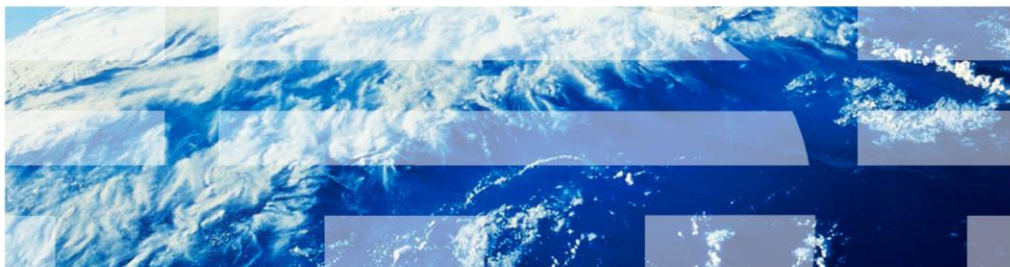


InfoSphere Information Server

Processing web services as a data source with InfoSphere DataStage



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This presentation will discuss how to create a web services job with InfoSphere™ DataStage® using web services as a source. The example in this module is based on DataStage 8.5 but the principles are the same for all versions of DataStage.

Objectives

- Understanding prerequisites
- Import web services definitions
- Build job that uses web service as data source

The objectives of this presentation, are to introduce you to the basic concepts of creating DataStage jobs that can access published web services as a source. This presentation will cover the prerequisites for using the web service stages. To demonstrate this functionality, this presentation also provides step by step processes necessary to create DataStage jobs.

Understanding prerequisites

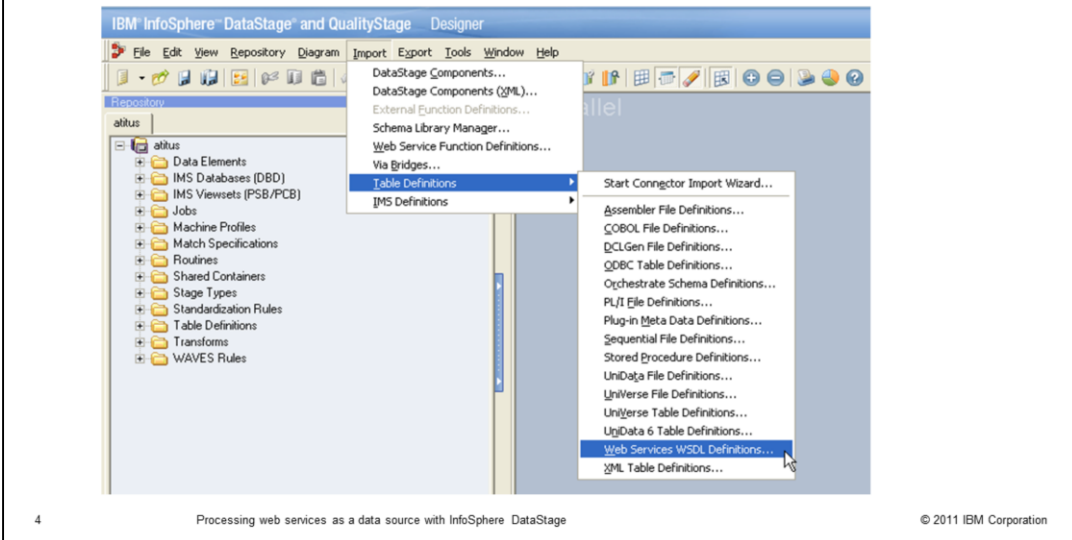
- Standards DataStage web services stages support
 - SOAP 1.1 binding over HTTP
 - Literal and SOAP-encoded web service arguments
 - RPC-style and document-style arguments
- Web service metadata import from
 - Physical WSDL (web service definition language) files on disk
 - Direct HTTP-protocol (non-proxied) import of WSDL using URL

This slide displays the web standards that are supported by the DataStage web services stages and the methods available for importing web service definitions. The steps in this module will use web services published on the public internet. To complete these steps, your local DataStage client AND your DataStage server will both need to have access to the public internet.

The example in this presentation is based on DataStage version 8.5 using a Parallel canvas job. You should be able to complete the module using other versions of DataStage or by using a Server canvas job, however, the screen captures and exact steps may vary slightly.

