Lotusphere 2011
IBM Collaboration Solutions Development Lab

Lab 2

Creating and deploying a Java plugin for Notes and Symphony

Part 2: Create a Java Plugin to look up Customer ID

Introduction

In addition to Widgets and Live Text, plugins can also be developed to provide a Live Text action. The Live Text Content Type is associated to the plugin and called when initiated by the user. This provides an extensible technique to integrate many types of applications.

Objective

This lab will explain the following tasks:

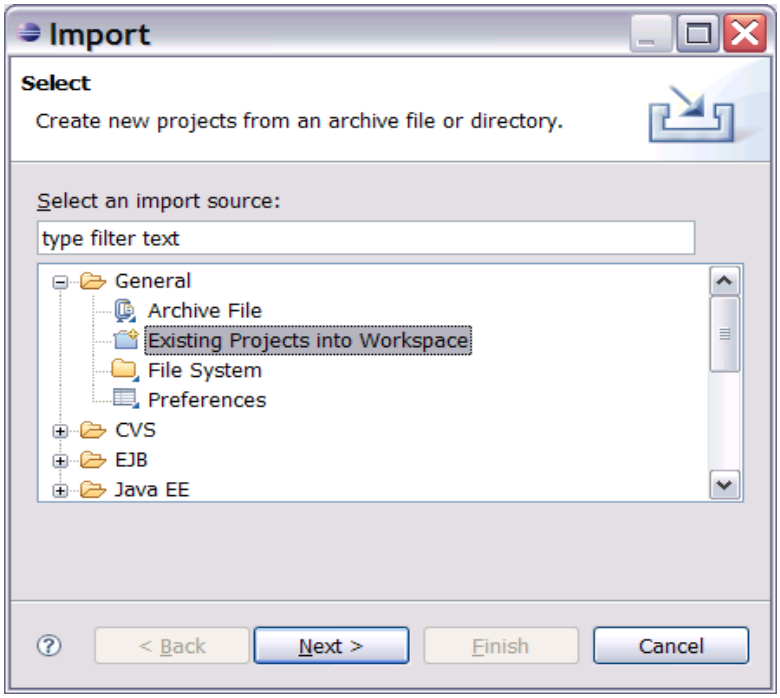
- How to develop a Live Text plugin
- How to associate this plugin to a Content Type

Procedure

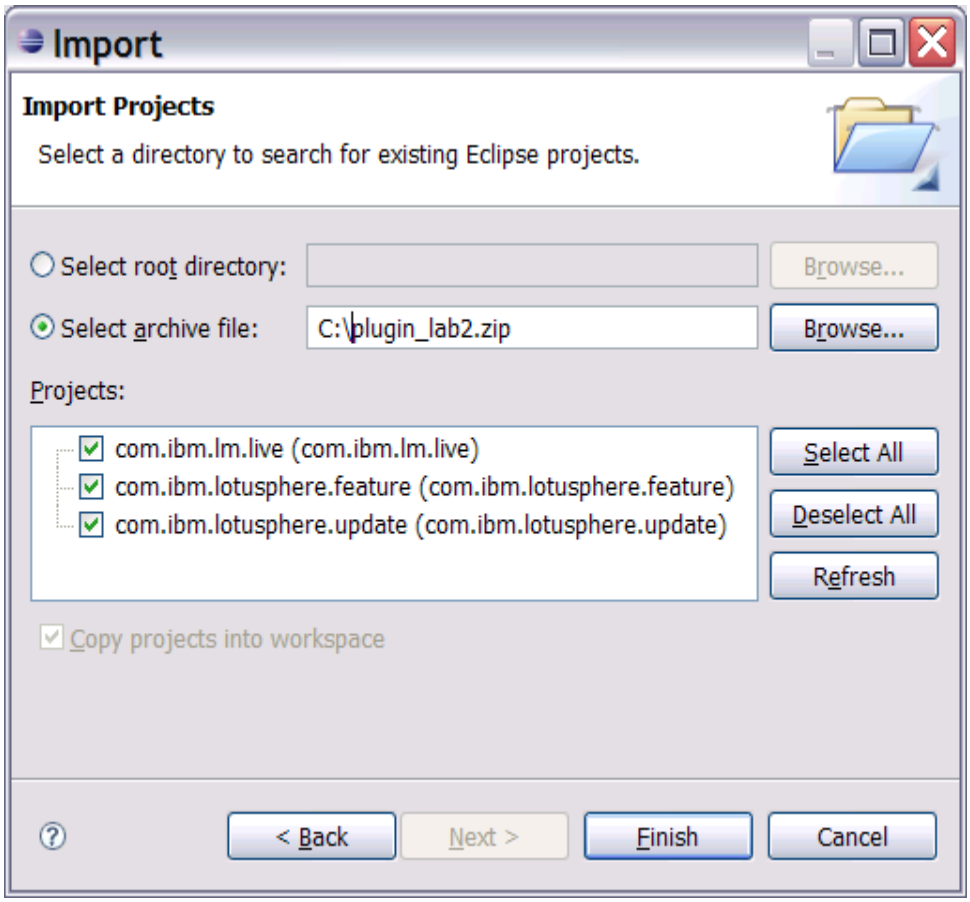
Step 1: Launch Eclipse and import the plugin

