

HP Service Request Catalog

for the Windows operating system

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Installation and Configuration Guide

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1 Install the Application

This installation of Service Request Catalog assumes that you have the following:

- An existing installation of Service Manager 9.21 server and client
- Service Manager administration experience
- Access to Service Manager documentation

Before You Begin

Make sure that you complete all installation tasks for upgrading your Service Manager server to version 9.21. Start with the HP Service Manager 9.21 Release Notes and follow the directions to apply listed patches and defect fixes.

When your Service Manager server is ready, read the following sections to install the Service Request Catalog components. Make sure that you meet the requirements before you begin the Service Request Catalog 1.20p1 installation.

- [Requirements](#) on page 7
- [Service Manager](#) on page 8
- [Installation Contents](#) on page 8
- [Installation Steps](#) on page 10

Requirements

Service Request Catalog runs in a Windows environment using another HP application to serve and store data and requires the support of third party tools.

Operating System

Service Request Catalog 1.20p1 is certified to run on Windows® Server 2008 SP1 or SP2.

HP Application Compatibility

Service Request Catalog 1.20p1 runs with Service Manager 9.21. Service Request Catalog communicates with Service Manager through a web service.

Service Manager 9.21 should be installed on a supported server listed in the Service Manager 9.21 Compatibility Matrix.

Third Party Software Requirements

Service Request Catalog 1.20p1 requires these external applications:

- Adobe® Flash® Player 10.1, which you can download here: [Adobe Flash Player Support Center](#)
- Apache™ Tomcat™ 6.0.x, which you can obtain here: [Apache Tomcat 6.x](#)
Note: You can use an existing instance of Tomcat 6.0.x, or install a new Tomcat server.
- The latest update version of Sun™ Java JDK™ 6 update 23 or a later release, which you can obtain here: [Sun Developer Network](#)
- Microsoft® Internet Explorer® v7 or a later release

If you plan to generate language packs, Language Builder requires InstallJammer 1.2.13 or a later release.

Make sure you review all information in the *HP Service Manager 9.21p1 Release Notes* before you begin the installation process.

Service Manager

You must have an installed instance of the Service Manager 9.21server, and Service Manager 9.21 Windows client to complete configuration tasks and make administrative changes to the service catalog items. For more information about administrative functions, see the Service Manager documentation.

Installation Contents

The Service Request Catalog installation package is a complete folder structure that contains the following components.

Folder Name	Contains
serviceRequestCatalog	
docs	Service Request Catalog 1.20p1 documentation
files	src-1.20p1.war file src-1.20p1_encryptor.zip
freeOpenSourceSoftware	Distributed open source code (do not install)
languageBuilder	Tool to build language packs for non-localized languages

Components

This Installation Guide describes how to deploy and configure these components:

- A web application archive (src-1.20p1.war) file that creates a user interface to display Service Manager catalog source data through a web browser session.
- A simple encryption tool, (src-1.20p1_encryptor.zip) in a zip archive. The encryption tool encrypts the password of the Service Manager administrator.

Service Manager distributes the API unload that plugs into the Service Manager environment. The API component is the connector between Service Manager and Service Request Catalog that provides a continuous transparent dialog using web service technology.

The same data can be viewed directly with the Service Manager client. The API unload enables the casual user to browse the available products and services, choose one or more items, and submit a request. Service Manager accepts the request and routes it through a pre-defined approval and fulfilment process. At any time the user interface can display the status and details of pending, approved, and denied requests directly in the Service Request Catalog user interface.

For more information about installing the unload, see the Service Manager 9.21 patch Release Notes.


Path Notation


Specified installation folder and path locations are generally relative to the location of the installed Tomcat instance and deployment location of the src-1.20p1.war file. When you see a path that includes a hard drive letter (C:\), the actual location always depends on the user's discretion. You can substitute the actual drive that you choose. When you see a path that includes an ellipsis (...), it represents the discretionary part of the path and folder structure on your local drive. For example:


C:\...\apache-tomcat-6.*n.n*


The C:\...\ notation expects that you chose the default installation path for Apache tomcat. When you encounter this path notation in examples, you can substitute your local conventions.

Installation Steps

	Follow These Steps
<input type="checkbox"/>	Install Apache Tomcat
	<p>1 If necessary, navigate to this download site to obtain the installation files for Apache Tomcat 6.0.n: tomcat.apache.org</p> <p>Download the zip version to deploy manually or the 32-bit/64-bit Windows Service Installer.</p>
	<p>2 Do one of the following to install Tomcat as a Windows Service or as a manual deployment:</p> <p>Windows Service: Run the apache-tomcat-6.0.n.exe installer. Specify a convenient location for Tomcat. For example:</p> <p>C:\...\apache-tomcat-6.0.n</p> <p>When prompted for the Java location, note the path to the \jre folder. You will need this information later.</p> <p>Manual Process: Unzip the files to a preferred location on the designated server. For example, unzip the files to:</p> <p>C:\...\apache-tomcat-6.0.n</p>
<input type="checkbox"/>	Deploy the Service Request Catalog .war file
	<p>3 To stop the Tomcat server, do one of the following depending on your selection in step 2.</p> <p>Windows Service: Navigate to the Control Panel > Administrative Tools > Services dialog to stop the Apache Tomcat 6 service.</p> <p>Manual Process: Run C:\...\apache-tomcat-6.0.n\bin\shutdown.bat.</p>
	<p>4 In the installation package, locate C:\...\serviceRequestCatalog\files\src-1.20p1.war. Unzip the contents of the src-1.20p1.war file into an empty folder that you create to be the home location for this application. For example, if you create a new folder named \src-1.20p1 where you plan to deploy the .war file, the result would look like this:</p> <p>C:\...\src-1.20p1\war_file_contents</p> <p>Do not unzip the war file into C:\...\apache-tomcat-6.0.n\webapps.</p>
<input type="checkbox"/>	Create an encrypted password for the Service Manager administrator
	<p>5 From the installation package, extract the contents of C:\...\serviceRequestCatalog\files\encryptor-1.20p1.zip into a separate folder of your choice. For example:</p> <p>C:\...\src-1.20p1\encrypt</p>
	<p>6 Click the executable file to start the encryptor application.</p> <p>C:\...\src-1.20p1\encrypt\runme.bat</p>