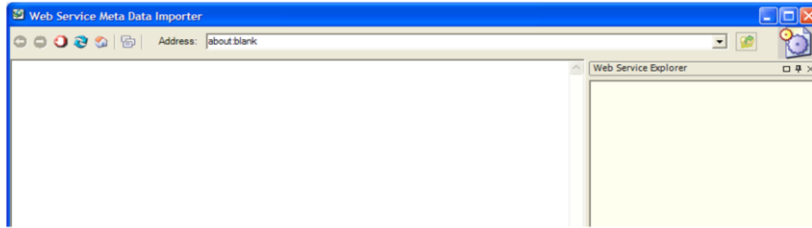
Import web services definitions (1 of 4)

- Import web services definition
 - Import => Table Definitions => Web Services WSDL Definitions



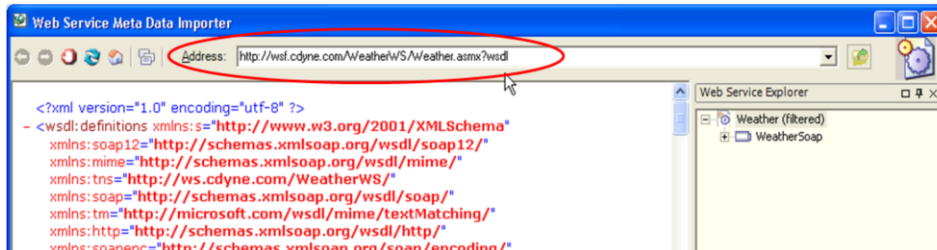
The first step in any web services job is to import the web services definition. Start the Web service metadata importer in the DataStage Designer (or DataStage Manager in version 7) and click Import from the main menu. Next, expand Table Definitions and then click Web Services WSDL Definitions.

Import web services definitions (2 of 4)



- Web service definition published to public internet

<http://wsf.cdyne.com/WeatherWS/Weather.asmx?wsdl>



5

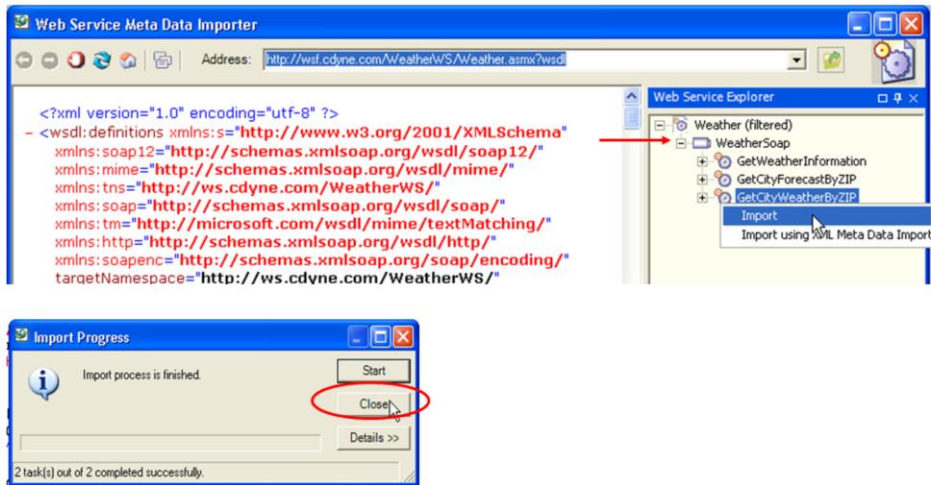
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The web service metadata importer should open as a new window. In this module, you will use a web service that returns weather forecast information. The URL for the web service is provided on this slide. To browse the web service, enter the URL for the web service WSDL document into the Address field in the web service metadata importer. Press Enter.

Import web services definitions (3 of 4)

