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Tutorial: Localizing Mobile Workflow Device Applications

Sybase Unwired Platform 1.5.5

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Introduction to Localizing Mobile Workflow Packages

This tutorial shows you how to use the Mobile Workflow Forms Editor to localize Mobile Workflow Packages.

All the localizable strings in the Mobile Workflow Forms Editor XML model work as resource keys in the localization properties file. All the localization properties files are in the same directory as the Mobile Workflow packages (`.xbw` files).

Resource keys are divided into these categories, which include all the elements of the Mobile Workflow Forms Editor XML model:

- Menus
- Controls
- Screens

Localization consists of two levels of localization—the Mobile Workflow Forms Editor XML model localization and the Mobile Workflow client localization.

Note: Localization is not currently supported for the iPhone or iPad simulators.

Task Flow

This tutorial shows you how to localize Mobile Workflow packages.

1. Complete the tasks in *Getting Started* on page 5.
2. Complete the Purchase Order Sample on *http://www.sybase.com/products/mobileenterprise/sybaseunwiredplatform?htab=USE*.
3. Complete the tasks in *Localizing a Mobile Workflow Package* on page 11.

Getting Started

Goal: Install and learn about Sybase® Unwired Platform and its components.

Prerequisites

Before beginning this tutorial, complete the *Tutorial: Mobile Business Object Development (Eclipse)*.

Task

The following tasks are required, unless otherwise noted, for all tutorials, but you need to perform them only once.

1. *Installing Sybase Unwired Platform* on page 5
2. *Starting Unwired Server* on page 7
3. (Optional) *Connecting to Sybase Control Center* on page 6.
4. *Starting Sybase Unwired WorkSpace* on page 7
5. (Optional) *Learning the Basics* on page 8

Installing Sybase Unwired Platform

Goal: Install Sybase Unwired Platform.

Install these Sybase Unwired Platform components:

- Unwired Server
- Sybase Unwired WorkSpace
  - Mobile Business Object Developer Tools
  - Device Application Developer Tools

If the Unwired Platform is already installed and any of these components are missing:

1. Start the Sybase Unwired Platform installer.
2. Follow the instructions in the installation wizard. When prompted, select Custom Install.
3. Select the required components, and complete the installation.

For complete installation instructions, see the Sybase Unwired Platform *Installation Guide* and *Release Bulletin* on Product Manuals. Access *http://sybooks.sybase.com/nav/base.do*, and navigate to Sybase Unwired Platform.

Connecting to Sybase Control Center

Goal: Open the Web-based Sybase Control Center administration console to manage Unwired Server and its components.

From Sybase Control Center, you can:

- View servers and their status
- Start and stop a server
- View server logs
- Deploy a mobile application package
- Set role mappings

1. Select **Start > Programs > Sybase > Sybase Control Center**.

   Note: If Sybase Control Center does not launch, make sure that the Sybase Unified Agent service is started. See the Installation Guide for details.

2. Log in using the default login:
   - User Name – `supAdmin`
   - Password – `s3pAdmin`

   Logging in to Sybase Control Center (SCC) allows you access to Unwired Platform administration features that you have been authorized to use. Administrators of any Sybase product can log into SCC. However, only users assigned to the Super Administrator or Domain Administrator roles for Unwired Platform can log in to Unwired Server from Sybase Control Center.

   Logging in to SCC only allows you access to the SCC interface. If Unwired Server has not been authenticated, you will not be able to see or administer any resources.

3. Select **Help > Online Documentation** for additional information on configuring, managing, and monitoring Unwired Server.

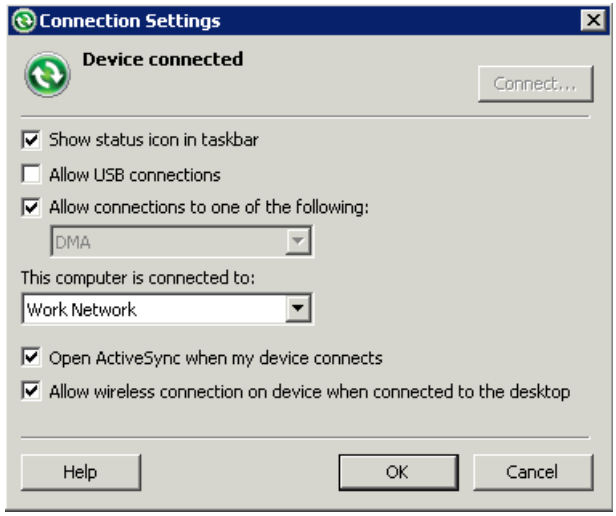
Installing Microsoft ActiveSync

Goal: Install and configure Microsoft ActiveSync so you can deploy and run a mobile application on a Windows Mobile emulator.

