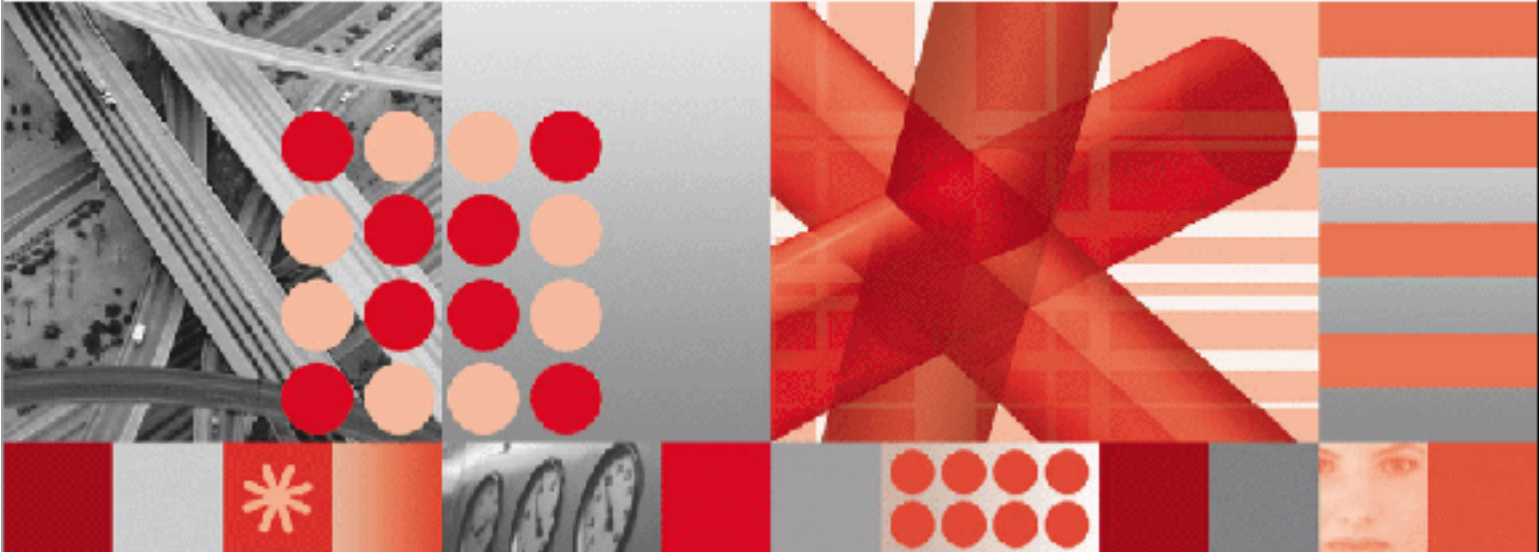




Release 6.2



Release Notes
Patch 2

Note

Before using this information and the product it supports, read the information in "Notices" on page Notices-19.

This edition applies to version 6, release 2, modification 1 of IBM Maximo Enterprise Adapter for mySAP ERP 2005 and to all subsequent releases and modifications until otherwise indicated in new editions.

Third-Party Technology: Certain Maximo products contain technology provided under license from third parties, as noted in the following table:

IBM Product	Third-Party Information
All Products	Portions © 1996-2003 Visual Mining, Inc. Visual Mining™ NetCharts Server provided by Visual Mining, Inc.
IBM Maximo	Portions © 1995-2004 Actuate Corporation. Portions © 2005 BEA Systems, Inc. BEA WebLogic Server® provided by BEA Systems, Inc. Portions © 1996-2005, i-net software GmbH. J-Integra for COM® v2.4. © 2004 Intrinsyc Software International, Inc. Sentry Spelling-Checker Engine © 2000 Wintertree Software, Inc.
Maximo Discovery	MSDE Copyright © Microsoft® Corporation. Portions © 1998-2005 Centennial Software Limited.
IBM Maximo Asset Navigator	Portions © 1993-2002 Snowbound™ Software Corporation. RasterMaster™ Raster imaging technology provided by Snowbound Software Corporation.
IBM Maximo Mobile	Portions © 2005 DataMirror, Inc. Portions © 2000-2005 Zaval Creative Engineering Group.
IBM Maximo Mobile SE	Portions © 1996-2005 Syclo, LLC.

