

Using XML to Template Flash Content Development

ASTD 2008 TechKnowledge Conference & Exposition

Session – Th111CS

Objectives:	In this creation station, participants will:
	<ul style="list-style-type: none">• Review the requirements for using XML to develop online content templates for Flash.• Import an XML document into Flash.• Create an Excel template and export XML from that template.

Presented by: Danelle D. Koster
410 993 7933




Ron Ricks
801 954 3303

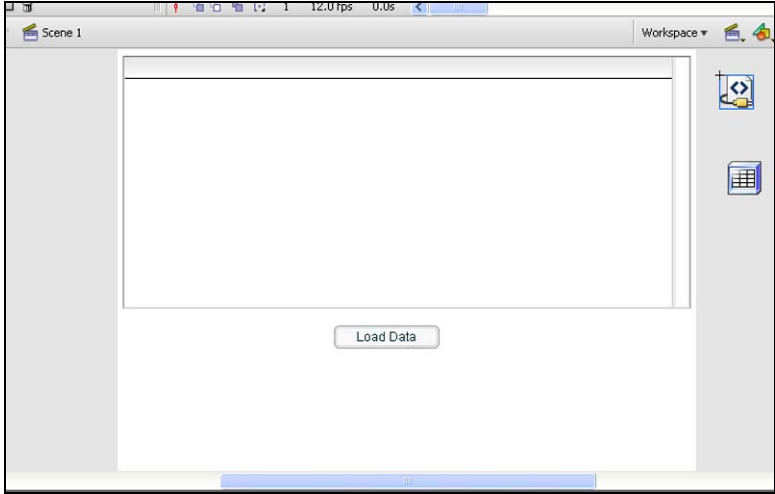



Importing XML into Flash CS3 Professional

Introduction In this example, you'll perform the required steps to import the dinner_menu.xml file into a Flash CS3 file and create the required bindings to display the data on the stage in a Datagrid.

Step	Actions
1	Open Flash CS3 Professional on your local system and create a new Flash ActionScript 2.0 document. Save as dinner_menu.fla to c:\TU311CS.
2 	Create four layers, Data Grid component, Load Data button, XMLConnector, and DataSet. These will be the four items you will need for your movie. Note: If not already open, open the components and component inspector panels.
3	Select the Data Grid component layer. Using the components panel, open the UI Components directory and place a DataGrid instance on the stage. Name the instance menu_dg and change the width to 540 and height to 240.
4	Select the Load Data button layer. Add a Button instance just below the DataGrid . Use the properties panel to name the button loadData and change the button's label to Load Data .
5	Select the XMLConnector layer. Open the Data Components directory in the components panel. Place an XMLConnector just off the stage. Use the properties panel to name the instance xmlConn .

