

UpdateXpress System Pack Installer



User's Guide

Version 1.0

UpdateXpress System Pack Installer



User's Guide

Version 1.0

Note

Before using this information and the product it supports, read the information in "Notices," on page 25.

First Edition (June 2006)

This edition applies to Version 1 of IBM UpdateXpress Express System Pack Installer and to all subsequent releases and modifications until otherwise indicated in new editions.

© Copyright International Business Machines Corporation 2006. All rights reserved.

US Government Users Restricted Rights – Use, duplication or disclosure restricted by GSA ADP Schedule Contract with IBM Corp.

Contents

Figures	v
Tables	vii
Preface	ix
About this guide	xi
Who should read this guide	xiii
Chapter 1. Introducing UpdateXpress System Pack Installer	1
UpdateXpress System Pack Installer overview	1
Chapter 2. Before you begin	3
Who can use UpdateXpress System Pack Installer	3
Invoking UpdateXpress System Pack Installer	3
Chapter 3. UpdateXpress System Pack Installer concepts	5
Functional flow	5
Command line interface	6
UpdateXpress System Pack Installer commands	6
UpdateXpress System Pack Installer command options	7
UpdateXpress System Pack Installer command processing	7
UpdateXpress System Pack Installer compare usage	8
UpdateXpress System Pack Installer update usage	8
Graphical user interface	9
Chapter 4. UpdateXpress System Pack Installer scenarios	15

Non-interactive local deployment using CLI	15
Interactive local deployment using CLI	16

Chapter 5. More use for UpdateXpress System Pack Installer	19
Update from a removable media (non-bootable)	19
Install required drivers	19
Handle a UXSP as a bundle	19
Offline update packages	19
Missing or incomplete inventory data	20
Updates that require a restart	20

Chapter 6. Troubleshooting for UpdateXpress System Pack Installer	21
UpdateXpress System Pack Installer return codes	21

Chapter 7. Related information	23
Supported operating systems	23
Migration and coexistence	23
Compatibility and portability	23
Reliability, Availability and Serviceability (RAS)	23
References	23

Appendix. Notices	25
Trademarks	27

Glossary	29
Terms	29

Index	31
------------------------	-----------

Figures

1. USPI functional flow diagram	5	6. Comparison data.	12
2. USPI CLI user input - Compare prompts	9	7. Deployment results	13
3. USPI GUI processing	10	8. Non-interactive deployment	15
4. Introduction	10	9. Interactive deployment.	16
5. Inventory and XML read progress	11		

Tables

1.	USPI command options	7
2.	UpdateXpress System Pack Installer return codes	21

Preface

IBM UpdateXpress System Pack Installer (USPI) is a software application that you can use to apply intelligent, nondestructive online updates to your system.

About this guide

The purpose of this guide is to describe the UpdateXpress System Pack Installer software deliverable. It includes:

- Descriptions of the physical components that comprise the software.
- Descriptions of its user interfaces.

Who should read this guide

This guide is for system administrators or other individuals responsible for system administration who are familiar with firmware and device driver maintenance.

Chapter 1. Introducing UpdateXpress System Pack Installer

This section contains an overview of USPI and information related to its appropriate use.

UpdateXpress System Pack Installer overview

You can use USPI to apply intelligent, nondestructive online updates to your system. In order to achieve this, USPI inventories the system on which the update will be performed, queries a specified location for a list of applicable update packages, compares the inventory to the applicable update list, recommends a set of updates to apply, and then deploys those updates to the system. These tasks can be performed either collectively or individually.

USPI is the driving component of a UpdateXpress System Pack (UXSP). USPI is essentially the engine for deploying updates from a UXSP. UXSPs provide a method for customers to update their firmware and device drivers through their current operating system. Thus, it is a natural replacement for most of the function contained on the current UpdateXpress CD.

Chapter 2. Before you begin

This section details requirements to use USPI and information related to its installation.

Who can use UpdateXpress System Pack Installer

In order to run USPI, you must be have administrator or root equivalent privileges. USPI returns an error if a user with insufficient privileges attempts to run it.

Invoking UpdateXpress System Pack Installer

USPI is an executable file that is not installed. You invoke it using the command line interface. For details on USPI and the CLI, see “Command line interface” on page 6.

Chapter 3. UpdateXpress System Pack Installer concepts

This section details concepts related to USPI, such as its functional flow, and information related to running it from the CLI or GUI.

Functional flow

This section contains a description of how USPI functions.

The functional flow of USPI is a simple wizard approach. As shown in Figure 1, it is a sequential step-by-step process from beginning to end, starting with Inventory, followed by Query, then Compare, and ending with Deployment.

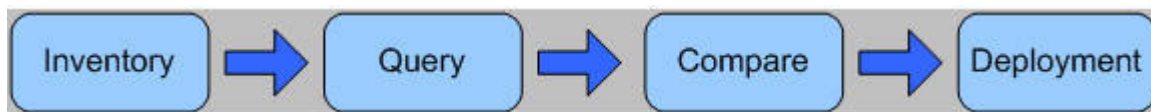


Figure 1. USPI functional flow diagram

Inventory

The inventory component utilizes DSA (Dynamic System Analysis) technology to build an internal (for example, in RAM) catalog of the system inventory including hardware components, device drivers, and firmware. USPI uses DSA code to perform the inventory. This is a dependency, not a prerequisite. You are not aware of the use of DSA. Some basic criteria is generated from this inventory and passed to the query function. Examples of these criteria include machine type and operating system.

