

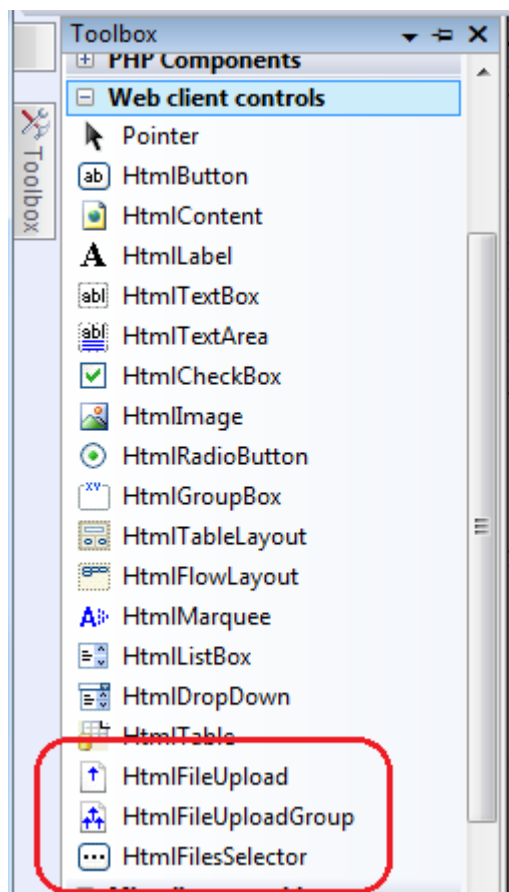
File Upload from Web Pages

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Introduction

HtmlFileUpload can be used to upload a file from web page. HtmlFileUploadGroup may group many HtmlFileUpload controls to upload many files in one operation. HtmlFilesSelector can be used to select one or more files and upload the files as HtmlFileUploadGroup does, or it can be used by SendMail component so that the selected files are used as email attachments.

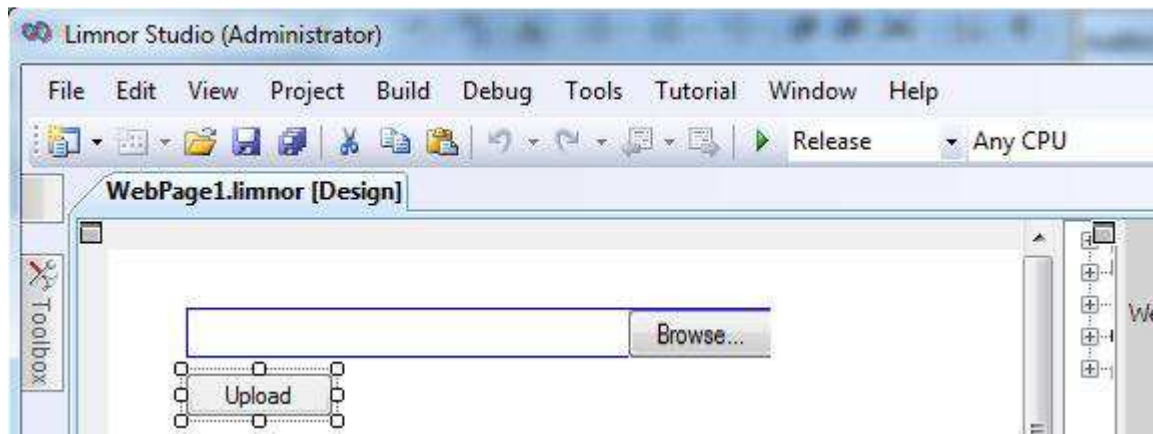


File-upload related procedures described in this document can be used for both PHP and ASPX web applications. The samples demonstrate the usages of HtmlFileUpload and HtmlFileUploadGroup. Web mail sample (<http://www.limnor.com/support/WebEmail.pdf>) shows usage of HtmlFilesSelector.

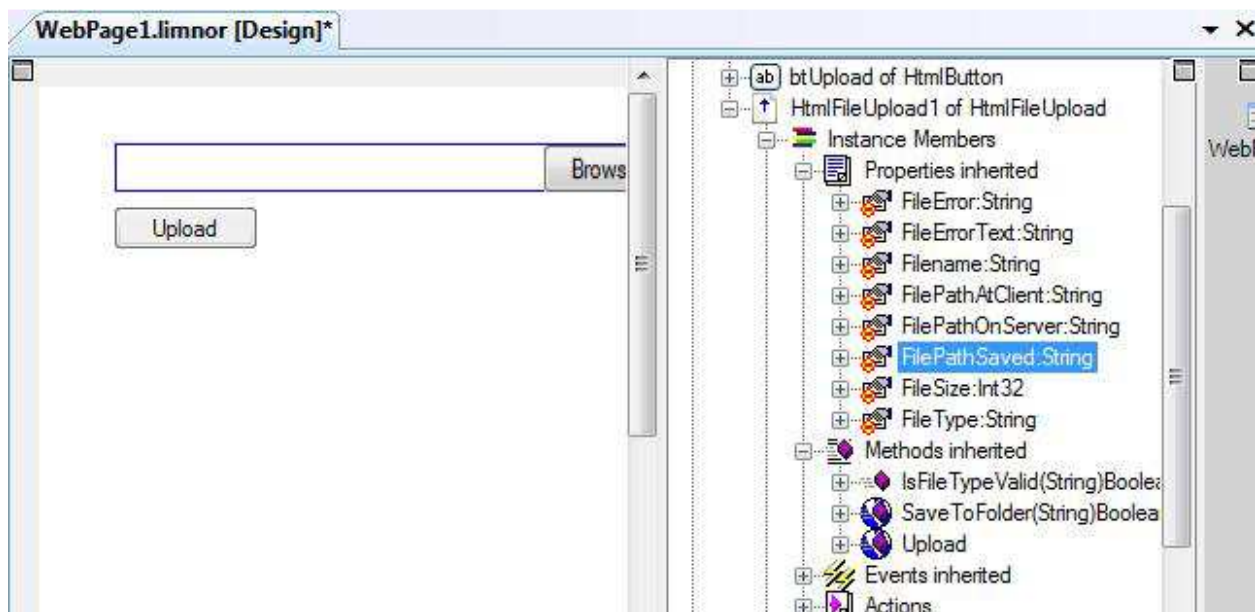
Upload Single File

Upload file to server

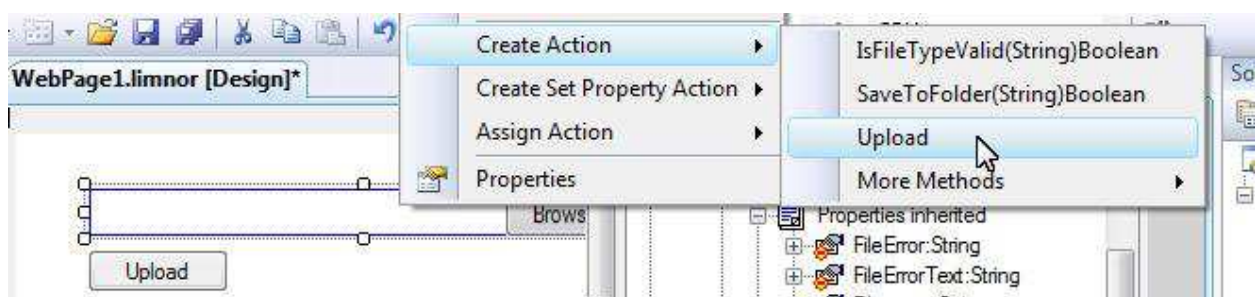
Drop an HtmlFileUpload to the web page. Add a button for initiate file uploading action:



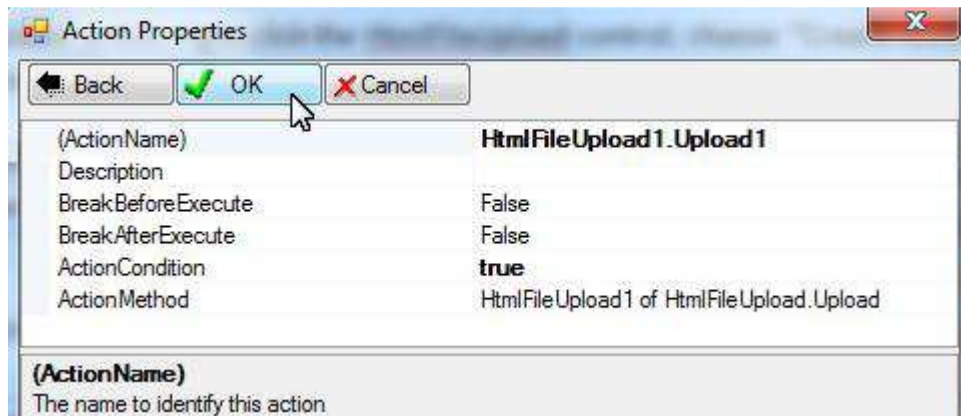
We may create an Upload action to upload the file to the web server. We may create a SaveToFolder action to save the uploaded file to a folder on the web server. FilePathSaved property is the file path on the web server after executing SaveToFolder.



