



IBM System x
IBM ToolsCenter Suite
User's Guide

Version 9.30





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Note

Before using this information and the product it supports, read the information in “Notices” on page 67.

This edition applies to version 9.30 of ToolsCenter Suite and to all subsequent releases and modifications until otherwise indicated in new editions.

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About this publication

This publication provides information about how to download and use IBM® ToolsCenter Suite.

Conventions and terminology

In this book, when you are instructed to enter a command, type the command and press Enter.

These notices are designed to highlight key information.

Note: These notices provide important tips, guidance, or advice.

Important: These notices provide information or advice that might help you avoid inconvenient or difficult situations.

Attention: These notices indicate possible damage to programs, devices, or data. An attention notice appears before the instruction or situation in which damage can occur.

The following table provides a description of commonly used acronyms in the *IBM ToolsCenter Suite User's Guide* and graphical user interface.

Table 1. Acronyms

Acronym	Definition
BIOS	Basic Input Output System
CNA	Converged Network Adapter
DIMM	Dual Inline Memory Modules
FoD	Features on Demand
FTP	File Transfer Protocol
HBA	Host Bus Adapter
HTTP	Hypertext Transfer Protocol
iSCSI	Internet Small Computer System Interface
IPMI	Intelligent Platform Management Interface
IPMI SEL	Intelligent Platform Management Interface System Event Log
IMM	Integrated Management Module
KCS	Keyboard Controller StyleKeyboard
KMS	Key Management System
LED	Light Emitting Diode
MAC	Media Access Control
PCIE	Peripheral Component Interconnect Express
PXE	Preboot Execute Environment
uEFI	Unified Extensible Firmware Interface
UTF8	8-bit Unicode Transformation Format

Table 1. Acronyms (continued)

Acronym	Definition
UXSP	UpdateXpress System Pack
VPD	Vital Product Data
WoL	Wake on LAN

Publications and related information

You can view the same content in the IBM ToolsCenter Suite topic collection in the IBM ToolsCenter for System x® and BladeCenter® information center as a PDF document. To view a PDF file, you need Adobe Acrobat Reader, which can be downloaded for free from the Adobe website at www.adobe.com/products/acrobat/readstep.html.

Information centers and topic collections

- **IBM ToolsCenter for System x and BladeCenter information center**

<http://publib.boulder.ibm.com/infocenter/toolsctr/v1r0/index.jsp>

IBM ToolsCenter for System x and BladeCenter information center provides integrated information for multiple IBM Systems x and BladeCenter tools, including ToolsCenter Suite.

- **IBM ToolsCenter Suite**

http://publib.boulder.ibm.com/infocenter/toolsctr/v1r0/topic/itsc/itsc_main.html

The ToolsCenter Suite topic collection provides information about how to download and use ToolsCenter Suite to collect and diagnose system health, inventory and other information; configure the server frequently used settings and full settings; and update the server firmware and driver.

Publications

- **User's Guide**

This publication provides information about how to download and use IBM ToolsCenter Suite to collect system information, configure firmware settings, and update firmware.

- **Readme**

This publication provides downloading information, limitations, and workarounds for IBM ToolsCenter Suite.

Web resources

The following websites and information center topics relate to ToolsCenter Suite.

Websites

- **IBM ToolsCenter for System x and BladeCenter**

www.ibm.com/systems/support/supportsite.wss/docdisplay?Indocid=TOOL-CENTER&brandind=5000016

View this website to download tools that support IBM System x and IBM BladeCenter products.

- **IBM ToolsCenter Suite**

<http://www.ibm.com/support/entry/portal/docdisplay?Indocid=TOOL-TCSUITE>

View this website to download the IBM ToolsCenter Suite tool and documentation.

- **IBM PureSystems Redbooks®**

<http://www.redbooks.ibm.com/portals/puresystems/>

View this website to find published Redbooks on IBM Flex Systems.

- **Using IBM System x Features on Demand Redbook**

<http://www.redbooks.ibm.com/abstracts/redp4895.html?Open>

View this website to download the *Using IBM System x Features on Demand* publication.

- **IBM Flex Systems Information Center**

http://www-947.ibm.com/support/entry/portal/Overview?brandind=Hardware~Systems~System_x

View this IBM Flex System Information Center page for additional information on IBM Flex System x440 Compute Node Types 7917 and 2584.

- **Support for IBM BladeCenter**

www-304.ibm.com/systems/support/supportsite.wss/brandmain?brandind=5000020

View this website to find information about online technical support, downloads and drivers, and RETAIN® tips, and to provide feedback about IBM BladeCenter products.

- **Support for IBM System x**

http://www-947.ibm.com/support/entry/portal/Overview?brandind=Hardware~Systems~System_x

View this website to find information about online technical support, downloads and drivers, and RETAIN tips, and to provide feedback about IBM System x products.

- **IBM ServerProven®**

www.ibm.com/servers/eserver/serverproven/compat/us/

View this website to learn about hardware compatibility of IBM System x and IBM BladeCenter systems with IBM applications and middleware.

Forums

- **IBM System x Forum**

www.ibm.com/developerworks/forums/forum.jspa?forumID=740

View this website on ibm.com® to learn about various forums that are available to discuss technology-related and product-related issues pertaining to IBM System x hardware and software products. This website includes a link for obtaining the forum using a Rich Site Summary (RSS) feed.

- **IBM BladeCenter Forum**

www.ibm.com/developerworks/forums/forum.jspa?forumID=819

View this website on ibm.com to learn about various forums that are available to discuss technology-related and product-related issues pertaining to IBM BladeCenter hardware and software products. This website includes a link for accessing the forum using a Rich Site Summary (RSS) feed.

How to send your comments

Your feedback is important in helping to provide the most accurate and highest quality information.

If you have any comments about this publication or any other IBM ToolsCenter for System x and BladeCenter publication:

- Go to the IBM ToolsCenter for System x and BladeCenter information center website at <http://publib.boulder.ibm.com/infocenter/toolsctr/v1r0/index.jsp>. There you will find the feedback page where you can enter and submit comments.
- Complete one of the forms at the back of any IBM ToolsCenter for System x and BladeCenter publication and return it by mail, by fax, or by giving it to an IBM representative.

New in this release

IBM ToolsCenter Suite 9.30 provides a number of enhancements since the previous release, 9.22.

New system support

The following hardware is now supported by IBM ToolsCenter Suite 9.30:

- IBM System x 3300 M4, type 7382

For complete hardware support information, see “Supported hardware” on page 3.

New operating system support

The following operating systems are now supported by IBM ToolsCenter Suite 9.30:

- Microsoft Windows Server 2012
- Red Hat Enterprise Linux 6 Update 3 Server (x86 & x64) Editions

For complete operating system support information, see “Supported operating systems” on page 4.

New server options support

None.

Problem(s) fixed

The following problems have been fixed in IBM ToolsCenter Suite 9.30:

- In the Full Settings option of the Configuration function, the **DevicesandIOPorts.SetOptionROMExecutionOrder** value cannot be set.
- Under System Contact of Frequently Used Settings within the Configuration function, if the **RoomID** has a value of null, the **RoomID** text input box is not displayed.

Enhancement(s)

Added support for additional languages for IBM ToolsCenter Suite 9.30 software:

- Brazilian-Portuguese
- French
- German
- Italian
- Japanese
- Simplified Chinese
- Korean
- Spanish
- Traditional Chinese

Added support for additional languages for IBM ToolsCenter Suite 9.30 User's Guide, Readme, and Change History:

- Portuguese (Brazil)
- French
- German
- Italian
- Japanese
- Simplified Chinese

Known limitations

The following limitations are new for IBM ToolsCenter Suite 9.30:

Windows 64-bit operating systems

For all Windows 64-bit operating systems, you will get RAW data and be missing the logic device table information on Windows OS.

Full Settings option

In the Full Settings option, when changing the value of **Power.PowerPerformanceBias**, there is no error message reported even though the setting change is not successful.

Workarounds

When using IE on some Windows operating systems, there is no activation key install progress page when install activation key from Local file.

Workarounds:

- For Windows 2012, under **Server Manager > Local Server**, turn off the IE Enhanced Security Configuration.
- For Windows 2008, under **Windows Server Manager > Configure IE ESC**, turn off the Internet Explore Enhanced Security Configuration for the current user.
- For Windows 2003, from the Start Menu open the Control Panel. Click **Add or Remove Programs**, and then click **Add/Remove Windows Components**. Deselect the **Internet Explorer Enhanced Security Configuration** option, and click **Next**. Windows will uninstall this component.

Warnings

In Internet Explorer v10 (IE10), the password entry field now has an Eye icon. The Eye icon allows you to read the password info. This is a new function of IE 10.

Dependencies

None.

Chapter 1. Technical overview

IBM ToolsCenter Suite is a collection of server management tools that help manage your IBM System x, IBM BladeCenter, and IBM Flex System environment.

The three main functions of ToolsCenter Suite are:

System Information:

The System Information function collects full system information, catalogs this information, and enables you to send the collected information to an IBM support team or customer site FTP server. This function also provides system health status, including the IPMI SEL log and Light Path information.

ToolsCenter Suite collects full system information about the following aspects of a system:

- Hardware
- Software (including Operating Systems)
- Logs
- Basic analysis and highlights

Configuration:

The Configuration function allows you to modify firmware settings. You can change frequently used settings or change an individual configuration in full settings.

Frequently Used Settings:

- Boot Order
- IMM User Accounts
- Activation Key Management (For Features on Demand)
- System Contact
- Energy and Performance

Full settings:

- SYSTEM_PROD_DATA
- IMM
- iSCSI
- uEFI
- Network
- BootOrder
- PXE

Update:

The Update function allows you to update the UpdateXpress System Pack firmware and driver and individual firmware and drivers by connecting to the IBM website or a local repository. There are three methods for updating:

- Recommended Updates
- Individual Updates
- Download Updates

Prerequisites

ToolsCenter Suite requires the following prerequisites.

- You must have administrator or root-equivalent operating-system privileges to use ToolsCenter Suite.
- An Internet connection is required to download updates from the IBM website, or to send the collected system information file to the IBM website or the customer site FTP server.
- A browser supported by ToolsCenter Suite. For a complete list of supported browsers, refer to the Support web browsers topic of the *IBM ToolsCenter Suite User's Guide*.
- To ensure ToolsCenter Suite works correctly, verify that Java script and CSS are enabled in your browser settings.
- If you want to run ToolsCenter Suite on Windows Server 2003, you need to install the IPMI KCS driver, otherwise critical information such as LED status and events are missing and many functions do not work.

Chapter 2. ToolsCenter Suite Support List

Before you begin using ToolsCenter Suite, review the hardware, software, and operating system support sections.

Hardware and software support lists

ToolsCenter Suite has specific hardware, operating system, and browser support lists. If you attempt to run ToolsCenter Suite on a server, browser, or operating system that is not on the list, this will be at your own risk with no functional guarantee.

Supported hardware

IBM ToolsCenter Suite supports the IBM systems listed in Table 1.

Table 2. Supported IBM systems

Server	Machine type
IBM BladeCenter HS22	7870, 1936, 7809, 1911
IBM BladeCenter HS22V	7871, 1949
IBM BladeCenter HS23	7875, 1929
IBM BladeCenter HS23E	8038, 8039
IBM BladeCenter HX5	1909, 1910, 7872, 7873
Flex System x220 Compute Node	7906, 2585
Flex System x240 Compute Node	8737, 8738, 7863
Flex System x440 Compute Node	7917
System x iDataPlex® Direct Water Cooled dx360 M4 server	7918, 7919
IBM System x iDataPlex dx360 M2 server	7321, 6380, 7323
IBM System x iDataPlex dx360 M3	6391
IBM System x iDataPlex dx360 M4	7912, 7913
IBM System x3100 M4	2582
IBM System x3200 M3	7327, 7328
IBM System x3250 M3	4251, 4252, 4261
IBM System x3250 M4	2583
IBM System x3300 M4	7382
IBM System x3400 M2	7836, 7837
IBM System x3400 M3	7378, 7379
IBM System x3500 M2	7839
IBM System x3500 M3	7380
IBM System x3500 M4	7383
IBM System x3530 M4	7160
IBM System x3550 M2	7946, 4198
IBM System x3550 M3	7944, 4254

Table 2. Supported IBM systems (continued)

Server	Machine type
IBM System x3550 M4	7914
IBM System x3620 M3	7376
IBM System x3630 M3	7377
IBM System x3630 M4	7158
IBM System x3650 M2	7947, 4199
IBM System x3650 M3	7945, 4255, 5454
IBM System x3650 M4	7915
IBM System x3690 X5	7147, 7192
IBM System x3690 X5	7148, 7149
IBM System x3750 M4	8722, 8733
IBM System x3850 X5 and x3950 X5	7143, 7191
IBM System x3850 X5 and x3950 X5	7145, 7146

Supported software

This topic describes the supported software and web browsers for ToolsCenter Suite.

Supported web browsers

To view the information that is collected by ToolsCenter Suite, you must use one of these web browsers.

- Firefox 3.6 or later
- Google Chrome 19.0 or later
- Internet Explorer 8.0 Service Pack 1 or later

ToolsCenter Suite uses the OS default browser. If you want to use a specific browser, using the browser configuration, configure it as the default browser.

Supported operating systems

Use the information in this section to identify operating systems that are supported by ToolsCenter Suite:

Windows

ToolsCenter Suite supports the following Windows operating systems.

Windows Server 2012 Edition

- Microsoft Windows Server 2012

Windows Server 2011 Editions

- Microsoft Windows Small Business Server 2011
- Microsoft Windows Small Business Server 2011 Essentials

Windows Server 2008 Editions

- Microsoft Windows Server 2008 R2
- Microsoft Windows Server 2008 R2 SP1
- Microsoft Windows Server 2008 R2 HPC Edition (x64, Reseller Option Kit)
- Microsoft Windows Server 2008, Datacenter Edition (x86, x64)

- Microsoft Windows Server 2008, Enterprise Edition (x86, x64)
- Microsoft Windows Server 2008 Foundation
- Microsoft Windows Server 2008 HPC Edition
- Microsoft Windows Server 2008, Standard Edition (x86, x64)
- Microsoft Windows Server 2008, Web Edition (x86, x64)
- Windows Essential Business Server 2008 Premium Edition
- Windows Essential Business Server 2008 Standard Edition

Windows Server 2003 Editions

- Microsoft Windows Server 2003/2003 R2, Datacenter Edition (x86, x64)
- Microsoft Windows Server 2003/2003 R2, Enterprise Edition (x86, x64)
- Microsoft Windows Server 2003/2003 R2, Enterprise Edition with Microsoft Cluster Service (MSCS) (x86, x64)
- Microsoft Windows Server 2003, Enterprise Edition with Microsoft Cluster Service (MSCS) (x86, x64)
- Microsoft Windows Server 2003/2003 R2, Standard Edition (x86, x64)
- Microsoft Windows Server 2003 Web Edition

Linux

ToolsCenter Suite supports the following Linux operating systems.

Red Hat

- Red Hat Enterprise Linux 6 Server (x86 & x64) Editions
- Red Hat Enterprise Linux 6 Update 1 Server (x86 & x64) Editions
- Red Hat Enterprise Linux 6 Update 2 Server (x86 & x64) Editions
- Red Hat Enterprise Linux 6 Update 3 Server (x86 & x64) Editions
- Red Hat Enterprise Linux 5 Server (x86 & x64) Editions, (up to U6)
- Red Hat Enterprise Linux 5 Server with Xen (x86 & x64) Editions, (up to U6)
- Red Hat Enterprise Linux 5 Update 8 Server (x86 & x64) Editions
- Red Hat Enterprise Linux 5 Update 8 Server with Xen (x86 & x64) Editions
- Red Hat Enterprise Linux 5 Update 7 Server (x86 & x64) Editions
- Red Hat Enterprise Linux 5 Update 7 Server with Xen (x86 & x64) Editions

SUSE

- SUSE Linux Enterprise Server 11 (x86 & x64) SP2
- SUSE Linux Enterprise Server 11 with Xen (x86 & x64) SP2
- SUSE Linux Enterprise Server 11 (x86 & x64) (up to SP1)
- SUSE Linux Enterprise Server 11 with Xen (x86 & x64) (up to SP1)
- SUSE Linux Enterprise Real Time 10 AMD64/EM64T
- SUSE Linux Enterprise Server 10 (x86 & x64) (up to SP4)
- SUSE Linux Enterprise Server 10 with Xen (x86 & x64) (up to SP4)

Chapter 3. Downloading IBM ToolsCenter Suite

This section provides information about downloading ToolsCenter Suite.

Instructions for downloading IBM ToolsCenter Suite

ToolsCenter Suite is a self-extracting application that does not need to be installed.

About this task

You can download ToolsCenter Suite from the IBM ToolsCenter Suite website at <http://www.ibm.com/support/entry/portal/docdisplay?lnodocid=TOOL-TCSUITE>.

Procedure

1. Select one of the following shipment packages:
 - `ibm_utl_tcsuite_9.30_winsrvr_i386.zip`
 - `ibm_utl_tcsuite_9.30_winsrvr_x86-64.zip`
 - `ibm_utl_tcsuite_9.30_rhel5_i386.tgz`
 - `ibm_utl_tcsuite_9.30_rhel5_x86-64.tgz`
 - `ibm_utl_tcsuite_9.30_rhel6_i386.tgz`
 - `ibm_utl_tcsuite_9.30_rhel6_x86-64.tgz`
 - `ibm_utl_tcsuite_9.30_sles10_i386.tgz`
 - `ibm_utl_tcsuite_9.30_sles10_x86-64.tgz`
 - `ibm_utl_tcsuite_9.30_sles11_i386.tgz`
 - `ibm_utl_tcsuite_9.30_sles11_x86-64.tgz`
2. After downloading the appropriate ToolsCenter Suite zip file, extract the downloaded file.

Chapter 4. Using IBM ToolsCenter Suite

This section provides information about using IBM ToolsCenter Suite.

Starting IBM ToolsCenter Suite

After you have downloaded and copied the appropriate ToolsCenter Suite zip file for the target server and extracted the files, you can start the IBM ToolsCenter Suite program. ToolsCenter Suite must be run on the target server.

About this task

For Windows, perform step 1, and for Linux, perform step 2.

Note: ToolsCenter Suite does not support running concurrent sessions of ToolsCenter Suite. For more information, refer to the Known Limitations topic.

Procedure

1. For Windows, double click **run.bat**. The ToolsCenter Suite script file launches the Tomcat server and starts the default browser using `http://localhost:8483/tcsuite.html`. The ToolsCenter Suite License Agreement page is displayed.

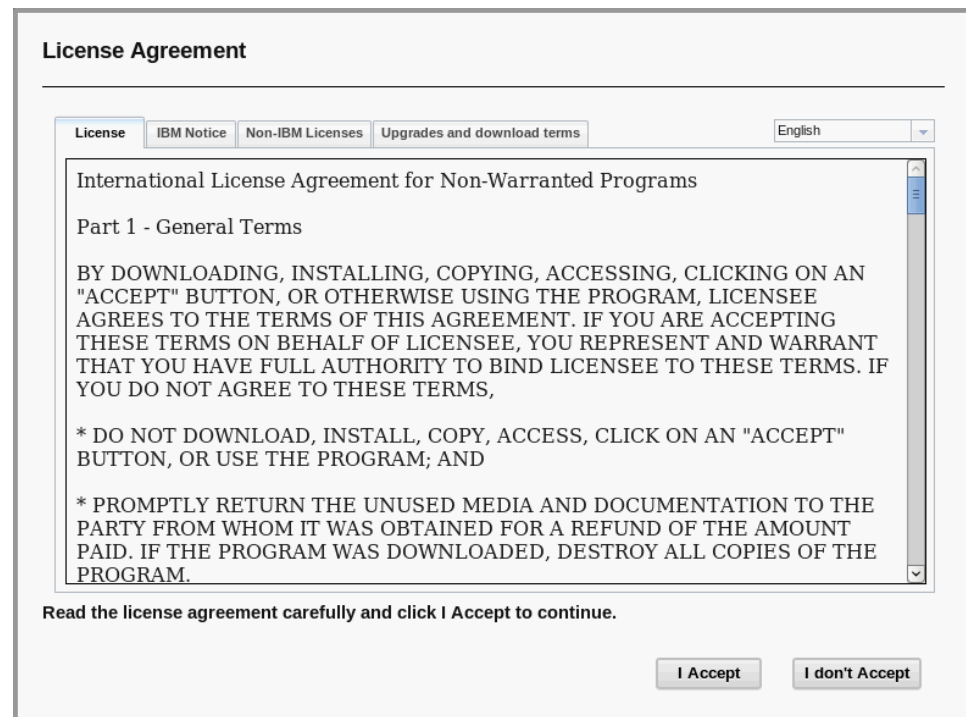


Figure 1. License Agreement

2. For Linux, double click **run.sh**. The ToolsCenter Suite script file launches the Tomcat server and starts the default browser pointing to `http://localhost:8483/tcsuite.html`. The ToolsCenter Suite License Agreement page is displayed as shown above.

