BU CT Service Products

System 800xA Benchmark Reports
User Manual

Version 1.3

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About This User Manual

General

This manual describes the System 800xA Benchmark reports for the System 800xA Performance Status and the System 800xA Software Status tools with appropriate examples.

Unless otherwise mentioned, the content and procedures described in this manual are applicable for the latest revision of the System 800xA 5.1 and above. A separate information note or a new section is introduced if a specific feature is applicable to systems other than System 800xA 5.1 and above.

User Manual 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.

Terminology

The listing includes terms and definitions that apply to the System 800xA 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.

Section 1 Introduction

This section introduces the Performance Status and the Software Status reports available in My Control System.

System 800xA Benchmark Performance Status Report

The System 800xA Benchmark Perfomance Status report helps the user to identify the nodes with system performance issues.

The Performance Status Collection utility is used to collect the data (in the XML/CAB format) from the System 800xA network, to generate the Performance Status Benchmark report. For more information, refer to the My Control System help.

The *.xml/.cab* file collected using the Performance Status Collection utility is uploaded in the recorded data folder of My Control System. A Benchmark report (in the PDF format) gets generated in the Reports folder of My Control System after uploading the *.xml* file.

The terms and conditions on the use of My Control System are explained in the My Control System document.

The System 800xA Service Data Collector tool is used to collect data from the System 800xA networks to generate the Benchmark Performance Status report.

For more information on the data collection, refer t*o the System 800xA Service Data Collector User Manual (2PAA110012*).*

System 800xA Benchmark Software Status Report

The System 800xA Benchmark Software Status report helps the user to identify the System 800xA nodes with software issues.

The System 800xA Service Data Collector tool is used to collect data from the System 800xA networks to generate the Software Status Benchmark report.

For more information on the data collection, refer t*o the System 800xA Service Data Collector User Manual (2PAA110012*).*

Section 2 System 800xA Benchmark Performance Status Report

This section introduces the System 800xA Benchmark report for Performance Status and helps the user to identify overall health condition of the hardware, refer to Figure 1.

Interpretation

The System 800xA Benchmark report for Performance Status provides an overall picture of the nodes in the network. The Performance Status report classifies row items as Category and column items as Node Names as shown in Figure 1.

These reports enable the plant operator/technician to identify the overall status of nodes that have system performance issues.

Description

This section provides a summary of findings in the System 800xA Benchmark report for Performance Status.

The status of a checked item is represented in one of the following colors in the report:

- Checks Passed in Green.

  If the item indicates in green, then the item is working within normal operational parameters and without error. No attention is needed.

- Checks passed with Warning(s) in Yellow.

  If the item indicates in yellow, then there are possible problems that might require user attention.

- Check with Failure(s) in Red.

  If the item indicates in red, then the item is not in working order. It indicates a severe problem in the system and requires immediate attention from the user.

- Check Skipped or Not Applicable in Grey.

If the item indicates in grey, then the item is skipped or Not Applicable.

The Performance Status Benchmark report also includes a Performance Status Summary table. This table briefly states the problems in the hardware of a node, and may include the following:

- Nature of the problem or failure

- Warnings and recommendations

Section 3 System 800xA Benchmark Software Status Report

This section introduces the System 800xA Benchmark reports for Software Status, and helps the user to identify the issues of the System 800xA software installed on each node.

Interpretation

The System 800xA Benchmark for Software Status provides an overall picture of nodes in the plant that summarizes the System 800xA software,Third party software, Operating system, and securty patches installed on each node.

These reports enable the plant operator/technician to identify the overall status of nodes that have software issues.

Description

This section enables the plant operator/technician to identify the overall status of the nodes that have software issues.

This report is categorized into five broad sections:

• ABB software - This category lists all the ABB installed softwares versus the nodes. The columns under the nodes for a specific software indicates the software status on the node. Refer to Appendix C, Node Functions Abbreviations for Benchmark Reports.

For ex: ABB System 800xA Base 5.1.0/0. Refer to System 800xA Benchmark Software Status Report on page 19 in Appendix B.

- Microsoft Software - This category lists all the Microsoft installed softwares needed by System 800xA to run optimally on each node. The columns under the nodes for a specific software indicates the status of the software on the node.

For example: Windows Server 2008. Refer to Microsoft Software on page 20 in Appendix B.

- Security Updates - This category lists the number of missing security updates/hotfixes node-wise.