	<p>Follow These Steps</p>
	<p>7 At the command line prompt, type your Service Manager administration password. Your administrator rights must include SOAP API and service catalog capability.</p> <p>Enter your password: <i>password_value</i></p> <p>Press Enter.</p> <p>Is this correct? Y/N: Y</p> <p>Press Enter.</p>
	<p>8 The encryption tool returns an encrypted password value:</p> <p>This is your encrypted password: <i>encrypted_password</i></p> <p>Copy this encrypted value and save it to use in a subsequent step.</p> <p>Note: If you want to enable more than one administrator, repeat step 6 through step 8 for each additional administrator.</p>
<input type="checkbox"/>	<p>Configure the Service Request Catalog URL</p>
	<p>9 Open this file with a text editor:</p> <p>C:\...\apache-tomcat-6.0.n\conf\server.xml</p>
	<p>10 Navigate to the <Host></Host> section and locate the Context parameter. If the section is commented out, uncomment it. If it is missing, add the following.</p> <pre><Context docBase="" path="" reloadable="false" /></pre>
	<p>11 Specify the complete path to the folder where you unzipped the src-1.20p1.war file (docBase=). Specify the simplified path to be used in the URL (path=).</p> <p>For example:</p> <pre>docBase="C:\...\serviceRequestCatalog" path="/src-1.20p1"</pre> <p>Note: The docBase value and the path value do not have to be the same.</p>
<input type="checkbox"/>	<p>Configure Service Request Catalog properties</p>
	<p>12 Open this file with a text editor:</p> <p>C:\...\src-1.20p1\WEB-INF\classes\applicationContext.properties</p>
	<p>13 Change the properties in this file to match your client/server environment:</p> <pre>serviceManager.protocol=http (choose http or https protocol) serviceManager.hostnameOrIP=127.0.0.1 (specify the host server by name or IP address) serviceManager.port=13080 (specify a unique, or the default Service Manager, port number)</pre>

	<p>Follow These Steps</p>
	<p>14 In the # Caching section, locate this entry:</p> <pre>serviceManager.adminCredentials=LIST(userName,ENC(encryptedValue))</pre> <ul style="list-style-type: none"> — Replace <i>userName</i> with the Service Manager administrator user name that you specified in step 7 on page 11. — Replace <i>encryptedValue</i> with the encrypted password text that you specified in step 8 on page 11. <p>Note: If you have more than one <i>userName</i> and encrypted password combination, use the following syntax and separate each unique entry with a comma:</p> <pre>=LIST(userName,ENC(encryptedValue),userName,ENC(encryptedValue))</pre>
	<p>15 (Optional) In the first # Performance section, change this parameter:</p> <pre>src.reloadCatalogAfterEvery=21600000</pre> <p>if you want the catalog cache refreshed more (or less) frequently than every six hours. Express the value in milliseconds.</p>
	<p>16 (Optional) In the second # Performance section, change this parameter:</p> <pre>src.refreshLookupsAfterEvery=21600000</pre> <p>if you want the catalog cache refreshed more (or less) frequently than every six hours. Express the value in milliseconds.</p>
	<p>17 (Optional) In the # Exchange Rates section, change this parameter:</p> <pre>src.refreshExchangeRatesAfterEvery=21600000</pre> <p>if you want exchange rates refreshed more (or less) frequently than every six hours. Express the value in milliseconds.</p>
	<p>18 (Optional) In the # SM config properties section, change these parameters:</p> <pre>src.sm.defaultMaxConnectionsPerHost=25 src.sm.maxTotalConnections=25</pre> <p>Specify a value between 25 to 60 depending upon the user traffic that you expect. Increase this value by 10 for each additional Service Manager node. Do not exceed 60 regardless of the number of Service Manager nodes. For example, if there are six or more Service Manager nodes supported by Loadbalancer, set this value to 60.</p>
	<p>19 Save and close the file.</p>
<input type="checkbox"/>	<p>Start Apache Tomcat</p>
	<p>20 To start the Tomcat server, do one of the following depending on your selection in step 2 on page 10.</p> <p>Windows Service: Navigate to the Control Panel > Administrative Tools > Services dialog to start the Apache Tomcat 6 service.</p> <p>Manual Process: Run <code>C:\... \apache-tomcat-6.0.n \bin \startup.bat</code>.</p>

	Follow These Steps
<input type="checkbox"/>	Start the Service Request Catalog application
	21 Type this URL into a supported browser window: <code>http://nn.nn.nn.nn:nnnn/src-1.20p1/</code> where <i>nn.nn.nn.nn</i> : is the IP address of the tomcat server, and <i>:nnnn</i> is the tomcat port number on that server.
	22 Log in with your Service Manager credentials.

2 Next Steps

After you install the Service Request Catalog 1.20p1 application, there are some additional configuration steps to follow. Basic tasks include installing and configuring the Service Manager application interfaces for Service Request Catalog, languages, and security.

- [Configure Service Manager](#)
- [Do You Want Other Locales?](#) on page 22
- [Configure Security](#) on page 26
- [Refine the Service Manager Catalog](#) on page 19
- [Do You Want to Customize the Interface?](#) on page 30

Configure Service Manager

There are a few Service Manager administrative tasks to complete before you begin using Service Request Catalog.

Task 1: Load the Service Manager Files

Follow the directions in the Service Manager Release Notes to apply any relevant .unl files. If necessary, follow these steps to complete that task.

- 1 To configure the Service Manager Windows client for a server side load/unload:
 - a Start the Windows client
 - b From the main toolbar, click **Window > Preferences >**
 - c On the **HP Service Manager** pane, clear the **Client Side Load/Unload** checkbox.
 - d Restart the Windows client.
- 2 In the left navigation pane, click **Tailoring > Database Manager**.
- 3 Right-click anywhere in the page and select **Import/Load** from the **Option** menu.
- 4 In the **File Name** field, browse to locate the .unl file.
- 5 Skip the optional **Import Descriptor** field.
- 6 Select **winnt** from the drop-down **File Type** list.

- 7 Choose one of the following options:

All Messages	To see all messages that Service Manager generates loading the file.
Totals Only	To see only the total number of files Service Manager loads.
None	To hide all messages that Service Manager generates when loading the file.
- 8 Repeat [step 2](#) on page 15 through [step 7](#) to load any remaining .unl files recommended for this release.

Task 2: Update the Database Dictionary (dbdict)

Complete the following steps to enable line item approval functionality.

- 1 Type **db** in the command line, and then press **Enter**.
- 2 Type **Approval** in the **File Name** field, and then press **Enter**.
- 3 Click the **Keys** tab, click the **Unique key**, and then click **Edit Field/Key**.
- 4 In the **Fields** list, click an empty item, type **component**, and then click **OK**.
- 5 Click **Yes** when you receive the warning message that you are modifying a key.
- 6 Click **OK**.
- 7 Repeat [step 1](#) through [step 6](#) to add the **component** unique key to the ApprovalLog file.

Task 3: Configure the WebServer URL

- 1 Start a Service Manager Windows client session.
- 2 Expand the navigation tree in the left pane.
- 3 Click **System Administration > Base System Configuration > Miscellaneous > System Information Record**, shown in [Figure 7](#) on page 17.
- 4 On the **System Information Definition** form, click the **Active Integrations** tab.
- 5 Locate the **Webserver Information** section.
- 6 In the **Webserver URL** text box, shown in [Figure 7](#), specify the URL to connect Service Manager to the Service Request Catalog application.[step 13](#) on page 11

`http://nn.nn.nn.nn` Internet Protocol address of the Service Manager server (specified in [step 13](#) on page 11).