3. Read the license agreement and click **I accept**. The IBM ToolsCenter Suite Welcome page is displayed.

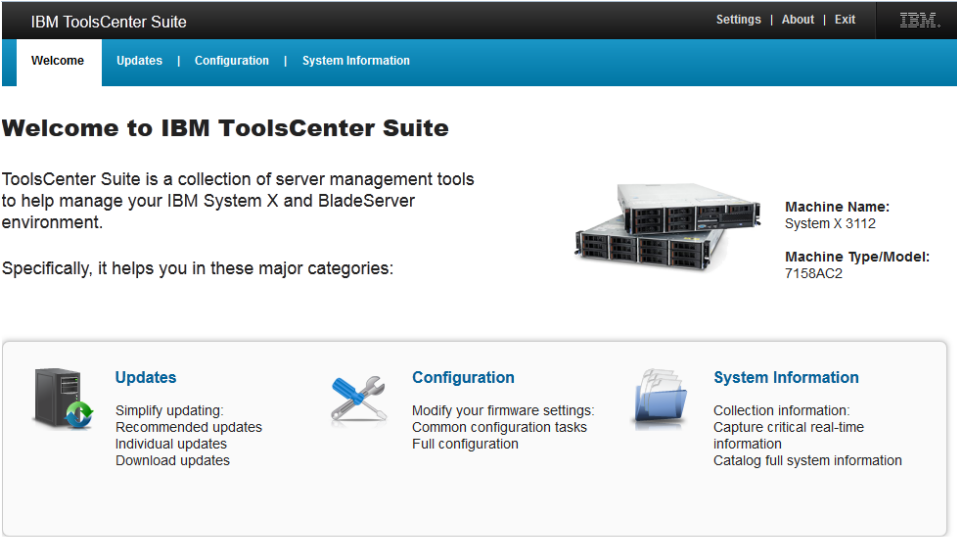


Figure 2. Welcome page

The Welcome page displays your Machine Name and Machine Type/Model and provides access to the IBM ToolsCenter Suite functions and menu items.

4. Click **Advanced user complete tool listing** to view a list of Command Line Tools and Deployment Tools.

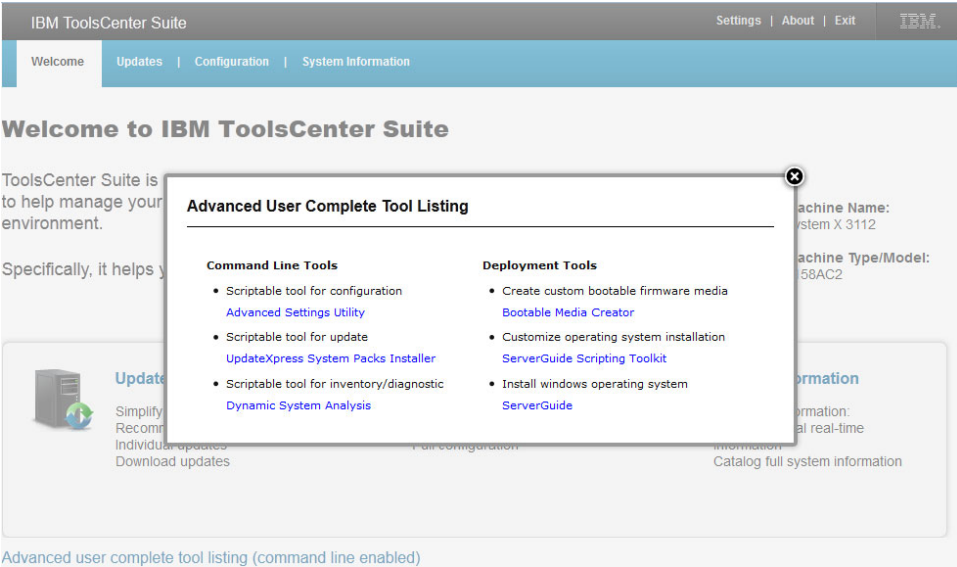


Figure 3. Advanced User Complete Tool Listing

This page provides links to IBM support pages for each of these tools.

The IBM ToolsCenter Suite Menu

This section provides an overview of the IBM ToolsCenter Suite Menu.

Menu items

The ToolsCenter Suite graphical user interface has the following menu options:

- **Settings:** Use Settings to configure the internet connection setting and miscellaneous settings, consisting of exit options and timeout settings. For more information, see “Internet Connection settings” and “Miscellaneous settings” on page 12
- **About:** About provides the ToolsCenter Suite version, the IBM ToolsCenter Suite website link, and the License and Agreement link.
- **Exit:** Closes the ToolsCenter Suite program. There are two options for exiting the application. For more information, see “Exit options” on page 13.

Internet Connection settings

This topic describes how to view and configure your internet connection. The proxy settings can be used for the **Send to IBM** and **Send to FTP** options of the System Information function, and for the "update" via proxy. The proxy should be an HTTP proxy. IBM ToolsCenter Suite uses the **HTTP/1.1 CONNECT** method with UTF-8 encoding and passive ftp mode to connect with HTTP proxy.

Procedure

1. Click the **Settings** menu option located in the top right section of the IBM ToolsCenter Suite screen. The Settings dialog box is displayed.
2. Click the **Internet Connection** tab.
3. Click to select one of following internet access options:
 - a. **The management server can access the internet without a proxy setting:**
The IP address or host name, Port, Username, and Password fields will be greyed out.
 - b. **The management server will require a proxy server to access the internet:**
For this option, complete the following steps:
 - 1) Enter the **IP address or host name**.
 - 2) Enter the **Port**. The default port is 21.
 - 3) Click **Require authentication**. This enables the authentication fields.
Enter the following information:
 - Enter the **Username**.
 - Enter the **Password**.
4. Click **Test Internet Connection**. This operation will verify that the internet connection is working.

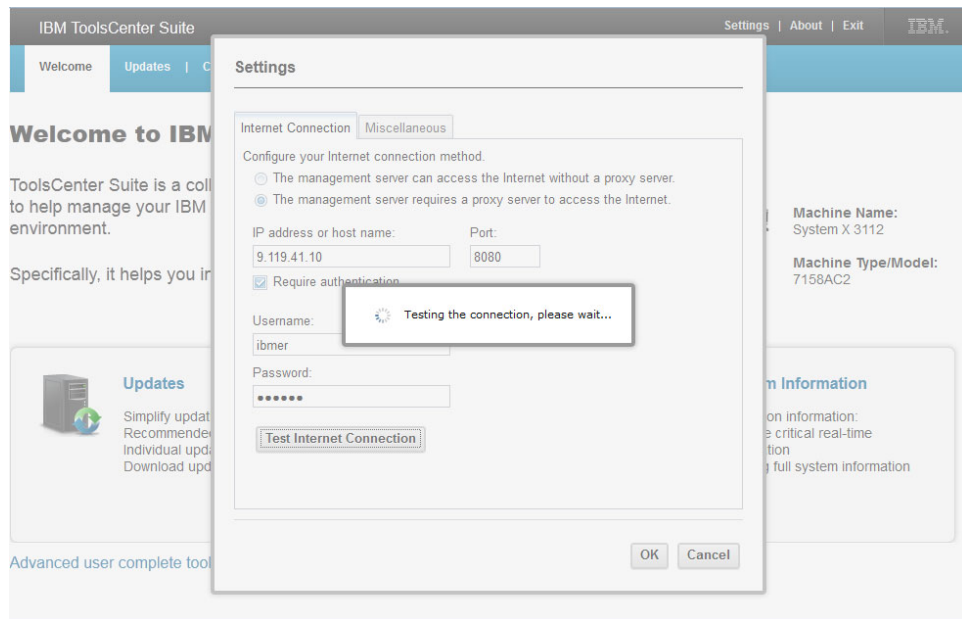


Figure 4. Menu Settings - Internet Connection Test

5. Click **OK** to save and exit Settings or **Cancel**.

Miscellaneous settings

This topic describes how to view and change the Exit options and Timeout settings.

Procedure

1. Click the **Settings** menu option located in the top right section of the IBM ToolsCenter Suite screen.
2. Click the **Miscellaneous** tab. On this tab, the Exit options and the Timeout settings are displayed. You can choose to use the default settings or change them. For more information, see “Exit options” on page 13 and “Timeout settings” on page 13.

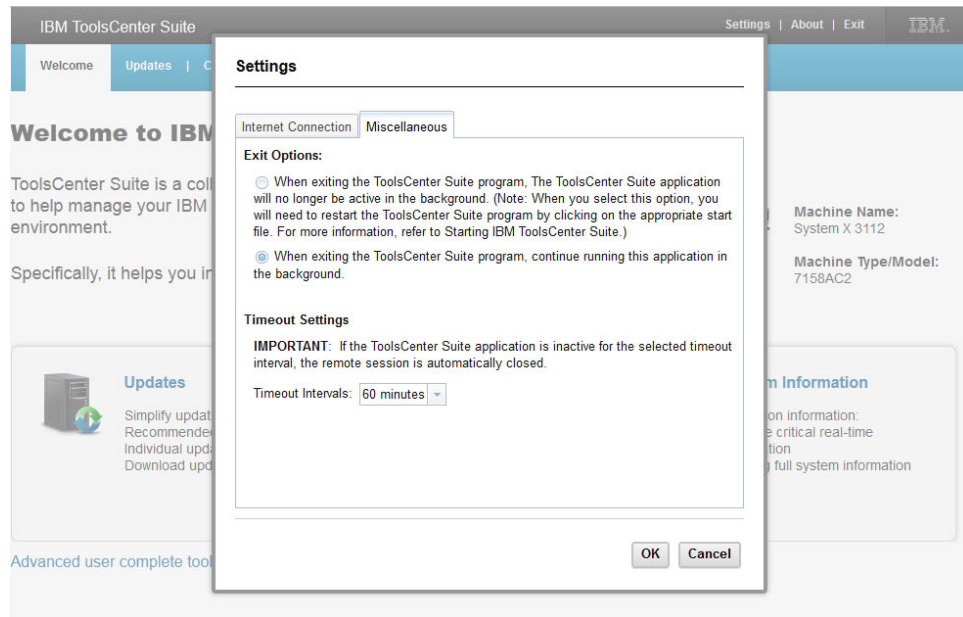


Figure 5. Menu Settings - Miscellaneous settings

3. When you have finished making changes to these settings, click **OK** to save and exit Settings or **Cancel**.

Exit options:

About this task

There are two exit options for IBM ToolsCenter Suite. By default, the second option is selected.

1. Click to select one of the following two exit options:
 - **When exiting the ToolsCenter Suite program, continue running the application in background.**
 - **When exiting the ToolsCenter Suite program, the ToolsCenter Suite application will no longer be active in the background.**

Note: When you select this option, you will need to restart the ToolsCenter Suite program by clicking on the appropriate start file. For more information, refer to “Starting IBM ToolsCenter Suite” on page 9.

2. Click **OK** to save the exit option change or **Cancel**.

Timeout settings:

About this task

There are several timeout options for IBM ToolsCenter Suite. The default timeout setting is 60 minutes.

1. Click to select one of the following timeout interval options from the drop-down menu:
 - no timeout
 - 10 minutes
 - 20 minutes
 - 40 minutes
 - 60 minutes

- 90 minutes
 - 120 minutes
2. Click **OK** to save the timeout settings change or **Cancel**.

Important: If the ToolsCenter Suite application is inactive for the selected timeout interval, the running session is automatically closed.

Using the Updates function

You can update firmware, device drivers, and add support for new systems using the Updates function. This section describes how to check the compliance of firmware and drivers, and how to download and install the updates.

Procedure

1. On the Welcome page or from the ToolsCenter Suite menu, click to select **Updates**.

The Firmware and Driver Updates page is displayed.

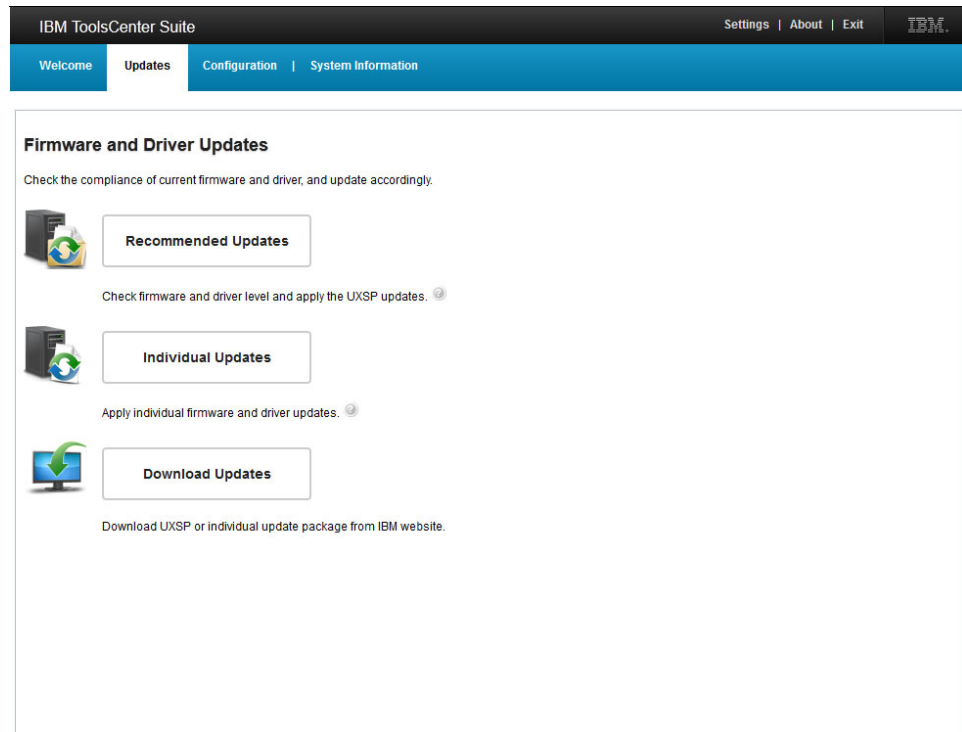


Figure 6. Firmware and Driver Updates page

Note: If you hover the mouse over the question mark, additional information for that update is displayed.

2. Click to select one of the update options:
 - **Recommended Updates:** Check firmware and driver levels of the latest UpdateXpress System Pack and compare them with the local machine installed firmware and driver levels, from the IBM website or in a local directory. You can selectively download and apply firmware and driver updates from the IBM website or selectively apply firmware and driver updates from a local directory.

- **Individual Updates:** Check firmware and driver levels and compare the currently installed firmware and drivers to individual updates on the IBM website or in a local directory. You can selectively download and apply firmware and driver updates from the IBM website or selectively apply firmware and driver updates from a local directory.
- **Download Updates:** Download UpdateXpress System Pack or an individual update package for a specific machine type and operating system. Updates are downloaded to the specified directory and can be applied at any time.

Tip: You can download Updates that can be applied when a lab machine A needs to update the firmware or driver, but does not have internet access. You can use a lab machine B with internet access, to download the update packages for lab machine A. Use one of the following two methods; the first method is easier and recommended.

- a. Copy the entire ToolsCenter Suite working directory on lab machine B to lab machine A. Launch ToolsCenter Suite in lab machine A. The updates can be done from the local directory.
- b. If lab machine A has ToolsCenter Suite software, copy the downloaded update packages under the ToolsCenter Suite working directory on lab machine B to ToolsCenter Suite working directory on lab machine A. Launch ToolsCenter Suite in lab machine A. The updates can be done from the local directory.

Recommended Updates

This option checks the firmware and driver levels and applies the package of updates. This option is the preferred method for obtaining firmware and driver updates for the server. The UpdateXpress System Pack consists of an integration-tested software bundle of updatable firmware and device driver updates for each IBM System x and IBM BladeCenter server.

Procedure

1. Click **Recommended Updates** on the Firmware and Drive Updates page. The Check Current Firmware and Levels dialog box is displayed.
2. Select one of the following Recommended Updates options.

Using the latest UXSP updates package from the IBM website

Use this option to download and apply UpdateXpress System Pack updates from the IBM website.

Procedure

1. Click **Recommended Updates** on the Firmware and Driver Updates page. The Check Current Firmware and Driver Levels dialog box is displayed.

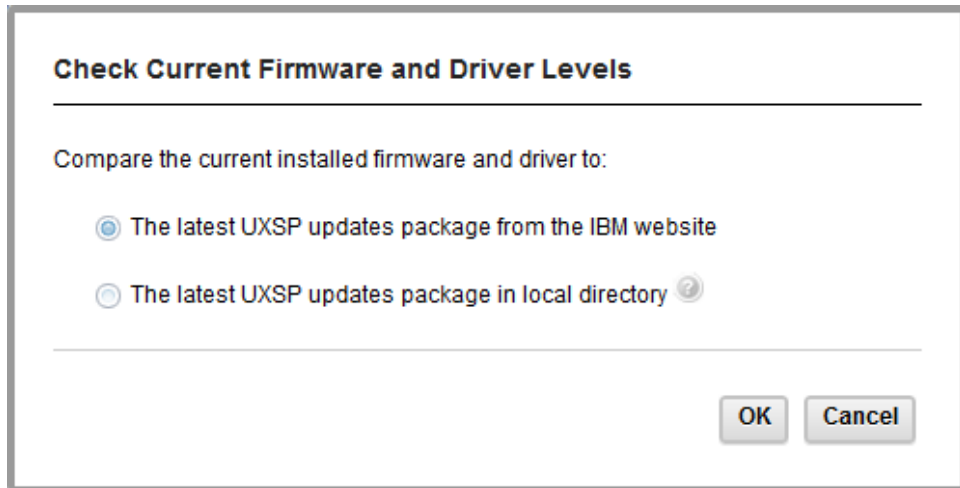


Figure 7. Check current firmware and driver levels from IBM site

2. Click **The latest UXSP updates package from the IBM website** and **OK** to proceed or **Cancel** to exit this operation. The current machine's UXSP firmware and driver levels are acquired from the IBM website.

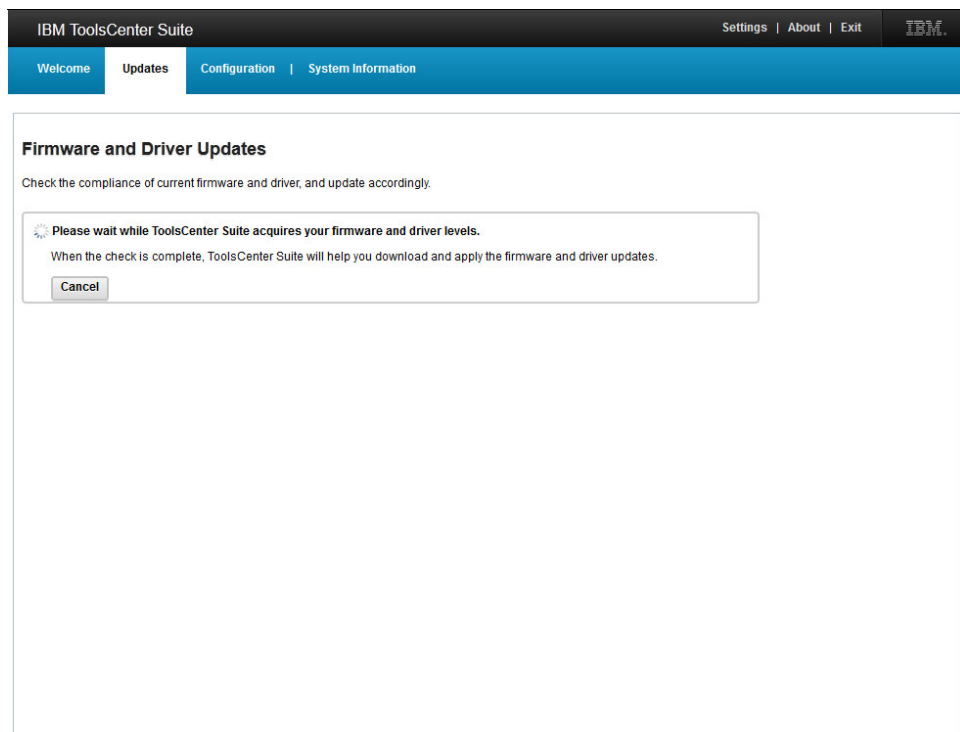


Figure 8. Acquire current machine's UXSP firmware and driver levels

During the acquire operation, the progress icon is displayed and the Updates page is locked, **Cancel** is enabled, and the following message is displayed:
Please wait while ToolsCenter Suite acquires your firmware and driver levels.
After the acquire operation completes, the checking compliance operation begins.

