



IBM Global Data Synchronization for WebSphere Product Center
V1.1.0

Installation, Configuration, and Administration Guide - Supply Side

Version 1.0

Note!

Before using this information and the product it supports, read the information in “Notices” on page 119.

19 November, 2004

This edition of this document applies to IBM Global Data Synchronization for WebSphere Product Center, version 1.1, and to all subsequent releases and modifications until otherwise indicated in new editions.

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About This Document

Audience

The objective of this guide is to facilitate the installation and configuration of the IBM Global Data Synchronization for WebSphere Product Center solution.

The intended audiences for this guide are the system administrators and the IT analysts.

Related Documentation

The following related Global Data Synchronization Supply documentation is also available:

- User Guide
- Customization Guide
- Release Notes

Typographic Conventions

This document uses the following conventions:

- `Courier New font` - Indicates commands, directory names, user names, path names, and file names.
- **Note** - Indicates important or clarifying information including exceptions, interdependencies, and special situations.
- **Tip** - Indicates a helpful action that will simplify or streamline the current procedure.
- **bold font** - Indicates buttons, tabs, menus, and keyboard key names. For example, the **Save** button.
- *Italics font* - Indicates screen names. For example, the *Login* screen.

IBM Software 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.

If you are not sure what type of software maintenance contract you need, call 1-800-IBMSERV (1-800-426-7378) in the United States or, from other countries, go to the contacts page of the IBM Software Support Handbook on the Web (techsupport.services.ibm.com/guides/contacts.html) and click the name of your geographic region for phone numbers of people who provide support for your location.

Follow the steps in this topic to contact IBM Software Support:

1. [Determine the Business Impact of your Problem](#)
2. [Describe your Problem and Gather Background Information](#)

3. [Submit your Problem to IBM Software Support](#)

Determine the Business Impact of your Problem

When you report a problem to IBM, you will be asked to supply a severity level. Therefore, you need to understand and assess the business impact of the problem you are reporting. Use the following criteria:

Severity 1	Critical business impact: You are unable to use the program, resulting in a critical impact on operations. This condition requires an immediate solution.
Severity 2	Significant business impact: The program is usable but is severely limited.
Severity 3	Some business impact: The program is usable with less significant features (not critical to operations) unavailable.
Severity 4	Minimal business impact: The problem causes little impact on operations, or a reasonable circumvention to the problem has been implemented.

Describe your Problem and Gather Background Information

When explaining a problem to IBM, be as specific as possible. Include all relevant background information so that IBM Software Support specialists can help you solve the problem efficiently. To save time, know the answers to these questions:

- What software versions were you running when the problem occurred?
- Do you have logs, traces, and messages that are related to the problem symptoms? IBM Software Support is likely to ask for this information.
- Can the problem be recreated? If so, what steps led to the failure?
- Have any changes been made to the system? (For example, hardware, operating system, networking software, and so on.)
- Are you currently using a workaround for this problem? If so, please be prepared to explain it when you report the problem.

Submit your Problem to IBM Software Support

You can submit your problem in one of two ways:

- Online: Go to the Submit and track problems page on the IBM WebSphere Product Center Software Support site (www.ibm.com/software/integration/wpc/support/). Enter your information into the appropriate problem submission tool.
- By phone: For the phone number to call in your country, go to the contacts page of the IBM Software Support Handbook on the Web (techsupport.services.ibm.com/guides/contacts.html) and click the name of your geographic region.

If the problem you submit is for a software defect or for missing or inaccurate documentation, IBM Software Support will create an Authorized Program Analysis Report (APAR). The APAR describes the problem in detail.

Whenever possible, IBM Software Support will provide a workaround for you to implement until the APAR is resolved and a fix is delivered. IBM publishes resolved APARs on the IBM product support Web pages daily, so that other users who experience the same problem can benefit from the same resolutions.

Ch 1 Overview

Global Data Synchronization is the process by which trading partners exchange basic information about products on an ongoing basis. The information can be on price, party, and other relationship-specific details. This process ensures that all stakeholders for a product are kept in “sync” about the latest information on the product.

Global Data Synchronization enables you to:

- Reduce costs and increase competitiveness through the efficient and accurate transfer and on-going synchronization of information.
- Lay the foundation for future supply chain collaboration initiatives which require that trading partners are in “sync” on the basic product, price, party, and relationship specific information.

Item Synchronization through Data Pools

The item synchronization process makes item and party data available for everyone who has subscribed to that particular data on a global basis. It also provides global visibility of products and parties.

Item Synchronization Process

- The manufacturer publishes item information to the item's home data pool.
- The data pool sends very basic information about the item to the registry. The registry holds this basic information about all items and the location of each item's home data pool.
- The retailer uses the registry to locate an item (by GTIN or by classification). The registry returns the details of the item's home data pool.
- The trading partners synchronize item information between their respective data pools using a subscription/publication process. The same process applies for synchronizing party information, published by the manufacturer or the retailer, based on the GLN.

Currently, the GDS Supply solution connects to the Transora data pool.

Ch 2 Installation

This chapter provides complete instructions for installing the solution along with a list of pre-requisites and the necessary hardware and software components.

Topics:

- [System Requirements](#)
- [Installation Pre-requisites](#)
- [Supported Platforms](#)
- [GDS Supply Installation](#)
- [Post Installation Tasks](#)
- [GDS Supply Uninstallation](#)

System Requirements

This chapter details the minimum hardware and software required for installing the GDS Supply solution.

Note! The requirements listed in this section are the minimum hardware and software recommendations. Prior to installation, a requirement analysis is recommended by WebSphere Professional Services to plan hardware considerations based on the choice of software used and the projected load volume of the servers (that is, the number of SKU's and transaction rates.)

Hardware Requirements

Server Hardware Requirements

- Processor: 2 CPU configuration on IBM pSeries 630 Model 6C4 with a minimum processor speed of 1.0 GHz
- Memory: 6 GB
- Disk space: 20 GB (dedicated for application server), 4 GB (temporary partition)

Additional Server Hardware Requirements

- Additional CPUs may be required based on capacity requirements
- Additional memory may be required based on capacity requirements
- Additional servers for added capacity and/or redundancy
- Multi-server installations require network attached shared storage

Client Hardware Requirements

- Processor: Intel-based system with a Pentium 3 processor and a minimum processor speed of 750 MHz
- Memory: 256 MB

Software Requirements

The following represents the software requirements:

Operating System

AIX Version 5L v5.2

Web Server

IBM WebSphere Application Server Network Deployment Version 5.0.2

Database

IBM DB2 Universal Database Information Integrator Version 8.1 Advanced Edition

Other required software (based on needed function)

- IBM Java Development Kit Version 1.3.1 (Available as part of IBM's WebSphere Application)
- Server Network Deployment Version 5.0.2
- WebSphere MQ Series Version 5.3
- WebSphere Business Integration Adapter for WebSphere MQ Version 2.5.0
- WebSphere Business Integration Adapter Framework Version 2.4.0
- WebSphere InterChange Server V4.2.2
- IBM HTTP 2.0.4.7
- Apache 1.3.1

Client Software Requirements

- Operating system (one of the following)
 - Microsoft Windows 2000 Professional Service Pack 3
 - Microsoft Windows XP Professional Service Pack 1
- Browser - Microsoft Internet Explorer Version 6.0 Service Pack 1
- Document Viewer - Adobe Acrobat Reader Version 4.0 (required to view WebSphere Product Center product documentation)

Note!

If your IE browser displays the Yahoo toolbar, then error messages such as Page not found may be displayed when working with the GDS solution. Therefore, ensure that you do not have the Yahoo toolbar or any other utilities installed on your IE browser.

Installation Pre-requisites

This section provides the pre-requisites necessary before installing the GDS Supply solution.

Prior to installing GDS solution, ensure that the WebSphere Product Center version 5.0 is installed on your system. For information about installing WebSphere Product Center version 5.0, refer *WebSphere Product Center 5.0 Installation Guide*.

The pre-requisites are:

1. WPC 5.0.0.2 Patch must be applied with the necessary schema updates as required.
2. WPC 5.0.0.2 should be installed and configured.
3. Company should be created other than trigo. For example, supply-side.

Supported Platforms

The supported platforms are:

- AIX v 5.1
- WAS
- DB2

GDS Supply Installation

This chapter provides the installation procedure to install the GDS Supply solution. Before installing GDS, ensure that WebSphere Product Center is not running.

The GDS Supply solution can be installed in two ways:

- Using Command Line
- Using Installer

Using Command Line

There are two ways to install GDS using the command line. They are:

- Run the following command from GDS_Supply_AIX directory:

```
./setupAix.bin -P installLocation="your specific destination" -silent
```
- Install from a response file. To do this:
 1. Run the following command to produce a template of the response file, named responsefile.txt

```
./java -cp setup.jar run -options-template responsefile.txt
```
 2. In the template file, uncomment "-P installLocation=<value>", and replace the <value> with the correct install location.
 3. Run the following command:

```
/setupAix.bin -silent -options responsefile.txt
```

Using Installer

The Installer is used to unzip the files to the required directory.

To install the GDS Supply solution using the installer:

1. Untar the .tar file and run the setupAix.bin executable available in GDS_Supply_AIX directory. The *Splash* window is displayed for a few seconds and then the *Welcome* window is displayed. This provides a basic introduction to the installation process. The product name, version, vendor name, and the Website information are also provided.

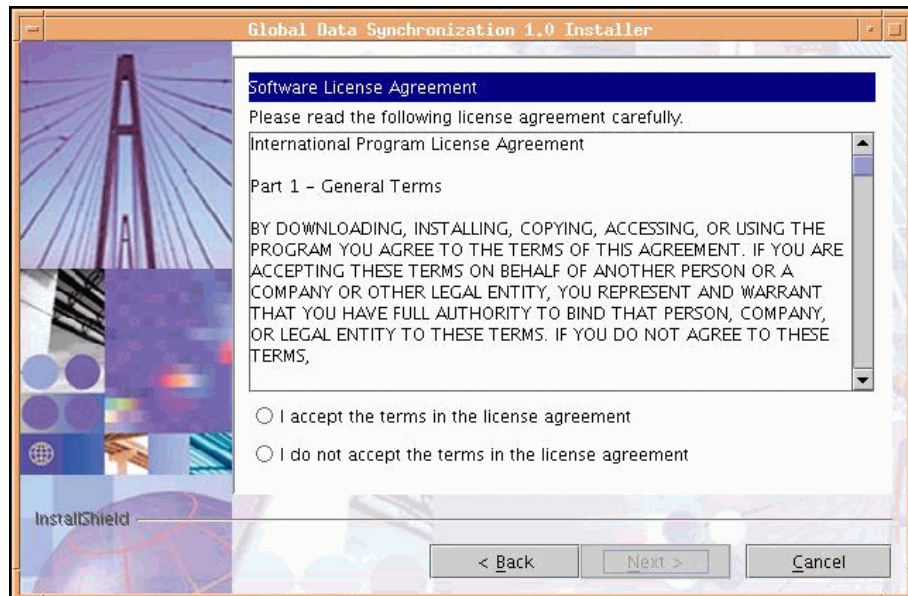


Splash



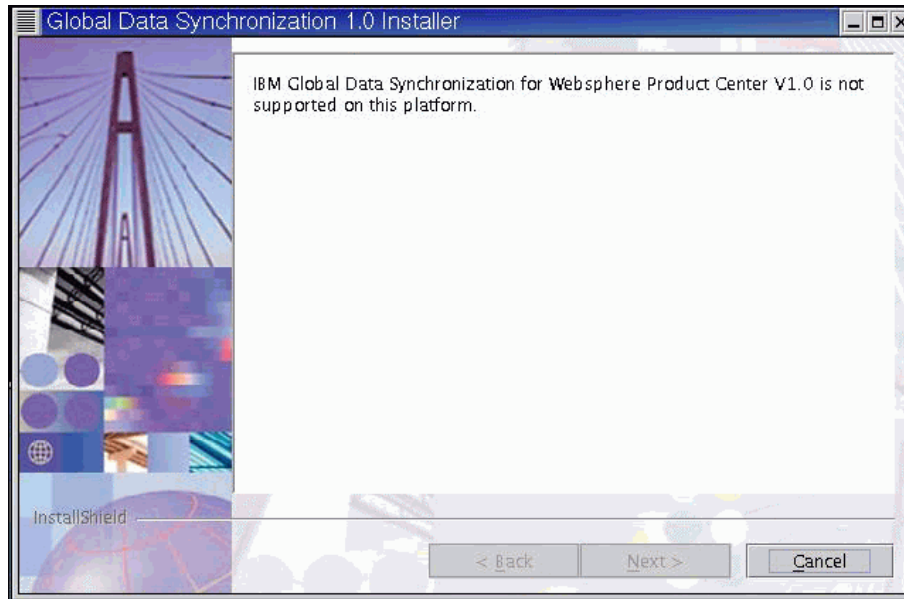
Welcome

2. Click **Next**. The *Software License Agreement* window is displayed.



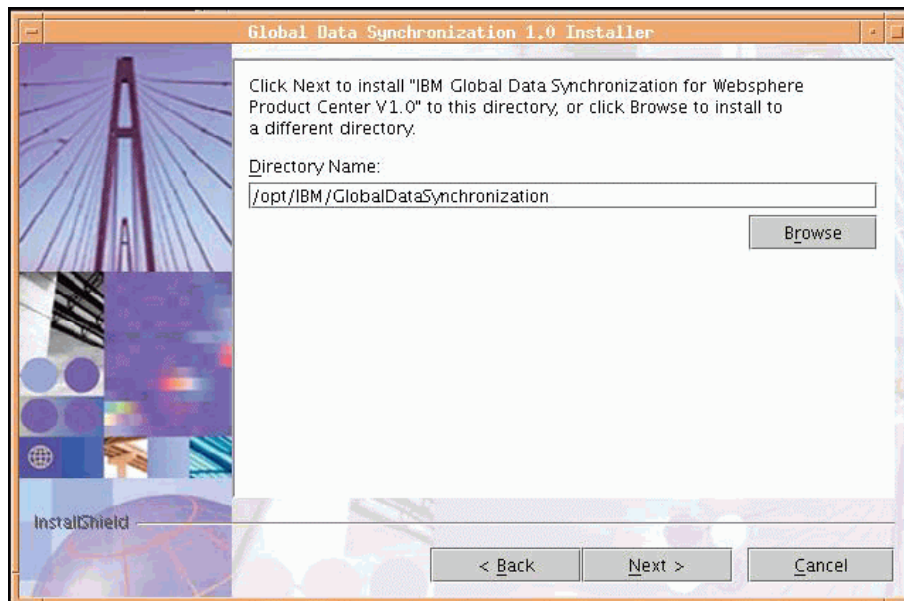
Software License Agreement

If the GDS Supply solution does not support the platform on which you want to install, then the *Unsupported Platforms* window is displayed.



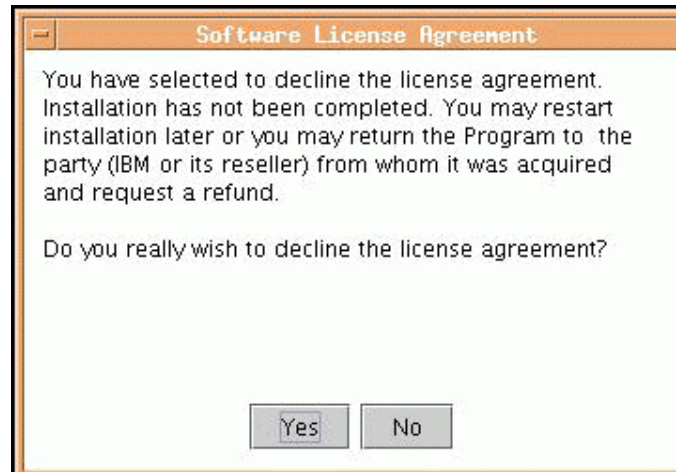
Unsupported Platforms

3. Select **I accept the terms in the license agreement** and click **Next**. The window that allows you to specify the location for the installation is displayed. The default directory is also displayed.



Installation Location

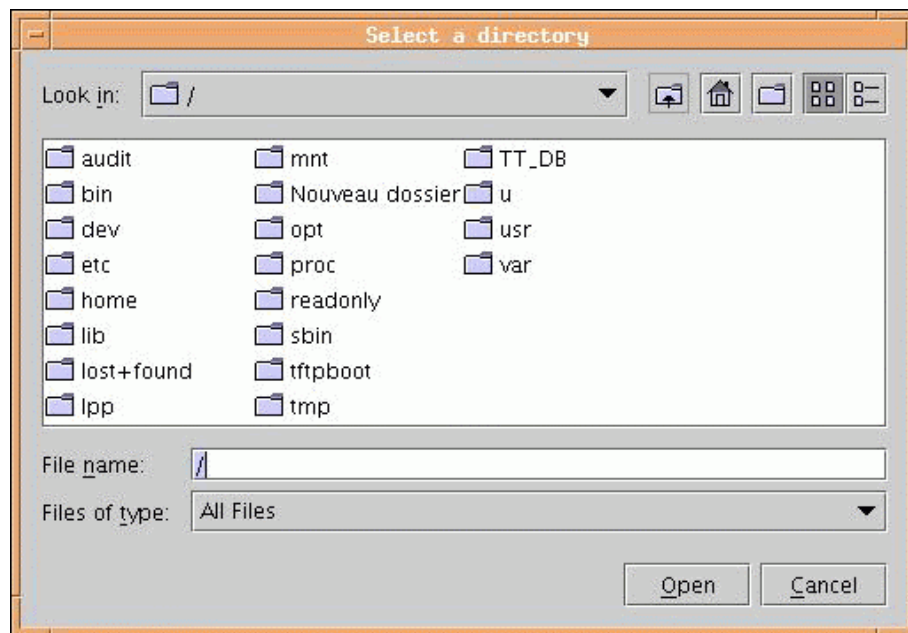
If you select **I do not accept the terms in the license agreement** and then click **Next**, the *Decline License Agreement* window is displayed. On this window, if you click **Yes**, the installation process stops.



Decline License Agreement

4. In the *Installation Location* window, you can either install the files in the default directory or you can specify another directory.

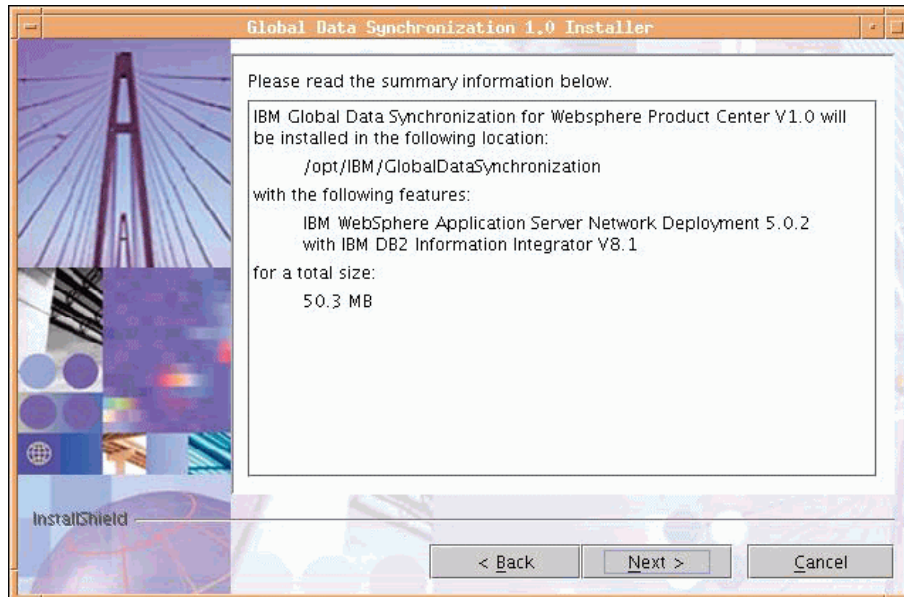
To select a different directory, click **Browse**. The *Select Directory* window is displayed.



Select Directory

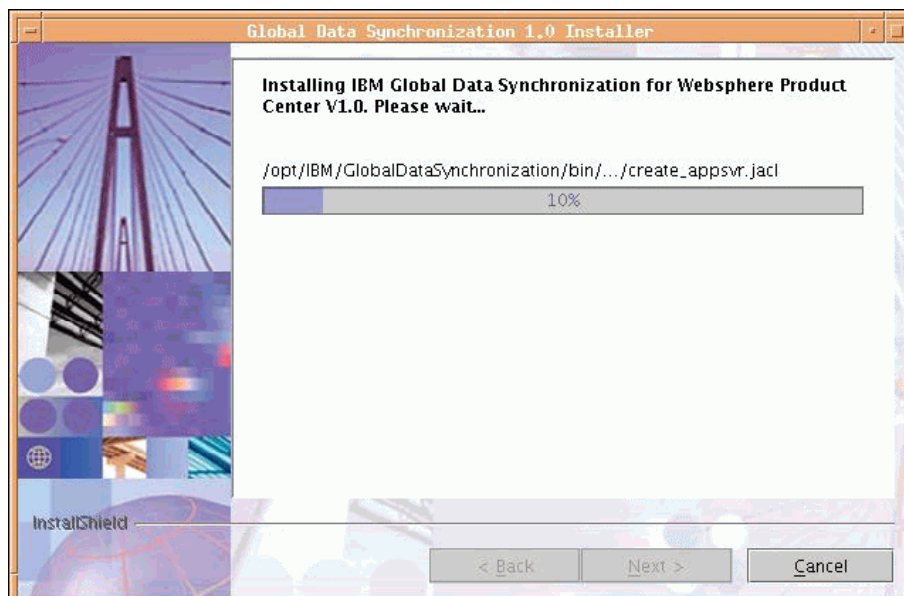
Browse and select a directory and then click **Next**. The *Select Directory* window closes and the selected directory and its path are displayed in the **Directory Name** field.

5. Click **Next**. The *Install* window is displayed. This provides a summary of the components to be installed and the total disk space required for installation.



Installation Summary Information

6. Click **Next**. The *Installation* window is displayed. This indicates the progress of the installation.



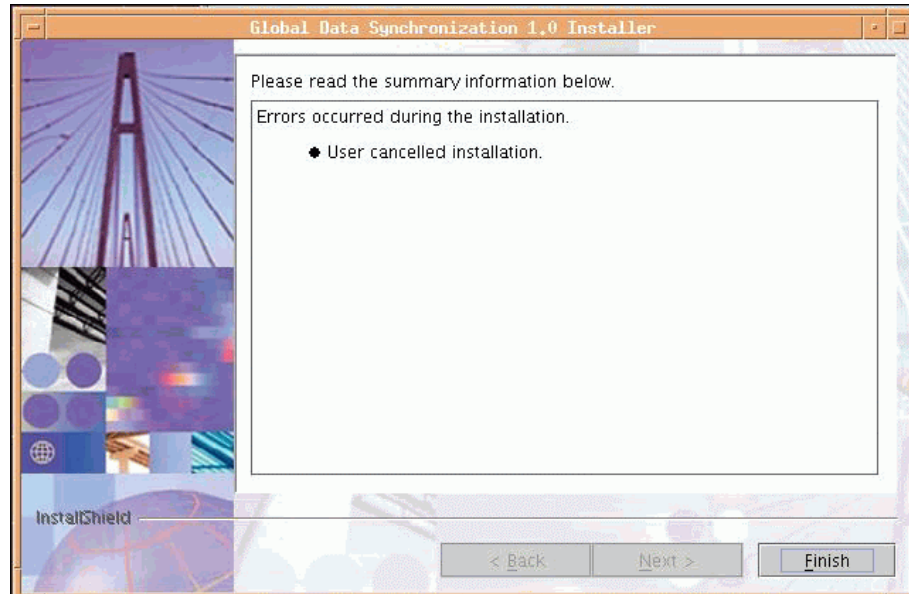
Installation Progress

In case you click **Cancel** to cancel the installation, the *Confirm* dialog box is displayed.



