controller must contain at least one SIL application. This is now checked during compilation, and a warning is issued otherwise.

Task Analysis Tool. The Task Analysis Tool no longer includes the VMT task when analyzing the task execution in an AC 800M HI controller. Hence it is no longer necessary to take into account the VMT tasks interval time of 900 ms when tuning tasks in an AC 800M HI controller.

Increased Timeout for MMSReadHI Control Module. The maximum communication Timeout for *MMSReadHI* control module has been extended from 10 to 30 seconds.

Control and I/O

Support for PM866. PM866 is supported for Safety I/O.

Improved Security. The AC 800M Web-server password is now stored persistently and has to be changed by the user.

By default the Web-server is turned off and it has to be manually enabled four hours at the time.

Software support for PM862. This release adds software support for the new PM862 CPU. PM862 has 32 MB RAM, can be made redundant, and has half the execution performance of PM866.

Support for Distributed Redundancy using BC820. The new BC820 has the same function as BC810, but the distance between two BC820s can be up to 200m. The CPUs in a redundant controller can by that be physically separated. The connection between the BC820s consists of one electrical and one optical link. BC820 can be used with PM862 and PM866.

Support for CI854B. The CI854B is a new PROFIBUS-DP master that replaces CI854A in new installations. CI854B has the same functionality as CI854A and requires the AC 800M controller to be of version 6.0 or later.

Support of CI854B will be announced in a separate release (user documentation already includes CI854B)

Use of Essential Automation Hardware is Identified and Visualized. The AC 800M identifies and visualizes hardware units of type *-eA*.

Optimized Communication between AC 800M Controller and OPC Server. The MMS communication between the AC 800M controller and OPC Server has been optimized. The length of the telegrams has been extended up to 2.5 times which results in fewer telegrams and lower controller load. The maximum variable transfer rate is almost doubled.

Support for MODBUS RTU Slave. The AC 800M controller can now act as a point-to-point MODBUS RTU slave. The communication takes place via COM3 on the CPU, or via any serial channel on CI853. The same set of Function Codes as with CI867 slave is supported.

Support for 200-AENTR through CI873 EtherNet/IP. The new *S200CI873IoHwlib* adds support for the S200 I/O adaptor 200-AENTR to be used with CI873.

The new adaptor gives a simple and cost effective upgrade path for directly connected S200 I/O on SattCon 200, SattLine 200, Advant Controller 210, Advant Controller 250 and AC 800C.

200-AENTR has two Ethernet ports with an in-built switch, which means that the adaptors can be daisy-chained to the CI873 using cross-wired Ethernet-cables without the need for external switches.

The release of the 200-AENTR adaptor will be announced separately.

Automatic replacement of PROFINET IO devices. The CI871 supports an automatic configuration and restart of a PNIO device in case of device replacement. The configured station name is assigned automatically. No usage of the AC 800M web server is needed. This functionality is available for PNIO devices that have on

the one hand active support for LLDP and on the other hand these devices are connected to a switched Ethernet network also having active support for LLDP.

UMC100 with PNQ22 and PROFINET IO. The new hardware library *ABBPNQ22CI871HwLib* adds support for ABB's universal motor controller UMC100 via CI871.

Acyclic Communication on PROFINET IO. The AC 800M controller now supports acyclic data access with connected PNIO devices.

The *IOCommLib* library contains the Function Blocks for acyclic read and write of the PROFINET device data. This provides access in the controller to all data of the PNIO device that is not provided via cyclic data.

Application libraries for analog control. *PidCC* and *PidAdvancedCC* have been enhanced to support controller types 'ClassicERF' and 'ClassicERF+D'. *PidAdvancedCC* has additionally been enhanced for controller type 'ABBERF' and 'ABBERF+D'. These changes affect the following libraries BasicLib, ControlSupportLib, SignalLib, ControlBasicLib, ControlObjectLib, ControlStandardLib, ControlAdvancedLib, ControlExtendedLib, and ControlFuzzyLib.

On control modules *PidAdvancedCC* and *PidCC*, the parameter *ERF* has changed name to *EBV*, External back value. The function is still the same if the *EBV* parameter is connected. If connected the *EBV* value is used instead of the backward value in the Control Connection in the controller output parameter.

Enhancement of *TapCC* and *TapRealCC*. A new node is added where the backward information is transferred in the forward direction. The addition is completely compatible with the present object. Backtracking to the new node is never possible.

Enhancement of *RealToCC*. A parameter UseBackwardRange has been added to make the selection to use the backward range as the forward one. The initial value follows the original functionality.

Enhancement of *BranchCC* and *Branch4CC*. A parameter Mode has been added to make the selection in backtracking strategy. The initial value follows the original functionality.

TCP Communication Library Improvements. The TCPRead Function Block has been improved by adding two new parameters:

- The RdOffset is an input parameter that defines an index in the receive-structure where the data should be put.
- The NoOfBytesLeft is an output parameter showing the number of bytes left in the buffer to be read.

Maintenance. It is now possible to insert a Backup Media card after a controller crash has occurred in order to save the content of the whole RAM memory. This is valid both for a single/primary PM and a backup PM and requires that the "Autorestart" function has not been enabled (default off). A halted controller without a Backup Media will indicate by fast flashing (10Hz) on the F(ault) LED. Insert a Backup media card and wait for slow flashing (0.5Hz) on the F(ault) LED indicating that the dump is ready and/or press INIT to restart.

Application Change Management

Application Change Management (ACM) is a part of Advanced Engineering Workplace feature.

It is a version control tool used for engineering solutions in 800xA System. Multiple versions of 800xA application configuration can be archived in the ACM host and can provide an integrated configuration management system utilizing .afw files technology.

This section includes functionalities changed for Application Change Management.

Shorter Check In time and optimized usage of ACM server space: All the entities which are not modified with respect to earlier checked in version will be skipped during subsequent check In which eventually improves the check In time and saves ACM server space.

Bulk Check In of Entities/Objects: Bulk check In intelligence has been implemented to optimize the memory usage during check in operation, which has made it possible to check In significantly large Control projects and entities in single operation.

Set Max number of versions: A new general setting is introduced to set the maximum number of versions of an entity/object in ACM server. If the number of checked in versions of a particular file exceeds the value set, then the first version of the file gets deleted from ACM server. This is a one-time setting, introduced to support database management and to have a control on the number of versions of an entity/object in ACM server. For more information on ACM, refer to *System 800xA Application Change Management (2PAA108438*)*.

Setting MaxVersions to **0** removes the limitation on the number of file versions.

Change Reporting Features: ACM supports change reporting for System 800xA by enabling the support for check in of various system specific reports to the ACM Server. These reports can be generated on a scheduled basis and used to report system configuration states. For more information, refer to *System 800xA Application Change Management (2PAA108438*)*.

ACMScheduler: ACMScheduler is used to synchronize the ACM system with corresponding aspect system. It identifies the differences between ACM server and aspect system and checks in the objects which are never checked in or have been

modified after last check in. Synchronization can be restricted to certain structure by proper configuration. However, Functional structure and Control structure are configured by default.

PLC Connect

The new functionality supported by PLC Connect version 6.0 is:

- Integer signal can be changed from signed to unsigned

Device Management PROFIBUS and HART

Following new Features are implemented in this release of System 800xA 6.0

- Enhanced User Interface for License counting Tool for Fieldbus Builder PH.
- Enhanced User interface for Device Management Data Compression Tool.
- HART Multiplexer Connect Support for Digi PortServer.
- MTL4850 integration with 800xA Device Management HART.

Device Library Wizard: (DLW)

Following new Features and Enhancements are implemented in this release of System 800xA 6.0.

Synchronization of Device Types from Primary Aspect Server to DLW Clients:

Installed device types in Primary Aspect server will get copied to all connected client nodes when the user invokes DLW in Client node or initiates Synchronize Device types from Client nodes.

- Instead of installing Device types in all the nodes user shall identify the Client nodes where Device Types are required and can Synchronize with Primary Aspect Server.
- This avoids manual effort for Copying Device types / Extract Device types in each node and also avoids differences between Device types installed on Server and Client

- System Restore has to be performed only on Primary Aspect Server (DLW Server) and copy the installed Device Types to the identified DLW Clients where DTM operation is required using Synchronize Device Types feature.

Removed Dependency on MS OFFICE:

MS OFFICE dependency has been removed Instead AccessDatabaseEngine will get installed along with DLW Client.

Device Management FOUNDATION Fieldbus

FOUNDATION Fieldbus is enhanced with the following new features in this release of System 800xA 6.0.

Fieldbus Builder FOUNDATION Fieldbus (FBBFF)

The following new features are implemented in the Fieldbus Builder FOUNDATION Fieldbus (FBBFF):

- Switch on/off of Web server from linking device
- System status viewer entry for usage of default passwords in linking device
- Alarms are generated if default passwords are used and Web server is active in linking device
- Hardware and firmware information of linking device in DCT

Linking Device

The following new features are implemented in the Linking Device:

- Web server is default switched off
- User login required on linking device Web pages
- New linking device hardware

PC, Network and Software Monitoring

PC, Network and Software Monitoring is enhanced with the following new features in this release of System 800xA 6.0.

In order to monitor the IT assets in System 800xA, SNMP trap support is added to PC, Network and Software Monitoring. Users are enabled to create device specific Object Type using MIB file of the device, configure the OID based traps and customize them if needed. SNMP trap messages are presented as Alarms or Events in System 800xA. It is possible to configure the severity and notification type (alarm or event) for every trap message.

The supported SNMP version is SNMP v3 - User–based security.

800xA for Advant Master and 800xA for Safeguard

Advant Master Alarm Refresh

The Advant Master Alarm Refresh helps retrieve the latest alarm status from Advant Master and Safeguard 400 controllers. For example, after communication disturbance between Connectivity Server and Controller. Refer the 800xA for Advant Master 6.0 Configuration (3BSE030340*) for more information.

Enhanced RTA unit PU410 firmware

Cyber Security has been enhanced in the new firmware revision 1.0.5.0 for the RTA unit PU410. This new firmware revision is required when using PU410 together with 800xA for Advant Master 6.0. Refer the Security Advisory 3BSE080439 for more information about the new firmware revision, and how to get the new firmware revision for updating PU410 units that do not have the new firmware revision.

RTA board PU515A is no longer supported

800xA for Advant Master 6.0 does not support RTA board PU515A. Therefor also all PU515A needs to be replaced with PU410 when upgrading an 800xA system to 6.0.

Controller node objects defined as Entities

Starting with the 6.0 release controller node objects are handled as Entities in the system. Controller node object examples are AC 450 Controller, AC 410 Controller, SG 400 Controller. This means that objects and aspects that belong to a controller node object are treated as a unit. Hence, when importing or exporting all objects under the controller node are kept together as a unit. For more information on Entities refer the System 800xA, System Planning (3BSE041389*).

Advant Master Central Backup

Advant Master Central Backup is a licensed feature for backup and restore of ABB Master Programming Language (AMPL) controller applications. This feature was previously available only to users of System 800xA 5.1 Feature Pack 4. For more information on configuring Advant Master Central Backup, refer 800xA for Advant Master, Configuration (3BSE030340*).

800xA for AC 870P / Melody

This section describes the functionality changes for 800xA for AC 870P / Melody.

- Melody Controller PM 877 support.
- The limitation of 10 Controller pairs (*CMC 70, PM 8xx, or CCO 30*) per Connectivity Server is expanded to 20 Controller pairs per Connectivity server.

Batch Management

800xA Batch Management 6.0 is featuring improved capacity and performance.

- New batch system level changes allow for multiple batch manager processes running in the task manager. This improves the database read and write times. Also beneficial when several recipes are running at one time.
- Enhanced Batch Redundancy. Supported by SQL mirroring, provides improved system recovery.
- Batch Alarm Separation. Batch now supports the use of Class IDs for separating batch alarms. User will find this beneficial where process area information needs to be separated.
- Batch Overview Improvements. System level improvements to the batch overview provide efficient overview navigation and increased user access.
- The Batch Function Wizard had been updated. Now includes color coded context with syntax checking. Provides less errors and faster development times.
- Two new options for Phase and In controller attributes are introduced:
  a. Retain High and Low Limit.
  b. Cold Retain Equipment for In controller unit attributes.
- New batch data base search utility added to the procedure editor. Supports engineering queries on batch expressions.
- Batch Unit Diagrams using Control Builder Diagram Editor. Refer to Appendix A, Batch Unit Diagram using Diagram Editor for more information (Introduced in 6.0.2).

800xA History

The new features supported by 800xA History in the 6.0 release are:

- **High Availability History Servers** - Fault tolerant architecture to ensure seamless storage and retrieval of process data.
- **OPC Unified Architecture** - Provides support for DA and HDA.
- **DCN Trending** - Trends can now retrieve the data from the Embedded Data Collector Node when the 800xA History server is unavailable.
- **Event retrieval** - Allows the user to retrieve the events stored in History Server and make them available in 800xA system.
- **Event Archiving** - Allows the user to perform archive of historical event data using Archive Service of 800xA.
- **History Log List Aspect** - Allows user to perform activate and de-activate of 800xA History Logs in bulk from 800xA workplace.

800xA for Harmony

800xA for Symphony Plus Harmony 6.0 contains the following enhancements:

- **Harmony Tag Configuration data is now stored directly in the Aspect Directory.** The SQL Server based Harmony Configuration Server Database is no longer needed and has been eliminated. A tool is provided for exporting the existing tag configuration data from the Configuration Server Database on existing 800xA 5.0 SP2 or 5.1 Systems. This exported data can then be uploaded into the Aspect Directory during the Upgrade process.
- **Uploader** - A new Uploader replaces the now obsolete Harmony Tag Importer Exporter and Harmony Synchronizer. The Uploader allows for importing or exporting Harmony Tag Configuration data directly to the Aspect Directory.
- **Backup/Restore** – Harmony Tag Configuration data is now included in Aspect Directory Backup and Restore operations, eliminating the need to perform independent Harmony Backups and Restores.

- **Bulk Data Manager Support** - Bulk changes to Harmony Tag Configuration can now be made using the standard 800xA Bulk Data Manager, eliminating the need for the separate Harmony Bulk Data Manager utility.
- **Engineering Environment and Versioning Support** - Harmony Tag Configuration changes can now be made in an Engineering Environment and later deployed to the Production Environment.
- Support for the following Symphony Plus hardware modules:
  - PNI800 Plant Network (PN800) Interface
  - HPC800 Controller
  - SPIEB800 INFI-Net to PN800 Plant Network Bridge

Section 3 Known Problems

This section details the Known Problems that exist in the system at the time of release.

System Installation

Operation

Table 1 lists the operation issues that may exist and affect the system or product at time of release. Workarounds, clarifications, or helpful hints have been provided for each issue wherever possible.

Table 1. Operation Issues

Issue	Workarounds, Clarifications, and Helpful Hints
Node functions in an Excluded Node show as **Deployed**, a deploy is started after a node has been excluded. 800xASYI-OL-6020-001	No Workaround exists for this issue. The deploy of the node will still be allowed once the node is included for Deploying.

Table 1. Operation Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
While updating from 800xA 6.0 to 800xA 6.0.2, if an aspect server is excluded and replaced after update, then the Alarm Property Service is not configured in Service Structure. 800xASYI-OL-6020-002	After the aspect server has been replaced and deployed follow the below instructions to create the service: 1. Open Plant Explorer Workplace. 2. Go to Service Structure and navigate to Alarm Property Server, **Service -> Alarm Property Server, Service Group.** 3. If Service Group does not exist, then open context menu on Alarm Property Server, Service and create new object with name **Alarm Property Server**. 4. Open Context menu on Alarm Property Server, Service Group and then create a new object with name **Alarm Property Server on node NodeName**, where NodeName is the name of the excluded and replaced aspect server. 5. Select the Service Provider created above and then select the Service Provider Definition aspect and provide the excluded and replaced Aspect Server Node name in the Node field.

In some circumstances while running Node Preparation Tool (NPT) the following error may be thrown:
`Installation of 800xA Core products failed`
Go to logs as mentioned in the error and search for the following error:
`Error: Action System800xASecurityHardening:{}:{}:0:0:System800xASecurityHardening:WmiApSrvServices_Stop:False`
 	
800xASYI-OL-6020-003
	Go the Windows **Services->WMI Performance Adapter Service**. Stop and disable the service and restart the node. After restart NPT will proceed automatically.

Table 1. Operation Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
Node Preparation Tool (NPT) throws the error "`msiexec.exe exited with error code 1642`" if an update is performed by running Setup.exe on another node, than the node from where the first update was performed from version 6.0. 800xASYI-OL-6020-004	Close the error window and wait for SCC to launch automatically, otherwise launch SCC manually, and click **Update System** to continue the update.
The update of SQL Server 2012 SP2 may fail with exit code-*2067919934 (0x84be0bc2)*. 800xASYI-OL-6010-001	This error occurs when SQL Server 2012 installation requires a reboot of the node. Perform the following steps to proceed with the SQL Server installation: 1. Go to **services.msc**. 2. Stop **ABB 800xA System Installer Agent** service and change to **manual** mode. 3. Restart the node. 4. After restart, perform a manual maintenance stop of the system from Configuration wizard. 5. Go to **services.msc** and change **ABB 800xA System Installer Agent** service to **Automatic (Delayed start)** mode.
During **Update** phase, the System Installer Activity Log shows the following error. `StoreUpdatedState: error Process execution failed with exit code -1 (0xffffffff)., DeployActivityId xxxxx(ID number)` 800xASYI-OL-6010-002	This is not an issue as System Installer is trying to write in Aspect Directory, which is not available during the **Update** phase. Once the system is up and running, the activities are updated to Aspect Directory.

Table 1. Operation Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
If a node restarts abruptly during an ongoing update using System installer, it is possible that further update actions may fail. 800xASYI-OL-6010-004	a. Once node has restarted, perform manual maintenance stop using the Configuration Wizard and then retry. b. If the update still fails, then exclude the node by right-clicking on the node in the **Update Engine** and proceed ahead with the update of the system. c. Replace the node after the update is completed by following the steps in the section *Replacing a Node* in the manual *System 800xA installation Update and upgrade Getting Started (2PAA111708-600*)*
During Update the System Installer updates the agent and restarts System Configuration Console (SCC). It takes some time for SCC to open. 800xASYI-OL-6010-005	No workaround exists for this issue.
Restoring of System Version 6.0.1 maintenance backup on another node with different names may lead to missing node in the Configure Systems Task. 800xASYI-OL-6010-006	Restore maintenance backup on a node with the same Node name as in the System Node configuration under the Configuration System Task.

Table 1. Operation Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
Update may fail if the primary network card is disconnected during the update phase. 800xASYI-OL-6010-008	Procedure for Windows 2012 R2 is as follows: a.Connect the network card and restart the node. b. Once restarted, do a manual maintenance stop from the Configuration Wizard and retry the update. c. If the update still fails, then exclude the node by right-clicking on the node in the **Update Engine** and proceed ahead with the update of the system. d. Replace the node after the update is completed by following the steps in the section *Replacing a Node* in the manual *System 800xA installation Update and upgrade Getting Started (2PAA111708-600*).* Procedure for Windows 8.1 is as follows: a.Connect the network card and the update should proceed ahead.
In some rare cases, the Update progress bar may not show the right status. 800xASYI-OL-6010-009	This is not an issue, the update progresses in the background. The final progress will be updated after the completion of the update process.
Exclude of Primary Aspect Server during update or new Installation is not possible. 800xASYI-OL-6010-010	No workaround exists for this issue.
In some rare case, 800xA Node(s) may show as "No-Connection" for a long time after restart during the "Update Phase" 800xASYI-OL-6010-011	Restart the node again and the connection should come up and update shall proceed ahead.

Table 1. Operation Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
In case a node restarts during the Distribution phase then some installation files may be corrupted on the node. 800xASYI-OL-6010-012	The workaround is as follows: 1. Before going to **Initiate Update** phase, stop the Update process. 2. On the node which was restarted, delete the **MRU** folder from the Media Repository Location as defined during Node Preparation. The Default location is C:\ProgramData\ABB\800xA. 3. Go to Update Icon in System Configuration Console and restart the update process with distribution of media on all nodes.
Node Preparation Tool does not support 800xA nodes connected to Domain where 800xA Service account is on local nodes. 800xASYI-OL-6010-013	No workaround exists for this issue. It is expected that 800xA nodes connected to Domain should have 800xA Service account in domain as well.

Table 1. Operation Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
Replacing node using SCC does not work for Node from where System has been created. 800xASYI-OL-6000-001	Replacing the first System node, that is, the node where the System was originally created is not yet fully supported by the Replace node Function, in Configure System task, in System Configuration Console. In addition to the procedure described in *System 800xA Installation and Upgrade Getting Started (2PAA111708*)*, the node has to be manually added to the system, using Configuration Wizard, right after the replacement node has been prepared with the Node Preparation Tool. 1. Open Configuration Wizard and Select Action Connect Node and click **Next**. 2. Select a node to Connect to 800xA System (preferably the Secondary Aspect Server) 3. Select 800xA System to connect to and click **Next.** 4. In the **Apply Settings** Window click **Finish**. After connecting, Launch SCC and go to Configure System Task. In the Node Configuration Tab, select the node to be replaced and then click **Replace Node** and Deploy the Node again.
While deploying a new system through System Configuration console, the Switch-over from Primary Plant Network to Secondary Plant Network does not get reflected. 800xASYI-OL-6000-003	Abort the running deploy, open System Configuration Console, and deploy the System. Deploy would proceed from this point onwards.

Table 1. Operation Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
In a scenario where 2 Aspect Servers fail and a Replace node needs to be executed, SCC hangs and does not proceed. 800xASYI-OL-6000-004	The problem occurs because Primary Aspect Server goes into Read Only mode. To work around this problem prepare the two Aspect Servers using the Node Preparation Tool, then Connect them to the System running on the Primary Aspect Server using the below procedure. 1. Open Configuration Wizard on the node to be added and Select Action Connect Node and click **Next** 2. Select 800xA System to connect to and click **Next** 3. On Apply Settings Windows click **Finish**. Once connected Launch SCC on the Primary Aspect Server and go to Configure System Task. In Node Configuration Tab, select the node to be replaced and then press Replace Node and finally Deploy the Node again.
Multiple **Configure System** tasks available in System Configuration Console after import of System Configuration Aspects during Upgrade. 800xASYI-OL-6000-005	Click on any of the **Configure System** tasks to proceed with System Deploy.

Configuration

Table 2 lists the issues that may exist and affect configuration of the system or product at time of release. Workarounds, clarifications, or helpful hints have been provided for each issue wherever possible.

Table 2. Configuration Issues

Issue	Workarounds, Clarifications, and Helpful Hints
Unable to deploy a node when Properties of another node are not set or invalid 800xASYI-CN-6000-002	Set all Properties of the Planned Nodes before Deploying.
AC 800M OPC Server Properties are mandatory while doing an update for 800xA 6.0 to 800xA 6.0.1. 800xASYI-CN-6010-001	The property fields should be filled with the exact names of the Service Group as in the Service Structure available in the Workplace. If these names are not accurate, then Replace node functionality would not be able to restore the node correctly with the correct Service group names.

Base System

Installation

Table 3 lists issues that may exist and affect the installation and upgrade of the system or product at time of release. Workarounds, clarifications, or helpful hints have been provided for each issue wherever possible.

Table 3. Installation Issues

Issue	Workarounds, Clarifications, and Helpful Hints
Links to open documents from ABB Node Preparation Tool, does not work on Windows 8.1 immediately after installing Adobe Reader. 800xASYS-IN-6010-002	Do not use the links on Windows 8.1 nodes to open the documents. Open the documents directly from the 800xA media located in the following path: Core Functionalities\Documentation
During update to 800xA 6.0.2, the update of "800xA Common Install" may fail. 800xASYS-IN-6020-001	Press "Retry" in the Update Engine window and the update proceeds ahead.

Administration

Table 4 lists the issues that may exist and affect administration at time of release including user, node, and service structure related problems. Workarounds, clarifications, or helpful hints have been provided for each issue wherever possible.

Table 4. Administration Issues

Issue	Workarounds, Clarifications, and Helpful Hints
Some functions in both the System Configuration Console (SCC) and Configuration Wizard require the user to be a Local Administrator on the node where the program is running. System Engineers and Application Engineers normally do not have this privilege. 800xASYS-AD-6000-001	The System Configuration Console (SCC) and the Configuration Wizard both require the user to be a Local Administrator on the machine where these tools are started.
800xA Device Management FOUNDATION Fieldbus 5.1 does not support Multiple Disc function. 800xASYS-AD-5100-011	No workaround exists for this issue. When using the System Configuration Console to change the System Directory Configuration the following restrictions apply for the service 'FFDataStorageAndDistribution': • Do not change the Storage Directory to Server Data 2 • Do not change the mapping of variable Server Data to any other disc or directory

Table 4. Administration Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
There will be an unexpected System Alarm generated when any Service Provider is not in operational state. System Alarms like the following can appear: "Service Provider X on Y operational" even though the service provider has been operational all the time. 800xASYS-AD-5000-002	A Service provider is operational when it is in the state Service or Standby. There are however some situations where system alarms that were not expected might appear: • When a server is restarted in a redundant system, Service Providers on other servers might enter Synchronizing state and where System Alarms are generated. • When an Aspect Server is disconnected completely from the network, System Alarms for Service Providers on other servers might appear when the server is reconnected. These alarms are generated because the disconnected Aspect Server lost contact with other providers in the system. The alarms do not necessarily mean that the Service Providers were down.
After a node has been added to or removed using the Configuration Wizard; the node may not be visible in the System Status viewer. 800xASYS-AD-5000-044	It is recommended to restart all nodes in a system after a node has been added to or removed using the Configuration Wizard.

Configuration

Table 5 lists the issues that may exist and affect configuration of the system or product at time of release. Workarounds, clarifications, or helpful hints have been provided for each issue wherever possible.

Table 5. Configuration Issues

Issue	Workarounds, Clarifications, and Helpful Hints
PG2 Displays with animation can cause performance problems in Workplaces running on Windows 2012 Server. The problem is described in detail in Product Bulletin 3BSE082278. 800xASYS-CN-6000-004	For workarounds and corrective actions see Product Bulletin 3BSE082278.
Recordings in a 5.1 FP4 system cannot be viewed in a 800xA 6.0 client due to changes and performance improvements in the procedure of writing recorded videos to disk. This means that new configurations must be performed in the VideONet Server for VnHistory for 800xA 6.0. 800xASYS-CN-6000-003	No workaround exists for this issue.
Information Manager does not support the Group Alarm feature introduced in 800xA 5.1 Feature Pack 1. 800xASYS-CN-5110-002	No workaround exists for this issue.
It is not possible to copy objects with Group Alarm aspects with Bulk Data Manager for 800xA 5.1 Feature Pack 1. 800xASYS-CN-5110-004	No workaround exists for this issue.

Table 5. Configuration Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
It is not possible to browse for Alarm Conditions on objects from PLC Connect, while configuring Group Alarm and Alarm Hiding. 800xASYS-CN-5110-005	The Alarm Conditions can be manually specified.
When performing an import of a library, subentities that do not exist in the system will be imported even if the user selects **No** for the overwrite question of the library. 800xASYS-CN-5020-008 800xASYS-CN-5101-004	Manually delete the entities and subentities that should not be imported in the Import/Export tool before performing the import.
During network disturbances the System Status Viewer can show wrong status for services when monitoring the Service Structure, even if the system is working correctly. The Tray icon can also show the wrong status in this situation. 800xASYS-CN-5000-018	When the network is stable again bring up a new System Status Viewer.
The *Import Wide Screen* aspect from Workplace Structure > Web System Workplace and *Import Wide Screen Workplace* aspect from Library Structure > Configuration Center > Appearance and Personalization > Workplace are not supported. 800xASYS-CN-5101-006	The example Wide Screen Workplaces can be imported from afw files located at *\\ABB Industrial IT\ Operate IT\ Process Portal A\ importExamples\ WideScreen Workplaces*\.

Operation

Table 6 lists the issues that may exist and affect operation of the system or product at time of release. Workarounds, clarifications, or helpful hints have been provided for each issue wherever possible.

Table 6. Operational Issues

Issue	Workarounds, Clarifications, and Helpful Hints
The workplace process will leak one handle each time a Graphic Display is closed in the Operator Workplace. 800xASYS-OL-6010-001	This issue is resolved by installing the Microsoft .NET hotfix. To install the mandatory .NET 4.5.2 hotfix: 1) Go to *3rd_Party_SW\Microsoft\Hotfix for .Net Framework 4.5.2* in the 800xA Media. 2) Double click **482239_intl_x64_zip.exe** file and extract to a shared location. 3) Run the **NDP452-KB3026376-x86-x64-AllOS-ENU.exe** on all nodes to install the hotfix.
In 1oo2 redundant systems, client nodes with affinity set to the non-master Aspect Server might lose the ability to launch new workplaces or operate from existing workplaces when the Aspect Servers are reconnected after being disconnected due to network failure. 800xASYS-OL-5101-005	Restart the non-master Aspect Server when both Aspect Servers are running and in service state. When the non-master Aspect Server is running in service state, restart the clients connected to the newly restarted Aspect Server.
Engineering tools like Control Builder M, IO Allocation Tool, and Bulk Data Manager opens in the background when launched from the Workplace application. 800xASYS-OL-5100-010	Modify the windows registry setting "ForegroundLockTimeout" located at HKCU\Control Panel\Desktop to “0”. The default value is '200000' (hex 0x00030d40). This setting will cause all applications to be launched in the foreground. **Note**: It is recommended to perform the setting only on Engineering Client nodes. This is a per user setting and requires a restart of the machine.

Table 6. Operational Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
Engineering tools, like the Import/Export tool or the Deploy tool can get more contents than expected when the include dependencies option is used. 800xASYS-OL-5010-013	When the include dependencies option is used, be sure to check the contents before the operation is performed, i.e. before pushing the Deploy button etc. For Import/Export it is also recommended to check the file on what actually got exported. Another solution is to include dependencies manually from the dependency list (not using the include dependencies option), i.e. right click on a dependent item and select Add item for each item.

Instruction Manual Changes

Table 7 lists the issues that exist in the instruction manuals that have not been corrected since the previous version. A brief description of the correction has also been given wherever possible.

Table 7. Instruction Manual Changes

Issue	Workarounds, Clarifications, and Helpful Hints
Information related to PC, Network and Software Monitoring (PNSM) missing in the table provided in the section *Appendix A System Alarm and Event Messages* in *800xA 5.1 Operations (3BSE036904-510*)*. 800xAPNS-MC-5101-021	Add the following information in the table. Component: ITPNSMMonitoring(PC, Network software and monitoring) **Message Description**: Error:%MessageDescription% **Extended Description**: PC, Network software and monitoring Error **Message Description**:%MessageDescription% **Extended Description**: PC, Network software and monitoring Information

System Services

Central Licensing System

Table 8 lists the operational issues that may exist and affect the system or product at time of release. Workarounds, clarifications, or helpful hints have been provided for each issue wherever possible.