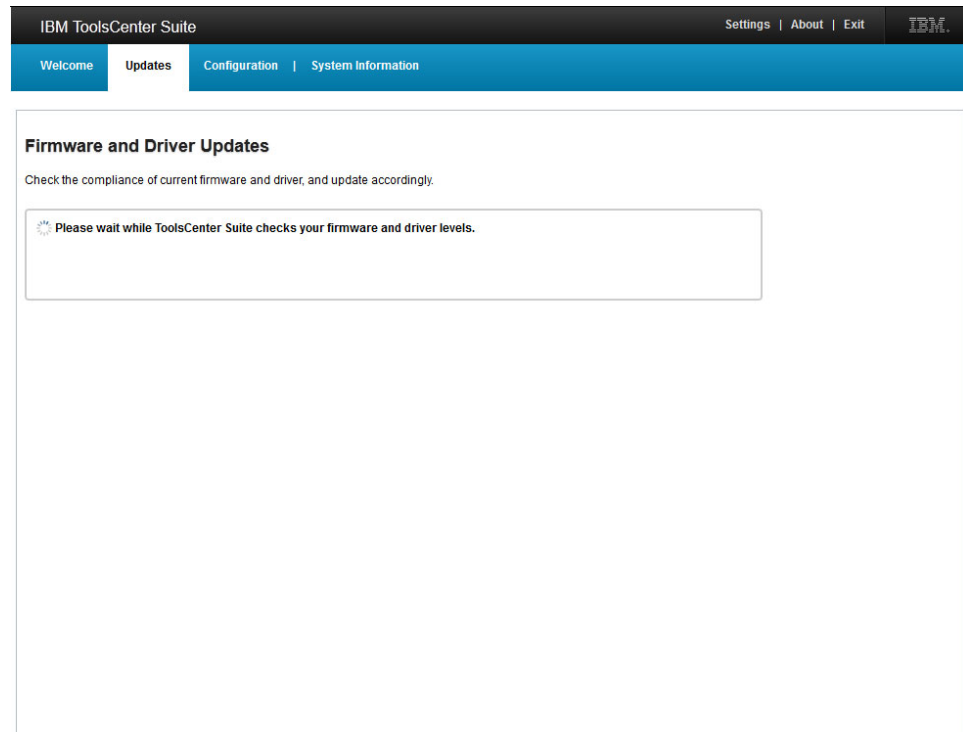


Figure 9. Check current machine's UXSP firmware and driver levels

While the compliance checking operation is working, the Updates page is locked, **Cancel** is disabled, and the following message is displayed:

Please wait while ToolsCenter Suite checks your firmware and driver levels.

Note: If you are not connected to the Internet, the Configure Internet Connection dialog box is displayed. Check your configuration or try again, otherwise, click **Ok** to continue or **Cancel**. For more information, see “Internet Connection settings” on page 11.

When compliance checking is complete, the number of items with new versions is displayed in the firmware and driver updates table.

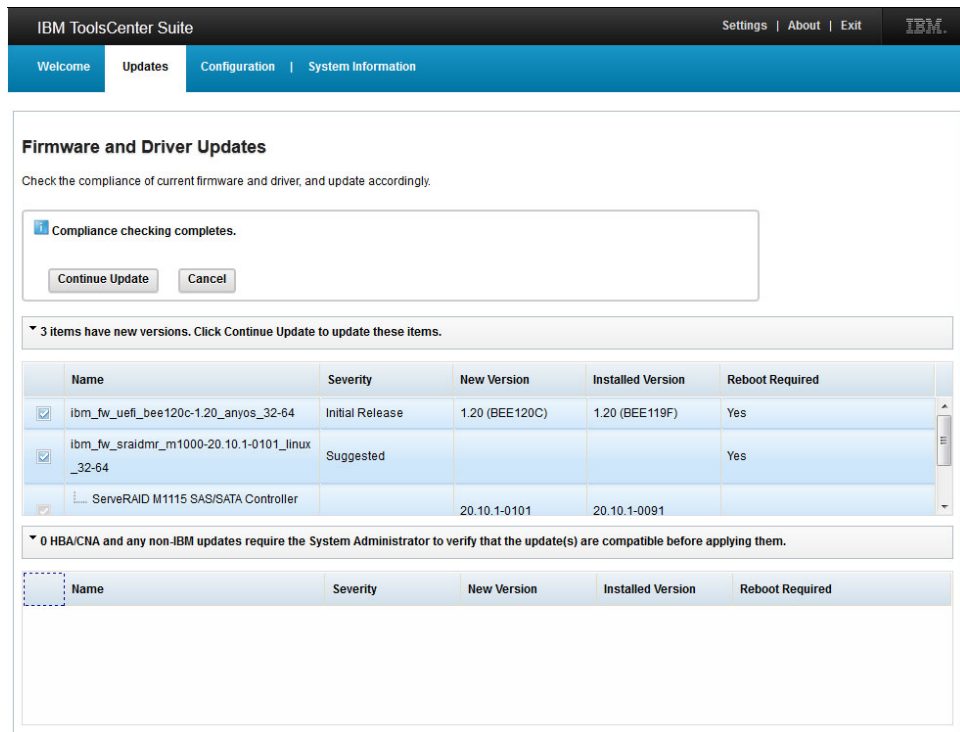


Figure 10. Recommended Updates UXSP firmware and driver updates table

All updates listed in the table are checked and preselected for updating. By default, each update is checked and can be deselected. The table provides the following information for each update listed in the table:

- Name: update name
- Severity: suggested, critical, or not required
- New Version: new version identifier
- Installed Version: current version identifier or undetected
- Reboot Required: Yes - rebooting is necessary for the update or No - rebooting is not necessary for the update

The HBA/CNA updates table provides the following information for each update listed in the table:

- Name: update name
- Severity: Suggested, Critical, or Not Required
- New Version: new version identifier
- Installed Version: current version identifier or undetected
- Reboot Required: Yes - rebooting is necessary for the update or No - rebooting is not necessary for the update

3. Click **Continue Update** to download the UXSP updates from the IBM website and apply the downloaded firmware and driver, or click **Cancel** to return to the updates primary page. During the download operation, the status is Not Started, Downloading, or Downloaded. The item being downloaded displays a progress bar, indicating its total bytes, downloaded bytes, and downloaded percentage. Another progress bar displays the overall progress of all download items. Click **Stop** to stop the current downloading item.

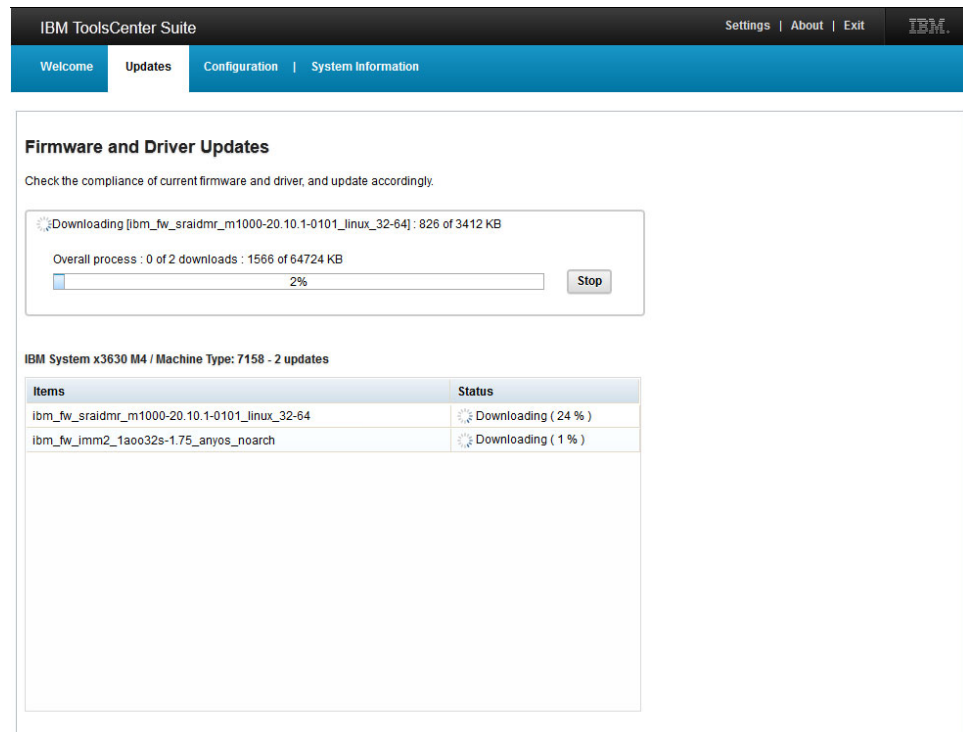


Figure 11. Recommended Updates UXSP downloading from the IBM website

When the download operation completes, the update operation begins. The following message is displayed:

Updating is in progress.

x of y items have been updated.

Do not close your browser while the update is in progress.

During the update operation, a progress icon is displayed

When the update operation is complete, the table provides the status of the updates. A timestamp provides the time the update operation finished.

4. Click **Back to updates primary page** to return to updates primary page.

Using UXSP updates package in local directory

Use this option if you have UXSP or individual updates in a local directory and want to apply them.

Procedure

1. Click **Recommended Updates** on the Firmware and Driver Updates page.
2. Click **A UXSP updates package in a local directory** and **OK** to proceed or **Cancel** to quit this operation.

Important: If you hover the mouse over the question mark, the following message is displayed:

If you already have local uxsp (or individual) updates, copy them to folder
 %ToolsCenterSuite%\apache-tomcat-7.0.26\webapps
 \tcsuite\WEB-INF\depot\Update\%MachineType%\
 %OperatingSystem%\uxsp (or individual) manually.
 Where %ToolsCenterSuite% is ToolsCenter Suite's working directory.

%MachineType% is the four-digit machine type of the server and represents the machine type selected; %OperatingSystem% is the server operating system. For example, it could be %ToolsCenterSuite%\apache-tomcat-7.0.26\webapps\tcsuite\WEB-INF\depot\Update\1936\windows\uxsp.

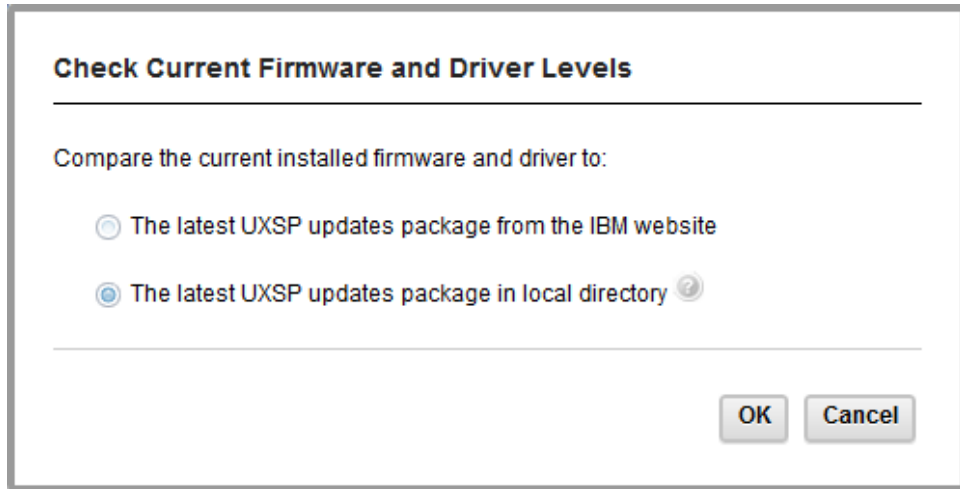


Figure 12. Check current firmware and driver levels using latest UXSP updates package in local directory

While the compliance checking operation is working, the Updates page is locked, **Cancel** is disabled, and the following message is displayed:

Please wait while ToolsCenter Suite checks your firmware and driver levels.

When the operation is complete, a table containing firmware and drive updates is displayed. By default, each update is checked and can be deselected.

The firmware and driver updates table provides the following information for each update listed in the table:

- Name: update name
- Severity: Suggested, Critical, or Not Required
- New Version: new version identifier
- Installed Version: current version identifier or undetected
- Reboot Required: Yes - rebooting is necessary for the update or No - rebooting is not necessary for the update

The HBA/CNA updates table provides the following information for each update listed in the table:

- Name: update name
- Severity: Suggested, Critical, or Not Required
- New Version: new version identifier
- Installed Version: current version identifier or undetected
- Reboot Required: Yes - rebooting is necessary for the update or No - rebooting is not necessary for the update

3. Click **Continue Update** to install the UXSP from a local directory, or click **Cancel** to return to updates primary page.

During the update operation, a progress icon is displayed.

Updating is in progress.

x of y items have been updated.

Do not close your browser while the update is in progress.

The status for each update is displayed as: Pending, Updating, Updated, or Failed.

When the update operation is complete, the table provides the status of the updates. A timestamp provides the time the update operation finished.

4. Click **Back to updates primary page** to return to the updates primary page.

Individual Updates

Use this option to get the latest version of each firmware and device driver package. This method can be used if you want to install individual updates or when IBM support instructs you to install individual updates. The Individual Updates option may download newer updates and hotfixes, if available, than the UpdateXpress System Pack/Recommended Updates option. You can check and compare the currently installed firmware and driver to individual updates from the IBM website or install individual updates from a local directory.

Procedure

1. Click **Individual Updates** on the Firmware and Driver Updates page. The Check Current Firmware and Driver Levels dialog box is displayed.
2. Select one of the following Individual Updates options.

Using Individual updates from the IBM website

Use this option to download and apply individual firmware and driver updates from the IBM website.

Procedure

1. Click **Individual Updates** on the Firmware and Driver Updates page. The Check Current Firmware and Driver Levels dialog box is displayed.

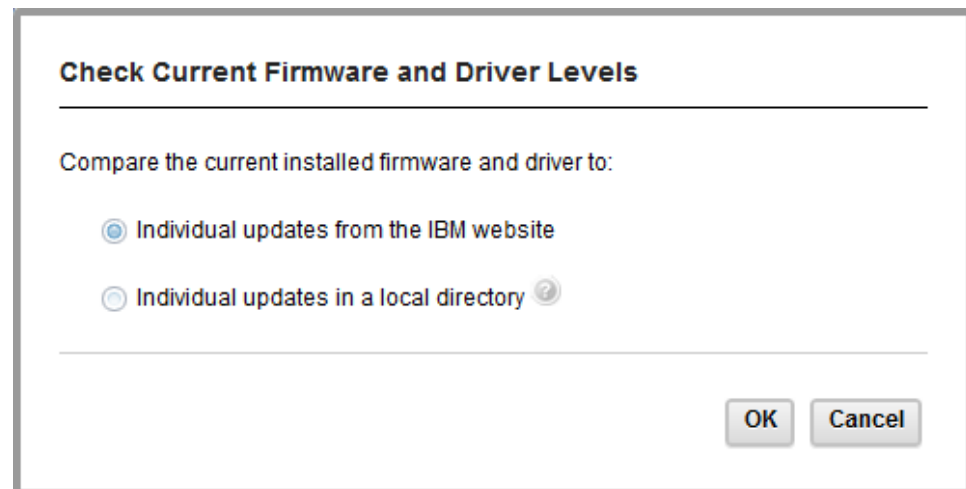


Figure 13. Individual updates check of current firmware and driver levels from IBM website

2. Click **Individual updates from the IBM website** and **OK** to proceed or **Cancel** to quit this operation.

The current machine's individual firmware and driver levels are acquired from the IBM website. During the acquire operation, **Cancel** is enabled, and the following message is displayed:

Please wait while ToolsCenter Suite acquires your firmware and driver levels.

After the acquire operation completes, the checking compliance operation begins. While the compliance checking operation is working, the Updates page is locked, **Cancel** is disabled, and the following message is displayed:

Please wait while ToolsCenter Suite checks your firmware and driver levels.

When compliance checking is complete, the number of items with new versions is displayed above the firmware and driver updates table.

Firmware and Driver Updates

Check the compliance of current firmware and driver, and update accordingly.

Compliance checking completes.

Continue Update Cancel

Compliance checking completes.

Name	Severity	New Version	Installed Version	Reboot Required
<input type="checkbox"/> ibm_dd_sraidmr_00.00.06.15_rhel6_32-64	Suggested			Yes
<input type="checkbox"/> megaraid_sas.ko		00.00.06.15	00.00.05.40-rh2	
<input type="checkbox"/> ibm_fw_uefi_bee120c-1.20_anyos_32-64	Initial Release	1.20 (BEE120C)	1.20 (BEE119F)	Yes
<input type="checkbox"/> mlnx_fw_nic_1.5.3-3.1.0_rhel6_x86-64	Suggested			Yes
<input type="checkbox"/> mlx4_core.ko Device Driver		1.5.3.3.1.0	1.0.0	
<input type="checkbox"/> ibm_fw_sraidmr_m1000-20.10.1-0101_linux_32-64	Suggested			Yes
<input type="checkbox"/> ServeRAID M1115 SAS/SATA Controller Firmware		20.10.1-0101	20.10.1-0091	
<input type="checkbox"/> ibm_fw_imm2_1aoo32s-1.75_anyos_noarch	Suggested	1.75 (1A0032S)	1.38 (1A0030D)	No
<input type="checkbox"/> bcm_dd_nic_nx2-2.2.1j-	Not Required			Yes

Figure 14. Individual Updates firmware and driver updates table

The table provides the following information for each update listed in the table:

- Name: update name
 - Severity: Suggested, Critical, or Not Required
 - New Version: new version identifier
 - Installed Version: current version identifier or undetected
 - Reboot Required: Yes - rebooting is necessary for the update or No - rebooting is not necessary for the update
3. Click to select an update in the left column and click **Continue Update** to continue the updates process and download the updates or click **Cancel** to return to updates primary page.

During the download operation, a progress bar is displayed to show the progress of the current downloading item, indicating its total bytes, downloaded bytes, and downloaded percentage. Another progress bar displays the overall progress of all download items. The updates listed in the table display status as Not Started, Downloading, and Downloaded. Click **Stop** to stop the current downloading item.

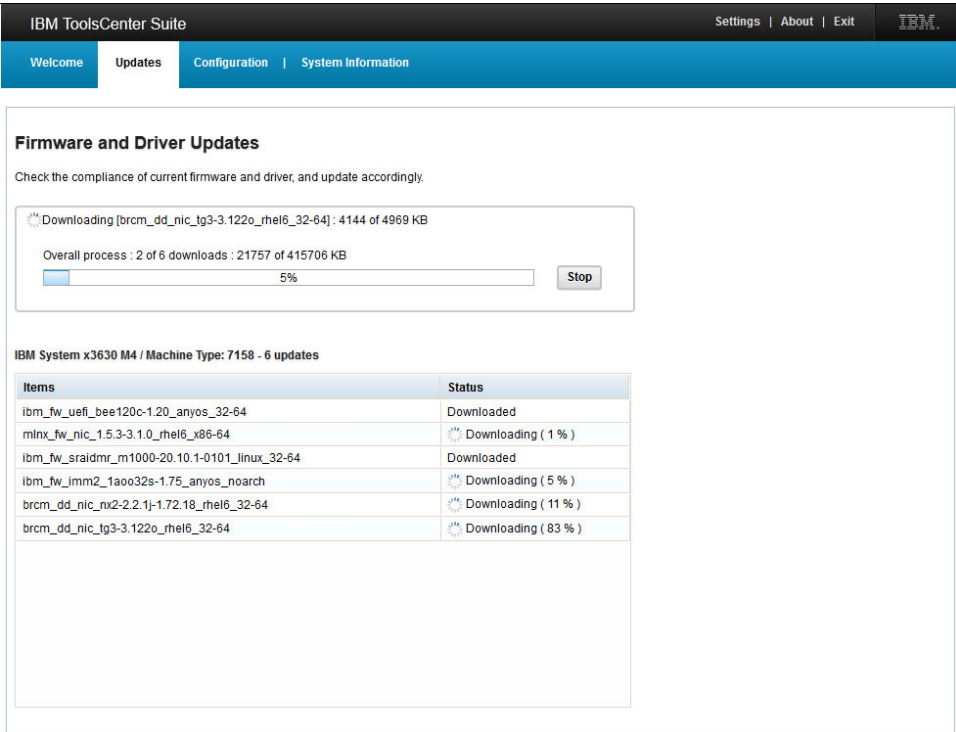


Figure 15. Individual updates downloading from the IBM website

When all of the firmware and drivers have been downloaded, the update begins.

