

Web Tooling in WebSphere Development Studio Client

Second of a two part series...

By Phil Coulthard & George Farr

Our previous article introduced the hot new release of WebSphere Development Studio Client and set the stage for a small sample project using the new Eclipse-based Web tool. We created input and out screens (JSP Pages) using the interaction wizard. In this article, we will explain how to link the iSeries program (*PGM) or service program (*SRVPGM) to the input and output JSP pages with all of the input, output, or both parameters...

We left off on the screen prompting for a name for the interaction. No big deal, just pick a name as you do for variables in your program. Once that is done, press the "next>" button. This will take you to the next screen that will ask you for the input page and the output page as shown in **Figure 1**. In our case, this example

has an input page, which we just finished designing; however, we do not have an output page. Therefore, for the input page you can press the add button and pick the page you just created. As for the output page, we want to have the designer generate it for us and therefore you need to press the button that says "generate output JSP". This will tell the Web tool to generate the output page for you.

Linking Input & Output

When you press the next button, you will be presented with a screen as shown in **Figure 2**. On this screen, you can add the



name of the program or service program you intend to call. All you need to do is press the Add program button and the rest is self-explanatory.

In addition, to add parameters just press the Add parameter button and add as many as your program requires. In our case, as you can see in **Figure 2**, we have three parameters. The first one is the customer number, the second is a data structure, which will contain the customer information that we want returned, and finally the third parameter contains a message field for any possible errors.

Once you are done with this screen just press the next button. Now you are presented with the screen that allows you to link parameters from the input screen to the RPG program as shown in **Figure 3**.

In our case, here we want to link the customer number field, which exists on the input screen with the customer number parameter that exists in the RPG program. To link them you just select both fields and press the link button.

Now we are done linking input fields. However, on we go to the next screen, which will show us the output page. Remember back on the second screen of the wizard we asked the tool to generate the output screen for us. Well, it did!