a) Launch Eclipse from the icon on the Desktop 

b) Import the plugin, feature and update site using File->Import. Select 'General->Existing Projects into Workspace' and press Next

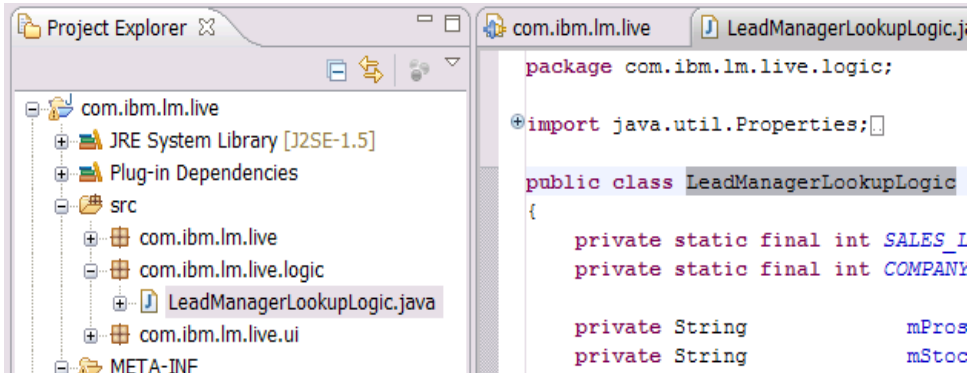


c) Select the archive file in c:\plugin_lab2.zip
Select all of the projects and press Finish



Step 2: Explore the plugin

a) From the Plug-in Development Perspective and Package Explorer, open LeadManagerLookupLogic.java

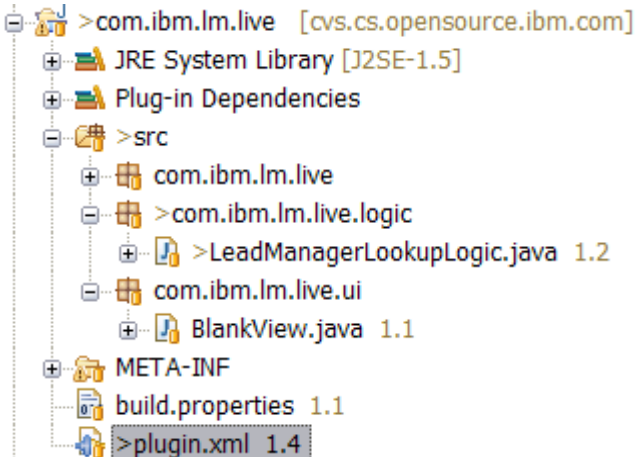


b) The selectionChanged() method is called as the user acts on Live Text which matches one of our Content Types