`:nnnn` Configured port number on the Service Manager server (specified in [step 13](#) on page 11).

`/xxxxx/index.do` Configured Service Manager application identifier.

- 7 In the **SRC URL** text box, specify the URL to connect Service Manager to the Service Request Catalog application.

<code>http://nn.nn.nn.nn</code>	Internet Protocol address of the Service Request Catalog server. This value could be <i>localhost</i> or an IP address.
<code>:nnnn</code>	Assigned port number on the Service Request Catalog server .
<code>/src-1.20p1</code>	Configured Service Request Catalog application identifier (specified in step 11 on page 11).
- 8 Save your changes.

Task 4. Configure User Capability Words

Service Manager best practices recommend assigning user roles that carry all the required capability words to be successful at their tasks. The required capability word for Service Request Catalog is *service catalog*. The *service catalog* capability word allows a user to request items from the service catalog. Other capability words may be required for role-based scenarios.

Related Capability Words

Depending on your task objectives, *at least one* of the following capability words must be part of each Service Request Catalog user profile.

Capability Word	Description
svcCatDeptRequester	An employee can request items from the catalog on behalf of a department.
svcCatEmployeeRequester	An employee can request items from the catalog.
svcCatManagerRequester	A manager can request items from catalog.

Request For Another Person

You can order catalog items and services for another person only if the *svcCatRequestOnBehalf* capability word is part of your user profile.

Mass Update

As an administrator, you can apply new capability words to a large group of users in a single operation. Follow the steps in Service Manager documentation that describes the mass update feature to apply a capability word to the user profile of a group of users.

Task 5. Configure Notifications

- 1 Start a Service Manager Windows client session.
- 2 Type **db** in the command line, and then press **Enter**.
- 3 Type **Object** in the Table Name field and press **Enter**.
- 4 Type **incidents** in the **File Name** field, and then press **Search**.
- 5 Click the **Notifications** tab.

- 6 In the **Add** field, type **SM Add**.
- 7 Right-click to display the Context menu.
- 8 Click **Save**. A confirmation message should appear that says “Object record updated.”
- 9 From the left navigation pane, click **Tailoring > Notifications > Notifications**.
- 10 In the **Name** field on the Notification Definition record, type **SM Add**.
- 11 Click **Search**.
- 12 The Message tab enables you to define the message type, delivery method, and conditions under which Service Manager should send the notification. On the Message tab, insert the cursor in the first blank row and type the following values in the names fields.

Column Name	Type This Value
Msg Class	sm
Msg No.	8
Arguments	incident.id in \$L.file
Condition	not null(\$L.src.url)
Format	SD.notify.src.open
Notify Method	email
Recipients	callback.contact in \$L.file

- 13 Click **Add**.
- 14 Type **fd** in the command line, and then press **Enter**.
- 15 Type **SD.notify.ess.open** in the **Form** field and press **Enter**.
- 16 Select **SD.notify.ess.open**. Service Manager displays this form in the lower half of the workspace.
- 17 Right-click the form to display the Context menu.
- 18 Select **Copy/Rename** to display the “Copy/Rename a Format” form.
- 19 Replace SD.notify.ess.open with a new format name. Type **SD.notify.src.open**.
- 20 Make sure the **Copy** option is selected.
- 21 Click **OK**. Verify the new form saves successfully and that the name on the current Forms Designer tab is SD.notify.src.open.
- 22 On the toolbar above the form, click **Design** to open the Service Manager Form Designer tool.
- 23 Insert the cursor in the message field that says: “...please click this URL:”
- 24 There is a properties dialog for this section of the form that appears in the lower half of the workspace. This is the same area where Service Manager messages appear. In the **Label for** field, type **\$L.src.url**.
- 25 Click **OK** to save your changes.

To verify that Service Manager is sending email messages, you can check the eventout table.

- 1 Type **db** in the command line, and then press **Enter**.
- 2 Type **eventout** in the **Table Name** field and press **Enter**.

Refine the Service Manager Catalog

Complete [Task 1: Remove Empty Categories](#) to maximize performance and [Task 2: Remove Unsupported Characters](#) to improve the user experience.

Task 1: Remove Empty Categories

Empty Service Manager categories (that contain no items) will cause a performance degradation when Service Request Catalog attempts to populate existing categories with child items. Service Catalog administrators should verify that the Service Manager Service Catalog contains no empty categories.

Task 2: Remove Unsupported Characters

Service Manager has a rich text editor that enables the Service Catalog administrator to embellish item descriptions with formatting, embedded links, and other readability enhancements. All of these formatting attributes do not render successfully when viewed through the Service Request Catalog interface. HP recommends that the Service Catalog administrator adjust these descriptions to limit formatting of the detailed description field to the following:

- Links (<a>) to relative internal paths or absolute external URLs
- Bold (or) text
- Line breaks (
)
- These font () attributes:
 - color (specified in hexadecimal values only)
 - face (including a comma-delimited list of fonts)
 - size (specified in pixels or relative points, such as +2 or -4)
 - letterspacing
 - kerning (0 or 1)
- These image () attributes:
 - src (required)
 - width (in pixels)
 - height (in pixels)
- Italic (<i>) text
- Leading spaces in category and item names
- These paragraph (<p>) attributes:
 - align (left, right, justify, center)

- class
- These span () attributes:
 - class
 - **Note:** Multiple properties in a single span tag, such as Hello, are supported. Nested span tags are not supported.
- These text formatting (<textformat>) attributes:
 - indent
 - blockindent
 - leftmargin (in points)
 - rightmargin margin (in points)
 - leading (in pixels)
 - tabstops (in a comma-delimited list)
- Underlined (<u>) text
- Simple lists. Simple lists render as unordered (bulleted) lists. Numbered lists are not supported. For example:

```
<ul>
  <li>Item</li>
  <li>Item</li>
  <li>Item</li>
  <li>Item</li>
</ul>
```

Note: Nested lists are not supported.

Note: Unsupported formatting will be ignored in the Service Request Catalog application.

Task 3: Add Images for Catalog Items

You will obtain optimum results if all catalog images are the same size and in a similar format. Catalog items display as a “thumbnail” image. Follow these basic rules for attaching a thumbnail image to a catalog item:

- The maximum size is 196x140 pixels. Use a good image utility to crop or resize your images to a consistent size.
- The default background color for a smaller image is white. For consistency, consider adding an appropriate background to maintain the same image dimensions for all items.
- The recommended file type is .jpg or .png. Using other formats may produce unpredictable results.

Task 4: Multi-Company Mode

An administrator can configure Service Manager to support Multi-Company mode to filter the information that Service Request Catalog users see when making requests. In Multi-Company mode, Service Request Catalog users see only request items for their own company.

An administrator can also enable the Mandanten feature with Multi-Company mode to store company catalog data in its own secure database.