During the update operation, a progress icon is displayed.

Updating is in progress.

x of y items have been updated.

Do not close your browser while the update is in progress.

The status for each update is displayed.

IBM ToolsCenter Suite

[Settings](#) | [About](#) | [Exit](#)

[Welcome](#)
[Updates](#)
[Configuration](#) | [System Information](#)

Firmware and Driver Updates

Check the compliance of current firmware and driver, and update accordingly.

3 selected items have been updated., 1 selected items update failed.

Finished at 16:39:48
 [Back to updates primary page](#)

Items	Status
ibm_dd_sraidmr_00.00.06.15_rhel6_32-64	Failed
ibm_fw_tape_dds-1.1_linux_32-64	Updated
ibm_fw_tape_ito-1.4_linux_32-64	Updated
ibm_fw_tape_rd-1.2_linux_32-64	Updated

Figure 16. Individual updates updating from the IBM website progress

When the update operation is complete, the table provides the status of the updates. A timestamp provides the time the update operation finished.

- Click **Back to updates primary page** to return to updates primary page.

Using individual updates in a local directory

Use this option if you already have updates (UXSP or individual) in a local directory and want to apply them.

Procedure

- Click **Individual Updates** on the Firmware and Driver Updates page.
The Check Current Firmware and Driver Levels dialog box is displayed.

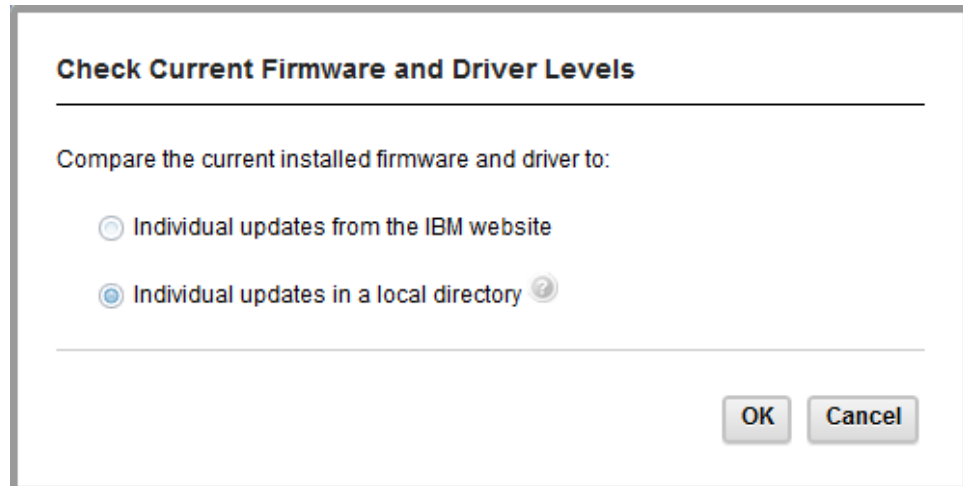


Figure 17. Individual updates in a local directory option

2. Click **Individual updates in a local directory** and **OK** to proceed or **Cancel** to quit this operation.

Important: If you hover the mouse over the question mark, the following message is displayed:

If you already have local uxsp (or individual updates), copy them to folder
 %ToolsCenterSuite%\apache-tomcat-7.0.26\webapps
 \tcsuite\WEB-INF\depot\Update\%MachineType%\
 %OperatingSystem%\uxsp (or individual) manually.
 Where %ToolsCenterSuite% is ToolsCenter
 Suite's working directory.

%MachineType% is the four-digit machine type of the server and represents the machine type selected; %OperatingSystem% is the server operating system. For example, it could be %ToolsCenterSuite%\apache-tomcat-7.0.26\webapps\tcsuite\WEB-INF\depot\Update\1936\windows\individual.

While compliance check is being performed the Updates page is locked, the **Cancel** button is disabled, and the following message is displayed:

Please wait while ToolsCenter Suite checks your firmware and driver levels.

When compliance checking is complete, the number of items with new versions is displayed above the firmware and driver updates table. The table provides the following information for each update listed in the table:

- Name: update name
 - Severity: Initial Release, Suggested, Critical, or Not Required
 - New Version: new version identifier
 - Installed Version: current version identifier or undetected
 - Reboot Required: Yes - rebooting is necessary for the update or No - rebooting is not necessary for the update
3. Click to select an update in the left column and click **Continue Update** to continue the updates process or click **Cancel** to return to updates primary page.

During the update operation, a progress icon is displayed.

Updating is in progress.

x of y items have been updated.

Do not close your browser while the update is in progress.

Under the update icon the status for each update is displayed as: Pending, Updating, Updated, or Failed.

When the update operation is complete, the number of items updated and when the update finished is displayed.

4. Click **Back to updates primary page** to return to the updates primary page.

Using Download Updates

Use this option to download an UpdateXpress System Pack or an individual update package for a specific machine type and operating system. The updates are downloaded to the ToolsCenter Suite's working directory, where they are stored until you are ready to apply the updates, using the **Recommended updates in a local directory** option or the **Individual updates in a local directory** option.

Download UXSP from IBM website Procedure

1. Click **Download Updates** on the Firmware and Driver Updates page.
The Download Firmware/Driver page is displayed.

IBM ToolsCenter Suite Settings | About | Exit IBM

Welcome Updates Configuration | System Information

Download Firmware/Driver

Updates will be downloaded to ToolsCenterSuite's working directory. No updates will be applied.
You can later use this tool to apply those updates by indicating updates from local directory rather than from IBM website.

Select machine type:
IBM System x3630 M4 / Machine Type: 7158

Select operating system:
Red Hat Enterprise Linux (RHEL) 6

Select the package to download:
☒ Download UXSP from IBM Website
☐ Download individual firmware/driver from IBM Website

The selected package will be downloaded to directory:
%ToolsCenterSuite%\apache-tomcat-7.0.26\webapps\tcsuite\WEB-INF\depot\Update\7158\rhel6\uxsp (or individual).

Download Cancel

Figure 18. Download UXSP updates from IBM website

2. Click to select a machine type and operating system from each drop-down menu or click **Cancel** to return to the updates primary page.
3. Click **Download UXSP from IBM website**.

The selected package will be downloaded to directory: %ToolsCenterSuite%\apache-tomcat-7.0.26\webapps\tcsuite\WEB-INF\depot\Update\%MachineType%\%OperatingSystem%\uxsp.

%ToolsCenterSuite% is ToolsCenter Suite's working directory; %MachineType% is the four-digit machine type of the server and represents the machine type

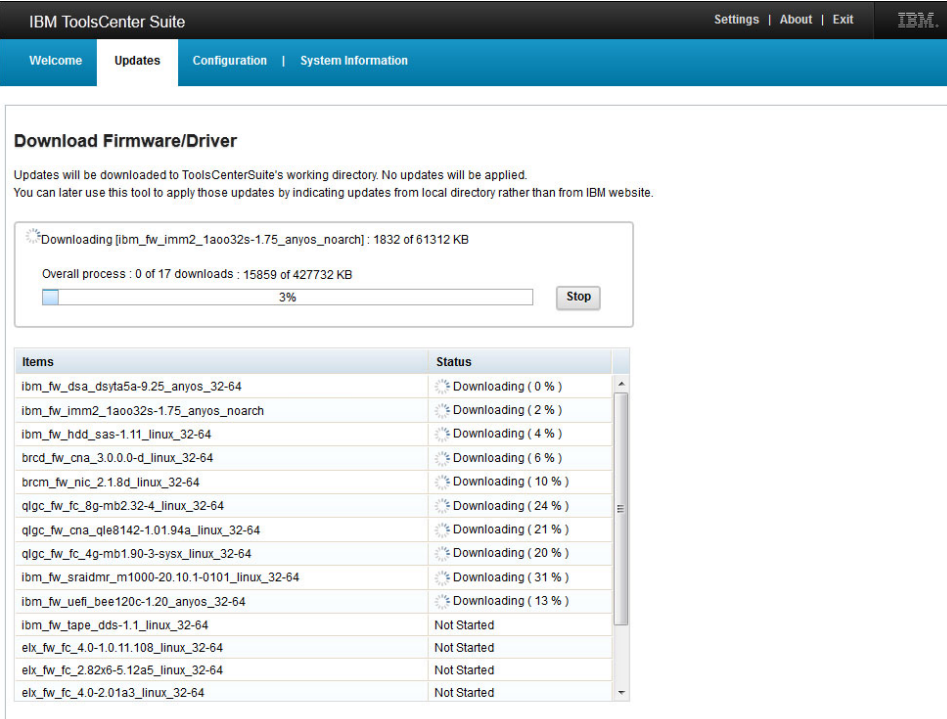
selected; %OperatingSystem% is the server operating system. For example, it could be %ToolsCenterSuite%\apache-tomcat-7.0.26\webapps\tcsuite\WEB-INF\depot\Update\1936\windows\uxsp.

4. Click **Download** to download updates for the selected machine type and operating system.

Updates will be downloaded to ToolsCenter Suite's working directory. No updates will be applied. You can later use this tool to apply those updates by indicating updates from local directory rather than from IBM website.

During the download operation, a progress bar is displayed to show the progress of the current downloading item, indicating its total bytes, downloaded bytes, and downloaded percentage. Another progress bar displays the overall progress of all download items. Click **Stop** to stop the current downloading item.

The status for each download is displayed as: Not Started, Downloading, or Downloaded.



Download Firmware/Driver

Updates will be downloaded to ToolsCenterSuite's working directory. No updates will be applied.
You can later use this tool to apply those updates by indicating updates from local directory rather than from IBM website.

Downloading [ibm_fw_imm2_1aoo32s-1.75_anyos_noarch] : 1832 of 61312 KB

Overall process : 0 of 17 downloads : 15859 of 427732 KB

3% **Stop**

Items	Status
ibm_fw_dsa_dsyta5a-9.25_anyos_32-64	Downloading (0 %)
ibm_fw_imm2_1aoo32s-1.75_anyos_noarch	Downloading (2 %)
ibm_fw_hdd_sas-1.11_linux_32-64	Downloading (4 %)
brod_fw_cna_3.0.0.0-d_linux_32-64	Downloading (6 %)
brcm_fw_nic_2.1.8d_linux_32-64	Downloading (10 %)
qlgc_fw_fc_8g-mb2.32-4_linux_32-64	Downloading (24 %)
qlgc_fw_cna_qlc8142-1.01.94a_linux_32-64	Downloading (21 %)
qlgc_fw_fc_4g-mb1.90-3-sysx_linux_32-64	Downloading (20 %)
ibm_fw_sraidmr_m1000-20.10.1-0101_linux_32-64	Downloading (31 %)
ibm_fw_uefi_bee120c-1.20_anyos_32-64	Downloading (13 %)
ibm_fw_tape_dds-1.1_linux_32-64	Not Started
elx_fw_fc_4.0-1.0.11.108_linux_32-64	Not Started
elx_fw_fc_2.82x6-5.12a5_linux_32-64	Not Started
elx_fw_fc_4.0-2.01a3_linux_32-64	Not Started

Figure 19. Download UXSP updates from IBM website progress

5. When the download is complete for all items, click **Back to updates primary page** to return to the updates primary page.

Download individual firmware/driver from IBM website Procedure

1. Click **Download Updates** on the Firmware and Driver Updates page.
The Download Firmware/Driver page is displayed.

Figure 20. Download individual updates from IBM website

2. Click to select a machine type and operating system from each drop-down menu or click **Cancel** to return to updates primary page.
3. Click **Download individual firmware/driver from IBM website**.

The selected package will be downloaded to directory: %ToolsCenterSuite%\apache-tomcat-7.0.26\webapps\tcsuite\WEB-INF\depot\Update\%MachineType%\%OperatingSystem%\individual.

%ToolsCenterSuite% is ToolsCenter Suite's working directory; %MachineType% is the four-digit machine type of the server and represents the machine type selected; %OperatingSystem% is the server operating system. For example, it could be %ToolsCenterSuite%\apache-tomcat-7.0.26\webapps\tcsuite\WEB-INF\depot\Update\1936\windows\individual.

4. Click **Download** to download updates for the selected machine type and operating system.

Updates will be downloaded to the ToolsCenter Suite's working directory. No updates will be applied. You can later use this tool to apply those updates by indicating updates from local directory rather than from IBM website.

During the download operation, a progress bar is displayed to show the progress of the current downloading item, indicating its total bytes, downloaded bytes, and downloaded percentage. Another progress bar displays the overall progress of all download items. Click **Stop** to stop the current downloading item.

The status for each download is displayed as: Not Started, Downloading, or Downloaded.

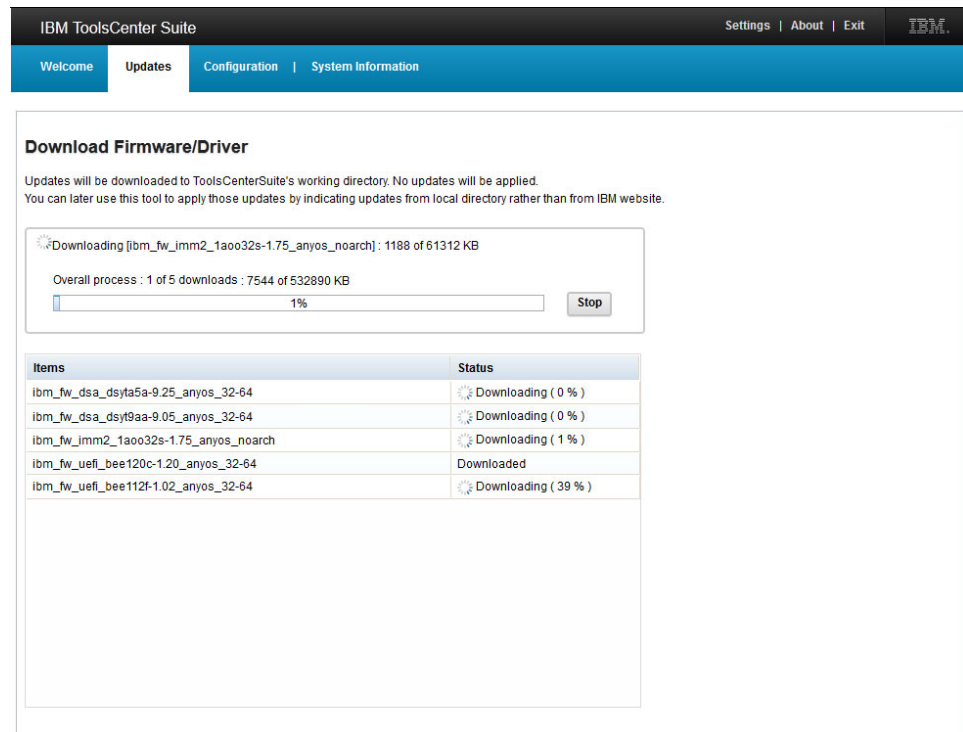


Figure 21. Download individual updates from IBM website progress

- When the download is complete for all items, click **Back to updates primary page** to return to the updates primary page..

Using the Configuration function

You can view and change one or multiple settings on your system using the Configuration function. This section describes how to display and configure individual and frequently used settings or perform a full configuration. Using the Configuration function, you can change the settings for IBM System x IMM-based and a uEFI-based server. IMM replaces the Remote Supervisor Adapter and baseboard management controller functions on IMM-based servers. uEFI replaces the basic input/output system (BIOS) and defines a standard interface among the operating system, platform firmware, and external devices.

Procedure

- On the Welcome page or from the ToolsCenter Suite menu, click to select **Configuration**. The Configuration Overview page is displayed.

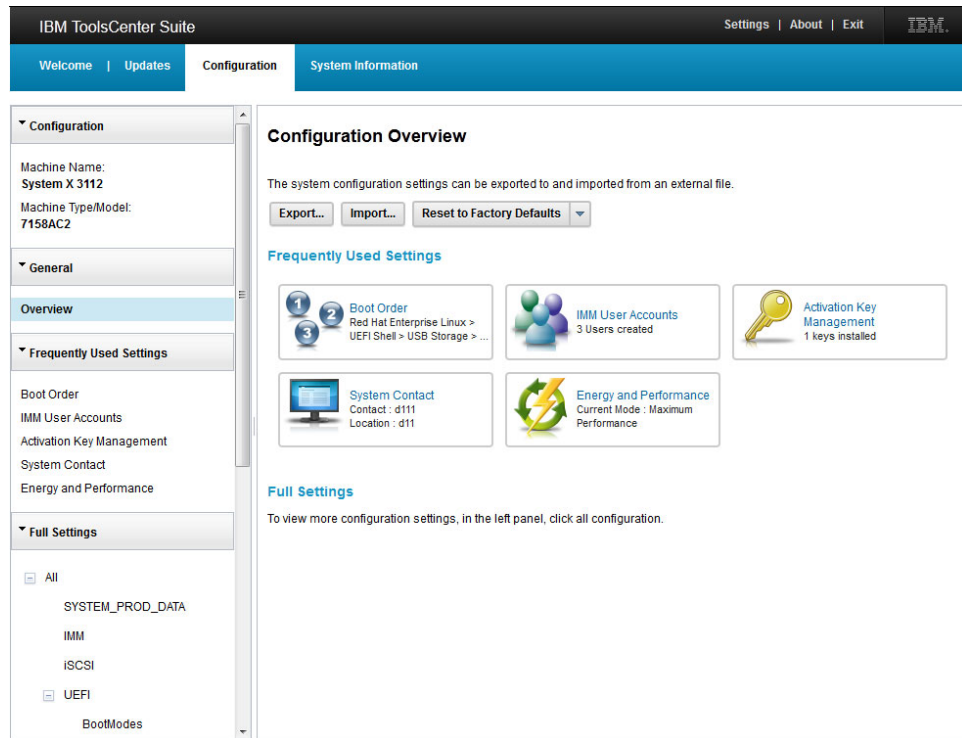


Figure 22. Configuration Overview

2. Click to select one of the configuration options on the Configuration Overview page.

The right pane contains the following sections:

- **Frequently Used Settings**
 - Boot Order
 - IMM User Account
 - Activation Key Management
 - System Contact
 - Energy and Performance
- **Actions**
 - Export
 - Import
 - Reset to Factory Defaults

- **Full Settings:** To view more configuration settings, click **Full Settings** > **All**

You can also click to select one of the configuration options from the navigation menu:

- **Frequently Used Settings**
 - Boot Order
 - IMM User Accounts
 - Activation Key Management
 - System Contact
 - Energy and Performance
- **Full Settings:** The full settings displayed vary for different machine types. The following list provides all of the full settings:
 - All

- System_PROD_DATA
- IMM
- iSCSI
- uEFI
- NetworkConnection: NetworkConnection is determined by machine type and installed hardware and software.
- BootOrder
- PXE

Frequently used settings

Use this option to view and change frequently used settings. On the Configuration Overview page, an abbreviated current status for each of these settings is displayed.

Procedure

On the Configuration Overview page or from the navigation menu, click to select one of the following frequently used settings:

- **Boot Order**
- **IMM User Accounts**
- **Activation Key Management**
- **System Contact**
- **Energy and Performance**

Boot Order

Use this option to view and change the Boot Order and Wake on LAN Boot Order sequences of the system devices. The boot order sequence is stored in the IMM and used by the server firmware during the startup process.