Query

The query function takes a set of criteria that was passed to it by the inventory function. Based on these criteria the query function contacts the designated location of updates (for example, current working directory) and returns a list of available updates that match the criteria. This list is then passed on to the next component, and might contain, for example, every update in the current working directory that matches the local system machine type and operating system.

Compare

The compare component creates a list of recommended updates to apply to the system based on simple algorithms to determine what updates are necessary to bring the system into compliance. Initially, the list of recommended updates will contain all updates that are newer than what is currently installed on the system. You have the option to modify this list before passing the list to the deployment component.

Deployment

The deployment component takes a list of updates as input, and installs those updates to the target system. Initially, only the system on which the software is running will be supported as the target. USPI will order the installation of updates in the following order:

- IPMI device driver
- IPMI mapping layer
- All other device drivers
- BIOS firmware
- All other firmware

Command line interface

The general syntax for typing USPI commands in the CLI is as follows:

```
<program> <program-options> <command> <command-options>
```

When using the CLI to run USPI:

- You can type options and commands in sequential order. However, the order is not preserved once the command is invoked.
- Options are processed before commands.
- Some options only apply to certain commands.
- Only one command can be used at a time.
- Paths are supported as the calling shell supports them:
 - In Linux[®], you must specify a path with forward slash (/) directory designators, however, Linux supports the back slash (\) character as an escape character.
 - In Linux, spaces in paths are supported with quotes around the entire path, or with the spaces escaped with the back slash (\).
 - In Windows[®], you can distinguish paths by either the forward slash (/) or the back slash (\).
 - In Windows, spaces in paths are supported only when quotes are used around the entire path in Windows.

For a list of USPI commands and options, see “UpdateXpress System Pack Installer commands” and “UpdateXpress System Pack Installer command options” on page 7.

UpdateXpress System Pack Installer commands

You can use the following two commands when running USPI.

compare (co)

Gathers the inventory on the system, and queries a specified location, then compares the data and displays a recommendation of updates.

update (up)

Runs the entire process: inventory, query, compare, and deployment.

UpdateXpress System Pack Installer command options

You can use the following command options when running USPI.

Table 1. USPI command options

Option	Description
--director (hidden) (For use with the compare command.)	Filter the updates to compare to only the RSA II, BMC, and IPMI drivers. Note: This command is to be used only by IBM® Director installation.
--drivers -D (For use with the update command.)	Force USPI to only apply device driver updates.
--firmware -F (For use with the update command.)	Force USPI to only apply firmware updates.
--force -f (For use with the update command.)	Deploy the appropriate set of updates to the target system even if the system version is newer than the update package version. The default behavior is to not back level the system to an older version. This option overrides that behavior.
-help -h -?	Display help in the current console window and exit. Type --<command>-help to get specific help for <command>.
--unattended -u	Run USPI in unattended mode. This is non-interactive, but will display messages to standard output.
--version -V	Display the version of USPI in the current console window and exit.
-l XML, --local=XML	The path and name on the local system to a UXSP definition XML file. If you do not type a specific UXSP XML definition file, the path and name of the UXSP definition XML file in the current working directory is used.

UpdateXpress System Pack Installer command processing

As stated in “Command line interface” on page 6, options are processed before commands. Some examples of this behavior are as follows:

```
<program> update --local=.\uxsp.xml -h -V
```

This command returns the usage information and exits before running the update command, because the first option to be processed is -h, an option that exits the program when complete.

```
<program> -Vh
```

This command returns the version information and exits before printing the usage information or launching the GUI, because the first option to be processed is -V, an option that exits the program when complete.

```
<program> update --update-help -Vh
```

This command returns the usage information specific to the **update** command and exits, because the first option to be processed is `--update-help`, an option that exits the program when complete.

UpdateXpress System Pack Installer compare usage

You can use the **compare** command to compare a set of updates from the source location to the inventory on the target system.

Syntax

```
<program> compare <options>
```

Example

```
<program> compare --local=.\uxsp.xml
```

UpdateXpress System Pack Installer update usage

You can use the **update** command to inventory, query, compare, and deploy updates to the target system.

Syntax

```
<program> update <options>
```

Examples

```
<program> update -l C:\myUXSPs\8843\uxsp.xml
```

In the course of interactive command line usage, you may be prompted to provide input such as indicated in Figure 2 on page 9:


```
Command Prompt - uxlite update
Acquiring list of available updates*
Comparing System Inventory to Available Updates
<1> [-] ATI Custom Display Driver for Microsoft Windows XP, 2000, and Window...
    Current : 6.14.10.6422
    Available: 6.14.10.6422

<2> [*] BroadcomNetXtremeGbE Drivers Sw Release
    Current : 7.73.0.0
    Available: 8.3.9

<3> [*] IBM eServer BladeCenter HS20 Type 8843 Flash BIOS Update
    Current : 1.05
    Available: 1.07

<4> [*] LSI Logic PCI SCSI/FC MPI Miniport Driver for Win2k
    Current : 1.09.06.00
    Available: 1.09.06s

-PAUSED- Press 's' to stop, any other key to continue:

<5> [*] OSA IPMI Device Driver for Windows
    Current : 2.02.002
    Available: 2.2.1

Select the item number to toggle install (*) or not install (-)
Updates marked with an <U> are not installable
Type 'a' to apply selected updates
Type 'q' to quit without applying any updates
[#,a,q]>
```

Figure 2. USPI CLI user input - Compare prompts

In this example, a setup.exe update was typed on the command line and the screen now displays the results of the compare step. The input at this point is to select the updates you would like to install and those you would not. For those you want to install, you type an asterisk (*) in the field next to the update. If you do not want to install the update, you type a dash (-). Other CLI input includes typing a to **apply** selected updates or typing q to **quit** without applying any update.