Open Source: Maximo contains computer software obtained from the public domain, known as "Open Source" ownership of which is attributed as follows: Portions © 2002, Steve Souza (admin@jamonapi.com). Portions © 2000-2004, Jason Hunter & Brett McLaughlin. Portions © 2004-2005, The Apache Software Foundation (<http://www.apache.org/>).

© Copyright International Business Machines Corporation 2008. All rights reserved.

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

Contents

About This Publication	v
Intended Audience	v
Related Information	v
IBM Support	v
Release Notes	1
Update Checklist	2
Installation Prerequisites	3
Installation of MEA for mySAP ERP 2005 Patch 2	4
Import of Patch 2 into Maximo	5
Processing of Transactions in Queues	7
Transactions in BEA WebLogic Server Queues	7
Transactions in IBM WebSphere Server Queues	8
Import of Secondary Language Files into Maximo	9
Import of SAP-side ABAP Updates	10
Import of SAP-side XI Updates	10
Configuration of SAP-side Manual Updates	11
Patch 1	11
Issue 07-12558	11
Creation of a Number Range Object	11
Appendix A: MEA for mySAP ERP 2005 Patch 2 Fixed Issues	13
Patch 2	13
Patch 1	13
Appendix B: SAP-side ABAP Updates	15
Patch 1 - Transport File K900035.D05	15
Appendix C: SAP-side XI Updates	17
Patch 2	17
Modified Objects	17
Patch 1	17
Modified Objects	17
Notices	19

About This Publication

This section explains how this guide can help you to use IBM® Maximo® Enterprise Adapter (MEA) for mySAP® ERP 2005. It also provides information about other IBM Corporation resources available to you, such as additional documentation and support.

Intended Audience

This guide is for system administrators or other personnel who will install and configure the MEA for mySAP ERP 2005 Patch 01.

Related Information

For more information about the MEA for mySAP ERP 2005, refer to the following documentation:

Document	Description
<i>IBM Maximo System Administrator's Guide</i>	Describes how to configure and use IBM Maximo.
<i>IBM Maximo Enterprise Adapter System Administrator's Guide</i>	Describes how to configure and use the IBM MEA.
<i>IBM Maximo Enterprise Adapter for mySAP ERP 2005 System Administrator's Guide</i>	Describes how to use the IBM MEA for mySAP ERP 2005.
<i>IBM Maximo Enterprise Adapter for mySAP ERP 2005 Installation Guide</i>	Describes how to install and configure the IBM MEA for mySAP ERP 2005.
IBM Maximo Online Help	Provides step-by-step procedures for IBM Maximo applications.

IBM Support

IBM Software Support provides assistance with product defects.

Before contacting IBM Software Support, your company must have an active IBM software maintenance contract, and you must be authorized to submit problems to IBM. For information about the types of maintenance contracts available, see "Enhanced Support," in the *Software Support Handbook* at techsupport.services.ibm.com/guides/services.html.

Complete the following steps to contact IBM Software Support with a problem:

- 1** Define the problem, gather background information, and determine the severity of the problem. For help, see "Contacting IBM" in the *Software Support Handbook* at techsupport.services.ibm.com/guides/beforecontacting.html.
- 2** Gather diagnostic information.
- 3** Submit your problem to IBM Software Support in one of the following ways:
 - a** Online: Click the **Report problems** tab on the IBM Software Support site: www.ibm.com/software/support/probsub.html
 - b** By telephone: For the telephone number to call in your country, go to the Contacts page of the *Software Support Handbook*: techsupport.services.ibm.com/guides/contacts.html.

If the problem you submit is for a software defect or for missing or inaccurate documentation, IBM Support creates an Authorized Program Analysis Report (APAR). The APAR describes the problem in detail. Whenever possible, IBM Support provides a workaround that you can implement until the APAR is resolved and a fix is delivered. IBM publishes resolved APARs on the IBM Support web site daily, so that other users who experience the same problem can benefit from the same resolution.

Release Notes

This document describes how to install MEA for mySAP ERP 2005 Patch 2, which contains fixes to issues reported by customers and others. This document also contains a list of the resolved issues in the patch. Patch 2 includes all previous patches.

When you install the patch, have the following documents available for reference:

- ▼ IBM Maximo Enterprise Adapter for mySAP ERP 2005 Installation Guide
- ▼ IBM Maximo Enterprise Adapter for mySAP ERP 2005 System Administrator Guide
- ▼ *IBM Maximo System Administrator Guide*

CAUTION Install the patch in a test environment before you install it in a production environment.