Note: Microsoft ActiveSync is for Windows XP. If you are using Windows Vista, Windows 7, or Windows 2008, install Virtual PC 2007 SP1 and Windows Mobile Device Center to manage synchronization settings. Download the Windows Mobile Device Center from *http://www.microsoft.com/windowsmobile/en-us/downloads/microsoft/device-center-download.mspx*.

1. Download Microsoft ActiveSync from *http://www.microsoft.com/windowsmobile/en-us/help/synchronize/device-synch.mspx*. Save it to your local machine. Windows XP requires ActiveSync version 4.5.
2. In Windows Explorer, double-click **setup.msi**.
3. When installation is complete, restart your machine.

   ActiveSync starts automatically, and its icon appears in the Windows toolbar.
4. Double-click the **ActiveSync** icon.
5. Select **File > Connection Settings**.
6. Select **Allow Connections to One of the Following**, then select **DMA**.
7. Under This Computer is Connected to, select **Work Network**.



8. Click **OK**.

Starting Unwired Platform Services

Goal: Start Unwired Server and the sample database.

In Windows, select **Start > Programs > Sybase > Unwired Platform<version> > Start Unwired Platform Services** .

Starting Sybase Unwired WorkSpace

Goal: Start Unwired WorkSpace.

1. In Windows, select **Start > Programs > Sybase > Unwired Platform<version> > Unwired WorkSpace**.

Sybase Unwired WorkSpace opens, and displays the Welcome page with links to product information, and to the product.

2. To read more about Sybase Unwired WorkSpace concepts and tasks, select **Help** > **Help Contents** from the main menu.

Learning the Basics

Goal: Learn about Sybase Unwired WorkSpace and how to access help.

Prerequisites

Start Unwired WorkSpace.

Task

1. From the Welcome page, select any of the links to familiarize yourself with the Unwired WorkSpace environment.

   To close this page, click the **X**. You can reopen this page by selecting **Help** > **Welcome**.

2. Select **Start Development** to access the Sybase Unwired WorkSpace development environment. Look at the area (window or view) that you will be working in to access, create, define, and update mobile business objects (MBOs).

View	Description
WorkSpace Navigator	This view displays mobile application project folders, each of which contains all project-related resources in subfolders, including MBOs, data source references to which the MBOs are bound, personalization keys, and so on. Use this view to review and modify MBO-related properties.
Enterprise Explorer	A window that provides functionality to connect to various enterprise back-end systems; for example, database servers, SAP servers, and Sybase Unwired Server.

View	Description
Mobile Application Diagram	A graphical editor where you create and define mobile business objects. Use the Mobile Application Diagram to create MBOs (including attributes and operations), then define relationships with other MBOs. You can: • Create MBOs in the Mobile Application Diagram using Palette icons and menu selections – either bind or defer binding to a data source, when creating an MBO. For example, you may want to model your MBOs before creating the data sources to which they bind. This is sometimes called the top-down approach. • Drag items from Enterprise Explorer and drop them onto the Mobile Application Diagram to create the MBO – quickly creates the operations and attributes automatically based on the data source being dropped on the Mobile Application Diagram. This is sometimes called the bottom-up approach. Each new mobile application project generates an associated Mobile Application Diagram.
Palette	Access the Palette from the Mobile Application Diagram. It provides controls, such as the ability to create MBOs, add attributes and operations, and define relationships, by dragging and dropping the corresponding icon onto the Mobile Application Diagram or existing MBO.
Properties view	Select an object in the Mobile Application Diagram to display and edit its properties in the Properties view. You cannot create an MBO from the Properties view, but generally, most development and configuration is performed here.
Outline view	Displays an outline of the file that is currently open in the editor area, and lists structural elements. The contents are editor-specific.
Problem view	Displays problems, errors, or warnings that you may encounter.

3. To access the online help, select **Help > Help Contents** from the main menu bar.

4. Expand any of the documents that appear in the left pane. Some documents are for Sybase Unwired Platform, while others are for the Eclipse development environment.