Graphical user interface

When you do not specify any options or commands on the CLI, USPI will launch the GUI. The graphical interface is only available for Microsoft® Windows operating systems.

Figure 3 on page 10 outlines the typical USPI processing using the GUI.

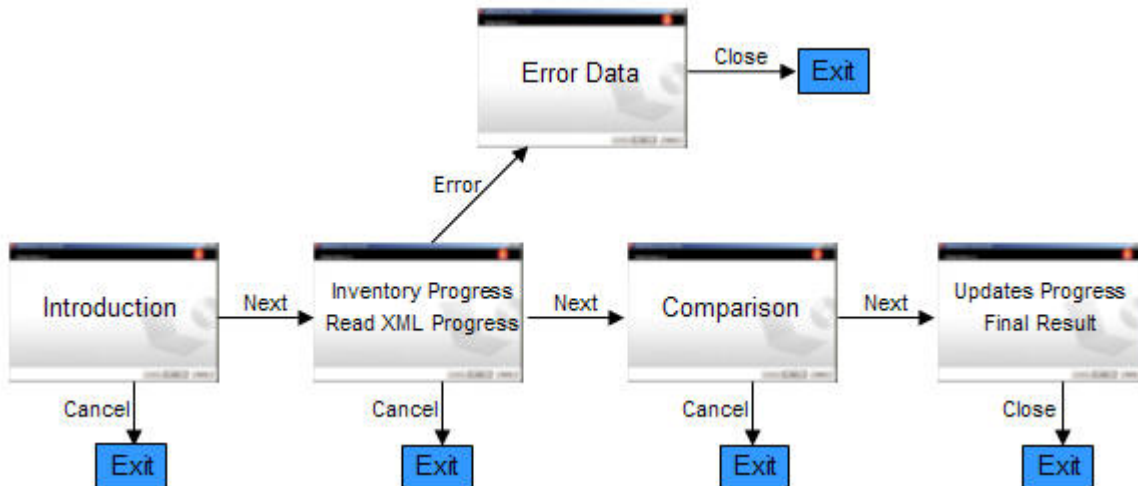


Figure 3. USPI GUI processing

A step-by-step look at each screen is as follows:

1. This panel tells you what the application will do, and shows the version of USPI.

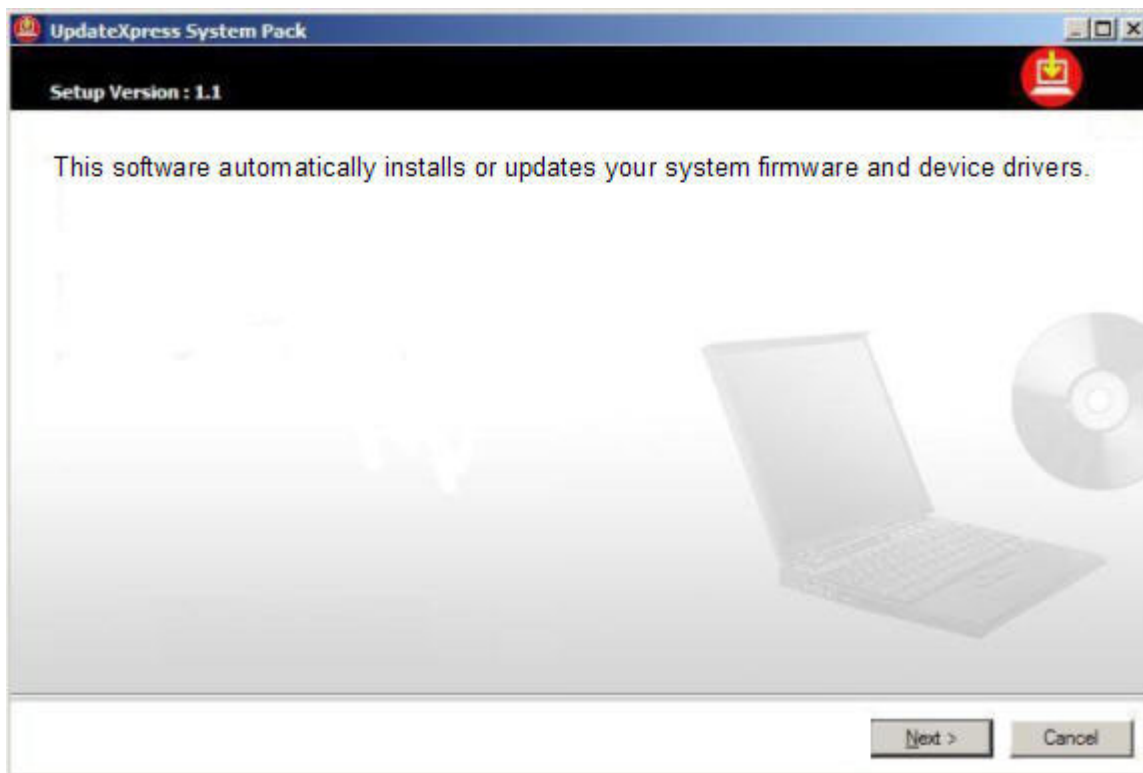


Figure 4. Introduction

2. This panel gives status in the form of a progress bar while it is gathering system inventory and data from the update package XML files.