The recommended tasks in Service Manager are:

- 1 Enable Multi-Company mode in the System Information Company record.
(**System Administration > Base System Configuration > Miscellaneous > System Information Record > General**)
- 2 Verify that you have a complete company record with Multi-Company enabled.
(**Tailoring > Database Manager > Table (company) > Search > company > Search > Show Company in Multi-Company Lists**)
- 3 Enable Mandanten security by specifying a filtering condition for the svcCatalog and svcDisplay tables. Use the Mandanten Field Restriction form to specify **MS . company** in the **Mandant Field Name** field. Create two records: one for **File Name** svcCatalog and one for **File Name** svcDisplay.
(**System Administration > Ongoing Maintenance > Mandanten > Mandanten Field Restrictions**)
- 4 Create a Mandanten security group. The **Security ID** must be a an upper case value. For example: SRC. Type this value in the first row of the **Include Value List**. Click Add to save the security group record.
(**System Administration > Ongoing Maintenance > Mandanten > Mandanten Security Groups**)
- 5 If you enable Mandanten security, add the name of the Mandanten security group to the **Security Groups** tab on the operator record of each Service Request Catalog user.
- 6 Assign the company to each category, sub-category, package, and item. This property does not cascade. If you are an advanced user, you can use these RAD scripts to accomplish this task:

```
— d MS.company in $L.file  
— x MS.company in $L.file="company name"
```
- 7 If you have more than one company defined in Service Manager, make sure each company has categories, subcategories, and producttypes assigned associated with service catalog.

For the detailed steps to complete each Service Manager task, see the Service Manager Help server.

Task 5: Contact Lookup Functionality

All Service Request Catalog users must have complete contact information specified in their Service Manager operator and contact records for the contact lookup to search successfully for a match.

The contact record and the operator record must contain the first name, last name, and company information for the user. Service Manager generates a formatted contact ID that may also be used in the contact lookup. For example, the Service Manager user Jennifer Falcon has this information in her company and operator records:

- Last name = Falcon
- First name = Jennifer
- Company = HP

Her Service Manager generated contact ID is FALCON, JENNIFER.

If you are using the Contact lookup in Service Request Catalog, you can find her by typing one of the following:

- Her first name only
- Her last name only
- Both first and last name
- Her contact ID (in upper case)

Do You Want Other Locales?

Important: The complete Service Request Catalog release of version 1.20p1 occurs in two stages. The initial release is English only. There is a subsequent release that contains all language packs, localized Help system and user interface text for deployment in a multi-national environment. If your installation is not English, the subsequent release will enable you to complete any locale-dependent configuration. For more information, contact your HP Sales Representative.

When you deploy the complete language packs, Service Request Catalog provides complete out-of-box support for these languages:

- Brazilian Portuguese
- Dutch
- French
- German
- Italian
- Japanese
- Simplified Chinese
- Spanish

Complete support includes the application interface, error messages, and the Help system. There is also support in the application interface and error messages for these languages:

- Czech
- Hungarian
- Korean
- Polish
- Russian

Service Request Catalog also supports the currency code and symbol for each of these languages. However, you may have a global community of users who each want to view the contents in their preferred language. If this is the case, complete the steps in the following sections to enable as many locales as you wish. The only constraint is that each locale must be supported by Service Manager. Complete the first three tasks with a Service Manager client that connects to your Service Manager server.

Task 1. Configure the Language in Service Manager

The first task is to make the selected language available when the user logs in to Service Request Catalog. Some languages may already be enabled on the Service Manager side. Others may not be enabled. Follow these steps to verify that your target language is enabled, or complete the steps to enable it.

- 1 From the Service Manager client, expand the left navigation and click **Tailoring > Database Manager**.
- 2 From the **Table** field, type or select:
Language
- 3 Click the **Search** icon.
Service Manager returns a list of Service Manager language files.
- 4 Double-click the desired language file.
- 5 From the **Language Identification** dialog, click the **Search** icon.
A list of available languages appears. If the language you want has an active flag set to true, the language is enabled, and your task is complete. If the flag is false, proceed to the next step.
- 6 Select the language that you want to enable.
- 7 Check the empty **Active for logins** check box.
- 8 Click **Save** to update the language record.
- 9 Click **OK**.
- 10 Repeat [step 1](#) through [step 9](#) on page 23 to add more languages.
- 11 Click **Back** to exit this task.
- 12 Restart the Service Manager client to verify your changes.

Task 2. Configure the User Profile

The second task is to associate a default language with the individual user in their Service Manager user profile. For users in a multi-lingual environment, one might prefer to search the catalog in French, while another user would be more comfortable with Spanish.

Note: If the user does not exist in the Service Manager system, you can follow these steps to navigate to the Operator Record dialog, but you must create the user before you complete the language association task.

- 1 Follow [step 1](#) on page 23 through [step 9](#) on page 23 to verify the target language is configured in Service Manager.
- 2 In the System Navigator pane, click **System Administration > Ongoing Maintenance > Operators** to edit the user's operator record.
- 3 Click **Search**.
- 4 Select the user from the **Login Name** or **Full Name** column.
- 5 Click the **Login Profile** tab.
- 6 Click the **Language** drop-down list to select the default language for that user.
- 7 Click **Save**.

- 8 Click **OK**.
- 9 Repeat [step 2](#) through [step 8](#) if you have more than one operator record to configure.
- 10 Click **Back** to exit this task.

Task 3. Localize the Item Record

To display any item in the user's preferred language, you must add the specific language attribute to the item record. If you skip this step, the item appears in the default language.

- 1 In the System Navigator pane, click **Service Catalog > Manage Catalog** to locate the record to be localized.
- 2 Click **Search**. Service Manager displays a list of the item records in the catalog.
- 3 Scroll to find the target record in the list.
- 4 Click the record in the list to display all the record information in the Category Definition form.
- 5 When Service Manager displays the record, right-click anywhere in the form and select **Localize this record** from the context menu.
Service Manager displays the *Create Localized Data* wizard.
- 6 Choose the language from the drop-down list. For example, select German.
- 7 Replace the English **Name**, **Short Description**, and **Long Description** with equivalent values in the language you selected in [step 6](#).
- 8 Click **Finish**. Service Manager displays a confirmation message above the Category Definition form.
- 9 Repeat [step 3](#) through [step 8](#) to create localized versions of each catalog record.
- 10 When you are finished, click **OK**.
- 11 Click **Back** to exit the task.

Task 4. Configure the Currency

All currencies related to supported locales are available in the Service Request Catalog application. Currency values can appear with a symbol, such as the dollar symbol (\$), or a code, such as USD (United States Dollars). The default display for the English locale is the currency *symbol*. The default display for non-English locales is the currency *code*.

Changing a Currency Code or Symbol

You can change the way currency displays, or you can add a new code or symbol. For example, you would like to display using a different currency code or symbol, or even add a new currency.