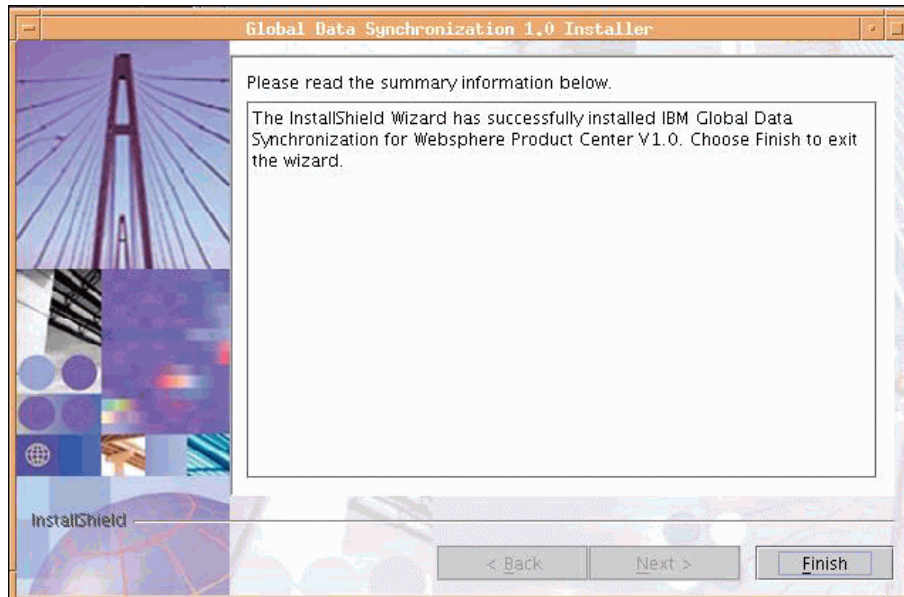
Confirm

If you click **Yes**, the *Installation Cancelled* window is displayed.



Installation - Cancelled

7. When all the files are installed, the *Installation Successful* window is displayed. This provides information whether the installation was successful or not and if there were any errors that occurred during installation.



Installation Successful

8. Click **Finish**. This completes the installation process.

Log Files

The installer log file is `log.txt`. The installed and uninstalled components are logged in this file. The location of the file is `<install location>` directory.

Post Installation Tasks

This section provides the post installation tasks for WebSphere Product Center 5.0.0.2 and GDS Supply.

Configuration Changes for WebSphere Product Center 5.0.0.2

The following configuration changes should be made in WebSphere Product Center 5.0.0.2 instance after installing GDS:

1. Copy `gds.properties` located in `$TOP/etc/default/` directory in the GDS instance to `WPC_$TOP/etc/default/` directory in the WebSphere Product Center 5.0.0.2 instance.

Or

Give a link to `gds.properties` in GDS instance. For example,

```
ln -s /usr/qa/gds/gds_1000_09_websphere5_db2_unix/etc/default/gds.properties  
gds.properties
```

2. Copy `gdsTradeItemFunctions.properties` located in `$TOP/etc/default/` directory in the GDS instance to `WPC_$TOP/etc/default/` directory in the WebSphere Product Center 5.0.0.2 instance.

Or

Give a link to `gdsTradeItemFunctions.properties` in GDS instance. For example,

```
ln -s /usr/qa/gds/gds_1000_09_websphere5_db2_unix/etc/default/  
gdsTradeItemFunctions.properties gdsTradeItemFunctions.properties
```

3. Update the path of `cgd_svr.jar` in the `ccd_rc` file of WebSphere Product Center 5.0.0.2 located in `$TOP/setup` directory. For example,

```
AddJar /usr/qa/gds/gds_1000_09_websphere5_db2_unix/jars/cgd_svr.jar
```

4. Also, manually update this path in CLASSPATH of the `appsrvr` created for WebSphere Product Center 5.0 from WAS Console. Restart WebSphere Product Center 5.0

GDS Post Installation Tasks

The post installation tasks that are required to be done once GDS Supply solution is installed are:

1. In the `.bashrc` file of the GDS solution, do the following changes:

- a. Point `$TOP` to the GDS directory.
- b. Add a parameter `export WPC_INSTALL_DIR=<Directory where WPC is installed>`

For example:

```
export WPC_INSTALL_DIR=/usr/gds/wpc_5002_07_websphere5_db2_unix
```

- c. Add a parameter `WPC_JAR_DIR=<Directory where WPC Jars are located>`

For example:

```
export WPC_JAR_DIR=/usr/gds/wpc_5002_07_websphere5_db2_unix/jars
```

-Or-

```
export WPC_JAR_DIR=WPC_INSTALL_DIR/jars
```

2. Modify the `init_cgd_vars.sh` file located in `$TOP/setup` directory for the parameters `JDK_HOME`, `WAS_HOME`, `WAS_NODENAME`, `WAS_APPSERVERNAME`, and `WAS_VHOST`.

For example,

```
export JDK_HOME=/usr/WebSphere/AppServer/java
```

```
export WAS_HOME=/usr/WebSphere/AppServer
```

```
export WAS_NODENAME=localhost
```

```
export WAS_APPSERVERNAME=gds_reg
```

```
export WAS_VHOST=gds_reg
```

Note!

Ensure that the same values are not specified for `WAS_APPSERVERNAME` and `WAS_VHOST` as given in WebSphere Product Center. Specify different values for GDS instance.

3. Modify the `common.properties` file located in `$TOP/etc/default` directory for the db connection details, `rmi_port`, and `app_svr` port.

Note!

Ensure that the same values are specified for db connection and `rmi_port` as given in WebSphere Product Center. Specify different value for `app_svr` port for GDS instance.

4. Modify the `gds.properties` file located at `$TOP/etc/default` directory for the `company_code` and `gds_app_type` parameters. The value for `company_code` should be the company name as created in Installation Pre-requisites, Step 3.

For example,

```
company_code=<Name of company>
gds_app_type=Supply
```

Note!

The `gds.properties` in `etc/default` directory of the GDS instance and in the WebSphere Product Center instance should have the same changes. Do the changes in one location and then copy it to the `etc/default` directory of WebSphere Product Center. This is for any future change in `gds.properties` also. This is not required if you put a link for `gds.properties` in WebSphere Product Center.

5. In the GDS instance, open the `Report-Definition-Supply.xml` file located in `$TOP/etc/default/` directory and change all occurrences of Trigo GLN to the client specific IP name and GLN. Make the same changes in the WebSphere Product Center instance.

For example,

```
<type>DROP_DOWN</type>
<option selected="true" key="7981315112271">Trigo GLN</option>
```

Here, change the value specified for “key” to client specific GLN and Trigo GLN to client specific IP name.

6. Run the `test_db.sh` script located in the `$TOP/bin` directory to check for database connection. It should be successful.

For example,

```
bash-2.05b# ./test_db.sh
```

The following is displayed.

```
=====
Setting up database connection
=====
database username: dbusr1
database user passwd: dbusr1
database service name: stack6

Database Connection Information
Database server      = DB2/6000 8.1.5
SQL authorization ID = DBUSR1
Local database alias = STACK6
```

7. Run the scripts `create_vhost.sh`, `create_appsvr.sh`, and `install_war.sh` located in the `$TOP/bin/websphere` directory.

Note!

If you are running Node Manager for WAS, create the vhost manually from WAS Admin Console and specify the port on which the GDS Supply solution will run.

8. Run the script `create_gds_supply_schema.sh` located in the `$TOP/src/db/schema/create` directory. This loads the data model for GDS.

For example,

```
create_gds_supply_schema.sh --company_code=<Name of company>
```

This value should be same as given in Step 6.

Note!

Before loading the data model, ensure that WebSphere Product Center is not running. Once the data model is loaded, restart WebSphere Product Center.

9. Run the `start_appsvr.sh` script located in the `$TOP/bin/go/start` directory to start the GDS application. Ensure that WPC instance is running.
10. Access the GDS application at the `appsvr_port` number as specified in the `common.properties` file. For example, <http://9.182.74.226:9777/Login.do>.

Note!

If you stop the GDS solution, it may stop the rmi service of WPC. Therefore, ensure that all services are running correctly for WPC.

Locale/Language Specific Configurations

This section explains the configurations that are required to be done specific to locales or languages.

To configure the language specific attributes, follow the steps explained in Configure Language Specific Attributes section in Chapter 3 – Configuration. After this, create a folder for the locale and copy the files within `en_US` folder to the newly created folder. For example, if the locale is French, create a folder `fr_FR` and then copy the files from `en_US` to `fr_FR`.

Configure DataPool Catalog

The following table provides the configurations that need to be done in DataPoolCatalog in WebSphere Product Center. For more information on DataPool Catalog, refer the *GDS Supply Customization Guide*.

Key	Value	Description
00000778955540000077895554	145	Do not change this value.
MessageID	122	This is a unique ID sequence. This has to be reset to 0 for the first time and then onwards increases by one for each message. This will be repended with a unique date-time combination.
CorrelationIDHeader	226	This is the same as MessageID.
PrincipalHeader	noname	This is the user ID for Transora.
7981315112271.8380160030003	105	This is the combination of Trading Partner GLN and the exchange GLN. These two are separated by a ".". The value is the conversation ID sequence.
ExchangeGLN	8380160030003	GLN of the respective exchange, this needs to be updated as per the target exchange GLN value
ExternalPublicationID	16	This is the unique ID sequence used for each publication message.

GDS Supply Uninstallation

This section provides the steps for uninstalling GDS supply solution.

Uninstallation can be done in two ways.

- Using Command Line
- Using Installer

Using Command Line

To uninstall the GDS supply solution using the command line, type the following at the command prompt:

```
<GDS_installLocation>/_unist/uninstaller.bin -silent
```

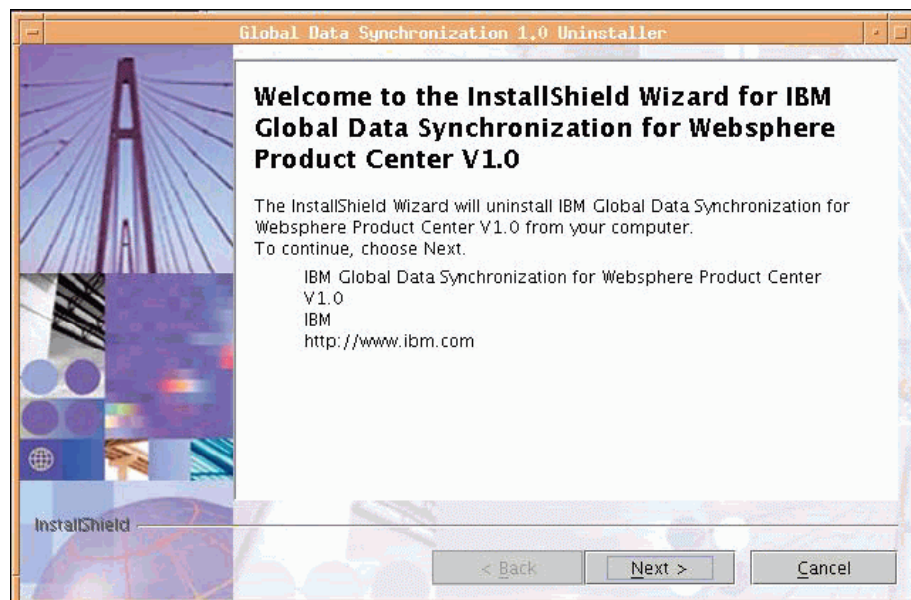
Using Installer

To uninstall the GDS Supply solution using the installer:

1. Access the .bin executable. The *Splash* window is displayed for a few seconds and then the *Welcome* window is displayed. This provides the product name and version that you are uninstalling. Also displays the vendor name and the Website information.

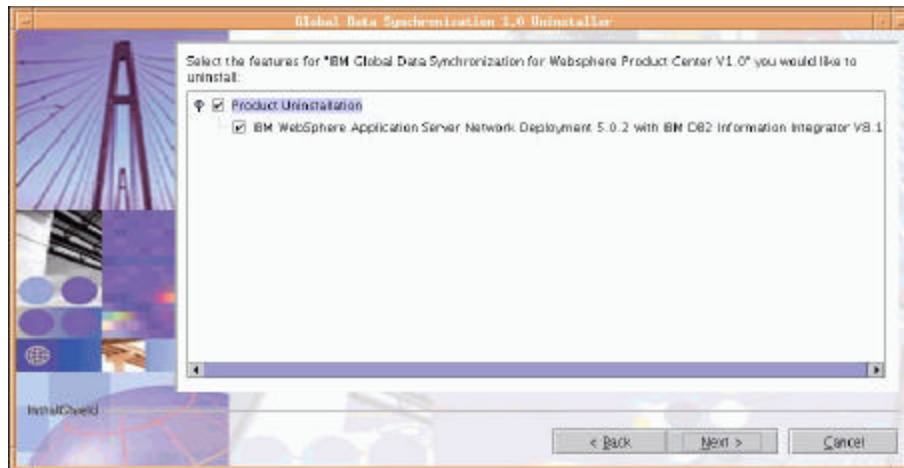


Splash



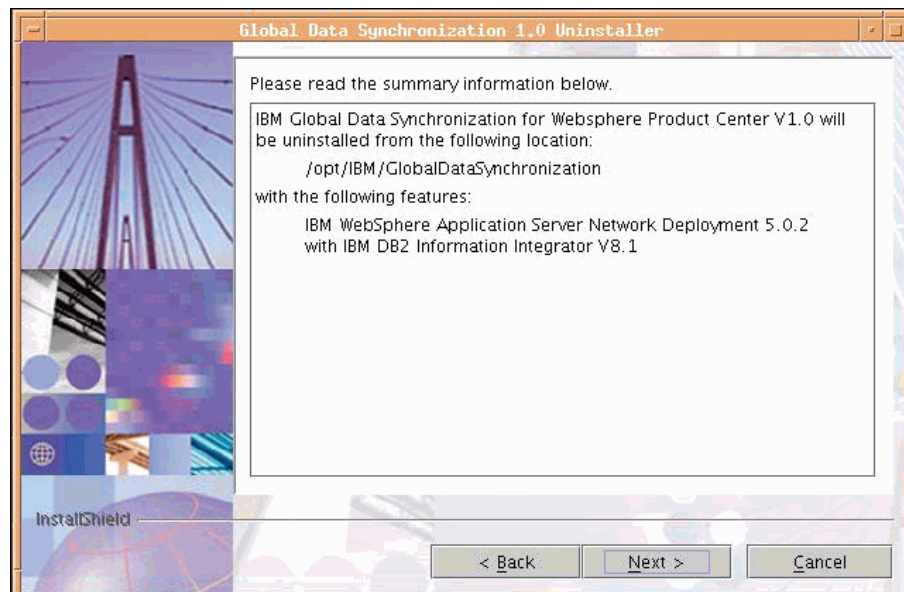
Welcome

2. Click **Next**. The *Select Features* window is displayed.



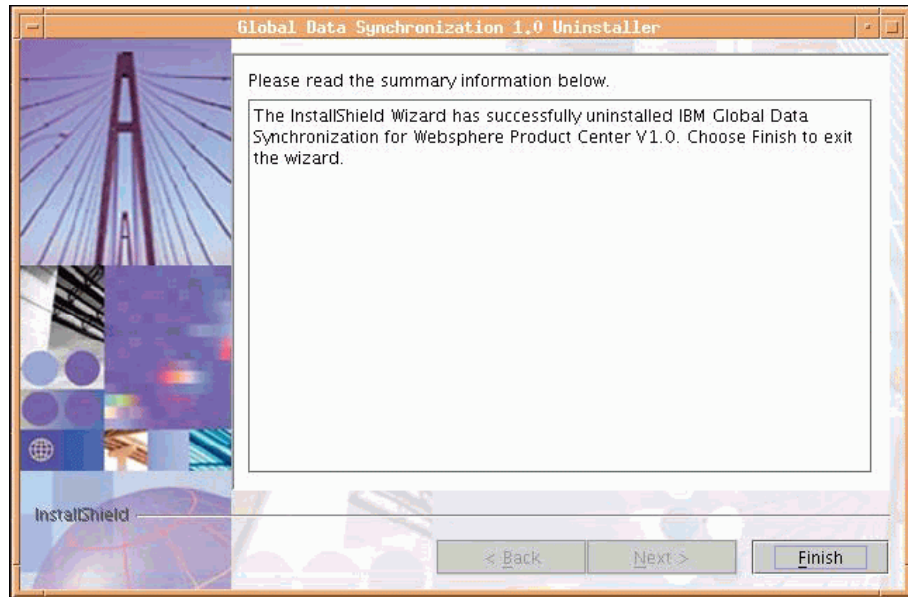
Select Features

3. Select **Product Uninstallation** and click **Next**. The *Summary Information* screen displays the directory location from which GDS is uninstalled. It also provides the features that were selected to be uninstalled.



Summary Information

4. Click **Next**. The uninstallation process starts. Once the process is completed the *Uninstallation Complete* window is displayed.



Uninstallation Complete

5. Click **Finish**. This completes the uninstallation process.

Ch 3 Configuration

This chapter details the configurations that you can make for the GDS Supply solution, according to your requirement. These configurations need to be made in WebSphere Product Center version 5.0. The settings reflect in the GDS Supply solution.

Note!

You need to have working knowledge of WebSphere Product Center version 5.0.

Topics:

- [Modify or Move the Names of Attributes](#)
- [Modify or Move the Names of Attribute Groups](#)
- [Configure Target Markets](#)
- [Configure Language Specific Attributes](#)
- [Configure Interoperability Attributes](#)
- [Configure Trade Item Status](#)
- [Configure Enrichment Completion Criteria](#)
- [Configure Item Data Compliance Check](#)
- [Configure Approval Process](#)
- [Configure Classification Scheme](#)
- [Configure Users and Roles](#)
- [Configure Workflows](#)
- [Mapping Between Internal Category and the UDEX Category](#)

For configuring, you need to log on to WebSphere Product Center version 5.0.

Modify or Move the Names of Attributes






You can change the names of global and global-local attributes that is displayed in the GDS application.

Modify Global Attributes

The Global Attributes of the data pool is mapped to the Global Catalog in WebSphere Product Center.

To change the names of Global Attributes:






1. Go to Product Manager>Catalogs>Catalog Console. You can also modify the spec from the Data Model Manager> Specs/Mappings>Specs Console.
2. Click Global_Attributes_Spec next to Global_Catalog.

3. Click **Edit** to edit the Global_Attribute_Spec.
4. Click  next to Global_Attributes_Spec to add a new attribute.
5. To modify the names of the attributes, click on the attribute name.
6. To move an attribute, click on the  to move the attribute up or  to move the attribute down.
7. To add attributes, click  next to the attribute name for which you want to add a attribute.
8. To delete an attribute, click  for the attribute that you want to delete.
9. Click **Save** to save your changes.

Modify Global-Local Attributes

The Global-local Attributes of the data pool is mapped to the Global-Local Catalog in WebSphere Product Center.

To change the names of Global-Local Attributes:

1. Go to Product Manager>Catalogs>Catalog Console. You can also modify the spec from the Data Model Manager> Specs/Mappings>Specs Console.
2. Click Global_Local_Attributes_Spec next to Global_Local_Catalog.
3. Click **Edit** to edit the Global_Local_Attribute_Spec.
4. Click  next to Global_Local_Attributes_Spec to add a new attribute.
5. To modify the names of the attributes, click on the attribute name.
6. To move an attribute, click on the  to move the attribute up or  to move the attribute down.
7. To add attributes, click  next to the attribute name for which you want to add a attribute.
8. To delete an attribute, click  for the attribute that you want to delete.

Modify or Move the Names of Attribute Groups

Multiple attributes can be arranged into a named group. Attribute groups are defined and named in one place so that they can be reused and easily updated. For example, in the GDS solution, all attributes related to Logistics are grouped under the Logistics tab. The names of these groups can be modified. These changes are done in WebSphere Product Center and they reflect in the GDS solution.

To change the names of Attributes Groups:


1. Go to Data Model Manager>Attribute Collections>Attribute Collection Console.

2. Click on the attribute group that you want to modify. The list of specs associated with the group is displayed.
3. Under **Specs in Collection**, double-click on the spec. The list of attributes for that spec is displayed under **Attributes for Collection in Spec**.
4. To delete the attribute(s), select those attributes that you want to delete, and click **Remove selected attributes**.
5. To add attributes, click **Search**. The list of attributes is displayed.
6. Select the attributes that you want to add and click **Selected**. The selected attributes are added to the attribute collection.
7. Click **Save** to commit your changes.

Configure Target Markets

The list of target markets that are accessible in the GDS solution is preset using WebSphere Product Center.

To setup the Target Markets:

1. Go to Product Manager>Lookup Tables> Lookup Table Console.
2. Select Target_Market_Lookup and click .
3. You can add new target markets, edit or remove existing target markets.
4. You can also enable or disable target markets.
5. Save your settings.

All these changes should reflect in the GDS supply application.

Configure Language Specific Attributes

WebSphere Product Center provides the ability to localize attribute values for any catalog attribute or hierarchy node. Locales are created based on language/country pairs, which provide variances across countries (that is, U.S. English, British English). You can localize a single attribute value or display name.

To localize the Language Specific Attributes:

1. Go to Data Model Manager>Security> Company Attributes.
2. Select the language/country pairs supported.
3. You can also remove the supported languages and countries.
4. Click **Save** to save the spec.
5. Go to each spec, and enable the **Localized** option. The set of locales are displayed. Select the locale and click **Add**.

6. Click on the attribute to localize the attribute's display name.
7. Enable the Localized option under Attribute Collection Associations. The attribute is localized for all the locales.
8. Save your settings.

Configure Interoperability Attributes

Categories are defined for different data pools. Currently, UDEX-UK is supported. To configure the Interoperability Attributes, open the `gds.properties` file located in `etc/default/` directory. Set the value for `Interoperability_UDEX_UK` to `True`. This enables you to specify the Interoperability attribute values in the GDS solution.

Note!

All the UDEX-UK interoperability attributes are not preseeded. For attributes that are not preseeded, refer Transora UDEX-UK interoperability.