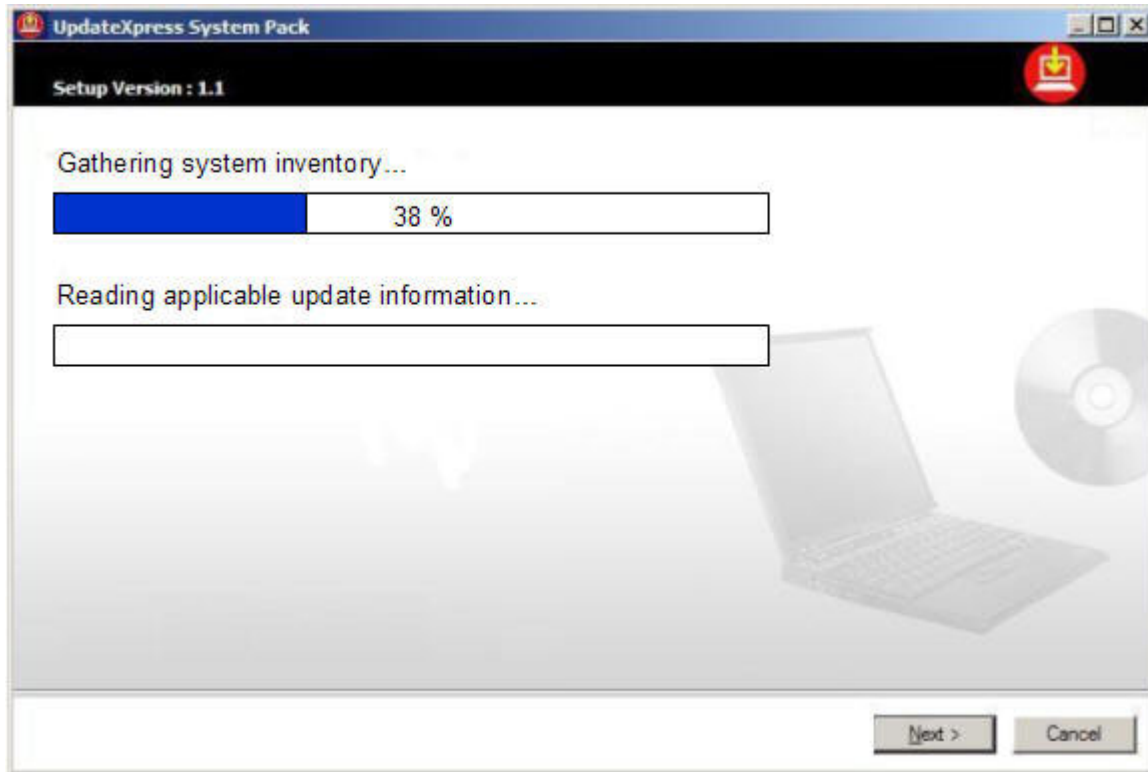


Figure 5. Inventory and XML read progress

3. This panel shows the results of the comparison between the inventory and the update data. The recommended updates are selected. You do not have the option to deselect any of the recommended updates.

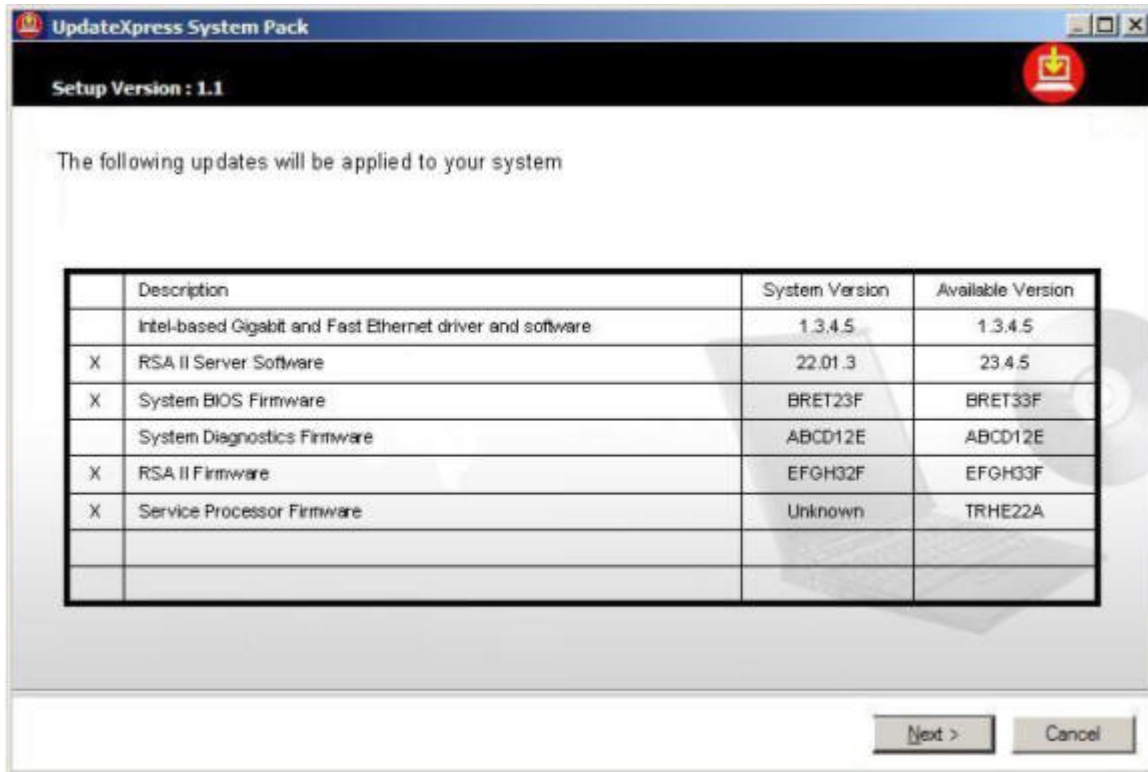


Figure 6. Comparison data

4. This panel shows overall progress as the updates are applied to the system, as well as progress for each individual update.