Changing the Default Currency Symbol for Service Request Catalog

The Service Manager server normally provides localized item descriptions and converts the item cost to your locale currency symbol and value without intervention. You can override the currency display by overriding the default value.

- 1 On the server where you deploy the Service Request Catalog, navigate to the **Control Panel > Administrative Tools > Services** dialog. Verify the Apache Tomcat service is stopped.
- 2 Navigate to this folder:
C:\...\src-1.20p1\resources\client\
All localization sub-folders contain translated text for the application.
- 3 Open the folder for your locale. For example, Hungarian translations are in this folder:
C:\...\src-1.20p1\resources\client\hu\
4 Open the CurrencySymbol_hu.properties file.
- 5 Locate the currency code and symbol that you want to display and remove the comment character from that entry.
- 6 Save and close the file.
- 7 Restart Tomcat.

Adding a New Currency to Service Manager

If you want to display items in the new locale using the correct currency value and symbol, browse the Service Manager documentation to locate “Displaying currency in the Service Catalog.” Follow the recommendations in this and related topics to make sure the:

- Display currency field is set correctly in the affected operator records
- Currency table contains the correct currency definition record
- Currency conversion rate, established by the daily currency exchange rate, appears in the currency conversion table.

Adding a New Code and Symbol to Service Request Catalog

In this example, we want to add the Korean code and symbol.

Follow these steps on the server where you deploy the Service Request Catalog .war file.

- 1 On the server where you deploy the Service Request Catalog, navigate to the **Control Panel > Administrative Tools > Services** dialog. Verify the Apache Tomcat service is stopped.
- 2 Navigate to this folder:
C:\...\src-1.20p1\resources\client\
All localization sub-folders contain translated text for the application.
- 3 The /ko folder contains all property files for the Korean locale. Open this file with a text editor:
C:\...\src-1.20p1\resources\client\ko\CurrencySymbol_ko.properties
- 4 Add the correct currency code and currency symbol to this file. For example, to add Korean currency, add this value:
KRW=\u20a9

- 5 Save and close the file.
- 6 Restart Tomcat.

Configure Security

Security represents the user authentication process that you plan to implement to enable access to the Service Request Catalog.

Pre-Requisites

The Service Request Catalog security administrator should be familiar with the following:

- How to configure Service Manager user roles and Trusted Signon for Service Manager users
- How to use the Java keytool utility and public key encryption
- The CA SiteMinder® authentication tool used by some HP enterprise applications
or
- The Spring Security framework (<http://static.springsource.org/spring-security/site/>)

Overview

SiteMinder is a single sign on tool for HP enterprise applications. After configuration, the enterprise application user logs into SiteMinder once to provide a full user name and password. Thereafter, SiteMinder shares the authentication information with other client HP applications to simplify the login process.

Spring Security is a security framework for enterprise software, especially those applications that include the Spring framework. Spring Security provides authentication and authorization for access control. It provides out-of-the-box implementations and also allows the use of customized ones. For more information about the current version of Spring Security (v2.0.5), see <http://static.springsource.org/spring-security/site/reference.html>

Sign on Methods

Service Request Catalog and Service Manager must work together to complete a user request but the authentication process for each application can vary.

- Service Manager uses only Trusted Sign on authentication for single sign on privileges.
- Service Request Catalog uses Spring authentication for single sign on privileges.
- Both applications also accept a default sign on process where the user provides their Service Manager user name and password.

In all cases, users must already have a user role and login permission to the Service Manager server connected to the Service Request Catalog application.

Out-of-Box Security Features

Service Manager users have out-of-box Service Request Catalog user name and password login support with the following pre-configured modules:

- UsernamePasswordAuthenticationToken
- CatalogUserDetailsService
- CatalogAuthenticationProvider
- LogoutFilter

Task 1. Service Manager

The best resource for configuration information is the Service Manager documentation that is available through the Service Manager client or Help server. If the Service Request Catalog application is not deployed on the physical Service Manager server, follow these steps:

- 1 Stop the Service Manager server.
- 2 Generate a public/private key pair for the Service Request Catalog server using the keytool key and certificate management utility. For information, or for certificate-related questions, see <http://java.sun.com/javase/6/docs/technotes/tools/solaris/keytool.html>
- 3 Submit a Certificate Signing Request (CSR) to a trusted Certificate Authority (CA), such as Verisign®.
- 4 Retrieve the CA signed certificate for the Service Request Catalog server.
- 5 If Service Manager uses a default installation path, open this file with a text editor: C:\Program Files\HP\Service Manager *n.nn*\Server\RUN\sm.ini file.
- 6 Locate the value for the ssl trustedClientsJKS property. The default name is trustedclients.jks.
- 7 Locate the .jks file in this default directory:
C:\Program Files\HP\Service Manager *n.nn*\Server\RUN\
- 8 If you generated your CSR using the trustedclients.jks file, import the CA signed certificate into the trustedclients.jks file using the keytool utility.
- 9 The keytool utility opens, saves, and closes the .jks file automatically
Note: If you have a separate keystore that contains your public/private key pairs, import the following into the trustedclients.jks file using the keytool utility:
 - The separate keystore.
 - The CA signed certificateFor more information, see the “Importing Keystore” section of <http://java.sun.com/javase/6/docs/technotes/tools/solaris/keytool.html>
- 10 Restart the Service Manager server.

Task 2. Service Request Catalog

Complete the steps in this section to configure Service Request Catalog.

Update applicationContext.properties

- 1 Stop Tomcat.
- 2 If Service Manager uses a default installation path, open this file with a text editor:

C:\Program Files\HP\Service Manager *n.nn*\Server\RUN\sm.ini file

You need to reference certain parameter values found in this file.

- 3 Open this file with a text editor:

C:\...\src-1.20p1\WEB-INF\classes\applicationContext.properties file

- 4 Locate this section:

```
serviceManager.port=portnumber
```

Change the `serviceManager.port=portnumber` parameter to point to a secure server.

For example:

```
serviceManager.port=13443
```

where *portnumber* is the secure port number specified in the sm.ini file.

```
.  
. .  
. .  
httpsPort:13443  
. .  
. .  
. .
```

Note: HP recommends that you use a Fully Qualified Domain Name (FQDN), such as `https://machine.hp.com:13443` (instead of an IP address), to match the FQDN specified when you configured the public/private key pair and the CA-signed-certificate for the Service Request Catalog application.

- 5 Locate this section:

```
src.trustStore=
```

- 6 Change the `src.trustStore` parameter to point to the location of the cacerts file. This file contains the public certificates for the Certificate Authorities that signed the Service Manager and Service Request Catalog server certificates.