Importing XML into Flash CS3 Professional, continued

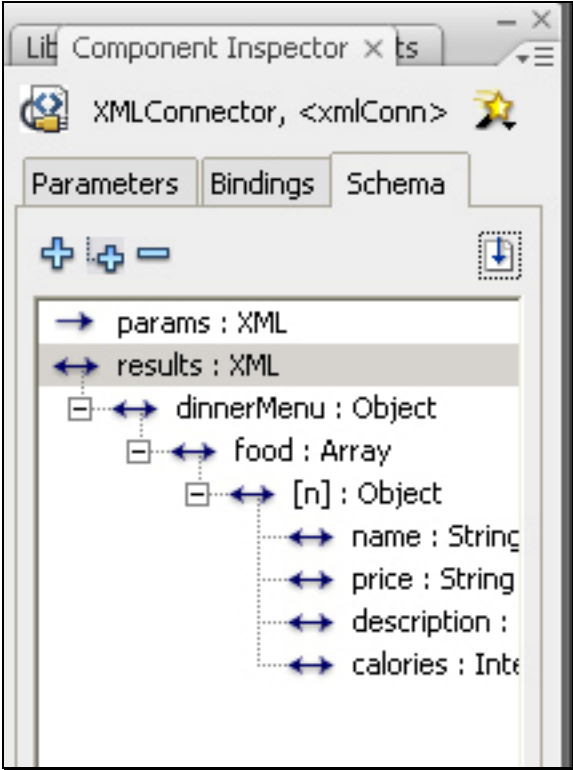
Step	Actions
6	Select the DataSet layer. Place a DataSet component just off the stage. Name the instance menu_ds .
7	The stage should currently look similar to this: <div style="text-align: center; border: 1px solid black; padding: 10px; margin: 10px 0;">  <p>The screenshot shows the Flash CS3 Professional workspace. The main stage area is empty except for a single button labeled 'Load Data' centered at the bottom. The interface includes a top toolbar with various icons, a 'Scene 1' label on the left, and a 'Workspace' dropdown menu on the right. The bottom status bar shows '12.0 fps' and '0.0s'.</p> </div> Save your work.
8	Select the XMLConnector component by clicking on it. Open the Component inspector and click on the Parameters tab.
9 <div style="float: left; margin-right: 10px;">  <p>Note</p> </div>	In the URL field enter dinner_menu.xml. Note: Your dinner_menu.xml file must be in the same directory as your Flash file. If not, enter the entire path to point to the XML file.

Importing XML into Flash CS3 Professional, continued

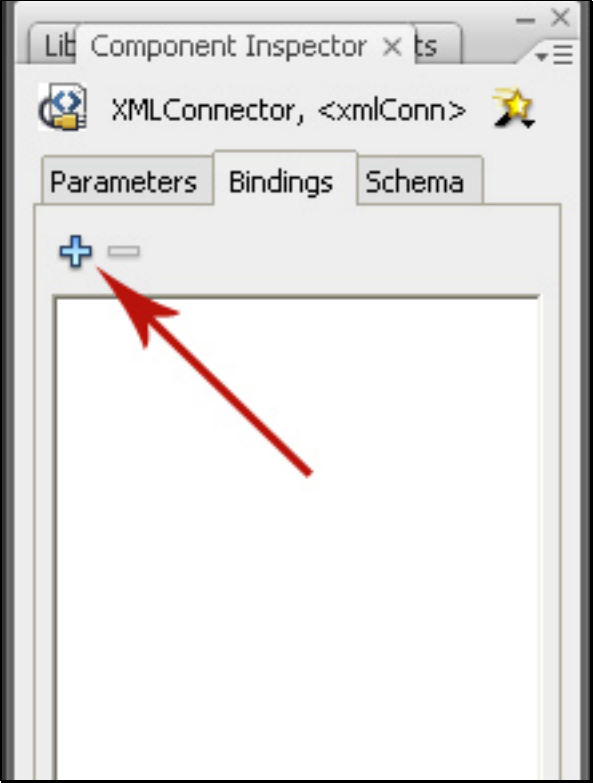
Step	Actions
<p>10</p>	<p>Click in the direction field. Use the drop-down menu and select receive for the direction.</p>
<p>11</p>	<p>You must define the schema for the XML file you'll be importing. You can use the Component Inspector's Schema tab to load the XML file's schema. For this example, load the dinner_menu.xml schema. Click on the Component Inspector's Schema tab, click on result: XML, then click on the blue arrow pointing down. This will import a schema from a sample XML file.</p> <div> <p>The screenshot shows the 'Component Inspector' window with the 'Schema' tab selected. It displays two schema entries: 'params : XML' and 'results : XML'. A red arrow points to a blue downward-pointing arrow icon located to the right of the 'results : XML' entry, which is used to import a schema from a sample XML file.</p> </div> <p>Note: Although you can build a schema directly into Flash, it is probably easier to consider how you want the data and create the original XML file by hand and load it in to ensure proper structure.</p>