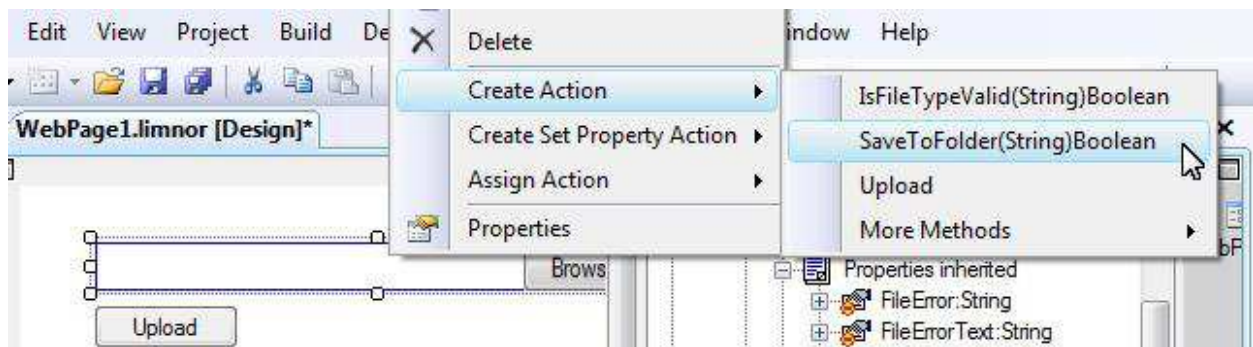
To create an Upload action, right-click the HtmlFileUpload control; choose "Create Action"; choose "Upload" method:



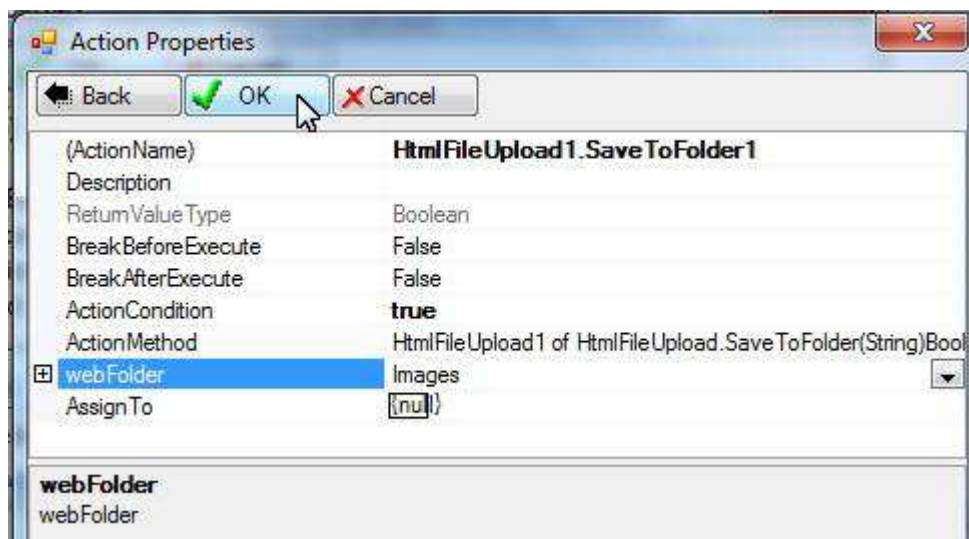
Click OK to finish creating this action:



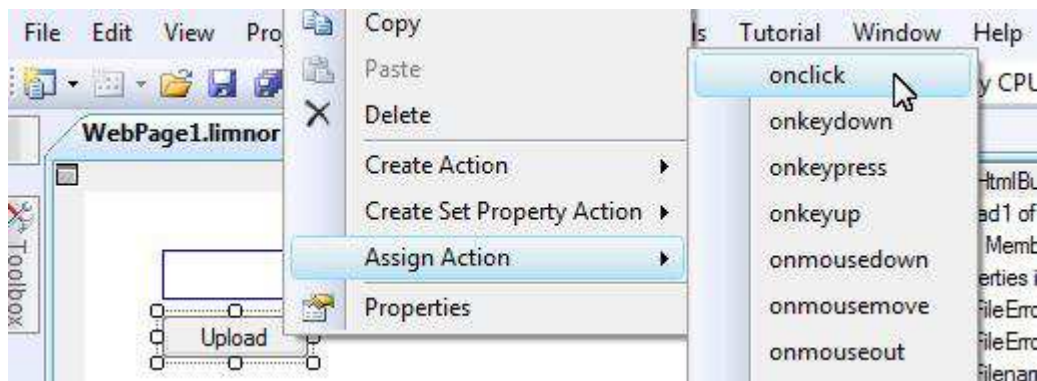
To create a SaveToFolder action; right-click the HtmlFileUpload control; choose "Create Action"; choose "SaveToFolder" method:



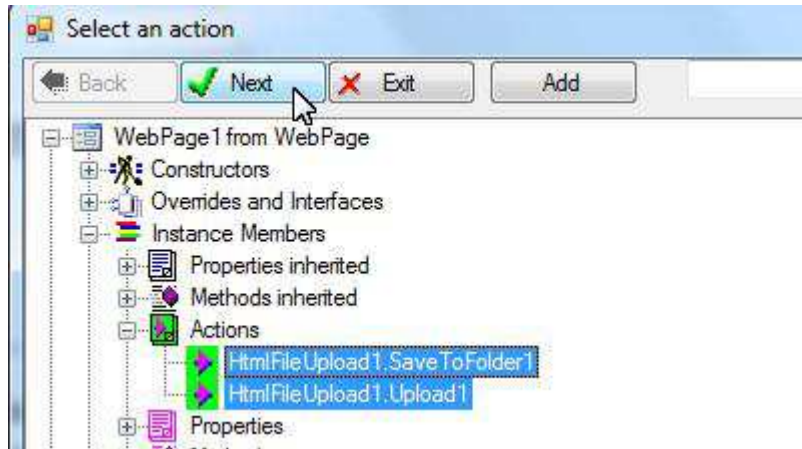
Specify a folder name on the web server. We used "Images" here. Click OK to finish creating this action:



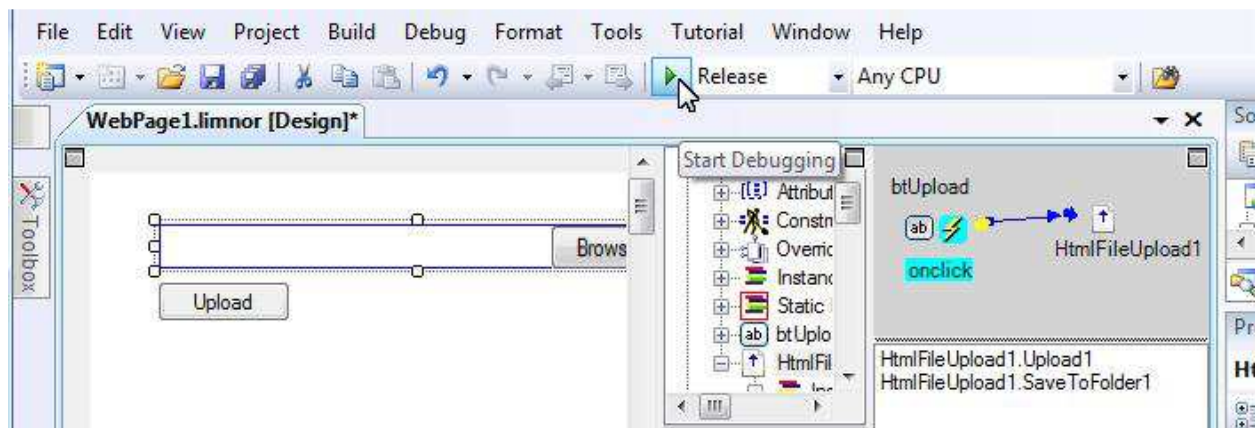
We want these two actions to be executed when the visitor clicks the button. Right-click the button; choose “Assign Action”; choose “onclick” event:



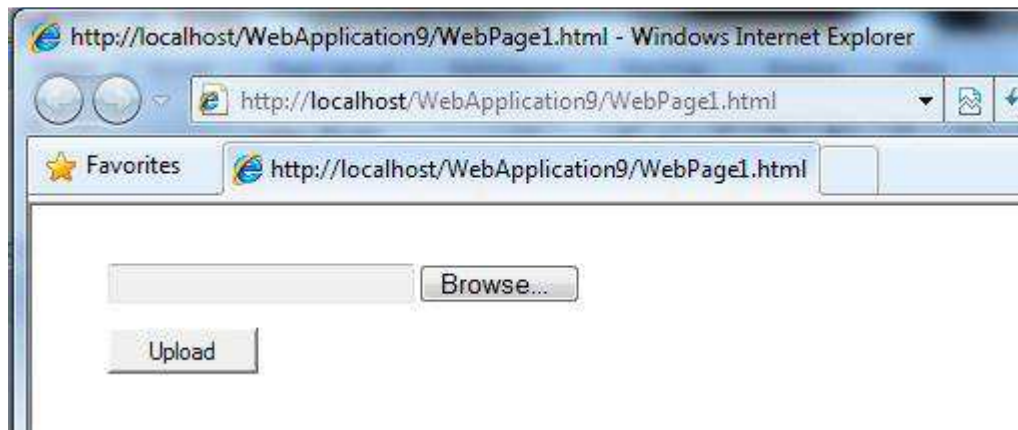
Choose the actions and click “Next”:



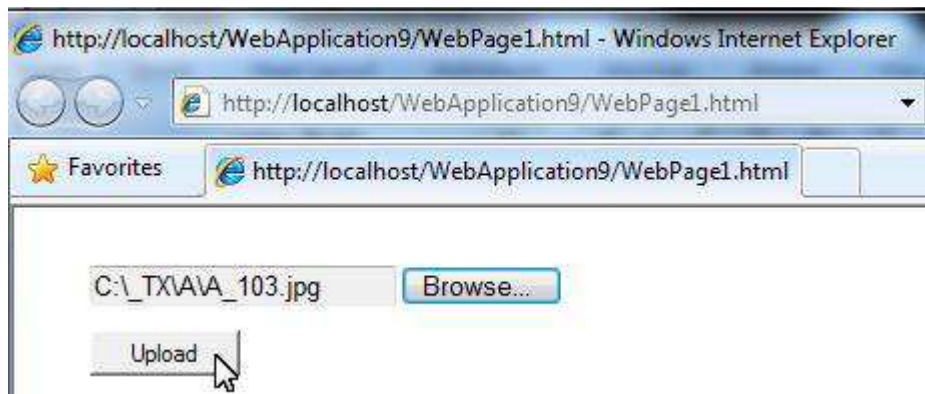
The actions are assigned to the button. Make sure that the Upload action is before the SaveToFolder action. We may test the web application now.



