

Sterling Selling and Fulfillment Foundation



Release Notes - Known Issues

Version 9.1

Sterling Selling and Fulfillment Foundation



Release Notes - Known Issues

Version 9.1

Note

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

Copyright

This edition applies to the 9.1 Version of IBM Sterling Selling and Fulfillment Foundation and to all subsequent releases and modifications until otherwise indicated in new editions.

© Copyright IBM Corporation 1999, 2011.

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

Contents

Chapter 1. Sterling Selling and Fulfillment Foundation	1	Chapter 6. Localization	15
Chapter 2. Sterling Business Center . . .	7	Chapter 7. Documentation	17
Chapter 3. Sterling Warehouse Management System	9	Chapter 8. Upgrade	19
Chapter 4. Selling and Fulfillment Business Intelligence Operational Reports	11	Chapter 9. Utilities.	21
Chapter 5. Drop Ship Option Pack . . .	13	Chapter 10. Deprecated Components	23
		Notices	25

Chapter 1. Sterling Selling and Fulfillment Foundation

This section describes known issues for IBM® Sterling Selling and Fulfillment Foundation.

Defect 193792

Issue: When running the buildear command on Windows with the JRockit JDK, the following warning message is displayed: [WARN] -XX:MaxNewSize=256m is not a valid VM option.

Resolution: This error is benign and will not affect the build ear process.

Defect 198994

Issue: Condition properties specified for a dynamic condition are not saved.

Resolution: When creating a dynamic condition, save the condition before creating condition properties.

Defect 200639

Issue: The getPossibleSchedule API throws an "invalid node" error when the node DSG is applied for a node user. The error is not thrown for a console node user, but exists for a non- IBM Sterling Warehouse Management System node user.

Resolution: Create a team for the non-Sterling Warehouse Management System node user, and ensure that the team contains all the accessible nodes.

Defect 208774

Issue: In the Applications Manager, when the Approval Plan Details screen is resized, the descriptive paragraph is truncated.

Resolution: None.

Defect 215333

Issue: The application does not distinguish between distribution groups with the same name even though they belong to different enterprises.

Resolution: Distribution groups must be named differently for the application to work correctly.

Defect 215867

Issue: GUI installation of Sterling Selling and Fulfillment Foundation fails on Windows 2008 while installing on a network drive.

Resolution: Use the silent installation method.

Defect 217621

Issue: Excessive warning messages are being generated in application logs.

Resolution: The warning messages are being generated due to IBM WebSphere® DataSource, which is setting the transaction isolation level to TRANSACTION_REPEATABLE_READ, instead of TRANSACTION_READ_COMMITTED. Set all connections to TRANSACTION_READ_COMMITTED to avoid the warning messages.

Defect 220478

Issue: Thousand separator is not supported in applications built on Ext JS.

Resolution: None.

Defect 221138

Issue: The System Management Console does not record Integration server activities.

Resolution: None.

Defect 226042

Issue: The "Communication Failure" message that is displayed when there is no response from a server cannot be localized.

Resolution: None.

Defect 226113

Issue: The application displays incorrect availability data for multiple items that share the same Global Trade Item Number (GTIN) when the Read Availability Across Items functionality is enabled.

Resolution: None.

Defect 226222

Issue: Locale specific decimal separators are not being displayed for numeric values.

Resolution: None.

Defect 227013

Issue: User exit details, if modified, are not refreshed in the User Exit screen of Application Manager.

Resolution: Restart the application for changes to take effect.

Defect 227178

Issue: The Applications Manager allows disabled items in a drop-down list to be selected for placing orders.

Resolution: The issue is seen only with IE7 because it does not support disabled options in a drop-down list. However, disabled options cannot be selected in IE8, FireFox and Google Chrome.

Defect 228550

Issue: When adding beans in the webservicebeans.xml file, specifying the same package for more than one bean will result in generated classes for one bean being overwritten with generated classes for the other bean.

Resolution: Specify a unique package for each bean.