Table 8. Operational Issues

Issue	Workarounds, Clarifications, and Helpful Hints
The License Usage Aspect in the system is not environment aware. This will generate differences in the environment differences tool. 800xASRV-OL-5100-010	Ignore this error as this would not impact the Central Licensing Service functionality.
In Design mode, the CLS License Usage Report (LUR) may represent incorrect license usage quantities for Batch Equipment (BATCH_EQUIP) feature. 800xASRV-OL-6010-002	No workaround exists.

Diagnostics Collection Tool

Configuration

Table 9 lists the issues that may exist and affect the configuration of the system or product at time of release. Workarounds, clarifications, or helpful hints have been provided for each issue wherever possible.

Table 9. Configuration Issues

Issue	Workarounds, Clarifications, and Helpful Hints
It might not be possible to perform Collect, Explore or Analyze Data in case of the error “Error: Failed to contact Node Interrogator”. 800xASRV-CN-5020-007	This error indicates that Node Interrogator Service is not running. To start this service: 1. Select ABB Node Interrogator service in Control Panel > Administrative Tools > Services. 2. Select Start from Action menu. This starts the Node Interrogator service. 3. Re-open Diagnostics Collection Tool.

Operation

Table 10 lists the issues that may exist and affect the operation of the system or product at time of release. Workarounds, clarifications, or helpful hints have been provided for each issue wherever possible.

Table 10. Operational Issues

Issue	Workarounds, Clarifications, and Helpful Hints
While using the DCT, it is observed that the Node Interrogator Service is gradually utilizing the memory and there by resulting in **System.OutOfMemoryException**. 800xADCT-OL-5110-006	Node Interrogator service has to be restarted. To restart: 1. Select **ABB Node Interrogator** service in **Control** **Panel** > **Administrative Tools** > **Services**. 2. Select **Restart** from the Action menu. This restarts the Node Interrogator service. 3. Re-open the **Diagnostics Collection Tool**.
It is rarely observed that the collection or download does not complete after several hours for large Process dumps or WER dumps from nodes in the network. 800xASRV-OL-5100-002	Close the collection or download. Ensure to collect dumps for less number of processes using User Dump Plug-in. Use specific date option in WER Plug-in to collect dumps for a specific period or date.

Structured Data Logger

Configuration

Table 11 lists the issues that may exist and affect the configuration of the system or product at time of release. Workarounds, clarifications, or helpful hints have been provided for each issue wherever possible.

Table 11. Configuration Issues

Issue	Workarounds, Clarifications and Helpful Hints
An export (with dependencies) of SDL Log aspects does not automatically include SDL Log Type aspects. 800xASDL-CN-5020-001	Manually export the SDL Log Type aspects used by the SDL Log aspect.

Engineering Studio

Installation

Table 12 lists issues that may exist and affect the installation and upgrade of the system or product at time of release. Workarounds, clarifications, or helpful hints have been provided for each issue wherever possible.

Table 12. Installation Issues

Issue	Workarounds, Clarifications, and Helpful Hints
The time stamp appears in a wrong format for MS Excel 2010. 800xAENS-IN-5101-004	If the data in any of the property fields (or) property columns is not in the required format, then change the format accordingly.

Operation

Table 13, Table 14, Table 15, Table 16, Table 17 and Table 18 lists the issues that may exist and affect operation of the system or product at time of release. Workarounds, clarifications, or helpful hints have been provided for each issue wherever possible.

Table 13. Operational Issues

Issue	Workarounds, Clarifications, and Helpful Hints
BDM Addins in Microsoft Excel stop functioning in 800xA Engineering Client node if Office 2013 is updated to Office 2016. 800xAENS-OL-6000-011	It is not recommended to update Office 2013 to Office 2016. If updated, configure Bulk Data Manager feature on Server nodes using the System Installer. Avoid configuring Bulk Data Manager on Aspect Servers. No workaround exists on Client nodes.

Table 13. Operational Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
The following issues are observed in Document Manager with Autocad 2014: • The Document Manager menu is not available in AUTOCAD menu bar. • 800.xA Workplace closes abruptly on opening of AUTOCAD drawings from Document Manager aspect. 800xAENS-OL-6000-001	No workaround exists for this issue.
Document Manager does not support the following: • Microsoft Word file format ***.docx***. • Microsoft Excel file format ***.xlsx***. 800xAENS-OL-6000-004	Use Microsoft Word files with *.doc* and Microsoft Excel files with *.xls* file extensions.
Closing the Document/Parameter Manager aspect does not release ENG_BASE license as long as the 800xA Workplace is open. 800xAENS-OL-5105-002	Close and re-open the 800xA Workplace.

Table 14. Bulk SPL Operational Issues

Issue	Workarounds, Clarifications, and Helpful Hints
In a sequence overview diagram, Placing the steps/transitions beyond the T column on the horizontal axis in a sequence overview diagram and importing it to Bulk SPL template, results in placing these steps/transition beyond the template range. 800xAENS-OL-5130-003	Insert additional columns manually.
User is unable to write any logic inside the detailed sheet of the BulkSPL template because the N action does not expand. 800xAENS-OL-6000-002	No workaround exists for this issue.
Deletion of inputs to a logical operand and transfer to 800xA results in the following error: *Incomplete configuration in TrN's TrLogic.* 800xAENS-OL-5130-004	Delete the operand along with all the inputs and reinsert.
First time opening of a large sequence diagram, created using Bulk SPL template may take several minutes. 800xAENS-OL-5130-005	No workaround exists for this issue.

Table 15. Function Designer, Operational Issues

Issue	Workarounds, Clarifications, and Helpful Hints
In the operator Workplace, the Function Diagram zoom-in is considerably small. 800xAENS-OL-5104-014	No workaround exists for this issue.
When an aspect that has subscribed to live data from OPC is dragged and dropped into a BDM sheet, all live values for all properties are read from OPC instead of the cache. This results in a deterioration of performance of reading live data of all properties. 800xAENS-OL-5105-025	No workaround exists for this issue.
In a sequence block, if different actions in multiple steps are having the same name, they always point to the same action when 'SFC Overview' is used to navigate through the actions. 800xAENS-OL-5100-022	Ensure that unique action names are followed across a sequence.
The Import Export Tool does not display differences for one of the two components in a Function Diagram with the same name. 800xAENS-OL-5105-027	No workaround exists for this issue.
In rare cases, 800xA Workplace closes down abruptly or stops responding while working with Function Designer that includes operations like Copy of block 800xAENS-OL-5105-026	No workaround exists for this issue.

Table 15. Function Designer, Operational Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
Replace function is not consistent in Function Diagram. 800xAENS-OL-5025-012	No workaround exists for this issue.
MMS Create fails with Unspecified Error when the task connection to Application/ Single Control Module with MMS cross communication references is not in the format: ControllerName.TaskName. 800xAENS-OL-5025-010	No workaround exists for this issue.
In a Function Diagram, if an object like Control Module or Function Block is changed from Aspect Object to Symbol Object or vice versa via the context menu, in some instances an error is displayed: `Concurrent modification of aspect is not allowed.` 800xAENS-OL-6000-003	Acknowledge the message and generate configuration data for the diagram.
In rare cases, links in a transition of Sequence sub-diagram may not be animated as per function settings. 800xAENS-OL-6000-005	No workaround exists for this issue.
In rare cases on opening a Function Diagram, "Invalid Argument" error messages are displayed continuously and no operation is possible on the Function Diagram. 800xAENS-OL-5105-030	Shut down the Workplace Application process from Windows Task Manager and restart the 800xA Workplace. Delete the Function Diagram from Functional Structure and reconfigure the Function Diagram.

Table 15. Function Designer, Operational Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
Control Builder is not getting updated as per the Control Module Types created in Object Type Structure. 800xAENS-OL-6000-006	No workaround exists for this issue.
In rare cases generation of ConfigurationData for a Function Diagram results in Control Builder M crash due to the presence obsolete components in its blob. 800xAENS-OL-5105-029	No workaround exists for this issue.
If a modified Function Diagram is closed without saving, it will execute a consistency check once when the specific diagram is reopened. Depending on the amount of changes and the size of the diagram, this consistency check may take considerable time. This behavior also occurs while working with large sized diagrams (with blob size 2MB or above) after the Insufficient Memory error message appears 800xAENS-OL-5024-016	While working with large sized Function Diagrams or while performing large amount of changes, it is recommended to save the diagrams frequently.
In some instances, cut paste of Sequence 2D across diagrams may result in inconsistency in sequence. 800xAENS-OL-5025-017	oUse copy and paste to copy the data. Manually delete in source Function Diagram.

Table 15. Function Designer, Operational Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
The traffic light symbol of a Function Diagram shows incorrect status ( ) after performing **Write Allocation Into CBM** from the **IO Allocation** dialog. 800xAENS-OL-5100-007	Regenerate configuration data after performing **Write allocation to CBM** from the **IO Allocation** dialog to obtain the correct diagram state in the traffic light symbol.
Simultaneous sequences need to end with a transition-step-transition configuration, before using a selection branch in sequences. Configuring a selection branch after a simultaneous sequence results in error during generation of Configuration Data. 800xAENS-OL-5100-009	Insert a step between Simultaneous Sequence and Selection branch.
Graphical representation of complex sequences configured through Function Diagrams may differ in SFC Viewer and Control Builder Viewer. 800xAENS-OL-5100-011	This does not affect the flow of the logic.
In the Function Diagram, copy/paste of an existing group of connected blocks with system functions and diagram references results in error messages during generation of Configuration Data. 800xAENS-OL-5100-010	Navigate to the specific errors and correct it manually.

Table 15. Function Designer, Operational Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
If the function setting **CachingEnabled** is set to **True** then the following limitations exist: 1. User cannot rename steps / transitions in a sequence diagram. 2. After converting an aspect object to symbol object, closing and reopening the diagram without saving creates a dummy object. 3. Working with diagram references without saving the Function Diagram may lead to the following limitations: - The error message “Industrial IT has rejected this operation” appears when user tries to delete the output reference. - The connection between the references appears to exist in the form of yellow references, though there are no connections. - When user tries to disconnect the variable, the following error message appears: “System Null Error”. 800xAENS-OL-5100-013	1. Prior to setting **CachingEnabled** to **True**, create an SFC overview diagram with required names assigned to steps and transitions. 2. Always save the respective Function Diagrams while: - converting an aspect object to symbol object. - working with diagram references. It is recommended to set the **CachingEnabled** function setting to **False**.
Creation of several thousands of Function Diagrams using Bulk Data Manager may fail. Bulk Data Manager progress bar may disappear while updating several hundred objects although the operation is in progress. 800xAENS-OL-5100-015	1. Set **VarCrossRef_Include_DiagRef** to **False** before performing any bulk operations. For more information, refer to *System 800xA Engineering Studio Function Designer (3BDS011224*)*. 2. If several thousands of Function Diagrams need to be created using Bulk Data Manager, then split the Function Diagrams into manageable quantities (less than thousands) and create them separately using Bulk Data Manager.

Table 15. Function Designer, Operational Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
The information about external references to Communication Variable is not available in the Function Diagram, if the connected Diagram Reference/s are not in a Function Diagram. For example: Communication Variable (CV1) is declared in a Function Diagram and this diagram is allocated to an application, which also contains Single Control Modules/Programs/Diagrams with the same communication variable (CV1). In this case, the communication variable in the diagram does not indicate the external reference information. 800xAENS-OL-5100-021	This does not affect the functionality of Communication Variables.
Consider a Function Diagram containing a page connector. If the diagram is copy-pasted, and the page connector is renamed in the copied diagram, then the position and size of the page connector changes in respect to the original diagram. 800xAENS-OL-5101-005	No workaround exists for this issue.
Copy and paste the default AND (bool) block in a Transition of a Sequence sub diagram. Create a logic using the pasted AND block. Save and close the diagram. While reopening the diagram, the connections to the pasted AND block are lost. 800xAENS-OL-5101-009	Add a new AND (bool) block using **Insert** menu.

Table 15. Function Designer, Operational Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
Copying a Function Diagram with Diagram References using Bulk Data Manager results in an error if the setting, **On Copy Diagram Output Reference** is set to **Make new unique connection**. As a result, sinks and sources are renamed and connected to the original source. 800xAENS-OL-5102-005	No workaround exists for this issue.
Revert operation in LEG does not clean up production environment from the Function Diagram. This is because, the Function aspect is added in the Function Blocks of the user defined library. The library is then used in the Function Diagram and the application is sent through LEG. 800xAENS-OL-5102-011	Changes to User Defined libraries (Adding Function aspect) must be done in the Production Environment only while using LEG for Function diagrams
In some instances, Windows Event Viewer displays the Side by Side error. 800xAENS-OL-5102-013	This error message can be ignored.
In a sequence step, if a Diagram reference is connected to a variable of structure data type, logic is not transferred to the Control Builder M. 800xAENS-OL-5103-002	No workaround exists for this issue.

Table 15. Function Designer, Operational Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
In Function Diagram editor, if two ports of same or different function block types / control module types with same data type are connected directly without creating a variable, the resulted connection link is not visible in Control Builder diagram editor. 800xAENS-OL-5103-005	Insert a variable of same data type and connect both the ports.
In the Functional Structure, if a Function Diagram is inserted under another object, then the icon of the inserted Function Diagram does not indicate that it is an inserted object. Deletion of the inserted Function Diagram results in the deletion of the original Function Diagram as well. 800xAENS-OL-5104-006	No workaround exists for this issue.
If there are multiple blocks in a Function Diagram with same port name and datatype, and if variables are created connected to these ports by a right-click on the port, then the variables are assigned a name, same as the port name and it results in multiple invocation of the variable. Product Bulletin ID: 9ARD149823-301 800xAENS-OL-5104-007	Assign a unique variable name on performing right-click and “New Variable” on the port.

Table 15. Function Designer, Operational Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
If a user defined Function Block/ControlModule/Diagram Type has a parameter with data type "String[X]" is instantiated in a Function Diagram, then on connecting the parameter with a string and generating Configuration Data, the string is not passed to Control Builder M. 800xAENS-OL-5104-010	Rename the data-type to **string[X]** instead of **String[X]**.
In a Function Diagram width of blocks like Control Modules is adjusted to suit for text scaling when opening with different screen resolutions. This may result in truncation of Name and Description of blocks. 800xAENS-OL-5104-019	Re-write the Name and Description using Bulk Data Manager.
Repetitive opening of a Function Diagram that is pasted using Paste Special function may result in loss of Function blocks, Control Builder M signals etc. in the Function Diagram. Product Bulletin ID: 9ARD134783-213 800xAENS-OL-5104-022	Do not use Paste Special for copy-paste of Function Diagrams. Instead use Paste.
Connecting MBRead output port of AnyType datatype, to an input port of Control Module/ Function Block of any datatype, results in error on generating Configuration Data. 800xAENS-OL-5104-025	Insert a variable between MBRead block and Control Module/Function Block. Datatype of the inserted variable must be same as the datatype of the input port of the Control Module/Function Block.

Table 15. Function Designer, Operational Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
If a Diagram Variable is deleted from a Function Diagram which has multiple Diagram Input References, then after Analyze and View Difference, the same Diagram Variable is wrongly displayed as marked for deletion in several un-connected MMS Receiver Diagrams. 800xAENS-OL-5140-011	No workaround exists for this issue.
In rare scenarios "Aes Application Variable Table" aspect of an Application may have inconsistencies. 800xAENS-OL-5140-014	No workaround exists for this issue.
If Paste-rename, if performed from Functional Structure then all the child objects are not populated in the list. 800xAENS-OL-5105-018	No workaround exists for this issue.
In some instances on performing a change type for a Function Block or Control Module the labels are overlapped. 800xAENS-OL-5105-006	No workaround exists for this issue.
Timestamp of an Allocatable Group aspect for a Function Diagram is wrongly updated due to changes in daylight saving. 800xAENS-OL-5105-020	No workaround exists for this issue.
Performing a Change Type for a variable with initial value in Function Designer and generating configuration data results in an error. 800xAENS-OL-5105-008	Instead of performing a Change Type, delete the existing variable and insert a new variable.

Table 15. Function Designer, Operational Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
Upload of Init Values of Control Properties aspect to Function Designer does not work. 800xAENS-OL-5105-009	No workaround exists for this issue.
On instantiating Signal Groups in SCM based Function Diagrams, error messages are displayed on generation of Configuration Data. 800xAENS-OL-5105-017	Open the **CBM_SignalInformation** aspect and change the **Allocation Type of IO Signal** setting to **Connect to Application Global Variable of Structured Data Type (Signal Group)**.
Select all and delete of multiple Diagram References in a Function Diagram fails with the following error: `Industrial IT 800xA rejected this Action` 800xAENS-OL-5105-010	Delete components individually.
Following issues exist for updating Diagram references using BDM templates: • Description of Diagram References is not updated while updating using "BDM_DiagramRef_Var_Adv" template. • Existing description of Diagram References is deleted while updating using "BDM_DiagramRef_Var_Basic" template. 800xAENS-OL-5105-013	No workaround exists for this issue.
In a Function Diagram, copy of a diagram reference with its **valid** pin connected to blocks, results in incorrect connection to the **valid** pin of copied Diagram Reference. 800xAENS-OL-5105-016	Disconnect the wrong link and reconnect manually.

Table 16. IO Allocation, Operational Issues

Issue	Workarounds, Clarifications, and Helpful Hints
FF proxy object does not work for the hardware library versions prior to **BasicHWLib5.1-1.** 800xAENS-OL-5140-004	Replace the library in Control Builder.
IO-allocation does not work with PA266/TTX300 and DTM500. 800xAENS-OL-5023-051	No workaround exists for this issue.
Scaling of frequency value to process unit is set by the 'Min' & 'Max' values provided in the 'Properties' tab of pulse boards (e.g: DP820, DP840) in Control Builder M. Users are unable to configure this through IO Allocation tool. 800xAENS-OL-5100-006	No workaround exists for this issue.
The Normal Position property of a CBM_DIS signal does not update in Control Builder when the signal is allocated to channel 12 of DI830 board. 800xAENS-OL-5024-004	Perform the following in Control Builder M after allocating DI830 device through the **Write Allocation into CBM** operation from the IO **Allocation** dialog: 1. Right-click **DI830** and click **Reservation**. 2. Double-click **DI830** and edit the value of the Normal Position attribute for channel 12. 3. Click **Save**.

Table 16. IO Allocation, Operational Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
Allocation of Control Builder M Signals instantiated in Function Diagrams, to certain Profibus devices and performing Configuration Data Generation may result in the wrong traffic light status 800xAENS-OL-5104-023	No workaround exists for this issue.
The min-max values and engineering unit details of the de-allocated variable are not getting cleared in Control Builder M IO editor. 800xAENS-OL-5103-009	No workaround exists for this issue.
If some channels are connected to variables in Control Builder M and others are allocated through I/O allocation, this may lead to Inconsistency in generated data. 800xAENS-OL-5103-020	No workaround exists for this issue.
If the user deletes an unallocated Function Diagram having FF proxy object with variables allocated to CI860 board, then the variables are not getting deleted. 800xAENS-OL-5130-002	Delete the allocated Function Diagram.
IO Allocation tool stops responding when it is invoked from AC800M controller in Control Structure. 800xAENS-OL-5104-033	No workaround exists for this issue.

Table 16. IO Allocation, Operational Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
While configuring property mapping by adding a **New PropertyMap** on the IO Mapping aspect, the following error message appears and no modifications happen: `Failed: Attempt to modify read only node` 800xAENS-OL-5105-003	No workaround exists for this issue.

Table 17. Bulk Data Manager, Operational Issues

Issue	Workarounds, Clarifications, and Helpful Hints
In Bulk Data Manager template, the Function Diagrams aspect command **Upload Init Vals** does not work properly. 800xAENS-OL-5100-027	Upload the init Vals from Engineering Workplace
In some instances, for some specific Function Diagrams, Bulk Data Manager stops responding on using menu **Aspect Commands** > **Generate Configuration Data** for a Function aspect. 800xAENS-OL-5102-002	No workaround exists for this issue.
Saving the changes that are made using the filter option on the Bulk Data Manager templates result in errors (for example, “Source object not found “). 800xAENS-OL-5100-020	Avoid using the filter option on Bulk Data Manager templates.

Table 17. Bulk Data Manager, Operational Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
Bulk Data Manager operations with Microsoft Office 2013 leak Graphic Device Interface (GDI) objects. Due to this, Microsoft Excel may stop responding after the upper limit of GDI objects (10000) is reached. 800xAENS-OL-5105-023	No workaround exists for this issue.
In some instance, on performing Configuration Data Generation in Bulk Data Manager, following error message is displayed: `Identifier invalid or to long.` 800xAENS-OL-5102-004	No workaround exists for this issue.
In some instances, while working with Bulk Data Manager, on selection of **Min Path** from the **Advanced** menu instead of **Full Path**, may cause Microsoft Excel to stop responding. 800xAENS-OL-5104-001	Use **Full Path** instead of **Min Path** from the **Advanced** menu of Bulk Data Manager.

Table 17. Bulk Data Manager, Operational Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
If **BDM_DiagramRef_Var_Adv.xlsx** template is used to update multiple attributes which are separated by separators other than space, for instance comma (,), semi-colon (;), of Global / Communication variables declared in Function Diagrams, then no attributes are transferred to Control Builder M on generating Configuration Data. Product Bulletin ID: 9ARD134783-216 800xAENS-OL-5105-001	Use only space as the separator between multiple attributes.
While working on Bulk Data Manager to copy/create 800xA objects with Microsoft Excel 2013, leaks occur in Graphic Device Interface (GDI) objects. Due to this, Microsoft Excel may stop responding after GDI objects reach the maximum limit of 10000. 800xAENS-OL-5105-0023	Split the Bulk Data Manager copy/create into manageable blocks and restart Microsoft Excel after every transfer.

Table 18. Script Manager, Operational Issues

Issue	Workaround, Clarifications, and Helpful Hints
Attach Debugger icon is not functional in Script manager. 800xAENS-OL-5103-030	No workaround exists for this issue.

Instructional Manual Changes

Table 19 lists the issues that exist in the instruction manuals that have not been corrected since the previous version. A brief description of the correction has also been given wherever possible.

Table 19. Instructional Manual Changes

Issue	Workaround, Clarifications, and Helpful Hints
A run on consistency check shows variability on the following aspect: Aes Application variable table. 800xAENS-MC-5104-007	No workaround exists for this issue.

800xA for AC 800M

Introduction

This section provides information on safety and compatibility of the system. It also enumerates known problems encountered in the final testing of this product release.Where possible the document identifies workarounds that help overcome the problem. The section also contains additional notes that may be valuable to customers and service personnel working with the product.

For information on SIL (Safety Integrity Level) conformance according to IEC 61508 or other applicable safety standards, refer to the manual *System 800xA Safety AC 800M High Integrity Safety Manual (3BNP004865*)* and *800xA - Safety, Reliability and Availability Data (3BSE034876*).* Certified versions of the safety manuals are stated in *TÜV Certification Report, Annex A (3BSE074100).*

For Burner management library and information on SIL (Safety Integrity Level) conformance according to IEC 61508 or other applicable safety standards, refer to the manual *AC 800M Burner Library Safety and User Manual (3BSE079156*).* Certified version of the safety manual is stated in *TÜV Certification Report, Annex A (3BSE074100).*

The term *Control Builder* refers to Control Builder M Professional.
The term *OPC Server* refers to OPC Server for AC 800M.
The term *Modem* refers to modems that are configured and controlled by a controller. It does not refer to modems that are transparent for the controller.
The term *Controller* refers to a Process Automation (PA) Controller. If it is a High Integrity Controller, the text will say High Integrity or HI Controller.

Safety

For a complete list of AC 800M safety related warnings, for this release, see *System 800xA Safety AC 800M High Integrity Safety Manual (3BNP004865*).*

In order to get the formal status of the safety certification of a 800xA Safety product (safety documentation, hardware and software components), refer to the latest version of the TÜV Certification Report, Annex A, ABB SolutionsBank or ABB Library (3BSE074100).

Safety Certification Status

Before a High Integrity controller can be put into operation, any NON-CERT marked High Integrity firmware in the controller must be replaced with TÜV certified counterparts.

It is mandatory for the user to verify that all 800xA Safety products used in a safety critical installation, are certified according to the applicable standards, before they are put into operation for production. If the used hardware or software versions are not yet listed in the latest available TÜV Certification Report, Annex A, contact your local ABB sales representative or TÜV Süd Group (+49 89 5791-4173), for further information.

Version Designation

Software

Control Software for AC 800M System Version 6.0 contains software support for the following products.

Table 20. Software Support

Released Software	Version
Control Builder M Professional	6.0.0-1
AC 800M Connect (800xA for AC 800M)	6.0.0-1
Firmware for PM851(A)/PM856(A)/PM860(A)	6.0.0-1
Firmware for PM861(A)/PM858/PM862/PM864(A)/PM865/PM866(A)	6.0.0-1

Table 20. Software Support (Continued)

Released Software	Version
Firmware for PM865/PM867 in AC 800M HI	6.0.0-1 incl. CERT HI FW PM865/PM867 build version 6.0.100.27 SM81x build version 6.0.0122.0
Firmware for PM891	6.0.0-1
OPC Server for AC 800M	6.0.0-1
MMS Server for AC 800M	6.0.0-1
Base Software for SoftControl	6.0.0-1
Tool Routing Service for AC 800M	6.0.0-1
IP Config	6.0.27
Serial Firmware Upgrade	6.0.27

Hardware

This release supports:

- AC 800M (PM851(A), PM856(A), PM858, PM860(A), PM861(A), PM862, PM864(A), PM865, PM866(A) and PM891)
- AC 800M High Integrity (PM865, SM810/SM811), (PM867, SM812)

Compatibility

Some Hardware Modules may have to be exchanged to new hardware revisions. See Compatible Hardware Modules on page 92, for further information. Listed Hardware Modules must be of stated version/revision or higher.

Controller peer to peer communication is possible with other controllers running Version 2.x/x, 3.x/x, 4.x.x/x or 5.x.x/x by means of Access Variables.

When upgrading from versions previous to 5.1 FP4, see Technical Description 3BSE047421D0183 for information regarding increase of controller total load.

Supported Versions

Online Upgrade Paths

Redundant AC 800M controllers can be upgraded with new firmware versions online. Online upgrade is initiated from Control Builder by a 9-step wizard, that describes the complete upgrading process. For more information, refer to the *Maintenance and Trouble-Shooting* section in *System 800xA Control AC 800M Configuration (3BSE035980*)* manual.

Online upgrade is supported from the controller versions listed in document *800xA Online upgrade and Co-existence, versions compatibility (3BSE080447)* on ABB SolutionsBank. Note that this document is an aid document and before executing online upgrade or co-existence for a safety system, check the valid safety certificate annex.

Supported Versions for Coexistence of Controller Versions

Coexistence is supported between the controller versions listed in document *800xA Online upgrade and Co-existence, versions compatibility (3BSE080447)* on ABB SolutionsBank. Note that this document is an aid document and before executing online upgrade or co-existence for a safety system, check the valid safety certificate annex.

Compatible Hardware Modules

The Hardware Modules listed in Table 21 must be of the stated version/revision or higher.

Listed I/O Modules are included due to compatibility issues.
For some other I/O Modules there is a recommendation about firmware and hardware versions for other reasons. See other relevant documentation regarding such reasons.

Firmware in all Hardware Modules must be upgraded to the delivered version. See Compatible Firmware on page 97.

Table 21. Compatible Hardware Modules

Module	Required Version	Recommended Version
PM851	PR:A	
PM851A	PR:A	
PM856	PR:A	PR:F
PM856A	PR:A	
PM858	PR:B	
PM860	PR:B	PR:H
PM860A	PR:B	
PM861 (Singular)	PR:B	PR:L
PM861 (Redundant)	PR:B(1)	PR:L
PM861A (Singular)	PR:A	PR:C
PM861A (Redundant)	PR:B with FPGA 1.2/1 -or- PR:C	PR:C(2)
PM862	PR:B	
PM864	PR:B with FPGA 1.2/5 -or- PR:C	PR:H
PM864A (Singular)	PR:A	PR:C
PM864A (Redundant)	PR:B with FPGA 1.2/1 -or- PR:C	PR:C(2)

Table 21. Compatible Hardware Modules (Continued)

Module	Required Version	Recommended Version
PM865 (Process Automation Singular)	PR:C	PR:D
PM865 (Process Automation Redundant)	PR:C with FPGA 2.0/0 -or- PR:D	PR:D(3)
PM865 (High Integrity)	PR:G	
PM866	PR:B	
PM866A	PR:B	
PM867 (High Integrity)	PR:B	
PM891	PR:A	
SM810	PR:C	
SM811	PR:A	
SM812	PR:B	
CI853	PR:C(4)	
CI854	PR:B Index 01.00	PR:G Index 01.03(5)
CI854A	PR:D Index 02.05	
CI855	PR:B	PR:C(6)
CI856	PR:A	PR:B(7)(8)
CI857	PR:B	PR:C
CI858	PR:A	

Table 21. Compatible Hardware Modules (Continued)

Module	Required Version	Recommended Version
CI860	PR:C Index 02.01	PR:H[9] Index 04.00
CI865	PR:B	
CI867	PR:A	
CI868	PR:A	
CI869	PR:D[10]	
CI871	PR:A	
CI872	PR:B	PR:D
CI873	PR:A	
TB820V2	PR:A[11]	
TB840	PR:J[12]	PR:M
TB840A	PR:A	
DI830	PR: H[13]	PR: K
DI831	PR: H[13]	PR: K
DI885	PR:C	
AI845	PR:F	
AO845	PR:E	PR:J
AO845A	PR:A	PR:C
DI880	PR:E	PR:L
DO880	PR:F[14]	PR:M
DP820[15]	PR:A	
AI880A[16]	PR:B	PR:G
BC810	PR:C[17]	PR:E

Table 21. Compatible Hardware Modules (Continued)

Module	Required Version	Recommended Version
BC820	PR:C(18)	
200-APB12	1.6	
200-ACN	1.4	
200-IE8	B	
200-OE4	B	
LD 800DN	PR:A	

(1) No empty base plates are allowed on the CEX-bus when using less than PR:D.
(2) PR:D or later supports online replacement of a defect RCU-cable in configurations with BC810.
(3) PR:F or later supports online replacement of a defect RCU-cable in configurations with BC810.
(4) Firmware Version 1.0.6.0 or later (2002-01-17) must be used.
Hardware revision PR:A and PR:B cannot be upgraded. Revision PR:C or newer must be used.
(5) When using less than Index 01.01:
AC 800M may in some configurations not resume execution after a power fail.
(6) Less than PR:C does not support firmware upgrade.
(7) PR:B is required when using DSBC173A or TK575V112 I/O Connection Cable.
PR:A sometimes fails to start up.
(8) CI856 must be upgraded to PR:D or later in order to support online upgrade.
(9) PR:H or later supports Online Replacement and CI860 Redundancy.
(10) PR:E or later is required when used together with PM867.
(11) TB820V2 PR:F or later is required when using DI818, DO818, DI828 or DO828.
(12) PR:B1, D, and E can also be used.
When using PR:B1, D and E: The optical Modulebus on PM861(A) or PM864(A) must be disconnected from the backup CPU before it is powered up, in case the primary CPU is already running.
When using PR:B1, D, E and J: SA supervision will report error on SB, and vice versa.
(13) PR:F can also be used.
(14) Degraded Mode is supported with DO880 PR:G or newer.
(15) PR:E or later is required if modulebus scan time is greater than 90 ms.
(16) The AI880A does not have the same key code as AI880. AI880 is no longer supported. PR:C is required for full HART support.
(17) PR:E or later is required in an AC 800M High Integrity.
(18) PM858 (PR:B or later), PM862 (PR:B or later), PM866 (PR:H or later) or PM866A (PR:B or later) is required when using BC820.