To configure the Interoperability Attributes that are not preseeded:

1. In the left navigation pane, from the drop-down menu, select the data pool for which you want to configure the attributes. The list of categories for the selected data pool is displayed.
2. Click on a category. The details for the category are displayed on the right side.
3. If the specs are pre-seeded, edit the spec.
4. If there are no specs, you need to create a new spec.
5. Once the spec is created, add it to the attribute collection.

Configure Trade Item Status

A trade item goes through a number of statuses in the GDS application. If the status display name is changed in WebSphere Product Center, the same will be reflected in GDS Supply UI.

To change the display name for the Trade Item Status:

1. Go to Product Manager>Lookup Tables> Lookup Table Console.
2. For `Item_Status_Lookup` and click .
3. Click on the status name or the **Edit** icon  to rename the status.
4. Click **Save** to commit the changes.

Configure Enrichment Completion Criteria


To configure the Enrichment Completion Criteria:

1. Go to Data Model Manager>Attribute Collections>Attribute Collection Console.
2. Click **Required**.
3. Under **Specs in Collection**, double-click on the spec. The list of attributes for that spec is displayed under **Attributes for Collection in Spec**.
4. To delete the attribute(s), select those attributes that you want to delete, and click **Remove selected attributes**.
5. To add attributes, click **Search**. The list of attributes is displayed.
6. Select the attributes that you want to add and click **Selected**. The selected attributes are added to the attribute collection.
7. Click **Save** to commit your changes.

Configure Trade Item Data Compliance Check

Once the trade item has been enriched, it should be submitted for a compliance check. The validation rules for this compliance check are setup using WebSphere Product Center.

To configure Trade Item Data Compliance Check:

1. Go to Data Model Manager>Scriptings>Scripts Console.
2. From the drop-down menu, select Distribution Script. The *Scripts Console* is displayed.
3. Click on the **Edit** icon  next to Trade Item Link Validation.
4. Edit the script and click **Save** to commit the changes.

Configure Approval Process

The approval process for trade items, trade item links, and trading partners can be automated. This is done by setting the required approval process to ON or OFF in the `gds.properties` file.

To set the Approval Process:

1. At the command prompt, type `$TOP/etc/default/gds.properties`.
2. Change the settings to ON or OFF.

Configure Classification Scheme

Classification scheme is a hierarchical structure of product categories and product attributes. Currently, GDS supports the UDEX classification scheme.

The configuration can be done through the hierarchy mapping console or selecting the hierarchy from the left navigation pane.

To configure the Classification Scheme:

1. From the left navigation pane, select the hierarchy.
2. Select the category that you want to enable.
3. Select the check box for Enabled.

Configure Users and Roles

The roles are pre-created in the solution. The users need to be created. For more information, refer the *Appendix A – Pre-created Roles, Access Control Groups, and Selections for GDS*.

To create a new user:

1. In the left navigation pane, from the drop-down menu, select Default Organization Hierarchy. The hierarchy is displayed under the drop-down menu.
2. Click on the plus sign to expand Default Organization Hierarchy.
3. Point the cursor on Default Organization. Right-click and select **Add User**.
4. Fill in the fields under User Profile.
5. Specify the password for this user.
6. From the list of roles that are displayed, select a role for this user.
7. Click **Save**.
8. Refresh the left navigation pane.
9. Click on view users. The *User Console* displays the newly created user.
10. Enable the new user.

Configure Workflows

During solution setup, you have the option to turn on/off the global attributes enrichment process, variant attribute enrichment process, and the approval process. The following list of approval process can be turned on/off. If any of the approval process is turned OFF, then it is automated within the solution.

- New Item Approval
- Modify Item Approval
- Delete Item Approval

- New Link Approval
- Delete Link Approval
- Modify Link Approval
- New Trading Partner Approval
- Modify Trading Partner Approval
- Delete Trading Partner Approval

To configure the workflows:

1. Go to `$TOP/etc/default/gds.properties` file using any editor.
2. For configuring the global enrichment, set `global_enrichment` to true or false. Similarly for switching the variant enrichment, set `local_enrichment` to true or false.
3. For configuring the approval processes, set the respective process to ON or OFF.
4. Restart the server.

Note:

This configuration can be done when installing the solution using the Install Shield.

Configure Information Provider

The list of information providers that are accessible in the GDS solution is preset using WebSphere Product Center.

To configure the Information Providers:

1. In the left navigation pane, from the drop-down menu, select `Trading_Partner_Catalog`. The hierarchy is displayed under the drop-down menu.
2. Right-click on the country and click **Add Item**. The details page for the trading partner is displayed.
3. Specify the following:
 - a. In the **Name** field, type the name for the Information Provider.
 - b. In the **GLN** field, type the Global Location Number.
 - c. In the **GLN Identifier** field, select any of the available options. Options available are Manufacturer, Exchange, Retailer, and Supplier.
 - d. In the **Country** field, type the country of the Information Provider.
 - e. Specify the status as created and the TP status as Active.
 - f. Specify the item type as Information Provider.
4. Click **Save** to save the settings.

Note!

When creating selections, ensure that the Information Provider that is configured is selected.
For more information, refer Create Selections in *Chapter 4 – Administration*.

Mapping Between Internal Category and the UDEX Category

Internal Category is the categories maintained by the organization. UDEX-UK category is the category in the UDEX UK data pool.

To map the attributes between the Internal Category and the UDEX Category:

1. Go to Product Manager>Hierarchy Maps>Hierarchy Mapping Console.
2. You can create a new map or modify an existing map.
3. Click New to create a new map.
4. Select the Internal Category and then the UDEX category. This maps the selected internal category to the UDEX category.
5. The settings are saved automatically.

Ensure that mapping to UDEX Categories are done only for the Categories accessible by a user. Also, the field "udex_to_internal_hierarchy_mapping_without_security_breach" should be set to true in the `gds.properties` file. If this is not set to true, there will be a performance penalty.

Ch 4 Administration

This chapter provides information about security and user management in GDS Supply solution. WebSphere Product Center 5.0 is used for setting the security and the roles for the various users.

Topics:

- [Security](#)
- [Security Steps](#)

Security

Security requirements for GDS are divided into two parts. They are:

- Functional Security
- Data Security

Functional Security

Functional Security controls the actions that can be performed by the user on the System. Depending on the privileges granted, the user will be able to perform a limited set of actions.

Data Security

Data Security is implemented using the Selections feature in WebSphere Product Center. Security is provided for the Trade Items, Trade Item Links, Trading Partners, Target Markets and Transactions.

Security Steps

The steps to set the security are:

1. Log on to WebSphere Product Center
2. Create a Role
3. Create an Access Control Group (ACG)
4. Create Selections
5. Provide Data Access Privileges
6. Create User

Create a Role

The role is one of the central concepts of the GDS Supply solution. A role is a collection of tasks, services, and information for a user or a group of users. The role defines which service and information the user should be able to access and the activities that can be performed. The role also defines the visualization of the contents and the navigation structure within the solution.

Roles are stored in the WebSphere Product Center database. For information about the roles preceded in the solution, refer *Appendix B – Preceded Roles and Selections for GDS*.

Alternatively, you can create new roles. To do this

- a. Log on to WebSphere Product Center.
- b. Go to Data Model Manager > Security > Role Console.
- c. Click **New**.
- d. Type the name for the role.
- e. From the drop-down menu select default ACG and provide the access privileges for this role.
- f. Save the settings.

The roles and Access Control Groups (ACG) that are set in WebSphere Product Center are applied in GDS.

Create an Access Control Group (ACG)

The Access Control Group is used to control the access levels for each role. Permissions are set to define the type of access granted to the role and the associated entity. When you set up permissions, you specify the level of access for the role and the entity. To specify access rights, you identify them in access control groups.

The ability to control a user's access to view, edit, and delete entities can be restricted based on the access privilege definition of the role that is assigned to the user. To restrict access to an entity, the role defined with restricted access privileges must be associated with the ACG that the entity is using.

Therefore, a single selection can be made available to a specific ACG and all roles that are part of the ACG will have access to that entity. A user is allowed access to an entity once they are assigned to the role.

There are two types of Access Control Groups. They are:

- [UDEX CAT SPECIFIC] ACG – This is the UDEX category specific access control group. The available roles can be:
 - [UDEX CAT SPECIFIC] Global Brand Manager
 - [UDEX CAT SPECIFIC] Global Product Executive

- [UDEX CAT - TM SPECIFIC] Brand Manager
- [[UDEX CAT - TM - ATTR GROUP SPECIFIC] Product Executive
- [[UDEX CAT - TM - ATTR GROUP SPECIFIC] User
- [UDEX CAT - TM SPECIFIC] Variant Publisher
- [TM Specific] ACG – This is the target market specific access control group. The available roles can be:
 - [UDEX CAT - TM SPECIFIC] Brand Manager
 - [[UDEX CAT - TM - ATTR GROUP SPECIFIC] Product Executive
 - [[UDEX CAT - TM - ATTR GROUP SPECIFIC] User
 - [UDEX CAT - TM SPECIFIC] Variant Publisher
 - [TM Specific] Marketing Manager

You can create new ACGs. To do this:

- a. Log on to WebSphere Product Center.
- b. Go to Data Model Manager > Security > Access Control Groups > Access Control Group Console.
- c. Click **New**.
- d. Type the name for the ACG. From the **Role** drop-down menu, select the role that is created in step2.
- e. Provide access privileges for the default ACG. Select the checkboxes for Catalog list, Hierarchy list, Selection list, and Selection Measures list.
- f. Save the settings.

Create Selections

The created ACGs are linked to Selections that are created through WebSphere Product Center. These Selections are used to achieve Category and Target Market based security.

When a Selection is created, it is associated with an ACG, a catalog, and a hierarchy. So, for achieving category-level security, a Selection is created for [UDEX CAT SPECIFIC] ACG, Global_Catalog and UDEX_Hierarchy_UCCNet hierarchy. Similarly, for Target Market based security, Selection is created for [TM Specific] ACG, Global_Local_Catalog and Target_Market hierarchy.

Once the Selection is created, the required Categories are selected. Once this is done, the users associated with the ACGs will have visibility into only those categories/ target markets that are selected in the Selection.

Note!

All Categories (Internal and UDEX) that are accessible through selections must be enabled. If that is not done, the pagination will not be proper, that is the result size may not correspond to the defined page size.

The following selections need to be done:

- a. Global Catalog Selection
- b. Global Local Catalog Selection
- c. Trading Partner Catalog Selection
- d. GLN Selection

For information about preceded Selections, refer *Appendix B – Preceded Roles and Selections for GDS*.

Global Catalog Selection

- a. Go to Product Manager > Selections > Selection Console. Click **New Basic Selection**.
- b. Select Global Catalog from the drop-down.
- c. Select the version.
- d. Select the Access Control Group.
- e. Select the hierarchy as UDEX_Hierarchy_UCCNet. All the categories under Global Local Catalog Hierarchy are displayed.
- f. Type a name for the selection and then select the categories.
- g. Click **Save** to save the selection.

Global Local Catalog Selection

- a. Go to Product Manager > Selections > Selection Console. Click **New Basic Selection**.
- b. Select the version.
- c. Select the Access Control Group.
- d. Select the hierarchy as Target_Market_Hierarchy. All the target markets under for Target_Market_Hierarchy are displayed.
- e. Type a name for the selection and then select the categories.
- f. Click **Save** to save the selection.

Trading Partner Catalog Selection

- a. Go to Product Manager > Selections > Selection Console. Click **New Basic Selection**.
- b. Select Trading Partner Catalog from the drop-down. Select the version.
- c. Select the Access Control Group.
- d. Select the hierarchy as Target_Market_Hierarchy. All the target markets under for Target_Market_Hierarchy are displayed.

- e. Type a name for the selection and then select the target markets.
- f. Click **Save** to save the selection.

GLN Catalog Selection

- a. Go to Product Manager > Selections > Selection Console. Click **New Basic Selection**.
- b. Select <> from the drop-down.
- c. Select the version.
- d. Select the Access Control Group.
- e. Select the hierarchy as IP_Hierarchy. All the target markets under IP_Hierarchy are displayed.
- f. Type a name for the selection and then select the information providers.
- g. Click **Save** to save the selection.

Once the selections have been created, enable the categories.

Provide Data Access Privileges

Go to Security > Access Privileges > Catalog Access Console. Provide access privileges to the attribute groups for the Global Catalog and the Global Local Catalog. You can either make the attribute groups viewable or editable.

Create User

For information about creating the user, refer the section Configure Users and Roles in *Chapter 3 – Configuration*.

Ch 5 Import/Export in GDS

The Import/Export operation allows the user to export or import information from or to GDS. The user can import or export information about trade items, trade item links, and trading partners. This chapter provides a few guidelines for the PSS personnel while implementing GDS for the customer. The various scenarios for import/export are explained. Also provided are sample scripts which show how the scenarios are implemented.

Note!

GDS does not have separate import/export module. For release 1.0, WebSphere Product Center 5.0 is used for import/export.

The import or export depends a lot on the data available at the customer location. Some may not have GTIN as the primary key for trade items, while for some the mandatory fields may be missing. In such cases, the PSS team should setup the import or export process correctly.

If the GTIN is not present in legacy systems, a GTIN generator needs to be plugged in while importing the data from legacy systems. The generated GTIN need not be stored in the legacy systems and can be dynamically generated. Ensure that the generated GTIN is unique. It should be the same every time the data is imported or exported and not be a randomly generated number.

If the source data does not contain mandatory fields (required by GDS), a dummy value needs to be generated. The trade items can be modified after the import.

The trade items can be imported in any desired status. This can be done while performing import or export by modifying the import/export script.

The exchange compliance validation script needs to be called once the data is imported (to ensure data pool compliance).

File Formats for Import/Export

The data can be imported or exported in different file formats. As a sample, imports or exports is provided in CSV (Comma Separated Values) and XML formats. This can be extended to suite the customer's requirements.

Implementation Approach for CSV

A trade item is represented by two specs:

- Global_Attributes_Spec
- Global_Local_Attributes_Spec.

When setting up an export operation, a destination spec needs to be defined that maps to these two specs. The destination spec maps the attribute names of the trade items in the legacy systems to the attribute names of trade items in GDS.

Similarly, when setting up import, a file spec needs to be defined that maps to these two specs. The file spec maps the attribute names of the trade items in GDS to the attribute names of trade items in the legacy systems.

Implementation Approach for XML

Using the GDS Business Object script operation, the xml/csv file can be imported into GDS.

Sample XML

This sample xml file has just the mandatory attributes that is required to create a trade item.

```
<TrigoXML>

<Header>
  <Transaction_Id></Transaction_Id>
  <File_Id>01</File_Id>
  <Record_Id>01</Record_Id>
  <Creation_Date>20040428</Creation_Date>
  <Creation_Time>154015</Creation_Time>
</Header>

<Item>
  <Attribs>

    <GlobalAttribs>

      <GlobalTradeItemNumber>72230000000008</GlobalTradeItemNumber>
      <GTINName>CHILD</GTINName>
      <ProductType>EACH</ProductType>
      <ItemStatus>Approved</ItemStatus>

      <BrandName>Coke</BrandName>
      <Pack>8</Pack>

      <Classification>

        <GlobalClassificationCode>00000001.00000002.000000012</GlobalClassif
icationCode>
        <GlobalClassificationDescription>ALCOHOL BASED
COCKTAILS/MIXES</GlobalClassificationDescription>

        <InternalClassificationCode>10000056</InternalClassificationCode>

        <InternalClassificationDescription>Alcohol</InternalClassificationDesc
ription>
      </Classification>
    </GlobalAttribs>

    <LocalAttribs>
      <TargetMarket>US</TargetMarket>
      <InformationProvider>7981315112271</InformationProvider>
      <InformationProviderName>TEST_GLN</InformationProvider>
      <ManufacturerGLN>US</ManufacturerGLN>
      <IsPrivate>true</IsPrivate>
      <StartAvailabilityDate>30-AUG-2004
00:00</StartAvailabilityDate>
      <MeasurementCharacteristics>

      <Height>
```

```

        <UOM>IN</UOM>
        <Value>30</Value>
    </Height>

    <Width>
        <UOM>IN</UOM>
        <Value>31</Value>
    </Width>

    <Depth>
        <UOM>IN</UOM>
        <Value>31</Value>
    </Depth>

    </MeasurementCharacteristics>

    <OrderingUnitIndicator>true</OrderingUnitIndicator>
</LocalAttribs>

    </Attribs>
</Item>
</TrigoXML>

```

Handling Validations

Three validation scripts have been exposed to check if the trade item is compliant with an exchange. They are.

1. `HashMap TradeItem::validateTradeItem()`

This method validates all the attributes for a `TradeItem` object and returns a `HashMap` of error messages only for those attributes which have failed validation.

2. `String TradeItem::validateTradeItemAttribute(String sAttrPath)`

This method validates the attribute for a `TradeItem` object and returns an error message if the attribute has errors else it returns null.

3. `HashMap TradeItem::validateTradeItemAttributeGroup(String sAttributeGroup)`

This method validates an attribute group for a `TradeItem` object and returns a `HashMap` of error messages only for those attributes which have failed validation.

Based on the business requirement these functions can be called in the import script before saving the trade item.

Scenarios and Sample Scripts

This section lists down the various customer scenarios for import and export and also provides sample scripts for those scenarios.

Note!

For information about how to import or export trade items, links, and trading partners, refer the *WebSphere Product Center User's Guide*.

For Import

The various scenarios for import are:

- [Import Global Trade Items](#)
- [Import Global and Local Trade Items](#)
- [Import Trade Item in a Particular Status](#)
- [Update an Already Existing Trade Item through Import](#)
- [Auto-update the Status of a Trade Item after Import](#)
- [Import the Trade Item and Ensure that it is Compliant with a Particular Exchange](#)
- [Import Trade Item Links in a Particular Status](#)
- [Updating Trade Item Links through Import](#)
- [Auto-update the Status of Trade Item Link after Import](#)
- [Import Trading Partners](#)
- [Import Trading Partners in a Particular Status](#)
- [Auto Update the Status of the Trading Partner after Import](#)
- [Catalog to Catalog Import](#)
- [Notifications after Import](#)

Import Global Trade Items

For this scenario a specmap is created in the system which maps the xml attributes to the Global_Attributes_Spec of the Global_Catalog. Then use the script function specMap.getMappings () which returns a hashmap of the destination paths to the source paths. Using this, the xml nodes are parsed and the corresponding attribute path values are set.

```
logFile = createOtherOut("GDS Sample Import - Import Global Items Only.txt");

var sGTIN = "";
var sGTINName = "";
var sProductType = "";
var sInternalCategoryCode = "";
var sDataPoolCategoryCode = "";
var status = "";

var docFiles = getDocStoreFilesInDirectory("/feed_files/GDS Sample Import -
Import Global Items Only/");
docFiles = docFiles.sort();

var xmlFilePath = docFiles[docFiles.size() - 1];
var xmlFile = getDocByPath(xmlFilePath);
var xmlDoc = new XmlDocument(xmlFile);
var hmAttributePathsToValues = [];

var specMap = getSpecMapByName("GDS XML Global Attributes Spec Map");
if(specMap != null)
{
    var hmDstPathsToSrcPaths = [];
    var hmDstPathsToSrcPaths = specMap.getMappings();

    forEachHmElement(hmDstPathsToSrcPaths, dstPath, srcPath)
    {
        if(dstPath.contains("GlobalTradeItemNumber"))
        {
            sGTIN = parseXMLNode(srcPath.getRidOfRootName());
            logFile.writeln(dstPath+", "+sGTIN);
        }
        else if(dstPath.contains("GTINName"))
        {
            sGTINName =
parseXMLNode(srcPath.getRidOfRootName());
            logFile.writeln(dstPath+", "+sGTINName);
        }
        else if(dstPath.contains("ProductType"))
        {
            sProductType =
parseXMLNode(srcPath.getRidOfRootName());
            logFile.writeln(dstPath+", "+sProductType);
        }
        else if(dstPath.contains("GlobalClassificationCode"))
        {
            sDataPoolCategoryCode =
parseXMLNode(srcPath.getRidOfRootName());

            logFile.writeln(dstPath+", "+sDataPoolCategoryCode);
        }
    }
}
```

```

        }
        else
        {
            var value =
checkString(parseXMLNode(srcPath.getRidOfRootName()), "");
            logFile.writeln(dstPath+" "+value);
            if(value != "")
            {
                hmAttributePathsToValues[dstPath] = value;
                out.writeln(dstPath+" ===== > "+value);
            }
        }
    }

    sInternalCategoryCode =
parseXMLNode("Item/Attribs/GlobalAttribs/Classification/InternalClassificatio
nCode");
    logFile.writeln("InternalCategoryCode,"+sInternalCategoryCode);

    if(sGTIN != ""
        && sGTINName != ""
        && sProductType != ""
        && sInternalCategoryCode != ""
        && sDataPoolCategoryCode != ""
    )
    {
        tradeItem = new
TradeItemSS(sGTIN,sGTINName,sProductType,sInternalCategoryCode,sDataPoolCateg
oryCode);
        if(hmAttributePathsToValues != null &&
hmAttributePathsToValues.size() != 0)
        {
            out.writeln("setting attributes
"+hmAttributePathsToValues);

            tradeItem.setTradeItemAttributesSS(hmAttributePathsToValues);
        }

        tradeItem.saveTradeItemSS();

        createTransaction(tradeItem,"ITEM_GLOBAL_ENRICHMENT_COMPLETED","master
");

        createNotification(tradeItem,"ITEM_GLOBAL_ENRICHMENT_COMPLETED","maste
r");

        out.writeln("=====");
        out.writeln("Global Item Saved");
        out.writeln("=====");
        out.writeln(tradeItem);

        out.writeln("=====");
        out.writeln("Creating Transaction");
        var bCreateTxn =
createTransaction(tradeItem,"ITEM_GLOBAL_ENRICHMENT_COMPLETED","master");
        // out.writeln((bCreateTxn == true) ? "Done":"Failure");
        out.writeln("=====");

        out.writeln("=====");
        out.writeln("Creating Notification");

```

```

        var bCreateNotf =
createNotification(tradeItem,"ITEM_GLOBAL_ENRICHMENT_COMPLETED","master");
//      out.writeln((bCreateNotf == true) ? "Done":"Failure");
        out.writeln("=====");
    }
}

logfile.save("GDS Sample Import - Import Global Items Only.txt");