Update Checklist

The following checklist provides an overview of what you must do to install MEA for mySAP ERP 2005 Patch 2. The remainder of this chapter provides detailed instructions.

- | | |
|-------------------------|---|
| Prerequisite Activities | <ul style="list-style-type: none"><input type="checkbox"/> Determine the current software version.<input type="checkbox"/> Process transactions in the inbound and outbound queues.<input type="checkbox"/> Disable the mySAP ERP 2005 external system in the Maximo External Systems application.<input type="checkbox"/> Stop the Maximo application servers and services.<input type="checkbox"/> Stop the Actuate[®] servers and services.<input type="checkbox"/> Back up the Maximo root folder.<input type="checkbox"/> Back up the Maximo database. |
| Installation Activities | <ul style="list-style-type: none"><input type="checkbox"/> Install MEA for mySAP ERP 2005 Patch 2.<input type="checkbox"/> Rebuild and deploy the maximo.ear file.<input type="checkbox"/> Start the Maximo application servers and services.<input type="checkbox"/> Start the Actuate servers and services.<input type="checkbox"/> Sign in to Maximo.<input type="checkbox"/> Import MEA for mySAP ERP 2005 Patch 2 into Maximo.<input type="checkbox"/> Check the updated version of the MEA for mySAP ERP 2005.<input type="checkbox"/> Import secondary language files into Maximo.<input type="checkbox"/> Import the SAP-side ABAP[™] updates.<input type="checkbox"/> Import the SAP-side XI updates.<input type="checkbox"/> Configure the SAP-side manual updates.<input type="checkbox"/> Enable the mySAP ERP 2005 external system in the Maximo External Systems application. |

Installation Prerequisites

Before you install MEA for mySAP ERP 2005 Patch 2, complete the following steps:

- 1** Determine the current software version.
 - a** Sign in to Maximo.
 - b** From the Maximo Navigation Bar, click Help.
 - c** From the drop-down list, select **About MAXIMO**. Maximo displays the current MEA for mySAP ERP 2005 software version, in the following format:

Adapter for mySAP ERP 2005-6.2.1.003

If this value matches your current version, the software is current. *Do not* install MEA for mySAP ERP 2005 Patch 2.
- 2** Process any transactions in the inbound and outbound queues. For more information, see "Processing of Transactions in Queues," on page 7.
- 3** Disable the mySAP ERP 2005 external system in Maximo.
 - a** Select the External Systems application in the Maximo Integration module.
 - b** Select the external system that you want to disable.
 - c** On the System tab, clear the **Enabled** check box.
- 4** Stop the Maximo application servers and services.
- 5** Stop the Actuate servers and services.
- 6** Back up the entire <maximo> folder, where <maximo> is the root folder where you installed Maximo.
- 7** Back up the Maximo database.

Installation of MEA for mySAP ERP 2005 Patch 2

Before you start this procedure, complete “Installation Prerequisites,” on page 3.

To install MEA for mySAP ERP 2005 Patch 2, complete the following steps:

1 Navigate to the following folder:

<maximo>\PowerUpdateClientSAP2005

- 2** Run update.exe to retrieve updates specific to the MEA for mySAP ERP 2005 from the IBM Support Web site. The Welcome to PowerUpdate window opens.
- 3** Click **Next**. While the program checks for updates, the Checking for Update window opens.
- 4** If Patch 2 is installed already, the application displays the following message: *Your Software is Already Up to Date*. If you see this message, click **Exit**, and go to step 15 on page 4.
- 5** If an update is available, the Update Available window opens. Click **Next**. After the program retrieves the update, the Updater Retrieved window opens.
- 6** Click **Next**. The Introduction window for the patch installation opens.
- 7** Click **Next**. The Choose Maximo Base Language window opens.
- 8** Select the base language, and click **Next**. The Choose Install Folder window opens.
- 9** If the default folder is not the Maximo root folder, click **Choose** to browse for the Maximo root folder.
- 10** Click **Next**. The Pre-Installation Summary window opens.
- 11** Click **Install**. After the installation program finishes, the Install Complete window opens. If this window displays a message that errors have occurred, check the Maximo installation log after you close the window.
- 12** Click **Done**.
- 13** Run updatedb.bat from the <Maximo>/tools/maximo directory, to update your database.
- 14** Rebuild and deploy the maximo.ear file. For information about how to build and deploy EAR files, refer to the *IBM Maximo System Administrator Guide*.
- 15** Start the Maximo application servers and services.
- 16** Start the Actuate servers and services.
- 17** Sign in to Maximo to check that the Maximo application server started successfully.