Localizing a Mobile Workflow Package

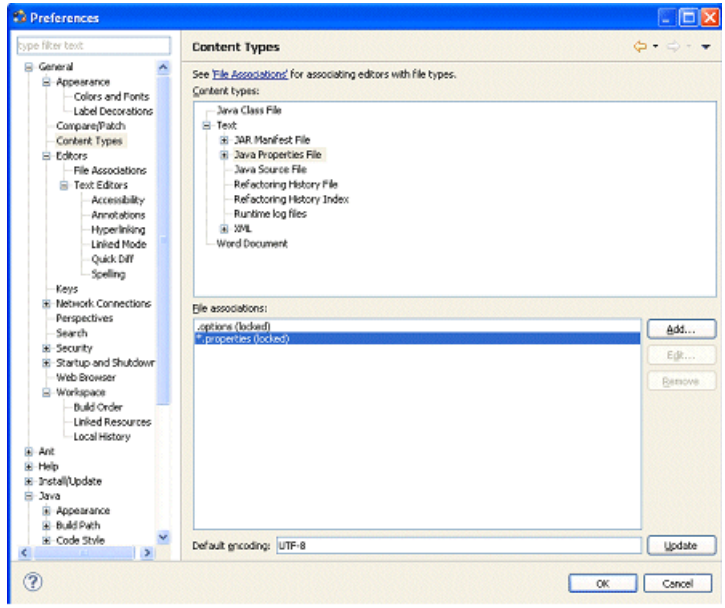
Use the Mobile Workflow Forms Editor to complete these tasks to localize Mobile Workflow packages (.xbw files).

Changing the Encoding Type

Goal: Change the encoding type in Preferences.

The localization file is encoded in standard ISO-8859-1. All non-ASCII character values are converted to escaped Unicode hexadecimal values before they are written to the properties files. Before translating the localization file, select the correct file encoding option, for example UTF-8.

1. In Sybase Unwired Platform, select **Window** > **Preferences**.
2. Expand **General** > **Content Types**.
3. In the right pane, select, **Text** > **Java Properties File**.
4. In the **File Associations** list, select `*.properties(locked)`.
5. In the Default encoding field, change ISO-8859-1 to **UTF-8**, and click **Update**.



Creating and Validating a New Locale Properties File

Goal: Create a locale properties file as the default locale.

Prerequisites

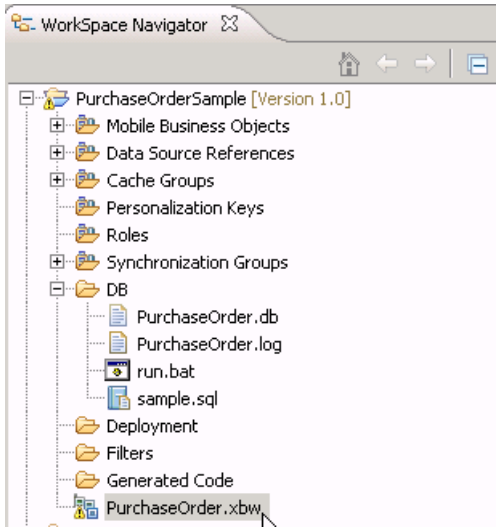
You must have an existing Mobile Workflow package before you create the locale properties file. This tutorial uses the Purchase Order sample located at *http://www.sybase.com/products/mobileenterprise/sybaseunwiredplatform?htab=USE* as an example.

If you use the PurchaseOrderSample for this tutorial, set up the PurchaseOrder.db:

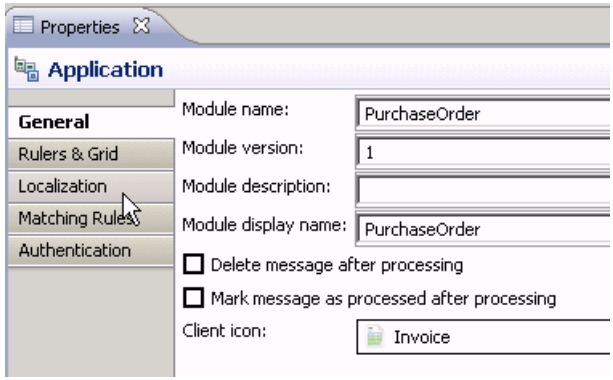
1. Copy the `PurchaseOrder.db` and `PurchaseOrder.log` files to `<UnwiredPlatform_InstallDir>\UnwiredPlatform\Servers\UnwiredServer\data`.
2. In the **PurchaseOrderSample** > **DB** folder, right-click `run.bat` and select **Open With** > **System Editor** to start the database.