- Import GetCityWeatherByZIP



6

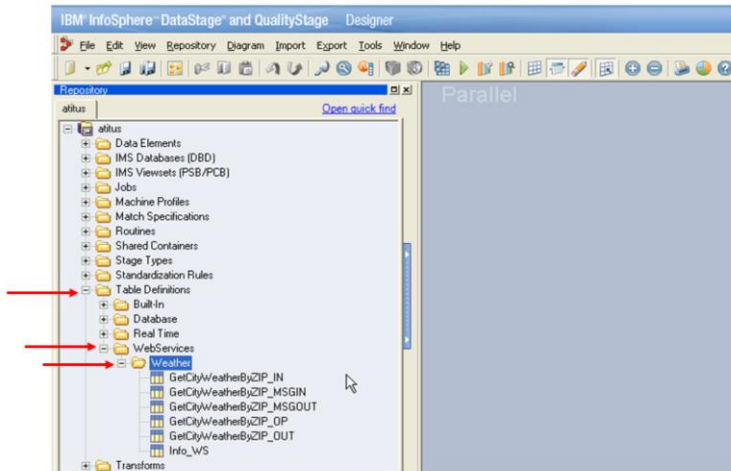
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The next step is to import the GetCityWeatherByZIP operation. On the right side of the Web Services Meta Data Importer dialog box, click the [+] next to the entry for "WeatherSoap" in the Web Services Explorer pane to expand it. Locate the GetCityWeatherByZIP operation with the 'gears' icon next to it. Right-click this and select 'Import'. When the import finishes, click the Close button on the dialog box and then click the Close button on the bottom right side of the Web Services Metadata Importer window.

Import web services definitions (4 of 4)

- Verify successful import in repository view



7

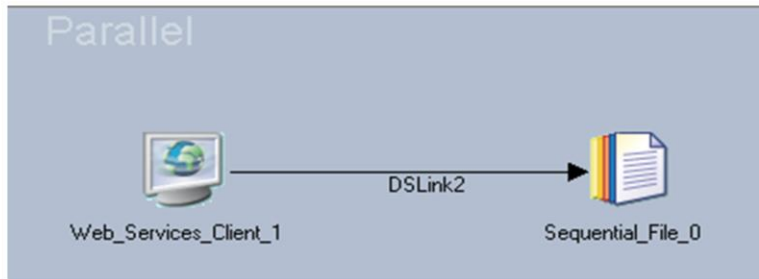
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To verify that the import was successful, go to the repository view in the DataStage Designer (or the DataStage Manager in version 7) and locate the Table Definitions folder. Click to expand it and then locate the WebServices folder. Expand the WebServices folder. If the import was successful, you will have a Weather folder with the operation that was just imported. Expanding it should show all of the entries labeled with GetCityWeatherByZIP.

Build job using web service as data source (1 of 8)

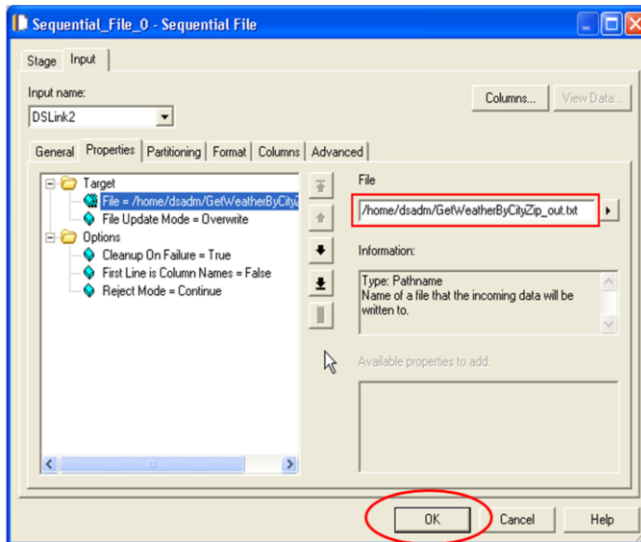
- Create new DataStage parallel job
 - Source – Web services client
 - Target – Sequential file



In the DataStage Designer, create a new blank job (either server or parallel). On the job canvas, add a web services client as the source and a sequential file as the target. The web services client stage, referred to as WS Client, is located within the Real Time group in the Designer palette.

Build job using web service as data source (2 of 8)

- Define target file for sequential file stage



9

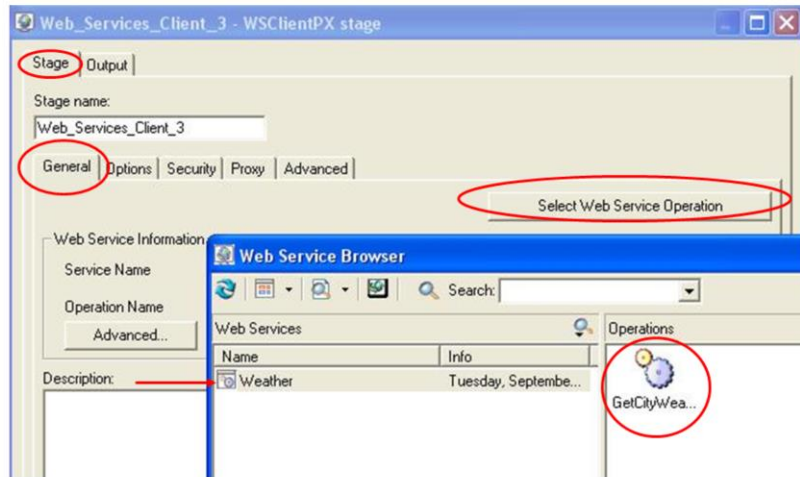
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Next, double click the sequential file stage. Click the Input tab at the top and then click the Properties tab. Edit the path for the File property, and provide the full path to the location on your DataStage server where you want to write the file. This will be a small file. After typing the path, press the Enter key on the keyboard to submit. It is not necessary to change any other options; the default values should be used. Press OK at the bottom of the dialog box to save the changes.