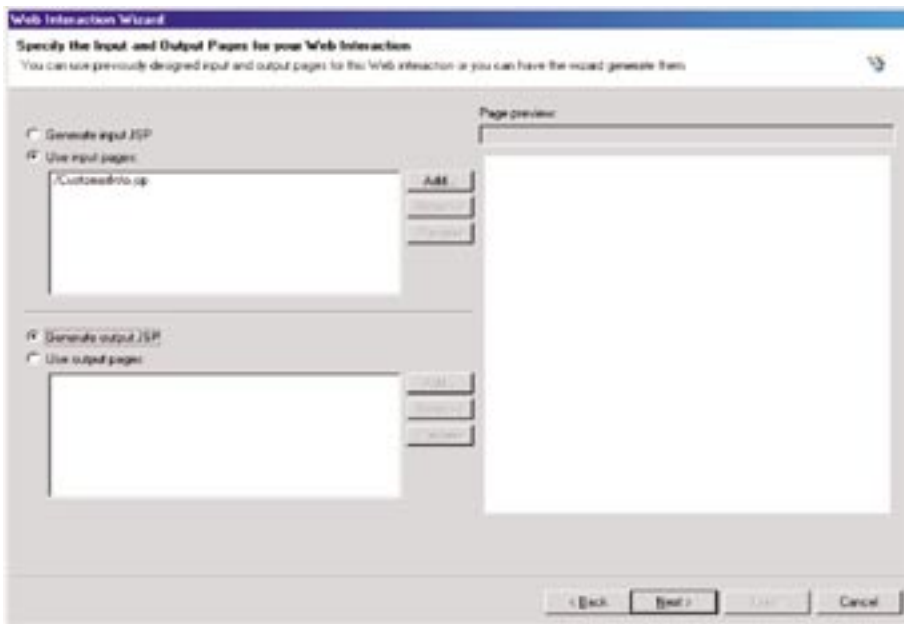


Figure 1. Input and Output pages in the iSeries Interaction Wizard

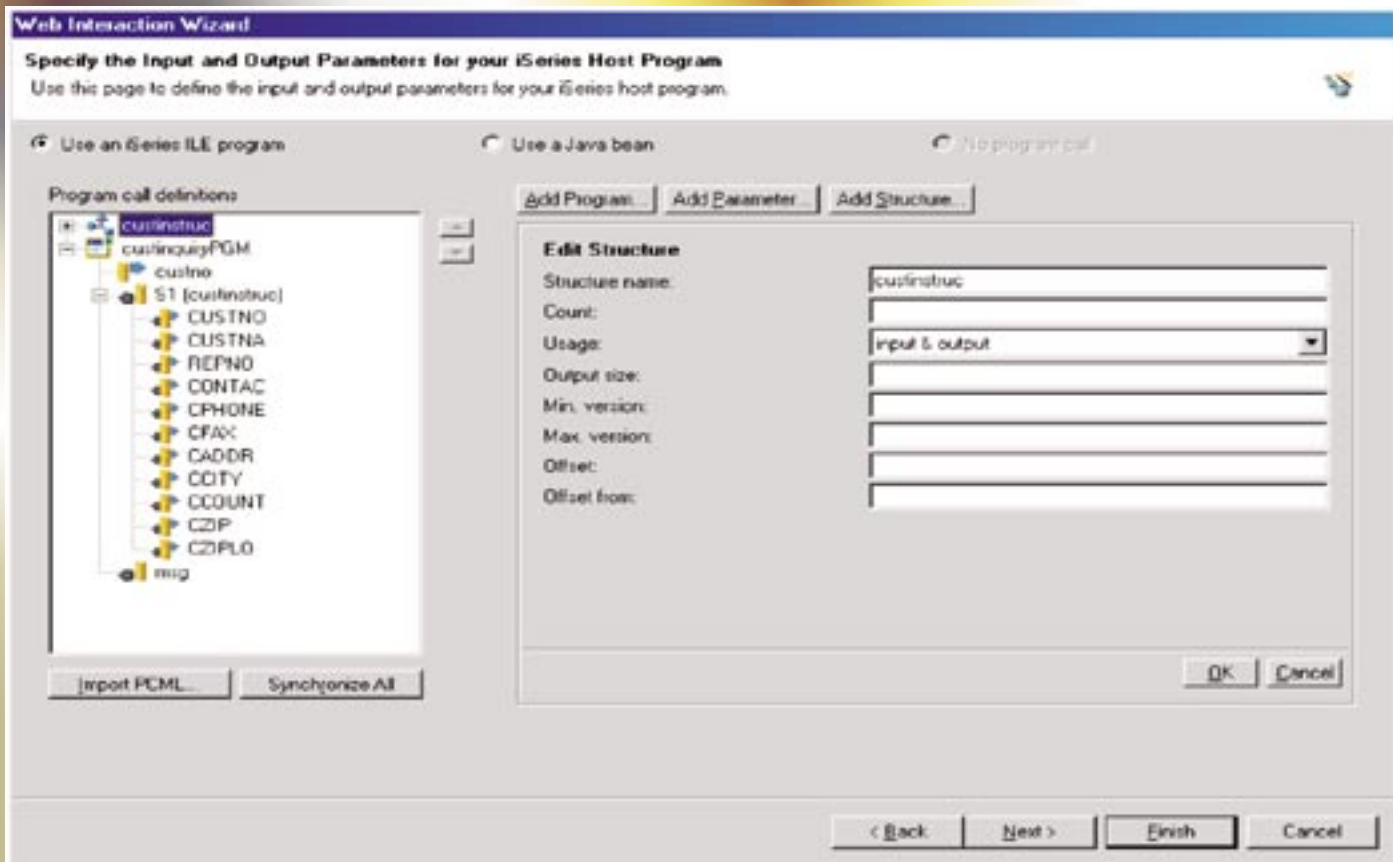



Figure 2. Linking Input/Output pages to the iSeries *PGM and/or *SRVPGM

You see this screen in **Figure 4**. As you notice in the figure, all output fields are presented and checked on the left hand side. Pick which fields you want displayed on the output screen and the tool will take care of it. If you want to look up the attributes of a specific field just scroll down to the field and you will see its attributes in the bottom pane. When you are done press the finish bottom to have the tool generate everything required for you.