Compatible Firmware

The firmware in the Hardware Modules listed in Table 22 must be of stated label or version.

Table 22. Compatible Firmware

Module	Label or Version
CI858(1)	FWCI858 1.0.0.2
CI801	1.2/3(2) (or later)
CI830	1.3/2(3)(4) (or later)
CI840(A)	3.0/2(5) (or later)
CI920	1.4.1 (or later)
CI920A	2.1.0
LD 800DN	1.04 (or later)

(1) Not possible to upgrade from Control Builder.
(2) CI801 Version 1.2/3 or later is required when using the added set of RTD sensors in AI830A.
CI801 Version 1.3//0 or later is required when using AI815, AO815 and enhanced CJT functions in AI835A.
CI801 Version 1.5/1 or later is required when using DI818, DO818, DI828 or DO828.
(3) CI830 versions less than 1.3/2 fail to set I/O to OSP in some situations.
(4) CI830 Version 1.4/0 or later is required when using AI893 or DP840.
(5) CI840(A) Version 3.3/8 or later is required when using the added set of RTD sensors in AI830A.
CI840(A) Version 4.0/1 or later is required when using AI815, AO815 and enhanced CJT functions in AI835A.
CI840(A) Version 4.1/7 or later is required when using DI818, DO818, DI828 or DO828.

Included Library Version

Table 23. Hardware Libraries

Library	Version of this release
ABBDrvFenaCI871HwLib	2.0-0(1)
ABBDrvFpbaCI854HwLib	1.0-2

Table 23. Hardware Libraries

Library	Version of this release
ABBDrvNpbaCI854HwLib	1.0-2
ABBDrvRetaCI871HwLib	1.0-6
ABBDrvRpbaCI854HwLib	1.0-2
ABBMNSiSCI871HwLib	1.0-6
ABBPnl800CI854HwLib	1.1-0
ABBPNQ22CI871HwLib	1.0-0
ABBProcPnlCI854HwLib	1.0-1
BasicHIHwLib	6.0-0
BasicHwLib	6.0-0
CI853SerialComHwLib	1.0-2
CI854PROFIBUSHwLib	2.11-40
CI855MB300HwLib	2.10-1
CI856S100HwLib	2.11-14
CI857InsumHwLib	2.11-1
CI858DriveBusHwLib	2.10-4
CI860FFHSEHwLib	2.11-3
CI862TRIOHwLib	221-10-3
CI865SattIOHwLib	2.10-5
CI867ModbusTcpHwLib	2.11-4
CI868IEC61850HwLib	3.11-3(2)
CI869AF100HwLib	2.11-1
CI871PROFINETHwLib	1.10-10
CI872MTMHwLib	2.11-1

Table 23. Hardware Libraries

Library	Version of this release
CI873EthernetIPHwLib	2.11-7
COMLIHwLib	2.11-2
ModBusHwLib	2.11-4
ModemHwLib	1.0-0
PrinterHwLib	2.10-2
S200IoCI854HwLib	1.0-1
S200IoCI873HwLib	1.0-9
S3964HwLib	2.11-0
S800CI801CI854HwLib	1.4-0
S800CI830CI854HwLib	1.0-11
S800CI840CI854HwLib	1.4-0
S800IoModulebusHwLib	1.4-1
S900IoCI854HwLib	2.0-0(3)
SerialHwLib	2.10-2
TCPHwLib	1.10-4
UDPHwLib	1.10-0

(1) Version Compatibility - 1.0-3
(2) Version Compatibility - 2.20-0
(3) Version Compatibility - 1.1-2

Table 24. Application Libraries

Library	Version of this release
AlarmEventLib	1.7-2
BasicGraphicLib	1.4-2
BasicLib	1.8-5
BatchLib	1.4-2
BurnerLib	1.1-2
COMLICommLib	1.5-1
ControlAdvancedLib	1.6-4
ControlBasicLib	1.4-3
ControlExtendedLib	1.5-2
ControlFuzzyLib	1.5-2
ControlObjectLib	1.4-2
ControlSimpleLib	1.4-2
ControlSolutionLib	1.4-1
ControlStandardLib	1.6-8
ControlSupportLib	1.5-9
FFHSECommLib	1.5-2
FireGasLib	2.6-2
GraphicSupportLib	1.3-0
GroupStartLib	1.6-2
IconLib	1.5-1
INSUMCommLib	1.4-1
IOCommLib	1.1-1

Table 24. Application Libraries

Library	Version of this release
MB300CommLib	1.4-1
MMSCommLib	1.5-3
ModBusCommLib	1.5-4
ModBusTCPCommLib	1.4-2
ModemCommLib	1.4-1
MTMCommLib	1.3-1
ProcessObjBasicLib	2.6-4
ProcessObjDriveLib	1.6-3
ProcessObjExtLib	2.6-3
ProcessObjInsumLib	1.6-2
S3964CommLib	1.5-2
SattBusCommLib	1.5-1
SeqStartLib	1.4-1
SerialCommLib	2.3-1
SignalBasicLib	1.3-2
SignalLib	1.8-8
SignalSupportLib	1.3-2
SupervisionBasicLib	1.3-2
SupervisionLib	2.7-2
SupportLib	1.5-1
TCPCommLib	1.2-1

Table 24. Application Libraries

Library	Version of this release
UDPCommLib	1.2-1
VMTLib	1.1-0

Known Problems

This section details the Known Problems for AC 800M that exist in the system at the time of release.

All issues and problems categorized as *Controller* are valid for both the AC 800M and AC 800M High Integrity controllers.

Installation

Table 25 lists issues that may exist and affect the installation and migration of the system or product at time of release. Workarounds, clarifications, or helpful hints have been provided for each issue wherever possible.

Table 25. Installation Issues

Issue	Workarounds, Clarifications, and Helpful Hints
PROFINET IO	
Upgrade PROFINET IO Feature Pack When doing the upgrade of PROFINET IO Feature Pack 1.2 to 800xA 6.0, some settings on CI871 get reset to default values. This affects Default Gateway, Red.Eth.recovery time and Watchdog factor. 800xACON-IN-5100-001	Check CI871 settings after upgrade and enter the previous values if settings are changed.
TRIO	

Table 25. Installation Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
A firmware upgrade of the CI862 through the Control Builder may fail. If you click **Show Firmware Information**, it will show the BOOT version for the failed module and the fault LED will keep blinking on the respective CI862 module. 800xATRI-IN-5010-001	Download the firmware to the respective module. When the file transfer window shows 10 seconds, perform a hot swap of the module and then retry. The firmware will be upgraded and the Version column will show the correct downloaded version.
Online upgrade is not supported on a controller with CI862 installed. 800xATRI-IN-5010-002	Only a hot swap of a CI862 interface is supported.
Sometimes, during the firmware upgrade of a CI862 in the lower segment (positions 7-12) of the redundant controller, it may fail. 800xATRI-IN-5012-001	Upgrade the firmware again. If this does not work, upgrade the firmware of the CI862 modules only on the upper CEX segment (positions 1-6). Then swap the upper CI862 segment with the lower one. Now upgrade the new upper CI862 segment.

Administration

Table 26 lists the issues that may exist and affect system or product administration at time of release including user, node and service structure related issues and problems.Workarounds, clarifications, or helpful hints have been provided for each issue wherever possible.

Table 26. Administration Issues

Issue	Workarounds, Clarifications, and Helpful Hints
Control Builder	
Hardware tree is removed when changing product type Hardware tree is empty when changing product type to or from AC 800M High Integrity controller. 800xACON-AD-5110-002	No workaround exists for this issue.
UDP and TCP protocols disappears in HW-tree if CPU type is changed When changing CPU type for an AC 800M Controller, for example, from PM861 to PM891, the protocol objects UDPProtocol and TCPProtocol for UDP/TCP will be removed. 800xACON-AD-5110-001	The protocol objects UDPProtocol and TCPProtocol have to be manually reinserted again.
Problem starting Control Builder on a Terminal Server The Control Builder will crash due to a memory exception when launched on a Terminal Server, if the MMS Server is not already running. 800xACON-AD-5100-042	Before starting the Control Builder, start the MMS Server explicitly from Windows Services on the Terminal Server PC. Alternatively, start a SoftController on the PC (this will start the MMS Server too).

Table 26. Administration Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
Controller	
INSUM GroupStart Stop During Switch in Online Upgrade Group Start objects controlling INSUM objects from ProcessObjInsumLib may stop at an online upgrade. The groupstart objects may stop with the following alarm: `Too few available objects.` 800xACON-AD-5000-031	Re-synchronize the INSUM GroupStart objects manually after the Online Upgrade.
SM Hot Insert Fails if ModuleBus I/O Disconnected If an SM in a redundant HI controller is hot inserted at a point in time when all I/O on the ModuleBus are disconnected or powered off, the SM will not start scanning the ModuleBus. The SM log will be flooded with messages "Received CRC trig for not scannable module." 800xACON-AD-5020-049	Connect or power up the ModuleBus IO and make another hot swap of the SM.
Advant Fieldbus 100 (AF 100)	
Application latency at hot remove of AF100, CI869 IEC 61131-3 task latency might be detected when hot removing CI869 (AF100). A latency of up to 100 ms could be experienced with an AF100 configuration of 200 DSP units. 800xACON-AD-5110-003	Do not configure sort accepted task latency when using AF100.

Table 26. Administration Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
PROFINET IO	
AC 800M Webserver for PNIO: 'lifelist' tab is not getting updated There exist PROFINET communication issues when using Hirschmann switches. When using Hirschmann switches like RS20 or RS30, there might be sporadic communication problems with PROFINET and CI871. The cyclic communication might not start up and/or the life list in the AC 800M web interface will not get updated. 800xACON-AD-5100-034	The problem is caused by the Hirschmann switch that does not operate the PROFINET DCP communication services. To get it working, start the web based configuration tool of the switch and open the dialog *Advanced/Industrial Protocols/PROFINET IO*. Activate the PROFINET IO device functionality of the switch by setting Operation to On and confirm with Set. Later, change back this configuration.
Hirschmann switch RS20 as PROFINET IO device might flood the network The Hirschmann switch shows abnormal behavior if configured as PNIO device below CI871. In case the communication with CI871 was interrupted and gets restarted again the switch starts flooding the network. All CI871 connected to the same Ethernet will lose communication with its devices. A reset of the switch is necessary to resolve the problem. 800xACON-AD-5100-041	The problem occurs only if the interface and port-sub modules of PDev below the DAP are configured. These sub modules have node addresses >=32768. Do not configure these sub modules.

Table 26. Administration Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
FOUNDATION Fieldbus HSE	
Hot Remove of a redundant pair of CI860 blocks the controller If both modules of a redundant pair of CI860 are hot removed simultaneously the controller cyclically makes print outs to the controller log file. This causes an increase of CPU load and blocks the reading of the controller log file. Also the 1131 application is partly disturbed. 800xACON-AD-5100-012	Do not Hot Remove both modules of a redundant pair of CI860 simultaneously. After Hot Removal of one module wait several seconds before doing a Hot Removal of the other module. If the error occurs, a parallel reset on both controllers in a redundant configuration solves the problem.
Slow reaction time for LD800HSE failover CI860 is slow at detecting redundancy failover of the LD800HSE, leading to a communication break in Client/Server communication for up to 35 seconds. 800xACON-AD-5100-005	No workaround exists for this issue.
Online Upgrade	
Online Upgrade - Not Possible to Acknowledge System Alarms If there are active system alarms on hardware units during Online Upgrade of controller firmware, these alarms will not be possible to acknowledge after the online upgrade is completed. 800xACON-AD-5100-043	No workaround exists for this issue.

Table 26. Administration Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
Online Upgrade May Fail - CI857 (INSUM) An online upgrade with CI857 (INSUM) fails if the previous online upgrade was cancelled before completion. 800xACON-AD-5100-054	Perform a hot swap of the CI857 module and perform the Online Upgrade again.
IEC 61850	
CI868 - untested MMS Receive Logical Nodes Due to unavailability of SCL files, the following Logical Nodes have Not been tested for CI868 RCB receive communication from other IED : - ANCR, ARCO, AVCO - CPOW - POPF, PZSU - RDRS - SPDC - YEFN, YPSH, YPTR - ZAHN, ZBSH, ZCAB, ZCAP, ZCON, ZGEN, ZGIL, ZLIN, ZMOT, ZREA, ZRRC, ZSAR, ZTCF, ZTCR 800xACON-AD-5110-025	In case these LNs are required to be configured in RCB dataset to CI868, it is recommended to perform informal communication test with CI868 before deploying in plant.

Table 26. Administration Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
Upgrade Firmware of CI868 (IEC 61850) Fails when Using Small PM In an AC 800M with one of the smaller Processor Modules, e.g. PM851 or PM860, it is not possible to upgrade firmware of a CI868 (IEC 61850). There will be an error message from the Control Builder: “Could not allocate memory for firmware transaction”. 800xACON-AD-5110-027	Upgrade your controller to a bigger PM, or move your CI868 module to another controller (with a bigger PM) for the upgrade operation.
EtherNet/IP	
Control Builder Crash During Import of EDS Files Control builder may crash with exception, if user deletes multiple parameters in the Parameter Settings -> Customize window wile importing eds files for Ethernet/IP or DeviceNet device. 800xACON-AD-5100-055	Do not delete multiple parameters during import of eds files for Ethernet/IP or DeviceNet device.
CI873 May Stop During Online Upgrade During Online upgrade of single CI873 from previous versions to 6.0 RU1, after step 7, the communication with EIP devices will stop and resume only after the CI873 is upgraded after step 8 of Online Upgrade. 800xACON-AD-6000-003	No workaround exists. Since this is applicable only for single CI873, it is expected that communication with EthernetIP devices will stop during upgrade of the CI873.

Table 26. Administration Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
TRIO	
Hot Swap of CI862 (TRIO) May Lead to Controller Crash A controller crash may occur during a hot swap of the CI862 (TRIO) CEX module. 800xACON-AD-5100-052	No workaround exists for this issue.

Configuration

Table 27 lists the issues that may exist and affect configuration of the system or product at time of release. Workarounds, clarifications, or helpful hints have been provided for each issue wherever possible.

Table 27. Configuration Issues

Issue	Workarounds, Clarifications, and Helpful Hints
Control Builder	
Undo in Sort A-Z and Z-A Fails If the sort A-Z or Z-A functionality in POU editor has been used and then the undo button is used, the result will not be as expected. 800xACON-CN-5020-008	Close the editor without saving.

Table 27. Configuration Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
Using Recursive Relations between Objects or Between Libraries Not Allowed It is not allowed to use recursive relations between objects or between libraries. By using recursive relations between objects or between libraries, Controller may enter "Non responding mode". For example, if there exists two function block types A and B, you can declare a sub object of type A in type B, but if later on trying to declare a sub object of type B in type A the Control Builder might hang when the editor content is saved. 800xACON-CN-4100-002	If the Control Builder is not responding it has to be killed using Task Manager and then restarted.
Instance Specific Init Values on Embedded Instances When copying an Instance in Functional Structure and there are embedded instances of object types with Instance Specific Init values set, these Instance Specific Init values are not copied. The Instance Specific values are lost. 800xACON-CN-4100-005	Make sure to check all Instance Specific Init values in the source and make sure these values are set in the copied Instance before the first download.
String Length of 140 Characters Not Supported for String Constants The maximum length of a string constant is 137 characters even if the length of the string is set to 140 characters. 800xACON-CN-5020-006	No workaround exists for this issue.

Table 27. Configuration Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
Auto-Reservation Fails for Types Created Using Copy & Paste in Project Explorer If a Control Module Type or Function Block Type is copied and pasted in the Project Explorer the new type is not auto-reserved. 800xACON-CN-5000-071	The new type needs to be manually reserved by the user.
Using Templates from SeqStartLib Generates the Warning Message: `Multiple Calls to Same Function Block` The Multiple Calls to the Same Function Block compiler switch (introduced in System Version 5.0 SP2) generates warnings for the code that is copied when using the SFC2DSeqChain, for example, from SeqStartLib. 800xACON-CN-5020-010	The warnings can be ignored, or the `Multiple Calls to the Same Function Block` compiler switch can be set to **None**.
No User in Online Analysis Dialog If a download is started very soon after reservations of Applications/Controllers are released from another client, then the information about reservations will be wrong in the Online analysis window which says: `This unit is reserved by"-"` 800xACON-CN-5020-007	No workaround exists for this issue.

Table 27. Configuration Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
Project Documentation from Control Builder When using the menu entries “Documentation…” and “Documentation Online…” in the Control Builder it is important to not generate too many pages. The time needed to generate the documentation in word increases dramatically when the number of pages increases. Sometimes it will take long time before the “Cancel” command is accepted by the system; if the document that is to be generated is very large. 800xACON-CN-5000-006	Instead of one big documentation of for example a large library, divide it into several smaller pieces like data types, function blocks and control modules.
Download prohibited if output I/O is disconnected when Copy unconnected outputs is active If disconnecting an output I/O channel, analog or digital with the option Copy unconnected I/O set to `Inputs/Outputs` or `Outputs`, the following warm download will be prohibited with the compile error 9164 - I/O channel was used by another application at last download. 800xACON-CN-5020-024	Disable Copy unconnected outputs in the settings on the controller object and initiate a new download.

Table 27. Configuration Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
Control Builder Crash at Download Under specific circumstances, the Control Builder may crash during download. The preconditions are that an application is already running in the controller, and a change is made to the I/O connections in the application but no change to the application itself is made and the Control Builder is then restarted. If the next download is made with the application deselected from download, then the following download with the application selected may lead to a crash. 800xACON-CN-5100-091	Restart the Control Builder and conclude the download with the application selected. The crash will not be repeated.
Split and Join blocks not found when doing iterative searches When using Search and Navigation in Diagrams, connections of variables to Split and Join blocks are not found when doing iterative searches. Iterative searches are the default in online mode but can be turned off by disabling the setting “Iterative searches in Online/Test Mode” found in "Tools->Setup->Station->Search and Navigation Settings". For example, it would be expected to find a reference for a structured variable connected to the out port of a join block, but when using iterative searches this reference is not displayed. If a search is done in offline or without iterative search, the connection will be displayed as a reference as it should. 800xACON-CN-5100-017	No workaround exists for this issue.

Table 27. Configuration Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
Control Builder may Crash or Hang when Using Search & Navigation On rare occasions, the Search & Navigation tool may trigger an software exception. This in turn may cause the Control Builder to crash or hang. 800xACON-CN-5100-098	Restart the Control Builder.
Control Builder Crash in Diagram Editor Control Builder crashes on right click of K pin on MUX object in Diagram Editor. 800xACON-CN-5110-055	Do not right click with your mouse on the K pin on a MUX object in the Diagram Editor.
Variables Sensitive to Upper/Lowercase of Data Types in Diagram Editor The problem occurs when an Insert Variable reference is done in a diagram, and the entered data type name does not match the actual type name with respect to case (e.g., Realio instead of RealIO). Select Component, Join, and Split will not work correctly. 800xACON-CN-5110-066	Modify the data type name to exactly match the desired data type.
Difference report may in very race case show all items as changed. If the number of characters show in a difference report changes from under 30000 to above 30000 after a change, all the items in the left hand pane are marked as changed. 800xACON-CN-5110-069	If this problem occurs the difference report can be printed to PDF format and the changed reviewed in the PDF file.
Controller	

Table 27. Configuration Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
SattBus on TCP/IP is not enabled in hardware simulated controller In a hardware simulated controller the SattBus TCP/IP communication is disabled. 800xACON-CN-5000-081	Make a warm restart (power fail with battery) of the Controller and then the SattBus TCP/IP communication will be enabled.
IP Config: PM891 Port Speed Setting Lost when Backup IP Stored When setting the Backup IP addresses and policy using the IP Config tool, the port speed is set to 100 Mbit/s and Half Duplex regardless of its previous setting. 800xACON-CN-5100-101	After changing and storing the Backup IP settings, press store an extra time in the main menu.
Load Evaluate Go Causes Load Increase in PM851, PM856, PM858, and PM862 When doing a Load Evaluate Go (LEG) in controllers of type PM851, PM856, PM858, and PM862 the task execution times will be higher than expected while in evaluation mode. 800xACON-CN-5020-104	No workaround exists for this issue.
Communication	
IAC stop working when expected SIL configured different for same in variable When several clients are using the same IAC in variable but with different expected SIL in the same controller, this could cause the previously working clients to receive ISP and error codes from their request. 800xACON-CN-5110-013	There will be an warning message `Warning 1616: xxxx Communication variable with Expected SIL Non-SIL not recommended by compiler switch`, when performing the reconfiguration. When setting expected SIL of an IAC in variable, the ongoing communication should not be disturbed.

Table 27. Configuration Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
Alarm Status not Reset when Changing HW Module Types After replacing an incorrect HW module type in Control Builder with the correct one and performing a succeeding download the alarm “Wrong module type” is still indicated as active (ACT) in the alarm list. The status indication in the hardware tree is handled correctly. 800xACON-CN-5100-002	Unplug/plug the module to get the alarm status inactive (RTN).
Communication Variables Unresolved after Simultaneous Download Automatic resolve between controllers in different projects might fail if the remote controller has not been downloaded before. When simultaneously performing downloads, from different engineering stations to controllers that communicate via Inter Application Communication (IAC), the re-configured communication variables could stay unresolved. 800xACON-CN-5100-020	Perform a new download to the Controller that is acting as client.

Table 27. Configuration Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
IAC Stop Working when Performing Cold Co-Existence Download If a cold co-existence download is attempted i.e. download from 5.1 RU3 to controller firmware 5.1, 5.1 RU1 or 5.1 RU2 IAC communication will not resume operation but stay as unresolved variables. A cold download will be performed either if the controller is empty of application program after e.g. a crash or a failed power fail resulting in removed applications. 800xACON-CN-5103-002	Upgrade controller firmware to the current release and perform the cold download.
Controller could crash if IAC diagnostics window is open when downloading a new configuration that affects IAC Downloading changes to IAC such as interval times when diagnostic window is open in Control Builder this can lead to a Controller crash. 800xACON-CN-5110-068	Close the diagnostic window before downloading parameter changes to IAC.
I/O Handling	
No Status bit for Disabled Clamp of Analog Out Signals When the “Clamp Analog out values” parameter on the Controller hardware object is set to false, the corresponding status bit of the RealIO data type will not reflect this. 800xACON-CN-5100-007	No workaround exists for this issue.

Table 27. Configuration Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
Advant Fieldbus 100	
Problem with orphans on the AF100 bus Orphans are CDPs that are not owned by any communication interface. The reason could be that the owning communication interface has been removed or changed station number. 800xACON-CN-5100-010	To avoid orphans on the bus when changing the station number, follow these steps: 1. Move the CI869 for which the station number should be changed to a free position in the hardware tree (in order to preserve its configuration in the Control Builder). There must not be any CI869 connected to the controller on the position to which the CI869 is moved in the hardware tree. 2. Add a new CI869 with the old station number on the position where the CI869 where moved from in step one. 3. Download and wait until the CI869 is configured. 4. Go offline and delete the CI869 added in step three and move back the CI869 that was moved in step one. 5. Change the station number to the desired number and download. To avoid orphans when removing a CI869 from the hardware tree configuration follow these steps: 1. Delete all hardware units below the CI869 that is to be removed. 2. Download and wait until the CI869 is configured. 3. Go offline and delete the CI869. For these steps to have the intended effect, the CI869 must be connected to the bus.

Table 27. Configuration Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
Restart of CI869 when deleting many subunits If a CI869 configuration has 1500 or more DSPs configured, a re-configuration download where more than 50 DSPs have been deleted or moved can make the CI869 restart. If a redundant CI869 configuration is used, both or only one of the CI869 in the redundant pair might re-start. Hence, such a reconfiguration might not be bumpless and the unit status for the hardware units below the CI869 will, in case of restart, show warnings related to restart, such as Device failure, and / or device failure on backup. 800xACON-CN-5100-011	Delete less than 50 DSP at a time

Table 27. Configuration Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
FOUNDATION Fieldbus HSE	
Fraction Cannot be Configured with Fieldbus Builder FF For analog signals the information min, max, unit and fraction (decimals) can be configured in Fieldbus Builder FF. But only min, max and unit are available after upload in Control Builder. Fraction always gets the default 1. 800xACON-CN-5000-011	A change of the Fraction can be done by setting the value through the application in Control Builder.
FF CS Read block value not updated without error The Status output parameter of the FF Read/Write Function blocks uses the value 2 to indicate an overrun situation, that is, a new request shall be sent while the response to the previous request has not been received. At the cycle R/W blocks the Warning parameter will additionally be set to true in this situation. 800xACON-CN-5100-014	Typical reasons include insufficient cycle times (internally through cycletime parameter at the cyclic R/W blocks or externally through Req parameter of the non-cyclic R/W blocks) or simultaneous execution of multiple R/W blocks accessing the same CS signal. As a consequence of the overrun situation it cannot be guaranteed that the R/W operation of the affected block has been executed successfully. Furthermore, the block output parameters Valid/Error cannot be relied on for evaluation if a specific operation was successful or not. Therefore the indication of Status 2 requires to increase the cycle time and/or reduce simultaneous use of CS signals to a degree where status 2 is not indicated any longer.

Table 27. Configuration Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
High Integrity	
Download to Soft HI controller causes compile warning. When using SoftController HI the following warning will be given "*Warning: Firmware for unit PM865 HI/ TP830 at position 0 differs from firmware in connected library*" 800xACON-CN-5110-020	The warning is an indication that SoftController version and BasicHIHWLib versions differ but will not inhibit the use of SoftController HI as a debugging and test tool and can be ignored in this situation.
SIL3 IAC Discrepancy after Changing Name of Communication Variable In the specific use case where SIL3 IAC is running internally in a controller, and the name of a communication variable is changed on the server (output) side but the unique id is kept, then the next download to the controller will lead to discrepancy on the client (input) side. Note that a compiler warning is issued for the changed name. 800xACON-CN-5110-064	Either change the variable name at both ends at the same time, or change both the name and the unique id, or make a dummy change in the application on the client (input) side.
SIL3 IAC Stops Working when Application Moved to Other Controller In the specific use case when SIL3 IAC is running internally in a controller, and the server application is moved to another controller without any simultaneous configuration change, then the affected input communication variables will become unresolved. They will get safe values. 800xACON-CN-5110-065	Make a dummy change to trigger a download of the client application (the unmoved application).

Table 27. Configuration Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
Configuration Error for SIL3 IAC stops OLU A specific configuration error for SIL3 IAC is not detected by the Control Builder: input communication variables in a SIL3 applications with Expected SIL = SIL2 is not allowed, this can however be downloaded to the controller. In this case, the input variables will get safe values. The error will prevent an online firmware upgrade from completing. 800xACON-CN-6001-001	On input communication variables in SIL3 applications, always set Expected SIL to SIL3.
EtherNet/IP and DeviceNet	
Class1 connection is going to initial state in PLC HW Editor This problem is observed when a Class 1 tag Read communication is established with the Allen Bradley Logix 5000 series controller. As part of reconfiguration, if the user performs the following, the Class 1 tag variables being already read shall be reset if there are no changes in values for any of the variables. a. Adds or deletes another connection for the same PLC b. Moves the position of the PLC instance 800xACON-CN-5110-010	No workaround exists for this issue. This problem shall not be seen in case the values for the variables being read are changing continuously after a reconfiguration as mentioned in the problem description, is done.

Table 27. Configuration Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
Addition and deletion of the 1734 AENT digital input module This problem is observed with EthernetIP modular IO in case there are some IO modules available under an adaptor in Control Builder but not physically present. As part of the reconfiguration, if the user deletes any such EthernetIP modular IO, the CI873 shall restart and again establish connection with the physically existent IO modules. In case of redundant CI873, the primary CI873 shall restart and there shall be a failover to backup CI873. 800xACON-CN-5110-011	The workaround for this problem is that the user should always disable connection with the physically non-existent modular IO modules and perform a download. After this the user can delete the IO module and download again.

Table 27. Configuration Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
PROFINET IO	
High memory consumption in Controller when using hardware addresses with high numbers. When a PROFINET IO device with support of physical device management (PDev) is configured, the memory consumption in the controller increases by 200kb for each device. PDev is supported when high hardware addresses – 32768 to 32770 – are used for the Ethernet adapters below the Device Access Point (DAP) of the device. 800xACON-CN-5100-053	Observe the memory consumption of the controller when adding PROFINET devices below CI871. If the memory has reached a critical level, please contact ABB Technical Support.

Table 27. Configuration Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
IEC 61850	
IET600 tool crash for certain CI868 logical nodes IET600 tool crashes when importing CI868 icd file containing sending Logical Nodes TC1ATCC or TC2ATCC. 800xACON-CN-5110-015	In IET600 tool, import the CI868 icd file that does not contain sending Logical Nodes TC1ATCC or TC2ATCC. OR Use CCT600 tool instead of IET600 tool.
CI868 Error due to Inaccessible ccf file. Downloading configuration to CI868 module leads to CI868 module error due to insufficient rights for Control Builder to access the ccf file generated. 800xACON-CN-6000-002	Follow the steps prior to download: 1. Open the Local folder "C:\Users\<CurrentUser>" from Windows Explorer. 2. Click Continue to the Pop-Up window 'Access Denied. Do you want to Continue ?'. 3. The folder is opened and access right is available to the current user. 4. Perform a minor parameter change under CI868 Hardware tree. (Eg. MyIED Description value) 5. Download the Application again from Control Builder.
CI868 (IEC 61850) - I/O Channels Disconnected after Upgrade After migrating a Control Builder project, from a version prior to 5.1 FP4, containing complex data objects configured in CI868 IO channels, importing scd-file clears the connected 61131-3 variable in IO channel. This is because of the change in protocol information representation in 5.1 FP4 or later. 800xACON-CN-5110-059	No workaround exists for this issue. The 1131 variables need to be re-connected manually.