Defect 229809

Issue: Some enterprise specific agents support either passing an EnterpriseCode in the agent criteria to restrict the agent to a single enterprise, or leaving the EnterpriseCode criteria blank in order to run across all enterprises, or all enterprises within a colony in a multischema environment. If left blank and there is a constant stream of work in at least one enterprise but little or no work in another enterprise, the enterprises with little or no work may not process additional records until there is a break in the high volume enterprise.

Resolution: Configure agent criteria for specific enterprises.

Defect 231289

Issue: Price ranges are not being displayed for bundle items in a catalog.

Resolution: None.

Defect 235727

Issue: When a drop ship order with Bundle is shipped, the bundle parent status does not change to "Shipped". Instead, status of all the components are changed to "Shipped".

Resolution: None.

Defect 236314

Issue: The application does not allow unpacking of a packed shipment when a shipment status is "Packed", and throws a status modification error, "Unpack shipment not allowed when shipment is in 'Sent to Node' status".

Resolution: Change status modification rules to allow unpacking of shipment at "Sent to Node" status.

Defect 238478

Issue: A Null Pointer Exception is thrown when splitShipment API is invoked for a purchase order shipment.

Resolution: Ensure that the **Target** element of the API is not blank to avoid the null pointer exception.

Defect 239683

Issue: Out of memory error is encountered during compilation of Java Architecture for XML Binding (JAXB) beans when large number of APIs are exposed.

Resolution: Limit the number of APIs exposed through JAXB.

Defect 239742

Issue: The application throws a *YFS: Invalid Order Error* error when the requestCollection agent picks up orders for processing within seconds of order generation.

Resolution: Benign error which can be ignored. The requestCollection agent picks up the order for processing during its next scheduled run.

Defect 239821

Issue: Inventory pic incorrect till date field in the Applications Manager does not calculate and display the correct time since the time set in Daily Synchronization Time is "24:00:00" instead of any time between "00:00:00 to 23:59:59"

Resolution: Set the value of "Daily Synchronization Time" to "00:00:00" in the Applications Manager.

Defect 240491

Issue: Multiple shipments are generated for the same customer, when consolidated order releases for a customer are downloaded at the same time.

Resolution: None.

Defect 240655

Issue: The SI_version table entries are not updated with the correct version numbers for the following modules during upgrade:

- platform_afc_ui_impl
- platform_rcp
- platform_sma_app
- platform_uifwk

Resolution: None

Defect 240742

Issue: When the price of an order line option is overridden, modification type for order repricing is not triggered.

Resolution: Set ImpactPricing="Y" on ADD_NOTE modification type for an order line. A note can also be added to an order line when overriding delivery service option prices in IBM Sterling Call Center and Sterling Store.

Defect 241493

Issue: If items are added to the recommended lines directly, or, moved from Quote Lines to recommended lines, discounts are not applied on the selected item even though the conditions which trigger the combination manual or automatic pricing rules are met.

Resolution: Call getOrderPrice API and pass RunCatalogOnlyRules="N".

Defect 241653

Issue: A Null Pointer Exception is encountered while printing return carrier labels when return carrier integration is not enabled for a carrier service, and a shipment is manifested with that carrier service.

Resolution: Return carrier labels cannot be printed for containers which do not have return carrier integration. If required, container labels can be printed from **Container Details** screen.

Defect 242032

Issue: Order Header Charges are displayed incorrectly as Shipping Charges when "Charge Name For Shipping" rule is not defined in **Application Manager > DOM > Document Specific > Sales Order > Financials > Financial rules** and billable charges are added to the order.

Resolution: Ensure that the 'Charge Name for Shipping' rule is defined in Financial rules.

Defect 242105

Issue: A Null Pointer Exception is encountered when API element is missing in webservicebeans.xml.

Resolution: Do not pass an empty API element to webservicebeans.xml.

Defect 242106

Issue: An exception is encountered during EAR creation, when API list is not specified under the Beans element in webservices.xml.

Resolution: Specify a valid list of APIs under the Beans element.

Defect 242189

Issue: Java API for XML Web Services (JAX-WS) require external instance of Apache Ant 1.8.1.