Build job using web service as data source (3 of 8)

- Configure web service client stage to call GetCityWeatherByZIP operation



10

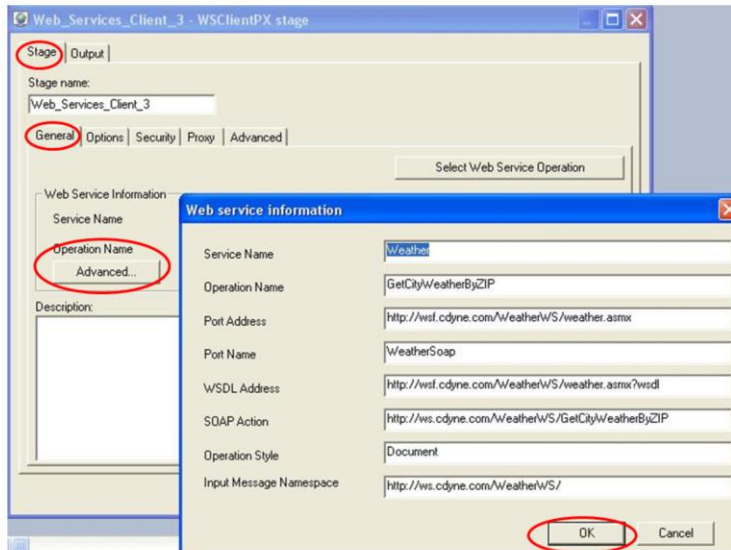
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Double click the Web Services Client stage. Select the General tab. Click the 'Select Web Service Operation' button. In the Web Service Browser window, click the 'Weather' web service in the left pane and the operations are listed in the right pane. Double click the 'GetCityWeatherByZIP' operation in the right pane.

Build job using web service as data source (4 of 8)

- Verify web services information is populated



11

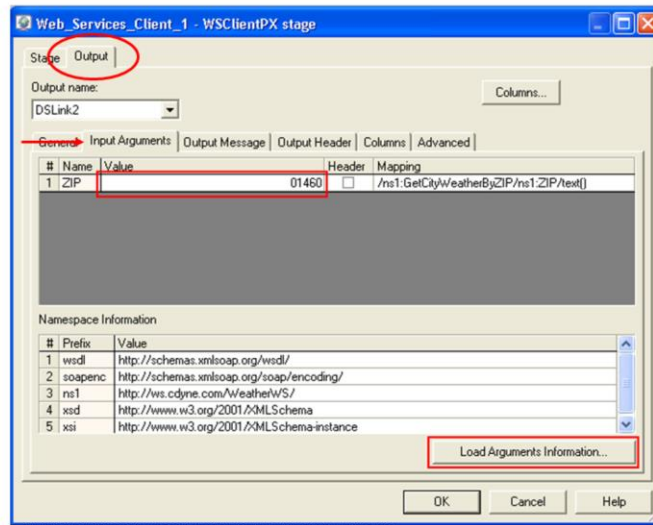
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Next, to verify that the web service information is populated, click the Advanced button to view the web service Information. If the information is not populated properly, go back and verify the previous steps were completed correctly. Click OK when finished.