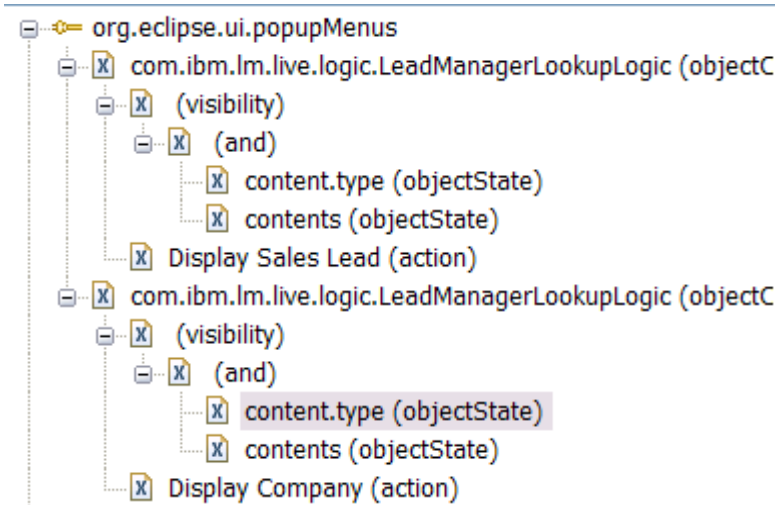
c) The run() method is called when our Live Text action is selected

d) The private lookup() method uses the Lotus Notes Java API to perform a fulltext search and open the first document from search results.

e) Open plugin.xml which defines the association to the Content Type



f) Select the Extensions tab at the bottom and view the content type for Display Sales Lead and Display Company. This maps the plugin to the Content Type.



Step 3: Run Notes to test the Content Types and Recognizer from the Create a Live Text Recognizer Lab

a) If it is not currently open, launch stand-alone Notes from the desktop icon

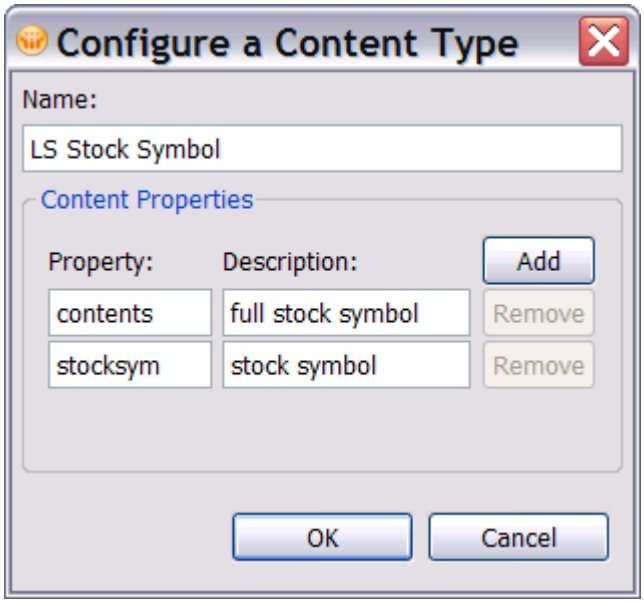
b) Open the *Sample account numbers* document in Lab2 Discussion NSF

c) Notice that ACT2477 and ACT2453 are underlined in blue. When clicked, these will perform the action that was specified in Part 1 of this lab (Creating a Live Text Recognizer). Our next objective is to associate this and a new content type with the functionality in the plugin.