Task

1. In WorkSpace Navigator, double-click the `PurchaseOrder.xbw` to open the Mobile Workflow Forms Editor.



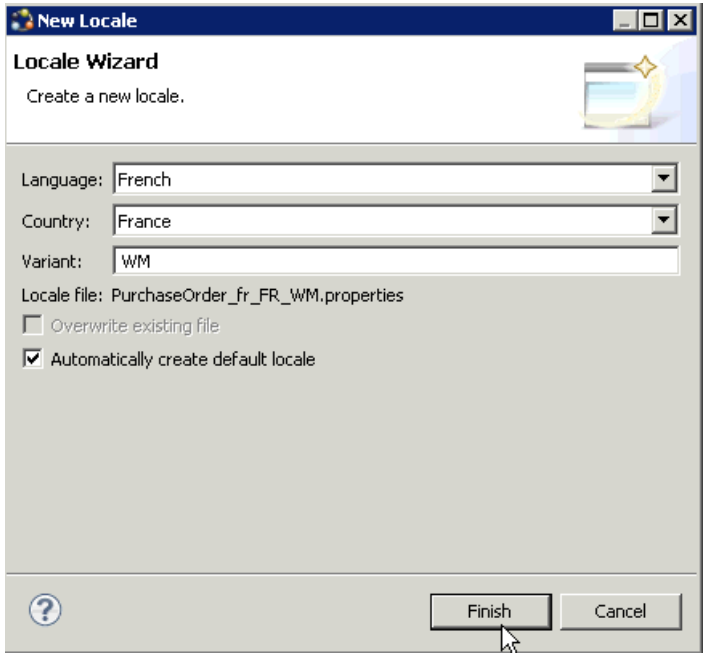
2. Click the **Flow Design** tab.
3. Right-click in a blank area on the Flow Design page, and select **Show Properties View**.
4. In the Properties view, on the left, click the **Localization** tab.



5. In the right pane, click **New**.
6. Select or enter the information for the new locale, select **Automatically create default locale**, and click **Finish**.

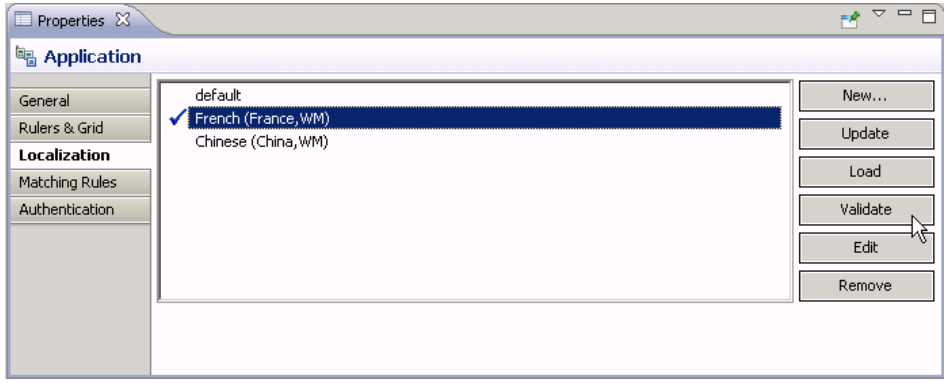
   For example:

   - Language – select **French**.
   - Country – select **France**.
   - Variant – enter a value to make this locale file unique from others, for example, `WM` for Windows Mobile.



This locale file is now the default locale file, and will be used when the regional setting of the device does not match that of any supplied locale file.

7. In the Properties view, in the Localization page, select the file to validate and click **Validate**.



The properties file is scanned and if there are any errors, a dialog appears. Click **Yes** to correct the errors automatically; click **No** to see the errors in the Problems view.

Editing the Locale Properties File

Goal: Edit the locale properties file.

1. In WorkSpace Navigator, under the Generated Code folder, right-click the locale properties file you created, and select **Open With** > **Properties File Editor**.
2. You can make and save changes to the file in the Properties File editor, for example, you can replace all the values of the resource keys with Chinese characters.
3. Select **File** > **Save**.