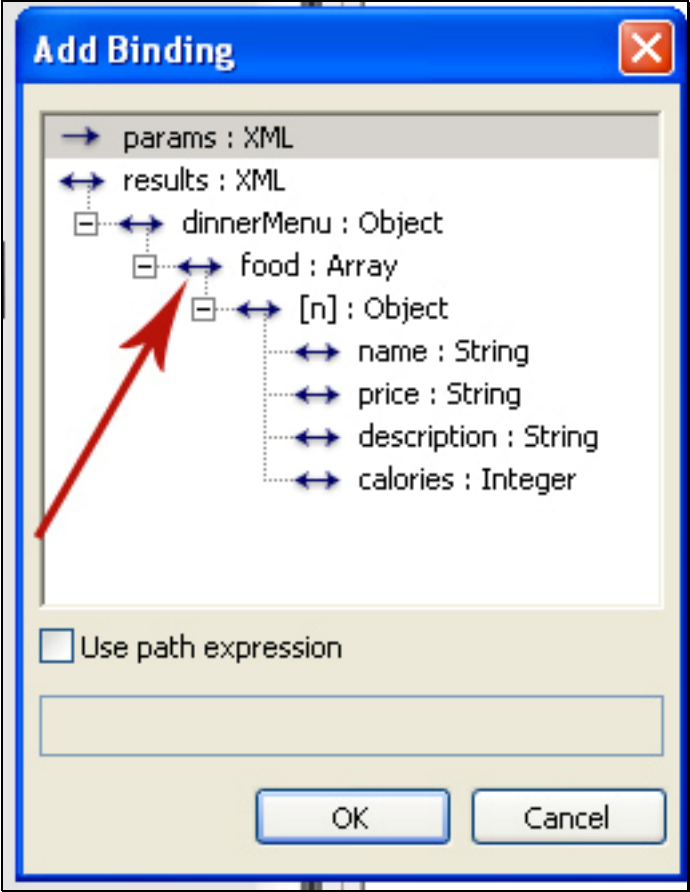
Importing XML into Flash CS3 Professional, continued

Step	Actions
<p>12</p>	<p>A browser window appears. Use it to locate the dinner_menu.xml file and click the Open button. The schema will appear on the Schema tab.</p>  <p>Notice the schema matches the XML definitions.</p>
<p>13</p>	<p>Now you must bind the XMLConnector schema to the dataProvider property of the DataSet you added earlier. With the XMLConnector still selected, click on the Bindings tab.</p>

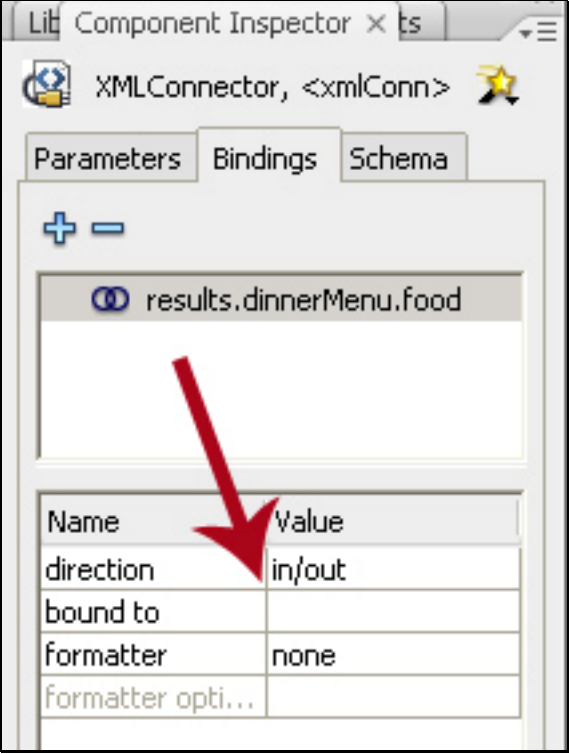
Importing XML into Flash CS3 Professional, continued

Step	Actions
14	<p>Click on the plus (+) sign.</p> 


Importing XML into Flash CS3 Professional, continued

Step	Actions
15	<p>The Add Binding dialog box appears. Click on food:Array and press the OK button.</p> 