Table 27. Configuration Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
TRIO	
Controller May Crash if CI862 is Configured but Other Module Present Controller may crash during download from Control Builder if a CI862 is configured in the Control Builder, but a different CI module is physically connected on the CEX bus. 800xACON-CN-5100-100	Before download, check that the configuration in Control builder with respect to the CI module is same as the CI module physically connected on the CEX bus.
Baud rate change in Control Builder on CI862 does not affect communication with TRIO IO modules. User will observe this scenario when Baud Rate of TRIO blocks are changed while configuration is present in the controller. 800xATRI-CN-5101-001	User should Reset the controller and download the application from Control Builder. Then correct behavior can be seen. Do not perform baud rate changes on TRIO IO modules in running plant.
If the CI862 is deleted in the hardware tree of the Control Builder application and program is downloaded, the Controller may crash. 800xATRI-CN-5101-002	Reset the controller if a CI862 is removed from the hardware tree in Control Builder. Do not delete CI862 modules configured in Control Builder in running plant.
IPConfig throws error when PM864 connected with CI862. 800xATRI-CN-5101-003	Set the IP of the controller first using IPConfig before connecting the CI862 on the CEX bus.

Table 27. Configuration Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints

Problem observed when hot swap of multiple CI862 modules is performed.
For example, four CI862 modules at positions 1,3,7 and 9 exist. The CI862 at position 3 is removed and reinserted.
Before the CI862 at position 3 comes up, CI862 at position 1 is removed and reinserted. After re-insertion, the CI862 at position 1 goes into fault and does not come up.
The controller log shows the following:
`Update driver instance Single 1[new:17 old:12] for Index: 1`
`Single CEM at pos 1 is reset by GIOC Framework[Stat: 0x00000400]`
a Hot removal, Hot insert message
`Update driver instance Single 1[new:18 old:17] for Index: 1`
800xATRI-CN-4000-0002
	Insert only one CI862 at a time, wait until it is up and running before inserting the next CI862.

The user changes the default setting of IN_16CKT for “open wire detection”, “Report fault” and “Short circuit detection” to “False”. After downloading the application to the controller, a `Config Error` message is shown in the unit status tab of the I/O module. 800xATRI-CN-5012-002	Perform a power reset of the I/O module to remove this message.

Table 27. Configuration Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
CI862 module goes to fault state when a baud rate of 38.4 KB is configured and downloaded from Control Builder. 800xATRI-CN-5020-001	The CI862 does not support baud rate of 38.4 KB.
Signal range settings are lost for the 4IN2OUT block when an earlier version of a Control Builder project is upgraded. 800xATRI-CN-5020-002	Hardware settings for the 4IN2OUT block has changed. Signal Range Channel 1- 4 has been split up in the following two new settings: Channel High Range and Low Range.
For IO_32CKT block, channel type can only be configured as either input or output. 800xATRI-CN-5020-003	The IO_32CKT block does not support Open Wire diagnostics. Due to this the Tri-State option is not available for the parameter setting "Channel type" for this block.
Repeated re-configuration related to changing the position of CI862 with warm restart may lead to Controller crash. 800xATRI-CN-5020-006	Perform a cold restart of controller after every re-configuration related to position of CI862 module. Do not perform repeated re-configuration related to CI862 in a running plant.
User removes both of the CI862 in a redundant configuration by removing Primary first and then the other CI862. Configure Non-Redundant Configuration and download it to the controller without any CI862 at the configured position. CI862 does not start and does not communicate. 800xATRI-CN-5020-007	User should make sure that CI862 is inserted at the configured position before downloading.

Operation

Table 28 lists the issues that may exist and affect operation of the system or product at time of release. Workarounds, clarifications, or helpful hints have been provided for each issue wherever possible.

Table 28. Operational Issues

Issue	Workarounds, Clarifications, and Helpful Hints
Control Builder	
Load Evaluate Go: **Added I/O Connection not Possible to Force in Control Builder Before Go** If a new I/O connection is added and LEG is downloaded, it is not possible to force this I/O channel from the hardware editor in the Control Builder before Go is performed. (There is no problem with forcing I/O connections that already exist). Forcing the new I/O connection from Evaluate environment in Process works as it should. 800xACON-OL-5000-042	Force the I/O channel from Process Portal.

Table 28. Operational Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
Control Compiler Rounding Error and Loss of Accuracy When the Control Builder's compiler translates user code (in any language: Diagrams, ST, IL, FBD, …) it checks literal values used in code blocks and looks for recurring values within the POU. For real values, the comparison is made with a small delta (1E-5), which for small absolute values may lead to calculation errors or significant loss of accuracy, since several slightly different values (e.g. 1E-6, -1E-6, and zero) get merged into one single constant value used in the native code. 800xACON-OL-5100-136	Be careful with using small (<< 1.0) literal values directly in code. Declare a CONSTANT instead and refer to the CONSTANT's name in the code.
Confusing error message at download On deselecting any application in the Online Analysis dialog (uncheck the checkbox for the application), and the deselected application contains any compile errors, the following error will be displayed in the “Compilation Summary” dialog: Error 1491: XX error(s) displayed in dialog. In this case these errors cannot be seen in any dialog, even if the error message says that they can be seen. 800xACON-OL-5100-012	No workaround exists for this issue.

Table 28. Operational Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
Windows Indicating (Not Responding) The Control Builder is sometimes occupied with tasks that prohibit polling of Windows message queues. During these tasks the Control Builder windows might include the text “(Not Responding)” in the title text. 800xACON-OL-5100-013	This text is added automatically by the operating system and does not imply that the Control Builder is hanging.
Multiple Value Labels in FD Viewer for Multiple Connections An output port in a FD code block can be connected to several input ports. In online mode each connection will have its own value label. This means that, multiple connections will have multiple value labels. This will give a cluttered appearance in the online viewer. 800xACON-OL-5100-005	No workaround exists for this issue.
Incorrect value for Average Interval Time The value for Average Interval Time presented in the Overview for Communication variables is an incorrect value during the first 10 intervals. 800xACON-OL-5100-010	No workaround exists for this issue.
Confirm write dialogue does not show millisecond part for date and time variables If the millisecond part of a date and time variable is changed through confirmed write, then the value is not shown in the confirm operation dialog. 800xACON-OL-5101-009	The correct value is written to the Controller and the value can be verified in the online dialog in the Control Builder.

Table 28. Operational Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
Search & Navigation tool, missing or erroneous results if duplicated hardware unit name If more than one hardware unit has been assigned the same hardware instance name in the Project Explorer, the Search and Navigation tool will not be able to correctly identify and present all references to and from these units. 800xACON-OL-5100-112	Workaround: Assign unique names to hardware units.
Search and Navigation may select wrong row in Hardware editor When navigating from Search & Navigation tool to a hardware editor the “row” number selected on the hardware unit is not correct if the channel number is not equal to the “row” number. 800xACON-OL-5100-129	Make a manual search when the hardware editor is opened to find the correct row.
OPC Server	
Live Data Lost In Process Graphics after Download if Controller Is Unavailable If there is no connection to any controllers during a download, there could be a loss of live data in the process graphics. The time for which the live data is lost could be from a couple of seconds to minutes depending on how many Controllers have lost their connection. 800xACON-OL-5010-026	Disconnect all controllers that are not on the network from the OPC Data Access part.

Table 28. Operational Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
Connect	
Wrong Status in Alarm List for Redundant Hardware Units Redundant hardware units report “Redundant mode enabled” instead of “Status OK” in the Alarm List, in Plant Explorer, when the alarm state changes from active to inactive. 800xACON-OL-5000-005	No workaround exists for this issue.
Controller	
Latency Caused by Alarm Burst When an alarm changes state (gets activated, deactivated, or acknowledged), a small increment to the Task Execution time for a single scan (approximately 350 µs per changed alarm) will be added. If an alarm burst occurs, when many alarms are activated simultaneously, this could noticeably increase the Task Execution time. If latency supervision is enabled on the tasks that are executing the Alarm Condition Function Blocks or Control Modules, this could lead to a latency shutdown, if the Task settings are too tight. **NOTE:** Latency supervision is always enabled for SIL tasks. 800xACON-OL-4100-044	Consider the extra time for an alarm burst when tuning the task settings in the Controller, especially the Interval, Offset, and Latency settings. An alarm burst of 100 alarms (in one scan) adds about 35 ms to the execution time, 200 alarms adds 70ms, and so on.

Table 28. Operational Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
Controller Can Hang if Tool Port Cable is not Connected in the Other End A cable connected to the tool port on the CPU (COM4), may cause the controller to hang during startup, if the cable is unconnected in the other end, or if the PC it's connected to is unpowered. 800xACON-OL-4100-009	Do not have an unconnected cable attached to COM4.
Backtracking Issues when Using PidCC and PidAdvancedCC in ERF Mode Backtracking values are not calculated correctly in all situations when the ERF function is used. This is valid for PidCC (ControlStandardLib) and PidAdvancedCC (ControlAdvancedLib). 800xACON-OL-5140-020	No workaround exists for this issue.
Negative Value in Range not Possible in SignalInReal Faceplate The faceplate for the SignalInReal function block type does not accept negative values for the signal range (Min and Max). 800xACON-OL-5140-021	The corresponding interaction windows in Control Builder can be used to set negative values.
Negative Value for Alarm Level not Possible in LevelxCC Faceplates The faceplates for Level2CC, Level4CC, and Level6CC control module types in ControlStandardLib don't accept negative values for the alarm levels. 800xACON-OL-5140-022	The corresponding interaction windows in Control Builder can be used to set negative values.

Table 28. Operational Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
Communication	
Disturbance on INSUM Communication Result in Incorrect Indication in GroupStartStandby If there is a communication error (cable break) to the MCU, the indication in the GroupStartStandby is sometimes wrong. The indication shows that the MCU's are running, but they are not. 800xACON-OL-5000-045	No workaround exists for this issue.
PPP Communication on PM Serial Port Floods Controller Log When PPP communication is configured and running via the processor module's built-in serial port, the controller log will be flooded with the message "vSysFindIf: Interface ppp5 index to high 6". 800xACON-OL-5110-051	No workaround exists for this issue. Note that the messages will not stop the PPP communication from working.
CI867 Communication Drop when time is changed e.g. to/from Daylight Saving Time CI867 acting as slave will lose connection momentarily to all externally connected masters when a daylight time change occurs. 800xACON-OL-5100-137	No workaround exists. Connection with external masters is restored automatically.

Table 28. Operational Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
I/O Handling	
I/O Running on CI865 Started too Late Warning! Start of Applications and I/O running on CI865 are not synchronized at startup. The controller applications may start before all CI865 I/O have been started. 800xACON-OL-5000-010	Use the *IO.Status* value to interlock start-up actions.
OSP Values are Reset During Startup Warning! The following issue occurs after the application(s) in the controller for some reason are erased (for example after a power fail with no attached battery or after making a long press on INIT). The I/O channels will in this state have entered their pre-configured OSP values. In order to restart the controller, the application(s) must be re-downloaded from Control Builder. When the download of the application(s) is performed, just before the applications are restarted, **I/O channels with pre-configured OSP values will be de-energized for a couple of seconds**. After that, the I/O will be set by the now running application(s). 800xACON-OL-4100-014	Prior to the download; make sure the process is set into a state where it can accept the temporarily de-energized outputs.

Table 28. Operational Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
S900: I/O OSP Cleared Warning! OSP on S900 I/O will be cleared in the following two occasions: • During a short period of time after resuming after a controller power fail. • Controller task abort, due to a task having executed for too long. 800xAIO9-OL-4100-001	No workaround exists for this issue.
S100: Problems with rmcPTCLib in AC 800M Hot Swap of CI856 in an AC 800M is not supported if rmcPTCLib is used. In that case a Hot Remove of the CI856 may cause a Controller Crash. PowerFail restart with CI856 in AC 800M may cause a Controller Crash if rmcPTCLib is used. 800xACON-OL-4104-001	Load the project on a CF card so that the application restarts if there is a controller crash.
FOUNDATION Fieldbus HSE	
Pending Error Messages in Hardware Unit Status Are Reset A CI860 module with the HSE network disconnected indicates 'Channel Error' in the Hardware Unit Status. If the CI860 is reset in this state, it will restart without showing the error even though the HSE cable may still be disconnected. The same will also happen after a controller cold start. 800xACON-OL-4100-020	Check the status information on the single FF signals to find out about the actual communication status after restart.

Table 28. Operational Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
Problems with FF Status Value Initialization The FF status values are not always properly initialized or reset. There are two different actions when these FF status values need to be initialized: • starting a CI860 module • removing a channel/signal on one side of a Controller>FF / FF>Controller signal connection The CI860 I/O-channels are initialized with zeros when a CI860 module starts. This leads to a FF status of 0 on connections, which are used, but not updated. The problem exists in both directions IEC>FF and FF>IEC. Removing a channel/signal: If the writing side of a Controller>FF signal connection is removed, the last written value, especially the status, is kept. On an FF>Controller signal connection the status is set to 'BAD', if the FF signal is removed, which is ok. Starting a CI860 module: The current implementation does not ensure, that no longer used values are indicated by a 'BAD' FF status. 800xACON-OL-4100-021	Pay attention to remove variables connected to channels on CI860 that are no longer connected to an FF application, since they are incorrectly indicated as OK.

Table 28. Operational Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
FFHSE C/S Read and Write request gets status error (2) first and then status OK FFHSERead and FFHSEWrite function blocks might temporarily indicate error status 2 which means warning. But the requests are operated successfully and status gets OK finally. 800xACON-OL-5101-010	Wait for some time after sending the request, before operating the error status.
CI860: Client/server connection breaks after change of IP address When changing the IP-addresses of a redundant pair of CI860 the active Client/Server communication via FFHSERead and FFHSEWrite is stopped. The cyclic Publish / Subscribe communication is not affected. Changing the IP-address of a non-redundant CI860 is working with C/S as supposed. 800xACON-OL-5101-011	Perform HotSwap of primary CI860 to restart the Client/Server communication.
MOD 5	
Internal FW error in CI872 at application download Internal FW error in CI872 at application download and CI872 modules are not up. The message "Internal HW Error (see CI Log)" alarm is shown, and both CI872 modules in case of redundancy or single CI872 module in case of non-redundancy are not up. 800xACON-OL-5100-066	Workaround for this scenario, where no CI872 module is up, is to manually hot swap the CI872 modules.

Table 28. Operational Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
Switchover occurs despite CPUID conflict in backup CI872 Failover from primary CI872 module to the backup CI872 module occurs, even though CPUID conflict exists in the backup CI872 module. 800xACON-OL-5023-006	In a redundant configuration of CI872 modules, always ensure that the backup CI872 is correctly configured, by checking its unit status in the Hardware Tree.
MTMConnect FB doesn't show '-7006' while FOC is disconnected The MTMConnect function block does not update the status of the physical connection when MTMReadCyc or MTMDefCyc function blocks are not connected to that MTMConnect. 800xACON-OL-5023-008	This occurs when MTMConnect is not connected to MTMReadCyc or MTMDefCyc function blocks of MTMCommLib. If any error in the physical connection occurs, the status code -7006 (for any error in physical connection) is not displayed for MTMConnect. To get an update of the status of the physical connection through an MTMConnect function block in an application, either connect an MTMReadCyc function block to the MTMConnect and enable this MTMReadCyc, or connect an MTMDefCyc function block to the MTMConnect.

Table 28. Operational Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
IEC 61850	
CI868 Module restart during Co-existance Download and SCD-File Reconfiguration CI868 Module shall restart leading to disturbance in connected IEC61850 Network in the following scenarios: • Downloading application after upgrading to new Control Builder M with newer CI868HwLib in Connected Library. CI868 shall not restart during subsequent downloads from Upgraded Control Builder M project. • Downloading application after importing Reconfigured Scd-file. This is applicable for each download with re-configured scd-file. 800xACON-OL-6000-001	No workaround exists for this issue.
CI868 does not support receiving same signal from GCB as well as RCB Configuring same LN signals in GCB as well as RCB datasets leads to communication error in CI868 module. 800xACON-OL-6000-002	No workaround exists for this issue
EtherNet/IP	

Table 28. Operational Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
Problem with CI873 Backup after Switchover In case of redundant CI873, if the Ethernet cable connected to primary CI873 is disconnected, switchover of CI873 occurs and communication to Ethernet IP devices continues. However even after the Ethernet cable to new backup CI873, is connected back, the backup CI873 does not come up as backup module. So redundancy of CI873 is affected. 800xACON-OL-5110-049	Perform hot swap of the new backup CI873 module after reconnecting the Ethernet cable.
Outputs May Fail During CI873 (EtherNet/IP) Switchover The Outputs from the CI873 (EtherNet/IP) device may fail during a CI873 switchover. The probability of the problem increases with the no. of EtherNet/IP devices connected under CI873. 800xACON-OL-5110-048	No workaround exists for this issue.
Ethernet/IP Problem with 200-IR8R Ethernet/IP Communication with 200-IR8R connected under 200-AENTR does not work. 800xACON-OL-6001-001	The 200-IR8R cannot be connected under 200-AENTR using Ethernet/IP communication.
TCP Communication Library	
User defined UDPProtocol allow broadcast set to false has no effect Even though the parameter AllowBroadcasts is set to False, it is still possible to send (and receive) broadcast messages. 800xACON-OL-5110-008	No workaround exists for this issue.

Table 28. Operational Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
TRIO	
When the CI862 modules are connected with CEX bus extender module BC810 and power reset is done to the controller, the CI862 modules do not come up after power reset. 800xATRI-OL-5101-002	Reset the controller or conduct hotswap of CI862.
Module remains online even when block ID is changed using HHM. User will observe this scenario when position of TRIO blocks are changed while configuration is present in the controller. 800xATRI-OL-5101-003	User should Reset the controller and download the application from Control Builder. Then the error will be displayed correctly. The Block ID should not be changed in running plant.
User will observe communication problem during switchover in sequence because LAN redundancy is controlled by BSM (Bus Switching Module). Whenever a LAN is removed, BSM switches to the other LAN without seeing its status. 800xATRI-OL-5101-004	User should make sure that Active LAN (indicated by Red LED present on BSM) is connected to CI862 module. The OSP setting for output modules should be set to Hold last value to prevent any disturbance in process during the switch over.
“PRIM” status LED OFF on both the CI862 modules in a redundant CI862 configuration. User will observe this scenario when Baud Rate of TRIO blocks are changed while configuration is present in the controller. 800xATRI-OL-5101-005	User should Reset the controller and download the application from Control Builder. Then correct behavior can be seen. Baud rate of CI862 modules should not be done in running plant.

Table 28. Operational Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
CI862 module goes to fault after power reset of controller. 800xATRI-OL-5101-006	1. Remove TRIO LAN communication cable. 2. Hot swap of the CI862 module.—CI862 module comes up to Run state. 3. Connecting back the LAN communication cable.
Outputs go to OSP value during CI862 LAN switchover for a about 100 ms. 800xATRI-OL-5101-007	The OSP setting shall be made hold last value to prevent any disturbance in process during the switch over.
If the user removes both CI862 module (or both become faulty) in a redundant CI862 configuration system, the TRIO blocks go to OSP values or holds to the last good value. In Control Builder, the last good value is shown. If one of the CI862 is replaced with a working CI862, the moment the TRIO blocks start communicating with the new CI862, for a short period, the input value goes to zero or the highest value in Control Builder. 800xATRI-OL-5012-004	Use filter in application logic to prevent disturbance in process.
In a redundant CI862 system, if LAN A goes faulty (or CEX module), the communication switches to LAN B. If LAN B also fails, the BSM status shows that the communication switched back to LAN A. Since LAN A is not connected, all modules in that LAN goes to a Block failed status. If the user replaces LAN B (or CEX module) first, communication does not start on LAN B. The BSM still shows that LAN A is the active LAN. 800xATRI-OL-5012-005	Monitor the BSM LED to identify where exactly the TRIO blocks are looking for communication. The LED in the BSM tells exactly where the blocks are looking for communication (if the LED is turned ON, the blocks are looking for communication in LAN B, else LAN A). Based on this information, plug in the new CEX module (or LAN) in the respective CEX position in online mode for all the modules in that LAN. Communication will resume.

Table 28. Operational Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
If any I/O value of a TRIO block is forced using HHM, there is no specific indication in Control Builder that a value has been forced in that block. 800xATRI-OL-5012-006	"HHM in Use" message will appear in Control Builder in online mode for all the TRIO modules in that LAN. PPA will show an event stating “Block n config changed by HHM” letting the user know something has changed.
In a redundant controller and redundant CI862 configuration, if LAN A goes faulty (or CEX module) the communication switches to LAN B. Communication with I/O modules is working properly. However, the CI862 module does not switch over. In this case, if the TRL cable between the primary and secondary CI862 modules becomes faulty, communication of the I/O modules in the LAN stops. 800xATRI-OL-5012-007	TRIO does not support double fault (when the redundant CEX module is also failed). In Control Builder, a warning appears as soon as the TRL cable is disconnected or broken. After this, replace the faulty TRL with a working one.
When Blocks are communicating to LAN A, and if LAN A goes faulty no information to operator. 800xATRI-OL-5020-001	The operator shall be notified with the event <Blocks have switched to LAN B, Check LAN A>. But if the other LAN (that is, in this case LAN B), through which Blocks are not communicating is removed/Faulty, no information is provided to Operator.
When Blocks are communicating to LAN B, and if LAN B goes faulty, no information is shown to operator. 800xATRI-OL-5020-002	The operator shall be notified with the event <Blocks have switched to LAN A, Check LAN B>. But if the other LAN (i.e. in this case LAN A), through which Blocks are not communicating is removed/Faulty No information is provided to Operator.

Table 28. Operational Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
After initial download, Latched Extended Status shows the message “Block Failed” for all the blocks. 800xATRI-OL-5020-003	After initial download, either acknowledge latched extended status or issue the “Command 19” with the “Command Channel” for the concerned blocks.
The following messages may be received in the PPA: “Blocks have switched to LAN B, Check LAN A”. “Blocks have switched to LAN A Check LAN B”. TRIO has detected the LAN switch. 800xATRI-OL-5020-004	When the LAN through which blocks communicates goes faulty/removed, blocks switch to the other LAN and user would be notified about the same through these events. Check the LAN connections and terminations.
A message may be received in the PPA as follows: “Check TRL Connection”. TRIO has detected that there is some fault with TRL Cable. 800xATRI-OL-5020-005	When the TRL Cable connected between the redundant CI862 has been removed or has gone faulty, user is notified about the same with this event in PPA.
CI862 Redundancy Failover is not instantaneous, if it is triggered by removing the RCU Cable from the BC810 connected to backup Controller. This failover may take up to 4 seconds. 800xATRI-OL-5020-006	Do not perform the CI862 switch over by removing the RCU cable from BC810. Instead, the hot swap of primary CI862 module can be done to perform switch over of CI862.
Simultaneous Hot Insertion of two CI862 modules will not work. 800xATRI-OL-5020-007	Insert only one CI862 module at a time. Wait till it comes up, and then insert the other module.

Table 28. Operational Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
Min, Max and Invert Functionality does not work for RTD and TC blocks. 800xATRI-OL-5020-008	The settings related to Min and Max for RTD and TC blocks can be done by HHM manually.

Miscellaneous

Table 29 list the problems or issues known to exist with the current release that do not fit into one of the other categories. A workaround, when possible, has been identified for each problem or issue.

Table 29. Miscellaneous Issues

Issue	Workarounds, Clarifications, and Helpful Hints
Online Help files are not available for TRIO. 800xATRI-MS-5010-005	For more information, refer to *800xA for TRIO/Genius Getting Started (3BUR002459*)* and *800xA for TRIO/Genius (3BUR002460*).*

Application Change Management

Instruction Manual Changes

Table 30 lists the Instruction Manual Changes that may exist and affect the system or product at time of release. Workarounds, clarifications, or helpful hints have been provided for each issue wherever possible.

Table 30. Instruction Manual Changes

Issue	Workarounds, Clarifications, and Helpful Hints
New version of an entity/object always get checked in to ACM server even if they are not changed. 800xAACM-MC-5141-001	Ensure that, windows logged in user is configured/added to the SharePoint service of ACM Server. Refer to *System 800xA Engineering Application Change Management (2PAA108438*).*

Operation

Table 31 lists the operational issues that may exist and affect the system or product at time of release. Workarounds, clarifications, or helpful hints have been provided for each issue wherever possible.

Table 31. Operational Issues

Issue	Workarounds, Clarifications, and Helpful Hints
The custom entities, configured prior to ACM update from 5.1 FP4/5.1 FP4 Revision D to S-FP 5.1.4-1A do not appear in custom entity window. 800xAACM-OL-5141-001	No impact is seen on functionality and ACM still considers the earlier configured object as the custom entity.

Table 31. Operational Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
In few instances, check-in of objects/entities with more than 100 child/ dependant objects, for example Libraries, Graphic Displays, HSE subnet may take significant amount of time. 800xAACM-OL-6000-001	Planning is required before performing the operation.
If ACM server is upgraded from SV 5.1 FP4 latest Revision to SV 6.0 Rev A, then Check In of any object from 'Workplace application' fails with the following message: "`Column 'ModifiedDateTime' does not exist. It may have been deleted by another use`" 800xAACM-OL-6000-005	Close the opened ACMClient application and go to the path 'C:\ProgramData\ABB'. Rename the folder named 'ACM Base' to 'ACM' and launch the ACMClient again with the same login credentials as before.

Installation

Table 32 lists issues that may exist and affect the installation and upgrade of the system or product at time of release. Workarounds, clarifications, or helpful hints have been provided for each issue wherever possible.

Table 32. Installation Issues

Issue	Workarounds, Clarifications, and Helpful Hints
In rare cases, opening the SharePoint site after running the 'SharePoint 2013 Products Configuration Wizard' of 'SharePoint Foundation 2013' fails with the following message: **Server Error in '/' Application. The resource cannot be found.** 'SharePoint Central Administration' site also fails to open displaying the same message and results in failure of the ACM Server configuration. 800xAACM-OL-6000-004	Open IIS Manager, Select the SharePoint Central Administration in the left pane. Click on the **Advanced settings...** option in the right pane. Check that the Physical path setting does not have an extra "\". Example: If the Physical Path setting shows as C:\\inetpub\wwwroot\wss\VirtualDirectories\... Remove the extra "\" to change the setting to C:\inetpub\wwwroot\wss\VirtualDirectories\...

Information Management

Configuration

Table 33 and Table 34 lists the issues that may exist and affect configuration of the system or product at time of release. Workarounds, clarifications, or helpful hints have been provided for each issue wherever possible.

Table 33. Configuration Issues

Issue	Workarounds, Clarifications, and Helpful Hints
Data Direct XLA fails to load with the following error: *Microsoft Visual Basic* *! Object library invalid or contains references to object definitions that could not be found.* 800xAINM-CN-5103-036	Execute the following to remove old cached **EXD** files: **C:\ProgramData\ABB\IM\DataDirect\Bin\DeleteFilesAction.exe** This will find and delete all EXD files on the System Drive allowing the DataDirect XLA to load, the next time Excel is opened.
It is difficult to recover an IM node when it is deleted from the system, because objects under the node object are not deleted. 800xAINM-CN-3600-0004	Object under the node object has to be deleted and recreated when the IM is added back into the system, including fixing the GUID for the PPA basic history.
When an Information Management server object is deleted from the Node Administration structure, the corresponding Inform IT History Objects are not deleted from the Node Administration structure. 800xAINM-CN-3500-0004	Delete the objects manually. They are located at the top of the Plant Explorer.

Operation

Table 34 lists the issues that may exist and affect operation of the system or product at time of release. Workarounds, clarifications, or helpful hints have been provided for each issue wherever possible.

Table 34. Operational Issues

Issue	Workarounds, Clarifications, and Helpful Hints
The navigation shortcuts on Desktop Trends fail to work properly on systems that have been upgraded to 800xA 6.01 from a 32-bit version of 800xA. 800xAINM-OL-6000-013	To resolve this issue the saved trend files must be updated. Use the following procedure for each saved trend file. 1. Open the trend file using Notepad. 2. From the **Edit** menu select **Replace**... 3. In the **Find what** field type **Program Files** 4. In the **Replace with** field type **Program Files (x86)** 5. Press the **Replace All** button. 6. Press the **Cancel** button. From the **File** menu select **Save**.

Table 34. Operational Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
Excel report templates that contain data bound tables connected to the Information Manager ODA ODBC connection have been seen to fail to properly update when the report is executed. 800xAINM-OL-6000-010	Two actions may be needed to resolve this issue. First review the connection string for the ODBC query. It is found on the Data ribbon, Connection Properties Dialog on the Refresh All drop-down, Definition tab.Verify the port number for ODBC connection is correct. It should be 28996. If the port number is correct or updating the port number does not correct the issue then uncheck **Enable background refresh** from Usage tab of the Connection Properties Dialog as well.
When attempting to launch IM ACC Setup from the ABB Batch PDL Extractor by clicking on the Localhost test, a runtime error 5 will be seen and the setup application will fail to launch. 800xAINM-OL-6000-007	To launch IM ACC Setup use the ABB Start Menu and launch the application which you will find under Information Mgmt>Utilities.
While installing Oracle the message **OraProvCfg.exe has stopped working** has been seen. 800xAINM-IN-6000-006	Acknowledge the message and the Oracle Installation will successfully run to completion.
It is not possible to open the on-line help file from the Display Services Client application. 800xAINM-OL-6000-001	To find any needed Display Services Client help please refer to the Information Management Display Services User Manual.
A Trend Display launched from the PDL Browser will not properly show data if the PDL Browser is configured with a time format of DD-MM-yy. 800xAINM-OL-6000-002	To avoid this issue, do not use the DD-MM-yy time format in the PDL Browser.

Table 34. Operational Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
Pressing the Cancel button on the A/E Linked Configuration Aspect does not restore the configuration of the aspect to the previously saved settings. 800xAINM-OL-6000-003	To restore the settings in the A/E Linked to those previously saved select a different aspect and then return to the A/E Linked Configuration Aspect. This will refresh the configuration information to show the stored configuration.
PPA will add a backslash "\" to escape certain characters in the filter string provided to the hsArchiveService. Specifically, the "-" will be passed as "\-". The new code does not remove the escape character and this will prevent message from being returned. 800xAINM-OL-6000-004	There is no workaround for this issue
When the Display Services Client is launched for the first time for a given user a short series of installation dialogs will be shown. After the dialogs clear the application is launched properly and the installation dialogs will not be seen when the Display Services Client is launched in the future. 800xAINM-OL-6000-005	Allow the installation dialogs to complete. No further issues should be seen.

Table 34. Operational Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
The DataDirect menu is sometimes missing in Office 2013. 800xAINM-OL-5104-043	Follow the steps below to fix this issue. The procedure must be executed for each user that encounters this problem. 1. Open Excel. 2. Click the Add-ins tab. 3. Click the Options button of DataDirect to open Options window. 4. Go to View tab and change any of the options there and then click OK. The DataDirect menu will now be shown. The problem will not happen again for this user.
Scheduler Data Collection Actions will fail, with an error message Failed to Activate Log Number(s), if any of the logs in the Log List are from an AC400 controller and contain a period (".") in the log name. 800xAINM-OL-5104-041	There is no workaround for this issue.
Excel may crash on exit after viewing a report that was launched from the **File Viewer** aspect. Dismiss the Excel error dialog to close Excel. This condition does not cause any data loss or corruption. 800xAINM-OL-5100-001	There is no workaround for this issue.