Resolution: To expose JAX-WS Web Services, you must use Apache Ant 1.8.1. Because this version is not installed with the application, you must configure the system to point to an external instance of Apache Ant 1.8.1 that will be used to build the EAR with the web services as follows:

1. Download Apache Ant 1.8.1 from the Apache Ant website (<http://ant.apache.org/index.html>) and install using instructions provided by Ant.
2. Set ANT_HOME in your environment to point to the Ant 1.8.1 instance.

3. Set the USE_EXTERNAL_ANT property for your application server in sandbox.cfg. Valid values are true/false. To point to the Ant 1.8.1 instance you installed in step 1, set USE_EXTERNAL_ANT=true.
4. Save the sandbox.cfg file, navigate to the bin directory, and run the setupfiles command (for UNIX or Linux, run setupfiles.sh; for Windows, run setupfiles.cmd).

Defect 242422

Issue: FindInventory API does not consider unpromised or unassigned demands even when the attribute, IgnoreUnpromised is set to "N".

Resolution: FindInventory API does not consider unassigned demands. The following note in the Application Configuration Guide is not applicable and can be ignored:

Note: IBM recommends you to configure a default Distribution Rule for each demand owner. The default Distribution Rule is used to map unassigned demands to supply. If you do not configure the default Distribution Rule, the APIs may return results as AVAILABLE, causing orders to get accepted even though they cannot be actually sourced.

Defect 242639

Issue: A "Build failed" error is thrown when an EAR is built with EJB Webservices since Oracle WebLogic Libraries are not being picked up from the correct path.

Resolution: Set the BEA_DIR variable in sandbox.cfg to point to the Oracle WebLogic location, <WL_HOME>/wlserver_10.3/server/lib and run setupfiles.cmd.

Defect 243080

Issue: When a running agent [or a service involving Java Message Service] is shut down, and one or more consumer threads are stuck indefinitely or stuck for an unusually long time, the shutdown thread that waits for the consumer threads to finish is unable to complete the shutdown task.

Resolution: A new property, "yantra.shutdown.wait.timeout" has been provided, which enables customers to specify the maximum time that the shutdown thread should wait for the consumer threads to complete the current task, before shutting down. If the consumer thread does not finish before the specified time [elapsed time since shutdown or CTRL+C], the shutdown thread proceeds with the shut down. The default value of the yantra.shutdown.wait.timeout property is "0" which indicates an indefinite wait.

Chapter 2. Sterling Business Center

This section describes known issues for IBM Sterling Business Center.

Defect 198510

Issue: If the Enterprise ARchive (EAR) file that is used for the JBoss Application Server deployment is not precompiled, a blank page is displayed when either the Manage Catalog hyperlink is clicked from the home page or the Manage Catalog option is selected from the Item menu.

Resolution: The EAR file should be precompiled for the JBoss Application Server deployment.

Defect 215125

Issue: The application server log displays trace statements only for the Sterling Business Center screens and not for the Item Configurator screens.

Resolution: To debug issues in the Item Configurator screens turn on the respective API traces in the **System Management Console > Trace Components**.

Defect 227418

Issue: When an attribute is assigned to a category and the attribute value is overridden at an item or a child category level, the attribute value cannot be modified at the parent category level.

Resolution: None.

Defect 238838

Issue: Struts configuration warning messages are logged when Sterling Business Center or IBM Sterling Field Sales is deployed on JBoss.

Resolution: None.

Defect 241258

Issue: When a service is associated to an item, service skills do not appear in the details list even though they are configured for a service.

Resolution: None.

Defect 242214

Issue: A horizontal scroll bar appears in the **Adjust Prices** dialog box, when you select one or more lines in the **Price List** summary screen and click the **Adjust Prices** button.

Resolution: None.

Defect 242244

Issue: "For filter" check box is not displayed for derived attributes used for price range filtering.

Resolution: None.

Defect 242477

Issue: In the Customer Assignments tab of Customer Entitlement screen, select the radio button to assign the entitlement to all the customers and then save the entitlement. Change the customer selection to "This entitlement is applicable to the following customers". The check boxes under it are still disabled.

Resolution: Select any other radio button and then select the radio button for "This entitlement is applicable to the following customers." again. The check boxes will be enabled.

Chapter 3. Sterling Warehouse Management System

This section describes known issues for IBM Sterling Warehouse Management System.