Procedure

1. Click **Boot Order**. The Configuration - Boot Order page is displayed.

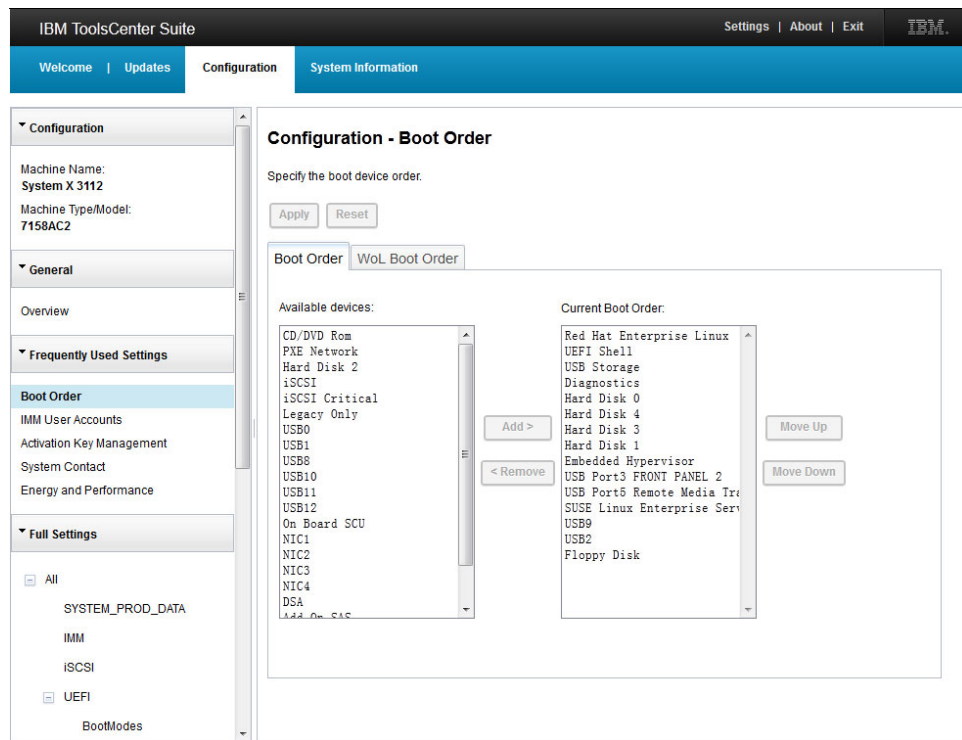


Figure 23. Configuration - Boot Order

2. Click to select the boot order tab that you want to view or make changes to:

- **Boot Order**
- **WoL Boot Order**

In the right pane, the Current Boot Order is listed on the right side and the Available devices is listed on the left side.

3. To make changes to the Current Boot Order list, perform the following applicable steps:
 - a. To change only the current boot order sequence of the devices listed in the Current Boot Order list, click to select the device and click either the **Move Up** or **Move Down** or **< Remove** button.
 - b. To add devices to the Current Boot Order list, click the device to be added from the Available devices list, and click **Add >**.
4. To cancel the action selected, click **Reset**.
5. Click **Apply** to save the new boot order sequence changes.

IMM User Account

Use this option to create, delete, or edit an IMM user account.

Procedure

1. Click **IMM UserAccount** on the Configuration Overview page. The Configuration - IMM User Accounts page is displayed.

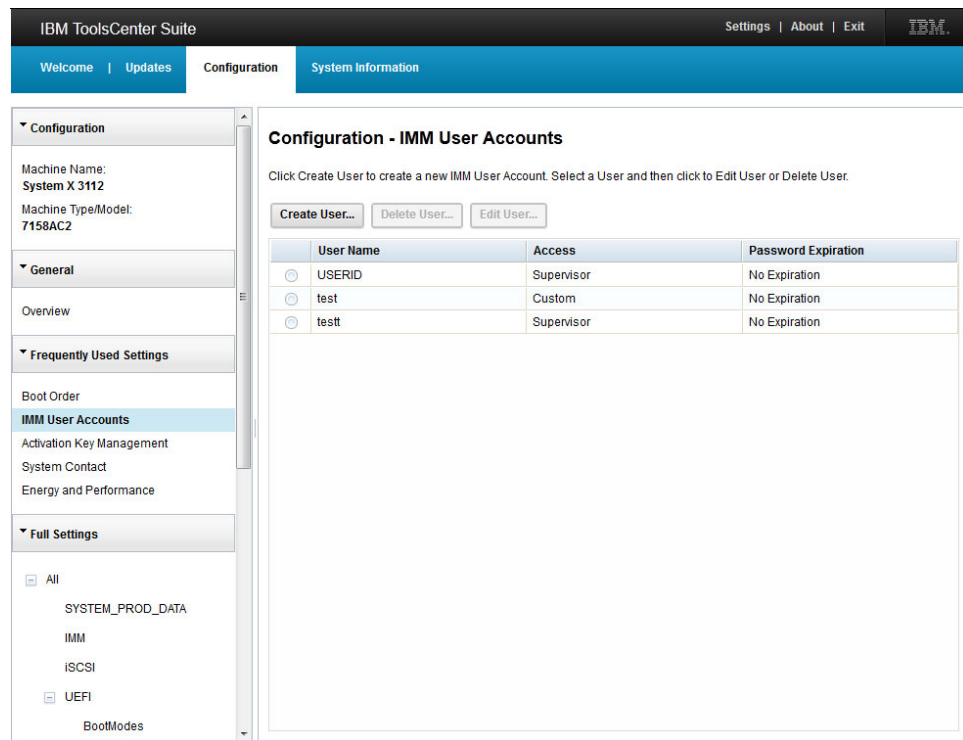


Figure 24. Configuration - IMM User Accounts

Existing IMM users are shown in the IMM User Account List. The list provides the following information for each user:

- User Name
 - Access
 - Password Expiration
2. To create a new user, click **Create User**. The Create User dialog box is displayed.
 - a. Enter the following user information and then click **OK** or click **Cancel** to exit the Create User dialog box.
 - User Name
 - Password
 - Confirm password

Note: The user name rules and password rules will be checked automatically after entering the information in each field, verifying whether it satisfies these rules.

When the new user has been created, it will be added to the IMM User Accounts List.

3. To delete an existing user from the IMM User Account List, click the **User Name** and click **Delete User**. In the Delete IMM User dialog box, click **OK** to confirm the IMM User deletion or click **Cancel** to exit.
4. To edit an existing user, click to select the **User Name** and click **Edit User**. The Edit User dialog box is displayed. You can change the following IMM User options.
 - Click the **User Credentials** tab to change your User Name and Password.
 - Click the **Authority** tab to select one of the follow user access levels:

- Supervisor: Has no restrictions.
 - Read-only: Has only read-only access, and cannot perform any save, modify, clear, or state affecting operations.
 - Custom: User may or may not have any restrictions, depending on which custom authority level is assigned to the user.
5. When you have finished editing the user information, click **OK** or click **Cancel** to exit the Edit User dialog box.

Activation Key Management

Features on Demand provides the capability to activate a feature on a server or an option with a software key that is referred to as the Features on Demand activation key. Use this option to view the currently installed keys list and install keys from the IBM KMS website, export local installed keys, and delete installed key files. For more information about Features on Demand, see the Using IBM System x Features on Demand Redbook.

Procedure

1. Click **Activation Key Management** on the Configuration Overview page. The Configuration - Activation Key Management page is displayed.

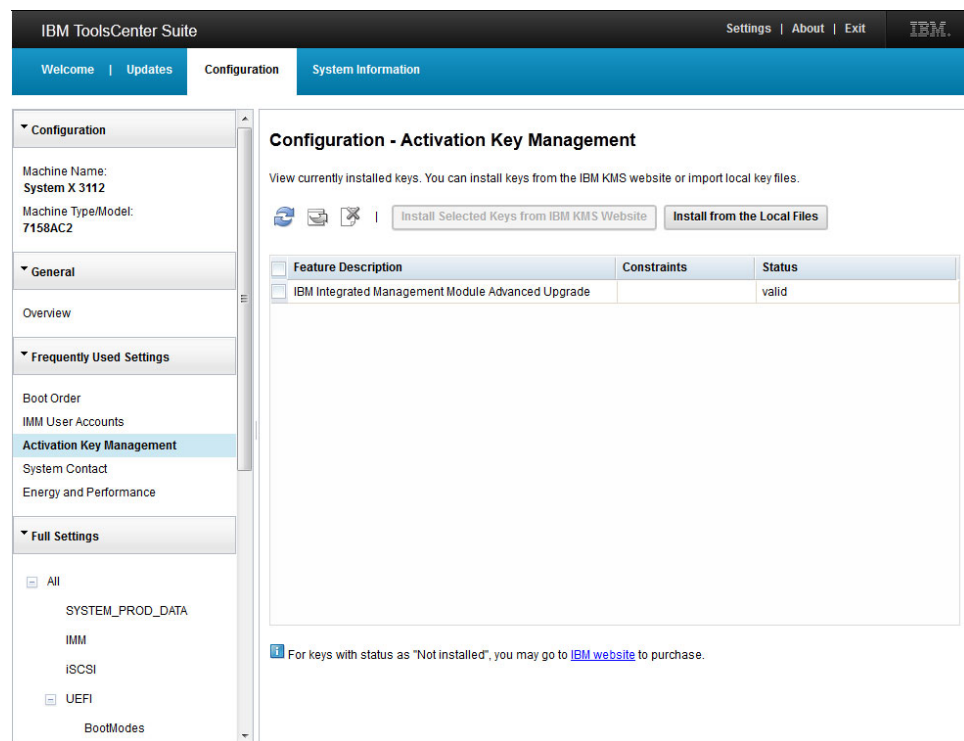


Figure 25. Configuration - Activation Key Management

The installed feature activation keys are displayed in the current installed keys list. If there is a live internet connection, the available activation keys for the current system can be purchased from the IBM KMS website.

2. You can click to select one of the following options or proceed to the next step.
 - **Refresh**

Note: When you click **Refresh**, the installed feature activation keys for the current system and the available activation keys for that system, which can be purchased from the IBM website, are displayed in the activation key list.

- **Export**
 - **Delete**
 - **Install Selected Keys from IBM KMS Website**
 - **Install from the Local Files**
3. Click **Export** to open the key file in a browser window. The Open Key File dialog box is displayed. Click **OK** to continue or **Cancel** to exit and return to the Activation Key Management page.
 4. Click **Delete** to remove keys. The Confirm to remove keys dialog box is displayed. Click **OK** to remove the keys or click **Cancel** to keep them.
 5. In the activation key list, select the key with the status displayed as "Not installed" and click **Install from IBM KMS Website**. The Install Activation Key from IBM KMS Website dialog box is displayed.
 - a. Enter the information in the Install Activation Key from IBM KMS Website dialog box:
 - IBM ID
 - Password
 - Details for each key
 - b. Click **Install Now** to install activation keys from the IBM KMS website. The Install Activation Key from IBM KMS Site page is displayed.

Install Activation Key from IBM KMS Site

Provide following information for the activation key:

1. User Credentials

IBM ID:

User Password:

2. Details for each key(Authorization code and Unique Identifier are required to install a key.)

Feature Description	Unique Identifier	Auth Code
IBM Integrated Management Module Advanced Upgrade	<input type="text"/>	<input type="text"/>

Install Now
Cancel

Figure 26. Install Activation Key from IBM KMS Site

If there is an IBM ID error or if the password is not recognized, the following error message dialog is shown:

The IBM ID or password is not recognized.

If there is a Unique Identifier error, the following error message is displayed:

The Unique Identifiers for the indicated license are not recognized.
Note that an authorization code and Unique Identifier are required.

6. Click **Install from the Local File** to install one or more keys from local files. A File Upload dialog box is displayed.
 - a. Click to select the File Upload directory location and click **Open**.
 - b. Click to select the activation key files to upload to the server and click **OK**. The Install Activation Key from Local File dialog box opens. A progress bar provides the key installation percentage and a table lists the installed activation key information.
7. Click **Refresh** at any time to refresh the current installed keys list and the available keys list.

System Contact

System Contact information is used to identify a system to operations and support personnel. Use this option to add or modify the system contact information.

Procedure

1. Click **System Contact** on the Configuration Overview page. The Configuration - System Contact page is displayed.

IBM ToolsCenter Suite

Settings | About | Exit

Welcome | Updates | Configuration | System Information

Configuration

Machine Name:
System X 3112

Machine Type/Model:
7158AC2

General

Overview

Frequently Used Settings

Boot Order

IMM User Accounts

Activation Key Management

System Contact

Energy and Performance

Full Settings

All

SYSTEM_PROD_DATA

IMM

iSCSI

UEFI

BootModes

Configuration - System Contact

Provide a description to identify this system to operations and support personnel.

Apply Reset

Machine Name: System X 3112

System descriptive name: fastasd1111

Contact person: d111

Location(site, geographical coordinates): d11

Figure 27. Configuration - System Contact

2. Enter the following applicable information for the Machine Name that is displayed.
 - **Machine name**
 - **System descriptive name**
 - **Contact person**
 - **Location (site, geographical coordinates, etc.)**
3. Click **Apply** to apply and save the new system contact information or click **Reset** to restore the original System Contact information.

Energy and Performance

Energy and Performance settings are determined by the machine type. Use the applicable option to change the values of the Energy and Performance settings. The performance and power tuning is based on a best estimation. Due circumstantial differences, the results may not be the same as the best estimation.

Energy and Performance settings for M4 machine types:

Use this procedure to change the values of the Energy and Performance settings for M4 machine types. M4 machines have four energy and performance options. The default state for M4 is Efficiency.

Procedure

1. Click **Energy and Performance** on the Configuration Overview page. The Configuration - Energy and Performance page is displayed.

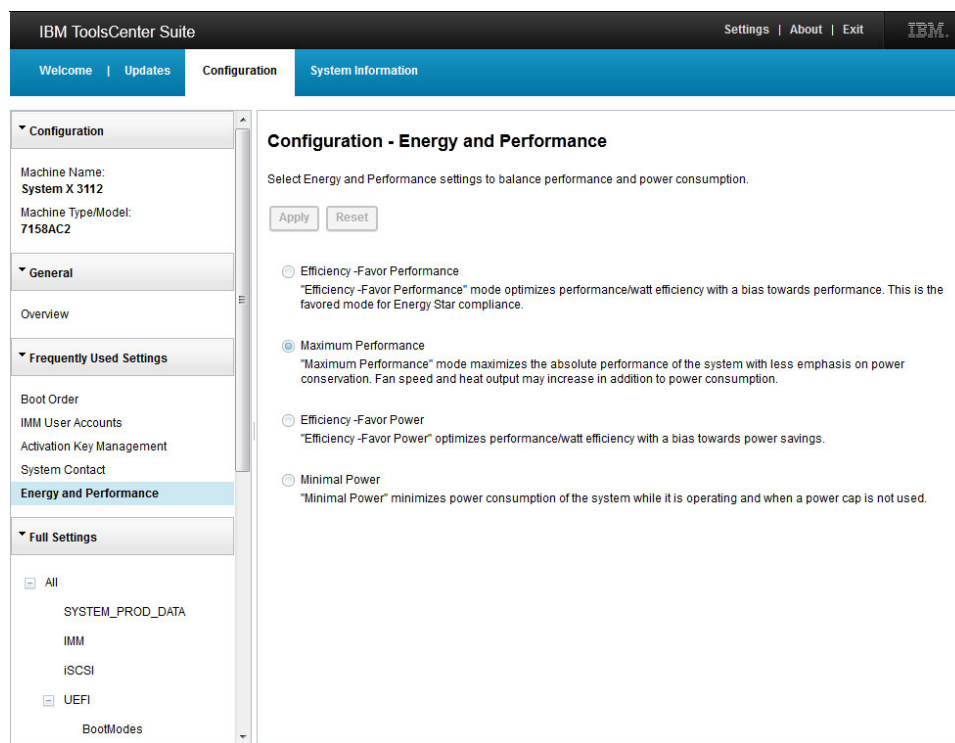


Figure 28. Configuration - Energy and Performance

2. Click to select one of the following options for your system:
 - **Efficiency - Favor Performance:** This mode optimizes performance/watt efficiency with a bias towards performance. This is the favored mode for Energy Star compliance.
 - **Maximum Performance:** This mode maximizes the absolute performance of the system with less emphasis on power conservation. Fan speed and heat output may increase in addition to power consumption.
 - **Efficiency - Favor Power:** This mode optimizes performance/watt efficiency with a bias towards power savings. This setting is applicable for M4 machine types only.
 - **Minimal Power:** This mode minimizes power consumption of the system while it is operating and when a power cap is not used.
3. Click **Apply** to apply and save the Energy and Performance setting change or click **Reset** to return to the previous Energy and Performance settings. If no changes are made to the selected options, the **Apply** and **Reset** buttons are not available.

Energy and Performance settings for pre-M4 machine types:

Use this procedure to change the values of the Energy and Performance settings for machine types older than M4. For these machines types, there are three energy and performance options.

Procedure

1. Click **Energy and Performance** on the Configuration Overview page. The Configuration - Energy and Performance page is displayed.
2. Click to select one of the following options for your system:
 - **Efficiency:** This mode optimizes performance/watt efficiency. This is the favored mode for Energy Star compliance.
 - **Maximum Performance:** This mode maximizes the absolute performance of the system with less emphasis on power conservation. Fan speed and heat output may increase in addition to power consumption.
 - **Minimal Power:** This mode minimizes power consumption of the system while it is operating and when a power cap is not set.
3. Click **Apply** to apply and save the Energy and Performance setting change or click **Reset** to return to the previous Energy and Performance setting. If no changes are made to the selected options, the **Apply** and **Reset** buttons are not available.

Actions

The Actions section provides quick access to the export, import, and reset to factory defaults options.

About this task

Use the export, import and reset to factory defaults options described in this procedure as it applies to your specific situation.

- **Export:** Use to export the current machine settings before making a configuration changes or installing updates.
- **Import:** Use to restore or replicate configuration settings to machine after exporting the settings.
- **Reset to Factory Defaults:** Use to restore the machine settings before configuration changes or updates were applied.

Procedure

On the Configuration Overview page, click to select one of the following Actions:

- **Export:** The Opening saveall.out dialog box is displayed.

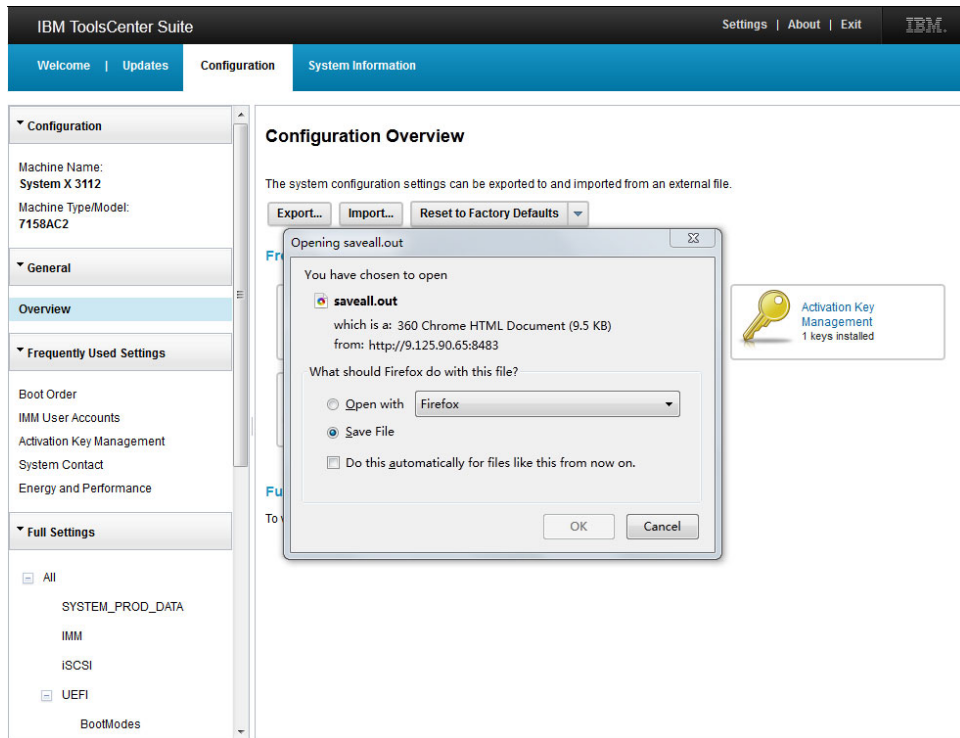


Figure 29. Configuration - Export Action

Select one of the following options:

- Click **Open with** a browser selected from the drop-down menu.
- Click **Save File** and **OK**.
- Click **Do this automatically for files like this from now on** to save the export options created in this dialog box.
- Click **Cancel** to exit this operation.
- **Import:** The Import Configuration File dialog box is displayed.