Importing XML into Flash CS3 Professional, continued

Step	Actions										
16	<p>Back at the Bindings tab you'll see results.dinnerMenu.food listed.</p>  <table border="1"><thead><tr><th>Name</th><th>Value</th></tr></thead><tbody><tr><td>direction</td><td>in/out</td></tr><tr><td>bound to</td><td></td></tr><tr><td>formatter</td><td>none</td></tr><tr><td>formatter opti...</td><td></td></tr></tbody></table> <p>Click into the bound to field. A magnifying glass icon appears to the right. Click on the magnifying glass icon.</p>	Name	Value	direction	in/out	bound to		formatter	none	formatter opti...	
Name	Value										
direction	in/out										
bound to											
formatter	none										
formatter opti...											

Importing XML into Flash CS3 Professional, continued

Step	Actions
<p>17</p>	<p>The Bound To dialog box appears.</p> <div> </div> <p>Ensure that in the Component path: area DataSet, <menu_ds> is highlighted and in the Schema location: area, ensure that dataProvider: Array is highlighted then click the OK button.</p> <p>  Note: Whenever you create a binding, you must perform at the very least these two basic steps. </p>
<p>18</p>	<p>Click into the direction field and change the value from in/out to out.</p>

Importing XML into Flash CS3 Professional, continued

Step	Actions
<p>19</p>  <p>Note</p>	<p>Now you must set up the bindings for the DataSet. Click on the DataSet in your movie.</p> <p>Note: You'll notice that the bindings tab already shows a binding for the DataSet with the xml connector for the dataProvider.</p>
<p>20</p>	<p>Now you want to create bindings from the DataSet to the DataGrid. Click the plus (+) sign and the Add Binding dialog box appears again.</p>
<p>21</p>	<p>In the Add Binding dialog box, highlight dataProvider then click the OK button.</p>
<p>22</p>	<p>Click into the bound to field. When visible, click the magnifying glass icon to the right.</p>
<p>23</p>	<p>The Bound To dialog box appears. In the Component path: area, ensure that the DataGrid, <menu_dg> is selected. In the Schema location: area, ensure that dataProvider: Array is selected. Click the OK button.</p>
<p>24</p>	<p>Click in the direction field's value and select out from the drop-down list.</p>
<p>25</p>	<p>At the top of the Bindings tab click the plus (+) sign again.</p>
<p>26</p>	<p>In the Add Binding dialog box, highlight selectedIndex: Number and click the OK button.</p>

Importing XML into Flash CS3 Professional, continued

Step	Actions
27	Click into the bound to field's value. When visible, click the magnifying glass icon to the right.
28	The Bound To dialog box appears. In the Component path: area, ensure that DataGrid, <menu_dg> is highlighted. In the Schema location: area, ensure that seletedIndex: Number is highlighted. Click the OK button.
29	Click on the direction field's value and select out from the drop-down list.
30	<p>You're ready to put the required action code on the button. Select the first frame on the button layer.</p> <p>Open the Actions panel and enter the following code:</p> <pre>form = new Object(); form.click = function(eventObj){ xmlConn.trigger(); } loadData.addEventListener('click',form);</pre>

Importing XML into Flash CS3 Professional, continued


Step	Actions																				
31	<p>Save the file then test it.</p> <p>Click the loadData button to trigger the data load. You should see something similar to this image below.</p> <div><table border="1"><thead><tr><th>calories</th><th>description</th><th>price</th><th>name</th></tr></thead><tbody><tr><td>650</td><td>Handmade ravioli filled</td><td>\$5.95</td><td>Butternut Squash R</td></tr><tr><td>350</td><td>Fresh spinach with a wd</td><td>\$7.95</td><td>Warm Spinach Sal</td></tr><tr><td>500</td><td>Delicate anchovies on t</td><td>\$8.95</td><td>Boquerones</td></tr><tr><td>800</td><td>Spanish rice slow-cook</td><td>\$14.50</td><td>Seafood Paella</td></tr></tbody></table><p style="text-align: center;"><input type="button" value="Load Data"/></p></div>	calories	description	price	name	650	Handmade ravioli filled	\$5.95	Butternut Squash R	350	Fresh spinach with a wd	\$7.95	Warm Spinach Sal	500	Delicate anchovies on t	\$8.95	Boquerones	800	Spanish rice slow-cook	\$14.50	Seafood Paella
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Using Microsoft Excel to Export XML