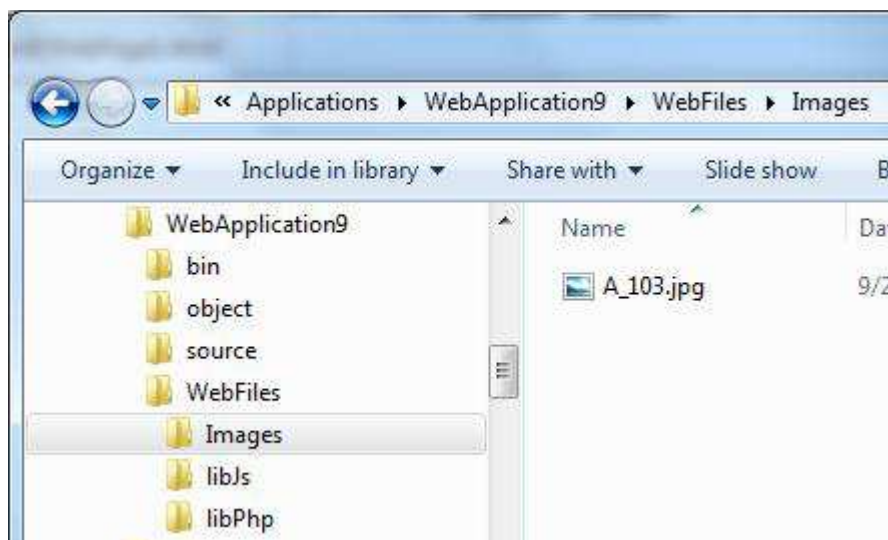
The web page appears:



Select a file and click the button.



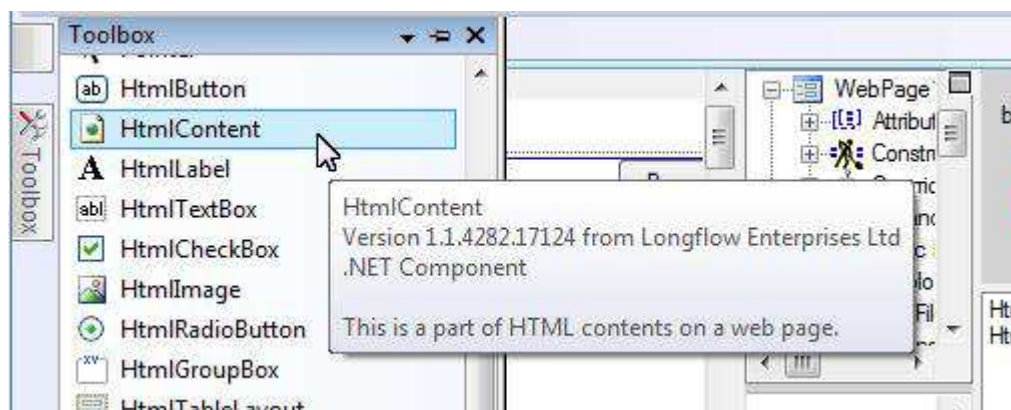
We can see that the file is uploaded to the Images folder:



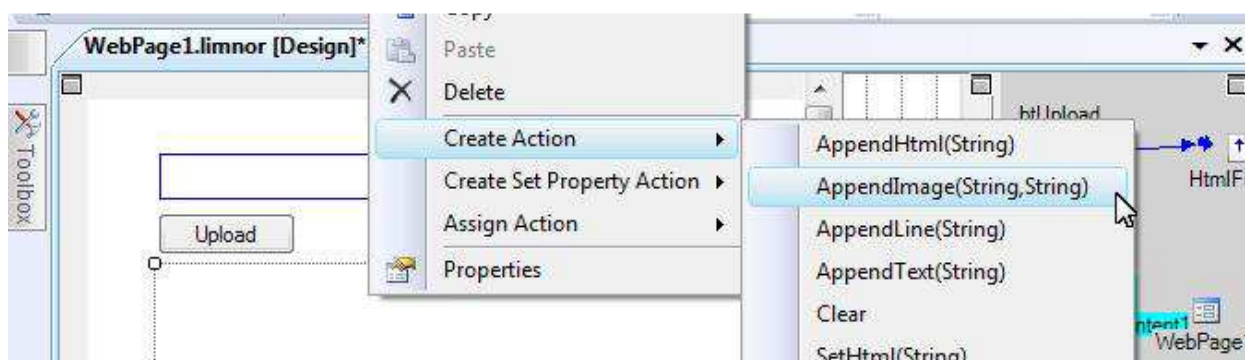
Use uploaded file name at client

FilePathSaved property can be used at client after file upload. Let's use an HtmlContent control to demonstrate it. Note that such file upload related properties are only available during the same event

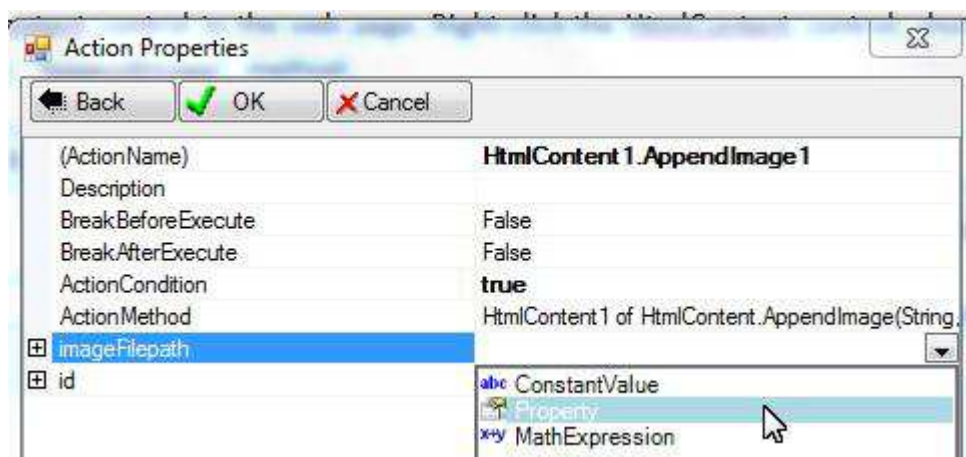
handling processing immediately after the file uploading. For example, you cannot use one button to do file uploading and use another button to access the `FilePathSaved` property.



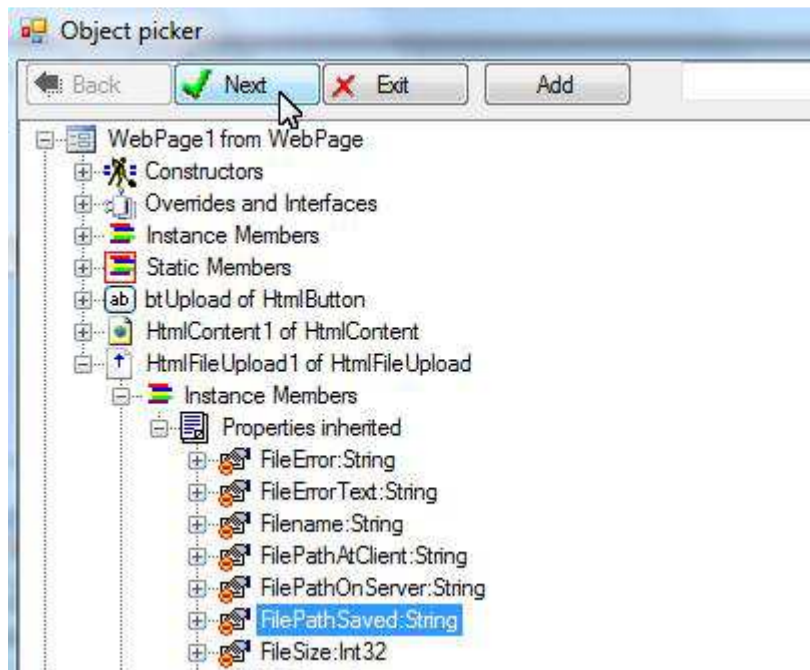
Drop an `HtmlContent` control to the web page. Right-click the `HtmlContent` control; choose “Create Action”; choose “AppendImage” method:



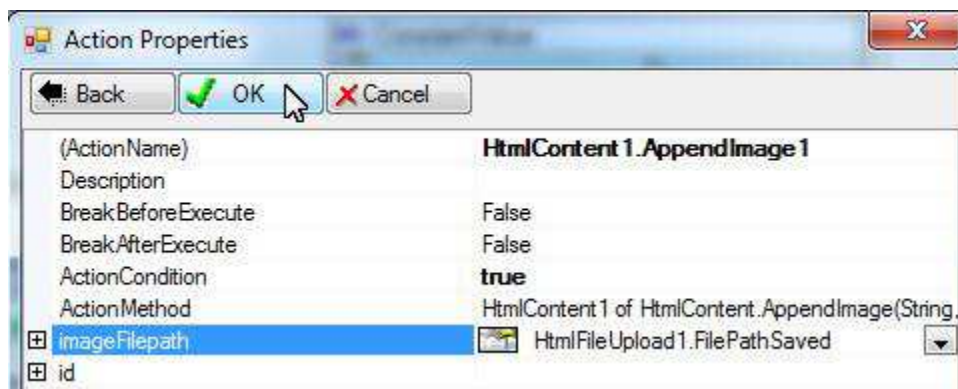
Select “Property” for the “imageFilePath” parameter:



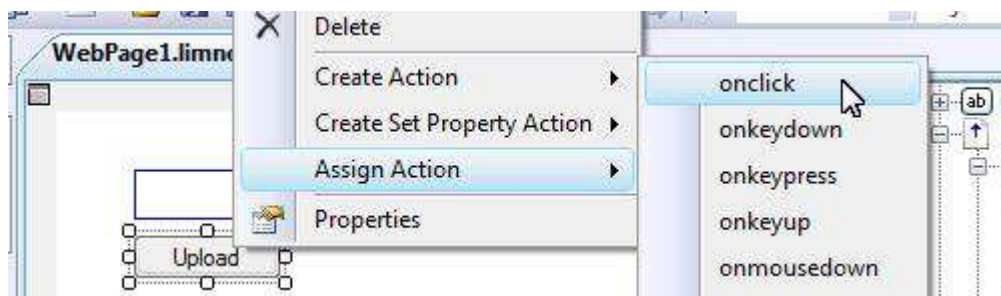
Select `FilePathSaved` property of the `HtmlFileUpload` control. Click “Next”:



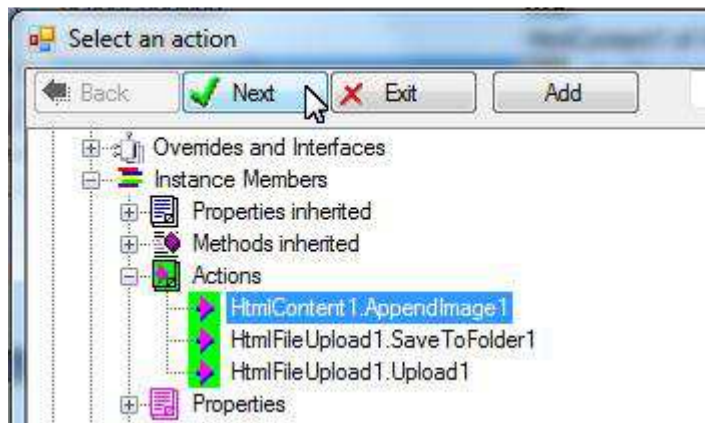
Click OK to finish creating this action:



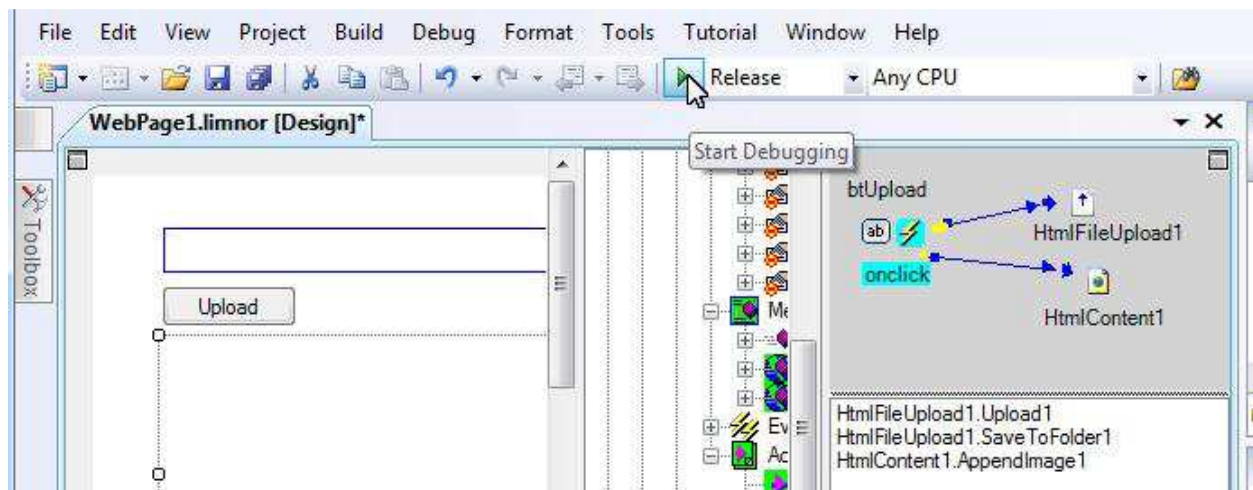
Assign this action to the button as well. Right-click the button; choose "Assign Action"; choose "onclick":



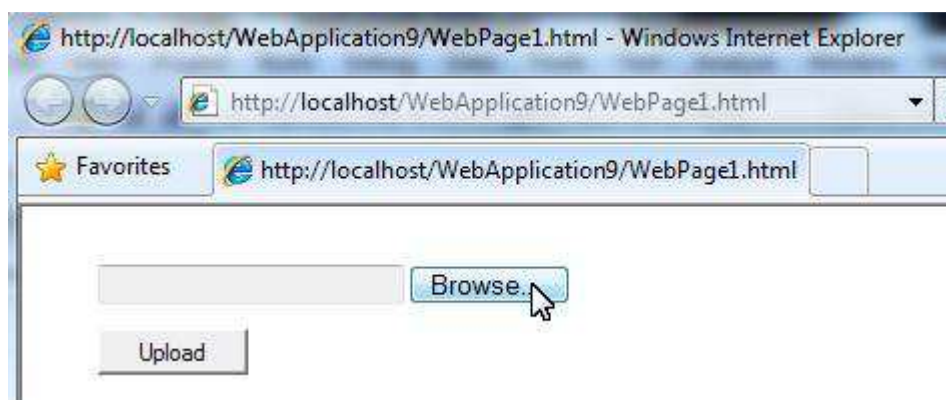
Choose the new action and click "Next":



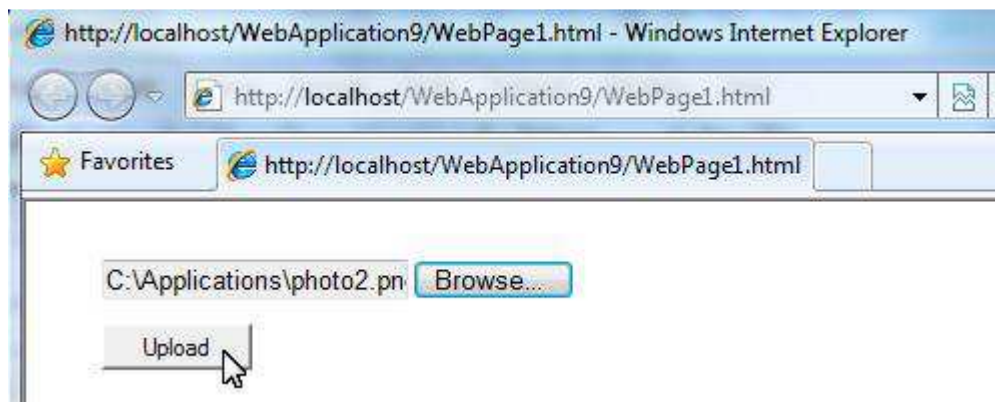
We may test the web application again:



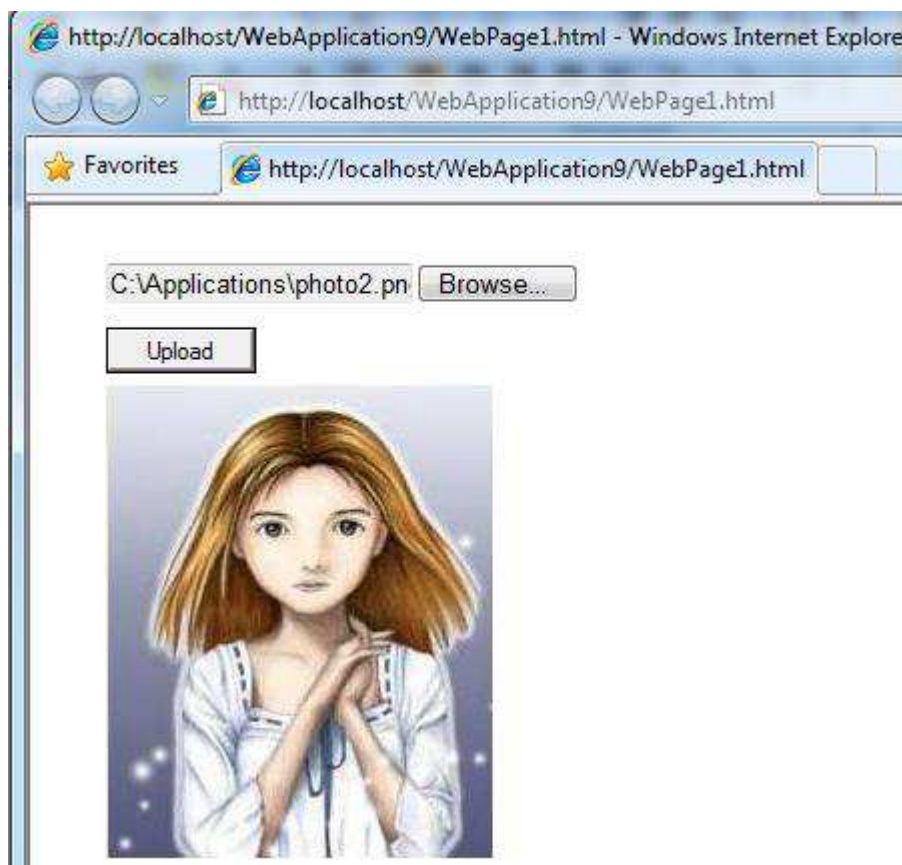
The web page appears:



Select a file and click the Upload button.