For example:

```
src.trustStore=C:\Programs\HP\ServiceManager9.21\Client\plugins\  
com.hp.ov.sm.client.common_9.21.000\cacerts
```

where cacerts is the same file as the one used by Service Manager. You can see the truststoreFile value specified in the sm.ini file:

```
.  
. .  
truststoreFile:cacerts  
. . .
```

7 Locate this section:

```
src.trustStorePassword=
```

8 Change the src.trustStorePassword= parameter to specify the password required to edit the trustStore file. For example:

```
src.trustStorePassword=changeit
```

where changeit is the truststorePass value specified in the sm.ini file:

```
.  
. .  
truststorePass:changeit  
. . .
```

9 Locate this section:

```
src.keyStore=
```

10 Change the src.keyStore= value to point to the path and name of the keyStore file that you used to generate the public/private key-pair for the application. It is also the same file that you used to generate a CSR to be signed by a CA. For example:

```
src.keyStore=C:\Programs\HP\ServiceManager9.21\Client  
\plugins\com.hp.ov.sm.client.common_9.21.000\application.keystore
```

11 Locate this section:

```
src.keyStorePassword=
```

Change the src.keyStorePassword= to specify the password required to edit the keyStore file. For example:

```
src.keyStorePassword=password
```

12 Save and close the file.

13 Restart Tomcat.

Do You Want to Customize the Interface?

Service Request Catalog enables you to change the branding information in the banner area of the user interface. The banner area is 400 pixels wide and 50 pixels high. Within this area, you can customize the interface with your logo and any other branding elements.

To prepare the banner image file:

- 1 Create a branding image that is 400 pixels wide and 50 pixels high.
- 2 Save the image with a .png file type.
- 3 Rename this image logo.png.

To post the new image file:

- 1 On the server hosting Service Request Catalog, stop the Tomcat service.
- 2 Store the new images in this folder:
`C:\apache-tomcat-6.x\webapps\src-1.20p1\secure\branding\logo`
- 3 Restart Tomcat.
- 4 Log into the Service Request Catalog application to view the new banner.

3 Performance

The following changes to the Service Manager database are required to improve the performance of Web Services requests from Service Request Catalog. These steps should be completed by an experienced Service Manager administrator.

- [Task 1. Remap the current.pending.groups Array](#)
- [Task 2. Remap the parent.tree Field](#)
- [Task 3. Remap the access.list Field](#)
- [Task 4. Remap the operators Field](#)
- [Task 5. Remap the members Field](#)

These changes remedy the problem that occurs when the Service Manager server is unable to fully translate Service Manager queries to the SQL server when fields appearing in the query are mapped to large object (LOB) type fields. The recommended changes prevent inefficient scans by the Service Manager server when it runs queries against tables that reference LOB type fields.

If you already mapped any repeating group in one of the referenced tables to an Array table, you will have an Array table that uses the A1 alias. In this case, use a different alias, such as A2, and append that alias value to the base table name to form the table name. For example, the detailed instructions in Task1 assume you do not already have an Array table for the Approval file. If you already have an A1 table, use alias A2 and name the table APPROVALA2 instead.

Task 1. Remap the current.pending.groups Array

Remap the `current.pending.groups` array from a CLOB/TEXT field to an Array table, creating APPROVALA1 table. Use the dbdict utility, not the system definition utility or the sql mapping utility.

To edit the dbdict for the Approval file

- 1 In the Fields pane, scroll down to and double-click the `current.pending.groups` array definition line.
- 2 Click the **edit** field.
- 3 Set SQLTable to **a1**.
- 4 Click **Next**. You should be positioned on the dbdict entry for the `current.pending.groups` **character** field.
- 5 Set SQLTable to **a1**.
- 6 Change the SQL type from CLOB to **VARCHAR(60)** and click **OK**.
- 7 Select the SQL Tables tab and add a new line with alias, name, and type of **a1 APPROVALA1 oracle10**.

- 8 Click **OK**. A pop-up dialog displays the DDL to create the new table.
- 9 **Important:** Do **not modify** the DDL.
- 9 Copy this DDL to the clipboard for future reference.
- 10 Click **User Alters**. Do **not** click SM Alters.
- 11 Click **OK** on the main dbdict window to update the dbdict.

Note: After you click **User Alters**, Service Manager displays a dialog warning that you must now alter the database using the displayed DDL. However, Service Manager also tries to modify the database directly, using that DDL. If it succeeds, nothing further is required.

The operation will succeed, provided the *sqllogin* account information in the Service Manager **sm.ini** file is for a database user with the rights to issue CREATE TABLE and CREATE INDEX operations. If the *sqllogin* account information in the Service Manager **sm.ini** file is not for a database user who does not have these rights, the operation will fail, and an appropriately authorized user must manually run the DDL that you copied to the clipboard against the Service Manager database schema.

- 12 Verify that Service Manager succeeded in creating the new table and index by examining the Service Manager database in Oracle to see if the new **APPROVALA1** table was created.
- 13 Note whether any SQL error messages appear.
- 14 Use Oracle sql developer or another database management tool to verify that the APPROVALA1 table was created.

Task 2. Remap the parent.tree Field

The next task is to remap the parent.tree field in the capability file to an Array table. Use the dbdict utility, not the system definition utility or the sql mapping utility.

To edit the capability file to an Array table

- 1 Select the **parent.tree** type array.
- 2 Click the **edit** field.
- 3 Set SQLTable to **a1**.
- 4 Click **Next**. You should be on the **parent.tree** type character.
- 5 Change the SQL type to **VARCHAR(50)**.
- 6 Change SQLTable to **a1** and click **OK**.
- 7 Go to SQLTables.
- 8 Add **a1 CAPABILITYA1 oracle10**.
- 9 Click **OK**. A pop-up dialog displays the DDL to create the new table.
- 10 **Important:** Do **not modify** the DDL.
- 10 Copy this DDL to the clipboard for future reference.
- 11 Click **User Alters**. Do **not** click SM Alters.
- 12 Click **OK** on the main dbdict window to update the dbdict.

Note: After you click **User Alters**, Service Manager displays a dialog warning that you must now alter the database using the displayed DDL. However, Service Manager also tries to modify the database directly, using that DDL. If it succeeds, nothing further is required.

The operation will succeed, provided the *sqllogin* account information in the Service Manager **sm.ini** file is for a database user with the rights to issue CREATE TABLE and CREATE INDEX operations. If the *sqllogin* account information in the Service Manager **sm.ini** file is not for a database user who does not have these rights, the operation will fail, and an appropriately authorized user must manually run the DDL that you copied to the clipboard against the Service Manager database schema.

- 13 Verify that Service Manager succeeded in creating the new table and index by examining the Service Manager database in Oracle to see if the new **CAPABILITYA1** table was created.
- 14 Note whether or not any SQL error messages are displayed.
- 15 Use Oracle sql developer or another database management tool to verify that the **CAPABILITYA1** table was created.

Task 3. Remap the access.list Field

The next step is to remap the `access.list` field in the `svcCatalog` file to an Array table. Use the `dbdict` utility, not the system definition utility or the `sql` mapping utility.