Defect 198192

Issue: If two or more enterprises have the same capacity organization code and resource pools are configured for a node, deployment using the Configuration Deployment Tool (CDT) fails when you deploy a node enterprise combination configuration with either of these enterprises. When the capacity organization is not shared between enterprises, deployment using CDT succeeds but resource pool configuration does not get deployed.

Resolution: If the capacity organization of the enterprise referenced in CDT deployment is not shared by other enterprises, provide the capacity organization code along with the node and enterprise to deploy the configuration successfully.

Defect 236036

Issue: Locale specific translations are not unique resulting in the display of incorrect localized values.

Resolution: None.

Defect 236700

Issue: A "Nombre non valide" error is thrown for a French locale user when picking a task with 1000 quantity or more at a time, because IBM Sterling WMS Mobile Application for Windows CE / Pocket PC devices does not encode the number separator for French locale (non breaking space) when sending request to the server.

Resolution: None.

Defect 239104

Issue: A "Nombre non valide" error is thrown for a French locale user when picking a task with 1000 quantity or more at a time in Sterling WMS Mobile Application

Resolution: None.

Defect 239850

Issue: When manifesting is at container level, the total number of containers manifested per Carrier Service is displayed incorrectly on the **Summary by Carrier Service** console.

Resolution: None.

Defect 240763

Issue: When dynamic slotting is configured for the pick location assignment, ReleaseWave transaction considers inventory pend-in of replenishment tasks only and does not consider inventory pend-in of putaway tasks to the pick zone.

Resolution: None.

Defect 241413

Issue: An incorrect error message is displayed when you specify invalid location, zone or ItemID as criteria, while creating Count requests in the **Create Count Request** Console.

Resolution: Navigate to the application Home page and open **Create Count Request** Console again.

Defect 241436

Issue: The disposition code field in Receiving HSDE console does not display locale specific data.

Resolution: None.

Defect 242060

Issue: The application throws a "No record found for passed inputs" error when packing an item due to a mismatch in the inventory status of nodes, during inter-node transfers.

Resolution: None.

Chapter 4. Selling and Fulfillment Business Intelligence Operational Reports

This section describes known issues for IBM Selling and Fulfillment Business Intelligence Operational Reports.

Defect 200907

Issue: The performance of the Unshipped Orders Report may be unacceptable under load.

Resolution: Test the performance of this report before using it during production.

Defect 202127

Issue: If your user name is not the same as your schema, a report may not be able to find the appropriate table.

Resolution: Perform the following steps:

1. In Framework Manager, open the model provided in the <ANALYTICS_HOME>/Model directory.
2. Edit the problem data source and set the Schema in the data source here.
3. Edit each problem query subject in the Database Layer without making changes and click OK. You can test the query subject to determine if there is a problem with it.
4. Save the model.
5. Remove the schema from the datasources. You may choose to test some of the problem query subjects to ensure that there are no issues with them.
6. Publish the package and overwrite the existing one.
7. Save the model.

Chapter 5. Drop Ship Option Pack

This section describes known issues for Drop Ship Option Pack.

Defect 192636

Issue: The Seller's Order Management system does not handle documents that are received out of sequence.

For example, if an Advance Shipment Notice (ASN) for a Purchase Order (PO) is received before the acknowledgement, the information pertaining to the acknowledgement might not get updated in the PO as required.

Resolution: None.

Defect 196262

Issue: When a Seller reships a sales order line, a Change PO is created along with the new order line.

This Change PO is not reflected correctly in IBM Sterling Supply Chain Visibility. The new order line overrides the earlier order line in the PO, and the status of the order line does not change to Created in Sterling Supply Chain Visibility.

Resolution: None.

Chapter 6. Localization

Multiple Defects

Issue: The following list of issues affect localized environments.

219114 In the Applications Manager, the password policy strategy is not translated per user's locale.

219288

The Application Manager does not translate transaction names in the pipeline per user's locale.

219564 In the Applications Manager, some alert names are not translated in a localized environment.

221456 In the System Management Administrator, the word 'Confirm' in dialog boxes is not translated per user's locale.

221457

In the System Management Administrator, the word 'loading' is not translated per user's locale.