   The next time you open the locale properties file, notice that all of the ASCII characters have been changed.
4. In the Localization pane, select the localization file you edited, and click **Load**.

   The elements of the application in the editor are translated into the language you specified if the localization file passes the loading validation.

Deploying the Mobile Application Project

Goal: Deploy the mobile business objects to Unwired Server.

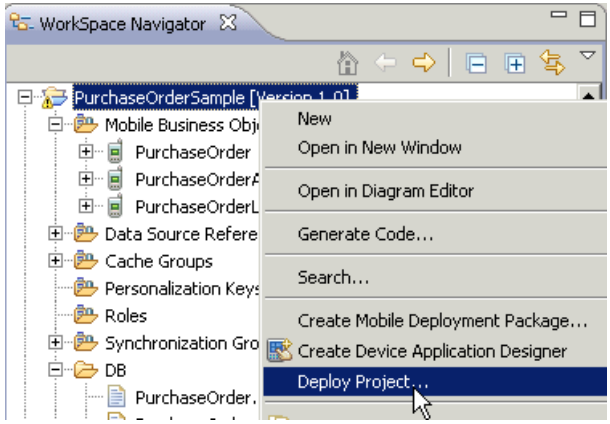
Prerequisites

Unwired Server must be running.

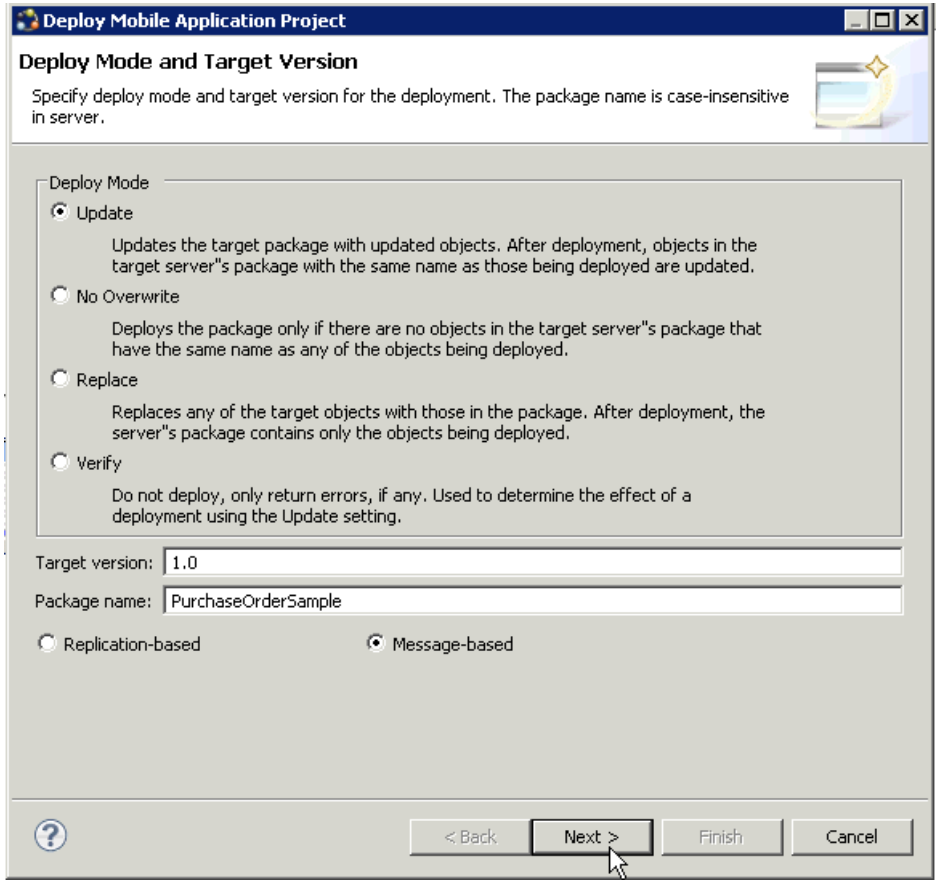
Task

This tutorial uses the Purchase Order sample located at *http://www.sybase.com/products/mobileenterprise/sybaseunwiredplatform?htab=USE* as an example. You can use this procedure to deploy any mobile application project you are using. The Purchase Order sample contains three mobile business objects, which must be deployed to Unwired Server—PurchaseOrder, PurchaseOrderApprover, and PurchaseOrderLineItem.