```

Import Global and Local Trade Items

```

////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////
////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////
// This script inserts a trade item (a global item and its variant) into GDS
in any given status
//
// Assumptions: -
// *****
// 1. Both Global Item and Local Item are being imported.
// 2. The GDS Item Status is mentioned in the Sample XML file.
// 3. The Notification Type is set to Approved while creating Transaction and
Notification. This can be set to anything.
// 4. The XML file is taken from the import and it is always the latest file.
The name of the Import is hardcoded here.
// 5. There are two spec maps created in the system, called,
//    a) GDS XML Global Attributes Spec Map (this maps the Mandatory Global
Attributes to the Sample XML file ).
//    b) GDS XML Local Attributes Spec Map (this maps the Mandatory Local
Attributes to the Sample XML file ).
////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////
////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////

function removeTradeItem(tradeItem, sGTIN)
{
    logfile.writeln("Performing Cleanup.....");
    var items = [];
    items = tradeItem.getItems();

    if(items != null && items.size() != 0)
    {
        var globalItem = items[0];
        var localItem = items[1];
        var gtin_tm_ip = "";

        if(globalItem != null)
        {
            gtin_tm_ip = globalItem.getCtgItemPrimaryKey()+"_XX_XX";
            deleteCtgItem(globalItem);
            logfile.writeln("Global Item "+gtin_tm_ip+" deleted from
Global Catalog");
        }
        if(localItem != null)
        {
            deleteCtgItem(localItem);
            logfile.writeln("Local Item "+gtin_tm_ip+" deleted from
Local Catalog");
        }

        var tradeCtg = getCtgByName("TradeCatalog");
        var tradeCtgItem = tradeCtg.getCtgItemByPrimaryKey(gtin_tm_ip);
    }
}

```

```

        if(tradeCtgItem == null)
        {
            var tradeCtgItemSet =
tradeCtg.getCtgItemByAttributeValue("TradeCatalogPrimarySpec/GTIN",sGTIN);
            if(tradeCtgItemSet != null)
            {
                forEachItemSetElement(tradeCtgItemSet,item)
                {
                    tradeCtgItem = item;
                }
            }
        }

        if(tradeCtgItem != null)
        {
            deleteCtgItem(tradeCtgItem);
            logFile.writeln("TradeItem "+gtin_tm_ip+" deleted from
Trade Catalog");
        }
    }

    // Now remove the category that was created in GTIN_Hierarchy

    var gtinTree = getCategoryTreeByName("GTIN_Hierarchy");
    var gtinCatSet = gtinTree.getCategorySetByPrimaryKey(sGTIN);
    if(gtinCatSet != null && gtinCatSet.getCategorySetSize() != 0)
    {
        forEachCategorySetElement(gtinCatSet,gtinCat)
        {
            gtinCat.deleteCategory();
            logFile.writeln("Category "+sGTIN+" deleted");
            gtinTree.saveCategoryTree();
        }
    }

    logFile.writeln("Cleanup complete....");
}

var logFile = createOtherOut("GDS Sample Import - New TradeItems.txt");
var docFiles = getDocStoreFilesInDirectory("/feed_files/GDS Sample Import -
New TradeItems/");
docFiles = docFiles.sort();

var xmlFilePath = docFiles[docFiles.size() - 1];
var xmlFile = getDocByPath(xmlFilePath);
var xmlDoc = new XmlDocument(xmlFile);

var globalSpecMap = getSpecMapByName("GDS XML Global Attributes Spec Map");
var localSpecMap = getSpecMapByName("GDS XML Local Attributes Spec Map");
catchError(oErr)
{
    forEachXMLNode("Item/")
    {
        var statusFromXML = "";
        var bValueSetForLocal = false;
        var hmGlobalAttributePathsToValues = [];
        var hmLocalAttributePathsToValues = [];

        if(globalSpecMap != null)

```

```

    {
        var sGTIN = "";
        var sGTINName = "";
        var sProductType = "";
        var sInternalCategoryCode = "";
        var sDataPoolCategoryCode = "";

        var hmDstPathsToSrcPaths = [];
        var hmDstPathsToSrcPaths = globalSpecMap.getMappings();

        forEachHmElement(hmDstPathsToSrcPaths, dstPath,
srcPath)
            {
                if(dstPath.endsWith("GlobalTradeItemNumber"))
                    {
                        sGTIN =
parseXMLNode(srcPath.getRidOfRootName().getRidOfRootName());
                        logFile.writeln(dstPath+", "+sGTIN);
                    }
                else if(dstPath.contains("GTINName"))
                    {
                        sGTINName =
parseXMLNode(srcPath.getRidOfRootName().getRidOfRootName());

                        logFile.writeln(dstPath+", "+sGTINName);
                    }
                else if(dstPath.endsWith("ProductType"))
                    {
                        sProductType =
parseXMLNode(srcPath.getRidOfRootName().getRidOfRootName());

                        logFile.writeln(dstPath+", "+sProductType);
                    }
                else
                if(dstPath.endsWith("GlobalClassificationCode"))
                    {
                        sDataPoolCategoryCode =
parseXMLNode(srcPath.getRidOfRootName().getRidOfRootName());

                        logFile.writeln(dstPath+", "+sDataPoolCategoryCode);
                    }
                else if(dstPath.endsWith("GDSItemStatus"))
                    {
                        var globalStatusCtg =
getCtgByName("Item_Status_LookUp");
                        statusFromXML =
checkString(parseXMLNode(srcPath.getRidOfRootName().getRidOfRootName()), "");

                        if(statusFromXML != "" &&
globalStatusCtg.containsByPrimarykey(statusFromXML))
                            {
                                hmGlobalAttributePathsToValues[dstPath] = statusFromXML;
                            }
                        else
                            {
                                hmGlobalAttributePathsToValues[dstPath] = "Draft";
                            }
                    }
                else
                    {

```

```

        var value =
checkString(parseXMLNode(srcPath.getRidOfRootName().getRidOfRootName()), "");
        logfile.writeln(dstPath+", "+value);
        if(value != "")
        {

hmGlobalAttributePathsToValues[dstPath] = value;

logfile.writeln(dstPath+", "+value);
        }
    }
}

sInternalCategoryCode =
parseXMLNode("Attribs/GlobalAttribs/Classification/InternalClassificationCode
");

logfile.writeln("InternalCategoryCode, "+sInternalCategoryCode);

if(sGTIN != ""
    && sGTINName != ""
    && sProductType != ""
    && sInternalCategoryCode != ""
    && sDataPoolCategoryCode != ""
)
{
    tradeItem = new
TradeItemSS(sGTIN, sGTINName, sProductType, sInternalCategoryCode, sDataPoolCateg
oryCode);

    if(tradeItem != null &&
(hmGlobalAttributePathsToValues != null &&
hmGlobalAttributePathsToValues.size() != 0))
    {
        logfile.writeln("Setting attributes for
Global Item "+hmGlobalAttributePathsToValues);

tradeItem.setTradeItemAttributesSS(hmGlobalAttributePathsToValues);
    }
}

// Now set the Local Item

if(localSpecMap != null)
{
    hmDstPathsToSrcPaths = [];
    hmDstPathsToSrcPaths = localSpecMap.getMappings();

    forEachHmElement(hmDstPathsToSrcPaths, dstPath, srcPath)
    {
        if(dstPath.endsWith("GDSItemStatus"))
        {
            var localStatusCtg =
getCtgByName("Item_Status_Local_LookUp");
            statusFromXML =
checkString(parseXMLNode(srcPath.getRidOfRootName().getRidOfRootName()), "");

            if(statusFromXML != "" &&
localStatusCtg.containsByPrimaryKey(statusFromXML))
            {

```

```

        hmLocalAttributePathsToValues[dstPath] = statusFromXML;
    }
    else
    {

        hmLocalAttributePathsToValues[dstPath] = "Draft";
    }
    else
    {
        var value =
checkString(parseXMLNode(srcPath.getRidOfRootName().getRidOfRootName()), "");
        if(value != "")
        {

            hmLocalAttributePathsToValues[dstPath] = value;
            logFile.writeln(dstPath+", "+value);

            if(!dstPath.contains("GlobalTradeItemNumber"))
            {
                bValueSetForLocal = true;
            }
        }
    }

    if(bValueSetForLocal == true)
    {
        if(tradeItem != null &&
(hmLocalAttributePathsToValues != null &&
hmLocalAttributePathsToValues.size() != 0))
        {
            logFile.writeln("Setting attributes for
Local Item "+hmLocalAttributePathsToValues);

            tradeItem.setTradeItemAttributesSS(hmLocalAttributePathsToValues);

            if(checkString(hmGlobalAttributePathsToValues["Global_Attributes_Spec/
GDSItemStatus"], "") == "Draft")
            {

                tradeItem.setTradeItemAttributeSS("Global_Attributes_Spec/GDSItemStatu
s", "Draft With Variant");
                logFile.writeln("Updating Global
status to Draft with Variant since local Item is being inserted");
            }
        }
    }

    var tradeItemSaved = false;

    if(tradeItem != null)
    {
        catchError(saveError)
        {
            tradeItemSaved = tradeItem.saveTradeItemSS();
        }
        if(saveError != null || tradeItemSaved == false)
        {

```

```

        logFile.writeln("There was an error/failure while
saving the tradeitem...");
        logFile.writeln(""+saveError);
changes....");
        logFile.writeln("Now rolling back the

        removeTradeItem(tradeItem,tradeItem.getTradeItemAttributeValueSS("Glob
al_Attributes_Spec/GlobalTradeItemNumber"));
    }
    else
    {

        logFile.writeln("=====");
        logFile.writeln("Trade Item Saved");

        logFile.writeln("=====");
        logFile.writeln(tradeItem);

        logFile.writeln("=====");
        logFile.writeln("Creating Transaction");
        var bCreateTxn =
createTransaction(tradeItem,"NEW_ITEM_APPROVAL_PENDING","master");

        logFile.writeln("====="+bCreateTxn+"=====");

        logFile.writeln("=====");
        logFile.writeln("Creating Notification");
        var bCreateNotf =
createNotification(tradeItem,"NEW_ITEM_APPROVAL_PENDING","master");

        logFile.writeln("====="+bCreateNotf+"=====");

    }
    else
    {
        logFile.writeln("TradeItem is null");
    }
}

logFile.save("GDS Sample Import - New TradeItems.txt");
}
if(oErr != null)
{
    logFile.writeln("ERROR!! "+oErr);
    logFile.save("GDS Sample Import - New TradeItems.txt");
}

```


Import Trade Item in a Particular Status

```
////////////////////////////////////
////////////////////////////////////
// This script updates a trade item into GDS in any given status
//
// Assumptions: -
// *****
// 1. The GDS Item Status is mentioned in the Sample XML file.
// 2. The Notification Type is set to Approved while creating Transaction and
Notification. This can be set to anything.
// But it should correspond to the Item status given in the XML file.
// 3. The XML file is taken from the import and it is always the latest file.
The name of the Import is hardcoded here.
// 4. There are two spec maps created in the system, called,
// a) GDS XML Global Attributes Spec Map (this maps the Mandatory Global
Attributes to the Sample XML file ).
// b) GDS XML Local Attributes Spec Map (this maps the Mandatory Local
Attributes to the Sample XML file ).
////////////////////////////////////
////////////////////////////////////

logFile = createOtherOut("GDS Sample Import - Update TradeItems");

var sGTIN = "";
var sTM = "";
var sIP = "";
var localStatusFound = false;

var docFiles = getDocStoreFilesInDirectory("/feed_files/GDS Sample Import -
Update TradeItems/");
docFiles = docFiles.sort();

var xmlFilePath = docFiles[docFiles.size() - 1];
var xmlFile = getDocByPath(xmlFilePath);
var xmlDoc = new XmlDocument(xmlFile);

var globalSpecMap = getSpecMapByName("GDS XML Global Attributes Spec Map");
var localSpecMap = getSpecMapByName("GDS XML Local Attributes Spec Map");

forEachXMLNode("Item/")
{
    var hmGlobalAttributePathsToValues = [];
    var hmLocalAttributePathsToValues = [];
    var bCheckGlobalStatus = false;

    if(globalSpecMap != null)
    {
        var hmDstPathsToSrcPaths = [];
        var hmDstPathsToSrcPaths = globalSpecMap.getMappings();

        forEachHmElement(hmDstPathsToSrcPaths, dstPath, srcPath)
        {
            if(!dstPath.endsWith("ProductType"))
            {
                if(dstPath.endsWith("GlobalTradeItemNumber"))
                {
                    sGTIN =
checkString(parseXMLNode(srcPath.getRidOfRootName().getRidOfRootName()), "");
                    logFile.writeln(dstPath+" "+sGTIN);
                }
            }
        }
    }
}
```

```

        }
        else if(dstPath.endsWith("GDSItemStatus"))
        {
            var globalStatusCtg =
getCtgByName("Item_Status_LookUp");
            statusFromXML =
checkString(parseXMLNode(srcPath.getRidOfRootName().getRidOfRootName()), "");

            if(statusFromXML != "" &&
globalStatusCtg.containsByPrimaryKey(statusFromXML))
            {

                hmGlobalAttributePathsToValues[dstPath] = statusFromXML;
            }
        }
        else
        {
            var value =
checkString(parseXMLNode(srcPath.getRidOfRootName().getRidOfRootName()), "");
            logFile.writeln(dstPath+", "+value);
            if(value != "")
            {

                hmGlobalAttributePathsToValues[dstPath] = value;
                logFile.writeln(dstPath+", "+value);
            }
        }
    }
}

// Now set local attributes

localSpecMap = getSpecMapByName("GDS XML Local Attributes Spec Map");

if(localSpecMap != null)
{
    hmDstPathsToSrcPaths = [];
    hmDstPathsToSrcPaths = localSpecMap.getMappings();

    forEachHmElement(hmDstPathsToSrcPaths, dstPath, srcPath)
    {
        if(dstPath.endsWith("TargetMarket"))
        {
            sTM =
checkString(parseXMLNode(srcPath.getRidOfRootName().getRidOfRootName()), "XX")
;
            hmLocalAttributePathsToValues[dstPath] = sTM;
            logFile.writeln(dstPath+", "+sTM);
        }
        else if(dstPath.endsWith("InformationProvider"))
        {
            sIP =
checkString(parseXMLNode(srcPath.getRidOfRootName().getRidOfRootName()), "XX")
;
            hmLocalAttributePathsToValues[dstPath] = sIP;
            logFile.writeln(dstPath+", "+sIP);
        }
        else if(dstPath.endsWith("GDSItemStatus"))
        {
            var localStatusCtg =
getCtgByName("Item_Status_Local_LookUp");

```

```

        statusFromXML =
checkString(parseXMLNode(srcPath.getRidOfRootName().getRidOfRootName()), "");

        if(statusFromXML != "" &&
localStatusCtg.containsByPrimaryKey(statusFromXML))
        {
            hmLocalAttributePathsToValues[dstPath] =
statusFromXML;
            bCheckGlobalStatus = true;
        }
        else
        {
            var value =
checkString(parseXMLNode(srcPath.getRidOfRootName().getRidOfRootName()), "");
            if(value != "")
            {
                hmLocalAttributePathsToValues[dstPath] =
value;
                logFile.writeln(dstPath+", "+value);
            }
        }
    }

    if(sGTIN != "")
    {
        tradeItem = getTradeItemSS(sGTIN,sTM,sIP);
        if(tradeItem != null)
        {
            if(bCheckGlobalStatus == true)
            {
                var iItems = tradeItem.getItems();

                if(iItems != null && iItems.size() != 0)
                {
                    if(iItems[0] != null && iItems[1] == null)
// That means the local item doesnt exist and we are trying to create one.
                    {

                        if(checkString(tradeItem.getTradeItemAttributeValueSS("Global_Attributes_Spec/GDSItemStatus"), "") == "Draft")
                        {

                            tradeItem.setTradeItemAttributeSS("Global_Attributes_Spec/GDSItemStatus", "Draft With Variant");

                            tradeItem.saveTradeItemSS();
                            logFile.writeln("Updating
Global status to Draft with Variant since local Item is being set");
                        }
                    }
                }
            }

            if(hmGlobalAttributePathsToValues != null &&
hmGlobalAttributePathsToValues.size() != 0)
            {
                logFile.writeln("setting global attributes
"+hmGlobalAttributePathsToValues);

                tradeItem.setTradeItemAttributesSS(hmGlobalAttributePathsToValues);
            }
        }
    }
}

```

```

        if(hmLocalAttributePathsToValues != null &&
hmLocalAttributePathsToValues.size() != 0)
        {
            logFile.writeln("setting local attributes
"+hmLocalAttributePathsToValues);

            tradeItem.setTradeItemAttributesSS(hmLocalAttributePathsToValues);
        }

        var tradeItemSaved = false;
        catchError(saveError)
        {
            tradeItemSaved = tradeItem.saveTradeItemSS();
        }
        if(saveError != null || tradeItemSaved == false)
        {
            logFile.writeln("There was an error/failure while
saving the tradeitem...");
        }
        else
        {

            logFile.writeln("=====");
            logFile.writeln("Item Saved");

            logFile.writeln("====="+tradeItemSaved+"====="
);
            logFile.writeln(tradeItem);

            logFile.writeln("=====");
            logFile.writeln("Creating Transaction");
            var bCreateTxn =
createTransaction(tradeItem,"MODIFY_ITEM_APPROVED","master");
            // logFile.writeln((bCreateTxn == true)
? "Done":"Failure");

            logFile.writeln("====="+bCreateTxn+"====="
=====);

            logFile.writeln("=====");
            logFile.writeln("Creating Notification");
            var bCreateNotf =
createNotification(tradeItem,"MODIFY_ITEM_APPROVED","master");
            // logFile.writeln((bCreateNotf == true)
? "Done":"Failure");

            logFile.writeln("====="+bCreateNotf+"====="
=====);
        }
    }
}

logFile.save("GDS Sample Import - Update TradeItems");

```

Update an Already Existing Trade Item through Import

Refer the scripts for Import an item in a particular status and Import an item through auto status

Auto-update the Status of the Trade Item after Import

Trade items can be updated with the auto status functionality. It means that if a trade item is being updated and the status is not set in the xml file, the script can correctly set the status of the trade item based on its existing status in the system.

```
////////////////////////////////////  
////////////////////////////////////  
// This script updates a trade item (a global item and its variant) into GDS  
// in any given status  
//  
// Assumptions: -  
// *****  
// 1. Both Global Item and Local Item are being imported.  
// 2. The GDS Item Status is mentioned in the Sample XML file and it is Local  
// Item status.  
// 3. The Notification Type is set to Approved while creating Transaction and  
// Notification. This can be set to anything.  
// But it should correspond to the Item status given in the XML file. In  
// this sample scenario,  
// we have set the local item status to Approved and therefore we are  
// setting the Notification Type to NEW_ITEM_APPROVED.  
// 4. The XML file is taken from the import and it is always the latest file.  
// The name of the Import is hardcoded here.  
// 5. There are two spec maps created in the system, called,  
// a) GDS XML Global Attributes Spec Map (this maps the Mandatory Global  
// Attributes to the Sample XML file ).  
// b) GDS XML Local Attributes Spec Map (this maps the Mandatory Local  
// Attributes to the Sample XML file ).  
////////////////////////////////////  
////////////////////////////////////  
  
function getToStatus(strStatus,checkCompliance)  
{  
    var setStatus = "";  
    var tradeItemStatusSet =  
tradeItemStatusLkp.getCtgItemByAttributeValue("TradeItem_AutoStatus_LookUp_Sp  
ec/From_Status",strStatus);  
    if(tradeItemStatusSet != null)  
    {  
        forEachItemSetElement(tradeItemStatusSet, statusItem)  
        {  
            if(checkCompliance == true)  
            {  
  
                if(checkString(statusItem.getCtgItemAttrib("TradeItem_AutoStatus_LookU  
p_Spec/Compliance_Check_Required"),"") == "YES")  
                {  
                    var toStatus =  
checkString(statusItem.getCtgItemAttrib("TradeItem_AutoStatus_LookUp_Spec/To_  
Status"),"");  
  
                    if(toStatus != "")  
                    {  
                        setStatus = toStatus;  
                    }  
                }  
            }  
        }  
    }  
}
```

```

        notif =
checkString(statusItem.getCtgItemAttrib("TradeItem_AutoStatus_LookUp_Spec/Not
ification"),"");
        txn =
checkString(statusItem.getCtgItemAttrib("TradeItem_AutoStatus_LookUp_Spec/Tra
nsaction"),"");
        break;
    }
}
else
{
    if(checkString(statusItem.getCtgItemAttrib("TradeItem_AutoStatus_LookU
p_Spec/Compliance_Check_Required"),"") == "NO")
    {
        var toStatus =
checkString(statusItem.getCtgItemAttrib("TradeItem_AutoStatus_LookUp_Spec/To_
Status"),"");
        if(toStatus != "")
        {
            setStatus = toStatus;
            notif =
checkString(statusItem.getCtgItemAttrib("TradeItem_AutoStatus_LookUp_Spec/Not
ification"),"");
            txn =
checkString(statusItem.getCtgItemAttrib("TradeItem_AutoStatus_LookUp_Spec/Tra
nsaction"),"");
            break;
        }
    }
}
}
return setStatus;
}

catchError(oError)
{
    logfile = createOtherOut("GDS Sample Import - Update Global And Local Items -
Auto Status");
    var tradeItemStatusLkp = getCtgByName("TradeItem_AutoStatus_Lookup");
    var notif = "";
    var txn = "";

    var sGTIN = "";
    var sTM = "";
    var sIP = "";
    var globalAttributesModified = false;
    var localAttributesModified = false;

    var docFiles = getDocStoreFilesInDirectory("/feed_files/GDS Sample Import -
TradeItems AutoStatus/");
    docFiles = docFiles.sort();

    var xmlFilePath = docFiles[docFiles.size() - 1];
    logfile.writeln(xmlFilePath);
    var xmlFile = getDocByPath(xmlFilePath);

```

```

var xmlDoc = new XmlDocument(xmlFile);

var globalSpecMap = getSpecMapByName("GDS XML Global Attributes Spec Map");
var localSpecMap = getSpecMapByName("GDS XML Local Attributes Spec Map");

    foreachXMLNode("Item/")
    {
        var hmAttributeGlobalPathsToValues = [];
        var hmAttributeLocalPathsToValues = [];
        var bProcessVariant = true;
        if(globalSpecMap != null)
        {
            var hmDstPathsToSrcPaths = [];
            var hmDstPathsToSrcPaths = globalSpecMap.getMappings();

            foreachHmElement(hmDstPathsToSrcPaths, dstPath, srcPath)
            {
                if(!dstPath.endsWith("ProductType"))
                {

                    if(dstPath.endsWith("GlobalTradeItemNumber"))
                    {
                        sGTIN =
checkString(parseXMLNode(srcPath.getRidOfRootName().getRidOfRootName()), "");
                        logFile.writeln(dstPath+", "+sGTIN);
                    }
                    else
                    {
                        var value =
checkString(parseXMLNode(srcPath.getRidOfRootName().getRidOfRootName()), "");
                        if(value != "")
                        {

                            hmAttributeGlobalPathsToValues[dstPath] = value;

                            logFile.writeln(dstPath+", "+value);

                            globalAttributesModified =
true;
                        }
                    }
                }
            }
        }

        // Now set local attributes

        if(localSpecMap != null)
        {
            hmDstPathsToSrcPaths = [];
            hmDstPathsToSrcPaths = localSpecMap.getMappings();

            foreachHmElement(hmDstPathsToSrcPaths, dstPath, srcPath)
            {
                if(dstPath.endsWith("TargetMarket"))
                {
                    sTM =
checkString(parseXMLNode(srcPath.getRidOfRootName().getRidOfRootName()), "XX"
);
                    hmAttributeLocalPathsToValues[dstPath] =
sTM;
                    logFile.writeln(dstPath+", "+sTM);
                }
            }
        }
    }