Table 34. Operational Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
Scheduled reports may appear to fail when using the **Save to History option** with the following error: *Job Action: Action Aspect, Completed (failure), Error while running automation type EX: Method'~' of object '~' failed* This error is occasionally seen only on reports that have been configured with the **Save to History** output option enabled. Inspite of the error message, the output file will still be correctly written to the history log. However, if the report is also configured to be exported to an 800xA Object (in addition to the **Save to History** output option) the report will not be written to the Completed Report Object when the error occurs. 800xAINM-OL-5100-002	If reports are configured to only store to History, then no action is required - the reports are still being stored properly. If storing completed reports to History is not required, the issue can be avoided by clearing the **Save to History** output option. In cases where both **Save to History** and **Export to an Object Path** options are necessary, reports are not written properly to the Completed Report Object, but can still be viewed through the History log. Failed reports can also be re-run manually.
Alarms and Events from both the provider system (multisystem integration functionality) appear in the 800xA Alarm and Event list, however only the alarms are recorded by the DataDirect function within Information Management. 800xAINM-OL-5010-061	There is no workaround for this issue.

Table 34. Operational Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
A batch report scheduled to be run at the completion of a batch may miss data intended for the report. 800xAINM-OL-5020-043	If a batch report is intended to be automatically scheduled by the Batch Manager to include all data associated with a batch, include a delay block in the batch recipe just prior to the end of the recipe. The delay should include enough time (approximately 90 seconds) to ensure all data is available for reporting. Reports executed manually will contain all data.
The time offset feature of the Desktop Trend has been observed to cause the trace to disappear. 800xAINM-OL-5020-041	To obtain similar results, instead of using the time offset feature, modify the traces vertically by adjusting the range value of the Y-axis.
When using the Store Original Value feature of Information Management history logs type 5 (numeric), the original status is not stored when the value is modified. 800xAINM-OL-5020-018	History logs of type 1 should be used if the ability to save the original status when the status value is modified is desired.
AID client (Display Services) displays, sometimes use incorrect fonts. Due to a change in Windows functionality, AID client displays, now uses font information from registry keys instead of the aidfonts.ini file. 800xAINM-OL-4100-0036	Add the **HKEY_CURRENT_USER\ SOFTWARE\ABB\AID\Fonts\FaceName_ 0, ...\FaceName_1, and ...\FaceName_2 keys** to the registry. Use the value names and values listed below for all three keys: Value Name (Default) Font Name Ariel BaseSize_0 11 BaseSize_1 14 BaseSize_2 17 BaseSize_3 18 BaseSize_4 23 BaseSize_5 33

PLC Connect and SoftPoint Server

Installation

Table 35 lists issues that may exist and affect the installation and upgrade of the system or product at time of release. Workarounds, clarifications, or helpful hints have been provided for each issue wherever possible.

Table 35. Installation Issues

Issue	Workarounds, Clarifications, and Helpful Hints
PLC Connect Install Location. 800xAPLC-IN-5000-001	PLC Connect will not function correctly if installed in any other location other than the default location. This affects both PLC Connect and the SoftPoint server.

Configuration

Table 36 lists the issues that may exist and affect configuration of the system or product at time of release. Workarounds, clarifications, or helpful hints have been provided for each issue wherever possible.

Table 36. Configuration Issues

Issue	Workarounds, Clarifications, and Helpful Hints
In rare instances, the **Generic Control Network Configuration** Aspect is not restored.	The Aspect can be created manually as follows: 1. Navigate to Control Structure and right-click on the **Generic Control Network** object and choose **New Aspect...** 2. Check the **List Presentation** check box. 3. Select **Generic Control Network Configuration** and click **Create**.

Table 36. Configuration Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
In rare instances, the Basic History server cannot log values for PLC Connect after an upgrade.	If the trends for PLC Connect are not showing any values in the trend window, then restart the Basic History server on that node in the Service Structure. 1. Select **Service Structure** 2. Locate **Basic History** and expand the branch. 3. Expand the **Service Group** branches. 4. Locate the **Service Provider** running on the PLC Connect node (normally the node name is part of the service provider name.) 5. Select the **Service Provider Definition** Aspect. 6. Un-check **Enabled** and click **Apply**. 7. Check **Enabled** and click **Apply**.
The PLC Uploader Filter dialog box displays the wrong type for certain Items. 800xAPLC-CN-5101-003 Product Bulletin: 9ARD122017-24	Contact the ABB support line if you require assistance with this issue.
Unable to add a controller using the SattBus protocol from the shortcut menu. 800xAPLC-CN-5102-001	Add a controller from the generic control network configuration aspect.

Table 36. Configuration Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
Upgrade from 4.1 or older to 5.0 does not work correctly. 800xAPLC-CN-5010-007	The old Alarm Control Aspect cannot be deployed in System Version 5.0. Therefore this must be changed to the new Alarm Control Aspect made for System Version 5.0. After executing the above specified changes, PLC Connect Service group for the Event collector must be changed. In the aspect Service Group Definition, change Collecting Mapping to "Ads OPC Event Server". Also the Event/Alarm list must be reconfigured. Do not use lists with 4.1 in front of name. Ensure to use Display Tool after these changes. It is likely to affect SoftPoint server.
Not possible to change the SB-channel. 800xAPLC-CN-5011-004	After deploy the CommServer is owner of the SB-driver and therefore it is not possible to change the SB-channel. Stop the CommServer.It is not likely to affect SoftPoint server.
Minimum size of Modbus telegrams too large in PLC Connect. 800xAPLC-CN-5020-011	The Modbus driver does not support telegrams smaller than 32 Coils and 16 registers. This does not affect the SoftPoint server.

Operation

Table 37 lists the issues that may exist and affect operation of the system or product at time of release. Workarounds, clarifications, or helpful hints have been provided for each issue wherever possible.

Table 37. Operational Issues

Issue	Workarounds, Clarifications, and Helpful Hints
Limiter Alarms are not individually visualized in the Object Dialogue. 800xAPLC-OL-5011-001	The Limiter Alarms that is disabled through the PCA property LimiterXisDisabled is not visualized. It is likely to affect SoftPoint server.
Huge increase in gdi object count while clicking the softpoint objects. 800xAPLC-OL-5100-003	If you perform a consistency check on an application containing a large amount of PLC Connect or Softpoint signals the consistency checker tool can crash. Select smaller portions of the PLC Connect or Softpoint application and run the consistency checker in several repetitions if the checker tool crashes. This affects both PLC Connect and the Softpoint server.

SFC Viewer

Operation

Table 38, Table 39, Table 40, and Table 41 lists the issues that may exist and affect operation of the system or product at time of release. Workarounds, clarifications, or helpful hints have been provided for each issue wherever possible.

Table 38. AC800M Configuration, Operational Issues

Issues	Workarounds, Clarifications, and Helpful Hints
Communication Variable faceplate does not open from SFC Viewer Aspect. The following error occurs: `'Object not found'.` 800xASFC-OL-5140-005	No workaround exists for this issue. **Note**:This problem is only visible on ABB Control Software for AC 800M version 5.1.1-2.
In SFC Viewer, when an SFC is configured in Diagram Types, the dynamic animation does not happen for instances created using the following type of animation at the application level: • Step animations in the step viewer. • Transition window logic animations. 800xASFC-OL-5130-015 800xACON-OL-5110-014	No workaround exists for this issue.
Multiple assignments for variables using structured text in Control Diagrams may not generate the driving object path using SFC Viewer Uploader. 800xASFC-OL-5130-024	No workaround exists for this issue.

Table 38. AC800M Configuration, Operational Issues (Continued)

Issues	Workarounds, Clarifications, and Helpful Hints
When you include a timer in a calculation, it prevents the animation of conditions that are in the same logic statement as the timer. 800xASFC-OL-5104-001	No workaround exists for this issue
If the project constant used in transition is of non-Boolean type, clicking Unfulfilled Criteria (in online mode) in the transition window results in display of two entries of this project constant. 800xASFC-OL-5110-010	No workaround exists for this issue.
While working with Multisystem Integration SFC Viewer status except the active step is not synchronized between provider and subscriber. 800xASFC-OL-6000-001	No workaround exists for this issue.

Table 39. AC800M Control Module Type and Diagram Type, Operational Issues

Issues	Workarounds, Clarifications, and Helpful Hints
If a parameter with direction *in*, used in a sequence, is modified after obtaining the driving object path, further upload (through SFC Uploader aspect) does not update this modified signal. 800xASFC-OL-5110-005	No workaround exists for this issue.
Transition view of SFC Viewer sometimes does not show the complete path of a variable transition, resulting in difficulty to identify the actual variable that is referred. For example: If the variable name is A.B.C and the user enters "1" in the Tag separator field, then the variable name displayed in the Transition window is *ObjectName.C.* If the variable name is A.B.C and the user enters "2" in the Tag separator field, then the variable name displayed in the Transition window is *ObjectName.B.C.* 800xASFC-OL-5130-017	No workaround exists for this issue.

Table 39. AC800M Control Module Type and Diagram Type, Operational Issues (Continued)

Issues	Workarounds, Clarifications, and Helpful Hints
In some instance when workplace log over is enabled, performing SFC uploader ends up in error. 800xASFC-OL-6000-002	Before performing SFC uploader please follow the steps mentioned below. 1. Log in as 800xA user having Local Admin rights on that node. 2.Open Control Builder with elevated privileges (Right Click on the tool and select "Run as Administrator" from the context menu) 3.Open the respective project. 4. Then Press Upload.
Object navigation in a transition may not work if the name of a variable in Engineering Workplace is different from Control Builder M. By default, Control Builder M name is considered. 800xASFC-OL-5130-012	No workaround exists for this issue.

Table 40. AC800M Function Designer Configuration, Operational Issues

Issues	Workarounds, Clarifications, and Helpful Hints
If an output reference variable, introduced in a step, is used as input reference in transitions in the same sequence or a different sequence, the action window corresponding to this step displays multiple tags with the same output reference variable name. 800xASFC-OL-5110-006	No workaround exists for this issue.
The object navigation feature from the tag displayed in the List View of transition window is not supported if the description of the tag contains an "_" (underscore) character. 800xASFC-OL-5110-007	No workaround exists for this issue.

Table 41. Freelance, Operational Issues

Issues	Workarounds, Clarifications, and Helpful Hints
The operator Workplace closes down after opening SFC Viewer of Freelance connect in online mode after starting the SFCViewer with a Freelance SFC. 800xASFC-OL-5102-006	No workaround exists for this issue.

Table 41. Freelance, Operational Issues (Continued)

Issues	Workarounds, Clarifications, and Helpful Hints
In SFCViewer for Freelance alternative branches cannot be selected to direct the way to go in TIPP modes. 800xASFC-OL-5102-003	No workaround exists for this issue.
Freelance SFC Structure with parallel branches, the yellow tip keys (jog mode) for the transitions in the right branch are not visible and cannot be operated. They are covered by the small flags of the left transitions. 800xASFC-OL-5140-007	No workaround exists for this issue.

Process Engineering Tool Integration

Installation

Table 42 lists issues that may exist and affect the installation and upgrade of the system or product at time of release. Workarounds, clarifications, or helpful hints have been provided for each issue wherever possible.

Table 42. Installation Issues

Issue	Workarounds, Clarifications, and Helpful Hints
In rare cases, PETI cannot be launched from the ABB Start Menu. This is because the required files may not be copied to the local disk during installation. 800xAENP-IN-6000-001	Uninstall and re-install PETI.

Operation

Table 43 lists the issues that may exist and affect operational of the system or product at time of release. Workarounds, clarifications, or helpful hints have been provided for each issue wherever possible.

Table 43. Operational Issues

Issue	Workarounds, Clarifications, and Helpful Hints
FF applications with two or more FF Blocks, with its attributes such as signals, Device allocation and Block Name does not support mapping. If one of the block attribute is mapped, then the rest of the blocks are duplicated with attributes of the first block on 800xA mapping side. Mapping of individual signal to a particular function block is not supported by PETI. Option to connect a signal and Blocks like AI, AO,PID and their respective pins is not available in the mapping menu of PETI. 800xAENP-OL-5110-001	No workaround exists for this issue.
After a PETI transfer to 800xA, all Applications in a Control Project are connected to all Controllers in the Control Project instead of specific connections. 800xAENP-OL-5110-011	No workaround exists for this issue.
Move/Delete Objects tab for Object Reconciliation functionality under Object Reconciliation Utility does not work. 800xAENP-OL-5110-005	No workaround exists for this issue.
Trying to save all missing objects using **Tools** option in PETI results in an error message stating “Compare aborted, Object not set to an instance of an object”. 800xAENP-OL-5110-006	No workaround exists for this issue.

Table 43. Operational Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
Using PETI, while transferring data to 800xA Process Portal A, some objects are not created, but in Transfer window **Object was created** is displayed. However the objects are not created in Process Portal A/Control Builder. 800xAENP-OL-5110-002	No workaround exists for this issue.
If PETI is used to create the Function Diagram with the objects and **CreatedByPETI** aspect is not added, then new child objects are added to the diagram instead of modifying or renaming the original child objects. 800xAENP-OL-5110-003	No workaround exists for this issue.
Function Diagram cannot be allocated to specified control application, on mapping CBApplication and CBController properties of Allocatable Group aspect of the Function Diagram. 800xAENP-OL-5110-004	No workaround exists for this issue.
An exception message appears if Process Engineering Tool Integration is asked to perform a transformation without selecting any transformation. 800xAENP-OL-5100-009	Select at least one transformation before performing **Transformer** in Process Engineering Tool Integration. Also, when an exception occurs, click **Continue** to ignore the exception and then click **Back** to exit the Transformer and proceed.

Table 43. Operational Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
System stops with **System out of memory** error message, whenever loading a huge (more than 60 MB) CAEX file for the second time. 800xAENP-OL-5100-010	Close the application. Reopen it and reload the file.
Unhandled exception error is displayed, if the CAEX Editor is closed using the **X** (close) button placed in the top right corner of the window. 800xAENP-OL-5100-011	Always use the **Cancel** button to close the CAEX Editor.
Objects created by PETI in Control Structure under Control Network like Controller, IO modules on 800xA side, that are available in the INTools/SPI data source, are not detected as existing objects after running a data compare. They are highlighted in Green indicating as new objects. 800xAENP-OL-5140-001	No workaround exists for this issue.

IEC 61850

Configuration

Table 44 lists the issues that may exist and affect configuration of the system or product at time of release. Workarounds, clarifications, or helpful hints have been provided for each issue wherever possible.

Table 44. Configuration Issues

Issue	Workarounds, Clarifications, and Helpful Hints
VB Graphics faceplates of earlier System versions show '*Needs to be deployed*' after upgrading to SV 6.0.1. 800xAIEC-CN-6000-031	SV 6.0.1 version does not support VB Aspects. It is recommended to migrate VB aspects to PG2 aspects using Migration Tool before upgrading to 6.0.1 system.
After Upgrading from previous System version to 6.0.1, installing and Loading Extension of ABB IEC61850 Substation Operation Library over existing IEC61850 Connect Library in System renders the previous faceplates unusable. This issue is Not applicable for Upgrades done from previous version of 5.1 FP4 or later. 800xAIEC-CN-6000-032	It is required to Re-configure the new faceplates available in ABB IEC61850 Substation Operation Library for proper functioning.

Table 44. Configuration Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
In IEC61850 CET the "stVal" signal quality status shows bad and not turning back to good, after restarting redundant IEC Connectivity server. 800xAIEC-CN-6000-033	Refresh by opening the faceplate again from graphics. OR Refresh can also be performed by, • opening the faceplate again. • opening the control connection and subscribing the data. • opening online diagnostics and refresh.
After performing Online Upgrade from previous System version, IEC61850 OPC DA service does not come in service state after completing the post install steps. 800xAIEC-CN-6000-029	Reset the service provider by clearing the 'Enabled' checkbox of respective Service Provider and verify the option again.
CET IEC61850 OPC Server Not Responding CET IEC61850 OPC Server tool goes to Not Responding State occasionally for Projects with maximum Configuration (4 OPC Instances x 80 IEDs per Instance). 800xAIEC-CN-6000-021	None. The CET IEC61850 OPC Server tool does not crash, but comes out from Not Responding to a Normal State within short time. To overcome this, split the maximum CET Project configuration into multiple CET projects, each with only 1 or 2 OPC instances.
Sometimes, launching CET by double- clicking CET icon leads to PCMFrame error. 800xAIEC-CN-6000-023	Right-click on CET Icon and from the context Menu select 'Run As Administrator'.

Table 44. Configuration Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
IEC61850 Uploader hangs while uploading scd-file having multiple subnetworks successively. 800xAIEC-CN-5140-002	After uploading one subnetwork, close and reopen the Plant Explorer Workplace and then select the IEC61850 Uploader Aspect to continue with other Subnetwork. Repeat this step until all the Subnetworks are uploaded.
IEC 61850 CET OPC Server does not generate condition events for Analog Measurement Monitoring of High and Low Levels. Hence High and Low Level Alarms are Not available in 800xA Alarm List. 800xAIEC-CN-5140-005	Analog Measurement Monitoring of High and Low Levels are available in 800xA Event List.

Table 44. Configuration Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
PPA Event collector service provider is not able to resolve progID correctly. IEC61850 Event category inflation floods OperateITData folder and slows down system. Alarm categories selection in Alarm and Event list Configuration Aspect is found different in Primary Aspect Server and Secondary Aspect Server. 800xAIEC-CN-5023-011	Check the Alarm Collection Definition in **Library Structure.** Check the following in **Alarm & Event** > **alarm collection Definitions** > **IEC 61850 OPC AE Server** > **Alarm Collection Definition**: Under IEC61850 OPC AE Instance[x] (where x between 1 -16), Category Group must be “Un-Categorized” and Category Name must be “Condition Discrete Event IEC61850 OPC AE Server Instance[x]” (where x between 1 -16, x should match the instance number). Otherwise, in the **Alarm Collection Definition**, delete the IEC61850 OPC AE Instance[x] that has incorrect Category Group and Category Name. Go to **Service Structure,** delete the respective Event Collector Service Group and Service Provider and recreate them. In Plant Explorer Event Collector, while configuring for the first time, select **ABB OPC Server for 800xA** instead of OPC server instance from **Description of AE Server** drop-down list. Click **Apply** and then check if the correct OPC server ProgID is displayed in the ProgID field (ProgID field should NOT be ABB.OPCEventServer.1 but reflect OPC server instance). If not, select **ABB OPC AE Server for 800xA** again and apply configuration. Click Apply and again check if the correct OPC server ProgID is displayed in the ProgID field.

Table 44. Configuration Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
IEC 61850 CET OPC Server displays an error “Project conversion tool can't access the project: Object reference not set to an instance of an Object” while opening a project exported from earlier CET version. This is observed on rare occasions due to inconsistency in exported project 800xAIEC-CN-5021-001	1. Create a new project in CET and add 'Computer Node' and 'OPC Server' objects. 2. Perform SCL Import operation on OPC Server object, providing the project xml file located in *C:\PCMDataBases\ OPC_61850\ OPCSCLExport\ <CET_Proj>\xxxx.xml* 3. After SCL Import is complete, enter the prog IDs for OPC DA and AE instances in OPC server Object properties and perform Update/Reload. **NOTE:** For the second OPC server instance applicable in same CET project, respective xml files will be available in the above path that can be imported additionally.
Sometimes CET Tool throws *Server Execution Failed* error while performing IEC61850 OPC Server Reload operation. Thereby it is not able to load the IEC61850 OPC Server with new CET configuration. 800xAIEC-CN-5140-019	This issue is suspected to occur when the OPC Restart time exceeds the DCOM Transaction timeout after which CET throws the error message. Reason might be due to size of the configuration or overall performance of the Node. Follow the 800xA recommended Server hardware to avoid the occurrence of issue.

Operation

Table 45 lists the issues that may exist and affect operation of the system or product at time of release. Workarounds, clarifications, or helpful hints have been provided for each issue wherever possible.

Table 45. Operational Issues

Issue	Workarounds, Clarifications, and Helpful Hints
Select Before Operate command operation from Faceplate to IED through IEC 61850 OPC Server, does not work during Connectivity Server redundancy switch over. 800xAIEC-OL-5140-003	No workaround exists for this issue.
IEC 61850 OPC Server internal events for Select Before Operate Commands are not updated in PPA event list. 800xAIEC-OL-5140-004	No workaround exists for this issue. This problem occurs when Select Before Operate command is being executed via OPC DA server in one Connectivity Server machine while the Event collector service is active in the redundant Connectivity Server machine. This is because for redundant IEC61850 OPC Servers, Internal events of primary OPC Server instance are not updated into redundant OPC server due to which the active event collector service does not get the events to provide to PPA Event list. Affinity Configuration can be used to resolve this problem. For details on configuring Affinity, refer to *System 800xA Post Installation (3BUA000156*)* Manual.

Table 45. Operational Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
During redundancy switchover, if operator sends the command to IED, command will not go to the field devices such as IED,CBR,GEN,PTR and it will not send any feedback to operator workplace. Also, a data loss is observed in control connection, trend etc., during redundancy switchover. 800xAIEC-OL-5020-0001	When the redundancy switchover is going on, the graphic display will show red cross mark (Uncertain or Bad status). Wait until the red cross mark disappears and the graphic display becomes normal.

Miscellaneous

Table 46 list the problems or issues known to exist with the current release that do not fit into one of the other categories. Workarounds, clarifications, or helpful hints have been provided for each issue wherever possible.

Table 46. Miscellaneous Issues

Issue	Workarounds, Clarifications, and Helpful Hints
Consistency check on functional structure throws error. Running Consistency check tool on functional structure throws error “Could not find data source structure key” for substation level, Bay level and voltage level objects. 800xAIEC-MS-5100-001	Data source is not mapped for objects substation, Bay and voltage as they are not added into control structure while upload. Errors on those objects to be ignored as no undesirable impact on backup or restore.

Device Management FOUNDATION Fieldbus

Installation

Table 47 lists issues that may exist and affect the installation and upgrade of the system or product at time of release. Workarounds, clarifications, or helpful hints have been provided for each issue wherever possible.

Table 47. Installation Issues

Issue	Workarounds, Clarifications, and Helpful Hints
Upgrade fails for systems having only PG2 graphics If Foundation FIELDBUS is used in a 5.1 system (all versions) and if Visual Basic Graphics or Faceplates are not used, the system may contain Visual Basic related aspects. A Manual Upgrade to 6.0 will fail. 800xDMF-IN-5100-023	For Manual Upgrade contact your local ABB support.
Fieldbus Builder FF setup does not replace all system files. After uninstall an old Fieldbus Builder FF version the files dgmfbbc.dll, dgmopcc.dll and f2kopcda.dll in the windows\system32 folder may be left. The files will not be overwritten by a new installation. As a consequence the windows performance monitor and other diagnostic tools may not work as expected. 800xDMF-IN-5010-007	Before installing the Fieldbus Builder FF 5.0 SP2 the following files must be removed manually from the Windows\System32 folder: • dgmfbbc.dll • dgmopcc.dll • f2kopcda.dll

Table 47. Installation Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
Loss of OPC DA communication This may occur after install/ restore FF Device Object types at • Faceplates (values are not further updated) • Trends and logs are not updated • Control Connection Aspect shows “addItem error” when live values are displayed 800xDMF-IN-5100-004	After installation/ restoration of FF Device Object Types immediately upload the library.
Procedure for updating from 3.1 to 5.1 FP2 and 4.1 to 5.1 FP2 Restoring data from a backup stored in 3.1 or 4.1 to 5.1 FP2 may fail. FF relevant data are not restored. 800xADMF-IN-5120-001	Restore the system in 5.1 Revision A and then update the system to 5.1 FP2.
Message box during installation During installation a message box ‘The following Application should be closed before continuing the install: WMI Provider Host (Process Id: xxxx)’ is shown, if FF relevant performance monitor counter are used in applications. 800xADMF-IN-5120-006	To continue without forcing a reboot, the Windows Management Instrumentation service can be restarted. This terminates the displayed process and starts a new one. The installation can be continued by pressing the “Retry” button. Alternatively the “Ignore” button can be pressed. In this case the installation continues, but a reboot is required afterwards.

Table 47. Installation Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
After a former primary aspect server has been reconnected to the system, the FF distribution servers may not be able to replicate the new data from the secondary aspect server. In this case the file versions for some files in the FFDSD status viewer ([Service Structure]FFDataStorageAndDistribution/Basic Service Group, Special Configuration tab) differ. In some cases this will also cause an error “The specified file could not be found on the Distribution server” during opening of a HSE subnet. 800xDMF-IN-5100-002	Restart the Distribution server FFDSD: In the workplace, navigate to [Service Structure]FFDataStorageAndDistribution/Basic Service Group. Clear the selection in "Enabled" check box and click "Apply". Now select the "Enabled" check box again and click "Apply".
Installation failed for Fieldbus Builder FF System Extension Sometimes the installation of the Fieldbus builder FF System Extension fails during Deploy. 800xDMF-IN-6010-002	In this case wait 10 to 20 seconds and press then the Retry button in the Deploy dialog.

Configuration

Table 48 lists the issues that may exist and affect configuration of the system or product at time of release. Workarounds, clarifications, or helpful hints have been provided for each issue wherever possible.

Table 48. Configuration Issues

Issue	Workarounds, Clarifications, and Helpful Hints
H1 link not updated in Asset Monitor A newly inserted H1 link is not detected by the Linking Device Asset Monitor. The H1 link stays in the *Not configured* state. 800xADMF-CN-6000-002	Reload the Asset Monitor in the Asset Optimization server.
LD800HSE device added in the FBB FF is shown as HSE Super type object in Plant Explorer after upload, without an operator relevant aspect like faceplate. Reason: The user adding the linking device in FBB FF does not have *Operator Configure* permission. 800xADMF-CN-6000-001	All users working with FBB FF configuration shall have *Configure* and *Operator Configure* permissions.
In seldom cases the error message 'The specified file could not be found on the Distribution server' appears during FF upload or open a FF project. In this case the file is damaged. 800xADMF-CN-6000-005	Contact your local ABB support to repair the file.

Table 48. Configuration Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
No OPC data after H1 device assignment OPC data may be in bad status for H1 device blocks, after H1 device assignment and H1 link download, based on the following conditions: • The H1 device has a valid bus address different from the configured address. • The *Device Assignment Mode* is switched to *Online*. • No changes are done between H1 device assignment and H1 link download. 800xADMF-CN-6000-003	Check the whole project and download the H1 link again.
Standard Dialog Editors are not available User defined dialogs are not available for imported Device Object Types. 800xADMF-CN-5102-002	Import user Dialogs manually from Device Object type folder typically found at: `\Program Files\ABB Industrial IT\Engineer IT\ABB Device Integration Library\FF Device Integration Library\\CFF\ST FF Dialogs\*.dge`
HSE Project damaged after CUT and PASTE of HSE objects within Fieldbus Builder FF. 800xADMF-CN-5101-007	Use COPY, PASTE, DELETE instead of CUT and PASTE.

Table 48. Configuration Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
Inserting OPC server objects simultaneously in different FBB instances will lead to a non repairable project database. The conflict resolution dialog may show that a redundant OPC server is already created. 800xDMF-CN-5100-001	Do not insert OPC server objects simultaneously in different FBB instances. In case the conflict resolution dialog occurs anyway do not rename the OPC server within the conflict resolution dialog. Instead cancel the action, delete the second OPC server, and delete the used tag out of the tag list. **CAUTION**: It is mandatory to follow the above mentioned workflow, otherwise it leads to non repairable project database.
If two exports are running simultaneously which export the same object (Example: the library as a dependency), the first export will be successful, whereas the second export fails. 800xDMF-CN-5100-005	Export parts sequentially.
Time out during initialization of H1 link while pre-commissioning or activating the H1 Link. 800xDMF-CN-5100-006	When adding new pre-configured devices to existing and running H1 Links, PD Tags and node addresses shall not conflict with already connected devices.
Afw files from earlier versions (SV3.1 and SV4.0/4.1) cannot be imported correctly into SV5.1. 800xDMF-CN-5100-007	The FBBFF objects can be exported and imported by using HWM files (Block import).
Occasionally, a long idle time is observed when an HSE subnet is saved or uploaded in case the client notes is not available. 800xDMF-CN-5100-008	Rearrange nodes in the *Node Administration Structure* so that the nodes which are not always available occur after all OPC server nodes.

Table 48. Configuration Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
The error output of the FFHSEWrite function block indicates also a True if a warning occurs (error code starts with "2"). 800xDMF-CN-5100-011	Adapt your Control Builder M application accordingly.
After import of a library with duplicate device types referenced device types are missing at the device instances. 800xDMF-CN-5100-013	Delete device type and import the correct one again.
Communication is out of cycle The schedule calculates the communication (default values for gaps) at the end of the second FBAD cycle. Adding a second signal to an FBAD may produce a plausible error: *... communication is out of cycle, with xx% free communication time*. 800xDMF-CN-5100-014	Small modification in the gap timings will allow a successful schedule generation For example, Typ C/S PDU delay: 72 -> 74 Typ C/S PDU duration: 40 -> 38
Rosemount Device assignment is not successful if additional blocks are instantiated. 800xDMF-CN-5100-017	Do not add instantiable blocks in Rosemount devices.

Table 48. Configuration Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
After deleting a H1 link it may happen that the linking device is unchecked during save. 800xDMF-CN-5100-018	• Export the linking device including sub nodes with PPA Export/Import tool • Delete the LD in FBB • Recheck the subnet • Reconcile the OPC Server FF • Import the linking device with PPA Export/Import tool • Pre-commission and download the devices
In Service Structure, it is not possible to get the 'Event Collector Service Provider' of an HSE Subnet into 'Service'. 800xDMF-CN-5100-019	Delete the entire 'Service Group' of the affected HSE subnet in the 'Event Collector Service'. Later run an 'Upload' of the affected subnet in the Control Structure. The service provider should now work as desired.
Change Type of FF object instances may lead to upload errors in very rare cases. 800xDMF-CN-5100-020	Do not exchange FF object instances through "Change Type".
Moving a CI860 object in a tree or detail view of the FBB FF will change the IP address of the object. Due to the changed IP address, system will enforce a reboot of CI860 during the next download from Control Builder. 800xADMF-CN-5103-002	Avoid moving of CI860 objects in the FBB FF. Before checking the project and after moving a CI860 object, retain the original IP address.

Table 48. Configuration Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
Restrictions in VEGAPULS devices Not all menus from the Device Description are usable within DD menus part of block properties dialog. Menus that are not working: • Diagnostics/Echo Curve: Upload and display of Echo, False signal suppression, setup curves. • Setting of False signal suppression. • Reset (partially), only major options work. 800xADMF-CN-5102-004	Use **Advanced > Properties**, in Properties Dialog or device local functionality to configure these items.
Download Arrow after Upload of Alarm Limit Checking the HSE subnet after uploading online changed alarm limits will show download arrows at OPC server FF and H1 link indicating that the OPC server FF has to be loaded. 800xADMF-CN-5120-022	Perform an incremental download of the marked H1 link in order to download its missing OPC server part.
Full download of H1 link A H1 link may require a full download if the device type reader is running during the start of online dialog. 800xADMF-CN-5120-002	Start the online dialog after the device type reader is switched to standby mode. It is a best practice to disable the device type reader after the pre-commissioning phase is finished.