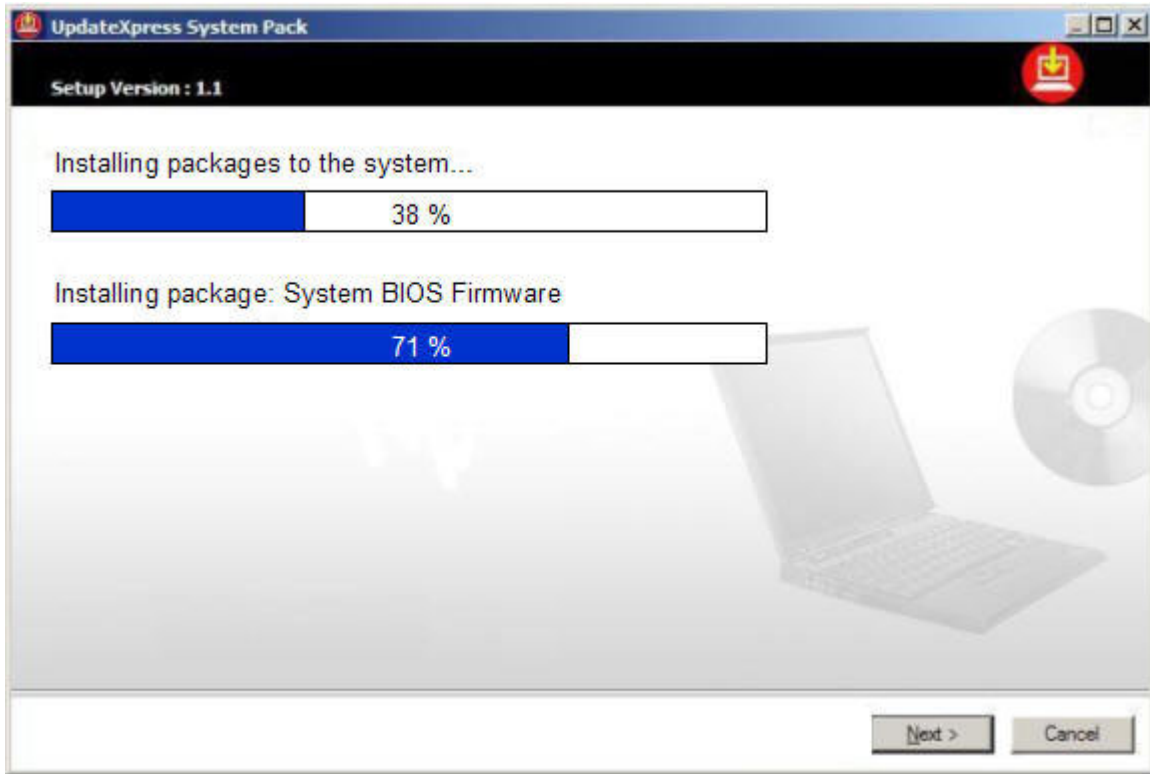


Figure 7. Deployment results

Chapter 4. UpdateXpress System Pack Installer scenarios

The following user scenarios and the USPI use descriptions in Chapter 5, “More use for UpdateXpress System Pack Installer,” on page 19, represent all supported use cases for USPI in the first release. Please refer to the *UXSP System Design* document for user scenarios regarding how to obtain a UXSP.

Non-interactive local deployment using CLI

As depicted in Figure 8, a user wants to non-interactively deploy a package or packages to the local system using a command line based on properties defined in the package XML or XMLs in a specified directory on the local file system.

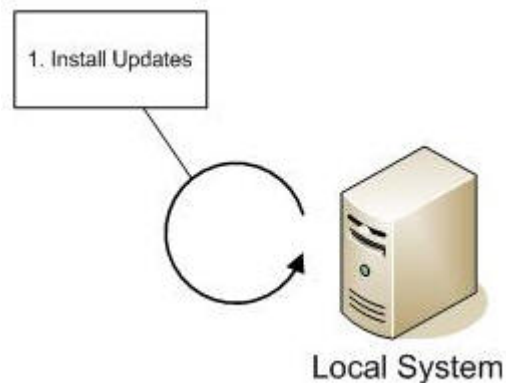


Figure 8. Non-interactive deployment

Assumptions and prerequisites

1. User has obtained a UXSP for his machine type and operating system.
2. The system must be running a supported operating system.

Scenario tasks

1. User runs USPI from the command line with options specifying the location on the file system to search for the update packages. An option is specified here to non-interactively apply the necessary updates to the local system.
2. The user sees status on standard output as the application proceeds to read all of the XML files in the specified directory and builds an internal catalog of the available updates.
3. USPI gathers the system inventory, and again the user sees status.
4. USPI compares the inventory with the update catalog and determines a recommendation of updates to apply. This is limited to only updates that apply to the local system machine type and operating system.
5. USPI gives status while it proceeds to sequentially run each applicable update on the local system.
6. USPI exits with a return code designating whether the updates were successful or not.
7. USPI logs status to the system logs during operation.

Error conditions

1. If the operating system is not supported, the user will see a message explaining this at the start of the USPI program, and the user is not allowed to deploy updates. USPI exits with an unsuccessful return code.
2. If there are not any packages in the local package directory that are supported for the local system and operating system (OS), a message is displayed to the effect of no updates were found for an XXXX (system) running XX (OS). USPI exits with an unsuccessful return code.
3. If an individual package has an error during deployment, USPI continues with the next update, and sets the return code appropriately for the time when USPI eventually exits.