```

```

        }
        else if(dstPath.endsWith("InformationProvider"))
        {
            sIP =
checkString(parseXMLNode(srcPath.getRidOfRootName().getRidOfRootName()),"XX")
;
            hmAttributeLocalPathsToValues[dstPath] =
sIP;
            logFile.writeln(dstPath+","+sIP);
        }
        else
        {
            var value =
checkString(parseXMLNode(srcPath.getRidOfRootName().getRidOfRootName()),"");
            if(value != "")
            {
                hmAttributeLocalPathsToValues[dstPath] = value;
                logFile.writeln(dstPath+","+value);
                localAttributesModified = true;
            }
        }
    }
}

if(sGTIN != "")
{
    tradeItem = getTradeItemSS(sGTIN,STM,sIP);

    if(tradeItem != null)
    {
        // Get the current global item status
        var globalStatus =
checkString(tradeItem.getTradeItemAttributeValueSS("Global_Attributes_Spec/GD
SItemStatus"),"");
        logFile.writeln("Global Status is "+globalStatus);
        var localStatus =
checkString(tradeItem.getTradeItemAttributeValueSS("Global_Local_Attributes_S
pec/GDSItemStatus"),"");
        logFile.writeln("Local Status is "+localStatus);

        if(globalStatus != "" && globalAttributesModified
== true)
        {
            var globalStatusToBeSet =
getToStatus(globalStatus,false);
            if(globalStatusToBeSet != "")
            {
                tradeItem.setTradeItemAttributeSS("Global_Attributes_Spec/GDSItemStatu
s",globalStatusToBeSet);
                logFile.writeln("Setting Global
status to "+globalStatusToBeSet);
            }
            else
            {
                logFile.writeln("Could not retrieve
Global Status from Lookup table");
            }
        }

        if((localAttributesModified == true &&
globalStatus != "") && bProcessVariant == true)

```



```

        {
            logfile.writeln(" localStatus is
:"+localStatus);
            if(localStatus == "")
            {
                // Local item is currently nor
                // Update the global item status to
                Pending Variant Creation.and set the Local Item status to Draft

                tradeItem.setTradeItemAttributeSS("Global_Attributes_Spec/GDSItemStatu
s", "Pending Variant Creation");
                var globalItemSaved =
                tradeItem.saveTradeItemSS();
                logfile.writeln("Global Item Saved =
"+globalItemSaved);
                localStatus = "Draft";
                tradeItem =
                getTradeItemSS(sGTIN,sTM,sIP);
            }

            var localStatusToBeSet =
            getToStatus(localStatus,false);
            if(localStatusToBeSet != "")
            {
                tradeItem.setTradeItemAttributeSS("Global_Local_Attributes_Spec/GDSite
mStatus",localStatusToBeSet);
                logfile.writeln("Setting Local status
to "+localStatusToBeSet);
            }
            else
            {
                logfile.writeln("Could not retrieve
Local Status from Lookup table");
            }

            // Setting attributes to make the TradeItem
            compliant

            tradeItem.setTradeItemAttributeSS("Global_Local_Attributes_Spec/EANUCC
/EANUCCType", "EN");

            tradeItem.setTradeItemAttributeSS("Global_Local_Attributes_Spec/EANUCC
/EANUCCCode", "111111111111");

            tradeItem.setTradeItemAttributeSS("Global_Local_Attributes_Spec/Measur
eCharacteristics/NetWeight/Value", "10");

            tradeItem.setTradeItemAttributeSS("Global_Local_Attributes_Spec/Measur
eCharacteristics/NetWeight/UOM", "KG");

        }

        if(hmAttributeGlobalPathsToValues != null &&
hmAttributeGlobalPathsToValues.size() != 0)
        {
            logfile.writeln("setting Global attributes
"+hmAttributeGlobalPathsToValues);

            tradeItem.setTradeItemAttributesSS(hmAttributeGlobalPathsToValues);

```

```

    }

    if((hmAttributeLocalPathsToValues != null &&
hmAttributeLocalPathsToValues.size() != 0) && bProcessVariant == true)
    {
        logFile.writeln("setting Local attributes
"+hmAttributeLocalPathsToValues);

        tradeItem.setTradeItemAttributesSS(hmAttributeLocalPathsToValues);
    }

    var tradeItemValidity = [];
//    tradeItemValidity = tradeItem.validateTradeItem();

    if(tradeItemValidity != null &&
tradeItemValidity.size() != 0)
    {
        logFile.writeln("Trade Item not
Valid...Error Attributes are...");

        forEachHmElement(tradeItemValidity,attributePath, errorMsg)
        {
            logFile.writeln(attributePath+" , "
+errorMsg);
        }
    }
    else
    {
        var tradeItemSaved = false;
        catchError(saveError)
        {
            tradeItemSaved =
tradeItem.saveTradeItemSS();
        }
        if(saveError != null || tradeItemSaved ==
false)
        {
            logFile.writeln("There was an
error/failure while saving the tradeitem...");
        }
        else
        {

            logFile.writeln("=====");
            logFile.writeln("Item Saved ");

            logFile.writeln("====="+tradeItemSaved+"=====");

            logFile.writeln(tradeItem);

            if(txn != "" && txn != null)
            {

                logFile.writeln("=====");
                logFile.writeln("Creating
Transaction");

                var bCreateTxn =
createTransaction(tradeItem,txn,"master");

                //
                logFile.writeln((bCreateTxn == true) ? "Done":"Failure");

                logFile.writeln("====="+bCreateTxn+"=====");
            }
        }
    }

```

```

    }
    if(notf != "" && notf != null)
    {
        logfile.writeln("=====");
        logfile.writeln("Creating
Notification");
        var bCreateNotf =
createNotification(tradeItem,notf,"master");
        //
        logfile.writeln((bCreateNotf == true) ? "Done":"Failure");
        logfile.writeln("====="+bCreateNotf+"=====");
        =====
    }
}
}
}
}
}
}
}
if(oError != null)
{
    logfile.save("GDS Sample Import - Update Global And Local Items - Auto
Status");
}
logfile.save("GDS Sample Import - Update Global And Local Items - Auto
Status");

```

The following table shows the rules that govern auto status of trade items. In the sample script shown above, a lookup table with the name TradeItem_AutoStatus_Lookup is referenced which is the same as shown.

From Status	To Status	Compliance Check Required	Item Type	Notification	Transaction
Draft	Draft	NO	Local Item and Global Item		0
Draft With Variant	Draft With Variant	NO	Global Item		
Global Attributes Modified Locally	Global Attributes Modified Locally	YES	Global Item		0
Global Enrichment Completed	Global Enrichment Completed	NO	Global Item		
Pending Variant Creation	Pending Variant Creation	NO	Global Item		

From Status	To Status	Compliance Check Required	Item Type	Notification	Transaction
Modified Compliant	Modified Compliant	YES	Global Item		
Modified Compliant Approval Pending	Modified Compliant Approval Pending	YES	Global Item		
Modified Locally	Modified Compliant Approval Pending	YES	Global Item	MODIFY_ITEM_APPROVAL_PENDING	MODIFY_ITEM_APPROVAL_PENDING
Complete	Edited	NO	Local Item		0
Compliant	Edited	NO	Local Item		0
Compliant	Compliant	YES	Local Item		
Approved	Edited	NO	Local Item		0
Rejected	Compliant	YES	Local Item		
Registered	Modified Locally	YES	Local Item and Global Item	MODIFY_ITEM_APPROVED	MODIFY_ITEM_APPROVED

Import Trade Item and Ensure that it is Compliant with a Particular Exchange

Refer the scripts provided for Auto-update the Status of an Item after Import. Also refer the [Handling Validations](#) section.

Import Trade Item Links in a Particular Status

```

logFile = createOtherOut("GDS Sample Import - Import TradeItem Links");

var docFiles = getDocStoreFilesInDirectory("/feed_files/GDS Sample Import - Import TradeItem Links/");
docFiles = docFiles.sort();

var xmlFilePath = docFiles[docFiles.size() - 1];
var xmlFile = getDocByPath(xmlFilePath);
var xmlDoc = new XmlDocument(xmlFile);

foreachXMLNode("Links/Link")
{
    var sParentGTIN = checkString(parseXMLNode("Parent/ParentGTIN"), "");
    out.writeln(sParentGTIN);
    if(sParentGTIN != "")
    {
        foreachXMLNode("Child")
        {
            var childGTIN =
checkString(parseXMLNode("ChildGTIN"), "");
            var quantity = checkInt(parseXMLNode("Quantity"), 0);

```

```

        var status = checkString(parseXMLNode("Status"), "");
        out.writeln(childGTIN);

        if(childGTIN != "")
        {
            var tradeItemLink = new
TradeItemLink(sParentGTIN, childGTIN, quantity);
            if(tradeItemLink != null)
            {
                if(status != "")
                {

                    tradeItemLink.setLinkAttribute("Status", status);
                }

                var linkSaved =
tradeItemLink.saveTradeItemLink();

                logfile.writeln("=====");
                logfile.writeln("TradeItem Link
"+sParentGTIN+" <====>"+childGTIN+" Saved");

                logfile.writeln("====="+linkSaved+"=====");

                logfile.writeln("=====");
                logfile.writeln("Creating Transaction");
                var bCreateTxn =
createTransaction(tradeItemLink, "MODIFY_ITEM_LINK_APPROVAL_PENDING", "master")
;
                // logfile.writeln((bCreateTxn ==
true) ? "Done":"Failure");

                logfile.writeln("====="+bCreateTxn+"=====");

                logfile.writeln("=====");
                logfile.writeln("Creating Notification");
                var bCreateNotf =
createNotification(tradeItemLink, "MODIFY_ITEM_LINK_APPROVAL_PENDING", "master"
);
                // logfile.writeln((bCreateNotf
== true) ? "Done":"Failure");

                logfile.writeln("====="+bCreateNotf+"=====");

            }
        }
    }
}

logfile.save("GDS Sample Import - Import TradeItem Links");

```

Sample XML

The sample XML for trade item link is as shown.

```
<TrigoXML>
<Header>
<Transaction_Id></Transaction_Id>
<File_Id>01</File_Id>
<Record_Id>01</Record_Id>
<Creation_Date>09092004</Creation_Date>
<Creation_Time>161226</Creation_Time>
</Header>
<Links>
<Link>
<Parent>
<ParentGTIN>30000000000001</ParentGTIN>
</Parent>
<Child>
<ChildGTIN>11111111111113</ChildGTIN>
<Quantity>1</Quantity>
<Status>Approved</Status>
</Child>
</Link>
<Link>
<Parent>
<ParentGTIN>30000000000001</ParentGTIN>
</Parent>
<Child>
<ChildGTIN>55555555555555</ChildGTIN>
<Quantity>1</Quantity>
<Status>Approved</Status>
</Child>
</Link>
<Link>
<Parent>
<ParentGTIN>65555555555552</ParentGTIN>
</Parent>
<Child>
<ChildGTIN>55555555555555</ChildGTIN>
<Quantity>1</Quantity>
<Status>Approved</Status>
</Child>
</Link>
<Link>
<Parent>
<ParentGTIN>79819384738924</ParentGTIN>
</Parent>
<Child>
<ChildGTIN>11111111111113</ChildGTIN>
<Quantity>1</Quantity>
<Status>Draft</Status>
</Child>
</Link>
</Links>
</TrigoXML>
```

Update Trade Item Links through Import

```
function getToStatus(strStatus,checkCompliance)
{
    var setStatus = "";
    var tradeItemLinksStatusSet =
tradeItemStatusLkp.getCtgItemByAttributeValue("TradingItemLink_AutoStatus_Loo
kup_Spec/From_Status",strStatus);
    if(tradeItemLinksStatusSet != null)
    {
        forEachItemSetElement(tradeItemLinksStatusSet, statusItem)
        {
            var toStatus =
checkString(statusItem.getCtgItemAttrib("TradingItemLink_AutoStatus_Lookup_Sp
ec/To_Status"),"");
            if(toStatus != "")
            {
                setStatus = toStatus;
                notf =
checkString(statusItem.getCtgItemAttrib("TradingItemLink_AutoStatus_Lookup_Sp
ec/Notification"),"");
                txn =
checkString(statusItem.getCtgItemAttrib("TradingItemLink_AutoStatus_Lookup_Sp
ec/Transaction"),"");
                break;
            }
        }
    }
    return setStatus;
}

logfile = createOtherOut("GDS Sample Import - Update TradeItem Links");
var tradeItemStatusLkp = getCtgByName("TradingItemLink_AutoStatus_Lookup");

var docFiles = getDocStoreFilesInDirectory("/feed_files/GDS Sample Import -
Update TradeItem Links/");
docFiles = docFiles.sort();

var xmlFilePath = docFiles[docFiles.size() - 1];
var xmlFile = getDocByPath(xmlFilePath);
var xmlDoc = new XmlDocument(xmlFile);

forEachXMLNode("Links/Link")
{
    var sParentGTIN = checkString(parseXMLNode("Parent/ParentGTIN"),"");
    out.writeln(sParentGTIN);
    if(sParentGTIN != "")
    {
        forEachXMLNode("Child")
        {
            var childGTIN =
checkString(parseXMLNode("ChildGTIN"),"");
            var quantity = checkInt(parseXMLNode("Quantity"),0);
            var status = checkString(parseXMLNode("Status"),"");
            out.writeln(childGTIN);

            if(childGTIN != "" && sParentGTIN != "")
            {
```

```

        var tradeItemLink = getTradeItemLink(sParentGTIN,
childGTIN);
        if(tradeItemLink != null)
        {
            tradeItemLink.setLinkAttribute("Quantity","0");

            if(status != "")
            {
                tradeItemLink.setLinkAttribute("Status",status);
            }
            else
            {
                var currentStatus =
tradeItemLink.getLinkAttributeValue("Status");
                var toStatus =
checkString(getToStatus(currentStatus,false),"");
                if(toStatus != "")
                {
                    tradeItemLink.setLinkAttribute("Status",toStatus);
                }
            }

            var linkSaved =
tradeItemLink.saveTradeItemLink();

            logfile.writeln("=====");
            logfile.writeln("TradeItem Link
"+sParentGTIN+ " <====>" +childGTIN+ " Saved");

            logfile.writeln("====="+linkSaved+"=====");

            if(txn != "" && txn != null)
            {
                logfile.writeln("=====");
                logfile.writeln("Creating
Transaction");
                var bCreateTxn =
createTransaction(tradeItemLink,txn,"master");
                //
                logfile.writeln((bCreateTxn == true) ? "Done":"Failure");

                logfile.writeln("====="+bCreateTxn+"=====");

            }

            if(notf != "" && notf != null)
            {
                logfile.writeln("=====");
                logfile.writeln("Creating
Notification");
                var bCreateNotf =
createNotification(tradeItemLink,notf,"master");
                //
                logfile.writeln((bCreateNotf == true) ? "Done":"Failure");
            }
        }
    }
}

```



```

        logFile.writeln("====="+bCreateNotf+"=====");
        =====");
    }
}
}
}
}
}
}
}

logFile.save("GDS Sample Import - Update TradeItem Links");

```

Auto-update the Status of Trade Item Links after Import

Trade Item Links can be updated with the auto status functionality. It means that if a trade item link is being updated and the status is not set in the xml file, the script can correctly set the status of the trade item link based on its existing status in the system. The following table shows the rules that govern auto status of trade item links. In the sample script shown above, a lookup table with the name TradingItemLink_AutoStatus_Lookup is referenced which is the same as shown.

From_Status	To_Status	Notification	Transaction
Draft	Draft		
Approved	Edited	MODIFIED_ITEM_LINK_A PPROVAL_PENDING	MODIFIED_ITEM_LINK_APP ROVAL_PENDING
Rejected	Edited	MODIFIED_ITEM_LINK_A PPROVAL_PENDING	MODIFIED_ITEM_LINK_APP ROVAL_PENDING
Registered	Modified Locally	MODIFIED_ITEM_LINK_ APPROVED	MODIFIED_ITEM_LINK_APP ROVED
Modified Locally	Modified Locally		

Import Trading Partners

```

logFile = createOtherOut("GDS Sample Import - New TradingPartners");

var sGLN = "";
var sTPName = "";
var sCountry = "";
var sGLNID = "";
var status = "";
var tpSaved = false;

var docFiles = getDocStoreFilesInDirectory("/feed_files/GDS Sample Import -
New TradingPartners/");
docFiles = docFiles.sort();

var xmlFilePath = docFiles[docFiles.size() - 1];
var xmlFile = getDocByPath(xmlFilePath);
var xmlDoc = new XmlDocument(xmlFile);

forEachXMLNode("TradingPartner/")

```

```

{
    sGLN = checkString(parseXMLNode("Attribs/GlobalLocationNumber"), "");
    sTPName = checkString(parseXMLNode("Attribs/TradingPartnerName"), "");
    sCountry = checkString(parseXMLNode("Attribs/Country"), "");
    sGLNID = checkString(parseXMLNode("Attribs/GLNIdentifier"), "");
    status = checkString(parseXMLNode("Attribs/Status"), "");

    if(sGLN != "" && sTPName != "" && sCountry != "" && sGLNID != "" &&
status != "")
    {
        var tradingPartner = getTradingPartner(sGLN);

        if(tradingPartner == null)
        {
            tradingPartner = new
TradingPartner(sGLN, sTPName, sCountry, sGLNID);
            if(status != null && status != "")
            {

                tradingPartner.setPartnerAttribute("GLN_Spec/Status", status);
            }

            tpSaved = tradingPartner.saveTradingPartner();

            logFile.writeln("=====");
            logFile.writeln("Trading Partner Saved");

            logFile.writeln("====="+tpSaved+"=====");
        }

        logFile.writeln("=====");
        logFile.writeln("Creating Transaction");
        var bCreateTxn =
createTransaction(tradingPartner, "NEW_TRADING_PARTNER_APPROVED", "master");
        //          logFile.writeln((bCreateTxn == true) ?
"Done":"Failure");

        logFile.writeln("====="+bCreateTxn+"=====");

        logFile.writeln("=====");
        logFile.writeln("Creating Notification");
        var bCreateNotf =
createNotification(tradingPartner, "NEW_TRADING_PARTNER_APPROVED", "master");
        //          logFile.writeln((bCreateNotf == true) ?
"Done":"Failure");

        logFile.writeln("====="+bCreateNotf+"=====");

        logFile.save("GDS Sample Import - New TradingPartners");

    }
    else
    {
        logFile.writeln("Trading Partner "+sGLN+" already
exists");
    }
}
else

```

```

    {
        logFile.writeln("Some Mandatory Attribute is missing");
    }
}

```

Sample XML

The Sample XML file for TradingPartners is given below

```

<TrigoXML>
<Header>
<Transaction_Id></Transaction_Id>
<File_Id>01</File_Id>
<Record_Id>01</Record_Id>
<Creation_Date>08092004</Creation_Date>
<Creation_Time>114441</Creation_Time>
</Header>
<TradingPartner>
<Attribs>
<GlobalLocationNumber>4444444444772</GlobalLocationNumber>
<TradingPartnerName>test</TradingPartnerName>
<GLNIdentifier>Retailer</GLNIdentifier>
<Country>Egypt</Country>
<Status>Draft</Status>
</Attribs>
</TradingPartner>
<TradingPartner>
<Attribs>
<GlobalLocationNumber>4444576777779</GlobalLocationNumber>
<TradingPartnerName>test ff</TradingPartnerName>
<GLNIdentifier>Manufacturer</GLNIdentifier>
<Country>Egypt</Country>
<Status>Draft</Status>
</Attribs>
</TradingPartner>
</TrigoXML>

```

Import Trading Partners in a Particular Status

```

function getToStatus(strStatus,checkCompliance)
{
    var setStatus = "";
    var tradingPartnerStatusSet =
tradingPartnerStatusLkp.getCtgItemByAttributeValue("TradingPartner_AutoStatus
_Lookup_Spec/From_Status",strStatus);
    if(tradingPartnerStatusSet != null)
    {
        forEachItemSetElement(tradingPartnerStatusSet, statusItem)
        {
            var toStatus =
checkString(statusItem.getCtgItemAttrib("TradingPartner_AutoStatus_Lookup_Spe
c/To_Status"),"");
            if(toStatus != "")
            {
                setStatus = toStatus;
                notf =
checkString(statusItem.getCtgItemAttrib("TradingPartner_AutoStatus_Lookup_Spe
c/Notification"),"");
                txn =
checkString(statusItem.getCtgItemAttrib("TradingPartner_AutoStatus_Lookup_Spe
c/Transaction"),"");
            }
        }
    }
}

```

```

                break;
            }
        }
    }
    logFile.writeln(setStatus);
    return setStatus;
}

logFile = createOtherOut("GDS Sample Import - Update Trading Partner.txt");
var tradingPartnerStatusLkp =
getCtgByName("TradingPartner_AutoStatus_Lookup");

var sGLN = "";
var notf = "";
var txn = "";

var docFiles = getDocStoreFilesInDirectory("/feed_files/GDS Sample Import -
Update Trading Partner/");
docFiles = docFiles.sort();

var xmlFilePath = docFiles[docFiles.size() - 1];
var xmlFile = getDocByPath(xmlFilePath);
var xmlDoc = new XmlDocument(xmlFile);
var hmAttributePathsToValues = [];
var tpSaved = false;

specMap = getSpecMapByName("GDS XML GLN Attributes Spec Map");
if(specMap != null)
{
    foreachXMLNode("TradingPartner/")
    {
        var hmDstPathsToSrcPaths = [];
        var hmDstPathsToSrcPaths = specMap.getMappings();

        foreachHmElement(hmDstPathsToSrcPaths, dstPath, srcPath)
        {
            if(srcPath.endsWith("GlobalLocationNumber"))
            {
                sGLN =
checkString(parseXMLNode(srcPath.getRidOfRootName().getRidOfRootName()), "");
            }
            else
            {
                var value =
checkString(parseXMLNode(srcPath.getRidOfRootName().getRidOfRootName()), "");
                if(value != "")
                {
                    hmAttributePathsToValues[dstPath] = value;
                }
            }
        }
    }

    if(sGLN != null || sGLN != "")
    {
        var tradingPartner = getTradingPartner(sGLN);
        if(tradingPartner != null)
        {
            if(hmAttributePathsToValues != null &&
hmAttributePathsToValues.size() != 0)

```

```

        {
            tradingPartner.setPartnerAttributes(hmAttributePathsToValues);
        }

        var xmlTPStatus =
checkString(hmAttributePathsToValues["GLN_Spec/Status"], "");

        if(xmlTPStatus == "")
        {
            var tpStatus =
checkString(tradingPartner.getPartnerAttributeValue("GLN_Spec/Status"), "");

            if(tpStatus != "")
            {
                var status =
checkString(getToStatus(tpStatus, false), "");
                if(status != "")
                {
                    tradingPartner.setPartnerAttribute("GLN_Spec/Status", status);
                }
            }
        }

        tpSaved = tradingPartner.saveTradingPartner();

        logFile.writeln("=====");
        logFile.writeln("Trading Partner Saved");

        logFile.writeln("====="+tpSaved+"=====");
    ==");

        if(txn != "" && txn != null)
        {
            logFile.writeln("=====");
            logFile.writeln("Creating Transaction");
            var bCreateTxn =
createTransaction(tradingPartner, txn, "master");
            //          logFile.writeln((bCreateTxn == true) ?
"Done":"Failure");

            logFile.writeln("====="+bCreateTxn+"=====");
            ==");
        }

        if(notf != "" && notf != null)
        {
            logFile.writeln("=====");
            logFile.writeln("Creating Notification");
            var bCreateNotf =
createNotification(tradingPartner, notf, "master");
            //          logFile.writeln((bCreateNotf == true) ?
"Done":"Failure");

```

```

        logFile.writeln("====="+bCreateNotf+"=====");
        logFile.save("GDS Sample Import - Update Trading
Partner.txt");
    }
}

```

Auto-update the Status of the Trading Partner after Import

Trading Partners can be updated with the auto status functionality. It means that if a trading partner is being updated and the status is not set in the xml file, the script can correctly set the status of the trading partner based on its existing status in the system. The following table shows the rules that govern auto status of trading partners. In the sample script shown above a lookup table with the name TradingPartner AutoStatus Lookup is referenced which is the same as shown.