For example: Node SS7007 has about 81 security updates under the section Security Patches. Refer to Security Updates on page 20 in Appendix B.

- Third party Softwares - This category lists all the third party software qualified by ABB to be used on System 800xA nodes. The columns under the nodes for a specific software indicates the software status on the node.

For example: Adobe Reader 9.3.2. Refer to Third Party Software on page 21 in Appendix B.

- Non-validated softwares are listed for user's information only. No analysis will be performed on the softwares that are listed under this category.

Any changes performed to these softwares needs to be in accordance with the vendor of the software.

Checked items in the Software Status report indicate the following color status:

- Checks Passed in Green.

    If the item indicates in green, then the item is working within normal operational parameters and without error. No attention is needed.

- Checks passed with warning(s) in Yellow.

    If the item indicates in yellow, then there are possible problems that might require user attention. The problem may be due to either a missing software or an incorrect software version. It may also indicate that the server node was not detected by any node in the System 800xA network.

- Check with failure(s) in Red.

    If the item indicates in red, then the item is not in working order and indicates that there is a severe problem. This problem is due to missing mandatory software and requires immediate attention from the user.

- Check skipped or Not Applicable in Grey.

    If the item indicates in grey, then the item is skipped or Not Applicable.

- Software installed but cannot be validated in White.

- Node List: This lists the nodes and their respective Node type definitions.

For detailed information, contact the support engineer for the System 800xA Fingerprint report for Software Status.

Appendix A System 800xA Benchmark Performance Status Report

System 800xA Benchmark Performance Status Report

Provides summary of findings. The System 800xA Benchmark Performance Status report classifies row items as **Category** and column items as **Node** as shown in Figure 1:

No.	CheckItem	CRDC181	CRDC182	CRPC183	CRPC184	CRPC185	CRPC186	CRPC187	CRPC188	CRPC189	CRPC190	CRPC193	CRPC194	CRPC195	CRPC196	CRPC197
	Components Check															
1	Graphic Card Hardware Drivers	R	R	R	R	R	R	R	R	R	Y	R	R	Y	Y	R
2	Hard Disks Installation and Utilization	R	Y	Y	Y	Y	Y	R	R	Y	Y	Y	G	G	Y	G
3	Hard Disks File System Integrity	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
4	Network Adapter Configuration	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
	Windows Domain Check															
5	DC Diagnostic Check	R	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6	DNS Name Resolution Check	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	R
	Windows Check															
7	Auto-Start Processes Check	G	G	G	G	G	G	G	G	G	R	G	G	G	G	Y
8	Mandatory Third Party Software Installations	R	R	R	R	R	R	G	R	R	R	R	R	R	R	G
9	Mandatory System Specific Regional and Time Zone Settings	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
10	Mandatory User Specific Regional Settings	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G
11	Configuration of Time Synchronization Protocols	R	G	N/A	N/A	G	G	N/A	G	G	G	G	G	N/A	N/A	G
12	Uniqueness of Computer System ID's	G	G	G	G	G	G	G	G	G	G	G	G	R	R	G
	Resources Check															
13	RAM Installation and Utilization	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G
14	Windows Processes	G	G	Y	Y	G	G	Y	G	G	G	G	G	G	G	Y
15	Windows Service States	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
16	Windows Time Synchronization	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G
17	CPU Utilization	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Network Check															
18	Throughput Performance to all connected computers	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G
19	Throughput Performance to all connected AC 800M Controllers	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
20	Network Diagnostic Check	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G
	800xA Aspect Directory Check															
21	Database Structure Consistency	G	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Figure 1. Performance Status Report

System Performance Status Summary

The System 800xA Benchmark Performance Status summary classifies row items as **Category** and column items as **Node.** This table gives a brief description of the issue in a specific category with respect to their node as shown in the Figure.

Appendix B System 800xA Benchmark Software Status Report

System 800xA Benchmark Software Status Report

The summary of findings based on the technical finding´s checklist is found in this section. Figure 2 indicates the overall status of the findings.