Interactive local deployment using CLI

As depicted in Figure 9, a user wants to interactively deploy a package or packages to the local system using a command line based on properties defined in the package XML or XMLs in a specified directory on the local file system.

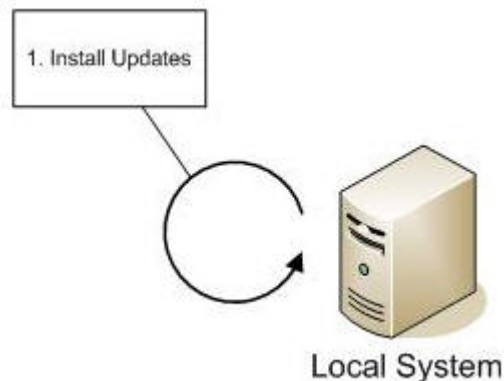


Figure 9. Interactive deployment

Assumptions and prerequisites

1. User has obtained a UXSP for his machine type and operating system.
2. The system must be running a supported operating system.

Scenario tasks

1. User runs USPI from the command line with options specifying the location on the file system to search for the update packages.
2. The user sees status on stdout as USPI proceeds to read all of the XML files in the specified directory and builds an internal catalog (in RAM) of the available updates. This catalog gets regenerated on every run of USPI.
3. USPI then gathers the system inventory, and again the user sees status.
4. USPI compares the inventory with the catalog of available updates and determines a recommendation of updates to apply. This is limited to only updates that apply to the local system machine type and operating system.
5. USPI displays the list of all available updates, including description, filename, current version, and new version, severity, an enable or disable field, and a number associated with each update. The recommended updates are already enabled.

6. The user can type the number of the update for which they would like to toggle the enable/disable field.
7. The user then types a to apply the updates. Instructions are on the screen to tell the user to do perform this step.
8. USPI gives status while it proceeds to sequentially run each applicable enabled update on the local system.
9. USPI displays a screen detailing the final status of all the updates that were applied.
10. The user hits enter to exit.
11. USPI exits with a return code designating whether the updates were successful or not.
12. USPI logs status to the system logs during operation.

Error conditions

1. If the operating system is not supported, the user will see a message explaining this at the start of the USPI program, and the user is not allowed to deploy updates. The user is instructed to hit enter to exit USPI. USPI exits with an unsuccessful return code.
2. If there are not any packages in the local package directory that are supported for the local system and operating system (OS), a message is displayed to the effect of no updates were found for an XXXX (system) running XX (OS). The user is instructed to hit enter to exit USPI. USPI exits with an unsuccessful return code.
3. If an individual package has an error during deployment, USPI continues with the next update, and sets the return code appropriately for the time when USPI eventually exits.

Chapter 5. More use for UpdateXpress System Pack Installer

This section describes additional uses for UpdateXpress System Pack Installer.

Update from a removable media (non-bootable)

In version 1.0 of USPI you can copy a set of UXSPs to a media (for example, USB key or CD) including the version of USPI included in each of the UXSPs. However, you will not be able to copy USPI out of the UXSP directory into a higher level directory.

In order to run a specific UXSP on a specific machine, you will need to traverse to the UXSP directory for your machine and run the included USPI tool within that directory.

Install required drivers

USPI detects installed hardware on the target system and determines if the required device drivers are not also present. It will then select these drivers as applicable updates, even though they are not currently installed on the system. This is useful for installing the following device drivers:

- • IPMI
- • IPMI Mapping Layer
- • RSAAI

Handle a UXSP as a bundle

USPI is designed to treat updates in the lowest common denominator, which is the update package. This allows for the greatest flexibility in handling different customer scenarios. In most cases, you do not see the notion of a UXSP when using USPI. Instead, you only see the individual updates that are included in the UXSP. However, there are several cases in which UXSPs are apparent. For example, you can specify a UXSP XML that USPI compares to your system. Although the comparison happens at the update package level, you'll be able to discern whether your system is in compliance with the UXSP.

Offline update packages

It may be necessary for a UXSP to include update packages or firmware that USPI is not able to apply. Some examples of these offline updates are BladeCenter[®] Management Module (MM) firmware, CPLD firmware, and legacy Symantec packages (for example, hard disk drive update). If USPI encounters one of these updates in the UXSP directory during execution, it queries the package for version information and displays it to the user. If the system is at a lower level than the available update package, then USPI displays a note about how to apply the firmware. You will not be able to apply the firmware from within USPI.

The return code for this scenario is dependant on the online update packages that you apply. USPI processing offline update packages does not affect the return code,

unless there is malformed data. In that case the return code is 302. For a description of this return code, see “UpdateXpress System Pack Installer return codes” on page 21.

Missing or incomplete inventory data

In some cases there is a new update package available for a component for which the inventory collection can not determine the system version. In this scenario, the system version is blank when displayed to the user, the update package version displays, and the update is selected as a recommended update.

Updates that require a restart

USPI does not restart the system for any update. If an update requires a restart to take effect, you must perform this action. Information is displayed to let you know which updates require a restart.

Chapter 6. Troubleshooting for UpdateXpress System Pack Installer

USPI has return codes that you can use at a higher level to determine if any errors were received during the run of the program. The log files will be the method to determine exactly what went wrong. USPI returns zero if the operation is successful and non-zero if there is an error.

UpdateXpress System Pack Installer return codes

Table 2. UpdateXpress System Pack Installer return codes

Return code	Description
0	Success
1	Generic Failure
2	Unsupported Operating System
100	Invalid Command Line
200	Generic Inventory Failure
300	Generic Query Failure
301	No updates available for this operating system
302	No updates available for this machine type
302	Could not read one or more of the update package metadata
400	Generic Comparison Failure
600	Generic Update Failure
601	One or more updates failed during deployment

Chapter 7. Related information

This section contains related information for USPI such as migration, compatibility and reliability, availability and serviceability (RAS).