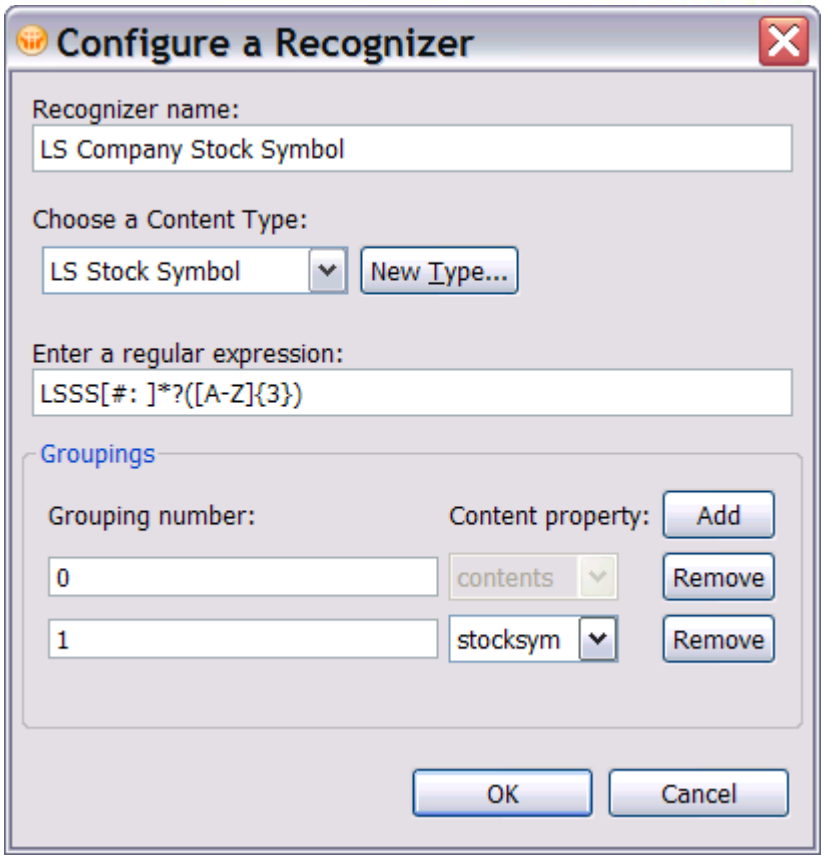
Step 4: Define a new Content Type and Recognizer to Display a Customer from a Stock Symbol

Note: Refer to the steps in the *Create a Live Text Recognizer* Lab

a) Follow Step 2, but use the following values

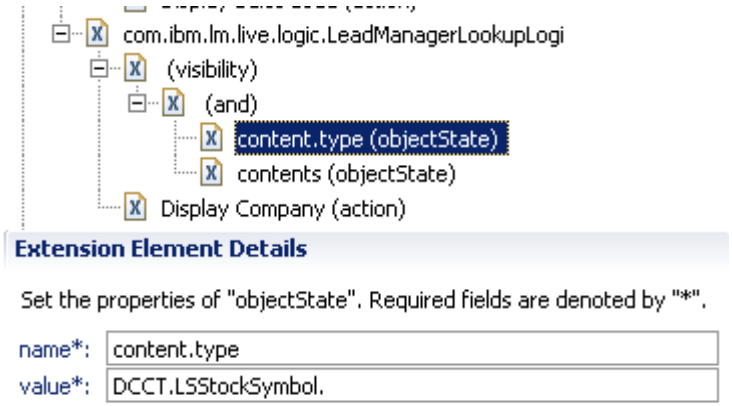


b) Follow Step 3, but use the following values

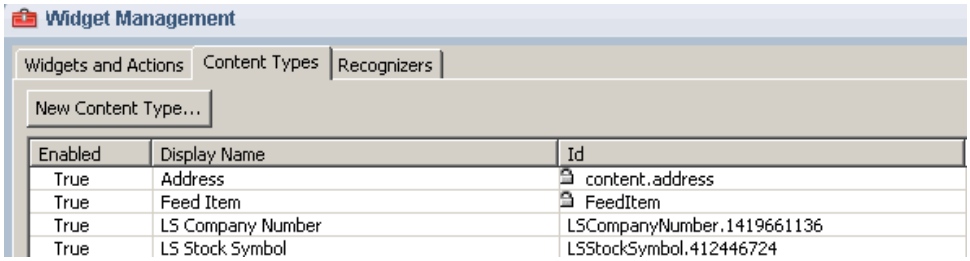


The regular expressions tells the action to look for a string starting with LSSS, may contain #, : or a space followed by 3 capital characters of A to Z. The parenthesis ( ) tell the action that you want to group those results together as a separate group.

c) Now we need to associate the plugin with the content type. In Eclipse, open plugin.xml and update the content.type value for the *Display Company* Extension