No.	CheckItem	AS1	AS2	CKR-WEBSERVER	C-OS5A	C-OS6A	CS1	CS2	CS3	CS4	H-OS1
1	ABB 800xA Base 5.1.0 RU1k	G	G	R	G	G	G	G	G	G	G
2	ABB 800xA Base 5.1.0/0	G	G	R	G	G	G	G	G	G	G
3	ABB 800xA Common 3rd Party Install 5.1.0/0	G	G	G	G	G	G	G	G	G	G
4	ABB 800xA for MOD 300 5.1.0/1	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
5	ABB 800xA for MOD 300 Visual Basic Graphics Extension 5.1.0/1	G	G	Y	G	G	G	G	G	G	G
6	ABB 800xA Instructions 5.1.0/0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	G	N/A
7	ABB 800xA Instructions for 5.1 RU1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	G	N/A

Figure 2. ABB Software - Software Status Report

Microsoft Software

The summary of findings based on the technical finding´s checklist is found in this section. Figure 3 indicates the overall status of the findings.

No.	CheckItem	AS1	AS2	CKR-WEBSERVER	C-OS5A	C-OS6A	CS1	CS2	CS3
1	Microsoft Windows 7 Professional	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2	Microsoft Windows 7 Professional Service Pack 1	N/A	N/A	N/A	G	G	N/A	N/A	N/A
3	Microsoft® Windows Server® 2008 Standard Service Pack 2	G	G	G	N/A	N/A	G	G	G

Figure 3. Microsoft Software - Benchmark Software Status Report

Security Updates

This lists the number of security updates/hotfixes based on the nodes. Figure 4 indicates the overall status of the findings.

No.	CheckItem	AS1	AS2	CKR-WEBSERVER	C-OS5A	C-OS6A	CS1	CS2	CS3	CS4
1	Hotfix for Microsoft Windows (KB970157)				N/A	N/A				
2	Hotfix for Microsoft Windows (KB974204)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
3	Hotfix for Microsoft Windows (KB976422)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
4	Hotfix for Microsoft Windows (KB977178)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
5	Hotfix for Microsoft Windows (KB979538)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6	Hotfix for Microsoft Windows (KB982018)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
7	MS09-022 With KB 961501				N/A	N/A	N/A			

Figure 4. Security Updates - Benchmark Software Status Report

Third Party Software

The summary of findings based on the technical finding´s checklist is found in this section. Figure 5 indicates the overall status of the findings.

No.	CheckItem	AS1	AS2	CKR-WEBSERVER	C-OS5A	C-OS6A	CS1	CS2
1	Adobe Reader 9.3.2	G	G	G	G	G	G	G
2	AmTapi Lite	G	G	G	G	G	G	G
3	Internet Explorer 7.0000	R	R	R	N/A	N/A	R	R
4	Internet Explorer 8	N/A	N/A	N/A	G	G	N/A	N/A

Figure 5. Third Party Software - Software Status Report

Appendix C Node Functions Abbreviations for Benchmark Reports

Node Functions Abbreviations

("AS") - Aspect server

("AS(PRI)") - Aspect Server Primary

("CLS") - Central Licensing Server

("ENG") - Engineering node

("BAT(PRI)") - Batch Primary server

("BAT(SEC)") - Batch Secondary Server

("BAT(CLI)") - Batch Client

("IM") - Information Manager

("AO") - Asset optimization

("PNSM") - PNSM server

("AC800M") - AC 800M Connectivity server

("MOD300") - Mod 300 Connectivity server

("HAR(CONN)") - Harmony Connectivity server

("HAR(CFG)") - Harmony Configuration server

("MEL(CONN)")- Melody connectivity server

("MEL(CFG)") - Melody Configuration server

("IEC") - IEC 61850 Connectivity server

("PLC") - PLC connectivity server

("FF") - Foundation field bus engineering

("OC") - Operator client

() - Unable to determine the node type as the node functionality may not be supported in this release or the node does not have any ABB software.

Revision History

Introduction

This section provides information on the revision history of this User Manual.

i The revision index of this User Manual is not related to the actual product System Revision.

Revision History

The following table lists the revision history of this User Manual:

Revision Index	Description	Date
-	First version published for BU CT Service Products	July 2012
A	Published for BU CT Service Products version 1.1	September 2012
B	Published for BU CT Service Products version 1.2	December 2012
C	Published for BU CT Service Products version 1.2	February 2013
D	Published for BU CT Service Products version 1.3	March 2013

Updates in Revision B

#

Section	Updates
All	References and naming conventions. Updated for System version 4.1.

Updates in Revision C

Section	Updates
All	Names of the tools have been updated.

Updates in Revision D

Section	Updates
All	Performance Status and Software Status reports updated.

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