**Congratulations,
you are done!**

Before you can run the Web application successfully, you need to use the iSeries Host Information wizard  available from the main toolbar when the project is selected. Use it to specify the iSeries hostname, and library list information needed by all the Web Interactions in this project.

Finally, to see this little application in action we now can run it in the WebSphere test environment. To do that, select the input page file and the “Run on Server” option from its popup menu.

This will start the WebSphere Test Environment, which is a built-in ready to use full copy of WebSphere Application Server 4.0. This makes testing, and debugging, your Web applications

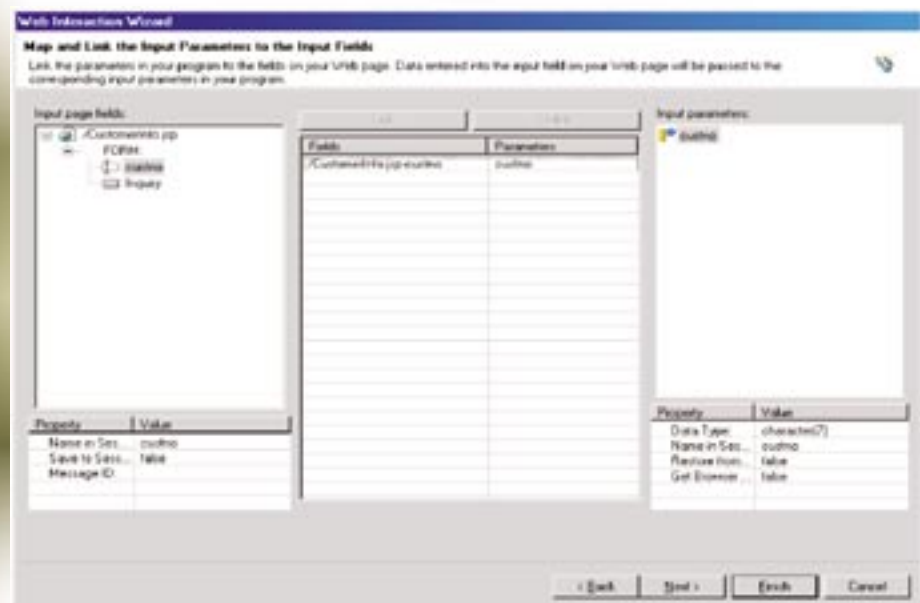
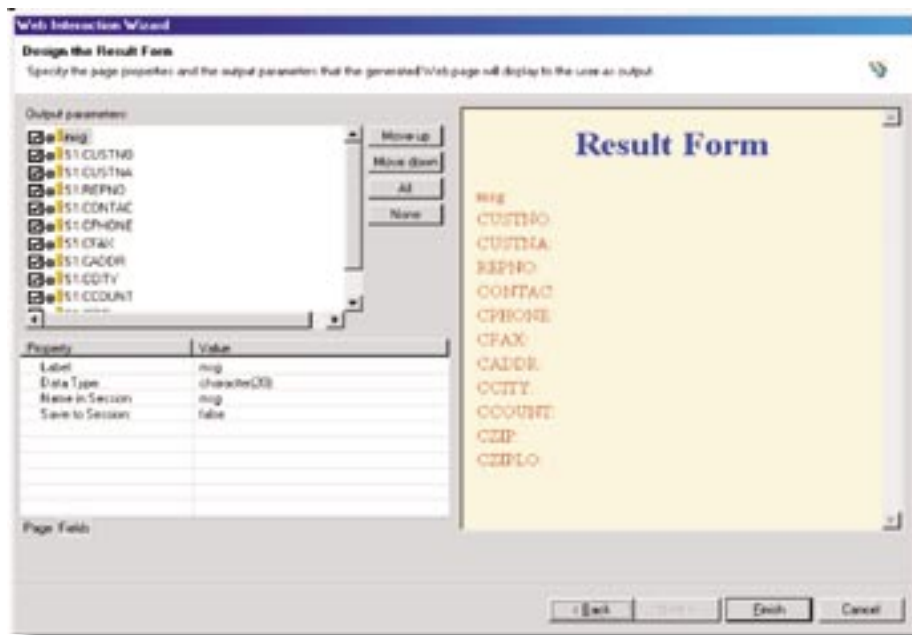