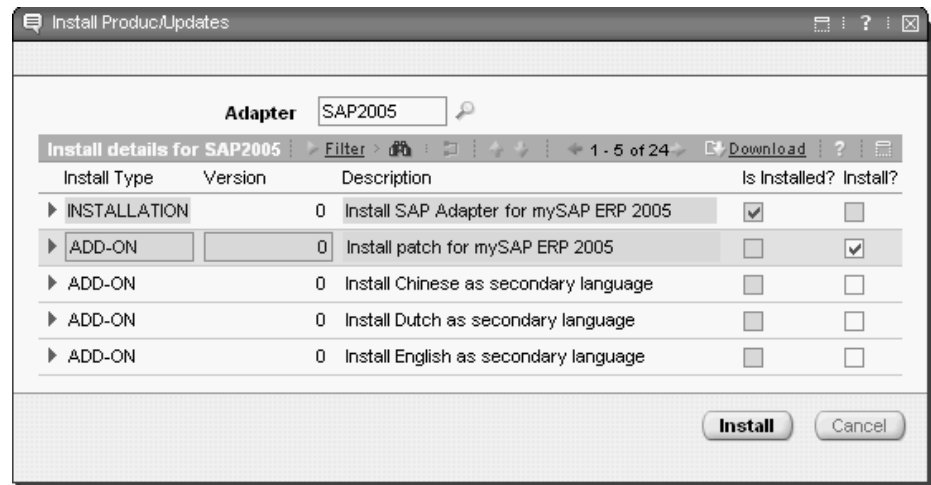
Import of Patch 2 into Maximo

Before you perform this procedure, complete “Installation of MEA for mySAP ERP 2005 Patch 2,” on page 4.

To import MEA for mySAP ERP 2005 Patch 2 into Maximo, complete the following steps:

- 1 In the External Systems application, select any external system.
- 2 From the Select Action menu, select **Install Product/Updates**. The Install Product/Updates dialog box opens.
- 3 In the **Adapter** field, enter SAP2005. The Install Product/Updates dialog box displays the products, patches, and add-ons available for the MEA for mySAP ERP 2005. You see a combination of the following items:
 - ▼ Install SAP Adapter for SAP2005
 - ▼ Install patch for SAP2005
 - ▼ Install <language> as secondary language
 - ▼ Install patch for <language> secondary language

Install Product/Updates Dialog Box



- 4 Select the **Install?** check box that corresponds to “Install patch for SAP2005,” and then click **Install**. Maximo displays the following message: *Please wait*. When the message disappears, Maximo has imported the patch. This step can take 5 minutes or more to complete.

NOTE After you import a patch or any other update of install type ADD-ON, the corresponding **Is Installed?** check box remains cleared.

- 5 Repeat step 1 on page 3 to verify that the software is at the Patch 2 revision level.
- 6 If you use secondary languages, import the language files into Maximo. For more information, see “Import of Secondary Language Files into Maximo,” on page 9.

Import of Patch 2 into Maximo

- 7** Apply SAP-side ABAP and XI updates. For more information, see “Import of SAP-side ABAP Updates,” on page 10.
- 8** Apply SAP-side XI updates. For more information, see “Import of SAP-side XI Updates,” on page 10.
- 9** Configure SAP-side manual updates. For more information, see “Configuration of SAP-side Manual Updates,” on page 11.
- 10** Enable the mySAP ERP 2005 external system in Maximo.
 - a** In the External Systems application, select the external system that you want to enable.
 - b** On the System tab, select the **Enabled?** check box.

You have installed MEA for mySAP ERP 2005 Patch 2.

Processing of Transactions in Queues

Process all transactions in the inbound and outbound queues before you install this patch.

CAUTION After you install Patch 2, you might be unable to process outstanding transactions.

Transactions in BEA WebLogic Server Queues

To process transactions in the inbound and outbound queues on a BEA WebLogic Server[®], ensure that no messages remain in the following queue servers:

- ▼ mxintcqinserver
- ▼ mxintsqinserver
- ▼ mxintsqoutserver

To check for pending messages, complete the following steps:

- 1 Start the BEA WebLogic server.
- 2 Open a browser and then enter the URL for the WebLogic Server Administration Console.