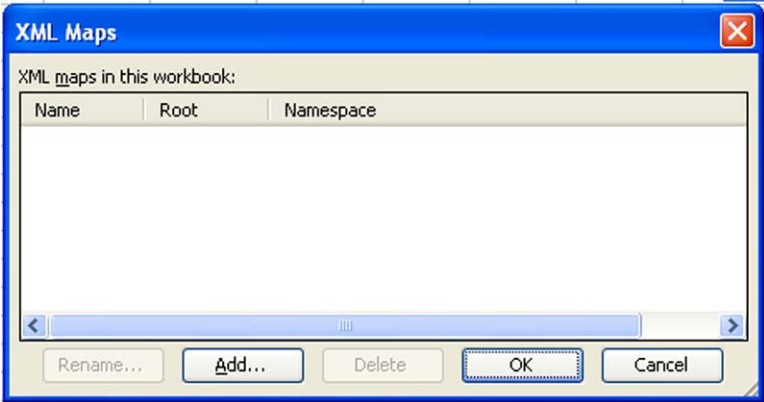
Introduction Using Excel to export XML is a way in which you can create templates for designers and subject matter experts to enter content which can be exported to XML. The XML content can then be imported into Flash MX 2004 Professional and reduce development time for the programmer.

In the previous example, the dinner_menu.xml file was provided for the example. In this section, you'll learn the steps required to create an excel spreadsheet which allows you to edit the dinner_menu file and export it into structured XML.

Note: The XML functionality is only available in Microsoft Excel 2003 and higher. Additional details are available on the Microsoft website.

Step	Actions
1	Open Microsoft Excel and create a new document.
2	Save the document as dinner_menu2.
3	Click the Data menu button. On the menu choose XML then XML Source from the list.
4 	The XML Source panel opens. You must define a XML Map in the Excel document. Note: When you are developing a template for Excel, you should have a schema designed to meet the needs for your content input.

Using Microsoft Excel to Export XML, continued

Step	Actions
5	At the bottom of the XML Source panel, click the XML Maps button.
6	<p>The XML Maps dialog box opens.</p>  <p>Click the Add... button.</p>
7	Using the browser window that opens, locate the dinner_menu.xml document in the test directory you created earlier. Highlight dinner_menu.xml then click the Open button.
8	Microsoft gives you a message that a schema doesn't exist and that it will create one. Click the OK button to continue then click the OK button on the XML Maps dialog box.
9	The schema appears in the XML Source panel. Click on food and drag it to cell A – 3 on the spreadsheet. Adjust columns A, B, C, and D as needed for ease of use.
10	Save your document.

Using Microsoft Excel to Export XML, continued

Step	Actions
11	<p>Enter at least one line of data into the spreadsheet.</p> <p>Name: Butternut Squash Ravioli Price: \$5.95 Description: Handmade ravioli filled with butternut squash puree sauteed in brown butter and sage. Calories: 650</p>
12	Save your document.
13	You are ready to export the data to XML. Click on the Data menu and choose XML, Export .
14	Assign a test name to your file and click the Export button.
15	Use Notepad to open both the dinner_menu.xml and the XML file you just created. Compare the two files.
16	<p>Before importing this XML file into Flash, you must make some edits to it.</p> <p>On the first line, where it says standalone="yes" you must edit the word "yes" to "no" or remove the statement completely.</p> <p>On the second line, you must delete the following: xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance".</p>
17	Save the edited file and it is ready for use.