Existing Status	After Import	Notification	Transaction
Draft	Draft		0
Approved	Edited		0
Rejected	Edited		0
Edited	Edited		0

Catalog to Catalog Import

For information about catalog to catalog import, refer the *WebSphere Product Version 5.0 User Guide*.

Notifications after Import

Most of the scripts above demonstrate how notifications can be created using createNotification() script operation.

For Export

The various scenarios for export are:

- [Export Trade Items that have changed after some day or newly synched items](#)
- [Export Trade Items which are in a Particular Status](#)
- [Export Trade Items which belong to a Particular Category](#)
- [Export Few Attributes of a Trade Item](#)
- [Export Based on Certain Conditions](#)
- [Export Trade Items Based on Local Status](#)
- [Export All Trade Item Links](#)
- [Export Trade Item Links Based on Status](#)

- [Export All Trading Partners](#)
- [Export Trading Partners – Search Based](#)

Export Trade Items that have changed after some day or newly synched items

```

var logFile = createOtherOut("GDS - TradeItems Modified.xml");

var libScript = getScriptByPath("/scripts/triggers/GDSLibrary.GenerateXML");

var txnType = inputs["Transaction_Type"];
var startDateStr = reformatDate(inputs["StartDate"],"dd-MMM-yyyy HH:mm","dd-
MMM-yyyy");
var endDateStr = reformatDate(inputs["EndDate"],"dd-MMM-yyyy HH:mm","dd-MMM-
yyyy");

var startDate = new Date("dd-MMM-yyyy",startDateStr);
var endDate = new Date("dd-MMM-yyyy",endDateStr);

var tradeItems = [];
tradeItems = getModifiedTradeItems(txnType,startDate,endDate);

libScript.getFunctionByName("generateXMLHeader").invoke(logFile);

if(tradeItems != null && tradeItems.size() != 0)
{
    for(iVar = 0; iVar < tradeItems.size(); iVar++)
    {

        libScript.getFunctionByName("generateXMLForTradeItem").invoke(tradeIte
ms[iVar],logFile);
    }
}
libScript.getFunctionByName("generateXMLFooter").invoke(logFile);

logFile.save("GDS - TradeItems Modified.xml");

```

Export Trade Items which are in a Particular Status

```

var libScript = getScriptByPath("/scripts/triggers/GDSLibrary.GenerateXML");

logFile = createOtherOut("GDS - TradeItems.xml");
catchError(oErr)
{
    var hmSearchKeysToValues = [];
    forEachHmElement(inputs,searchKey,searchValue)
    {
        if(checkString(searchValue,"") != "")
        {
            hmSearchKeysToValues[searchKey] = searchValue;
        }
    }

    var tradeItems = [];
    tradeItems = searchTradeItems(hmSearchKeysToValues);

    libScript.getFunctionByName("generateXMLHeader").invoke(logFile);

    if(tradeItems != null && tradeItems.size() != 0)
    {
        for(iVar = 0; iVar < tradeItems.size(); iVar++)
        {

```

```

        libScript.getFunctionByName("generateXMLForTradeItem").invoke(tradeItems[iVar],logFile);
    }
}

libScript.getFunctionByName("generateXMLFooter").invoke(logFile);
}

logFile.save("GDS - TradeItems.xml");

```

Export Trade Items which belong to a Particular Category

Refer the script given for Export Items which are in a Particular Status.

Export Few Attributes of a Trade Item

Refer the script given for Export Items which are in a Particular Status.

The Exports scripts above which search for trade items based on status or category make use of an input spec whose xml is given below. Using this input spec, the same level of search functionality that is provided in the GUI can be achieved.

```

<?xml version="1.0" encoding="UTF-8"?>
<TrigoXML>
  <Header>
    <Type>Spec</Type>
    <Action>Create</Action>
    <CompanyName>supply-side</CompanyName>
    <SpecName>GDS Sample Export - Search Input Spec</SpecName>
    <Attribs>
      <Attrib>
        <Name>TYPE</Name>
        <Value>SCRIPT_INPUT_SPEC</Value>
      </Attrib>
    </Attribs>
  </Header>
  <Nodes>
    <Node>
      <Name>GTIN</Name>
      <Type>ATTRIBUTE</Type>
      <Attribs>
        <Attrib>
          <Name>MAXLENGTH</Name>
          <Value><![CDATA[3000]]></Value>
        </Attrib>
        <Attrib>
          <Name>MAX_OCCURRENCE</Name>
          <Value><![CDATA[1]]></Value>
        </Attrib>
        <Attrib>
          <Name>MIN_OCCURRENCE</Name>
          <Value><![CDATA[0]]></Value>
        </Attrib>
        <Attrib>
          <Name>TYPE</Name>
          <Value><![CDATA[STRING]]></Value>
        </Attrib>
      </Attribs>
    </Node>
    <Node>
      <Name>GTIN_NAME</Name>
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```

```

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```

```

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```

```

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```

```

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var ctg = getCtgByName("Product_Type_LookUp");
var ctgSpecName = ctg.getCatalogSpec().getSpecName();
var itemSet = ctg.getItemSetForCatalog();

forEachItemSetElement(itemSet, item)
{
  var prodTypeDesc = checkString(item.getCtgItemAttrib(ctgSpecName+"/Product
Type Description"), "");
  if(prodTypeDesc != "")
  {
    hmProdTypes.add(prodTypeDesc);
  }
}

res = hmProdTypes;]]></Value>
    </Attrib>
    <Attrib>
      <Name>MAX_OCCURRENCE</Name>
      <Value><![CDATA[1]]></Value>
    </Attrib>
    <Attrib>
      <Name>MIN_OCCURRENCE</Name>
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```

```

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            </Attrib>
            <Attrib>
                <Name>TYPE</Name>
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        </Attribs>
    </Node>
</Nodes>
</TrigoXML>

```

Export Based on Certain Conditions

Use the script given for Export Items which are in a Particular Status.

Export Trade Items Based on Local Status

```

var status = checkString(inputs["Status"], "");
var ctg = getCtgByName("Global_Local_Catalog");
logFile = createOtherOut("GDS - TradeItems Based On Local Status.xml");
var libScript = getScriptByPath("/scripts/triggers/GDSLibrary.GenerateXML");
libScript.getFunctionByName("generateXMLHeader").invoke(logFile);

if(status != "")
{
    var selQuery =
    "[Global_Local_Catalog:Global_Local_Attributes_Spec/GDSItemStatus] =
    "+"\""+status+"\"";
    var sel = new AdvancedSelection(ctg, "Test Selection", selQuery);
}

```

```

var itemSet = sel.getItemSetForSelection();

if(itemSet != null && itemSet.getItemSetSize() != 0)
{
    forEachItemSetElement(itemSet,item)
    {
        var gtin_tm_ip = item.getCtgItemPrimaryKey();
        var gtin_tm_ip_tokens = gtin_tm_ip.parseDelim("_");

        var gtin = gtin_tm_ip_tokens[0];
        var tm = gtin_tm_ip_tokens[1];
        var ip = gtin_tm_ip_tokens[2];

        var tradeItem = getTradeItemSS(gtin,tm,ip);

        libScript.getFunctionByName("generateXMLForTradeItem").invoke(tradeItem,logFile);
    }
}

libScript.getFunctionByName("generateXMLFooter").invoke(logFile);

logFile.save("GDS - TradeItems Based On Local Status.xml");

```

Export All Trade Item Links

```

// All TradeItemLinks xml file.
logFile = createOtherOut("GDS - All TradeItemLinks.xml");

var libScript = getScriptByPath("/scripts/triggers/GDSLibrary.GenerateXML");

// Generate the Header
libScript.getFunctionByName("generateXMLHeader").invoke(logFile);

var ctg = getCtgByName("TradeCatalog");

// This is For now.....a search can be put in place if there are too many
items in the catalog
// This contains all gtins that are processed. We can use this to ignore
variants.
var hmGTINS = [];

var itemSet = ctg.getItemSetForCatalog();
logFile.writeln("<Links>");
forEachItemSetElement(itemSet,item)
{
    var gtin_tm_ip = item.getCtgItemPrimaryKey();
    var gtin_tm_ip_tokens = gtin_tm_ip.parseDelim("_");

    var gtin = gtin_tm_ip_tokens[0];
    var tm = gtin_tm_ip_tokens[1];
    var ip = gtin_tm_ip_tokens[2];

    var tradeItem = getTradeItemSS(gtin,tm,ip);

    // Get all the child links
    var childLinks = tradeItem.getTradeItemChildLinks();

    if(childLinks != null && childLinks.size() != 0 &&
!hmGTINS.containsKey(gtin))

```

```

        {
            libScript.getFunctionByName("generateXMLForTradeItemLinks").invoke(gtin, childLinks, logFile);
            hmGTINs[gtin] = "0";
        }
    }
    logFile.writeln("</Links>");
    // Generate the Footer
    libScript.getFunctionByName("generateXMLFooter").invoke(logFile);
    logFile.save("GDS - All TradeItemLinks.xml");

```

Export Trade Item Links Based on Status

```

// All TradeItemLinks xml file.
logFile = createOtherOut("GDS - TradeItemLinks Search Based.xml");

var libScript = getScriptByPath("/scripts/triggers/GDSLibrary.GenerateXML");

// Generate the Header
libScript.getFunctionByName("generateXMLHeader").invoke(logFile);

var status = checkString(inputs["Status"], "");

var gtinTree = getCategoryTreeByName("GTIN_Hierarchy", true);
var gtinCatSet = gtinTree.getCategorySetByAttributeValue("GTIN_Spec/Child Item/Status", status);

logFile.writeln("<Links>");
if(gtinCatSet != null && gtinCatSet.getCategorySetSize() != 0)
{
    forEachCategorySetElement(gtinCatSet, gtinCat)
    {
        var parentGTIN = gtinCat.getPrimaryKey();
        var childGTIN = gtinCat.getCategoryAttrib("GTIN_Spec/Child Item/GlobalTradeItemNumber");

        var tradeItemLink = getTradeItemLink(parentGTIN, childGTIN);
        if(tradeItemLink != null &&
tradeItemLink.getLinkAttributeValue("Status") == status)
        {
            var hmTradeItemLinks = [];
            hmTradeItemLinks.add(tradeItemLink);

            libScript.getFunctionByName("generateXMLForTradeItemLinks").invoke(parentGTIN, hmTradeItemLinks, logFile);
        }
    }
}
logFile.writeln("</Links>");
// Generate the Footer
libScript.getFunctionByName("generateXMLFooter").invoke(logFile);
logFile.save("GDS - TradeItemLinks Search Based.xml");

```

Export All Trading Partners

```

var ctg = getCtgByName("Trading_Partner_Catalog");
var ctgSpecName = ctg.getCatalogSpec().getSpecName();
var libScript = getScriptByPath("/scripts/triggers/GDSLibrary.GenerateXML");

logFile = createOtherOut("GDS - All TradingPartners.xml");
libScript.getFunctionByName("generateXMLHeader").invoke(logFile);

```



```

forEachCtgItem(item)
{
    var gln = checkString(item.getCtgItemAttrib(ctgSpecName+"/Global Location
Number(GLN)",""), "");
    var tradingPartner = getTradingPartner(gln);
    if(tradingPartner != null)
    {
        libScript.getFunctionByName("generateXMLForTradingPartner").invoke(gln
, tradingPartner, logFile);
    }
}

libScript.getFunctionByName("generateXMLFooter").invoke(logFile);
logFile.save("GDS - All TradingPartners.xml");

```

Export Trading Partners – Search Based

```

var libScript = getScriptByPath("/scripts/triggers/GDSLibrary.GenerateXML");

logFile = createOtherOut("GDS - TradingPartners Search Based.xml");
catchError(oErr)
{
    var hmSearchKeysToValues = [];
    forEachHmElement(inputs, searchKey, searchValue)
    {
        if(checkString(searchValue, "") != "")
        {
            hmSearchKeysToValues[searchKey] = searchValue;
        }
    }

    var tradingPartners = [];
    tradingPartners = searchTradingPartners(hmSearchKeysToValues);

    libScript.getFunctionByName("generateXMLHeader").invoke(logFile);

    if(tradingPartners != null && tradingPartners.size() != 0)
    {
        for(iVar = 0; iVar < tradingPartners.size(); iVar++)
        {
            var tradingPartner = tradingPartners[iVar];

            libScript.getFunctionByName("generateXMLForTradingPartner").invoke(nul
l, tradingPartner, logFile);
        }
    }

    libScript.getFunctionByName("generateXMLFooter").invoke(logFile);
}

logFile.save("GDS - TradingPartners Search Based.xml");

```

This script has an input spec whose attributes match the keys of the hashmap that needs to be passed as an argument to the searchTradingPartners() function. This way the search functionality that is provided by the GUI can be stimulated.

All the Export scripts refer to a library script called GDSLlibrary.GenerateXML. This script basically generates the xml definition for trade item, trading partners, and trade item links. This script is as shown.

```
function generateXMLHeader(xmlFile)
{
    xmlFile.writeln("<TrigoXML>");
    xmlFile.writeln("<Header>");
        xmlFile.writeln("<Transaction_Id></Transaction_Id>");
        xmlFile.writeln("<File_Id>01</File_Id>");
        xmlFile.writeln("<Record_Id>01</Record_Id>");

        xmlFile.writeln("<Creation_Date>"+today().formatDate("ddMMyyyy")+"</Cr
eation_Date>");

        xmlFile.writeln("<Creation_Time>"+today().formatDate("HHmmss")+"</Crea
tion_Time>");
        xmlFile.writeln("</Header>");
}

function generateXMLFooter(xmlFile)
{
    xmlFile.writeln("</TrigoXML>");
}

function generateXMLForTradeItem(tradeItem,xmlFile)
{
    xmlFile.writeln("<Item>");
        xmlFile.writeln("<Attribs>");

            xmlFile.writeln("<GlobalAttribs>");

                xmlFile.writeln("<GlobalTradeItemNumber>"+checkString(tradeItem.getTra
deItemAttributeValueSS("Global_Attributes_Spec/GlobalTradeItemNumber"),"")+ "<
/GlobalTradeItemNumber>");

                xmlFile.writeln("<GTINName>"+checkString(tradeItem.getTradeItemAttribu
teValueSS("Global_Attributes_Spec/GTINName/en_US"),"")+ "</GTINName>");

                // Format the Product Type
                var sProdType =
checkString(tradeItem.getTradeItemAttributeValueSS("Global_Attributes_Spec/Pr
oductType"),"");
                var sProdTypeAbbr =
getCtgByName("Product_Type_LookUp").getCtgItemByPrimarykey(sProdType).getCtgI
temAttrib("Product_Type_Spec/Product Type Description");

                xmlFile.writeln("<ProductType>"+sProdTypeAbbr+"</ProductType>");

                xmlFile.writeln("<ItemStatus>"+checkString(tradeItem.getTradeItemAttri
buteValueSS("Global_Local_Attributes_Spec/GDSItemStatus"),tradeItem.getTradeI
temAttributeValueSS("Global_Attributes_Spec/GDSItemStatus"))+"</ItemStatus>");
                ;

                xmlFile.writeln("<BrandName>"+checkString(tradeItem.getTradeItemAttrib
uteValueSS("Global_Attributes_Spec/Brand/BrandName"),"")+ "</BrandName>");

```

```

        xmlFile.writeln("<Pack>"+checkString(tradeItem.getTradeItemAttributeVa
lueSS("Global_Attributes_Spec/Pack"), "")+"</Pack>");

        xmlFile.writeln("<Classification>");

        xmlFile.writeln("<GlobalClassificationCode>"+tradeItem.getItems()[0].g
etCtgItemCategories("UDEX_Hierarchy_UCCNet")[0].getPrimaryKey()+"</GlobalClas
sificationCode>");

        xmlFile.writeln("<GlobalClassificationDescription>"+tradeItem.getItems
()[0].getCtgItemCategories("UDEX_Hierarchy_UCCNet")[0].getDisplayValue(getUse
rLocale())+"</GlobalClassificationDescription>");

        xmlFile.writeln("<InternalClassificationCode>"+tradeItem.getItems()[0]
.getCtgItemCategories("Internal_Hierarchy")[0].getPrimaryKey()+"</InternalCla
ssificationCode>");

        xmlFile.writeln("<InternalClassificationDescription>"+tradeItem.getIte
ms()[0].getCtgItemCategories("Internal_Hierarchy")[0].getDisplayValue(getUser
Locale())+"</InternalClassificationDescription>");
        xmlFile.writeln("</Classification>");
        xmlFile.writeln("</GlobalAttribs>");

        xmlFile.writeln("<LocalAttribs>");

        xmlFile.writeln("<TargetMarket>"+checkString(tradeItem.getTradeItemAtt
ributeValueSS("Global_Local_Attributes_Spec/TargetMarket"), "")+"</TargetMarke
t>");

        xmlFile.writeln("<InformationProvider>"+checkString(tradeItem.getTrade
ItemAttributeValueSS("Global_Local_Attributes_Spec/InformationProvider"), "")+
"</InformationProvider>");

        xmlFile.writeln("<InformationProviderName>"+checkString(tradeItem.getT
radeItemAttributeValueSS("Global_Local_Attributes_Spec/InformationProviderNam
e"), "")+"</InformationProviderName>");

        xmlFile.writeln("<ManufacturerGLN>"+checkString(tradeItem.getTradeItem
AttributeValueSS("Global_Local_Attributes_Spec/ManufacturerGLN"), "")+"</Manuf
actererGLN>");

        xmlFile.writeln("<IsPrivate>"+checkString(tradeItem.getTradeItemAttrib
uteValueSS("Global_Local_Attributes_Spec/IsPrivate"), "")+"</IsPrivate>");

        xmlFile.writeln("<StartAvailabilityDate>"+checkString(tradeItem.getTra
deItemAttributeValueSS("Global_Local_Attributes_Spec/DateInformation/StartAva
ilabilityDate"), "")+"</StartAvailabilityDate>");
        xmlFile.writeln("<MeasurementCharacteristics>");

        xmlFile.writeln("<Height>");

        xmlFile.writeln("<UOM>"+checkString(tradeItem.getTradeItemAttributeVal
ueSS("Global_Local_Attributes_Spec/MeasureCharacteristics/Height/UOM"), "")+
"</UOM>");

        xmlFile.writeln("<Value>"+checkString(tradeItem.getTradeItemAttributeV
alueSS("Global_Local_Attributes_Spec/MeasureCharacteristics/Height/Value"), ""
)+"</Value>");

        xmlFile.writeln("</Height>");

        xmlFile.writeln("<Width>");

```

```

        xmlFile.writeln(" <UOM>"+checkString(tradeItem.getTradeItemAttributeVal
ueSS("Global_Local_Attributes_Spec/MeasureCharacteristics/Width/UOM"), "")+"</
UOM>");

        xmlFile.writeln(" <Value>"+checkString(tradeItem.getTradeItemAttributeV
alueSS("Global_Local_Attributes_Spec/MeasureCharacteristics/Width/Value"), "")
+"</Value>");

                xmlFile.writeln("</Width>");

                xmlFile.writeln("<Depth>");

        xmlFile.writeln(" <UOM>"+checkString(tradeItem.getTradeItemAttributeVal
ueSS("Global_Local_Attributes_Spec/MeasureCharacteristics/Depth/UOM"), "")+"</
UOM>");

        xmlFile.writeln(" <Value>"+checkString(tradeItem.getTradeItemAttributeV
alueSS("Global_Local_Attributes_Spec/MeasureCharacteristics/Depth/Value"), "")
+"</Value>");

                xmlFile.writeln("</Depth>");

                xmlFile.writeln("</MeasurementCharacteristics>");

        xmlFile.writeln(" <OrderingUnitIndicator>"+checkString(tradeItem.getTra
deItemAttributeValueSS("Global_Local_Attributes_Spec/UnitIndicator/OrderingUn
itIndicator"), "")+"</OrderingUnitIndicator>");
                xmlFile.writeln("</LocalAttribs>");

                xmlFile.writeln("</Attribs>");
        xmlFile.writeln("</Item>");
}

function generateXMLForTradeItemLinks(gtin,tradeItemChildLinks,logFile)
{
    forEachHmElement(tradeItemChildLinks,dummy,tradeItemLink)
    {
        logFile.writeln("<Link>");
            logFile.writeln("<Parent>");

        logFile.writeln("<ParentGTIN>"+gtin+"</ParentGTIN>");
            logFile.writeln("</Parent>");

            logFile.writeln("<Child>");

        logFile.writeln("<ChildGTIN>"+checkString(tradeItemLink.getLinkAttribu
teValue("GlobalTradeItemNumber"), "")+"</ChildGTIN>");

        logFile.writeln("<Quantity>"+checkString(tradeItemLink.getLinkAttribu
teValue("Quantity"), "")+"</Quantity>");

        logFile.writeln("<Status>"+checkString(tradeItemLink.getLinkAttributeV
alue("Status"), "")+"</Status>");
            logFile.writeln("</Child>");
        logFile.writeln("</Link>");
    }
}

function generateXMLForTradingPartner(gln,tradingPartner,logFile)
{
    logFile.writeln("<TradingPartner>");
        logFile.writeln("<Attribs>");

```