Example

`http://localhost:7001/console`

The WebLogic Server Administrator Console page opens.

- 3 Enter your name and password, and then click **Sign In**. The BEA WebLogic Server Home page opens.
- 4 Navigate to `mydomain > Services > JMS > Servers > mxintcqinserver`. The `mxintcqinserver` page opens.
- 5 On the Monitoring tab, click the Monitor Active JMS Servers link. The Active JMS Servers page opens. The Messages column for the `mxintcqinserver` queue server displays the number of unprocessed messages in that queue.
- 6 Wait until the queue contains zero messages. If some messages remain in the queue, check the error folder that you configured during the Integration Administration Setup process. If error messages exist, correct the corresponding transactions and put them in the retry folder.

For information about how to correct errors, refer to the *IBM Maximo Enterprise Adapter System Administrator Guide*.

- 7 Repeat the preceding steps for the `mxintsqinserver` and `mxintsqoutserver` queue servers.
- 8 Return to step 3 on page 3.

Transactions in IBM WebSphere Server Queues

To process transactions in the inbound and outbound queues on an IBM WebSphere® server, ensure that no messages remain in the following queue destinations:

- ▼ cqinbd
- ▼ sqinbd
- ▼ sqoutbd

To check for pending messages, complete the following steps:

- 1 Start the WebSphere server.
- 2 Open a browser and then enter the URL for the WebSphere console.

Example

`http://localhost:9060/ibm/console`

The WebSphere console page opens.

- 3 Enter your user ID and click **Log In**.
- 4 Navigate to Service Integration > Buses > meajmsbus > Destinations.
- 5 Click queue destination cqinbd.
- 6 On the Configuration tab, select Queue Points under Message Points.
- 7 Select the identifier for the queue. The **Current Message Depth** field on the Runtime tab displays the number of messages in the queue. If the number is zero, go to step 10.
- 8 Click the Messages link under Additional Properties to see the messages with their Transaction IDs.
- 9 Click refresh until the queue contains zero messages. If some messages remain in the queue, check the error folder that you configured during the Integration Administration Setup process. If error messages exist, correct the corresponding transactions and put them in the retry folder.

For information about how to correct errors, refer to the *IBM Maximo Enterprise Adapter System Administrator Guide*.
- 10 Repeat the preceding steps for the sqinbd and sqoutbd queues.
- 11 Return to step 3 on page 3.

Import of Secondary Language Files into Maximo

Secondary language files add error messages, column titles, and column remarks in additional languages. If you do not use secondary languages, skip this section.

This procedure imports secondary language files and patches to the secondary language files.

NOTE Before you can import a secondary language file, you must enable that language in Maximo. For more information, refer to the *IBM Maximo System Administrator Guide*.

You can import as many secondary languages as you have enabled in Maximo. For each language, import the secondary language, and then import the corresponding patch.

To import the secondary language files into Maximo, for each language that you want to import, complete the following steps:

- 1 In the External Systems application, select any external system.
- 2 From the Select Action menu, select **Install Product/Updates**. The Install Product/Updates dialog box opens.
- 3 In the **Adapter** field, enter SAP2005. The Install Product/Updates dialog box displays the products, patches, and add-ons available for the MEA for mySAP ERP 2005. You see a combination of the following items:
 - ▼ Install SAP Adapter for SAP2005
 - ▼ Install patch for SAP2005
 - ▼ Install <language> as secondary language
 - ▼ Install patch for <language> secondary language

Install Product/Updates Dialog Box



- 4 Select the **Install?** check box that corresponds to “Install <language> as secondary language,” and then click **Install**. Maximo displays the following message: *Please wait*. When the message disappears, Maximo has imported the secondary language file.

- 5 Select the **Install?** check box that corresponds to “Install patch for <language> secondary language,” and then click **Install**. Maximo displays the following message: *Please wait*. When the message disappears, Maximo has imported the patch for the secondary language file.
- 6 Return to step 7 on page 6.

Import of SAP-side ABAP Updates

You can import the SAP-side ABAP updates while you install the patch. You must import them before you send transactions between Maximo and mySAP ERP 2005.