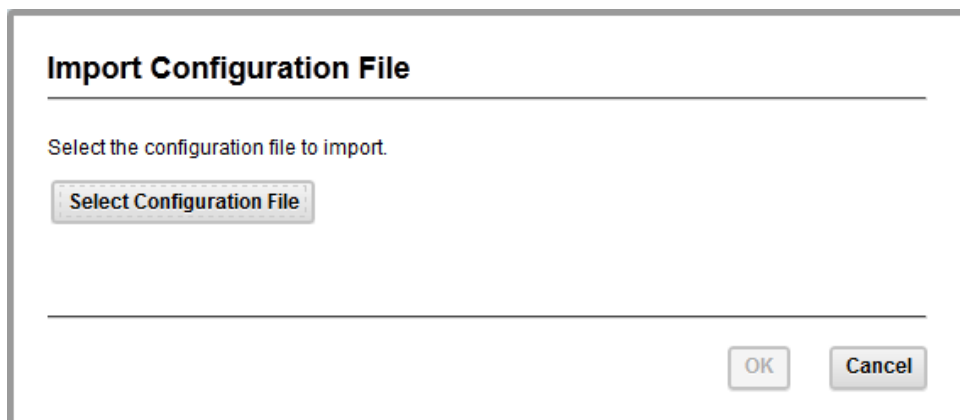


Figure 30. Configuration - Import Action

Select one of the following options:

- Click **Select a Configuration File** and browse to select the file from the File Upload dialog box or click **Cancel** to exit this operation.

If you have chosen to import the configuration file exported from the same server, the Confirm to Restore Configuration Settings dialog box is displayed.

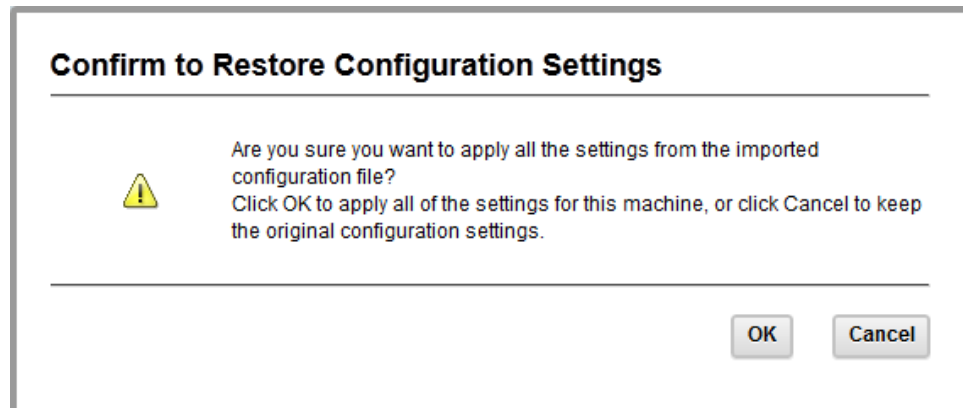


Figure 31. Configuration - Import Action - Restore Configuration Settings

- Click **OK** to apply all of the setting for this machine or click **Cancel** to keep the original configuration settings.
- If you have chosen to import the configuration file exported from another machine, the Confirm to Replicate Configuration Settings dialog box is displayed.

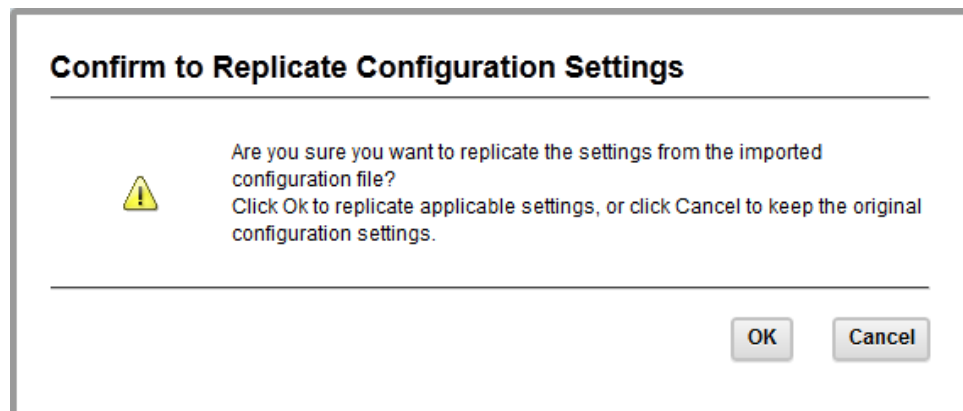


Figure 32. Configuration - Import Action - Replicate Configuration Settings

Click **OK** to apply all of the setting for this machine or click **Cancel** to keep the original configuration settings.

- **Reset to Factory Defaults:** Using the drop-down menu, select one of the following reset options:
 - **Reset All Settings to Factory Defaults**
 - **Reset to IMM Factory Defaults**
 - **Reset to uEFI Factory Defaults**

Full Settings

Use the Full Settings option to view all of the system settings. This includes: SYSTEM_PROD_DATA, IMM, iSCI, uEFI NetworkConnection, BootOrder, and PXE. Full settings is not a fixed group of settings and varies depending on the machine type and model.

Procedure

1. Using the navigation menu, click **Full Settings > All**. The Configuration - All Configuration page is displayed. This page provides a table listing for all of the settings, their group name and the current value. If you hover the mouse over each entry in the table, a definition of the setting is displayed.

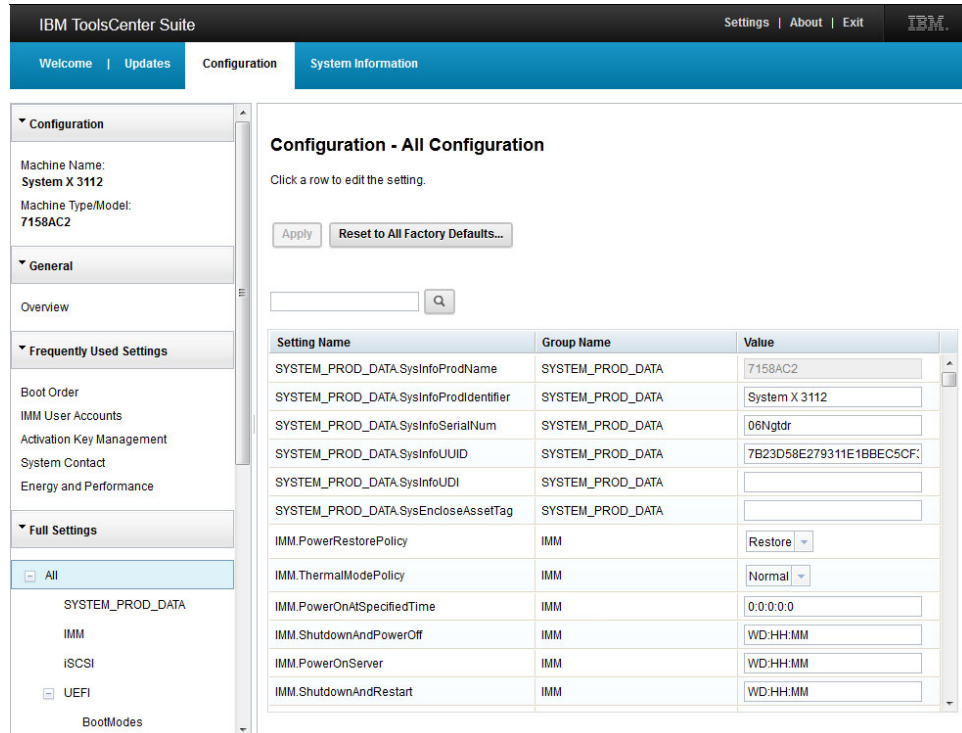


Figure 33. Configuration - All settings

2. On this page you have several options for viewing or changing settings.
 - To search for a setting, enter the name in the search field and click on the search icon. (This is not a case sensitive search.) The best match for this setting will be found and displayed in the first line of the table.
 - To change the value of a setting, in the Value column, click the drop-down menu and select a value.
 - To apply a setting change, click **Apply**. The Apply the settings changes? dialog box is displayed. Click **OK** to proceed or **Cancel** to exit this operation. If you select **OK**, the following messages are displayed until a new setting value is applied:
 Applying settings. Please wait...
 Update the Settings successfully.

 Click **OK** to load the settings. The following message is displayed:
 Loading, please wait...
 - To reset the settings, click **Reset to All Factory Defaults**. The Reset to Factory Default dialog box is displayed. Click **OK** to proceed with resetting the values or click **Cancel**.
3. To view individual settings, in the navigation menu, click **All** and click the setting you want to view. The individual setting information is displayed in the right pane, providing the group name and current value for this setting.

SYSTEM_PROD_DATA settings

Use this option to view the SYSTEM_PROD_DATA settings and to make changes to the value of these settings. SYSTEM_PROD_DATA is user-configurable VPD settings.

Procedure

1. Using the navigation menu, click **Full Settings > All > SYSTEM_PROD_DATA**. The Configuration - SYSTEM_PROD_DATA Configuration page is displayed.

IBM ToolsCenter Suite Settings | About | Exit

Welcome | Updates Configuration System Information

Configuration

Machine Name:
System X 3112
Machine Type/Model:
7158AC2

General

Overview

Frequently Used Settings

Boot Order
IMM User Accounts
Activation Key Management
System Contact
Energy and Performance

Full Settings

All
SYSTEM_PROD_DATA
IMM
iSCSI
UEFI
BootModes

Configuration - SYSTEM_PROD_DATA Configuration

Click a row to edit the setting.

Apply Reset to SYSTEM_PROD_DATA Factory Defaults...

Setting Name Group Name Value

SYSTEM_PROD_DATA.SysInfoProdName	SYSTEM_PROD_DATA	7158AC2
SYSTEM_PROD_DATA.SysInfoProdIdentifier	SYSTEM_PROD_DATA	System X 3112
SYSTEM_PROD_DATA.SysInfoSerialNum	SYSTEM_PROD_DATA	06NgtDr
SYSTEM_PROD_DATA.SysInfoUUID	SYSTEM_PROD_DATA	7B23D58E279311E1BBEC5CF:
SYSTEM_PROD_DATA.SysInfoUID	SYSTEM_PROD_DATA	
SYSTEM_PROD_DATA.SysEncloseAssetTag	SYSTEM_PROD_DATA	

Figure 34. Configuration - SYSTEM_PROD_DATA

This page provides a table listing all of the SYSTEM_PROD_DATA settings, their group name and the current value. If you hover the mouse over each entry in the table, a definition of the setting is displayed.

2. On this page you have several options for viewing or changing SYSTEM_PROD_DATA settings.

Note: The SYS_PROD_DATA_SysInfoProdName setting's values cannot be changed.

- To search for a setting, enter the name in the search field and click on the search icon. (This is not a case sensitive search.) The best match for this setting will be found and displayed in the first line of the table.
- To add or change the value of a setting, in the Value column, enter a value.
- To apply a setting change, click **Apply**. The Apply the settings changes? dialog box is displayed. Click **OK** to proceed or **Cancel** to exit this operation. If you select **OK**, the following messages are displayed until a new setting value is applied:

Applying settings. Please wait...

Update the Settings successfully.

Click **OK** to load the settings. The following message is displayed:
Loading, please wait...

- To reset the settings, click **Reset to SYSTEM_PROD_DATA Factory Defaults**. The Reset to factory default dialog box is displayed. Click **OK** to proceed with resetting the values or click **Cancel**.

IMM settings

Use this option to view the IMM settings and to make changes to these settings.

Procedure

1. Using the navigation menu, click **Full Settings > All > IMM**. The Configuration - IMM Configuration page is displayed.

IBM ToolsCenter Suite Settings | About | Exit IBM

Welcome | Updates Configuration System Information

Configuration

Machine Name:
System X 3112
Machine Type/Model:
7158AC2

General

Overview

Frequently Used Settings

Boot Order
IMM User Accounts
Activation Key Management
System Contact
Energy and Performance

Full Settings

All
SYSTEM_PROD_DATA
IMM
ISCSI
UEFI
BootModes

Configuration - IMM Configuration

Click a row to edit the setting.

Apply Reset to IMM Factory Defaults...

Search

Setting Name	Group Name	Value
IMM.PowerRestorePolicy	IMM	Restore
IMM.ThermalModePolicy	IMM	Normal
IMM.PowerOnAtSpecifiedTime	IMM	0:0:0:0:0
IMM.ShutdownAndPowerOff	IMM	WD:HH:MM
IMM.PowerOnServer	IMM	WD:HH:MM
IMM.ShutdownAndRestart	IMM	WD:HH:MM
IMM.PXE_NextBootEnabled	IMM	Disabled
IMM.TimeZone	IMM	GMT+0:00
IMM.DST	IMM	No
IMM.IMMInfo_Name	IMM	fasfasfd1111
IMM.IMMInfo_Contact	IMM	d111
IMM.IMMInfo_Location	IMM	d11

Figure 35. Configuration - IMM settings

This page provides a table listing all of the IMM settings, their group name, and the current value. If you hover the mouse over each entry in the table, a definition of the setting is displayed.

2. On this page you have several options for viewing or changing IMM settings.
 - To search for a setting, enter the name in the search field and click on the search icon. (This is not a case sensitive search.) The best match for this setting will be found and displayed in the first line of the table.
 - To change the value of a setting, in the Value column, click the drop-down menu and select a value.
 - To apply a setting change, click **Apply**. The Apply the settings changes? dialog box is displayed. Click **OK** to proceed or **Cancel** to exit this operation. If you select **OK**, the following messages are displayed until a new setting value is applied:
Applying settings. Please wait...
Update the Settings successfully.

Click **OK** to load the settings. The following message is displayed:
Loading, please wait...

- To reset the settings, click **Reset to IMM Factory Defaults**. The Reset to factory default dialog box is displayed. Click **OK** to proceed with resetting the values or click **Cancel**.

iSCSI settings

Use this option to view the iSCSI settings or individual settings and to make changes to these settings. The iSCSI settings are grouped into a record. The record key for the record is the **iSCSI.AttemptName** setting. Each record represents an attempt. The term attempt is equivalent to the term instance. More than one attempt can be defined. If more than one attempt is defined, the same setting names that define the attempt group are used, but each attempt contains the next sequential instance number. For example, **iSCSI.MacAddress.1** and **iSCSI.MacAddress.2** belong to the "first" attempt and the "second" attempt respectively. The only parameter that is defined as a global iSCSI setting to all attempts and that does not require an instance index is the **iSCSI.InitiatorName**.

Procedure

1. Using the navigation menu, click **Full Settings > All > iSCSI**. The Configuration - iSCSI Configuration page is displayed.

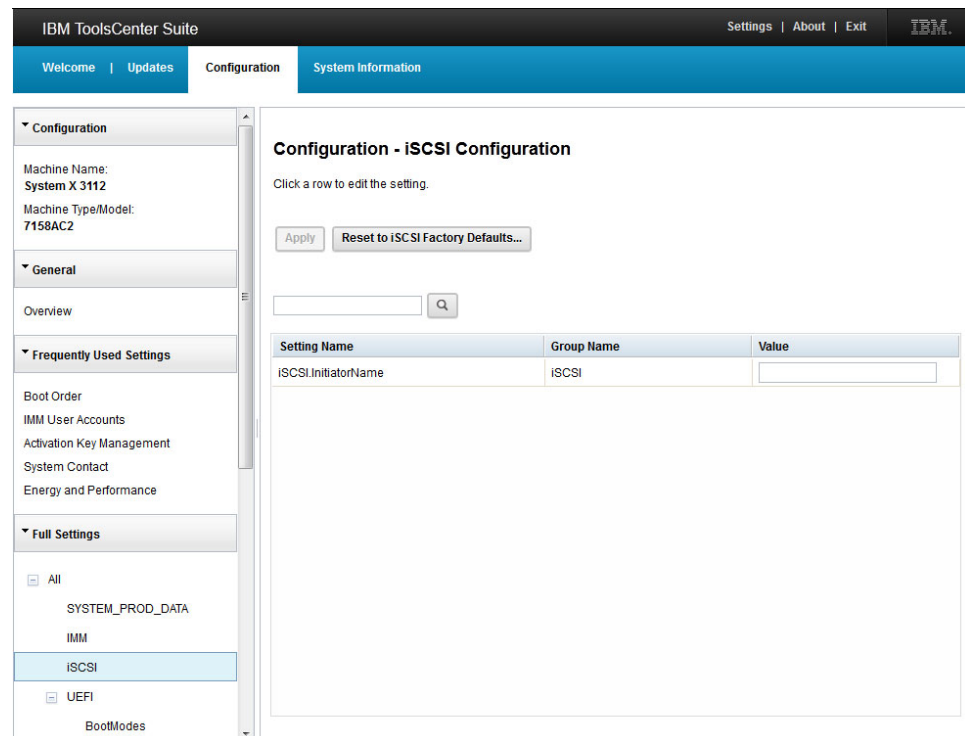


Figure 36. Configuration - iSCSI

This page provides a table listing all of the iSCSI settings, their group name and the current value. If you hover the mouse over each entry in the table, a definition of the setting is displayed.

2. On this page you have several options for viewing or changing iSCSI settings.
 - To search for a setting, enter the name in the search field and click on the search icon. (This is not a case sensitive search.) The best match for this setting will be found and displayed in the first line of the table.

- To change the value of a setting, in the Value column, enter the new value.
- To apply a setting change, click **Apply**. If an incorrect value was entered, a dialog box displays this information. Click **Close**. If a correct value was entered, The Apply the setting changes? dialog box is displayed. Click **OK** to proceed or **Cancel** to exit this operation. If you select **OK**, the following messages are displayed until a new setting value is applied:

Applying settings. Please wait...

Update the Settings successfully.

Click **OK** to load the settings. The following message is displayed:

Loading, please wait...

- To reset the settings, click **Reset to iSCSI factory defaults**. The Reset to factory default dialog box is displayed. Click **OK** to proceed with resetting the values or click **Cancel**.
3. To view individual settings, in the navigation menu, click **All > iSCSI** and click the setting you want to view. The individual setting information is displayed in the right pane, providing the group name and the current value for this setting.

uEFI settings

Use this option to view and make changes to the uEFI settings.

Procedure

1. Using the navigation menu, click **Full Settings > All > uEFI**. The Configuration - uEFI Configuration page is displayed.

IBM ToolsCenter Suite

Settings | About | Exit

Welcome | Updates | Configuration | System Information

Configuration

Machine Name: System X 3112
Machine Type/Model: 7158AC2

General

Overview

Frequently Used Settings

Boot Order
IMM User Accounts
Activation Key Management
System Contact
Energy and Performance

Full Settings

All
SYSTEM_PROD_DATA
IMM
iSCSI
uEFI
BootModes

Configuration - uEFI Configuration

Click a row to edit the setting. You must restart the system to make the changes take effect.

Apply Reset to uEFI Factory Defaults...

Setting Name Group Name Value

BootModes.SystemBootMode	UEFI	UEFI and Legacy
BootModes.QuietBoot	UEFI	Disable
BootModes.DriverHealthCheck	UEFI	All
DevicesandIOPorts.ConfiguretheonboardSATAp ortsas	UEFI	IDE
DevicesandIOPorts.ConfigureIDEmode	UEFI	Native mode
DevicesandIOPorts.ActiveVideo	UEFI	Add-in Device
DevicesandIOPorts.PCIExpressNativeControl	UEFI	Enable
DevicesandIOPorts.PCI64- BitResourceAllocation	UEFI	Enable
DevicesandIOPorts.COMPort1	UEFI	Enable
DevicesandIOPorts.COMPort2	UEFI	Enable

Figure 37. Configuration - uEFI settings

This page provides a table listing all of the uEFI settings, their group name and the current value. If you hover the mouse over each entry in the table, a definition of the setting is displayed.