Supported operating systems

USPI is supported on x86 architecture systems only. It runs on both Linux and Windows operating systems.

Migration and coexistence

The UpdateXpress CD (UX CD) remains in production through 2006 as a migration plan while the UXSPs and USPI mature.

The UpdateXpress BladeCenter Utility (UXBC) remains available as a standalone tool that can be downloaded from the Web and will continue to use RemoteUX to deploy updates to blade servers, not USPI.

USPI builds upon DSA code, but has no interactions with other products on the system. If there is a version of DSA installed, USPI will coexist without interference.

Compatibility and portability

IBM will continue to release UpdateXpress CDs in 2006 while transitioning to UXSPs.

Reliability, Availability and Serviceability (RAS)

USPI logs to the following three locations on every run of the program regardless of the command line options used:

1. **Linux™ syslog** or **Microsoft Windows event log**, which contain only high level predefined strings go. For example:
"[timestamp] - [update description] [update version] was [successfully | unsuccessfully] applied <from UXSP [UXSP name] [UXSP version]>"
2. **Program trace**, which logs to Microsoft Windows debug console. This is useful for debugging purposes when used in conjunction with a debugger, like dbmon or Visual Studio.
3. The **Program trace log file in the IBM_Support directory**, which contains program information at a much higher level of detail than what goes in the syslog or event log. However, the same strings that get logged to the system log will get replicated here as well. This log file has the same level of detail regardless of the command line option used. However, the same environment variable that DSA uses can be modified to increase the detail if necessary for development debugging. This log file is in text format.

References

- Common Information Model (CIM) Specification, Version 2.8.1, available from www.dmtf.org/standards/cim/cim_schema_v281.

- CIM Operations Over HTTP Specification v1.1, available from CIM Web-Based Enterprise Management (WBEM) Web site: www.dmtf.org/standards/wbem.
- Representation of CIM in XML Specification v2.1, available from CIM WBEM Web site: www.dmtf.org/standards/wbem.
- XML Document Type Definition v2.1.1, available from CIM WBEM website: www.dmtf.org/standards/wbem.

Appendix. Notices

This information was developed for products and services offered in the U.S.A.

IBM may not offer the products, services, or features discussed in this document in other countries. Consult your local IBM representative for information on the products and services currently available in your area. Any reference to an IBM product, program, or service is not intended to state or imply that only that IBM product, program, or service may be used. Any functionally equivalent product, program, or service that does not infringe any IBM intellectual property right may be used instead. However, it is the user's responsibility to evaluate and verify the operation of any non-IBM product, program, or service.

IBM may have patents or pending patent applications covering subject matter described in this document. The furnishing of this document does not grant you any license to these patents. You can send license inquiries, in writing, to:

IBM Director of Licensing
IBM Corporation
North Castle Drive
Armonk, NY 10504-1785
U.S.A.

For license inquiries regarding double-byte (DBCS) information, contact the IBM Intellectual Property Department in your country or send inquiries, in writing, to:

IBM World Trade Asia Corporation
Licensing
2-31 Roppongi 3-chome, Minato-ku
Tokyo 106-0032, Japan

The following paragraph does not apply to the United Kingdom or any other country where such provisions are inconsistent with local law:

INTERNATIONAL BUSINESS MACHINES CORPORATION PROVIDES THIS PUBLICATION "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF NON-INFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Some states do not allow disclaimer of express or implied warranties in certain transactions, therefore, this statement may not apply to you.

This information could include technical inaccuracies or typographical errors. Changes are periodically made to the information herein; these changes will be incorporated in new editions of the publication. IBM may make improvements and/or changes in the product(s) and/or the program(s) described in this publication at any time without notice.

Any references in this information to non-IBM Web sites are provided for convenience only and do not in any manner serve as an endorsement of those Web sites. The materials at those Web sites are not part of the materials for this IBM product and use of those Web sites is at your own risk.

IBM may use or distribute any of the information you supply in any way it believes appropriate without incurring any obligation to you.

Licensees of this program who wish to have information about it for the purpose of enabling: (i) the exchange of information between independently created programs and other programs (including this one) and (ii) the mutual use of the information which has been exchanged, should contact:

IBM Corporation
Software Interoperability Coordinator, Department 49XA
3605 Highway 52 N
Rochester, MN 55901
U.S.A.

Such information may be available, subject to appropriate terms and conditions, including in some cases, payment of a fee.

The licensed program described in this information and all licensed material available for it are provided by IBM under terms of the IBM Customer Agreement, IBM International Program License Agreement, or any equivalent agreement between us.

Any performance data contained herein was determined in a controlled environment. Therefore, the results obtained in other operating environments may vary significantly. Some measurements may have been made on development-level systems and there is no guarantee that these measurements will be the same on generally available systems. Furthermore, some measurements may have been estimated through extrapolation. Actual results may vary. Users of this document should verify the applicable data for their specific environment.

Information concerning non-IBM products was obtained from the suppliers of those products, their published announcements or other publicly available sources. IBM has not tested those products and cannot confirm the accuracy of performance, compatibility or any other claims related to non-IBM products. Questions on the capabilities of non-IBM products should be addressed to the suppliers of those products.

This information is for planning purposes only. The information herein is subject to change before the products described become available.

This information contains examples of data and reports used in daily business operations. To illustrate them as completely as possible, the examples include the names of individuals, companies, brands, and products. All of these names are fictitious and any similarity to the names and addresses used by an actual business enterprise is entirely coincidental.