Table 48. Configuration Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
FF object merge instead of exchange during import or deploy of FF configuration parts In cases where an import or deploy should replace FF configuration parts, it may happen that the replaced parts are not removed. 800xADMF-CN-5120-005	Before importing or deploying FF configuration parts, the parts that would be replaced should be deleted.
Online version check not finished Occasionally it may happen that the online version check is not complete due to an outstanding response from a H1 device, in this case the progress indicator for the online version check will be frozen. 800xADMF-CN-5120-010	Close the progress indicator dialog box manually after it is inactive for 90 sec.
After restore it may happen that a plausibility check will not eliminate all error indicators. 800xADMF-CN-5101-008	Reserve the whole subnet. Check the project manually multiple times until no more error indicators occur. Start download of Control Builder M only after subnet has been uploaded.
After function blocks have been deleted, the version check within the Online dialog shows that the config has changed. The following download action runs without error, but the download arrow icon on the link in the hardware tree still remains. A new online version check still reports that the config has changed. 800xDMF-CN-5100-002	Perform a full download.

Table 48. Configuration Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
Check after import fails with error message: “The signal <signal name> is not a FF signal”. 800xDMF-CN-5100-004	Open corresponding FBAD, select the red indicated signals and click Enter. Occasionally the signal properties dialog may occur and needs to be confirmed. The former red marked signals now appear in black color.
FF Event collector service is in synchronize state The Alarm Server configuration in the Event collector group is not updated by the Upload for an existing Event collector group after a change of the Subnet Id. This can happen after: • Upgrade from 5.0 SP2 Rev E • Manual change of the Subnet Id Important 800xADMF-CN-6010-001	Delete the FF Event collector group in the Service structure and start the upload of the affected HSE subnet.
Commissioning	
Moving a device in the tree view of the FF Object Editor, also inside a single tree, forces a full download of this device. 800xDMF-CN-4100-015	Avoid moving of devices in the tree view for optical reasons.
Factory Reset Not Indicated in Fieldbus Builder FF If a device is reset using the RESTART parameter in the resource block, this has no influence on the displayed assignment and download state in the tree structure of the FF Object Editor. 800xDMF-CN-4100-017	Use the context menu of the device to initiate a factory reset.

Table 48. Configuration Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
Restarting an H1 device by writing the RESTART parameter in the Resource Block parameter dialog may time out with an error after 60 seconds. 800xDMF-CN-4100-019	For restarting an H1 device select the *Restart device* context menu entry at the H1 Device object.
Assignment of a pre-configured H1 device may fail in the following cases: **Case 1:** Assignment of an H1 device where the tag name and node address already match, may fail in rare cases with the message 'Error writing FBAP Server VCR' **Case 2:** Assignment of an H1 device which supports instantiable blocks and which has been pre-configured with a 3rd party configuration tool supporting configuration of instantiable blocks, may fail. **Case 3:** Assignment of an H1 device with Softing stack version < 2.11 may fail, if the device was configured with a 3rd party configuration tool or in another project before and Publisher/Subscriber VCRs were active in the device. The device assignment does not finish. 800xDMF-CN-4100-020	Workaround for Case 1: Perform a Clear Address and then repeat the device assignment. Workaround for Case 2: Perform a factory reset of the H1 device using hardware means described in the user manual of the device. Then repeat the device assignment Workaround for Case 3: Power down and power up the device. Then repeat the device assignment. Alternatively perform a factory reset and then repeat the device assignment.

Table 48. Configuration Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
OPC Server interfere Fieldbus Builder FF download During download it may occasionally happen that the OPC Server interfere FBB FF on writing to FBAP. In some cases this may prevent a successful download. 800xDMF-CN-5010-002	Retry download or retry download with a different download scope.
Device fails to download and connect Function Block Application Process Virtual Field Device (FBAP VFD) access is not possible after download by inconsistent code generation. This shows up with capabilities file which include a section like [NM VCR Usage 2] FasDllResidualActivitySupported=RESIDUAL) 800xDMF-CN-5010-005	Patch the capabilities file: Remove the entry on all but the F8 server VCR or Replace RESIDUAL with NORESIDUAL.
CI860 will reboot after change of IP configuration (IP address, HSE Default Gateway or HSE Subnet mask) - Immediately if client/server signals are already configured or - Unexpectedly at a later time during downloading of any signal configuration changes. 800xADMF-CN-5101-006	Avoid changing the IP configuration of CI860. If it cannot be avoided, force an immediate download by any signal configuration change.

Table 48. Configuration Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
System and Plant Explorer Handling	
No Online Access to HSE Subnet after Disconnecting HSE Subnet from One Node of a Redundant Pair of Connectivity Servers FF Disconnecting the HSE Subnet from one node of a pair of redundant Connectivity Servers FF may disable online access of Fieldbus Builder FF to the HSE Subnet. Thus communication between Fieldbus Builder FF and the HSE Subnet is interrupted for the time of disconnection. 800xDMF-CN-5000-004	For accessing the HSE Subnet, Fieldbus Builder FF uses the first available Connectivity Server FF with DMS connection regardless of the HSE connection state of this node. Workaround: Reconnect HSE Subnet to Connectivity Server FF.
Bulk Data Manager	
It is not possible to create FF objects and parameterize them in the same step with Bulk Data Manager (BDM). A second save creates a BDM error sheet. 800xDMF-CN-5100-009	After first save, read the just imported FF objects into the same Excel sheet. The original specified values are overwritten. Re-enter the correct values and save the BDM sheet again. Or Create separate BDM sheets: one for object creation and one for parameterization.

Operation

Table 49 lists the issues that may exist and affect operation of the system or product at time of release. Workarounds, clarifications, or helpful hints have been provided for each issue wherever possible.

Table 49. Operational Issues

Issue	Workarounds, Clarifications, and Helpful Hints
Crash of OPC server in Trace Module The OPC servers FF may crash in the Trace Module after a loop in the Ethernet network creates a high broadcast load. 800xADMF-OL-5101-016	Avoid loops in the Ethernet network.
On cancelling a download the OPC server FF displays No Connection On cancelling a download, the OPC server FF may display **No Connection** in the tree view. 800xADMF-OL-5120-009	Reboot the connectivity server or perform the following steps: 1. Close all Fieldbus Builder FF applications on all the nodes. 2. In the Service Structure of the Workplace stop both OPC service provider (`Event Collector` and `OPCDA`) of the Subnet. 3. Restart the `ABB FFNameserver` in Windows Services (Use Task Manager). 4. Enable Service providers again in Service Structure that is stopped in the Step 2.

Table 49. Operational Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
Fieldbus Builder FF Crashes in Diagnostic View Fieldbus Builder FF crashes after the following sequence: • Diagnostic View is selected. • OPC Server Object or HSE Host Object (CI860) is selected in Tree View. • Switched back in Tree View to Object other than those before (HSE Subnet, LD or H1 link). • Mouse click in Device List View (anywhere). 800xADMF-OL-5120-012	Do not select OPC Server Object or HSE Host Object (CI860) in Tree View when the Diagnostic View is displayed. Select the Device List Tab before selecting those objects.
The FBBFF shuts down while changing to commissioning mode, if duplicate IP addresses are used on the HSE network. 800xADMF-OL-5130-003	Avoid duplicate IP addresses on the HSE network.
Frozen or Bad values in Faceplates, Graphics, and Trends Properties such as **OPC Control Connection/OPC Control Connection.xxxxx** from FF objects used in BDM sheets may lead to frozen or bad OPC values in faceplates, graphics, and trends. 800xADMF-OL-5103-001	Do not use properties such as **OPC Control Connection/OPC Control Connection.xxxxx** from FF objects in BDM sheets if plant is in operation.

Device Management PROFIBUS and HART

Administration

Table 50 lists the issues that may exist and affect administration at time of release including user, node, and service structure related problems. Workarounds, clarifications, or helpful hints have been provided for each issue wherever possible.

Table 50. Administration Issues

Issue	Workarounds, Clarifications, and Helpful Hints
Re-authentication does not work for Device Management and Fieldbus Management. The Re-Authentication window will be shown when HART device objects are created or deleted and Re-Authentication is enabled. 800xDPH-AD-5000-001	Re-Authentication for HART and PROFIBUS device type objects has been disabled in this version by default. Do not enable it.
Asset Monitor for ABB device type objects show an error in top most line. 800xDPH-AD-5000-006	Even if the Asset Monitor shows an error within the topmost line, it works correctly regarding the mandatory parameters and conditions from the device. The error is forced by optional device parameters which are not used by the Asset Monitor.
After a firmware download to an AC 800M controller the OPC Server PROFIBUS/HART will sometimes stop operation. 800xADPH-AD-5020-011	After a firmware download to an AC800M controller is performed reboot the corresponding Connectivity Server when OPC Server PROFIBUS/HART runs at this node. This affects only OPC Server PROFIBUS/HART which are connected to AC 800M controllers.

Table 50. Administration Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
When PROFIBUS/HART OPC server is configured in redundancy it might happen that for sometime (Around 10 minutes) both the OPC servers are activated during runtime. This will cause more number of connection to controller. As a result, connection to some devices might be aborted. 800xADPH-AD-5020-012	Increase the number of Tool Routing connection in controller from default 20 to a higher number 30. No user action is required when OPC servers are running in parallel. System behavior comes back to normal after sometime (about 10 minutes).

Configuration

Table 51 lists the issues that may exist and affect configuration of the system or product at time of release. Workarounds, clarifications, or helpful hints have been provided for each issue wherever possible.

Table 51. Configuration Issues for Device Management PROFIBUS & HART

Issue	Workarounds, Clarifications, and Helpful Hints
Soft Alarm Service goes in to the error state after system restart if it is launching DeviceManagementServer process while startup. 800xDPH-CN-5100-037	Open the Plant Explorer Workplace on Aspect Server node for which Soft Alarm Service is configured. Disable and Enable the Soft Alarm Service again. Keep the Plant Explorer Workplace open till Soft Alarm Service goes to service state.
If control entity is reserved by any other user than the logged in user, ABB third party DTMs does not show any DTM view. 800xDPH-CN-5100-017	This is DTM specific Implementation. No workaround exists for this issue.

Table 51. Configuration Issues for Device Management PROFIBUS & HART (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
When DTM is opened or accessed by right-clicking on Device instance in Control Structure without reserving the entity, the same DTM cannot be accessed again with user role 'Planning Engineer' after reserving the entity. 800xDPH-CN-5100-029	Close and reopen the Plant Explorer Workplace and then access the DTM with entity reserved. or Before accessing the DTM, release the Control project from Controller level and reserve it again.
In Basic HART DTM, company name will be shown as blank if connected HART 7 device has 2 byte manufacturer ID. 800xADPH-CN-5100-014	No workaround exists for this issue.
Deploy while branch is online at the same node is not possible A Deploy while fieldbus subtree is online at the same node generates an error message: `"This action is not possible..... is online".` 800xDPH-CN-5020-005	End running online operation and try Deploy again.

Table 51. Configuration Issues for Device Management PROFIBUS & HART (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
Inconsistent data after re-configuration of the Fieldbus Builder PH OPC. After re-configuration of the Fieldbus Builder PH OPC the server deliver inconsistent data, e.g. wrong quality state if the time stamp of the server topology file is not equal or newer than the re-configuration accomplishing time. The re-configuration accomplishing time is displayed in the Fieldbus Management dialog and the topology file "TopologyImExport.xml" is saved in the folder "*C:\Program Files(x86)\ABB Industrial IT\Engineer IT\FieldbusBuilder\OPCServerConfig*". 800xDPH-CN-5020-010	After re-configuration (e.g. changes in the topology) of the Fieldbus Builder PH OPC perform a restart of the OPC Server: 1. Disable the Service Provider for the Fieldbus Builder PH OPC in the Service Structure. Note that shutdown of the Fieldbus Builder PH OPC takes time (3-4 minutes) 2. Ensure that the following processes are terminated: – abbfdtopc.exe – abbsrvcc800xA.exe 3. After that enable the Service Provider for the Fieldbus Builder PH OPC in the Service Structure again.
Last restore information (Date and timestamp) in FBB Filesync Helper aspect is not available. 800xADPH-CN-5100-002	No impact on functionality. Check configuration wizard log file for this information.

Table 51. Configuration Issues for Device Management PROFIBUS & HART (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
If the system is upgraded to later versions, the Calibration Event List aspect may be available on Control Network object instance and ABB Generic HART Transmitter object instances in Control Structure. If DMS Calibration Connect System Extension is not loaded, then this aspect will remain unconfigured. From 800xA system version 5.1 onwards, due to unconfigured calibration event list aspect, following issues can occur: 1. If such aspect is present in any object, then it will not be possible to browse 800xA OPC server (AfwOpcDaSurrogate). For more information, refer to *Product Bulletin 3BSE066045*. 2. Consistency checker tool will also report the error about unconfigured calibration event list aspect. 3. When user clicks on Calibration Event List aspect, it opens with following message: "Could not connect to the configuration aspect. Please look at the configuration" However, user will not find any configuration to look at. 800xADPH-CN-5100-005	If DMS Calibration Connect is not in use, delete Calibration Event List aspect from Control Network object instance and ABB Generic HART transmitter object instance in Control Structure.

Table 51. Configuration Issues for Device Management PROFIBUS & HART (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
Replacing IO module in **Control Builder M** by using **Replace Unit** menu option cause the problem such as **Device Management** aspect referring to old IO Module DTM or **Invalid topology data. DTM out of order**? message in **Fieldbus Management** aspect of the replaced IO module. 800xDPH-CN-5100-031	Delete the IO module instance and Insert Unit as required.
Selecting **Documentation** menu for Generic HART DTM does not open user manual. This problem occurs only on the system upgraded from any 800xA System version on 32 bit operating system to 64 bit operating system with device instance created prior to system upgrade. 800xDPH-CN-5100-021	Apply the below mentioned workaround to all the device instances to resolve the problem. 1. Select **Configuration** user interface from **Device Management** aspect or from **Device Functions** menu for a device instance. 2. In **Configuration** user interface, select the **Documentation** tab. 3. Browse and select the correct path for **Documentation Link** as *(C:\Program Files(x86)\ABB Industrial IT\Engineer IT\DTM\Basic HART DTM\Doc\3BDD011939-510_A_en_Device_Management_Basic_HART_DTM_5.2.pdf)* 4. Click **OK** or **Apply** to save the changes.
In Control Builder M it is possible to move already placed modules from one slot to another slot, but the opened identification view of S800 DTM is not updated. It still shows the old position. 800xDPH-CN-5000-012	Close and reopen the S800 DTM user interface.

Table 51. Configuration Issues for Device Management PROFIBUS & HART (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
Two Objects with the same name under HART Multiplexer Subnet do not result in errors, but may lead to identification problems. Therefore it is recommended to use unique names. 800xDPH-CN-5000-016	Double names do not result in errors, but may lead to identification problems. Therefore use unique names.
When clicking on 'Multiplexer Assignment' in the HART Multiplexer DTM of HART Multiplexer Connect the expected DTM Windows may not appear. 800xDPH-CN-5000-038	The window for the Assignment is appearing in the Windows Taskbar (background).
Wireless HART solution for wired HART positioner is not available. 800xDPH-CN-5100-004	Currently, the solution is available only for Wired HART Transmitters and Wireless HART Devices.
Event List shows continuous File Set Distribution (FSD) events with a message as 'InvalidItem' for the Fileset representing the file that belong to Fieldbus Builder PH. The FSD event has a description as below: “Fileset is invalid. Reason: Filename already exists. Fieldbus Builder PH Cache\.....”. 800xDPH-CN-5100-036	For workaround and more information, please contact the ABB technical support.

Operation

Table 52 lists the issues that may exist and affect operation of the system or product at time of release. Workarounds, clarifications, or helpful hints have been provided for each issue wherever possible.

Table 52. General Operational Issues

Issue	Workarounds, Clarifications, and Helpful Hints
Some times during upload operations for HART 7 devices using Basic HART DTM, "9 - Invalid Selection" error message may appear and upload may fail. 800xDPH-OL-5100-013	1. Open Basic HART DTM. 2. In the **Observation** UI, change the variable codes not supported by the device in the default list under **Device Variable with Status > Variable code**. 3. Press **Read**. 4. Perform the upload operation.
In the Basic HART DTM Wireless Configuration user interface, **Join status** field shows Join status code instead of Join status description. 800xDPH-OL-5100-014	Refer to **Flow of Join status Information** area in the Basic HART DTM Wireless Configuration user interface.
The Device Type Manager (DTM) for ABB Instruments (except S800 IO, S900 IO and Basic HART DTM) does not up-/download the complete parameter data-set, if the up-/download is started via Fieldbus Management Aspect. 800xDPH-OL-5000-019	Complete up-/download of device parameter data-set must be initiated directly in the specific DTM. Open the DTM of the specific device, change the parameter (if applicable) and start download/upload from the DTM menu.
Disable Communication via Fieldbus Management aspect while an online DTM window is still open may result in failed release communication call. 800xADPH-OL-5000-035	Close all open online DTM windows before disabling the communication via Fieldbus management aspect.

Table 52. General Operational Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
If a project is taken over from another node or the Load-Evaluate-Go action is performed, then several communication related error messages (for example, ..communication failed..) are displayed. 800xDPH-OL-5010-001	Take Over a project from another node or Load-Evaluate-Go should only performed if the Fieldbus Management is in *Communication disabled* mode (offline).
The generic HART Asset Monitor loaded in the AO Server could show an inconsistency condition for *Configuration Changed.* The *Configuration Changed* condition in the generic HART Asset Monitor is active, but there was no change in the device configuration via DTM or handheld. The *Configuration Changed* condition is not reset, if the device and the instance data set have been synchronized. 800xDPH-OL-5010-003	Open Plant Explorer Workplace Aspect System Structure with system administrator rights. Navigate to *Asset Monitoring, Aspect system -> Asset Monitors, Aspect type. -> HART Generic Device Asset Monitor, Aspect category.* Select the aspect “HART Generic Device Asset Monitor”. Open the tab "Input Records" and set for all optional input records in the column “Data Source Aspect” the entry to "None". Click **Apply** to confirm the changes.
Control structure out of sync message while working with DTMs specially when using Wireless HART or HART Multiplexer connect. 800xADPH-OL-5100-001	Close and re-open 800xA workplace (before re-opening 800xA workplace, ensure that the Device Management process is closed).
Sometimes there may be an entry 'Invalid item ID' in Eventlist after performing operations on Fieldbus Management aspect for example, Upload or Download. 800xADPH-OL-5100-009	Ignore the messages as they have no impact on Fieldbus Builder PH functionality.

Table 52. General Operational Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
It is observed that if Online DTM GUI is kept open for 10 - 12 hours, then *DeviceManagementServer* process crashes. 800xADPH-OL-5100-021	It is recommended to close the DTM GUI after usage. If this issue occurs, close and reopen the Plant Explorer Workplace.
If a HART device fails during a download the progress bar does not stop, and no retry of the download, and no connection to the Device is possible. 800xDPH-OL-5000-023	The user must cancel the download function manually (in the Fieldbus Management View select the context menu “Cancel Download”).
In case Wireless HART Gateway is power recycled, all the adapters may not join the network afterwards. 800xDPH-OL-5100-003	Power recycle the adapters which do not join the network.
Sometimes two wired HART devices may appear under one Adapter in Gateway Webpage. This might happen after replacing the wired device under the adapter or moving it to another adapter. 800xDPH-OL-5100-004	Delete the devices in Gateway Webserver which are not physically connected to the Wireless HART Adapter.

Table 52. General Operational Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
Following general limitations of Pepperl + Fuchs Wireless HART Gateway should be considered: 1. Gateway communication via RS485 serial interface not supported. This means MODBUS RTU /Binary HART over RS485 connectivity is not possible. 2. Gateway webserver is supported from Internet Explorer version 8.0 onwards. 3. DHCP/DNS client functionality will not be supported. Only manual configuration of Gateway IP address is supported. 800xDPH-OL-5100-013	Refer *Device_Management PROFIBUS and HART Configuration (3BDD011934*)* manual for wireless Hart configuration in 800xA system.
Windows Event list is filled by the GPB DTM. 800xDPH-OL-5100-012	The DTM Events will fill the information Event. Ignore the entries or filter them out.
All the Datafields in Identification window of CI920 DTM are not updated in one cycle of communication if CI920 Firmware Version 1.4.2 is used. 800xDPH-OL-5100-006	Press **Reread** in Identification Window.

Table 52. General Operational Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
When Lower/Upper Limit values and Range Units are changed from Configuration window the values are not getting updated in the Identification window. In case of multinode operation changes made in Comments text box are also not getting updated. 800xDPH-OL-5100-007	Download the data and then perform an Upload operation to view the changed values in Identification window.
When a download operation is performed with parameter fields changed, the configuration change counter value in online parameterize Window should increase by 1 with each download operation. But the current field shows some negative value, which changes on each download. 800xDPH-OL-5100-008	Changes in configuration counter count can be observed when download operation is done.Change in value implies that some download operation has been done.
While working with HART Multiplexer DTMs, the List of Multiplexer User interface is not automatically updated if there is a disturbance. Eg.COM port is disconnected. 800xDPH-OL-5100-011	This problem is with update of DTM User interface and refreshing the Multiplexer list will show the correct status of Multiplexers. However there is no issue with Device DTM and Asset Optimization communication.
When working with Generic HART DTM, if plant Explorer is closed, while DTM GUI is still open in Online mode, then there may be an entry in PPA alarm and event list as 'Abort'. 800xADPH-OL-5100-005	Ignore the message.

Table 52. General Operational Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
During PROFIBUS cable disturbance FCI Module's (CI920) DTM switchover from Primary to Secondary takes time which affects Device DTM communication. 800xDPH-OL-5100-023	Disable and Enable Fieldbus Management Communication and perform upload/download.
If user stops FBB OPC Service when HART/PROFIBUS OPC cycles are running, ABBFDTOPC process will remain in Task manager. 800xDPH-OL-6000-001	If user wants to stop it immediately, terminate the process manually from Task Manager.

Miscellaneous

Table 53 list the problems or issues known to exist with the current release that do not fit into one of the other categories. Workarounds, clarifications, or helpful hints have been provided for each issue wherever possible.

Table 53. Miscellaneous Issues

Issue	Workarounds, Clarifications, and Helpful Hints
Redundancy switch over of a Connectivity Server leads to “bad status” in the corresponding Asset Monitors for one OPC Server cycle. 800xADPH-MS-5010-002	Correct values are available from second OPC cycle onwards.
In Generic HART DTM Force window, If user sets to exceed lower / upper range values then Popup window should appear but it's not appearing. 800xADPH-MS-5010-003	When user sets value which exceed the lower / upper range values and press apply button, no message box pops up.But in the status bar it shows a message "No HART message received".The value then goes back to last valid value and user can continue with normal operations
Aspects of device instances created from device type objects will not be updated, if a new minor version of the device type object is installed via Device Library Wizard. 800xADPH-MS-5000-032	Device Type instances will be updated with functional aspects like Device Management aspects only. The device types cannot be recognized directly via name or type definition aspects.

Table 53. Miscellaneous Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
After upgrade from previous 800xA system version less than SV5.0 the HART Generic Actuator and the HART Generic Transmitter device types in the Plant Explorers Object Type Structure includes DMS aspects. If the user instantiates a HART Generic Actuator or a HART Generic Transmitter in the Plant Explorers Control Structure, DMS aspects are available, even, if the connected device is not supported by DMS. 800xADPH-MS-5000-034	Remove the DMS aspects manually. Problems have not been observed, if the device is linked into DMS, even if the connected device type does no support DMS functions.

Installation

Table 53 lists issues that may exist and affect the installation and upgrade of the system or product at time of release. Workarounds, clarifications, or helpful hints have been provided for each issue wherever possible.

Table 54. Installation Issues

Issue	Workarounds, Clarifications, and Helpful Hints
After installing ABB HART Multiplexer Connect, OPCEnum service is getting unregistered from Windows Services. OpcEnum Service will list all available OPC Server. HART Multiplexer Connect is an option to Device Management PROFIBUS and HART The Problem Statement is applicable for Users who selects this option 800xADPH-IN-6000-001	Perform below operations on all Server nodes: 1. Repair "ABB 800xA Common 3rd Party Install" from Programs and Features. 2. Open Windows Services from "*Control Panel\All Control Panel Items\Administrative Tools\Services*" a. Double-click OpcEnum Service to open its properties. b. Change Startup Type from Manual to Automatic. c. Click **Start**.

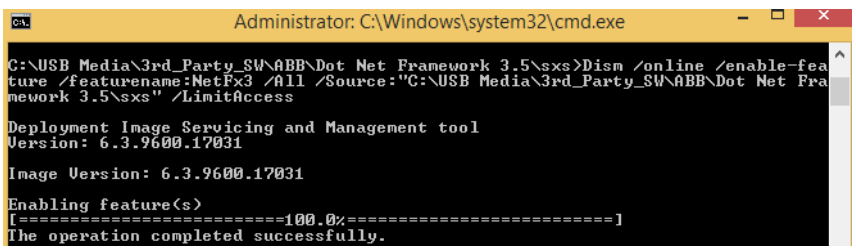
Device Library Wizard

Installation

Table 55 lists the issues that may exist and affect installation of the system or product at time of release. Workarounds, clarifications, or helpful hints have been provided for each issue wherever possible.

Table 55. Installation Issues

Issue	Workarounds, Clarifications, and Helpful Hints
For Operating System: Windows Server 2012 R2, Windows 8.1, some of the third party Device DTMs have dependency on .Net framework 3.5 and less and the above mentioned Operating Systems does not come pre-installed with the said .Net framework. 800xADPH-IN-5100-001	User shall install .Net Framework 3.5 on the above mentioned Operating Systems using Command line, "Dism /online /enable-feature /featurename:NetFx3 /All /Source:<drive>:\sxs /LimitAccess". Following are the detailed steps to install .Net framework 3.5: 1. Navigate to **Sxs** folder available at "*C:\6.0.1 USB Media\3rd_Party_SW\ABB\Dot Net Framework 3.5\Sxs*" 2. Open command prompt to run as administrator and type the following command: "Dism /online /enable-feature /featurename:NetFx3 /All /Source:"C:\6.0.1 USB Media\3rd_Party_SW\ABB\Dot Net Framework 3.5\Sxs" /LimitAccess 3. The message - "*The operation completed successfully*" appears confirming .Net 3.5 framework installation. **Note:** .Net framework 3.5 includes 3.0 and 2.0 as well.



Operation

Table 56 lists the issues that may exist and affect operation of the system or product at time of release. Workarounds, clarifications, or helpful hints have been provided for each issue wherever possible.

Table 56. Operational Issues

Issue	Workarounds, Clarifications, and Helpful Hints
Deletion of device types will result in orphaned object types when device types instances are directly used in any structure other than Control structure. DLW will list such device types as deletable device types as it searches only to control structure if device type has been in use. 800xADLW-OL-5100-003	In such cases delete device types manually and don't use DLW delete functionality.
DLW will list PROFIBUS libraries as deletable library even if the PROFIBUS library is just connected in Control builder and actually not being used. 800xADLW-OL-5100-004	Actual Delete will not be possible in this case. Disconnect the library first in Control builder and then use DLW delete functionality.
While Synchronizing bulk number of Device types or Device Libraries from Primary Aspect server to DLW Clients, Memory Consumption will shoot up momentarily. 800xADLW-OL-5100-005	Synchronization is copying Device types installed in Primary Aspect Server to DLW Clients. Momentary Memory peak is as per Standard Windows behavior during copying from one machine to other.
During Synchronization of Device types or Device Libraries from Primary Aspect server to DLW Clients, will hang in case of Network Disturbances 800xADLW-OL-5100-006	After restoring Network connections, Restart DLW Client. TCP Error Time Out (Network Disturbance Error log) will appear after 10 minutes and this is as per Standard TCP-IP Protocol behavior.

Table 56. Operational Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
During Device Type Restore, User will find device types (available in 800xA Workplace) under both Restore & Install tab 800xADLW-OL-5100-007	While Restoring Device types user need to select the Device types which is available in 800xA Workplace.
While installing the FF object types through DLW user may get an error message " Error! failed updating AFW!, COM error = Unspecified error" 800xADLW-OL-5100-008	The Error message is due to FF builder goes to locked state. The user can unlock the same by navigating to the following path **Service structure-> FFDataStorageAndDistribution,Service -> Basic, Service Group** and select the aspect Service Group Definition. Under **Service group definition** select the **Special Configuration tab** and break the lock for all the entries by right click on the same

Asset Optimization

Installation

Table 57 lists issues that may exist and affect the installation and upgrade of the system or product at time of release. Workarounds, clarifications, or helpful hints have been provided for each issue wherever possible.

Table 57. Installation Issues

Issue	Workarounds, Clarifications, and Helpful Hints

The following error is observed during Asset Optimization software installation on the AO Server Node, while installing the COM+ Components:
`Couldn't register COM+ Component….`
At the same time following events are logged in the Windows Application Event Log.
`Faulting application MsiExec.exe, version 4.5.6002.18005, time stamp 0x49e01c42, faulting module OptaoClientUtils.dll_unloaded….`
800xAASO-OL-5102-001
	This issue is observed in rare instances, perform the following steps to solve this problem:
	1. Click **OK** to acknowledge the message and continue with the installation of the remaining products using the System Update Tool.
	2. After completing the installation,
	• **Start > Control Panel > Programs and Features**.
	• Select ABB Asset Optimization software and click **Uninstall**.
	• Select **Remove** from the installation dialog box and complete the uninstallation of the software.
	3. This software is accessible from the Installation Launchpad by selecting:
	Manual Installation > Applications > Asset Optimization
	4. Follow the Installation Wizard to complete the installation.
	5. **Setup Type dialog box:** Make the selection based on the following:
	• Select Server to install AO Server components on all Asset Optimization Server nodes.

In web-enabled views, the Severity icons are not displayed while calling the object for the first time. 800xAASO-OL-5150-011	Refresh the web-enabled views to view the Severity icons for the objects configured.

Configuration

Table 58 lists the issues that may exist and affect configuration of the system or product at time of release. Workarounds, clarifications, or helpful hints have been provided for each issue wherever possible.

Table 58. Configuration Issues

Issue	Workarounds, Clarifications, and Helpful Hints
If an incorrectly configured Asset Monitor Data Source is (or was) used by a loaded Asset Monitor, an Asset Optimization Server will report the following error message: `"AM Engine Running, DataSources Status: 'Asset Optimization:BAD Asset Monitor Data Source' data source error, will try to reconnect in one minute."` 800xAASO-CN-5000-006	Perform one of the following: • Properly configure the Asset Monitor Data Source and reload the Asset Monitor using it. • If no Asset Monitors are configured to use the improperly configured Asset Monitor Data Source, perform a **Load all AMs** operation from the **Asset Monitors** tab of the Asset Optimization Server aspect. This will remove the improperly configured Asset Monitor Data Source from the Asset Optimization Server. There will be no further retry of connection to unused dataserver(s) by data engine.