```

        logFile.writeln("<GlobalLocationNumber>" + checkString(gln, tradingPartner.getPartnerAttributeValue("GLN_Spec/Global Location Number (GLN)")) + "</GlobalLocationNumber>");

        logFile.writeln("<TradingPartnerName>" + checkString(tradingPartner.getPartnerAttributeValue("GLN_Spec/Trading Partner Name"), "") + "</TradingPartnerName>");

        logFile.writeln("<GLNIdentifier>" + checkString(tradingPartner.getPartnerAttributeValue("GLN_Spec/GLN Identifier"), "") + "</GLNIdentifier>");

        logFile.writeln("<Country>" + checkString(tradingPartner.getPartnerAttributeValue("GLN_Spec/Trading Partner Country"), "") + "</Country>");

        logFile.writeln("<Status>" + checkString(tradingPartner.getPartnerAttributeValue("GLN_Spec/Status"), "") + "</Status>");
        logFile.writeln("</Attribs>");

        logFile.writeln("</TradingPartner>");
    }

```

Script Table

The following table lists the script operations, the arguments that each operation accepts and their descriptions. You can use a combination of these script operations to import/export data.

Module	Script Operation Name	Arguments	Description
Notifications	createNotification	IBusinessObject iObj, String notfType, String userName	<ul style="list-style-type: none"> Creates a notification object and returns true if the notification was successful. iObj is the Business Object. The business object can be a trade item or trading partner or and item link. notfType is the notification type. This can be retrieved from the NotificationSecurityMappingTable lookup table. userName is the user ID of the user who is initiating the notification or the person who is responsible for the import/export of the item.
Transaction	createTransaction	IBusinessObject iObj, String txnType, String userName	<ul style="list-style-type: none"> Creates a transaction object and returns true if the operation was successful. iObj is the Business Object.

Module	Script Operation Name	Arguments	Description
			<p>The business object can be a trade item or trading partner or and item link.</p> <ul style="list-style-type: none"> • txnType is the notification type. This can be retrieved from the NotificationSecurityMappingTable lookup table. • userName is the user ID of the user who is initiating the notification or the person who is responsible for the import/export of the item.
Trade Item	newTradeItemSS	None	Creates a new (empty) trade item.
	getTradeItemSS	String sGTIN,String sTM,String sIP	Returns a trade item with the given GTIN, TM and IP values, else returns null.
	TradeItem.setTradeItemAttributeSS	String attributePath,String attributeValue	Sets the attribute value for the attribute path of the trade item.
	TradeItem.setTradeItemAttributesSS	HashMap hmAttributePathsToValues	Sets the trade item with the given hashmap of attribute paths and their corresponding values. Note: Multi occurrence attribute paths need to be indexed with #0,#1 and so on in their paths.
	TradeItem.saveTradeItemSS	NONE	Saves the trade item to the database and returns true if the save was successful.
	searchTradeItems	HashMap hmSearchParamsToValues	Searches and retrieves trade items based on a set of search parameters. The input is a hashmap of search keys and their values. The Keys should be one of the following and the case has to be upper case.

Module	Script Operation Name	Arguments	Description
			<ul style="list-style-type: none"> • GTIN • GTIN_NAME BRAND_NAME • PRODUCT_NAME • DESCRIPTION • TARGET_MARKET • LANGUAGE_CODE • IP_GLN • IP_NAME • BRAND_OWNER_NAME • MANUFACTURER_GLN • MANUFACTURER_NAME • PRODUCT_TYPE • UDEX_CODE • UDEX_CATEGORY_DESC • GLOBAL_ITEM_STATUS • UNIT_INDICATOR_YES(Value should be YES or NO) • UNIT_INDICATOR_NO(Value should be YES or NO) • UNIT_INDICATOR_NONE (Value should be YES or NO)
	getTradeItemParentLinks	NONE	Searches for parent trade item links for this trade item.
	getTradeItemChildLinks	NONE	Searches for child trade item links for this trade item.
	getModifiedTradeItems	String transactionType, Date startDate, Date endDate	Searches and retrieves trade items modified between start date and end date for a given transaction type.
	TradeItem.getTradeItemAttributeValueSS	String sAttrPath	Returns the attribute value of the TradeItem.
	TradeItem.getItems	NONE	Gets the Global and the local item for this TradeItem.
	TradeItem.setUDEXCategoryCode	String code	Sets the trade item with the given UDEX category code.
	TradeItem.setInternalCategoryCode	String code	Sets the trade item with the given internal category code.

Module	Script Operation Name	Arguments	Description
TradingPartner	new\$TradingPartner	String sGLN	Creates a new Trading Partner with the given GLN.
	getTradingPartner	String sGLN	Returns a TradingPartner with the given GLN, else returns null.
	TradingPartner.setPartnerAttribute	String attributePath,String attributeValue	Sets the attribute value for the attribute path of the Trading Partner.
	TradingPartner.setPartnerAttributes	HashMap hmAttributePathsToValues	Sets the Trading Partner with the given hashmap of attributepaths and their corresponding values. Note: Multi occurrence attribute paths need to be indexed with #0,#1 and so on in their paths.
	TradingPartner.saveTradingPartner	NONE	Saves the trading partner to the database and returns true if the save was successful.
	searchTradingPartners	HashMap hmSearchParamsToValues	Searches and retrieves trading partners based on a set of search parameters. The input is a hashmap of search keys and their values. The Keys should be one of the following and the case has to be upper case. <ul style="list-style-type: none"> • GLN • PARTNER_NAME • STATUS • CONTACT • PARTY_ROLE • CITY_NAME • COUNTRY_CODE • LANGUAGE
	TradingPartner.getPartnerAttributeValue	String sAttrPath	Returns the attribute value for the given path in the trade item link.
TradeItemLinks	new\$TradeItemLink	String parentGTIN, String childGTIN,	Returns a new trade item link with the parent GTIN and

Module	Script Operation Name	Arguments	Description
		[Integer linkQuantity]	child GTIN. Optionally a link quantity can be passed. The default link quantity is zero. Note: For the trade item link to be created the parent GTIN and the child GTIN should exist in the system.
	getTradeItemLink	String parentGTIN, String childGTIN	Returns a trade item link between parent GTIN and the child GTIN.
	TradeItemLink.setLinkAttribute	String attributePath,String attributeValue	Sets the attribute value for the attribute path of the trade item link.
	TradeItemLink.setLinkAttributes	HashMap hmAttributePathsToValues	Sets the trade item link with the given hashmap of attribute paths and their corresponding values. Note: Multi occurrence attribute paths need to be indexed with #0,#1 and so on in their paths.
	TradeItemLink.saveTradeItemLink	NONE	Saves the trade item link to the database and returns true if the save was successful.
	TradeItemLinks:getLinkAttributeValue	String sAttrPath	Returns the attribute value for the given path in the Trade Item Link
	getModifiedTradeItemLinks	TBD	TBD
SpecMap	getMappings	NONE	Returns a hashmap of destination paths to their corresponding source paths in a specmap.

Using Script Operations

This section provides the sample implementations for trade items, trading partners, and trade item links.

Trade Items

The sample scripts for the following are provided:

- Create a New Trade Item, Create Transaction and Notification
- Global Enrichment of a Trade Item
- Getting a Trade Item
- Global and Local Enrichment of Trade Item
- Setting Attributes to a Trade Item
- Getting Attribute Values of a Trade Item
- Search Trade Items
- Get Modified Trade Items Between Dates
- Validating Trade Item
- Get Trade Items

Create a New Trade Item, Create Transaction, and Notification

The script operations used are new TradeItem, saveTradeItem, createTransaction, and createNotification.

```
var tradeItem = new
TradeItemSS("44444444444442", "TESTING", "CASE", "10000056", "000000001.000000002
.000000012");
var itemSaved = tradeItem.saveTradeItemSS();
out.writeln("TradeItem [44444444444442] Saved ? : "+itemSaved);

var txnCreated =
createTransaction(tradeItem, "ITEM_GLOBAL_ENRICHMENT_PENDING", "master");
out.writeln("Transaction Created ? : "+txnCreated);

var notfCreated =
createNotification(tradeItem, "ITEM_GLOBAL_ENRICHMENT_PENDING", "master");
out.writeln("Notification sent ? : "+notfCreated);
```

Global Enrichment of a Trade Item

The script operations used are getTradeItem, setTradeItemAttribute, saveTradeItem, createTransaction, and createNotification.

```
var tradeItem = getTradeItemSS("44444444444442", "XX", "XX");
tradeItem.setTradeItemAttributeSS("Global_Attributes_Spec/Brand/BrandName", "C
oca Cola");
tradeItem.setTradeItemAttributeSS("Global_Attributes_Spec/Pack", "8");
tradeItem.setTradeItemAttributeSS("Global_Attributes_Spec/GDSItemStatus", "Glo
bal Enrichment Completed");

var itemSaved = tradeItem.saveTradeItemSS();
out.writeln("TradeItem [44444444444442] Saved ? : "+itemSaved);

var txnCreated =
createTransaction(tradeItem, "ITEM_GLOBAL_ENRICHMENT_COMPLETED", "master");
out.writeln("Transaction Created ? : "+txnCreated);

var notfCreated =
createNotification(tradeItem, "ITEM_GLOBAL_ENRICHMENT_COMPLETED", "master");
out.writeln("Notification sent ? : "+notfCreated);
```

Getting a Trade Item

```
var tradeItem = getTradeItemSS("44444444444442", "XX", "XX");
out.writeln(tradeItem);
```

Global and Local Enrichment of Trade Item

```
var tradeItem = new
TradeItemSS("45645666666660", "TESTING2", "CASE", "10000056", "000000001.00000000
2.000000012");

if(tradeItem != null)
{
    tradeItem.setTradeItemAttributeSS("Global_Attributes_Spec/Brand/BrandN
ame", "Coca Cola");
    tradeItem.setTradeItemAttributeSS("Global_Attributes_Spec/Pack", "8");
}
```

```

        tradeItem.setTradeItemAttributeSS("Global_Attributes_Spec/GDSItemStatus", "Draft With Variant");
        tradeItem.setTradeItemAttributeSS("Global_Local_Attributes_Spec/TargetMarket", "US");
        tradeItem.setTradeItemAttributeSS("Global_Local_Attributes_Spec/InformationProvider", "7981315112271");
        tradeItem.setTradeItemAttributeSS("Global_Local_Attributes_Spec/InformationProviderName", "TEST_GLN");
        tradeItem.setTradeItemAttributeSS("Global_Local_Attributes_Spec/IsPrivate", "true");
        tradeItem.setTradeItemAttributeSS("Global_Local_Attributes_Spec/DateInformation/StartAvailabilityDate", ""+today().formatDate("dd-MMM-yyyy HH:mm"));

        tradeItem.setTradeItemAttributeSS("Global_Local_Attributes_Spec/MeasureCharacteristics/Height/UOM", "IN");
        tradeItem.setTradeItemAttributeSS("Global_Local_Attributes_Spec/MeasureCharacteristics/Height/Value", "10");
        tradeItem.setTradeItemAttributeSS("Global_Local_Attributes_Spec/MeasureCharacteristics/Width/UOM", "IN");
        tradeItem.setTradeItemAttributeSS("Global_Local_Attributes_Spec/MeasureCharacteristics/Width/Value", "20");
        tradeItem.setTradeItemAttributeSS("Global_Local_Attributes_Spec/MeasureCharacteristics/Depth/UOM", "IN");
        tradeItem.setTradeItemAttributeSS("Global_Local_Attributes_Spec/MeasureCharacteristics/Depth/Value", "30");
        tradeItem.setTradeItemAttributeSS("Global_Local_Attributes_Spec/UnitIndicator/OrderingUnitIndicator", "true");
        tradeItem.setTradeItemAttributeSS("Global_Local_Attributes_Spec/GDSItemStatus", "Approved");

        var itemSaved = tradeItem.saveTradeItemSS();
        out.writeln("TradeItem [45645666666660] Saved ? : "+itemSaved);

        var txnCreated =
createTransaction(tradeItem, "NEW_ITEM_APPROVED", "master");
        out.writeln("Transaction Created ? : "+txnCreated);

        var notfCreated =
createNotification(tradeItem, "NEW_ITEM_APPROVED", "master");
        out.writeln("Notification sent ? : "+notfCreated);
}

```

Setting Attributes to a Trade Item

The script operation used is `settradeitemattributesSS()`.

```

var tradeItem = getTradeItemSS("45645666666660", "US", "7981315112271");
if(tradeItem != null)
{
    var hmAttrPathsToValues = [];
    hmAttrPathsToValues["Global_Attributes_Spec/BrandDescription/en_US"] =
"COKE";
    hmAttrPathsToValues["Global_Local_Attributes_Spec/InformationProviderName"] =
"TEST IP";
    tradeItem.setTradeItemAttributesSS(hmAttrPathsToValues);
    var itemSaved = tradeItem.saveTradeItemSS();
    out.writeln("TradeItem [45645666666660] Saved ? : "+itemSaved);
}

```

Getting Attribute Values of a Trade Item

```
var tradeItem = getTradeItemSS("45645666666660","US","7981315112271");
if(tradeItem != null)
{
    var gtinName =
checkString(tradeItem.getTradeItemAttributeValueSS("Global_Attributes_Spec/GT
INName/en_US"),"");
    var ip =
checkString(tradeItem.getTradeItemAttributeValueSS("Global_Local_Attributes_S
pec/InformationProvider"),"");

    out.writeln("GTINName is "+gtinName);
    out.writeln("IP is "+ip);
}
```

Search Trade Items

```
var hmTradeItems = [];
var hmSearchKeysToValues = [];

hmSearchKeysToValues["GTIN"] = "4564566666*";
hmSearchKeysToValues["UDEX_CODE"] = "000000001.000000002.000000012*";

hmTradeItems = searchTradeItems(hmSearchKeysToValues);

if(hmTradeItems != null)
{
    out.writeln("Returned Trade Items are \n");
    for(i = 0; i < hmTradeItems.size(); i++)
    {
        out.writeln(hmTradeItems[i]);
    }
}
else
{
    out.writeln("No Trade Items found in Search");
}
```

Get Modified Trade Items between Dates

```
var txnType = "Global Enrichment";
var startDate = new Date("dd-MMM-yyyy","27-AUG-2004");
var endDate = new Date("dd-MMM-yyyy","31-AUG-2004");

var hmTradeItems = [];
hmTradeItems = getModifiedTradeItems(txnType,startDate,endDate);

if(hmTradeItems != null)
{
    out.writeln("Returned Trade Items are \n");
    for(i = 0; i < hmTradeItems.size(); i++)
    {
        out.writeln(hmTradeItems[i]);
    }
}
else
{
    out.writeln("No Trade Items found in Search");
}
```

Validating Trade Item

```
var tradeItem = getTradeItemSS("45645666666660","US","7981315112271");
hmErrors = tradeItem.validateTradeItem();

out.writeln(hmErrors);
```

Get Trade Items

```
var tradeItem = getTradeItemSS("45645666666660","US","7981315112271");
var items = tradeItem.getItems();

out.writeln(items);
```

Trading Partners

The scripts are provided for the following:

- Search Trading Partners
- Get Trading Partner Attribute Value
- Update an Existing Trading Partner
- Create a New Trading Partner

Create a New Trading Partner

```
var tradingPartner = new
TradingPartner("6701115112124","TEST_GLN","US","Supplier");
tradingPartner.setPartnerAttribute("GLN_Spec/Status","Approved");
var tpSaved = tradingPartner.saveTradingPartner();

out.writeln("TradingPartner [6701115112124] Saved ? : "+tpSaved);

var txnCreated =
createTransaction(tradingPartner,"NEW_TRADING_PARTNER_APPROVED","master");
out.writeln("Transaction Created ? : "+txnCreated);

var notfCreated =
createNotification(tradingPartner,"NEW_TRADING_PARTNER_APPROVED","master");
out.writeln("Notification sent ? : "+notfCreated);
```

Update an Existing Trading Partner

```
var tradingPartner = getTradingPartner("6701115112124");
var hmAttrPathsToValues = [];
hmAttrPathsToValues["GLN_Spec/Trading Partner State"] = "CA";
tradingPartner.setPartnerAttributes(hmAttrPathsToValues);

var tpSaved = tradingPartner.saveTradingPartner();
out.writeln("TradingPartner [6701115112124] Saved ? : "+tpSaved);

var txnCreated =
createTransaction(tradingPartner,"MODIFY_TRADING_PARTNER_APPROVED","master");
out.writeln("Transaction Created ? : "+txnCreated);

var notfCreated =
createNotification(tradingPartner,"MODIFY_TRADING_PARTNER_APPROVED","master")
;
out.writeln("Notification sent ? : "+notfCreated);
```

Get Trading Partner Attribute Value

```
var tradingPartner = getTradingPartner("6701115112124");
var tpLanguage = tradingPartner.getPartnerAttributeValue("GLN_Spec/Trading
Partner Language");
var tpID = tradingPartner.getPartnerAttributeValue("GLN_Spec/GLN
Identifier");
var tpState = tradingPartner.getPartnerAttributeValue("GLN_Spec/Trading
Partner State");
out.writeln("Trading Partner language is "+tpLanguage);
out.writeln("Trading Partner ID is "+tpID);
out.writeln("Trading Partner State is "+tpState);
```

Search Trading Partners

```
var hmSearchKeysToValues = [];
hmSearchKeysToValues["PARTNER_NAME"] = "TEST_GLN";
var hmTradingPartners = searchTradingPartners(hmSearchKeysToValues);

if(hmTradingPartners != null)
{
    out.writeln("Returned Trading Partners are \n");
    for(i = 0; i < hmTradingPartners.size(); i++)
    {
        out.writeln(hmTradingPartners[i]);
    }
}
else
{
    out.writeln("No hmTradingPartners found in Search");
}
```

Trade Item Links

The scripts are provided for the following:

- Create a New Trade Item Link
- Update Trade Item Links
- Get Trade Item Links Attributes
- Get Child Links
- Get Parent Links

Create a New Trade Item Link

```
var tradeItem = new
TradeItemSS("45645666666677", "CHILD", "EACH", "10000056", "000000001.000000002.0
00000012");

var itemSaved = tradeItem.saveTradeItemSS();
out.writeln("TradeItem [45645666666677] Saved ? : "+itemSaved);

var txnCreated =
createTransaction(tradeItem, "ITEM_GLOBAL_ENRICHMENT_PENDING", "master");
out.writeln("Transaction Created ? : "+txnCreated);
```

```

var notfCreated =
createNotification(tradeItem,"ITEM_GLOBAL_ENRICHMENT_PENDING","master");
out.writeln("Notification sent ? : "+notfCreated);

var tradeItemLink = new TradeItemLink("45645666666660","45645666666677",1);

var linkSaved = tradeItemLink.saveTradeItemLink();
out.writeln("45645666666660 < == > 45645666666677 [LINK] Saved ?
:"+linkSaved);
var bCreateTxn =
createTransaction(tradeItemLink,"MODIFY_ITEM_LINK_APPROVAL_PENDING","master")
;
out.writeln("Transaction Created ? : "+bCreateTxn);
var bCreateNotf =
createNotification(tradeItemLink,"MODIFY_ITEM_LINK_APPROVAL_PENDING","master"
);
out.writeln("Notification sent ? : "+bCreateNotf);

```

Update Trade Item Links

```

var tradeItemLink = getTradeItemLink("45645666666660","45645666666677");
tradeItemLink.setLinkAttribute("Status","Approved");
var hmAttrsToValues = [];
hmAttrsToValues["Quantity"] = "2";
tradeItemLink.setLinkAttributes(hmAttrsToValues);
var linkSaved = tradeItemLink.saveTradeItemLink();
out.writeln("45645666666660 < == > 45645666666677 [LINK] Saved ?
:"+linkSaved);
var bCreateTxn =
createTransaction(tradeItemLink,"MODIFY_ITEM_LINK_APPROVAL_PENDING","master")
;
out.writeln("Transaction Created ? : "+bCreateTxn);
var bCreateNotf =
createNotification(tradeItemLink,"MODIFY_ITEM_LINK_APPROVAL_PENDING","master"
);
out.writeln("Notification sent ? : "+bCreateNotf);

```

Get Trade Item Links Attributes

```

var tradeItemLink = getTradeItemLink("45645666666660","45645666666677");

var qty = tradeItemLink.getLinkAttributeValue("Quantity");
var status = tradeItemLink.getLinkAttributeValue("Status");
var childGtin = tradeItemLink.getLinkAttributeValue("GlobalTradeItemNumber");

out.writeln("Quantity is "+qty);
out.writeln("Status is "+status);
out.writeln("ChildGtin is "+childGtin);

```

Get Child Links

```

var tradeItem = getTradeItemSS("45645666666660","US","7981315112271");

var hmChildLinks = [];
hmChildLinks = tradeItem.getTradeItemChildLinks();

if(hmChildLinks != null)
{

```



```

        out.writeln("Returned Child Trade Item Links are \n");
        for(i = 0; i < hmChildLinks.size(); i++)
        {
            out.writeln(hmChildLinks[i]);
        }
    }
else
{
    out.writeln("No Child TradeItem Links found in Search");
}

```

Get Parent Links

```

var tradeItem = getTradeItemSS("45645666666677","XX","XX");

var hmParentLinks = [];
hmParentLinks = tradeItem.getTradeItemParentLinks();

if(hmParentLinks != null)
{
    out.writeln("Returned Parent Trade Item Links are \n");
    for(i = 0; i < hmParentLinks.size(); i++)
    {
        out.writeln(hmParentLinks[i]);
    }
}
else
{
    out.writeln("No Parent TradeItem Links found in Search");
}

```

Spec Maps