To import the SAP-side updates, perform the following tasks:

- 1 Review the files in the SAP-side subdirectories to determine if they affect any customizations in mySAP ERP 2005. For a list of patched SAP-side files, see Appendix B, “SAP-side ABAP Updates,” on page B-15. If the updates affect your customizations, you must merge the changes in the patched file/ABAP program with your customizations.
- 2 If you are applying more than one patch, repeat step 1 for each patch that you are applying.

The transport files have consecutive numbers. For example: K900030.D04 would be the base install transport, K900042.D04 would be the Patch 1 transport, and so forth. If you are applying more than one patch, you must upload the transport files in sequence, starting with the earliest patch that you are applying.

- 3 For each MEA for mySAP ERP 2005 patch you install, import the corresponding files to your SAP system. If the updates do not affect your customizations, you can use the transport file that corresponds to the patch that you are applying. It loads the entire group of updated files into your system.

However, if you customize any files in the patch, merge the fixes in the patched version of each modified file with your customized version of the file. If a file is in more than one patch, import the latest patched version of the file, because successive patched versions of each file are cumulative.

For more information about how to import transport files in SAP, refer to SAP Library online documentation and the *IBM MEA for mySAP ERP 2005 Installation Guide*.

Import of SAP-side XI Updates

You can import the SAP-side XI transport file updates while you install the patch. Import them before you send transactions between Maximo and mySAP ERP 2005. To import the SAP-Side XI updates, perform the following tasks:

- 1 Review the files in the SAP-Side subdirectories to determine if they affect any customizations that you implemented in your mySAP ERP 2005 system. For a list of the SAP-Side XI transport files you must import, see Appendix C, "SAP-side XI Updates," on page 17. If you customized any objects in the transport files, merge the changes in the patched file/XI program with your customizations.
- 2 If you are installing more than one patch, repeat step 1 for each patch you are installing.

The transport files have consecutive numbers. For example, XI3_0_MAXIMO_INTEGRATE_MAX60_SAPERP2005_of_mro.com_objs_2.tpz would be the Patch 1 transport, XI3_0_MAXIMO_INTEGRATE_MAX60_SAPERP2005_of_mro.com_objs_4.tpz would be the Patch 02 transport, and so forth. If you are installing more than one patch, upload the transport files in sequence, starting with the earliest patch that you are installing.

- 3 The SAP-Side XI transport files are not cumulative. Import them in sequence, starting with the earliest patch that you are installing.

For more information about importing XI transport files in SAP, refer to SAP Library online documentation and the *IBM MEA for mySAP ERP 2005 Installation Guide*.

- 4 Return to step 10 on page 6.

Configuration of SAP-side Manual Updates

This section contains a list of SAP-side manual updates in the available patches.

Patch 1

This section lists the manual updates in Patch 1.

Issue 07-12558

If you want to implement the fix for issue 07-12558 (mapping the SAP Goods Receipt (GR) cost to the Maximo receipt cost), set the variable GR_SETCOST to a value of 'X' in the SAP table ZBC_SAPMXCONFIG. For more information about issue 07-12558, see "Patch 2," on page 13.

Creation of a Number Range Object

To configure the correct assignment of error message numbers on transactions that you send from Maximo to SAP by means of BAPI programs, create a Number Range Object in SAP. You can access the Number Range Object: Create screen in SAP by one of the following two means:

- ▼ Use the following menu path in the SAP Easy Access screen drilldown:

Tools >> ABAP Workbench>> Development >> Other Tools>>Number Ranges

- ▼ Enter the transaction code SNRO in the field in the upper left corner of the initial SAP Easy Access screen.

When you create the Number Range Object, use the values shown in the following table:

Number Range Object

Field	Value
Object	ZMXESERROR
Short Text	Transaction Number
Long Text	Transaction Number for BAPI Errors
Number length domain	NUM10

When you add the Number Range Interval for the Number Range Object, use the values shown in the following table:

Number Range Interval

Field	Value
Interval No	01
From Number	0000000001
To Number	9999999999
Current Number	value = maximum value of ZBC_BAPI_ADMIN.MINDEX + 1 (See note following this table.)

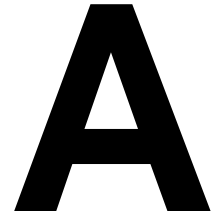
NOTE To find the value to use for the Current Number field, complete the following steps:

- 1 Enter SE16 in the field in the upper left corner of the SAP Easy Access screen.
- 2 Select the ZBC_BAPI_ADMIN table.
- 3 Sort the output by MINDEX to determine the last number assigned.
- 4 Increase this value by 1 and use the new value as the Current Number.