230982 In the Application Console, **Save**, **Help** and **Close** buttons in the **Modify Ship To** dialog box appear truncated in a localized environment.

231843 Localized CSS files are not being picked up in the payment screens.

231958 In the Applications Manager, Organization names are not translated per user's locale.

237827 In the Applications Manager, the **Process Modeling** screen does not display multibyte character sets correctly in a localized environment.

237828

In the System Management Console, API and Agent group names appear truncated in a localized environment.

238529 Some Hot keys/mnemonic keys may not work in the Applications Manager when Sterling Selling and Fulfillment Foundation is localized.

239996 Unicode characters such as Chinese in menu descriptions are not displayed correctly on the application menu.

Resolution: None.

Chapter 7. Documentation

Help Format

Issue The look-and-feel of Help (Context Sensitive, Online, and Info Center) topics is not uniform.

Issue When viewing the Help (Context Sensitive, Online and Info Center) in Mozilla Firefox, the bullets are displayed as alphabets.

Resolution: None.

Defect 128502

Issue: Support for SSL is not documented for Oracle WebLogic.

Resolution: Perform the following steps:

1. Install IBM Sterling Selling and Fulfillment Suite.
2. Install Cognos® and create a datasource.
3. Install IBM Sterling Business Intelligence and deploy it to the Cognos server running the ant -f installanalytics.xml task.
4. Copy the auth jar and property file using ant -f installanalytics.xml copy.sscap-auth.jar target.
5. Enable the SSL mode on Oracle WebLogic. Oracle WebLogic provides an SSL security configuration that consists of private keys, certificates, keystore, and so forth. You can use this for development purposes, but do not use it in a production environment. For production environments, use the digital certificate from Certificate Authority.
6. Log in to the application with https protocol and click the Launch Report. A separate window opens with the Cognos reportnet URL, as defined in the yfs.properties file. You can view the reports in this window.

Defect 209676

Issue: Missing information about arguments for each function in Section 3.2.1, Greex Library Functions of the Sterling Selling and Fulfillment Foundation: Extending the Condition Builder Guide.

Resolution: None.

Defect 214146

Issue: During upgrade of Sterling Selling and Fulfillment Foundation from version 7.11 to 9.1, when Hot Fix 13 is applied on version 7.11, the install-transaction-indexes and install-history-indexes throw errors for indexes that already exist.

Resolution: None. The upgrade does not fail because of the errors, although exceptions are logged in the log files.

Defect 215649

Issue: Online documentation library has content that is more recent than the local library. In Release 9.1, the following documents will not be available in the Local Library, but they will be available from the Online Library and the DVD :

1. *Selling and Fulfillment Foundation: Performance Management Guide*
2. *Visual Modeler Application Guide*
3. *Selling and Fulfillment Foundation: Secure Deployment Guide*
4. *Sterling Selling and Fulfillment Foundation: PA-DSS Implementation Guide*

Resolution: None.

Defect 239927

Issue: Forming a complex query per documentation does not fetch the correct results.

Resolution: The correct input XML for a complex query is:

```
<Item OrganizationCode="ARGOS" ItemGroupCode="PROD">
<PrimaryInformation KitCode="BUNDLE" KitCodeQryType="NE">
</PrimaryInformation>
<ComplexQuery Operator="AND">
<And>
<Or>
<Exp Name="ProductLine" Value="D0" ProductLineQryType="EQ"/>
<Exp Name="ProductLine" Value="Expert" ProductLineQryType="EQ"/>
</Or>
</And>
</ComplexQuery>
</Item>
```

Defect 242406

Issue: Name of the property, yfs.enable.resource.addition must be changed to enable.resource.addition in documentation.

Resolution: None.

Chapter 8. Upgrade

Defect 213298

Issue: When the copyextensions target is run as a part of upgrading to Release 9.0, all the custom/extension JAR files are added as entries to the dynamicclasspath.cfg and the .in files. On removing the JAR files from the runtime, the respective entries from the dynamicclasspath.cfg and .in files are not removed.