2. On this page you have several options for viewing or changing uEFI settings.
 - To search for a setting, enter the name in the search field and click on the search icon. (This is not a case sensitive search.) The best match for this setting will be found and displayed in the first line of the table.
 - To change the value of a setting, in the Value column, click **Value** to display the drop-down menu and select a value.
 - To apply a setting change, click **Apply**. The Apply the settings changes? dialog box is displayed. Click **OK** to proceed or **Cancel** to exit this operation. If you select **OK**, the following messages are displayed until a new setting value is applied:
Applying settings. Please wait...
Update the Settings successfully.

Click **OK** to load the settings. The following message is displayed:
Loading, please wait... - To reset the settings, click **Reset to uEFI Factory Defaults**. The Reset to factory default dialog box is displayed. Click **OK** to proceed with resetting the values or click **Cancel**.
3. To view individual settings, in the navigation menu, click **All > uEFI** and click the setting you want to view. The individual setting information is displayed in the right pane, providing the group name and the current value for this setting.

BootOrder settings

Use this option to configure the BootOrder settings. Changes to BootOrder will take affect after reboot.

Procedure

1. Using the navigation menu, click **Full Settings > All > BootOrder** or perform a search on boot order. The Configuration - BootOrder Configuration page is displayed.

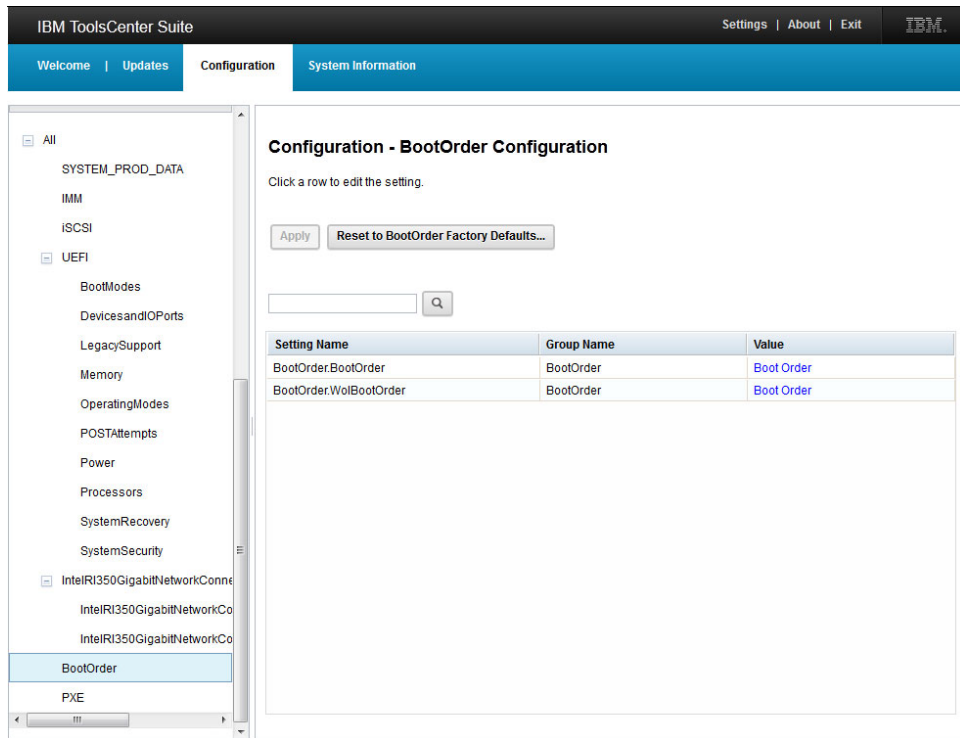


Figure 38. Configuration - BootOrder

To view more information about each type of BootOrder, hover the mouse over each line and information is displayed explaining what that particular BootOrder does.

2. Select one of the following options:
 - To reset the settings, click **Reset to BootOrder Factory Defaults**. The Reset to factory default dialog box is displayed. Click **OK** to proceed with resetting the values or click **Cancel**.
 - Click **Boot Order** in the Value column to select one of the boot order items listed. The Configure Boot Order dialog box is displayed. Click **OK** to continue or click **Cancel** to exit the dialog box and return to the Configuration - BootOrder page.

Related tasks:

"Boot Order" on page 31

Provides additional information about Boot Order configuration.

PXE settings

Use this option to configure Preboot Execute Environment (PXE) settings. PXE is an environment to boot computers using a network interface independent of data storage devices, such as hard disks or installed operating systems.

Procedure

1. Using the navigation menu, click **Full Settings > All > PXE**. The Configuration - PXE page is displayed.

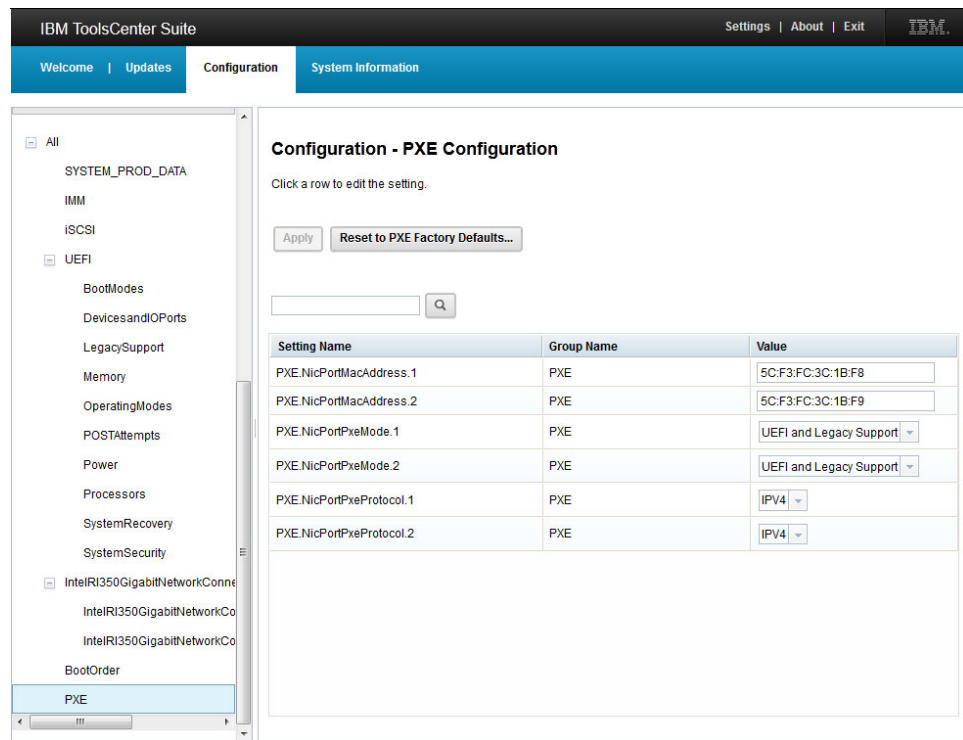


Figure 39. Configuration - PXE

The PXE settings list consists of PXE MAC addresses, PXE port devices, and PXE port protocols. To view more information for each PXE setting listed, hover the mouse over each line and a description for that setting is displayed.

2. Select one of the following options:
 - To reset the settings, click **Reset to PXE Factory Defaults**. The Reset to factory default dialog box is displayed. Click **OK** to proceed with resetting the values or click **Cancel**.
 - Click to select an entry in the Value column.
 - The MAC addresses can be changed by entering a new address.
 - Click to select a PXE port device value from the drop-down menu.
 - Click to select a PXE port protocol value from the drop-down menu.
 - Click **Apply** to save the new PXE settings.

Using the System Information function

This section describes how to scan and view system status, event logs, and collect system information. You can collect full system information for analysis, service, and support. These files can be sent to IBM Support or the FTP server.

Procedure

1. On the Welcome page or from the ToolsCenter Suite menu, click to select **System Information**. The System Information - Overview page is displayed.

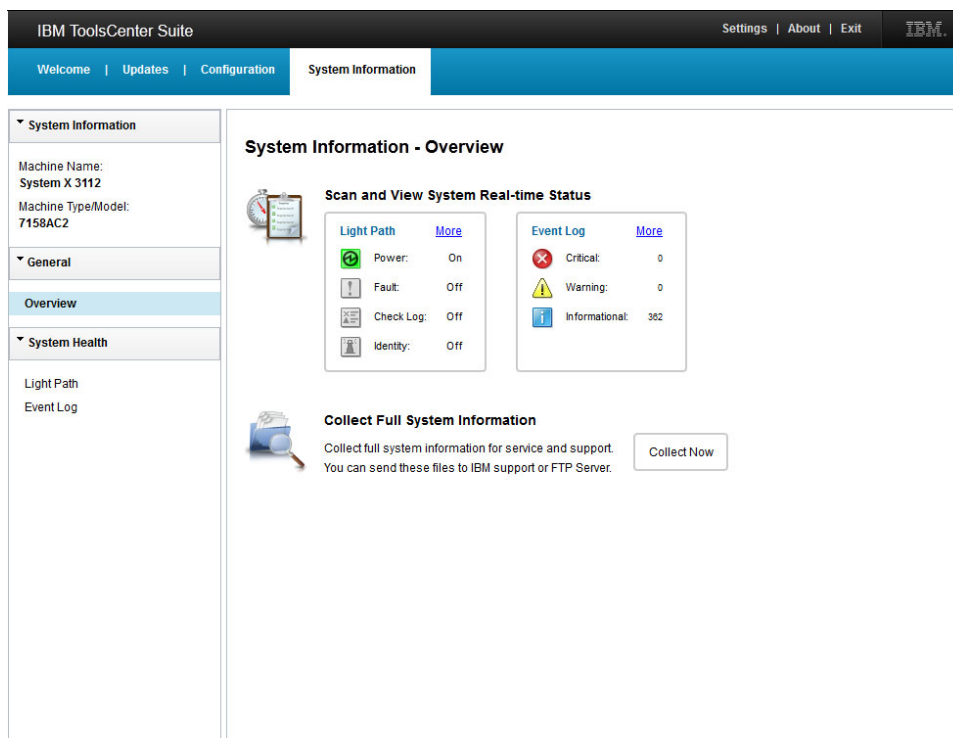


Figure 40. System Information - Overview

The navigation menu contains the System Health options. The right pane provides real time system status. When the System Information - Overview page is initially opened, the status is updated. To update the status again, click **Refresh** on the Event Log or Light Path screen.

In the Collect Full System Information section of the right pane, a date stamp indicating when the last full system information was collected is displayed. In addition, the report name is displayed as a link. Click on this link to open the report, which provides a complete System Overview of your system.

2. On the System Information - Overview page, click to select one of the following options:
 - **Light Path**
 - **Event Log**
 - **Collect Now**

Light Path status

This option provides the location and status for each of the machine's front and rear panel LEDs and the Detail LEDs on the planar.

Procedure

1. To view Light Path status information, click the **Light Path** dashboard or click **More** in the Light Path dashboard on the System Information - Overview page. The Light Path information page is displayed.

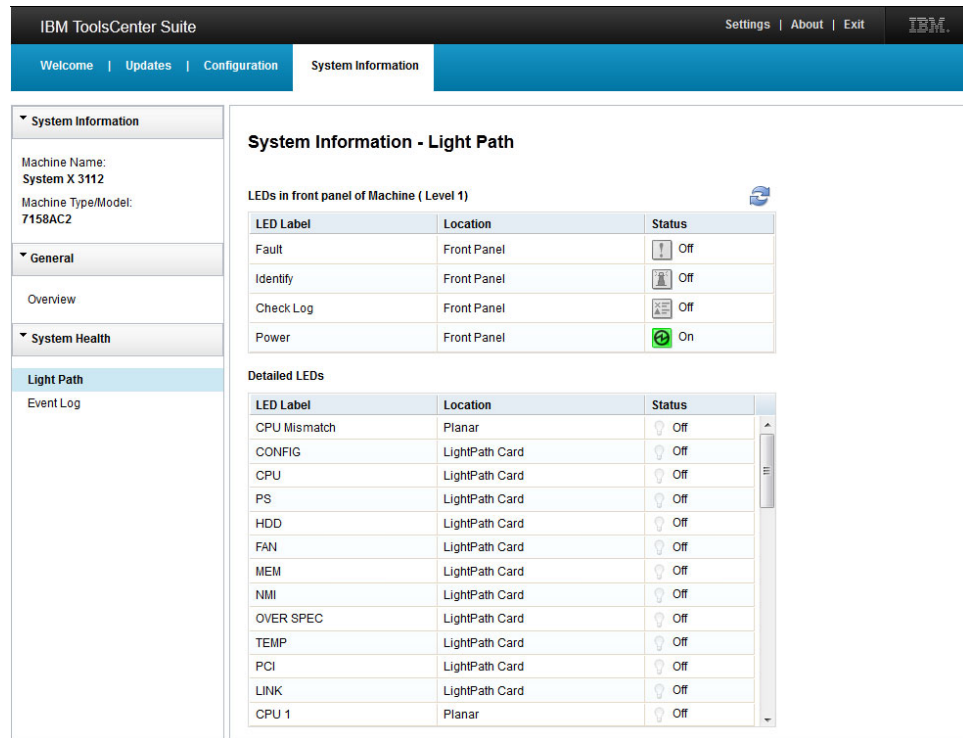


Figure 41. System Information - Light Path status

You can click **Refresh** on the Light Path screen to collect the latest light path information. When you select **Light Path** from the navigation menu, the previously-collected Light Path information is displayed.

The Light Path page provides status for:

LEDs on the front and rear panel of the machine (Level 1):

The status reported for the following LEDs is On or Off. The location is displayed as Front Panel or Rear Panel.

- Fault
- Identity
- Power
- Check Log

Detail LEDs:

The status reported for Detail LEDs is On and Off for all of the Detail LEDs, except IMM2 Heartbeat, which has a status of Blinking. The detail information varies for each machine type.

- CPU 1
- CPU 2
- DIMM 1
- DIMM 2
- DIMM 2
- DIMM 4
- DIMM 5
- DIMM 6
- DIMM 7

- DIMM 8
 - DIMM 9
 - DIMM 10
 - DIMM 11
 - DIMM 12
 - DIMM 13
 - DIMM 14
 - DIMM 15
 - DIMM 16
 - PCIE 1
 - PCIE 2
 - Battery
 - IMM2 Heartbeat
 - Mezz Card
2. When you have completed viewing the LEDs, select one of the following options:
 - From the navigation menu, click to select the **Overview** System Information - Overview page or the **Event log** page.
 - Click one of the ToolsCenter Suite menu items located at the top of the screen.

Event Log information

This option provides detailed information for Critical, Warning, and Informational events collected from the IPMI SEL event logs.

Procedure

1. To view Event Log information, click the **Event Log** dashboard or click **More** in the Event Log dashboard on the System Information - Overview page. The System Information - Event Log page is displayed.

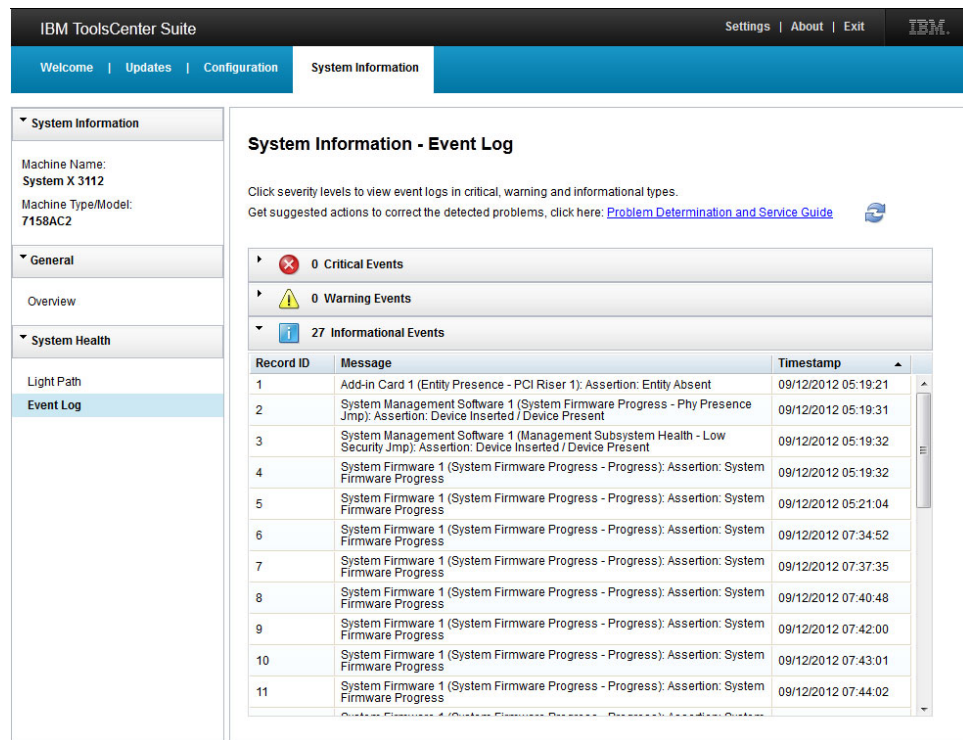


Figure 42. System Information - Event Log

You can click Refresh on Event Log screen to collect the latest Event Log status. When you select **Event Log** from the navigation menu, the previously-collected Event Log information is displayed.

There are three types of severity levels recorded in the event logs:

- Critical
- Warning
- Information

The Event Log report categories are:

- RecordID
- Message
- Timestamp

On the Event Log page you have the following options for viewing information:

- Click the arrow to expand the severity level category. A detailed view of the severity level is displayed, containing all of the events collected.
 - Click a report category heading to sort the list.
 - Click the arrow to collapse the severity level category. A minimized view of the severity level is displayed.
2. Click **Problem Determination and Service Guide** to view suggested actions for detected problems found in the event logs.
 3. When you have completed viewing Event Log information, select one of the following options:
 - From the navigation menu, click to select the **Overview** System Information - Overview page or the **Light Path** page.
 - Click one of the ToolsCenter Suite menu items located at the top of the screen.

Collect Full System Information

This option queries the system and provides full system information for analysis, service, and support. The files generated by the collection process can be sent to IBM support or an FTP server.

Procedure

1. Click **Collect Now** to start the collect system full information function. You can send these files to IBM support or FTP Server on the System Information - Overview page. The Collect Full System Information dialog box is displayed.

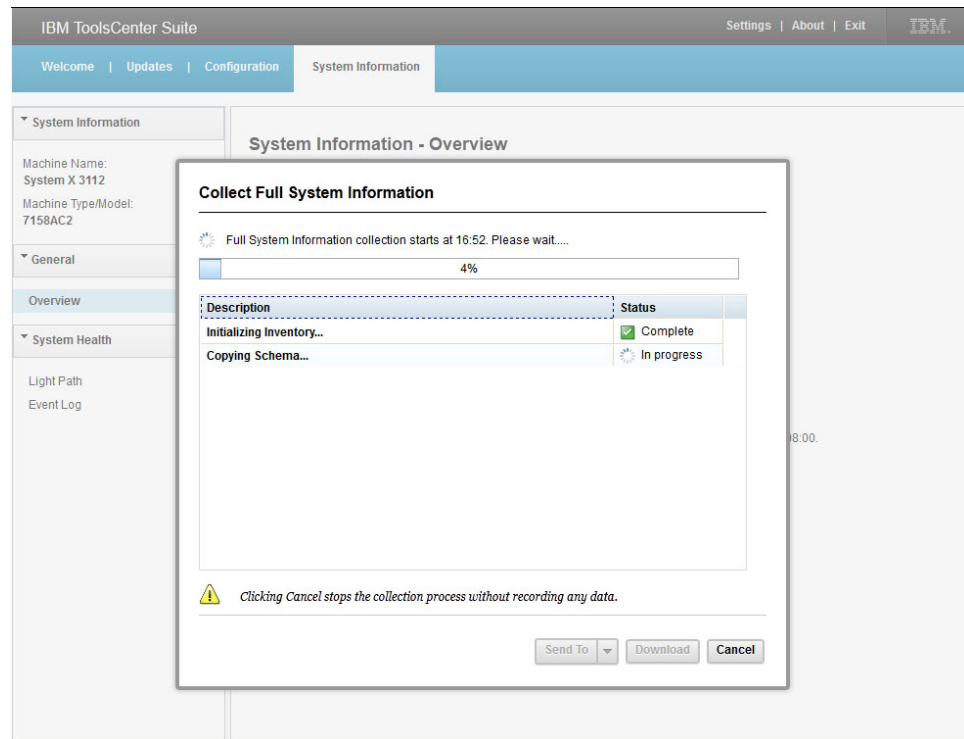


Figure 43. System Information - Collect Full System Information

While the collection process is running, a progress bar is displayed.