Operation

Table 59 lists the issues that may exist and affect operation of the system or product at time of release. Workarounds, clarifications, or helpful hints have been provided for each issue wherever possible.

Table 59. Operational Issues

Issue	Workarounds, Clarifications, and Helpful Hints
While inserting an Object in an Asset Structure, sometimes it is observed that the Asset Viewer propagated status shows last updated status for objects with Asset Monitor that are inserted into the Asset Structure. 800xAASO-OL-5140-010	Re-insert those Objects having Asset Monitors or restart the AssetTree service located in the Service Structure. To restart: 1. Under Service Structure, Service, go to **AssetTree, Service** and then expand **AssetTree SG_1, Service Group**. 2. Click **AssetTree SP_1, Service Provider**. 3. Select **Service Provider Definition** from the Aspect list on the right-hand pane. 4. Clear the selection in **Enabled** check box to disable and then check it again to restart the **AssetTree** Service.
When an equipment ID or Asset Monitor aspect is changed after fault report defaults are created, the changes are not updated in the fault report defaults. 800xAASO-OL-5100-001	Recreate the fault report defaults.

PC, Network and Software Monitoring

Configuration

Table 60 lists the issues that may exist and affect configuration of the system or product at time of release. Workarounds, clarifications, or helpful hints have been provided for each issue wherever possible.

Table 60. Configuration Issues

Issue	Workarounds, Clarifications, and Helpful Hints
Rarely observed that the Generate operation from "IT Device Manager" aspect or Create operation from "IT General setup" aspect creates Asset Monitor as "Object name [`IT Asset object type, IT Asset Monitor`] aspect. During the generate operation the following error message appears: `"[Error] Asset Monitor name "Object name [IT Asset object type, IT Asset Monitor]" is not unique for [Control Structure]Root/IT Server/object name. Transaction Cancelled.` During Create operation, the Plant Explorer closes. 800xAPNS-CN-5100-001	In the Plant Explorer, use the Find tool to search for the *[*,IT Asset Monitor] aspect in Control Structure. Identify all "Object name:object name [IT Asset object type,IT Asset Monitor]" in the list. Right- click and delete the aspects. Perform the Create/Generate operation again.
Basic Computer Asset cannot generate the Alarm messages of potential workstation resource problems. 800xAPNSM-CN-5100-002	Do not delete the Alarms generated during Basic Computer Asset Object creation.

Batch Management

Installation

Table 61 lists issues that may exist and affect the installation and migration of the system or product at time of release. Workarounds, clarifications, or helpful hints have been provided for each issue wherever possible.

Table 61. Installation Issues

Issue	Workarounds, Clarifications, and Helpful Hints
Missing configuration is causing Batch Redundancy not to work. This occurs when expanding systems with redundant services that have been previously deployed with Batch Primary services and Client Nodes. The configuration tool will appear to have successfully deployed even though the configuration is not correct. 800xAPMB-IN-6000-012	Create the ODBC Connection on all nodes after the deployment is complete. Launch command prompt as Administrator and Navigate to *<Installed drive>\Program Files(x86)\ABB Industrial IT\Produce IT\Batch\bin* Run *BatchDSNUtility.exe* <PrimaryNodeName> <SecondaryNodeName>

Configuration

Table 62 lists the issues that may exist and affect configuration of the system or product at time of release. Workarounds, clarifications, or helpful hints have been provided for each issue wherever possible.

Table 62. Configuration Issue

Issue	Workarounds, Clarifications, and Helpful Hints
Oracle (Information Manager) returns an error when a Batch recipe operation tries to use the same history association name (logical name) that another operation in the recipe has already used. This operation is not started. 800xAPMB-CN-5020-003	Ensure that unique logical names are used in recipes. These logical names can be created dynamically using Batch expressions.
When attempting to schedule a Batch using **batch_sbatch** for a procedure that has the same name as another procedure, the following error will appear and the schedule call will fail: Errors: Specified recipe does not exist. 800xAPMB-CN-5024-010	To identify duplicate named procedures, the path to the procedure must be specified as mentioned in the following example: batch_sbatch -b BID -r PathToProcedure/ProcedureName.

Operation

Table 63 lists the issues that may exist and affect operation of the system or product at time of release. Workarounds, clarifications, or helpful hints have been provided for each issue wherever possible.

Table 63. Operational Issues

Issue	Workarounds, Clarifications, and Helpful Hints
If Batch Equipment (Units) and Equipment Group objects are deleted from a system and then the same objects are imported back into the system (from an .afw file), procedures that reference these deleted objects will not execute properly. Control recipe execution failure modes will vary based upon the specific circumstances. 800xAPMB-OL-5000-026	If the Batch application has been installed in a redundant configuration and the secondary Batch server is active and synchronized, force a failover to secondary server node operation to allow the affected procedures to execute properly. The former primary Batch Server should then be restarted and established as the secondary Batch Server using the standard published instructions. If the Batch application has been installed in a non-redundant configuration (or the secondary Batch server is not available), it is necessary to stop the Batch Services, shutdown and restart the Batch Server and restart Batch services to allow the affected procedures to execute properly.
Batch equipment and phase templates do not work after a Version 3.1 SP3 800xA System is restored on a Version 5.0 SP2 800xA System. 800xAPMB-OL-5020-028	1. Delete the MainFaceplate and/or MainFaceplate_Pre50 aspects from each phase type in all user libraries (Object Type Structure/ Object Type/AC800M/C Connect/Libraries/ *user_library*/Control Module Types/*phase_types*). 2. Copy the MainFaceplate aspect from Object Type Structure/Object Type/AC800M/C Connect/Libraries/BatchAdvTemplatesLib/Control Module Types/PhaseTemplate object to each phase type in all user libraries.

Table 63. Operational Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
In the Environment configuration enabled system, a deleted **Development Procedure** aspect is immediately removed from the view in the **Procedure Structure**. However, the aspect is deleted (internally) after 10 minutes. During this interval, if a new **Development Procedure** aspect is created, its procedure data is also deleted. 800xAPMB-OL-5100-021	In the Environment configuration enabled system, after deleting the **Development Procedure** aspect, wait for 15 minutes to create a new **Development Procedure** aspect in the same Procedure object.
Batch redundancy status icons are not displaying the correct status in the following scenarios: 1. When Batch is un-installed and then reinstalled without performing a maintenance stop of the 800xA services or rebooting the node. 2. When a maintenance stop of the 800xA services is performed on a running Batch system and Batch is un-installed and then reinstalled before the system is rebooted. 800xAPMB-OL-5100-022	Move the mouse pointer over the Batch redundancy status icon in the system tray.
When a phase sequence faceplate in DCI is launched through the RPD Faceplate context menu or the block status Faceplate button, the PG2 faceplate is displayed by default. It is not possible to change this default setting to VB faceplates, through the aspect precedence list. 800xAPMB-OL-5100-024	Follow the steps below to change the default faceplate setting: 1. Remove the **Batch Phase Sequence Faceplate PG2** key from the **PG2 Faceplate** aspect of MSEQ object type. 2. Add the **Batch Phase Sequence Faceplate PG2** key to the **VB Faceplate** aspect of MSEQ object type.

Table 63. Operational Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
In some instances, Graphics Display having Batch Graphic Elements such as **UnitStatus Display Element** and **PhaseStatus Display Element** stops responding if resized. 800xAPMB-OL-5100-028	Close and reopen the workplace.
While upgrading an existing system to the System Version 5.1/6.0, the system overwrites the entire Miscellaneous Configuration Aspect in the backup. This removes all the existing Batch IDs and the stored settings in the Miscellaneous Configuration Aspect. In addition, some incorrect Batch IDs are also loaded as part of Miscellaneous Configuration. The incorrect Batch IDs will also appear in a newly created system. 800xAPMB-OL-5100-031	**Restored system:** Export the Miscellaneous Configuration aspect from the [Library Structure] BatchManagement/Configuration object in the backed up system. Import the Miscellaneous Configuration aspect, after restoring the system. **New system:** Identify the incorrect Batch IDs and remove them manually.
For Batch interfacing with DCI systems, Batch IDs having more than 20 characters cause a time-out condition to be generated by the Batch manager when trying to execute the procedure. 800xAPMB-OL-5100-032	Always ensure the Batch IDs have less than 21 characters.

Table 63. Operational Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
In the PFC editor, when a new block is dropped between nested branches, the existing blocks should move automatically and accommodate the new block. Currently, the automatic movement of the blocks does not happen correctly and that causes the new block to remain disconnected. 800xAPMB-OL-5101-035	The user has to manually move the existing blocks horizontally to create enough space to accommodate the new blocks so that the blocks remain connected. Then, use the Align option to align all the blocks in proper order.
If the **Auto-align** option is enabled in the PFC editor, when a new block is dropped between nested branches, the existing blocks should align automatically in the horizontal direction. Currently, the blocks are getting aligned in the vertical direction. 800xAPMB-OL-5101-036	Manually move the existing blocks horizontally, so that the newly dropped blocks get aligned in the horizontal direction.
Procedure align fails to handle a branch with a trivial leg, where a trivial leg is a direct connection between a parallel branch Start and a parallel branch End block, with no intervening blocks between them. 800xAPMB-OL-5101-037	Align the procedure before establishing the connection between the Parallel branch (Start) and Parallel branch (End) blocks.

Table 63. Operational Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
Adding parameter(s) to a phase when the library and applications are not reserved in Control Builder causes the phase parameter to be added to the Object Type of the phase. But, the phase parameter fails to get written to instances. This generates an error message that the parameter could not be added. When the proper steps are followed after the failure, the same error gets generated. 800xAPMB-OL-5101-039	Always reserve the library and application. This will ensure that there are no consistency issues.
The PFC Editor may stop responding while configuring and saving when there are large numbers of blocks. 800xAPMB-OL-5101-040	Edit the crashed Procedure. A message *Do you want to reload the unsaved changes* is displayed. Click **Yes**. Information of all the configured blocks will be reloaded into the editor, except for the last configured block.
While editing multiple attributes in the runtime grid view, if the Limited Low and Limited High are lower or higher than the current **InValue**, then the grid view is cleared, but the Limited High and Limited Low values get retained. After this state, if the **InValue** is changed to a value within the new Limited High and Limited Low and saved, then the cleared values are saved as the new Limited Low or Limited High value. 800xAPMB-OL-5101-042	When editing multiple equipment attributes in the runtime grid view, ensure that the Limited Low or Limited High value of the attributes are not edited to a value higher or lower than the current **InValue**.

Table 63. Operational Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
When Batch Report in xlsx format is printed from **Batch Information** or **Batch History Information**, it does not print an updated Batch Report. However, when a xlsm or xls format of Batch Report is opened for printing, the report gets updated automatically and printed correctly. 800xAPMB-OL-5101-043	When an xlsx format of Batch Report is opened for printing, press F9 key to update the report and then print it. Or When creating the Batch Report.xlsx template, ensure that the function **Calculation Option** is set to the option **Automatic**.
Poor usage of memory by bmsAddValue results in the recipe editor running out of memory. This happens while recipe is saved with 3000 parameters. 800xAPMB-OL-5102-044	Allocate more memory to reduce reallocate frequency.
Recipes containing Sequence Start and Sequence End Blocks that were created or edited in 5.1 and 5.1 Rev A versions will have an incorrect Start ID on the Phase Blocks. This will cause the recipe to fail if a “Start from Beginning” is used. Sequence Start and Sequence End blocks are only used with DCI and Harmony Batch Connects. This issue does not apply to other Connects like AC 800M, MOD 300 and Melody. 800xAPMB-OL-5102-045	If the recipe was created in any version prior to 5.1 and not modified, no actions are required. 1. Select the Procedure and Edit the Procedure. 2. Make any type of edit to enable a save button. 3. Save the recipes and Approve. Now the Phase Sequence Start ID will be saved for all the phases between the Sequence Start and Sequence End.

Table 63. Operational Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
In the versions prior to 5.0, the “Event Attribute Object Extension” aspect is present in the Service Structure under the Alarm Manager. For version 5.0 and greater, these are not required. Leaving these entries in place will cause the Alarm Events data (report) to have redundant entries. 800xAPMB-OL-5102-047	These Event Attribute Object Extensions are no longer used for Alarm Management. Delete all the "Event Attribute Object Extension" aspects.
An Operator signature related to Batch events is missing in the Batch reports. The missing event is logged in the Batch Server syslog file. 800xAPMB-OL-5102-111	The software is improved to add additional diagnostics code to target the issue, since the issue is not recreated and randomly occurred.
The expression “gets” is used to get the current data value for a specified OPC item. If a string OPC item is used with the “gets” expression the returning value will always be 0.0. There is no indication that the expression type was wrong for the value it was trying to obtain. There are no error messages. 800xAPMB-OL-5102-112 Product Bulletin: 3BUA002978	The “gets” expression does function correctly when used with the correct data type. Confirm and test that the correct data type is being used with the “gets” expression. Use “gets” for OPC string items.
Melody phase driver collects the output parameters in **Completed** and **Aborted** states only. 800xAPMB-OL-5104-089	No workaround exists for this issue.

Table 63. Operational Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
A VB runtime error 91 is displayed if the Excel sheet is closed during loading of parameters in Batch Spreadsheet Scheduler. 800xAPMB-OL-5110-002	Close and re-open the Microsoft Excel sheet.
Out Value of Batch phase parameters are not captured in the standard Excel “Batch report Template”. 800xAPMB-OL-5120-112	This problem is intermittent, try rerunning the report until the values are updated.
Unable to schedule Batch from the Scheduler Aspect as the default cell is unavailable and the Batch cell is invisible in the main view of the Scheduler Aspect. 800xAPMB-OL-5130-035	If the default cell is unavailable for a Procedure, make the Batch Cell field visible from the **Config View** of the Batch Scheduler Aspect.
Batch Procedure Function Chart (PFC) displays are closing on their own unexpectedly, without any user interaction. This issue is related to security changes being perform while the PFC displays are open. Any security change made to the system will initiate closure of any open PFC display from any client in the system. 800xAPMB-OL-5140-115 Product Bulletin: 3BUA002862	Avoid changing security settings while the PFC displays are open. Simply reopen the displays if this occurs. This issue will be corrected in a future release of 800xA Batch Management.

Table 63. Operational Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
The user set permissions defined in Aspect Category Definitions are being over written with batch default settings during upgrades and updates. The Aspect Category Definitions are all part of the "***Batch Management Procedures, Aspect System***" found in the Aspect System Structure. The following Aspect Category Definitions are affected: • Batch Cell Definition • Batch Migration Tool • Default Procedure Configuration • Print procedure • Procedure Configuration • Procedure Xrefs • Approved Procedure • Development Procedure • Version Procedure 800xAPMB-OL-5140-119 Product Bulletin: 3BUA00290	Prior to upgrading or updating, users should document the permission settings in each of the category definitions as listed above. The setting can easily be reconfigured by editing the permission settings on the permission tab of the Aspect Category Definition. Specific information on changing the permissions for the Aspect Category Definition can be found in 800xA Batch Management Configuration Guide (3BUA000146-xxx) in the section about the Batch Cell Definition Aspect.

Table 63. Operational Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
Users unable to reset/restart a faulty Harmony phase within Batch Status dialog. The phase will not return to **Idle** with a **Start@Beginning** or **Continue@Next** command. This is a change in behavior from PPB Batch Operations within the Batch Status dialog where **Start@Beginning** would reset and restart the phase and **Continue@Next** would reset the phase to Idle. 800xAPMB-OL-5140-120	PhaseX faceplate must be used to reset or restart and clear the fault.
Deleting a Batch Cell while batch recipes are scheduled under that batch cell will cause the recipes to no longer be displayed in the **Batch Overview** dialog. 800xAPMB-OL-5140-125	There is no workaround. Users should not delete the Batch Cell if there are associated batches scheduled with that cell.

Table 63. Operational Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
Harmony communications can fail to write commands from the Batch Manager to the control logic in the Harmony controller. This failure generates a Batch Alarm. The Batch Recipe will stall on the active block experiencing the communication error and the Recipe Procedure block will turn red indicating an error.	Navigate into the Batch Recipe PFC and select the Block Status of the recipe procedure block experiencing the error. If the block in error is a Compute BMA (Batch Manager Action) use the Start @ Beginning command to retry the compute expression. If the block in error is a Phase, Open the block status of the Phase in error and select either the Start @ Beginning or Continue @ Next command depending on the error shown in the block status Errors field. Conditions that indicate the Phase failed to start and a Start@ Beginning Command is needed:

Table 63. Operational Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
	Command = 1 (Start) Command = 14 (Test Phase) Command = 15 (Start Sequence) Command = 16 (Test Sequence) Command = 31 (Send Phase Data) Command = 32 (Send Sequence Data) Conditions that indicate a Continue @ Next command is needed. Command = 6 (Reset) To correct this on the **Acquire**: Go to the **Batch Recipe** and select the **Acquire** block in error and select the Block Status dialog and then select **Stop**. Go to the Unit's Phasex Faceplate (Unitname_P1) Open the expanded faceplate (...) and Select **LOC**, Select the **Reset** and confirm the **FA (Fault)** on the Faceplate is cleared. Then select the **Acquiring IDs** Tab and select the **Release** Button. Confirm the lock icon at the top of the Faceplate is unlocked. Place the Controller back in BM. Go back to the Recipe Acquire block status dialog and then select **Start @ Beginning.** To correct this on a **Phase**: Go to the **Batch Recipe** and select the **Phase** block in error and select the **Block Status** dialog and then select **Faceplate**. Go to the Unit's Phasex Faceplate (Unitname_P1) Select LOC, Select the Reset Button. Confirm the **FA (Fault)** on the Faceplate is cleared. Place the Controller back in BM. Go back to the Recipe Phase block status dialog and then select **Start @ Beginning**.

Table 63. Operational Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
When creating a new equipment, the type defaults to **AC 800M/C**, which is counted towards the number of equipment(s). If the equipment count is already at its maximum, then the creation of a new equipment including Pseudo units is rejected. 800xAPMB-OL-6000-001	Copy and Paste an existing pseudo unit. If there are no pseudo units, then the workaround is to remove one of the real units, and add the pseudo unit, and then re-add the real unit.
In case of Failover of Batch Server, if the equipment overview window is open, then the updated status of the equipment is not shown. 800xAPMB-OL-6000-002	Close and reopen the equipment overview window to show the correct status of the equipment.
A non-redundant Batch server will fail to periodically truncate the transaction logs. The transaction logs will grow unbounded and eventually consume all the disk space. 800xAPMB-OL-6000-009	Perform a database backup of the SymFlexDB database. The periodic transaction log truncation will then succeed.
The Batch DSN Utility will not run properly when launched from the ABB Start Menu. User will get an error message 800xAPMB-OL-6000-010	No workaround exists for this issue.

Table 63. Operational Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
Batch Manager stops responding if the License Status Viewer application is opened in the system for extended periods of time (greater than an hour). 800xAPMB-OL-6000-011	Avoid opening License Status Viewer application on Batch server nodes.
When the CLS server is offline in a running system it provides temporary licenses to the system. During this period, if a user tries to schedule a batch using Batch Overview the Batch Schedule dialog will take more time to open. In some cases, the Batch Overview goes to a non responding state. 800xAPMB-OL-6000-013	The Add button on the Batch Overview appears to be non responsive. It may take several minutes for the Batch Schedule dialog to open.

800xA History

Installation

Table 63 lists the issues that may exist and affect installation of the system or product at time of release. Workarounds, clarifications, or helpful hints have been provided for each issue wherever possible.

Table 63 Installation Issues

Issue	Workarounds, Clarifications, and Helpful Hints
During installation of HA History Servers in Workgroup environment, database installation gets skipped in Replica History Server. 800xAHistory-IN-6000-002	Before starting the installation of History Servers in HA Configuration, perform the below steps in both the History Servers. 1. Disable User Access Control from Control Panel > User Accounts > Change User Account Control settings. 2. Open the Local Security Policy for the Control Panel > Administrative Tools. 3. In the Local Security Policy window, navigate to Security Settings > Local Policies > Security Options. 4. Select the Security Policy named as **User Account Control: Run all administrators in Admin Approval Mode** and change the Security Setting from **Enabled** to **Disabled**. 5. Close the Local Security Policy window.

Table 63 Installation Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
In the event of NLB network cable disconnection at the Primary History Server, holding the Master Token of Services, the Hot- Standby History Server does not take over the Master Tokens for **EventForwarder** and **TagConsistencyController**. Due to this, the newly created tags and the events does not get collected in either of History Servers. 800xHIS-IN-2001-002	Stop the History Services of the earlier Primary which was holding the Master Tokens.

Configuration

Table 64 lists the issues that may exist and affect configuration of the system or product at time of release. Workarounds, clarifications, or helpful hints have been provided for each issue wherever possible.

Table 64. Configuration Issues

Issue	Workarounds, Clarifications, and Helpful Hints
Deadband configuration on Log Configuration aspect is not available. 800xAHistory-CN-2000-003	No workaround exists for this issue.

Operation

Table 65 lists the issues that may exist and affect operation of the system or product at time of release. Workarounds, clarifications, or helpful hints have been provided for each issue wherever possible.

Table 65. Operational Issues

Issue	Workarounds, Clarifications, and Helpful Hints
Status alarms of RTDB Services in Standby DCN does not get reported in 800xA System Alarm List. 800xAHistory-OL-2000-006	No workaround exists for this issue.
In HA Configuration of 800xA History Servers, if the Hot-Standby History Server is unavailable then the History Supervision aspect will not update the correct status of Replica Node. 800xAHIS-OL-6000-002	No workaround exists for this issue.
Event Retrieval into 800xA fail with Timeout popup when a single subcategory of events are tried to retrieve from History database. This happens only with unbounded timestamp queries (latest time to oldest time). 800xAHistory-OL-6000-003	Use bounded time queries (specific timestamps) to retrieve single subcategory of events.

800xA for Advant Master

Additional tag licenses may be required when updating or upgrading to 800xA 6.0.1 (or newer versions). This is due to an error in earlier versions when calculating DAT objects in the system, which now has been corrected. Refer to *2PAA112277-601*, section System Services issue *800xASRV-OL-6010-001* for further information.

Administration

Table 67 lists the issues that may exist and affect the administration of the system or product at time of release. Workarounds, clarifications, or helpful hints have been provided for each issue wherever possible.

Table 66. Administration Issues

Issue	Workarounds, Clarifications and Helpful Hints
A memory leakage has been detected in RTA Management Service, AdvMbRTA.exe. The leakage is caused by the Advant Master Central Backup function. The size of the leakage is dependent of the number of backups taken. For more information, refer to Product Bulletin 3BSE084525. 800xAADM-AD-5141-001	There is no workaround other than restart the server (or at least the service provider) when the leakage becomes evident.
The display "Local Devices" sometimes shows error "Array index out of range" in PG2 Diagnostics window. . 800xAADM-AD-5104-001	These error messages can be ignored. No workaround is needed.

Configuration

Table 67 lists the issues that may exist and affect the configuration of the system or product at time of release. Workarounds, clarifications, or helpful hints have been provided for each issue wherever possible.

Table 67. Configuration Issues

Issue	Workarounds, Clarifications and Helpful Hints
Node objects in Control structure of type MP200 Controller will report the following error: "Formal aspect '**Control Connection**' should not be propagated to instance..." when running the Consistency checker tool after upgrade from older versions to 6.0. 800xAADM-CN-6000-002	The error can be repaired by the Consistency checker tool.
Using the System Status Viewer (SSV) on the Root object of the control structure can cause high system load 800xAADM-CN-6000-003	It is not recommended to use the System Status Viewer (SSV) on the Root Object. This aspect is delivered with 800xA for Advant Master and is configured to show all system status in Control structure. Delete this aspect on the Root object and use it on the underlying network objects instead.

Table 67. Configuration Issues (Continued)

Issue	Workarounds, Clarifications and Helpful Hints
Object has wrong type in control structure in System 800xA after upload. The issue is created by following this sequence: 1. Create a DI object in the controller 2. Upload the controller 3. Delete the DI object 4. Create an AI object with the same name as the deleted DI object 5. Upload the controller 800xAADM-CN-5102-001	Do the following to ensure that the correct object instance is added to the control structure in System 800xA: 1. Create a DI object in the controller 2. Upload the controller 3. Delete the DI object 4. Upload the controller, to ensure that the DI object is removed from the control structure 4. Create an AI object with the same name as the deleted DI object 5. Upload the controller to add the correct object instance to the control structure
The online help for On-line Builder Commands do not function for RTA board Configuration in Windows 8.1 and Windows Server 2012 R2. 800xAADM-CN-5100-004	A Windows Help and Support window is displayed if any error occurs. It is possible to correct the error for Windows 8.1 by following the instructions provided in Microsoft Help and Support website. This instruction includes download of a program that helps to view the On-line Builder Commands help file.

Operation

Table 68 lists the issues that may exist and affect the operation of the system or product at time of release. Workarounds, clarifications, or helpful hints have been provided for each issue wherever possible.

Table 68. Operational Issues

Issue	Workarounds, Clarifications and Helpful Hints
The Local device status display used for AC 410, AC 450 and Safeguard 400 controllers may indicate wrong status for the second Program/Application card. 800xAADM-OL-5111-002	No workaround exists for this issue.
Misleading information appears in display elements when opening a process display, if the controller is in configuration mode. 800xAADM-OL-5100-008	Some display elements show a valid symbol for a minute, even if the related controller is stopped. For example, a valve symbol shows *Closed* position. After sometime, the display elements indicate bad data.
Some alarms cannot be acknowledged after restart of Connectivity Server. 800xAADM-OL-5103-001	No workaround exist for this issue. These alarms can however be acknowledged when the object is in normal state and no other unacknowledged alarms exist in the alarm list for this object.
Alarms generated first few seconds after a controller restart may not be sent to a Connectivity Server, due to late reaction in the Connectivity Server when the controller becomes available again. 800xAADM-OL-5103-002	No workaround exist for this issue.

800xA for AC 100

Configuration

Table 69 lists the issues that may exist and affect configuration of the system or product at time of release. Workarounds, clarifications, or helpful hints have been provided for each issue wherever possible.

Table 69. Configuration Issues

Issue	Workarounds, Clarifications, and Helpful Hints
The AC 110 version 2.0 is not compatible with 800xA for AC 100 and AC 100 OPC Server. 800xAAC1-CN-5100-001	Upgrade AC 110 to version 2.1 or a newer product version.
800xA for AC 100 does not support disabling of alarms from alarm list. There is no way to enable alarms which have been disabled. Performing "**Disable Object**" from context menu for an alarm condition will disable alarms from that object until the Connectivity Server is restarted. 800xAAC1-CN-5020-002	To disable the function uncheck the "**Supports Disabling**" check box, in the ABB AC 100 OPC Alarm Server, Alarm Collector Definition object in Library Structure.
No NLS support exists for the Event Categories (Process Condition Event, System Condition Event and System Simple Event) and Event Conditions (Level L, Level LL, etc.) 800xAAC1-CN-3100-001	No workaround exists for this issue.
Alarm limits of DAT_AI are not visible in OPC and hence in PPA. 800xAAC1-CN-5020-001	Use the AIS element instead of DAT_AI, if alarm limits are needed.

Operation

Table 70 lists the issues that may exist and affect operation of the system or product at time of release. Workarounds, clarifications, or helpful hints have been provided for each issue wherever possible.

Table 70. Operational Issues

Issue	Workarounds, Clarifications, and Helpful Hints
The faceplate Alarm Control does not indicate that the alarm is blocked if the alarm is in alarm state. 800xAAC1-OL-5100-001	No workaround exists for this issue.
CI527A must be set to AF 100 Bus Master to get proper status indication for System Status Viewer. 800xAAC1-OL-6000-001	Always configure CI527A as AF 100 Bus Master.
It is not possible to enter values using the Input field, outside the range 0-100 on the following faceplates: AIS, AOS, DAT_AI and MR. However, entering values from the bar graph is possible. 800xAAC1-OL-4100-001	The faceplate elements Control PG2 and Reduced Control PG2 can be corrected for these object types. The Max/ Min parameters should be set to RANGE_MAX/RANGE_MIN instead of 100/0.
The DAT_DAT faceplate cannot present boolean values, and it is not possible to enter a new value for any value type. 800xAAC1-OL-5020-002	No workaround exists for this issue.

Table 70. Operational Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
If an alarm for DAT_AI is active in the Advant Controller and was send to OPC Server, after a restart of the OPC Server, the Alarm is not delivered to OPC Clients. 800xAAC1-OL-3100-001	If the alarm later on becomes inactive this is not shown in the alarm list.
A single cable failure on AF100 leads to toggling of Status bit for AC 100 AF100 CI and therefore also AC 100 AF100 CI Summary. 800xAAC1-OL-4000-001	No workaround exists for this issue.
Removing one AF100 interface of a redundant pair is not signalled in AC 100 AF100 CI Status object. 800xAAC1-OL-4000-002	Missing module errors are indicated by the AC 100 AF100 IO CI Summary object.
The Faceplate aspect for signal objects, that can have a value above ten million, does not show the correct value when it exceeds ten million. 800xAAC1-OL-5020-001	Customize faceplate and Object Display.

800xA for Safeguard

Operation

Table 71 lists the issues that may exist and affect operational of the system or product at time of release. Workarounds, clarifications, or helpful hints have been provided for each issue wherever possible.

Table 71. Operational Issues

Issue	Workarounds, Clarifications and Helpful Hints
Double-click an Advant Master graphic element. This might display an Object Display instead of the Faceplate. 800xAADM-OL-4100-015	Execute the following steps: 1) Open the Aspect Precedence List aspect located in the Library Structure (Library Structure > Preferences & Customizations > Aspect Precedence Lists > Default precedence list). 2) Move the Default Aspect below the Faceplate.

800xA for AC 870P/Melody

Installation

Table 72 lists issues that may exist and affect the installation and upgrade of the system or product at time of release. Workarounds, clarifications, or helpful hints have been provided for each issue wherever possible.

Table 72. Installation Issues

Issue	Workarounds, Clarifications, and Helpful Hints
Unable to open the Object List in Melody Configuration Server. 800xAMel-IN-6000-002	The prerequisite for the Object List to open is to set the language for Internet Explorer as **English (United States)** and this must be on top of all the preferred languages. To set this: Open Internet Explorer >Options > Languages >Set Language Preferences.
The following functionalities are currently unavailable within System 800xA 6.0: • System 800xA for Melody Asset Management for HART Devices. • Composer Melody Navigation. These functionalities require a Composer Melody (S+ Engineering) installation on 800xA Nodes. There is currently no release of Composer Melody on **Windows 8.1** and **Windows Server 2012 R2**. 800xAMel-IN-6000-003	Users who need these functionalities, should contact ABB Level 3 Support for further information.