Resolution: Delete the entries manually from the dynamicclasspath.cfg and the .in files.

Defect 242807

Issue: During upgrade to version 9.1, if descriptions of Category Domain or Attribute Domain for the default organization are modified, they may need to be modified again after upgrade.

Resolution: None.

Defect 242994

Issue: An error message is displayed during Add-in upgrade when migrating the factory setup data.

Resolution: Before starting the upgrade process, enclose the entry, GraphUI element containing GraphUIKey="20050711140704272558" within comments in the <INSTALL_DIR>\COM\Migration\9.0\COM_Add-in\database\FactorySetup\ycd\YFS_Graph_UIList.xml.

Chapter 9. Utilities

Defect 181772

Issue: When running the Configuration Deployment Tool (CDT) to compare all databases, if you open another program over the CDT and move the CDT screen away, the CDT screen may not repaint and a null pointer exception is displayed in the command window.

Resolution: This is a nonfatal error that can be ignored.

Defect 188373

Issue: The Configuration Deployment Tool (CDT) does not deploy the "shadow columns" used in case-insensitive searches when deploying data from an import XML file.

Resolution: Use the YCPCaseInsensitiveDataLoaderAgent in the target system to populate the values.

Defect 191099

Issue: The Configuration Deployment Tool (CDT) timer on the status bar is not displaying correctly when it runs out of memory and resumes.

Resolution: If an out-of-memory exception occurs, stop the tool, increase the memory parameters, and restart the CDT.

Chapter 10. Deprecated Components

Defect 238813

Issue: ConnectShipAdaptor and FedexAdaptor are no longer used and are deprecated.

Resolution: References to the ConnectShipAdaptor and FedexAdaptor components have been removed from the relevant guides. However, some of the documents, such as System Requirements and Parcel Carrier Adapter Guide, contain references to the components.

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 character set (DBCS) information, contact the IBM Intellectual Property Department in your country or send inquiries, in writing, to:

Intellectual Property Licensing

Legal and Intellectual Property Law

IBM Japan Ltd.

1623-14, Shimotsuruma, Yamato-shi

Kanagawa 242-8502 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

J46A/G4

555 Bailey Avenue

San Jose, CA 95141-1003

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.

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.

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

All IBM prices shown are IBM's suggested retail prices, are current and are subject to change without notice. Dealer prices may vary.

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. The sample programs are provided "AS IS", without warranty of any kind. IBM shall not be liable for any damages arising out of your use of the sample programs.

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

© IBM 2011. Portions of this code are derived from IBM Corp. Sample Programs. © Copyright IBM Corp. 2011.

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

Trademarks

IBM, the IBM logo, and [ibm.com](http://www.ibm.com)[®] are trademarks or registered trademarks of International Business Machines Corp., registered in many jurisdictions worldwide. Other product and service names might be trademarks of IBM or other companies. A current list of IBM trademarks is available on the Web at "Copyright and trademark information" at <http://www.ibm.com/legal/copytrade.shtml>.

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.

IT Infrastructure Library is a registered trademark of the Central Computer and Telecommunications Agency which is now part of the Office of Government Commerce.

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.

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

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

ITIL is a registered trademark, and a registered community trademark of the Office of Government Commerce, and is registered in the U.S. Patent and Trademark Office.

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

Java and all Java-based trademarks and logos are trademarks or registered trademarks of Oracle and/or its affiliates.

Cell Broadband Engine is a trademark of Sony Computer Entertainment, Inc. in the United States, other countries, or both and is used under license therefrom.

Linear Tape-Open, LTO, the LTO Logo, Ultrium and the Ultrium Logo are trademarks of HP, IBM Corp. and Quantum in the U.S. and other countries.

Connect Control Center[®], Connect:Direct[®], Connect:Enterprise, Gentran[®], Gentran:Basic[®], Gentran:Control[®], Gentran:Director[®], Gentran:Plus[®], Gentran:Realtime[®], Gentran:Server[®], Gentran:Viewpoint[®], Sterling Commerce[™], Sterling Information Broker[®], and Sterling Integrator[®] are trademarks or registered trademarks of Sterling Commerce, Inc., an IBM Company.

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



Printed in USA