1. In WorkSpace Navigator, right-click the **PurchaseOrderSample** folder, and select **Deploy Project**.



2. In the Deploy Mobile Application Project wizard, select:
   - **Update** as the deploy mode.
   - **Message-based**.



3. Click **Next**.
4. In the Contents page, select all the mobile business objects (MBOs) and click **Finish**.
5. In the Deployment status window, click **OK**.
6. When the deployment completes, click **File > Close**.

Generating the Mobile Workflow Package

Goal: Generate the package for the localized Mobile Workflow.

Prerequisites

For Windows Mobile:

- If Microsoft ActiveSync is not running, start it now. (Windows XP)
- If Windows Mobile Device Center is not running, start it now. (Windows Vista)

Task

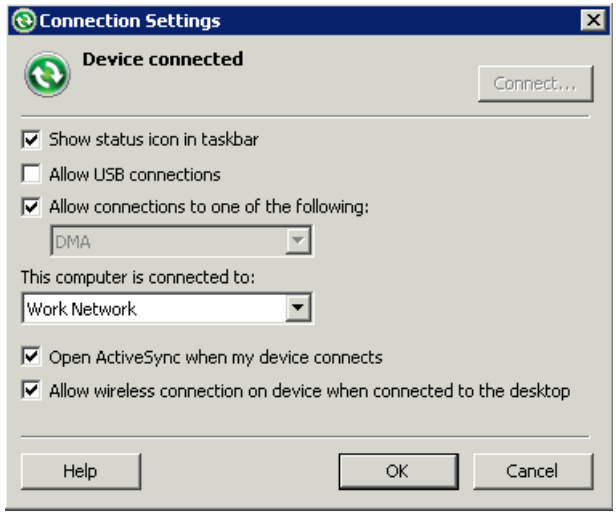
1. In the Mobile Workflow Forms Editor, click the code generation icon .
2. In the New Mobile Workflow Package Generation wizard, select the options that are appropriate for your environment:

Option	Description
Favorite configurations	(Optional) Select a configuration.
Code Generation and Deployment	
Generation folder	Select the folder in which to save the `.zip` file containing the Mobile Workflow package and its generated files.
Deploy to an Unwired Server	Deploy the Mobile Workflow package to an Unwired Server.
Unwired Server profile	Select the Unwired Server profile with which to associate the Mobile Workflow package and, if you are using static authentication, extract the user name and password credentials.
Deploy the Sybase messaging client to a connected Microsoft Windows Mobile device or emulator	For Windows Mobile, deploy the Sybase messaging client to the Windows Mobile emulator. **Note:** This option requires Microsoft ActiveSync 4.5 (if you are using Windows XP) or Windows Mobile Device Center (if you are using Windows Vista).
Windows Mobile device type	Select the Windows Mobile device type.
Perform silent install	Perform the deployment on the device without necessitating user input.
Deployment timeout (minutes)	Enter the number of minutes allowed before the deployment times out.
Start Device Emulator Manager	(Windows Mobile) Start the Device Emulator Manager, which connects and cradles the selected device.

3. (Optional for Windows Mobile) Click **Start Device Emulator Manager**.
4. (Optional for Windows Mobile) Once the Device Emulator Manager starts, right-click the device you want to use for testing and select **Connect**.
5. (Optional for Windows Mobile) Once the emulator launches, in the Device Emulator Manager, right-click the connected device and select **Cradle**.

Once you cradle the device, it connects to ActiveSync or Windows Mobile Device Center.

6. (Optional for Windows Mobile) Ensure the device is connected in Microsoft ActiveSync or Windows Mobile Device Center and click **OK**.



7. In the Mobile Workflow Package Generation wizard, click **Finish**.

   The files for the Mobile Workflow package are generated and stored in the specified location as a `.zip` file.

   The Mobile Workflow package appears in the Workflows folder under Unwired Server, and the results of the file generation appear in the Console tab.

Configuring the Device for Localization

Goal: Configure the device.

1. For Windows Mobile:
   a) Go to **Settings** > **System** > **Regional Settings**.
   b) Click **Region**.
   c) Change the region to the desired locale, for example, French (France) or Chinese (China).

Note: The locales that appear in the Regional Settings depend on what you have installed on your device.

2. For iPhone devices:
   a) Go to **Settings** > **General** > **International** > **Language**.
   b) Change the Language setting to the desired language, for example, Francais, and click **OK**.