```

specMap = getSpecMapByName("GDS XML GLN Attributes Spec Map");
var hmDstPathsToSrcPaths = specMap.getMappings();

out.writeln(hmDstPathsToSrcPaths);

```

Appendix A – Preceded Roles, Access Control Groups, and Selections for GDS

This appendix provides information about the various Roles, Access Control Groups (ACGs), and Selections that are preceded in the solution. It also provides the list of accessible features and operations that can be performed by the respective roles.

Roles

For every GDS user a set of Roles can be assigned. As an example, consider the company XYZ. This company has four main departments such as Lighting, Consumer Electronics, Software, and Components. Each of these departments has a Global Brand Manager. They are:

- Lighting Global Brand Manager
- Consumer Electronics Global Brand Manager
- Software Global Brand Manager
- Components Global Brand Manager

Note! The naming convention is [UDEX CAT SPECIFIC] Global Brand Manager. That is, Lighting is the UDEX specific category.

The Global Brand Managers are responsible for creating a GTIN. Each of these Global Brand Managers has product executives. Once the Global Brand Manager creates the GTIN, a notification is sent to the product executives to enrich the global attributes. The respective product executives are:

- Lighting Global Product Executive
- Consumer Electronics Global Product Executive
- Software Global Product Executive
- Components Global Product Executive

Note! The Global Brand Manager can also enrich some or all the global attributes.

When all the product executives have completed enriching the global attributes, only then is the global enrichment process complete. A notification that the global enrichment for the trade item is complete is sent to the Global Brand Manager.

Now, if company XYZ has business relations with US, Holland, and Singapore, there will be target market specific Brand Managers for each category. They are:

- Lighting US Brand Manager
- Lighting Holland Brand Manager
- Lighting Singapore Brand Manager
- Consumer Electronics US Brand Manager

- Consumer Electronics Holland Brand Manager
- Consumer Electronics Singapore Brand Manager

Similarly there will be target market specific Brand Managers for each category.

The Global Brand Managers will send the notification to these target market specific Brand Managers to enrich the variants. Each of the target market specific Brand Managers has Product Executives. The Product Executives enrich the variant attributes. Once the variant attributes have been enriched, a notification for variant enrichment completion is sent to the brand managers.

The various roles that are preceded in the GDS Supply solution are:

- WebSphere Product Centre Administrator
- Global Data Synchronization Administrator
- [UDEX CAT SPECIFIC] Global Brand Manager
- [UDEX CAT SPECIFIC] Global Product Executive
- [UDEX CAT - TM SPECIFIC] Brand Manager
- [[UDEX CAT - TM - ATTR GROUP SPECIFIC] Product Executive
- [[UDEX CAT - TM - ATTR GROUP SPECIFIC] User
- Links Publisher
- [UDEX CAT - TM SPECIFIC] Variant Publisher
- [TM Specific] Marketing Manager

Note! These roles can be changed based on your requirements.

WebSphere Product Centre Administrator

The WebSphere Product Centre Administrator has access to the data model. Typically, the administrator is the PSS user.

The operations that can be setup for GDS solution and WebSphere Product Center are provided in the table.

GDS Supply Solution					
Trade Item	Trading Partner	Trade Item Link	Transactions	Notifications	Reports
<ul style="list-style-type: none"> • List • Create • Edit • View • Modify • Delete • Explore • Create Variant 	<ul style="list-style-type: none"> • Create • Edit • View • List • Modify • Delete • Explore • Approve/Reject 	<ul style="list-style-type: none"> • Create • Edit • View • List • Modify • Delete • Approve/Reject • Add Item 	<ul style="list-style-type: none"> • Publish Transactions • View Generated XML • Item Transactions • Hierarchy Transactions 	<ul style="list-style-type: none"> • Publications • Initial Load • Item Add • Item Link Add 	<ul style="list-style-type: none"> • Run Publication Reports • View Publication Reports • Run Item Reports • View Item Reports

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GDS Supply Solution					
Trade Item	Trading Partner	Trade Item Link	Transactions	Notifications	Reports
<ul style="list-style-type: none"> • Delete Variant • Enrich Global • Enrich Variant • Approve/Reject • Publish New Item • Send Initial Load • Add Item • Synchronize Changes 		Link	<ul style="list-style-type: none"> • Trading Partner Transactions 	<ul style="list-style-type: none"> • New Item Request • Item Change Request • New Item Hierarchy Request • Item Hierarchy Change Request • New Trading Partner Request • Trading Partner Change Request 	<ul style="list-style-type: none"> Reports • Run Trading Partner Reports • View Trading Partner Reports

WebSphere Product Center					
Catalog	Hierarchy	Selection	Import	Selection Members	DocStore
<ul style="list-style-type: none"> • List • Edit Catalog Views • View Items • Add Items • Modify Items • Delete Items • Recategorize Items • Summary Items • Export Attributes • Differences • Rollback • Search • Delete • Run Preview Script 	<ul style="list-style-type: none"> • List • Edit Hierarchy Views • View Hierarchy Nodes • Add Hierarchy Nodes • Modify Hierarchy Node Attributes • Delete Hierarchy Nodes • Recategorize Hierarchy Nodes • Summary Hierarchy Nodes • Specmap Hierarchy Nodes • Attributes • Rollback • Delete 	<ul style="list-style-type: none"> • List • Edit Rule • Delete 	<ul style="list-style-type: none"> • List • Perform Import • Delete 	<ul style="list-style-type: none"> • View Items • Add Items • Modify Items • Delete Items • Recategorize Items • View Hierarchy Nodes • Add Hierarchy Nodes • Modify Hierarchy Node Attributes • Delete Hierarchy Nodes • Recategorize Hierarchy Nodes • Specmap Hierarchy Nodes 	<ul style="list-style-type: none"> • View Files • Delete Files

WebSphere Product Center					
Workflow	Collaboration Area	Spec	Screen	Script	Scheduler
<ul style="list-style-type: none"> • List • Edit 	<ul style="list-style-type: none"> • List • Checkout 	<ul style="list-style-type: none"> • Modify Spec 	<ul style="list-style-type: none"> • View 	<ul style="list-style-type: none"> • Create • Modify 	<ul style="list-style-type: none"> • View Company

• Delete	Entries	• Modify Spec Map		Scripts	Jobs
----------	---------	-------------------	--	---------	------

Global Data Synchronization Administrator

The GDS administrator has access to all the functionalities in GDS and some of the functionalities in WebSphere Product Centre such as import/export & user management. The GDS administrator does not have access to the data model.

The GDS Administrator has access to the following:

- Notifications
- Quick Search, Basic Search, and Advanced Search for Trade Items, Trade Item Links, and Trading Partners
- Publish New Item, Send Initial Load, Add Item, Add Link, and Synchronize Changes
- Explore Transactions
- Manage Items (Create GTIN, Create GTIN Variant (that is, target market and Information provider), View/Edit GTIN Global Attributes, View/Edit Variant Attributes, Enrich GTIN Global Attributes, Enrich Variant Attributes, Delete GTIN, and Delete GTIN Variant)
- Approve/Reject Items
- Create/View/Edit/Delete/Approve Trading Partner
- Import/Export Items, Item Links
- User Management & Security

The operations that can be setup for GDS solution and WebSphere Product Center are provided in the table.

GDS Supply Solution					
Trade Item	Trading Partner	Trade Item Link	Transactions	Notifications	Reports
<ul style="list-style-type: none"> • List • Create • Edit • View • Modify • Delete • Explore • Create Variant • Delete 	<ul style="list-style-type: none"> • Create • Edit • View • List • Modify • Delete • Explore • Approve/Reject 	<ul style="list-style-type: none"> • Create • Edit • View • List • Modify • Delete • Approve/Reject • Add Item Link 	<ul style="list-style-type: none"> • Publish Transactions • View Generated XML • Item Transactions • Hierarchy Transactions • Trading Partner 	<ul style="list-style-type: none"> • Publications • Initial Load • Item Add • Item Link Add • New Item 	<ul style="list-style-type: none"> • Run Publication Reports • View Publication Reports • Run Item Reports • View Item Reports

GDS Supply Solution					
Trade Item	Trading Partner	Trade Item Link	Transactions	Notifications	Reports
Variant <ul style="list-style-type: none"> • Enrich Global • Enrich Variant • Approve/Reject • Publish New Item • Send Initial Load • Add Item • Synchronize Changes 			Partner Transactions	<ul style="list-style-type: none"> • Item Request • Item Change Request • New Item Hierarchy Request • Item Hierarchy Change Request • New Trading Partner Request • Trading Partner Change Request 	<ul style="list-style-type: none"> • Run Trading Partner Reports • View Trading Partner Reports

WebSphere Product Center					
Catalog	Hierarchy	Selection	Import	Selection Members	DocStore
<ul style="list-style-type: none"> • List 	<ul style="list-style-type: none"> • List 	<ul style="list-style-type: none"> • List 	<ul style="list-style-type: none"> • List • Perform Import • Delete 	<ul style="list-style-type: none"> • View Items 	

WebSphere Product Center					
Workflow	Collaboration Area	Spec	Screen	Script	Scheduler
			<ul style="list-style-type: none"> • View 	<ul style="list-style-type: none"> • Create • Modify • Scripts 	<ul style="list-style-type: none"> • View Company Jobs

[UDEX CAT SPECIFIC] Global Brand Manager

The Global Brand Manager is responsible for creating new trade items (global variant). The Global Brand Manager can also edit local variant, delete an item and its local variant, and has the privilege of approving/disapproving an item. There will be one Global Brand Manager for each category.

The Global Brand Manager has access to the following:

- Notifications
- Quick Search, Basic Search, and Advanced Search for Trade Items, Trade Item Links, and Trading Partners
- Explore Transactions
- Manage Items (Create GTIN, View/Edit GTIN Global Attributes, View/Edit Variant Attributes, Delete GTIN, and Delete GTIN Variant)
- Approve/Reject Items
- View Trading Partner
- Reports

The operations that the Global Brand Manager can perform in GDS solution and WebSphere Product Center are provided in the table.

GDS Supply Solution					
Trade Item	Trading Partner	Trade Item Link	Transactions	Notifications	Reports
<ul style="list-style-type: none"> • List • Create • Edit • View • Modify • Delete • Delete Variant • Explore • Approve/Reject 	<ul style="list-style-type: none"> • View • List • Modify • Delete • Explore • Approve/Reject 	<ul style="list-style-type: none"> • Create • Edit • View • List • Modify • Delete • Approve/Reject 	<ul style="list-style-type: none"> • Item Transactions • Hierarchy Transactions 	<ul style="list-style-type: none"> • New Item Request • Item Change Request • New Item Hierarchy Request • Item Hierarchy Change Request 	<ul style="list-style-type: none"> • Run Item Reports • View Item Reports

WebSphere Product Center

Catalog	Hierarchy	Selection	Import	Selection Members	DocStore
• List	• List	• List		• View Items	

[UDEX CAT Specific] Global Product Executive

The Global Product Executive can enrich GTIN global attributes and also view or edit the variant attributes.

The Global Product Executive has access to the following:

- Notifications
- Quick Search, Basic Search, and Advanced Search for Trade Items, Trade Item Links, and Trading Partners
- Manage Items (View/Edit GTIN Global Attributes, View/Edit Variant Attributes, and Enrich GTIN Global Attributes)
- View Trading Partner

The operations that the Global Product Executive can perform in GDS solution and WebSphere Product Center are provided in the table.

GDS Supply Solution					
Trade Item	Trading Partner	Trade Item Link	Transactions	Notifications	Reports
<ul style="list-style-type: none"> • List • Edit • View • Modify • Explore • Enrich Global 	<ul style="list-style-type: none"> • List • View • Explore 	<ul style="list-style-type: none"> • List • Create • Edit • View • Modify • Delete 		<ul style="list-style-type: none"> • New Item Request 	

WebSphere Product Center					
Catalog	Hierarchy	Selection	Import	Selection Members	DocStore
• List	• List	• List		• View Items	

[UDEX CAT – TM Specific] Brand Manager

The [UDEX CAT – TM Specific] Brand Manager can create, enrich, delete a variant of an item., approve, or disapprove the variant..

The Brand Manager has access to the following:

- Notifications
- Quick Search, Basic Search , and Advanced Search for Trade Items, Trade Item Links, and Trading Partners
- Explore Transactions
- Manage Items (Create GTIN Variant, View GTIN Global Attributes, View/Edit Variant Attributes, Enrich Variant Attributes, and Delete GTIN Variant)
- Approve/Disapprove GTIN Variant

The operations that the Brand Manager can perform in GDS solution and WebSphere Product Center are provided in the table.

GDS Supply Solution					
Trade Item	Trading Partner	Trade Item Link	Transactions	Notificati ons	Reports
<ul style="list-style-type: none"> • List • Edit • View • Modify • Explore • Create Variant • Enrich Variant • Delete Variant • Approve /Reject 	<ul style="list-style-type: none"> • List • View • Explore 	<ul style="list-style-type: none"> • View 	<ul style="list-style-type: none"> • Item Transactions 	<ul style="list-style-type: none"> • New Item Request • Item Change Request 	

WebSphere Product Center					
Catalog	Hierarchy	Selection	Import	Selection Members	DocStore
<ul style="list-style-type: none"> • List 	<ul style="list-style-type: none"> • List 	<ul style="list-style-type: none"> • List 		<ul style="list-style-type: none"> • View Items 	

[UDEX CAT - TM - ATTR GROUP SPECIFIC] Product Executive

The [UDEX CAT – TM – ATTR GROUP SPECIFIC] Product Executive can enrich variant attributes.

The Product Executive has access to the following:

- Notifications
- Quick Search, Basic Search , and Advanced Search for Trade Items, Trade Item Links, and Trading Partner
- Manage Items (View GTIN Global Attributes, View/Edit Variant Attributes, and Enrich Variant Attributes)
- View Trading Partner

The operations that the Product Executive can perform in GDS solution and WebSphere Product Center are provided in the table.

GDS Supply Solution					
Trade Item	Trading Partner	Trade Item Link	Transactions	Notificati ons	Reports
<ul style="list-style-type: none"> • List • Edit • View • Modify • Explore • Enrich Variant 	<ul style="list-style-type: none"> • List • View • Explore 	<ul style="list-style-type: none"> • List • View 		<ul style="list-style-type: none"> • New Item Request 	

WebSphere Product Center					
Catalog	Hierarchy	Selection	Import	Selection Members	DocStore
<ul style="list-style-type: none"> • List 	<ul style="list-style-type: none"> • List 	<ul style="list-style-type: none"> • List 		<ul style="list-style-type: none"> • View Items 	

[UDEX CAT - TM - ATTR GROUP SPECIFIC] User

The [UDEX CAT – TM – ATTR GROUP SPECIFIC] User can only view GTIN global attributes, view variant attributes and trading partner information.

The User has access to the following:

- Quick Search, Basic Search, and Advanced Search for Trade Items, Trade Item Links, and Trading Partner
- Manage Items (View GTIN Global Attributes, View Variant Attributes)
- View Trading Partner

The operations that the User can perform in GDS solution and WebSphere Product Center are provided in the table.

GDS Supply Solution					
Trade Item	Trading Partner	Trade Item Link	Transactions	Notifications	Reports
<ul style="list-style-type: none">• List• View• Explore	<ul style="list-style-type: none">• List• View• Explore	<ul style="list-style-type: none">• List• View			

WebSphere Product Center					
Catalog	Hierarchy	Selection	Import	Selection Members	DocStore
<ul style="list-style-type: none">• List	<ul style="list-style-type: none">• List	<ul style="list-style-type: none">• List		<ul style="list-style-type: none">• View Items	

Links Publisher

The Links Publisher can publish the links to the data pool and has access to the following:

- Notifications
- Quick Search, Basic Search , and Advanced Search for Trade Items, Trade Item Links, and Trading Partner
- Add Link
- Explore Transactions
- Manage Items (View GTIN Global Attributes, View Variant Attributes)
- View Trading Partner

The operations that the Links Publisher can perform in GDS solution and WebSphere Product Center are provided in the table.

GDS Supply Solution					
Trade Item	Trading Partner	Trade Item Link	Transactions	Notifications	Reports
<ul style="list-style-type: none"> • List • View • Explore 	<ul style="list-style-type: none"> • List • View • Explore 	<ul style="list-style-type: none"> • List • View • Add Item Link 	<ul style="list-style-type: none"> • Publish Transactions • View Generated XML 	<ul style="list-style-type: none"> • Publications • Item Link Add 	

WebSphere Product Center					
Catalog	Hierarchy	Selection	Import	Selection Members	DocStore
<ul style="list-style-type: none"> • List 	<ul style="list-style-type: none"> • List 	<ul style="list-style-type: none"> • List 		<ul style="list-style-type: none"> • View Items 	

[UDEX CAT - TM SPECIFIC] Variant Publisher

The [UDEX CAT - TM SPECIFIC] Variant Publisher can publish the variants to the data pool and has access to the following:

- Notifications
- Quick Search, Basic Search , and Advanced Search for Trade Items, Trade Item Links, and Trading Partner
- Publish New Item, Send Initial Load, Add Item, Synchronize Changes
- Explore Transactions
- Manage Items (View GTIN Global Attributes, View Variant Attributes)
- View Trading Partner

The operations that the Variant Publisher can perform in GDS solution and WebSphere Product Center are provided in the table.

GDS Supply Solution					
Trade Item	Trading Partner	Trade Item Link	Transactions	Notifications	Reports
<ul style="list-style-type: none"> • List • View • Explore • Publish New Item • Send Initial Load • Add Item • Synchronize Changes 	<ul style="list-style-type: none"> • List • View • Explore 	<ul style="list-style-type: none"> • List • View 	<ul style="list-style-type: none"> • Publish Transactions • View Generated XML 	<ul style="list-style-type: none"> • Publications • Initial Load • Item Add 	

WebSphere Product Center					
Catalog	Hierarchy	Selection	Import	Selection Members	DocStore
<ul style="list-style-type: none"> • List 	<ul style="list-style-type: none"> • List 	<ul style="list-style-type: none"> • List 		<ul style="list-style-type: none"> • View Items 	

[TM Specific] Marketing Manager

The [TM Specific] Marketing Manager can create, view, edit, delete, approve or reject a Trading Partner for a specific target market.

The Marketing Manager has access to the following:

- Notifications
- Quick Search, Basic Search, and Advanced Search for Trade Items, Trade Item Links, and Trading Partner
- Explore Transactions
- Manage Items (View GTIN Global Attributes, View Variant Attributes)
- Create/View/Edit/Delete/Approve Trading Partner

The operations that the Marketing Manager can perform in GDS solution and WebSphere Product Center are provided in the table.

GDS Supply Solution					
Trade Item	Trading Partner	Trade Item Link	Transactions	Notifications	Reports
<ul style="list-style-type: none"> • List • View • Explore 	<ul style="list-style-type: none"> • List • Create • Edit • View • Modify • Delete • Explore • Approve /Reject 	<ul style="list-style-type: none"> • List • View 	<ul style="list-style-type: none"> • Trading Partner Transactions 	<ul style="list-style-type: none"> • New Trading Partner Request • Trading Partner Change Request 	<ul style="list-style-type: none"> • Run Trading Partner Reports • View Trading Partner Reports

WebSphere Product Center					
Catalog	Hierarchy	Selection	Import	Selection Members	DocStore
<ul style="list-style-type: none"> • List 	<ul style="list-style-type: none"> • List 	<ul style="list-style-type: none"> • List 		<ul style="list-style-type: none"> • View Items 	

Workflow Roles

The following workflow roles are precluded in the solution. The user needs to have these roles to do actions related to workflows. When creating new users to do some action(s) in a specified workflow, then that user should be assigned with a specific role(s).

- GDS_Approve_Item_WF_Role
This role is required to approve an item.
- GDS_Approve_Modified_TP_WF_Role
This role is required to approve a modified Trading Partner.
- GDS_Approve_New_TP_WF_Role
This role is required to approve a new Trading Partner.
- GDS_Approve_TP_Deletion_WF_Role
This role is required to approve a deleted Trading Partner.

- **GDS_Enrich_Global_Attributes_WF_Role**
This role is required to enrich the global attributes.
- **GDS_Enrich_Local_Attributes_WF_Role**
This is required to enrich the local attributes.
- **GDS_Modify_Global_And_Check_Compliance_WF_Role**
This is required to change global attributes of a registered item and perform the compliance check.
- **GDS_Approve_Modify_Global_Item_WF_Role**
This role is required to approve changes in global attributes of a registered item.
- **GDS_Modify_Local_And_Check_Compliance_WF_Role**
This role is required to change local attributes of a registered item and perform the compliance check.
- **GDS_Approve_Modify_Local_Item_WF_Role**
This role is required to approve changes in local attributes of a registered item.
- **GDS_Approve_Modify_Link_WF_Role**
This role is required to approve links. This may be a new link approval or modify link approval or deletion link approval.

Access Control Groups

Examples of UDEX Category and Target Market Specific ACGs are provided in the following table.

ACG	Roles	
ALCOHOL BASED MIXERS ACG	ALCOHOL BASED MIXERS Global Brand Manager	[UDEX CAT SPECIFIC] Global Brand Manager
	ALCOHOL BASED MIXERS Global Product Executive	[UDEX CAT SPECIFIC] Global Product Executive
	ALCOHOL BASED MIXERS - US Brand Manager	[UDEX CAT - TM SPECIFIC] Brand Manager
	ALCOHOL BASED MIXERS UK Brand Manager	
	ALCOHOL BASED MIXERS - US - Logistics Product Executive	[[UDEX CAT - TM - ATTR GROUP SPECIFIC] Product Executive
	ALCOHOL BASED MIXERS - US - Measures Product Executive	

ACG	Roles	
	ALCOHOL BASED MIXERS - US - Nutrition Product Executive	
	ALCOHOL BASED MIXERS - UK - Logistics Product Executive	
	ALCOHOL BASED MIXERS - UK - Measures Product Executive	
	ALCOHOL BASED MIXERS - UK - Nutrition Product Executive	
US ACG	ALCOHOL BASED MIXERS - US Brand Manager	[[UDEX CAT - TM SPECIFIC] Brand Manager
	ALCOHOL BREWING_MAKING KITS US Brand Manager	
	ALCOHOL BASED MIXERS - US - Logistics Product Executive	[[UDEX CAT - TM - ATTR GROUP SPECIFIC] Product Executive
	ALCOHOL BASED MIXERS - US - Measures Product Executive	
	ALCOHOL BASED MIXERS - US - Nutrition Product Executive	
	ALCOHOL BREWING_MAKING KITS - US - Logistics Product Executive	
	ALCOHOL BREWING_MAKING KITS - US - Measures Product Executive	
	ALCOHOL BASED MIXERS - US - Logistics User	[[UDEX CAT - TM - ATTR GROUP SPECIFIC] User
	ALCOHOL BASED MIXERS - US - Measures User	
	ALCOHOL BASED MIXERS - US - Nutrition User	
	ALCOHOL BREWING_MAKING KITS - US - Logistics User	
	ALCOHOL BASED MIXERS - US Variant Publisher	[[UDEX CAT - TM SPECIFIC] Variant Publisher
	ALCOHOL BREWING_MAKING KITS US Variant Publisher	

Selections

The following Selections have been pre-seeded into the model.

Selection	ACG	Catalog	Hierarchy	Selected Categories
UNET_ALCOHOL BASED MIXES/MIXERS	Alcohol ACG	Globa_Catalog	UDEX_Hierarchy_UCCNet	<ul style="list-style-type: none"> • ALCOHOL BASED MIXES/MIXERS • ALCOHOL BASED COCKTAILS/MIXES • ALCOHOL BASED MIXERS
UNET_ANIMAL/PET ACCESSORIES OTHER	Animal Pet ACG	Global_Catalog	UDEX_Hierarchy_UCCNet	<ul style="list-style-type: none"> • ANIMAL/PET ACCESSORIES OTHER • ANIMAL/PET ACCESSORIES OTHER • ANIMAL/PET ACCESSORIES OTHER VARIETY PACKS/SETS
UNET_CEREAL GRAINS WITH ADDITIONS - DRY (SHELF STABLE)	Cereal Grains ACG	Global_Catalog	UDEX_Hierarchy_UCCNet	<ul style="list-style-type: none"> • CEREAL GRAINS WITH ADDITIONS - DRY (SHELF STABLE) • BULGUR WHEAT WITH ADDITIONS - DRY (SHELF STABLE) • CEREAL GRAINS OTHER WITH ADDITIONS - DRY (SHELF STABLE)
TM_Africa	Africa ACG	Global_Local_Catalog	Target_Market_Hierarchy	<ul style="list-style-type: none"> • EG • SA
TM_North America	North America ACG	Global_Local_Catalog	Target_Market_Hierarchy	<ul style="list-style-type: none"> • US • CA

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