For more information about how to create a Number Range Object in SAP, refer to SAP Library online documentation.

For more information about this manual update, see the section on issue 06-20105 in Appendix A, “MEA for mySAP ERP 2005 Patch 2 Fixed Issues,” on page 13.

MEA for mySAP ERP 2005 Patch 2 Fixed Issues



MEA for mySAP ERP 2005 Patch 2 fixes the following issues.

Patch 2

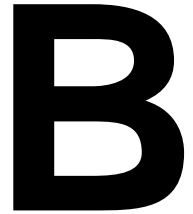
Issue	08-10522
Description	The MX6.x for SAP now populates the MAXVARS table with the SAP Adapter patch/build number.
Replaced Files	applications\maximo\properties\product\sap2005.xml tools\maximo\en\sap2005\v600.01.ora tools\maximo\en\sap2205\v600.01.sqs tools\maximo\en\sap2005\v600.01.db2

Patch 1

Issue	07-12558
Description	The MEA for SAP now correctly maps the SAP Goods Receipt (GR) cost to the Maximo receipt cost. This fix requires you to apply the MEA fix for Issue 07-14418.
Replaced File	SAP-Side\dictionary\bc_domains_internal.xls
Issue	07-17475
Description	Added translation strings for new attributes.
Replaced Files	businessobjects\classes\psdi\iface\sap2005\patch\<LANGCODE>\ config.xml businessobjects\classes\psdi\iface\sap2005\patch\<LANGCODE>\ inttype.xml businessobjects\classes\psdi\iface\sap2005\patch\<LANGCODE>\ message.xml businessobjects\classes\psdi\iface\sap2005\patch\<LANGCODE>\ objectcfg.xml

Patch 1**Issue** 07-17500**Description** The MEA for SAP now correctly divides the purchase order price by the price unit.**Replaced File** SAP-Side\function groups\ZBC_S2M\Z_BC_BAPI_PO_GET_DETAIL**Issue** 07-23674**Description** After upgrading from version 5.2 to 6.2, you can now successfully update a PO that you created in version 5.2**Replaced Files** businessobjects\classes\psdi\iface\sap2005\ERPInExt
businessobjects\classes\psdi\iface\sap2005\ERPOutExt

SAP-side ABAP Updates



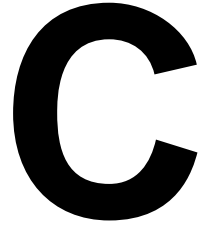
This appendix contains a list of updated SAP-side files/ABAP programs and corresponding transport files in the available patches. For instructions on how to apply the SAP-side updates, refer to “Import of SAP-side ABAP Updates,” on page 10.

Patch 1 - Transport File K900035.D05

Replaced Files

\SAP-Side\function groups\ZBC_S2M\Z_BC_BAPI_PO_GET_DETAIL
\SAP-Side\dictionary\bc_domains_internal.xls

SAP-side XI Updates



This appendix contains a list of SAP-side XI updates in the available patches.

Patch 2

Transport File No updates in Patch 2.

Modified Objects

Data Type No updates in Patch 2.

Message Mapping No updates in Patch 2.

Patch 1

Transport File No updates in Patch 1.

Modified Objects

Data Type No updates in Patch 1.

Message Mapping No updates in Patch 1.

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
2Z4A/101
11400 Burnet Road
Austin, TX 78758 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 document 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.

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.

All statements regarding IBM's future direction or intent are subject to change or withdrawal without notice, and represent goals and objectives only.

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.

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

Trademarks

The following terms are trademarks of International Business Machines Corporation in the United States, other countries, or both:

IBM
AIX
DB2
developerWorks
Everyplace
ibm.com
Lotus
Maximo
Notes
QuickPlace
Tivoli
WebSphere

Adobe, the Adobe logo, PostScript, and the PostScript logo are either registered trademarks or trademarks of Adobe Systems Incorporated in the United States, and/or other countries.

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

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

Intel, Intel logo, Intel Inside, Intel Inside logo, Intel Centrino, Intel Centrino logo, Celeron, Intel Xeon, Intel SpeedStep, Itanium, and Pentium are trademarks or registered trademarks of Intel Corporation or its subsidiaries in the United States and other countries.

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

UNIX is a registered trademark of The Open Group in the United States and other countries.