Figure 3. Linking input fields with the RPG program



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Figure 4. Generated output screen


exceedingly easy. After it starts, you will see your first input screen displayed in a built-in copy of Internet Explorer. On that screen enter a valid customer id and press the ok button. This will result in a screen similar to the one shown in **Figure 5**.

Internally, the Web tool created some Java servlet for you and used some Java toolbox classes to actually do the call to the RPG program. If you are brave enough look into the generated web project, you will see those Java classes that were generated. The whole idea here is to make your life easier and not to have you worried about the plumbing. As an iSeries programmer all you need to do is design the screen and just use the Web Interaction wizard to do the linking to your existing RPG application without worrying about any Java code!

Summary

WebSphere Development Studio Client offers a rich development environment for the web. It is designed to let you be immediately productive leveraging your existing RPG and COBOL programs, while at the same time letting you grow into more advanced eBusiness functionality using the Web Tooling projects, and ultimately maybe even Java and Web services.

This article bared scratched the surface of the functionality available in Web Tooling. We encourage you to try this new tooling and all the rich functionality available in it.

After creating a few beautiful and function Web pages, it will be time to demo your new skills to your boss. We mean, of course, your kids! 

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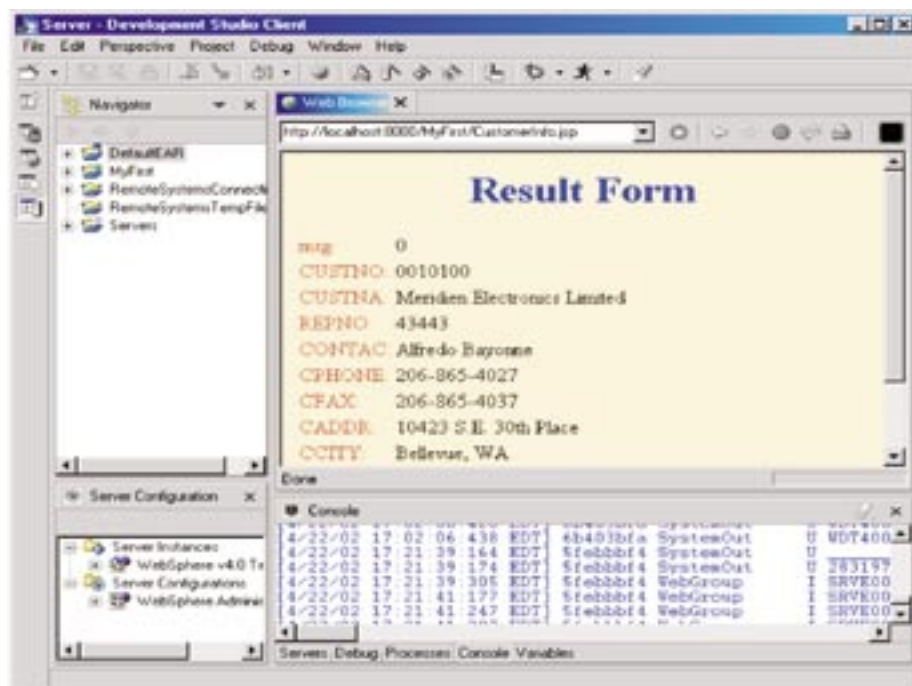


Figure 5. Running the application in WebSphere Test Environment