To edit the `svcCatalog` file to an Array table

- 1 Select the **access.list** type array.
- 2 Click the **edit** field.
- 3 Set `SQLTable` to **a2**.
- 4 Click **Next**. You should be on the **access.list** type character.
- 5 Change the SQL type to **VARCHAR(50)**.
- 6 Change `SQLTable` to **a2** and click **OK**.
- 7 Go to `SQLTables`.
- 8 Add **a2 SVCCATALOGA2 oracle10**.
- 9 Click **OK**. A pop-up dialog displays the DDL to create the new table.
Important: Do **not modify** the DDL.
- 10 Copy this DDL to the clipboard for future reference.
- 11 Click **User Alters**. Do **not** click SM Alters.
- 12 Click **OK** on the main `dbdict` window to update the `dbdict`.

Note: After you click **User Alters**, Service Manager displays a dialog warning that you must now alter the database using the displayed DDL. However, Service Manager also tries to modify the database directly, using that DDL. If it succeeds, nothing further is required.

The operation will succeed, provided the *sqllogin* account information in the Service Manager **sm.ini** file is for a database user with the rights to issue CREATE TABLE and CREATE INDEX operations. If the *sqllogin* account information in the Service Manager

sm.ini file is not for a database user who does not have these rights, the operation will fail, and an appropriately authorized user must manually run the DDL that you copied to the clipboard against the Service Manager database schema.

Task 4. Remap the operators Field

The next task is to remap the operators field in the kmgroup file to an Array table. Use the dbdict utility, not the system definition utility or the sql mapping utility.

To edit the kmgroup file to an Array table

- 1 Select the **operators** type array.
- 2 Click the **edit** field.
- 3 Set SQLTable to **a1**.
- 4 Click **Next**. You should be on the **operators** type character.
- 5 Change the SQL type to **VARCHAR(60)**.
- 6 Change SQLTable to **a1** and click **OK**.
- 7 Go to SQLTables.
- 8 Add **a1 KMGROUPA1 oracle10**.
- 9 Click **OK**. A pop-up dialog displays the DDL to create the new table.

Important: Do **not modify** the DDL.

- 10 Copy this DDL to the clipboard for future reference.
- 11 Click **User Alters**. Do **not** click SM Alters.
- 12 Click **OK** on the main dbdict window to update the dbdict.

Note: After you click **User Alters**, Service Manager displays a dialog warning that you must now alter the database using the displayed DDL. However, Service Manager also tries to modify the database directly, using that DDL. If it succeeds, nothing further is required.

The operation will succeed, provided the *sqllogin* account information in the Service Manager **sm.ini** file is for a database user with the rights to issue CREATE TABLE and CREATE INDEX operations. If the *sqllogin* account information in the Service Manager **sm.ini** file is not for a database user who does not have these rights, the operation will fail, and an appropriately authorized user must manually run the DDL that you copied to the clipboard against the Service Manager database schema.

- 13 Verify that Service Manager succeeded in creating the new table and index by examining the Service Manager database in Oracle to see if the new **KMGROUPA1** table was created.
- 14 Note whether or not any SQL error messages are displayed.
- 15 Use Oracle sql developer or another database management tool to verify that the **KMGROUPA1** table was created.

Task 5. Remap the members Field

The next step is to remap the members field in the cm3groups file to an Array table.

To edit the cm3groups file to an Array table

- 1 Select the **members** type array.
- 2 Click the **edit** field.
- 3 Set SQLTable to **a1**.
- 4 Click **Next**. You should be on the **members** type character.
- 5 Change the SQL type to **VARCHAR(60)**.
- 6 Change SQLTable to **a1** and click **OK**.
- 7 Go to SQLTables.
- 8 Add **a1 CM3GROUPOSA1 oracle10**.
- 9 Click **OK**. A pop-up dialog displays the DDL to create the new table.

Important: Do **not** modify the DDL.

- 10 Copy this DDL to the clipboard for future reference.
- 11 Click **User Alters**. Do **not** click SM Alters.
- 12 Click **OK** on the main dbdict window to update the dbdict.

Note: After you click **User Alters**, Service Manager displays a dialog warning that you must now alter the database using the displayed DDL. However, Service Manager also tries to modify the database directly, using that DDL. If it succeeds, nothing further is required.

The operation will succeed, provided the *sqllogin* account information in the Service Manager **sm.ini** file is for a database user with the rights to issue CREATE TABLE and CREATE INDEX operations. If the *sqllogin* account information in the Service Manager **sm.ini** file is not for a database user who does not have these rights, the operation will fail, and an appropriately authorized user must manually run the DDL that you copied to the clipboard against the Service Manager database schema.

- 13 Verify that Service Manager succeeded in creating the new table and index by examining the Service Manager database in Oracle to see if the new **CM3GROUPOSA1** table was created.
- 14 Note whether or not any SQL error messages are displayed.
- 15 Use Oracle sql developer or another database management tool to verify that the **CM3GROUPOSA1** table was created.

4 Language Packs

Service Request Catalog provides out-of-box support for the languages listed in [Do You Want Other Locales?](#) on page 22. If you want to translate a language that is not on this list, read the information in this chapter.

You will need to use the approved language code when you create and install language packs. The following table lists the languages that you can select.

Table 1 Supported Languages and Language Codes

Language	Language Code
Arabic	ar
Bokmal Norwegian	nb
Bulgarian	bg
Catalan	ca
Croatian	hr
Czech	cs
Danish	da
Dutch	nl
English	en
Estonian	et
Finnish	fi
French	fr
German	de
Greek	el
Hebrew	iw
Hindi	hi
Hungarian	hu
Icelandic	is
Indonesian	in
Italian	it
Japanese	ja
Korean	ko

Table 1 Supported Languages and Language Codes

Language	Language Code
Latvian	lv
Lithuanian	lt
Macedonian	mk
Malay	ms
Norwegian	no
Polish	pl
Portuguese	pt
Romanian	ro
Russian	ru
Simplified Chinese	zh_CN
Slovak	sk
Slovene	sl
Spanish	es
Swedish	sv
Thai	th
Turkish	tr
Ukrainian	uk
Vietnamese	vi

Language Builder

HP Language Builder is a key element in an Open Localization Toolkit that enables users to add translation for languages that are not supported out-of-box. Language Builder is a standard framework that enables an automated localization process. This process is independent from the application functionality. Language Builder has two main features.

- It identifies and extracts localizable content.
- It generates a language pack installer for languages that are not supported out-of-box.

Prerequisites

In addition to the requirements described on [page 7](#), you must have InstallJammer v.1.2.14 installed if you plan to build language packs. If you do not have this version, or a later release, installed, follow these steps.

- 1 In the installation package, locate
C:\...\serviceRequestCatalog\languageBuilder\InstallJammer-1.2.14-Setup.exe.
- 2 Double-click InstallJammer-1.2.14-Setup.exe to begin the installation.
- 3 Select the target language. For example, select Russian.
- 4 If you do not want InstallJammer to launch after installation, clear the appropriate checkbox.