Build job using web service as data source (5 of 8)

- Input arguments
 - Load input arguments and namespace information



12

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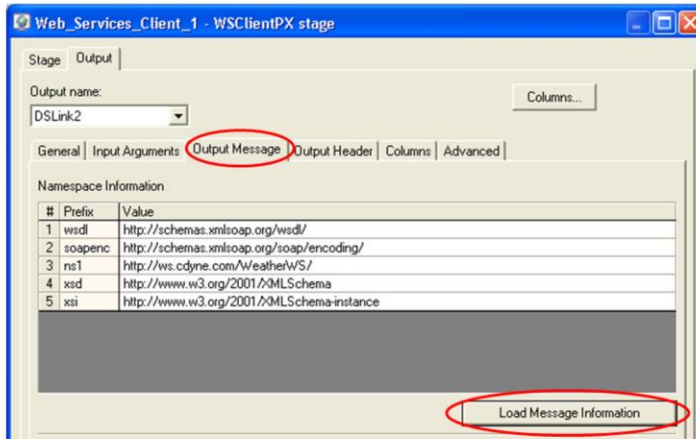
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With the Web Services Client stage still open, click the Output tab at the top. Then click the Input Arguments tab. Next, load the Input Arguments and Namespace Information grids by pressing the Load Arguments Information button on the bottom of the dialog box.

Next, add a valid US zip code in the value field of the ZIP input argument. For example, 01460 for Littleton, Massachusetts.

Build job using web service as data source (6 of 8)

- Output messages
 - Load namespace information



13

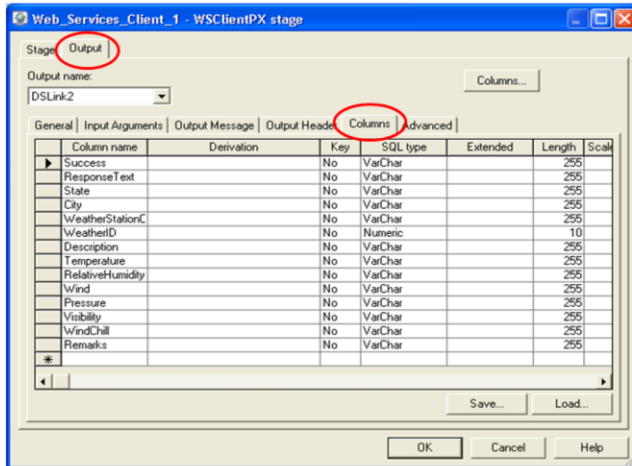
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With the Outputs tab still selected at the top, click the Output Message tab. Next, click the Load Message Information button at the bottom of the dialog box to populate the Namespace Information grid.

Build job using web service as data source (7 of 8)

- Verify column information has automatically loaded



14

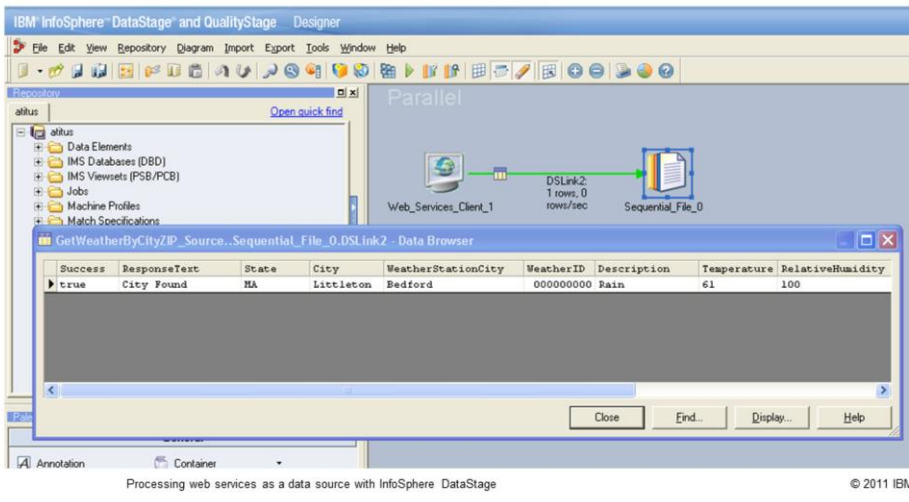
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With the Outputs tab still selected at the top, click the Columns tab. Validate that the columns have been automatically populated with the return values for the web service. If you do not see column values here, then go back and ensure all of the previous steps were completed.

Build job using web service as data source (8 of 8)

- Save and compile job
- Enable performance statistics
- Run job
- View data



Using the DataStage Designer, save and compile the job. To enable performance statistics, right click anywhere on the blank area of the job canvas and select Show Performance Statistics. Run the job from Designer and the link should turn green and report one row processed. Right click the Sequential file stage and view data to see the individual column values returned.

Note: You may find that the view data browser displays only one column of data at a time. This is because the maximum lengths for the fields are set to 255. To see more than one column at a time, use the mouse to resize the column widths in the view data browser.

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