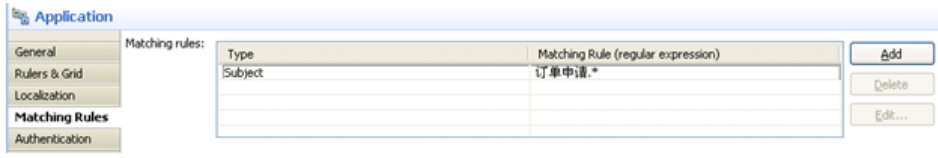
Note: Localization is not supported on the iPhone simulator.

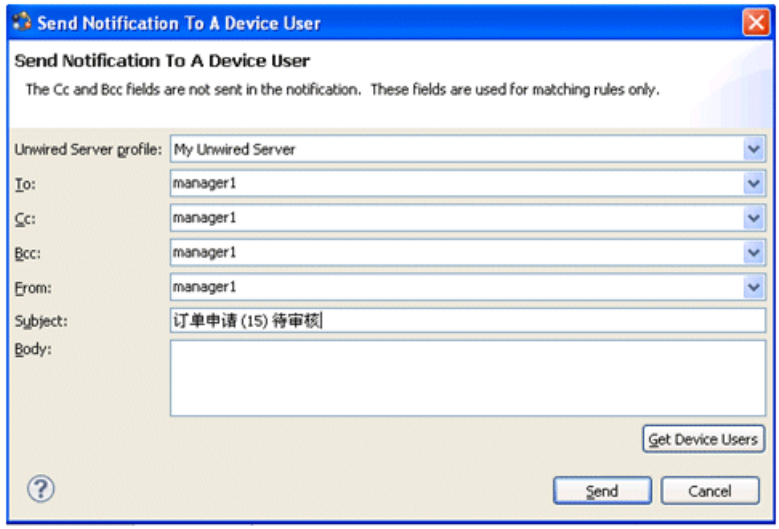
Mobile Workflow Package Internationalization

The internationalization feature depends on the internationalization setting on the operating system where Sybase Unwired Platform Mobile Workflow is running.

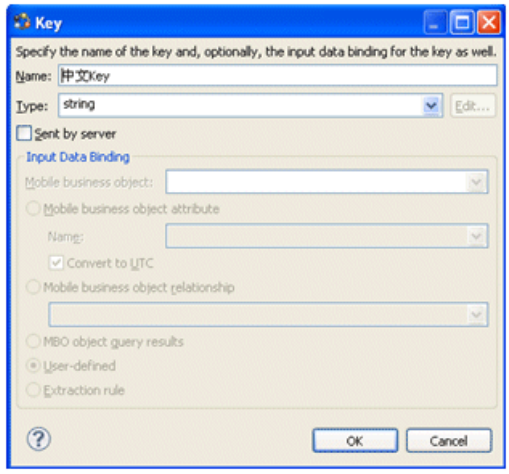
In the Mobile Workflow Forms Editor, you can use international data in:

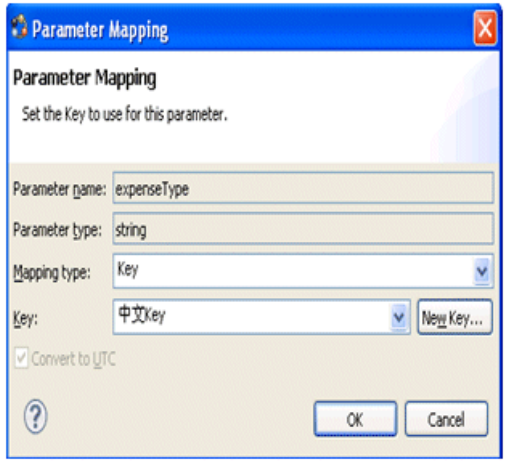
- Matching rules for notifications.





- Key names – you can create keys with names in other languages and map them to mobile business object parameters.





- Generated Code folder – you can include languages other than English in the code generation path based on the name of the selected language.

Internationalization on the Device

On the device, e-mail messages and data can include languages other than English.

The internationalization feature depends on the internationalization setting on the device where the Mobile Workflow client running.

E-mail messages can be sent and received using Chinese, for example, which can then be used to extract the parameter. You can also create and update records in using international data, such as Chinese. For example:

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