Note: Clicking **Cancel** before the collection operation has successfully completed, stops the collection process without recording any data. If you click **Cancel**, a dialog box opens, asking if you want to continue. To continue, click **Continue Collection** or **Stop Collection** to halt the collection process.

As the collection progresses, an inventory list is generated which provides the status for each inventory item, indicating *Initializing* while collecting information and *Complete* when done.

2. When the Full System Information collection has successfully completed, the following page is displayed.

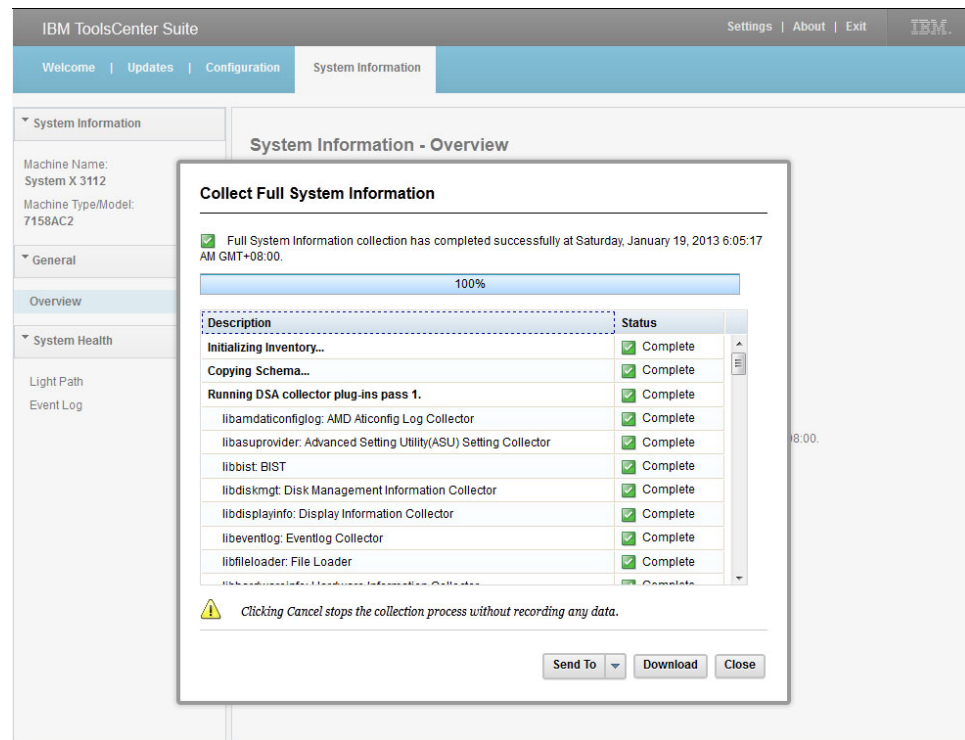


Figure 44. System Information - Collect Full System Information Completed

Select one of the following options:

- Click **Send To** to send information to IBM Support or the FTP Server. From the drop-down menu, select one of the following options.
 - **Send to IBM Support:** A dialog box is displayed indicating that the send of the collection to IBM Support may take a few minutes. When this operation is complete, click **Close**. If the send to IBM Support fails, the Configure Internet Connection dialog box is displayed.

Note: If you are not connected to the Internet, the Configure Internet Connection dialog box is displayed. Check your configuration and try again, otherwise, click **OK** to continue or **Cancel**. For more information see “Internet Connection settings” on page 11.

- **Send to FTP Server:** Perform the following steps in the Send to FTP Server dialog box.
 - a. Enter the **IP Address:** FTP server IP
 - b. The Send to FTP action requires authentication. Enter the following information:
 - **IP Address:** FTP server IP
 - **Port:** The default port is 21.
 - Click to select **Require Authentication**.
 - Enter the **User Name**.
 - Enter the **Password**.
 - Click **Ok** to continue or **Cancel** to exit this operation.
- Click **Download**. This option allows you to download the complete information report to a local file. The open zip file dialog box is display indicating the name of the full system report zip file. By default, the **Save File** option is selected. Select one of the following options.

- Click **Open with** to browse and select an application for downloading the zip file. Click **OK**. A dialog box opens to select a directory for saving the zip file.
- Click **OK** to save the file. A dialog box opens to select a directory for saving the zip file.
- Click **Close** to return to the System Information - Overview page.

Results

When you return to the System Information - Overview page, the collection information name and a date stamp is displayed in the right pane.

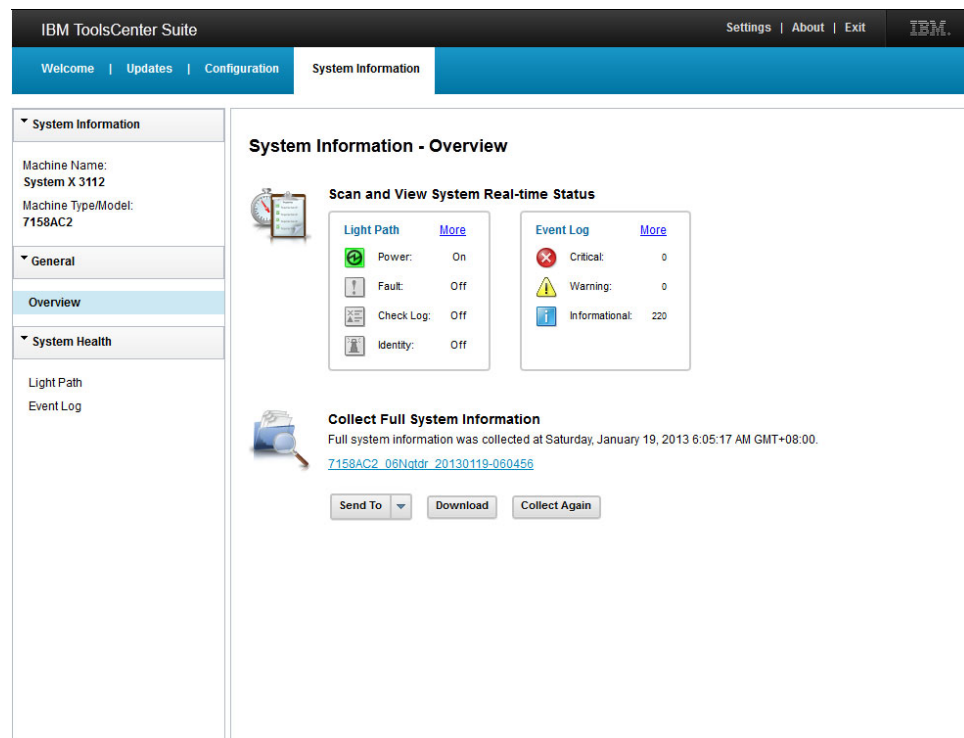


Figure 45. System Information - Full System Information Report link

What to do next

Select one of the following options.

- Click **Full System Information report link** located under the date stamp to view the Full System Information report in a browser window. For more information, see “Viewing the ToolsCenter Suite report”
- Click **Send To** and select Send to IBM Support or Send to FTP.
- Click **Download** to download the full information report to local file.
- Click **Collect Again** to collect the full system information again.
- Click to select one of the other options listed on this page or select another ToolsCenter Suite function.

Viewing the ToolsCenter Suite report

Use this option to view the ToolsCenter Suite report and detailed information produced by the Collect Full System Information function.

Procedure

1. Click **Full System Information report** link on the System Information - Overview page to view the full system information report. The System Overview report is displayed in a browser window as shown below.

You can also click **Collect Again** to collect full system information again before viewing the report. The Collect Full System Information dialog box is displayed while the full system information is updated. For more information, see “Collect Full System Information” on page 54.

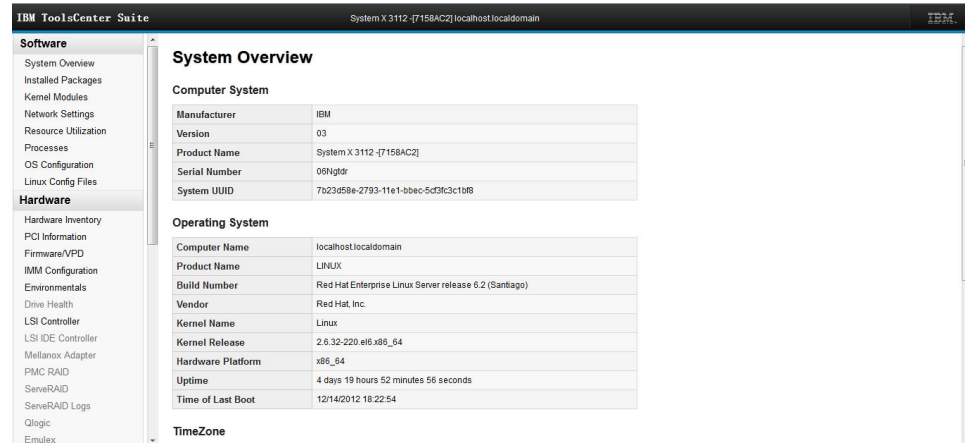


Figure 46. System Information - Full System Information Report

2. From the navigation menu, you can select specific items listed within the five main report categories to get more detailed information. The available report information is determined by machine type, operating system, installed hardware and software. Information that is not applicable to your system will be greyed out in the navigation menu.

- **Software**
 - System Overview
 - Installed Packages
 - Kernel Modules
 - Network Settings
 - Resource Utilization
 - Processes
 - OS Configuration
 - Linux Config Files
- **Hardware**
 - Hardware Inventory
 - PCI Information
 - Firmware/VPD
 - IMM Configuration
 - Environmentals
 - Drive Health
 - LSI Controller
 - LSI IDE Controller
 - Mellanox Adapter

- PMC RAID
 - ServeRAID
 - ServeRAID Logs
 - Qlogic
 - Emulex
 - Broadcom
 - Brocade Adapter
 - VMware ESXi
 - Light Path
 - IMM Built-in Self Test
 - FoD Activation Key
 - **Platform Logs**
 - /var/log/boot.log
 - /var/log/cron
 - /var/log/dmesg
 - /var/log/messages
 - /var/log/secure
 - **IMM Logs**
 - Chassis Event Log
 - IPMI Event
 - **Analysis**
 - Merged Log
 - UpdateXpress
 - File Loader Results
 - Diagnostics Log
 - DSA Error Log
3. When you have finished viewing information, click to close the browser window.

IBM ToolsCenter Suite files

This section describes where IBM ToolsCenter Suite files are stored.

The ToolsCenter Suite log file

The ToolsCenter Suite log file is stored in the %ToolsCenterSuite%\apache-tomcat-7.0.26\webapps\tcsuite\WEB-INF\logs directory. %ToolsCenterSuite% is the working directory.

New log information is appended to the tcsuite_20120909225751.log file. The number in the log file name represents: year/month/date/hour/minute/second.

Update files

The update files that are downloaded using one of the Update options are stored in the following directories.

UpdateXpress System Pack XML and binary files

%ToolsCenterSuite%\apache-tomcat-7.0.26\webapps\tcsuite\WEB-INF\depot\Update%\MachineType%\%OperatingSystem%\uxsp

Individual XML and binary files

`%ToolsCenterSuite%\apache-tomcat-7.0.26\webapps\tcsuite\WEB-INF\depot\Update\%MachineType%\%OperatingSystem%\individual`

`%ToolsCenterSuite%` is the ToolsCenter Suite working directory; `%MachineType%` is the four-digit machine type of the server and represents the machine type selected; and `%OperatingSystem%` is the server operating system.

Chapter 5. Troubleshooting and support

Use this section to troubleshoot and resolve problems with ToolsCenter Suite.

Known limitations

The current known limitations for IBM ToolsCenter Suite 9.30 are:

Windows 64-bit operating systems

For all Windows 64-bit operating systems, you will get RAW data and be missing the logic device table information on Windows OS.

Full Settings option

In the Full Settings option, when changing the value of **Power.PowerPerformanceBias**, there is no error message reported even though the setting change is not successful.

Concurrent operation of ToolsCenter Suite

IBM ToolsCenter Suite does not support more than one session running at a time. If you try to start a second instance, close the opened ToolsCenter Suite browser window first, and then click ToolsCenter Suite desktop shortcut or the .bat/.sh script file to start it. When you try to start a second instance, the following message is displayed: Warning! The current instance of ToolsCenter Suite that is running will be killed if you continue. If you select Y, the old instance will be killed and the new instance will be started. Continue? (Y/N)

Please select Y to launch a new instance.

Installing activation keys from the IBM site

Installing activation keys from the IBM KMS website cannot be done using a network connection via proxy.

In Firefox, for Boot Order in Configuration

In Firefox, for Boot Order in Configuration, select the blank row of the list builder widget. The last row of the list builder widget will be selected and highlighted.

ToolsCenter Suite does not support IPv6

ToolsCenter Suite does not support sending the collected full information to an IPv6 FTP server.

Workarounds

The following workarounds are applicable to IBM ToolsCenter Suite 9.30:

Custom mode is not currently supported for Energy and Performance of Frequently Used Settings of Configuration.

Workaround:

Use Full Settings to change these values.

When using IE on some Windows operating systems, the progress icon may not rotate

Workarounds:

- For Windows 2008, under **Windows Server Manager > Configure IE ESC**, turn off the **Internet Explore Enhanced Security Configuration** for the current user.

- For Windows 2003, from the **Start Menu** open the **Control Panel**. Click **Add or Remove Programs**, and then click **Add/Remove Windows Components**. Deselect the **Internet Explorer Enhanced Security Configuration** option, and click **Next**. Windows will uninstall this component.

When using IE on some Windows operating systems, there is no activation key install progress page when install activation key from Local file.

Workarounds:

- For Windows 2012, under **Server Manager > Local Server**, turn off the IE Enhanced Security Configuration.
- For Windows 2008, under **Windows Server Manager > Configure IE ESC**, turn off the Internet Explore Enhanced Security Configuration for the current user.
- For Windows 2003, from the **Start Menu** open the **Control Panel**. Click **Add or Remove Programs**, and then click **Add/Remove Windows Components**. Deselect the **Internet Explorer Enhanced Security Configuration** option, and click **Next**. Windows will uninstall this component.

Warnings

The following warnings are applicable to IBM ToolsCenter Suite 9.30:

- In Internet Explorer v10 (IE10), the password entry field now has an Eye icon. The Eye icon allows you to read the password info. This is a new function of IE 10.
- IBM ToolsCenter must be started from the desktop shortcut or .bat/.sh script file. Opening links directly from a browser window can lead to unpredictable results.
- To run ToolsCenter Suite in a Linux environment, change the execution privilege of run.sh.
- We do not recommend that you use browser actions such as back, forward, refresh in a browser window. IBM ToolsCenter Suite does not fully support back, forward, and refresh. Under some circumstances, using these browser functions can cause unexpected results.
- System Information and Updates use the proxy configured in the Setting menu item and not the proxy configured in the browser configuration.
- **SYSTEM_PROD_DATA.SysInfoProdName** in the Full Settings option of the Configuration function is not editable, to ensure the server behaves correctly.

Getting help and technical assistance

Use this information to locate technical assistance for your IBM System x and BladeCenter tools.

About this task

If you need help, service, or technical assistance or just want more information about IBM products, you will find a wide variety of sources available from IBM to assist you. This section contains information about where to go for additional information about IBM and IBM products, what to do if you experience a problem with your system, and whom to call for service, if it is necessary.

Before you call

Use this information before you call Service and Support and report a problem.

About this task

Before you call, make sure that you have taken these steps to try to solve the problem yourself:

- Ensure that you have the latest version of the tool installed.
- Check all cables to make sure that they are connected.
- Check the power switches to make sure that the system and any optional devices are turned on.
- Use the troubleshooting information in your system documentation, and use the diagnostic tools that come with your system.
- Go to the IBM support website at www.ibm.com/systems/support/ to check for technical information, hints, tips, and new device drivers.
- Use an IBM discussion forum on the IBM website to ask questions.

You can solve many problems without outside assistance by following the troubleshooting procedures that IBM provides in the online help or in the documentation that is provided with your IBM product. The documentation that comes with IBM systems also describes the diagnostic tests that you can perform. Most systems, operating systems, and programs come with documentation that contains troubleshooting procedures and explanations of error messages and error codes. If you suspect a software problem, see the documentation for the operating system or program.

Using the documentation

Use this information for locating detailed information on using the documentation.

About this task

Information about your IBM system and preinstalled software, if any, or optional device is available in the documentation that comes with the product. That documentation can include information centers, online documents, printed documents, readme files, and help files. See the troubleshooting information in your system documentation for instructions for using the diagnostic programs. The troubleshooting information or the diagnostic programs might tell you that you need additional or updated device drivers or other software. IBM maintains pages on the World Wide Web where you can get the latest technical information and download device drivers and updates. To access these pages, go to the IBM support website at www.ibm.com/systems/support/ and follow the instructions. Also, some documents are available through the IBM Publications Center website at www.ibm.com/shop/publications/order/. Documentation for IBM System x and BladeCenter tools are available in the IBM ToolsCenter website at www.ibm.com/shop/publications/order/.

Getting help and information from the World Wide Web

Use this information to find the latest information about IBM systems, optional devices, services, and support.

About this task

On the World Wide Web, the IBM website has up-to-date information about IBM systems, optional devices, services, tools, and support. The address for IBM System x information is www.ibm.com/systems/x/. The address for IBM BladeCenter information is www.ibm.com/systems/bladecenter/. The address for IBM IntelliStation® information is www.ibm.com/intellistation/.

You can find service information for IBM systems and optional devices at www.ibm.com/systems/support/.

Software service and support

Use this information to contact IBM service and support with questions about your IBM System x and BladeCenter tools.

About this task

Through IBM Support Line, you can get telephone assistance, for a fee, with usage, configuration, and software problems with System x servers, BladeCenter products, IntelliStation workstations, and appliances. For information about which products are supported by Support Line in your country or region, see www.ibm.com/services/sl/products/.

For more information about Support Line and other IBM services, see www.ibm.com/services/, or see www.ibm.com/planetwide/ for support telephone numbers. In the U.S. and Canada, call 1-800-IBM-SERV (1-800-426-7378).

Hardware service and support

Use this contact information to order new equipment or request IBM service support.

About this task

You can receive hardware service through IBM Services or through your IBM reseller, if your reseller is authorized by IBM to provide warranty service. See www.ibm.com/planetwide/ for support telephone numbers, or in the U.S. and Canada, call 1-800-IBM-SERV (1-800-426-7378).

In the U.S. and Canada, hardware service and support is available 24 hours a day, 7 days a week. In the U.K., these services are available Monday through Friday, from 9 a.m. to 6 p.m.

Appendix. Accessibility features for IBM ToolsCenter SuiteToolsCenter Suite

Accessibility features help users who have a disability, such as restricted mobility or limited vision, to use information technology products successfully.

Accessibility features

The following list includes the major accessibility features in ToolsCenter Suite:

- Can be operated using only the keyboard
- Communicates all information independent of color
- Supports the attachment of alternate output devices
- Provides online documentation in an accessible format

The ToolsCenter Suite topic collection in the IBM ToolsCenter for System x and BladeCenter information center, and its related publications, are accessibility-enabled and support Next Generation Platform.

Keyboard navigation

This product uses standard Microsoft Windows navigation keys.

IBM and accessibility

See the IBM Human Ability and Accessibility Center website at www.ibm.com/able for more information about the commitment that IBM has to accessibility.

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Readers' Comments — We'd Like to Hear from You

IBM System x
IBM ToolsCenter Suite
User's Guide
Version 9.30

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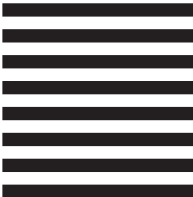
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