Table 72. Installation Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
Configuration Server Replication is offline after Configuration and Connectivity Server nodes where started at the same time, especially after the system was updated offline from a previous version. 800xAMel-IN-6001-001	Restart the Configuration Server node and then, one by one, the Connectivity Server nodes. The Replication Monitor should show all nodes as online.
Installing a MI subscriber system requires to select the Configuration Server node although the system does not contain a Configuration Server and only Melody Client components need to be installed. 800xAMel-IN-6001-002	The Configuration Server name is not used when installing Melody Client components, so any of the available server nodes can be selected as Configuration Server.

Operation

Table 73 lists the issues that may exist and affect operation of the system or product at time of release. Workarounds, clarifications, or helpful hints have been provided for each issue wherever possible.

Table 73. Operational Issues

Issue	Workarounds, Clarifications, and Helpful Hints
If a Trend Display is open, it could possibly be that the low and high range for some tags did not show the actual value instead showed the default range 0 - 100. 800xAMel-OL-6000-001	Reopening the Trend Display can fix this issue.

800xA for DCI

Installation

Table 74 lists issues that may exist and affect the installation and upgrade of the system or product at time of release. Workarounds, clarifications, or helpful hints have been provided for each issue wherever possible.

Table 74. Installation Issues

Issue	Workarounds, Clarifications, and Helpful Hints
If the system is configured with 800xA Batch for DCI and the System Update Tool is used to update to 800xA 5.1 current revision, in 800xA for DCI when DCI MSET objects are created or imported an error message appears due to an outdated aspect "MSET Type Definition. The *40_DciBatchObjectTypes.afw* file must be re-imported before uploading any DCI MSET objects. 800xADCI-IN-5101-002	Execute the following steps: 1. Open the Import/Export Tool from **Start > All Programs > ABB Industrial IT 800xA > System > Import Export**. 2. Click the **Open** icon or select **File > Open**, to open the *40_DciBatchObjectTypes.afw* file. **Path:** `C:\ Program Files (x86)\ ABB Industrial IT\800xA\ DCI Library\ DciBatch\ import\40_DciBatchObjectTypes.afw` 3. Click the **Import All** icon or select **Actions > Import All**, and then click **Finish**. Click **Yes** on the prompts on overwriting aspects.

Table 74. Installation Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
System Update may fail to complete on 800xA for DCI Batch nodes due to a pending Maintenance Stop action. 800xADCI-IN-6001-002	Before updating an 800xA for DCI Batch system, do the following to stop the Batch Services on each 800xA for DCI Batch node: 1. Right-click on the **Windows Start** icon on the Taskbar, and click **Run**. Enter “Services.msc” in the **Run** text box. After a few moments, the **Windows Service Management Console** window appears. 2. Right-click on “Batch Service” in the list of services, and select **Stop** from the pop-up menu. 3. Click on the **File** menu item, and select **Exit** from the drop-down menu. Proceed with the 800xA Update process.

Configuration

Table 75 lists issues that may exist and affect the configuration of the system or product at time of release. Workarounds, clarifications, or helpful hints have been provided for each issue wherever possible.

Table 75. Configuration Issues

Issue	Workarounds, Clarifications, and Helpful Hints
Irrelevant CCL file names may be displayed on CCM and PHS module faceplates. 800xADCI-CN-5022-010	There are no known workarounds.

Operation

Table 76 lists the issues that may exist and affect operation of the system or product at time of release. Workarounds, clarifications, or helpful hints have been provided for each issue wherever possible.

Table 76. Operational Issues

Issue	Workarounds, Clarifications, and Helpful Hints
When the Module Set (MSET) Lock bit is set (LCK = 1), operators are not prevented from making changes to the module as was the case from Conductor NT. 800xADCI-OL-5101-008 Product Bulletin: 3BUA002399	There are fundamental security differences when operating from Conductor NT and 800xA operator stations. DCI/Conductor NT security is server (DCU) based. 800xA security is client (operator station) based. Workaround: Configure the 800xA Control Connection permissions to disallow writes to any atom that a particular operator is not permitted to write to from a Conductor NT operator station when the module is locked. That operator will not be able to write to those atoms from the 800xA operator station under any circumstance, but will still have the normal privileges at the Conductor NT operator station. If those atoms need to be written from the 800xA operator station then they will need to be made by an operator permitted to write to them with the module locked or unlocked.
Disconnecting both control network cables from the primary DCI Connectivity Server does not force a switchover to the backup CS. 800xADCI-OL-5021-012	Workaround: Shut down the primary CS to force the switchover.

Table 76. Operational Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
PG2 Extended faceplate for DCD displays the ILB input as a real instead of boolean. 800xADCI-OL-5022-005	Note that ILB displays as 1.00 and 0.00, instead of the expected 1 and 0.
After Installation of the DCI Connectivity Server node, ABB DCI Network Service (Windows Service) is not started automatically. 800xADCI-OL-5022-006	Start the service manually from Windows Services.
Scheduled Batch fails with an error during DCI Connect Redundancy Switchover. 800xADCI-OL-5020-028	To tell if a phase is currently active, examine the MSEQ module (hierarchically directly under the MSET module). The faceplate provides the state of the current phase, if any. In addition, the CCL display will show where the phase is currently executing. If a Phase is selected, but the Run command has not been issued, the selected phase will show in yellow on the PHS line. When the phase is still running, the MSEQ faceplate will show this and the CCL display will show the executing statements. If the Phase has been selected, but not run, restart the phase. If the phase is currently running, allow it to complete and then skip the phase. If no phase is selected, determine from the process if the phase has completed, and, if it has, skip the phase. Otherwise, restart the phase.
On DCI TMR Faceplates, the FMT value cannot be edited in the Normal Faceplate display. 800xADCI-OL-5022-008	Enter SP changes on the Extended Faceplate Display Limits tab in the SPL field. Enter the desired time as seconds.

Table 76. Operational Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
On a restart of a Connectivity Server, the Connectivity Server may not list all nodes it finds as introduced. 800xADCI-OL-5023-010	Dual Watchdog completes its startup with the event **%+ communication with DCI network resumed**. This appears to be the last message recorded from that server during a startup. It may happen before all nodes are discovered.
System alarms that happen more than once are not displayed more than once in the alarm and event list. 800xADCI-OL-5023-009	This is as per design. System 800xA does not re-display alarms that have the same information as another active alarm. The Conductor NT Event Historian would display these alarms.
DCI Batch OPC server may stop reporting phase completions. The next phase cannot run because the MSEQ module associated with the phase is marked as in use. 800xADCI-OL-6000-001	Failing over to a redundant DCI Batch OPC Server frees the MSEQ module allowing the batch to continue.
DCI Batch sequences may show error as Sequence not IDLE. This has been observed in batches with parallel sequences. 800xADCI-OL-6000-002	There are no known workarounds.
The DCI Tag Importer may not complete an import of 800xA for DCI tags. 800xADCI-OL-6001-001	In the Object Type Structure, remove the **Basic Object Name Hook** from the ANI FIX 0 in the Symphony DCI Object Type Group.

800xA for Harmony

Installation

Table 77 lists the issues that may exist and affect installation of the system or product at time of release. Workarounds, clarifications, or helpful hints have been provided for each issue wherever possible.

Table 77. Installation Issues

Issue	Workarounds, Clarifications, and Helpful Hints
When performing an Upgrade of System 800xA having **800xA for Harmony Batch**, the following messages may appear in the **Configuration Wizard** upgrade log during restoration of the 800xA Maintenance backup: Tue Mar 31 09:22:59 2015: Upgrading the Harmony Batch System Extension from system version 5.1-0 to system version 6.0-0. Tue Mar 31 09:22:59 2015: Could not find '[Direct][Admin Structure]Administrative Objects.Inventory Object.Aspect Category.Harmony Parameters', Error Number: -1967453661 Tue Mar 31 09:22:59 2015: Harmony Connect upgrade failed, Error Number: -1967453661 800xAHAR-CN-6000-010	The messages are being generated due to an attempt to delete a duplicate Harmony Batch Aspect that may not exist in the system. This will not cause any operational problems, and these messages can be ignored.
800xA for Harmony no longer supports SCSI INICI03 or later interfaces. 800xAHAR-IN-5101-004	800xA for Harmony supports IET800, PNI800, and serial interfaces.

Administration

Table 78 lists the issues that may exist and affect administration of the system or product at time of release. Workarounds, clarifications, or helpful hints have been provided for each issue wherever possible.

Table 78. Administration Issues

Issue	Workarounds, Clarifications, and Helpful Hints
Cannot set the IP address of the IET800 when working in a virtual environment. 800xAHAR-AD-5101-001	Use a hyper terminal connected to the serial port of the IET800 to set the IP address. IET800 diagnostic mode must be enabled.

Configuration

Table 79 lists the issues that may exist and affect configuration of the system or product at time of release. Workarounds, clarifications, or helpful hints have been provided for each issue wherever possible.

Table 79. Configuration Issues

Issue	Workarounds, Clarifications, and Helpful Hints
When exporting/importing PG2 graphic displays from one Harmony system to the other, there is no Display Tool available to fix object references. 800xAHAR-CN-5021-006	To transfer PG2 aspects and resolve and approve them on a different system: • Import the PG2 graphic displays. **- Aspect by aspect** - Data References > Resolve All > OK > Save, Close. **- Partial Multiple aspects** - Use the Check Consistency Tool > Select All > Repair > All aspects will be Unapproved. Drag each object/aspect into the Reference Tool > Approve.

Table 79. Configuration Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
The 800xA for Harmony Uploader does not correctly import the Logic State Zero (LS0) and Logic State One (LS1) fields for Multi-State Device Driver (MSDD) tags from Harmony Composer or S+ Engineering generated Export databases, or databases generated by the Harmony Tag Importer Exporter tool from an 800xA for Harmony version previous to 6.0. When importing an affected database, the configuration information for LS0 and LS1 is erroneously saved in the OUT/SIG0 and OUT/SIG1 fields for each MSDD tag being imported. **Note:** This behavior does not occur when using a database that was created via the Standalone ConfigServer Export Tool or the Harmony Uploader Aspect's Export Functionality. The above mentioned fields import correctly from these databases. 800xAHAR-CN-6000-011 Product Bulletin 3BUA003038	The MSDD LS0, LS1, OUT/SIG0, and OUT/SIG1 fields can be manually changed to the correct value after the upload. This can be done either using the **800xA Bulk Data Manager**, or the **MSDD TagConfig** Aspect.

Operation

Table 80 lists the issues that may exist and affect operation of the system or product at time of release. Workarounds, clarifications, or helpful hints have been provided for each issue wherever possible.

Table 80. Operational Issues

Issue	Workarounds, Clarifications, and Helpful Hints
Block and Module Detail display call-up times can be between 5 and 30 seconds when using an IET800 or PNI800 with 800xA for Harmony. 800xAHAR-OL-5101-003	No workaround exists for this issue. The call-up time for the Block and Module Detail display does not impact normal plant operation and control.
Incorrect violated limits can be displayed for DAANG Tags with multiple level alarm limits defined. 800xAHAR-OL-5102-015, 800xAHAR-OL-5202-015	The software has been updated to improve the accuracy of the displayed DAANG Tag violated limits, however it is still possible that incorrect violated limits may be displayed.

800xA for MOD 300

Installation

Table 81 lists the issues that may exist and affect installation of the system or product at time of release. Workarounds, clarifications, or helpful hints have been provided for each issue wherever possible.

Table 81. Installation Issues

Issue	Workarounds, Clarifications, and Helpful Hints
Having a whitespace character in the Service Account password will make automated post installation steps fail for 800xA for MOD 300. 800xAMOD-IN-6000-003	Avoid using whitespace characters in the Service Account password.

Configuration

Table 82 lists the issues that may exist and affect configuration of the system or product at time of release. Workarounds, clarifications, or helpful hints have been provided for each issue wherever possible.

Table 82. Configuration Issues

Issue	Workarounds, Clarifications, and Helpful Hints
MOD 300 Displays are not available for in the subscriber system when using Multisystem Integration. 800xAMOD-CN-6000-001	MOD 300 Displays will function in Multisystem Integration when they are native to the system they are being run against.

Table 82. Configuration Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
Whenever you use an attribute for a loop that contains a PID FCM, both Medic and 800xA show the PID extension. If the loop does not contain a PID FCM, it shows only the loop name without the LCM extension. This is also observed with the GET FCM. It appears that addressing any attribute with the LCM extension changes to PID when the loop in which you are getting the attribute from contains a PID FCM. 800xAMOD-CN-5020-021	This is a display issue and does not affect operation.

Operation

Table 83 lists the issues that may exist and affect operation of the system or product at time of release. Workarounds, clarifications, or helpful hints have been provided for each issue wherever possible.

Table 83. Operational Issues

Issue	Workarounds, Clarifications, and Helpful Hints
Any translation of a device loop INITIAL COMMAND field that represents a device descriptor set with binary output range greater than 15 will not display correctly in Loop FCMs. 800xAMOD-OL-5103-001 Product Bulletin 3BUA002812	There is no workaround for this issue.
Messages appear to be lost from TCL programs. If a duplicate Billboard message is generated, this message will appear at the bottom of the list. This message also shows the original active time, giving the appearance that the message is lost. 800xAMOD-OL-5010-027	This problem can occur if there is a message queue of 256 messages. If the messages are not acknowledged in a timely manner, the recurring Billboard message can appear to be lost because it appears at the bottom of the list. If Billboard messages are acknowledged in a timely manner, this problem will not occur. The workaround for these messages is to create an Event List for the Billboard messages and sort them by 'Event Time' rather than the default 'Active Time'.

Table 83. Operational Issues (Continued)

Issue	Workarounds, Clarifications, and Helpful Hints
ABBGetOPCDA calls from DataDirect may return #VALUE! when reporting on 800xA for MOD 300 data. 800xAMOD-OL-5103-004 Product Bulletin: 3BUA003000	The DataDirect report may be ran again to retrieve data missing in the first report. This is a timing issue that does not affect the same data points each instance of the report.
When **Print to File** is used for importing a MOD 300 Environment into 800xA and the first block of the group is blank, the whole group will not be imported. 800xAMOD-OL-5103-005	There is no workaround. Make sure that the first block of the group is not blank before **Print to File** is used for importing a MOD 300 Environment into 800xA.

Appendix A Batch Unit Diagram using Diagram Editor

The Diagram Editor is a configuration tool to develop the control logic. The increased engineering efficiency and the enhanced graphical user interfaces make it easy to use. This version of release supports **Batch Unit Diagrams**.

A dedicated project and an application are included in the Batch Advanced Templates System Extension. The application contains a diagram called **BatchUnitDiagram**. This is considered as the master diagram and is used by the Application Engineer to create all the job specific unit diagrams.

The above project is not loaded when the Batch Advanced Templates system extension is loaded using the standard system extension load procedure. It must be loaded using the procedure described below.

The BatchUnitDiagram template itself reduces the available License count of Batch Equipment by one number. Users not requiring this Batch unit diagram template are advised to delete the template to recover the Batch Equipment license.

Importing the BatchUnitDiagram

Perform the following steps to import the Batch Unit Diagram:

1. Create a folder named **4** in the path C:\Program Files (x86)\ABB Industrial IT\Produce IT\Batch\Batch Advanced Phases\Import.
2. Copy the **Batch CDE.afw** from C:\Program Files (x86)\ABB Industrial IT\Produce IT\Batch\Batch Advanced Phases\BatchCDETemplate to the folder created in step1.
3. Uninstall the Batch Advanced templates system extension and reload.

a. Uninstall: Select the domain and **System Extensions** Aspect.

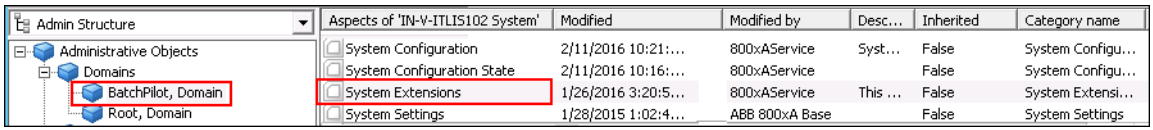


Figure 1. Uninstall System Extensions

b. Select **ABB Batch Advanced Templates** and click **Delete** for the one "Installed on this node".

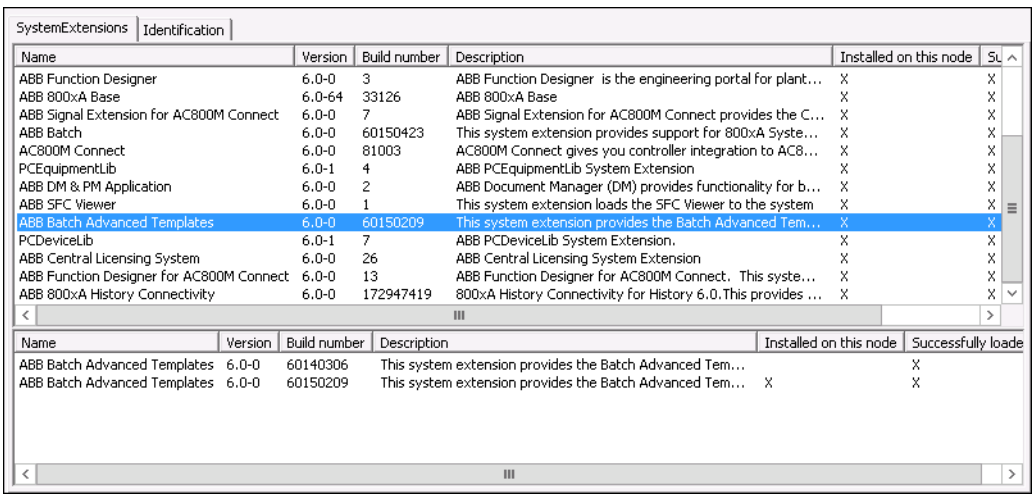


Figure 2. System Extensions - Batch Advanced Templates

c. Select **No** in the dialog. This removes the extension from the System.

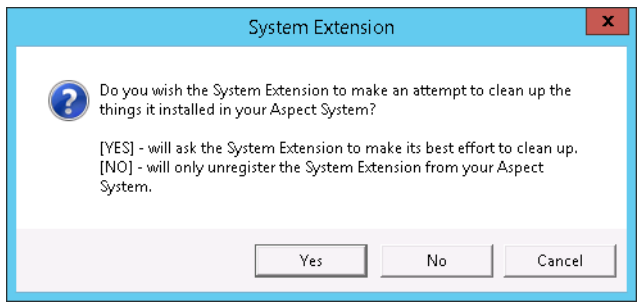


Figure 3. System Extension - Unregister

d. Reload the Batch Advance Templates.

e. Open the Configuration Wizard and select **System Administration**.

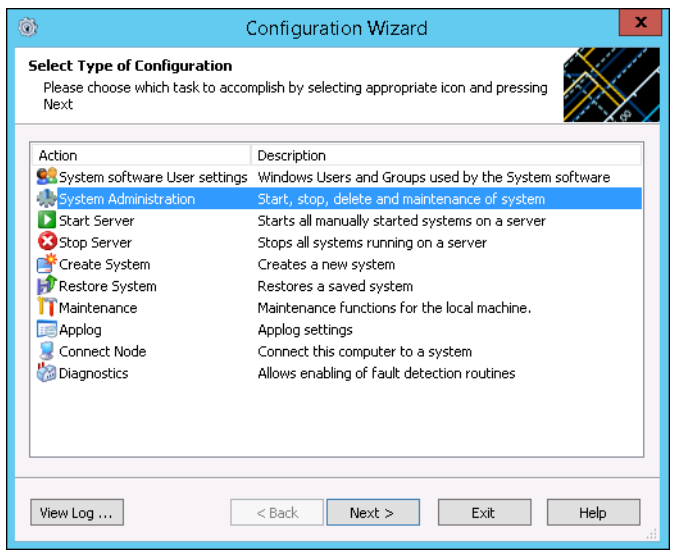


Figure 4. Configuration Wizard - System Administration type

f. Click **Next** until you get to the following screen, and select **System Extension Maintenance**.

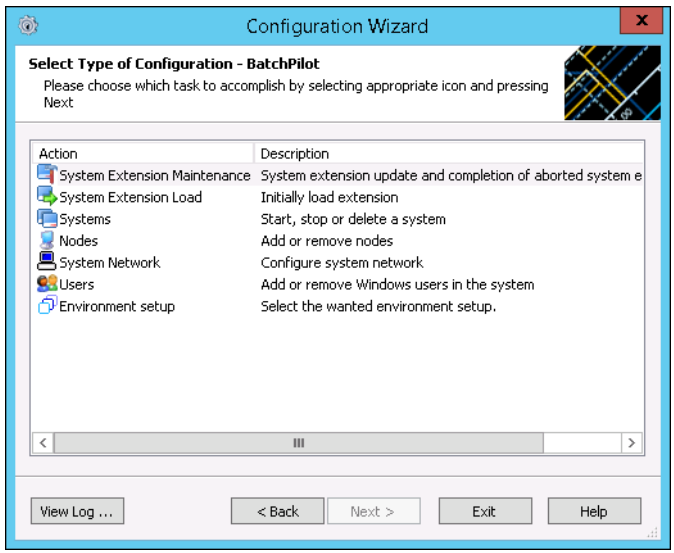


Figure 5. Configuration Wizard - System Extension Maintenance

g. The Batch Advanced Templates will be in the drop-down list,

– Select it and move it to the right-side of the window using the **>** button. A green checkmark appears indicating it is ready to install.

– Select **Next** to install. (This will add everything in the *Import* folder from Step 3 to the system, and the only new thing will be the Batch Unit Diagram project). Wait for the **Finish** button to highlight and click **Finish** to complete the Import. The build number of the Batch Advanced Templates will be the same as at the start of the procedure, but the **ProjectBatchCDE** is created in the control structure.

4. After loading the system extension a control project named **ProjectBatchCDE** which includes the BatchUnitDiagram template is created under control

structure. Figure 6 shows a snapshot of the BatchUnitDiagram application.

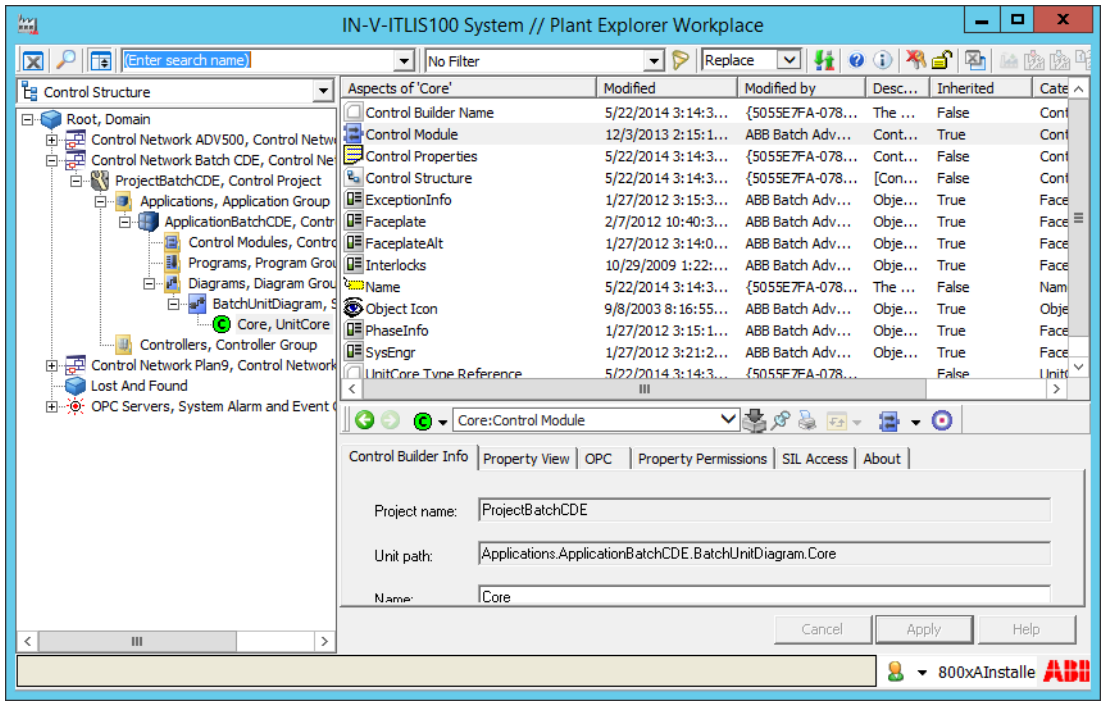


Figure 6. Batch Unit Diagram Application

The diagram consists the same fundamental aspects that the corresponding Unit Control Module template has such as the Unit Core Control Module and the default ISA-88 Batch Code blocks. Users should copy and paste this diagram into their own applications and then configure it using the Diagram Editor.

Creating Batch Units using Diagram Editor

Perform the following steps to create a project specific Unit Control Diagram using a Batch Unit Diagram (as shown in Figure 7):

1. Navigate to **Control Structure** > Control Network Batch CDE/ProjectBatchCDE/Applications/ApplicationBatchCDE/Diagrams.
2. Right-click to copy the **BatchUnitDiagram** object and paste onto the Diagrams node of a new or existing Control Application. Rename the unit in the Control Builder.
3. Select the **Batch Equipment** aspect of the renamed Batch Unit object in the 800xA Plant Explorer workplace.
4. Select the **Equipment Attributes** tab.
5. Use the **Insert a New Attribute** button to add and configure all the attributes for this unit.

In Controller and Constant are disabled for Float, Integer and Text attributes when used with Batch Unit Diagrams.

6. Open the unit diagram in Control Builder Diagram Editor window. It contains the UnitCore on the Main Code page along with Code Blocks for Standard ISA-88 states.
7. If desired, new Code Blocks can be added for the states supported by the UnitCore that are not connected by default (for example: Aborted, Held, Paused, Stopped). To perform this operation:
   a. Select **Insert > Code Block** from the Diagram Editor menu. The **Insert New Code Block** dialog appears.
   b. Choose the desired language, enter the name of the code block (for example: Held) and then click **OK**.
   c. Right-click on the **UnitCore** object, and select **Port Visibility** and then check the desired code block (for example: HeldCode) to make it visible.
   d. Right-click on the newly exposed Pin (for example: HeldCode) and enter the name of the code block (for example: Held).

By removing the connection from the Pin and deleting the Code Block, the connected Code Blocks can be disconnected.

e. To add a phase, right-click on the background of the **Main Code** tab and select **New > Object**. Browse to the desired phase, enter the correct name and then click **Insert**.

Phases used with Batch Unit Diagrams must have all of parameters set to local scope (Level = Local).

The **Name** and **_bBatchConnection** pins must be manually set. Set the Name to the string literal (The literal should be within single quotes) of the name that was given to the phase when inserted. Set the **_bBatchConnection** pin to **_bBatchConnection**. Note that whenever the name of the phase is changed, the Name pin must be manually updated to match.

The unit diagram is now a fully functional Batch Unit that can run its phases. It can be configured to run in a recipe in exactly the same way that Control Module based units are configured and run. It can also manually operate through faceplates.

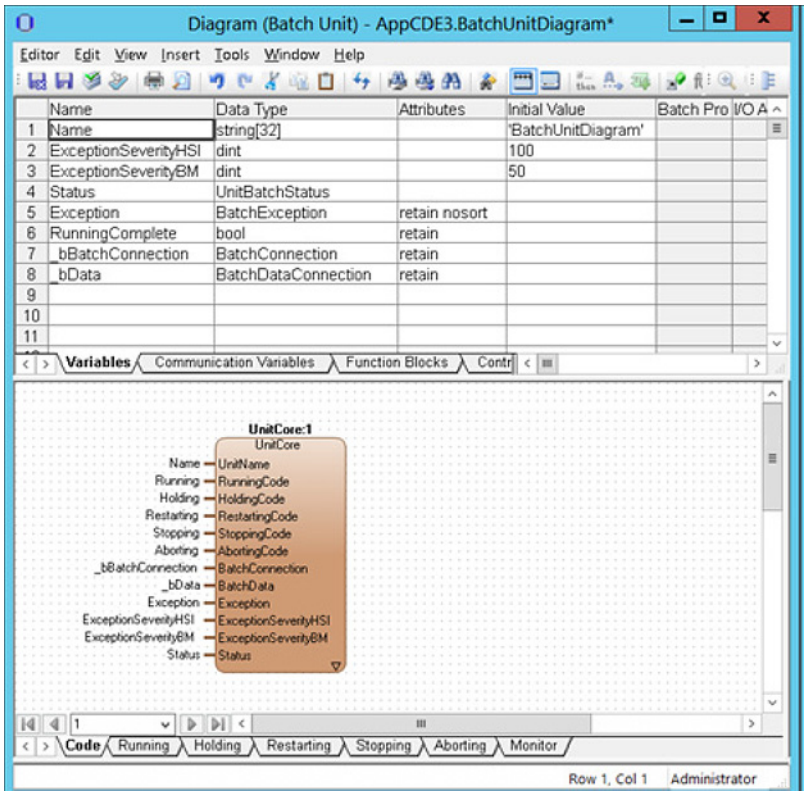


Figure 7. Batch Unit Diagram (Master Diagram)

Copy-paste across projects or applications results in a duplicate name conflict generated from the name synchronization aspect. Figure 8 shows an error message that is displayed to users.

Users need to copy-paste the diagram into the same application so that Control Builder M automatically generates a unique name for it and then cut-paste it into the desired application.

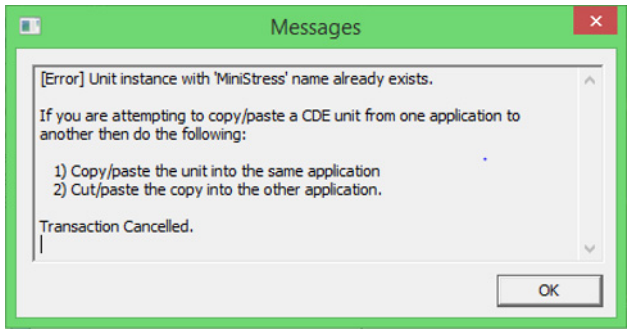


Figure 8. Error message for duplicate name conflict

On run of consistency check tool for control structure with the **BatchUnitDiagram** template loaded, no configuration is done for OPC data source definition aspect. Hence an error is generated with description - “The service group ID doesn't belong the valid service group”.

Revision History

This section provides information on the revision history of these Release Notes.

The following table lists the revision history of this document.

Revision Index	Description	Date
-	Version Published for 6.0.2	April 2016
A	Version Published for 6.0.2	May 2016

Updates in Revision Index A

The following table shows the updates made in this Release for 800xA 6.0.2.

Updated Section/Sub-section	Description of Update
Section 3 Known Problems	Updated the following subsections: • Engineering Studio • Application Change Management • SFC Viewer • Process Engineering Tool Integration • Device Library Wizard

Contact us

www.abb.com/800xA
www.abb.com/controlsystems

2PAA111899-602 A

Power and productivity
for a better world™