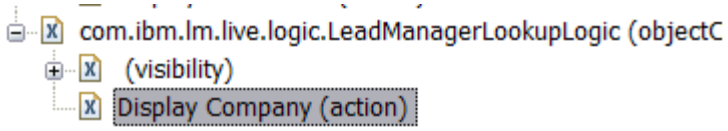


The required value is defined in the Widget Management page for the new Content Type created in Notes above:

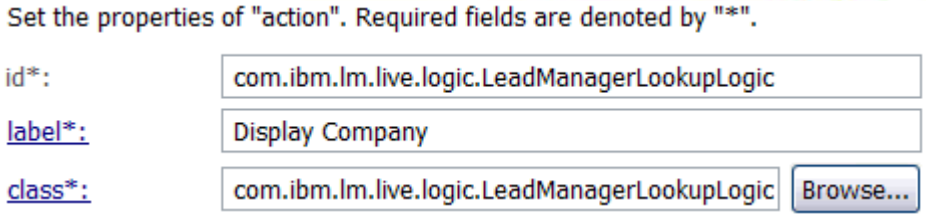


Note: This value is different per instance. In the example above, the content.type value should be set to DCCT.LSStockSymbol.412446724. Once the content type and recognizer is published to a widget catalog, the values will be maintained and not change per Notes instance.

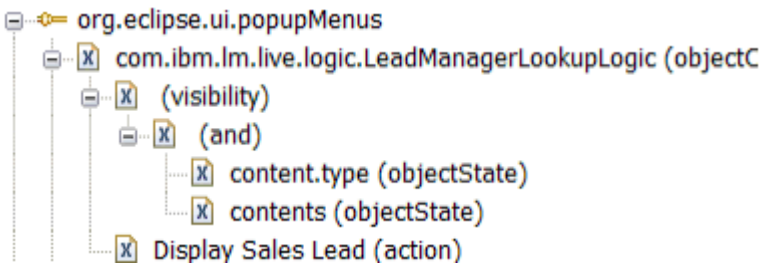
After associating the content types, try updating the action description seen in the menus by modifying the 'Label' field to be more descriptive:

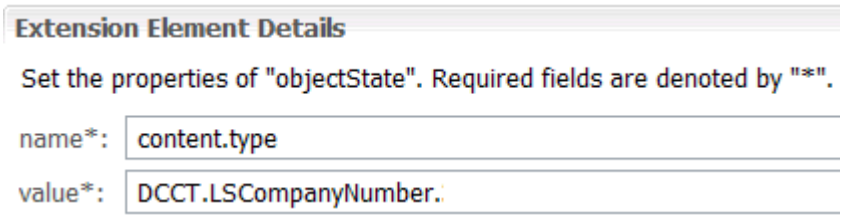


Change 'Display Company' to 'Display Company by Stock Symbol' here:



d) Update the Display Sales Lead action so it is associated with the content type LS Company Number.





Extra Credit: Rebuild the Update Site, and export to disk to use in the Deployment labs.

Extended Lab Exercise: Test using Notes environment in Eclipse

a) Exit stand-alone Notes and, in Eclipse, select Debug Configurations... under the Run Menu and after it rebuilds the target features, click the 'Debug' button.

b) After Notes launches, open the Sample account numbers document in Lab2 Discussion NSF and check to see if the Live Text for a Company stock number LSSS:BWF or LSSS:EWC is active. If not, can you get it to work?

Hint: Your content type and recognizer from Lotus Notes are not available when running from Eclipse. Use the steps in Part 1, to define them again and then update the content.type in the popupMenus extension with those values. You will need to restart Notes in Eclipse for the changes to be seen.

Extra Credit: Add system.out.println() statements or set debug breakpoints

to examine the code as it is executed. Ask a Lab leader for assistance to perform these actions.

Summary:

In this lab you learned how to Create a Java Plugin to look up a Customer ID. The Java Plugin uses the popupMenus Extension from Eclipse to associate the class to the Live Text Content Type. The required methods from this extension are called when the user performs specific actions. Using this technique a plugin can extend Live Text providing more flexibility than widgets.

References:

Using grouping in a live text my widget