The installer completes the installation process for InstallJammer.

Install and Configure Language Builder

- 1 In the installation package, locate C:\...\serviceRequestCatalog\languageBuilder\LanguageBuilder-3.20.001-WinNT4.0.msi.
- 2 Double-click LanguageBuilder-3.20.001-WinNT4.0.msi to begin the installation.
- 3 Follow the onscreen directions to accept the license terms, select the installation location, and begin the installation.
- 4 When the process is complete, click **Finish**. The default installation path is C:\Program Files\HP\LanguageBuilder.
- 5 Navigate to the original source folder and extract the zip archive:
C:\...\serviceRequestCatalog\languageBuilder\SRC_Open_L10N.zip
to C:\

The result is a new folder: C:\SRCLP that contains these resources:

```
\HP_config\SRC_LP.mpi  
cultures.xml  
SRC_1.20.xml
```

Caution: The LanguageBuilder application requires this naming convention. Do not rename C:\SRCLP or SRC_1.20.xml.

- 6 Copy C:\SRCLP\cultures.xml.
- 7 Paste it in the LanguageBuilder installation folder:
C:\Program Files\HP\LanguageBuilder
This will replace the generic cultures.xml file with one customized for Service Request Catalog.

Export Service Request Catalog Content

Follow these steps to prepare the localized content.

- 1 Copy the Service Request Catalog .war file (src-1.20p1.war) and paste it into the C:\SRCLP folder. Do not change the .war file name.
- 2 Open SRC_1.20.xml with a text editor.
- 3 Locate this property:

```
<property name="PRODUCTWAR" value="server-core-1.20"/>
```
- 4 Change server-core-1.20 to match the name of the war file in [step 1](#): src-1.20p1.
- 5 Save and close the file.
- 6 Start Language Builder by double-clicking the Language Builder (LB) shortcut on your Windows desktop, or navigate to the installation folder and click the following:
C:\Program Files\HP\LanguageBuilder\run.bat
- 7 Browse to the location of the Language Builder **Configuration** file. It is in the folder that you created in [step 5](#) in the last section. For example: C:\SRCLP\SRC_1.20.xml
- 8 Browse to the location for the **Working Space**. For example: C:\SRCLP
HP recommends that you use the root folder where you stored the Language Builder resources. Otherwise, the results may be unpredictable.
- 9 Click **Export**.
The status bar displays the export progress. The Monitor box lists the exported files. During the export process, the Language Builder creates and populates a sub-folder: C:\SRCLP\EN contains sub-folders with Service Request Catalog property files. The process is finished when you see the message “Export Completed.”

Prepare Exported Content

Follow these steps to create each language that you need.

- 1 Copy this folder: C:\SRCLP\EN
- 2 Paste it into this directory: C:\SRCLP
- 3 Rename the EN copy to the new target language code. For example: C:\SRCLP\ru if the new target language is Russian.
- 4 Rename all \en sub-folders to match the new target language code. For example:
C:\SRCLP\language_code\exportwar\resources\client\ko
C:\SRCLP\language_code\exportwar\resources\server\ko
- 5 Complete the localization process to translate all property files from English to the new target language.
- 6 Rename all Service Request Catalog property files in the C:\SRCLP\...\client\en sub-folders to match the new target language code.

For example, all property files for the Russian language would be renamed to insert the language code preceded by an underscore (_).

```
C:\SRCLP
  \ru
    \exportwar
    \resources
    \client
      \ru
        \AccountView_ru.properties
        \BundleDetails_ru.properties
```

- 7 Replace the prefix in all message strings in the C:\SRCLP\...\server\en sub-folders to with an underscore and the new target language code.
- 8 Repeat [step 1](#) through [step 7](#) for each new language that you want to implement. Upon completion, you should have a folder structure that might look like this if you planned to generate multiple languages:

```
C:\SRCLP
  \EN
  \fi
  \el
  \iw
  \ru
```

Create Language Packs

To create a language pack, follow these steps.

- 1 Start Language Builder by double-clicking the Language Builder (LB) shortcut on your Windows desktop, or navigate to the installation folder and click the following:
C:\Program Files\HP\LanguageBuilder\run.bat
- 2 Browse to the location of the Language Builder **Configuration** file. It is in the folder that you created in [step 5](#) in the last section. For example: C:\SRCLP\SRC_1.20p1.xml
- 3 Browse to the location for the **Working Space**: C:\SRCLP
HP recommends that you use the root folder where you stored the Language Builder resources. Otherwise, the results may be unpredictable.
- 4 Click **Create Language Installer**. The Languages Selection dialog box displays the available target languages in the left-hand pane, which correspond to the language folders that you created in the working space.
- 5 Highlight the target language and click **Add**. For example, if you have a C:\SRCLP\ru folder, Russian appears in the left selection pane. If you click Add, Russian moves to the Selected Languages pane.
Click **Start**. The Language Builder creates a C:\SRCLP\SRC_LP folder: The new language pack appears in a sub-folder with the target language code. For example:
C:\SRCLP\SRC_LP\ru
- 6 Repeat [step 1](#) through [step 5](#) to add other language packs.

Install the Language Pack

You can install a language pack into an existing src-1.20p1.war file.

- 1 Navigate to the language pack folder: C:\SRCLP
- 2 The language pack installer Language Pack-1.0-Setup.exe creates a localized version of the .war file. For example, if your target language is Russian, run:
C:\SRCLP\SRC_LP\ru\Language Pack-1.0-Setup.exe
- 3 Locate the parent folder of the .war file. If necessary create one for this purpose.
- 4 On the Service Manager server, navigate to this folder:
C:\Program Files\HP\Service Manager 9.21\Server\RUN
- 5 Create a new sub folder for your target language with the name of the code for that language. For example, if your target language is Russian, the folder name would be:
C:\Program Files\HP\Service Manager 9.21\Server\RUN\ru
- 6 Copy the translated SMAPIValidations_*languageCode*.properties file to the new folder on the Service Manager server. The result would look like this:
C:\Program Files\HP\Service Manager 9.21\Server\RUN\ru
\SMAPIValidations_*ru*.properties
- 7 Rename the translated SMAPIValidations_*languageCode*.properties file to message.str. This file should be in UTF-8 encoding.
- 8 At the command line, run following command:

```
%SM_Bin_Dir%/sm.exe -str_import:message -str_language:<languageName>
```

For example, for Russian, the command would be:

```
%SM_Bin_Dir%/sm.exe -str_import:message -str_language:Russian
```
- 9 After the import, you must re-install the Service Manager Server language pack.

Notes:

- If your target language code includes a space, enclose it with double-quotation marks. For example:
sm.exe -str_import:message -str_language:"Simplified Chinese"
- If your target language is Indonesian, you must install a Service Manager Server patch to support that language.

Deploy the .war File

When you complete all steps, you have created a localized .war file that you can deploy following the instructions in [Chapter 1, Install the Application](#).