COPYRIGHT LICENSE:

This information contains sample application programs in source language, which illustrate programming techniques on various operating platforms. You may copy, modify, and distribute these sample programs in any form without payment to IBM, for the purposes of developing, using, marketing or distributing application programs conforming to the application programming interface for the operating platform for which the sample programs are written. These examples have not been thoroughly tested under all conditions. IBM, therefore, cannot guarantee or imply reliability, serviceability, or function of these programs.

Each copy or any portion of these sample programs or any derivative work, must include a copyright notice as follows:

© (your company name) (year). Portions of this code are derived from IBM Corp. Sample Programs. © Copyright IBM Corp. _enter the year or years_. All rights reserved.

If you are viewing this information softcopy, the photographs and color illustrations may not appear.

Trademarks

IBM the IBM logo, and BladeCenter are registered trademarks of IBM in the United States.

Microsoft, Windows, Windows NT, and the Windows logo are trademarks of Microsoft Corporation in the United States, other countries, or both.

Java and all Java-based trademarks are trademarks of Sun Microsystems, Inc. in the United States, other countries, or both.

Linux is a trademark of Linus Torvalds in the United States, other countries, or both.

Other company, product, or service names may be trademarks or service marks of others.

Glossary

Terms

This glossary defines technical terms and abbreviations used in this UpdateXpress System Pack Installer document. If you do not find the term you are looking for, view the IBM Glossary of Computing Terms, located at:
<http://www.ibm.com/ibm/terminology>.

Selection of Terms: A term is a word or group of words to be defined. In this glossary, the singular form of the noun and the infinitive form of the verb are the terms most often selected to be defined. If the term may be abbreviated, the abbreviation is indicated. The abbreviation is also defined in its proper place in the glossary.

A

Acquisition

Downloading update packages from a remote location (for example, IBM support).

B

Basic Input/Output System (BIOS)

The code that controls basic hardware operations, such as interactions with diskette drives, hard disk drives, and the keyboard.

BIOS See **Basic Input/Output System**.

C

CLI Command Line Interface.

co-req See **corequisite**.

corequisite (co-req)

A package is a corequisite of another package if it must be installed concurrently with the other package.

D

deployment

Install of update packages.

E

engineering software (ESW)

IBM firmware including BIOS, on-board diagnostics, service processor, and RSA.

ESW See **engineering software**.

ex-req See **exrequisite**.

exrequisite (ex-req)

A package is an ex-req of another package if it must not be installed on the same system as the other package.

Ethernet

A packet-based networking technology for local area networks (LANs) that allows multiple access and handles contention by using Carrier Sense Multiple Access with Collision Detection (CSMA/CD) as the access method. Ethernet is standardized in the IEEE 802.3 specification.

extensible markup language (XML)

A standard metalanguage for defining markup languages that is based on Standard Generalized Markup Language (SGML).

G

GUI Graphical User Interface.

I

inventory

Gather information about the system including installed hardware, device driver versions, and firmware levels.

O

online update

An update package is considered to be online if it can be applied through the native operating system. A DOS-based update that is wrapped in a virtual boot environment (for example, Symantec) is not considered online as the update doesn't actually happen until the system is booted to DOS.

P

pre-req

See **prerequisite**.

prerequisite (pre-req)

A package is a prerequisite of another package if it must be installed before the other package.

R

RAS Reliability, Availability and Serviceability.

requisite processing

Interpreting dependencies between update packages, using prerequisites (pre-req), co-requisites (co-req), and ex-requisites (ex-req).

U**update**

An update package consisting of an executable file and an XML description.

X

XML See **Extensible Markup Language**.

Index

A

Appendix 27
Glossary 29
Notices 25
availability 23

B

before you begin 3
BladeCenter management module
firmware 19

C

CLI 3, 6
coexistence 23
command line interface (CLI) 6
command options 7
command processing 7
commands 6
compare 5, 8
compare usage 6, 8
concepts 5
CPLD firmware 19

D

deployment 5, 15
DTD 15

F

functional flow 5

G

graphical user interface (GUI) 9
GUI 9

H

handling a UXSP as a bundle 19

I

incomplete inventory date 20
install required drivers 19
interactive local deployment using
CLI 16
introducing UpdateXpress System Pack
Installer 1
inventory 5
inventory date 20
invocation 3
invoking UpdateXpress System Pack
Installer 3

M

migration 23
missing inventory date 20

N

noninteractive local deployment using
CLI 15

O

offline update packages 19
options 6, 7
overview 1

Q

query 5

R

RAS 23
references 23
related information 23
reliability 23
removable media 19
required drivers installation 19
restarts 21
return codes 21

S

scenarios 15
sequential processing of options and
commands 6
serviceability 23
supported operating systems 23
Symantec packages 19

T

Trademarks 27
troubleshooting 21

U

update 8
update from removable media 19
update usage 6, 8
updates 21
updates that require restart 21
UpdateXpress System Pack (UXSP) 1
UpdateXpress System Pack Installer
(USPI) 1
UpdateXpress System Pack installer
concepts 5

UpdateXpress System Pack Installer
overview 1
UpdateXpress System Pack Installer
scenarios 15
UpdateXpress System Pack Installer
usage 19
usage 19
using UpdateXpress System Pack
Installer 19
USPI 1
USPI command processing 7
USPI commands 6
USPI options 7
USPI scenarios 15
UXSP 1

W

who can use UpdateXpress System Pack
Installer 3



Part Number: xxxxxx

Printed in USA

(1P) P/N: xxxxxx