The image file is uploaded. The image also appears on the web page:

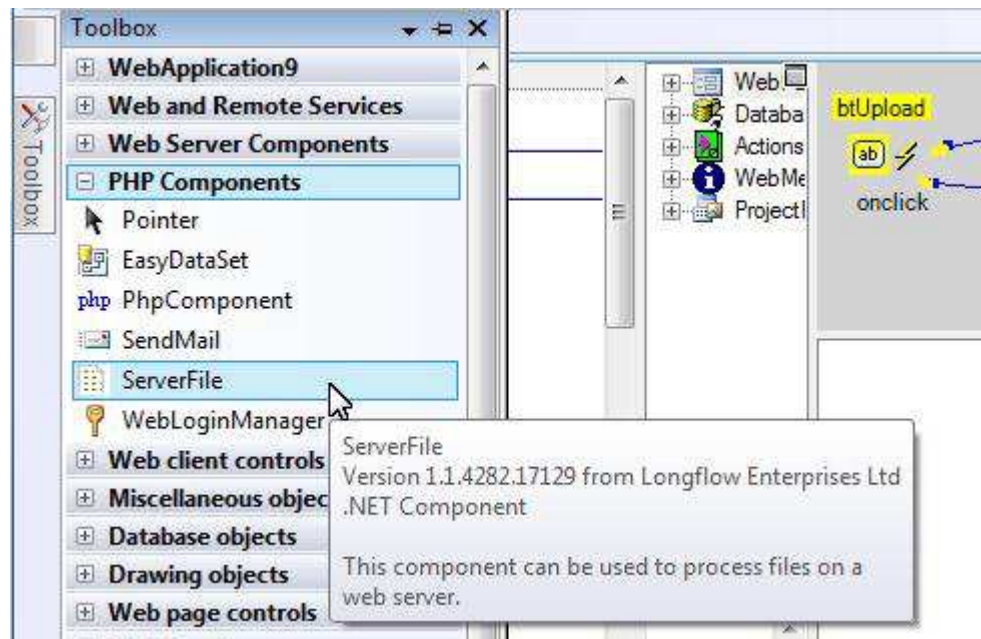


Use uploaded file name at server

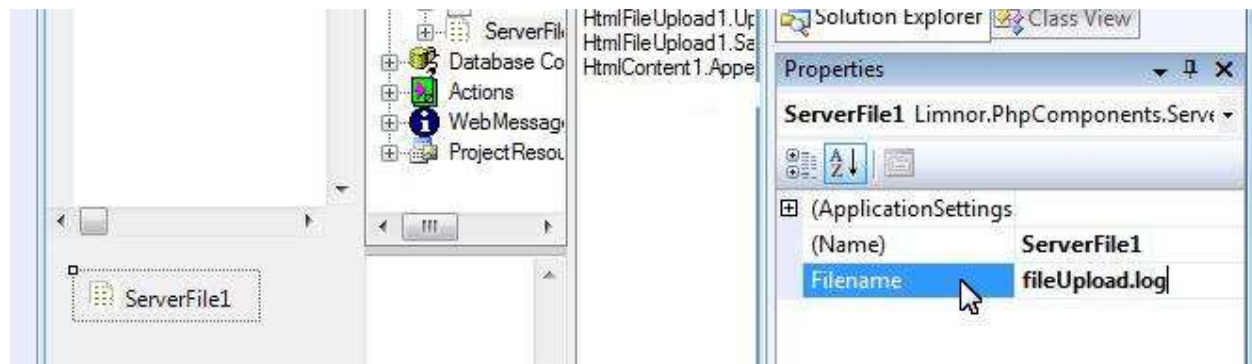
FilePathSaved property can be used at server after file upload. Even though **HtmlFileUpload** component is used in the same way for PHP and Aspx, other server processing is usually different for PHP and Aspx. Suppose we want to write file names of uploaded files to a log file. For PHP we may use **ServerFile** component to do it. For Aspx, we may use **StreamWriter** class to do it. Below we show both ways.

Use PHP to do logging

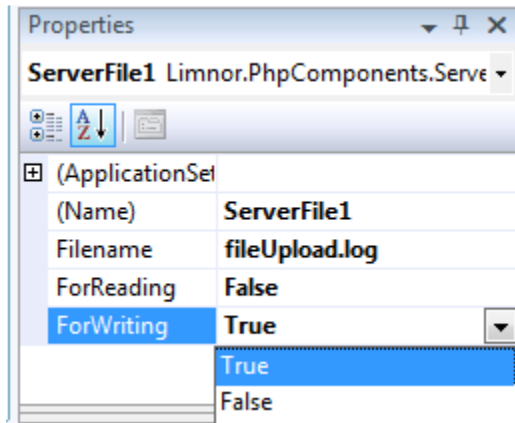
Let's use a **ServerFile** component to demonstrate it on a PHP web project. We'll show the same demonstration on an ASPX project later. Note that such file upload related properties are only available during the same event handling processing immediately after the file uploading. For example, you cannot use one button to do file uploading and use another button to access the FilePathSaved property.



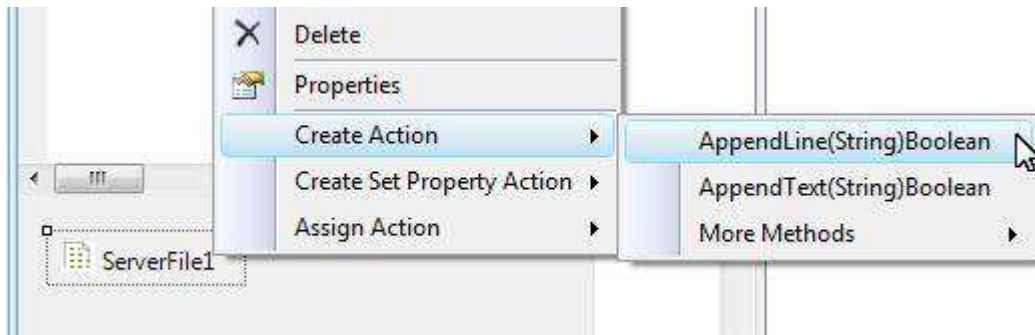
Drop a ServerFile component to the web page. Specify a file name on the web server:



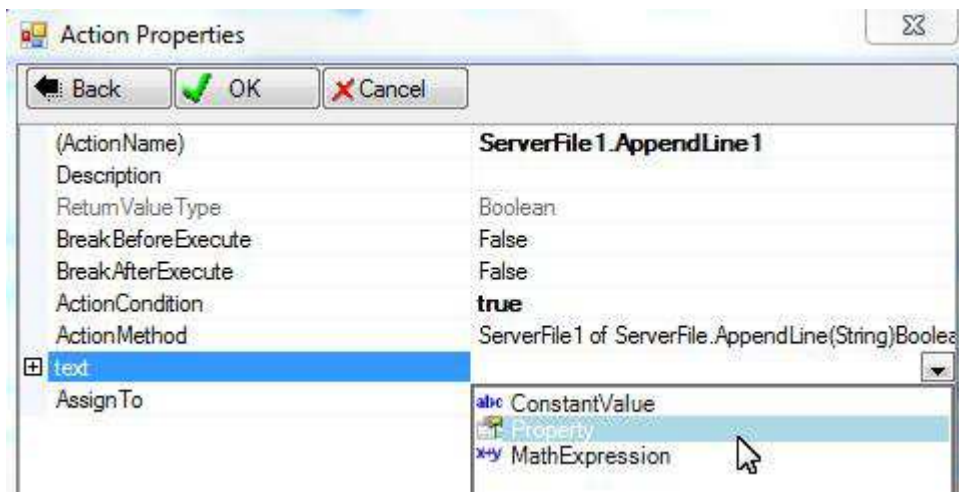
Set its ForWriting to True:



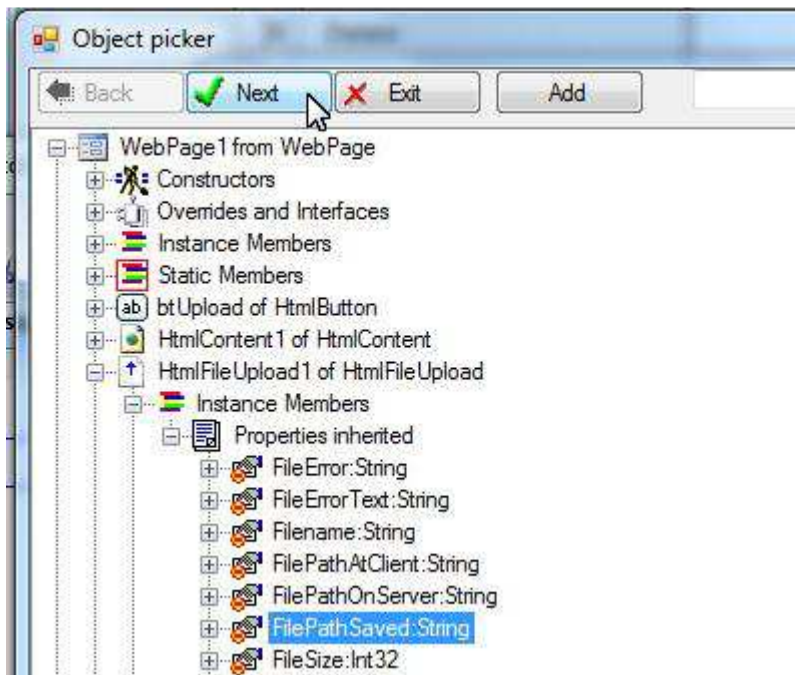
Create an AppendLine action:



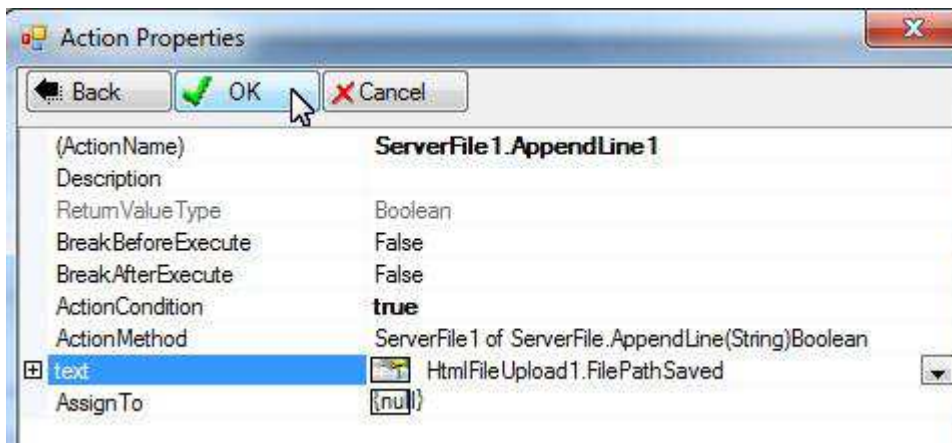
Select "Property" for the "text" parameter of the action:



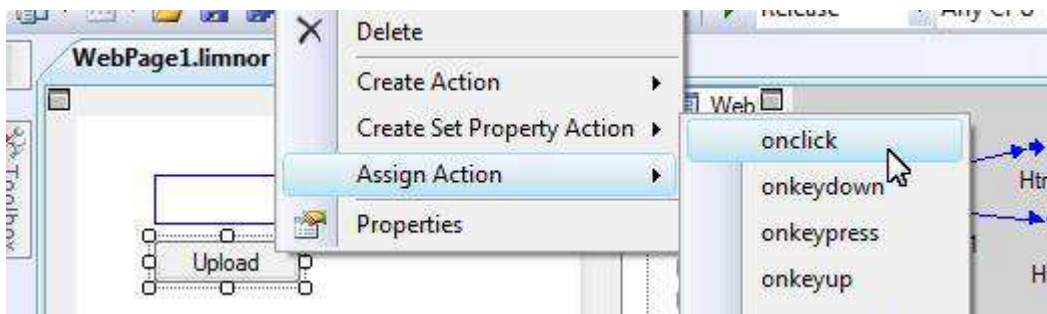
Select the FilePathSaved property of the HtmlFileUpload control:

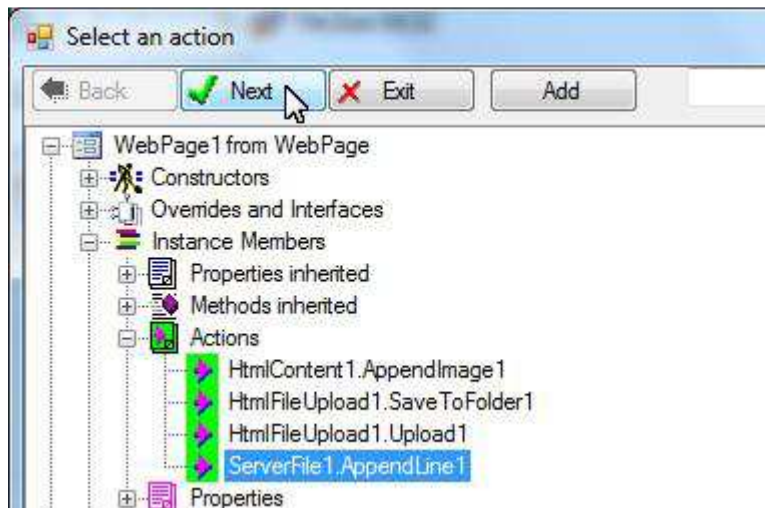


Click OK to finish creating this action:

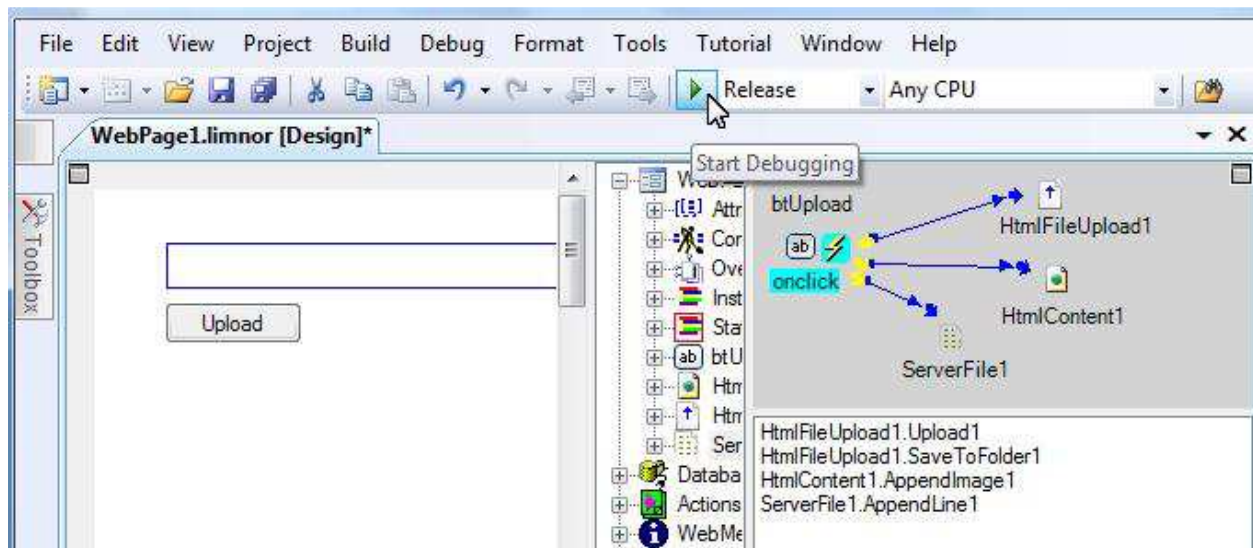


Also assign this action to the Upload button:

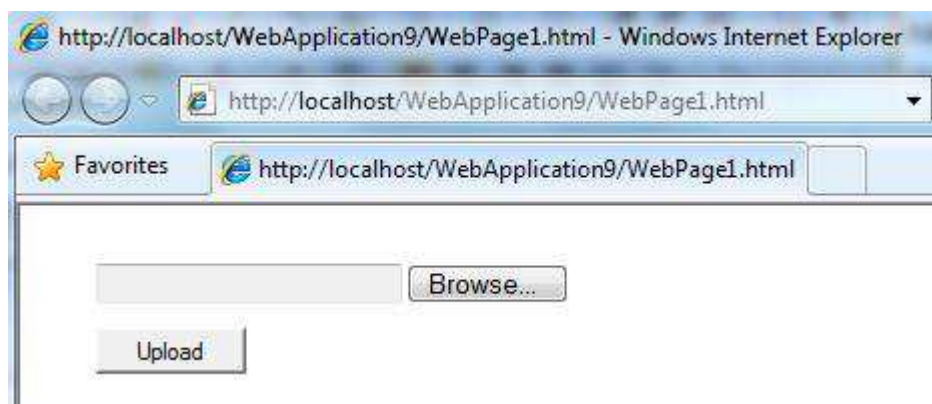




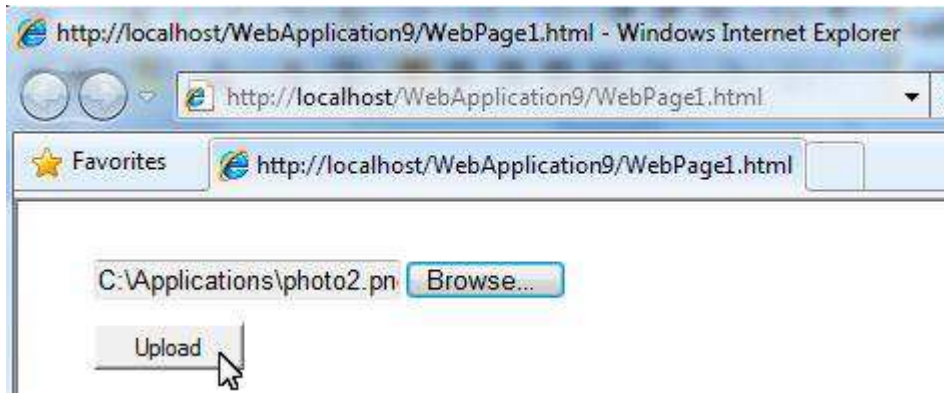
We may test the web application now:



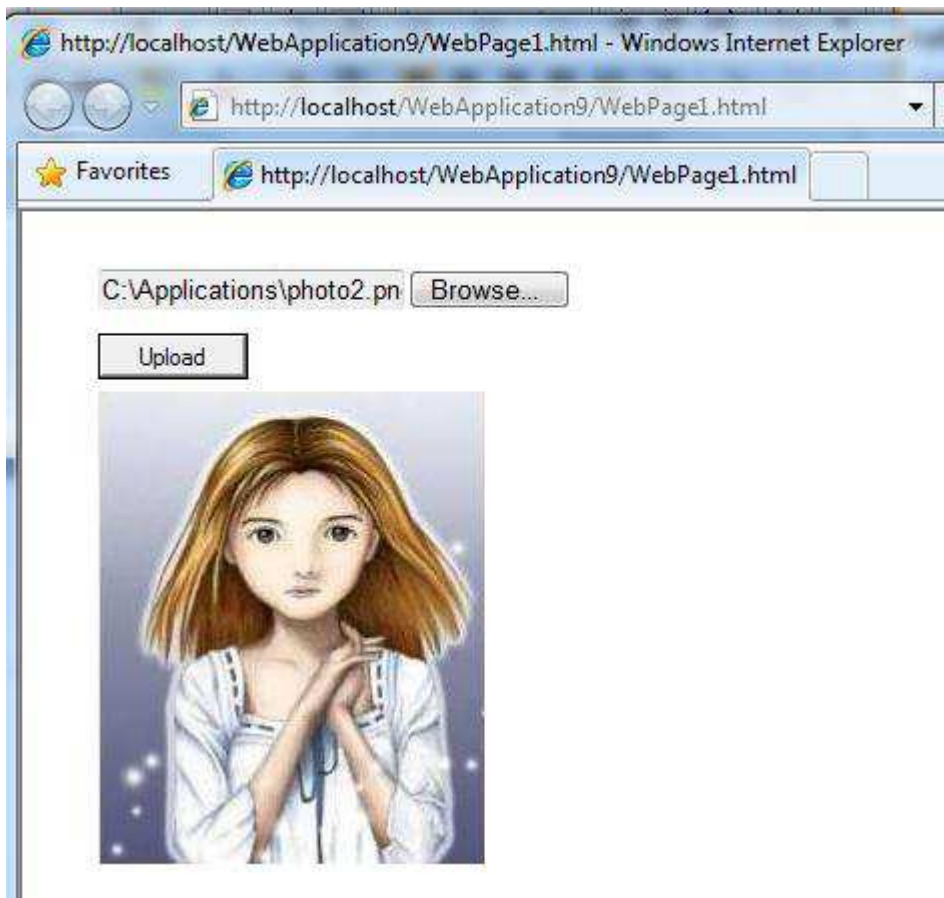
The web page appears:



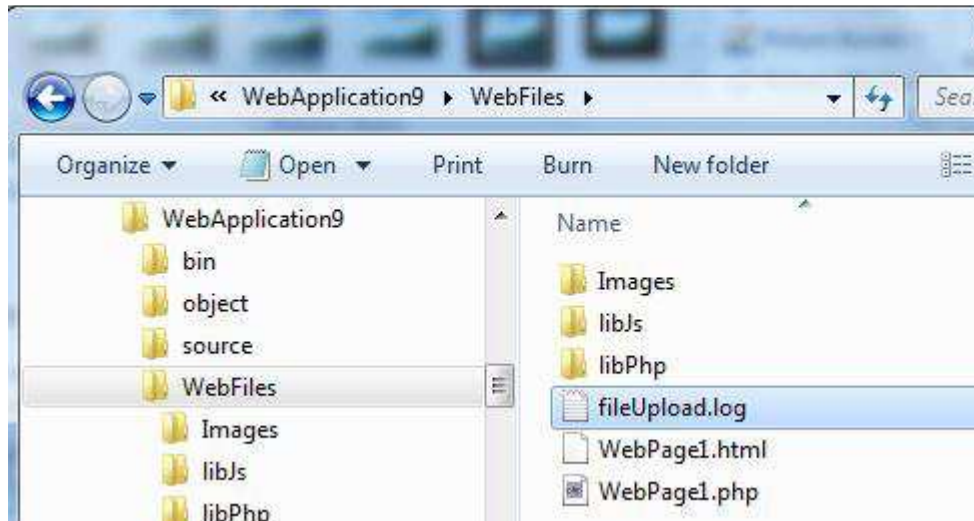
Select an image file and click Upload:



The file is uploaded. The image appears on the web page:



We also see a file named fileUpload.log appears at the web server:

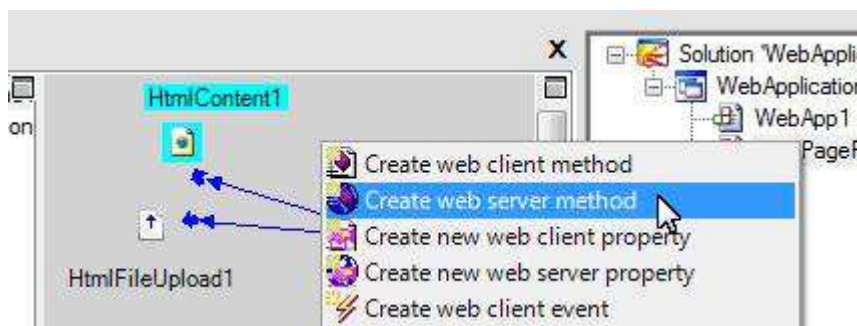


Open the file; we can see that the file name for the uploaded file is in the file:



Use ASPX to do logging

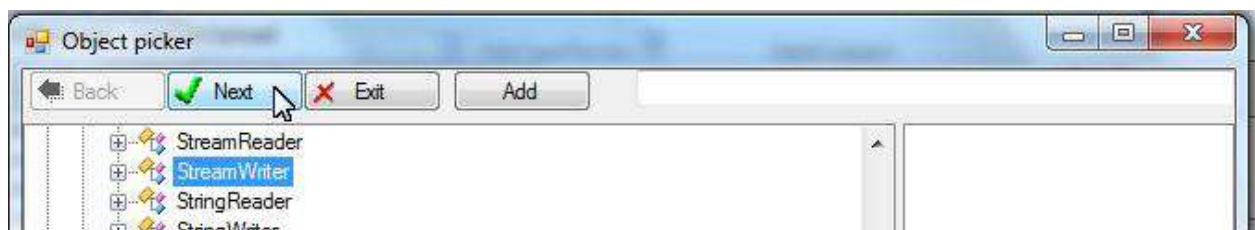
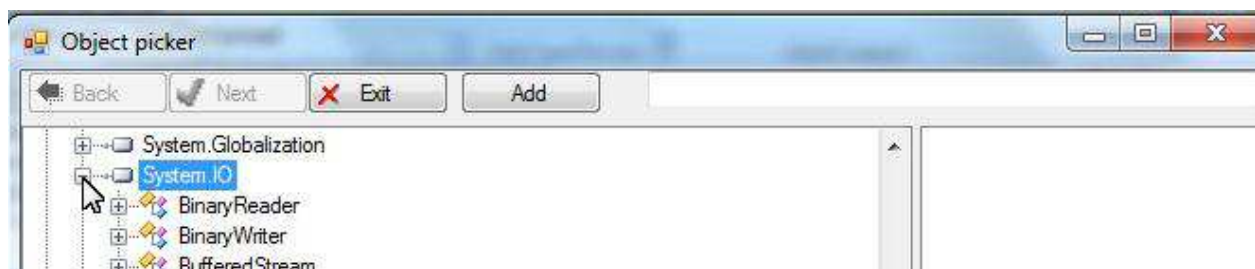
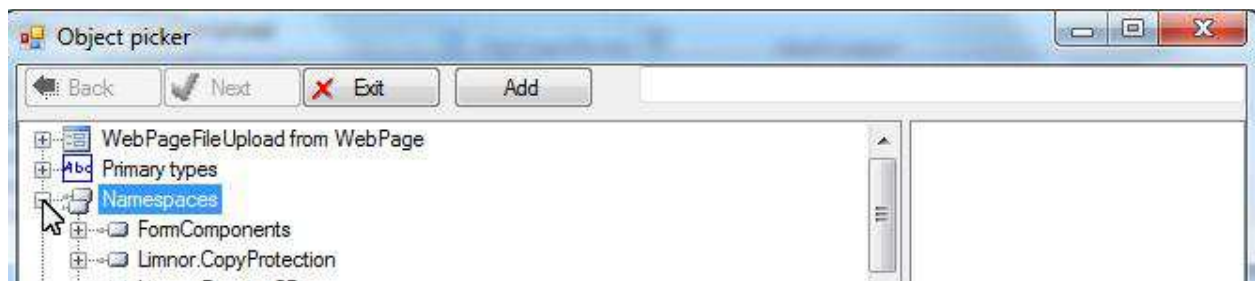
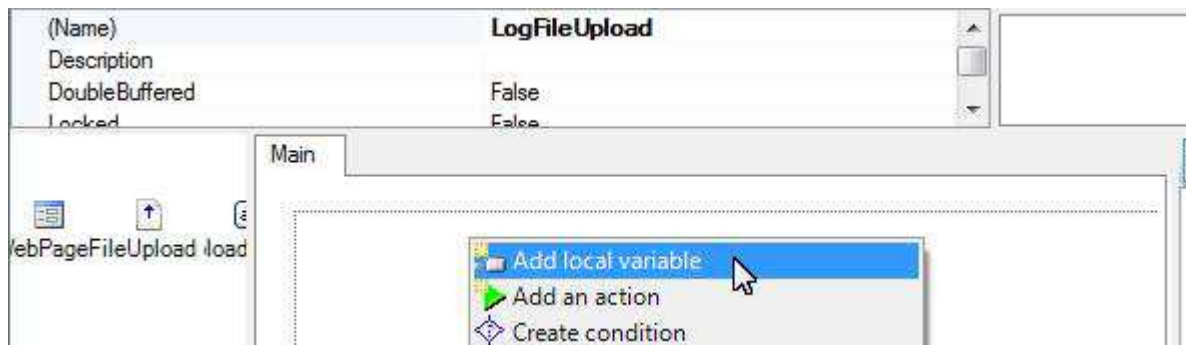
For an ASPX web application, we may use most classes in .Net Framework for server side processing. For this demonstration, let's use StreamWriter class to write file on server. Let's create a server side method to do it:

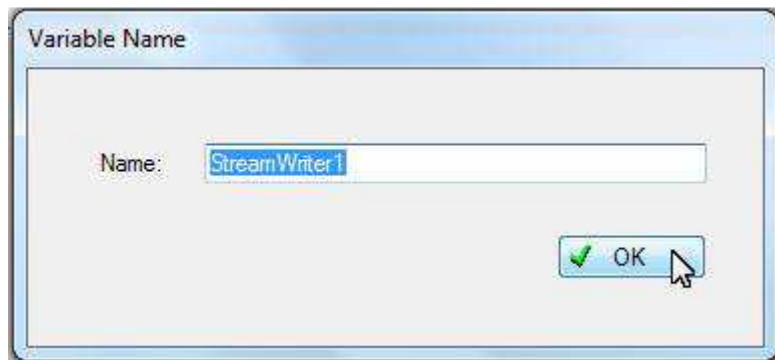


Rename it to "LogFileUpload":

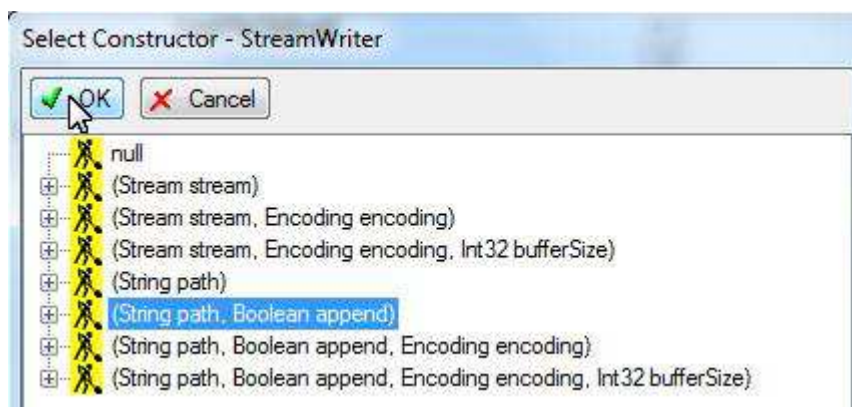


Create a StreamWriter to do the job:

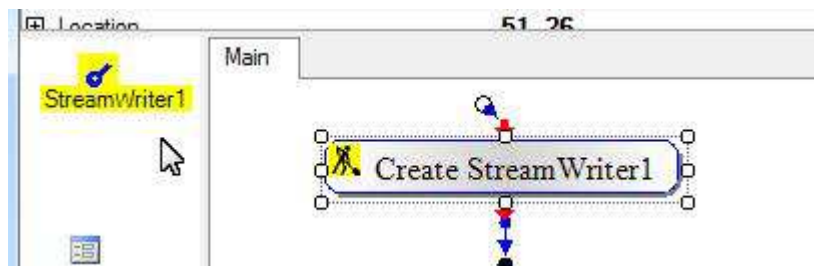




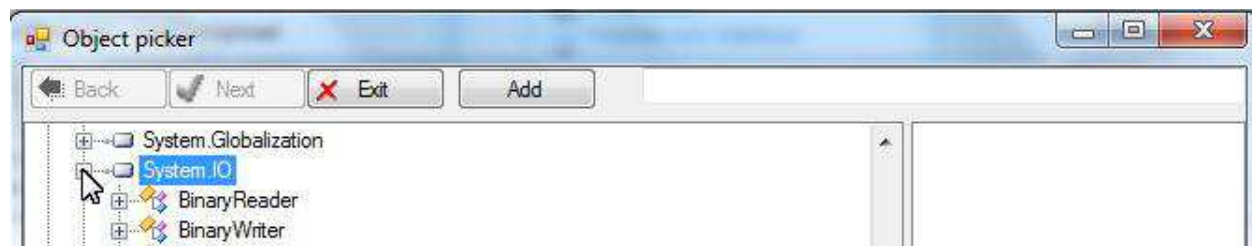
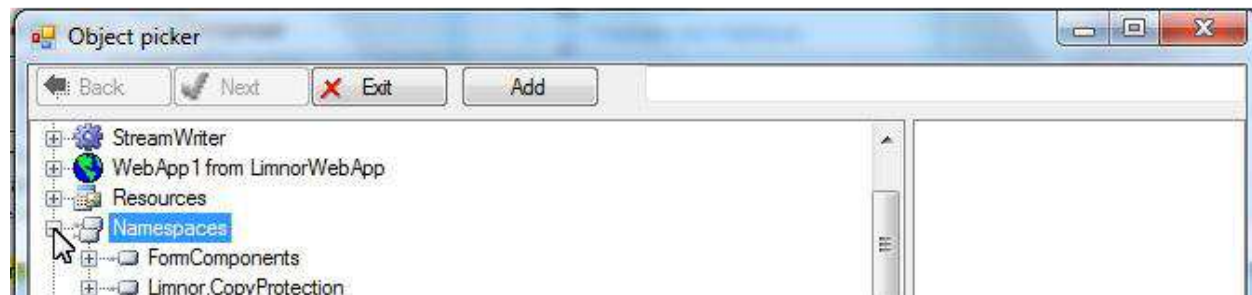
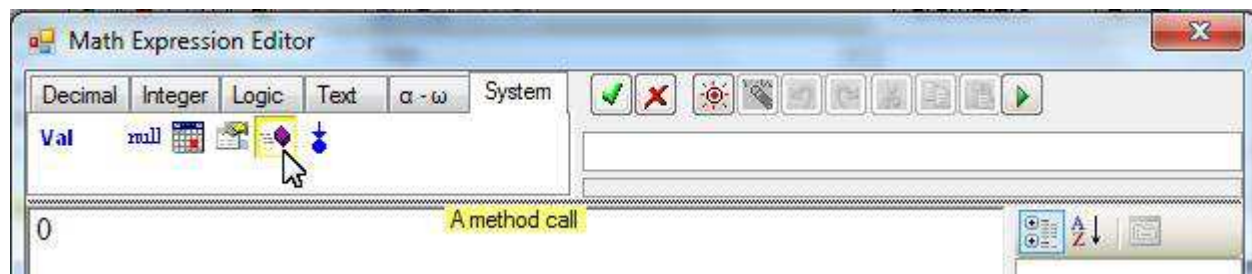
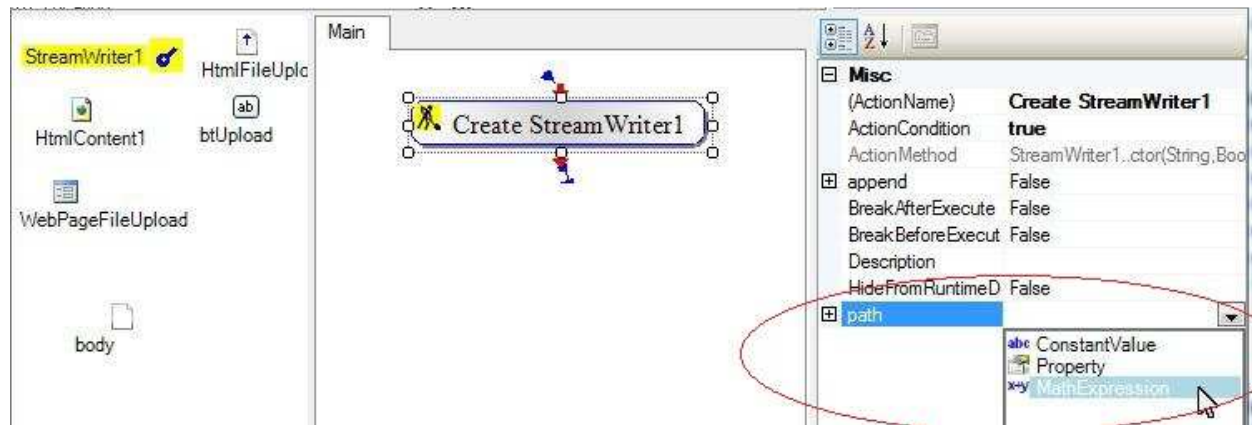
Select a constructor which accepts a file path and a flag indicating that we want to append the file:



A variable of StreamWriter is created and an action appears for creating the variable:

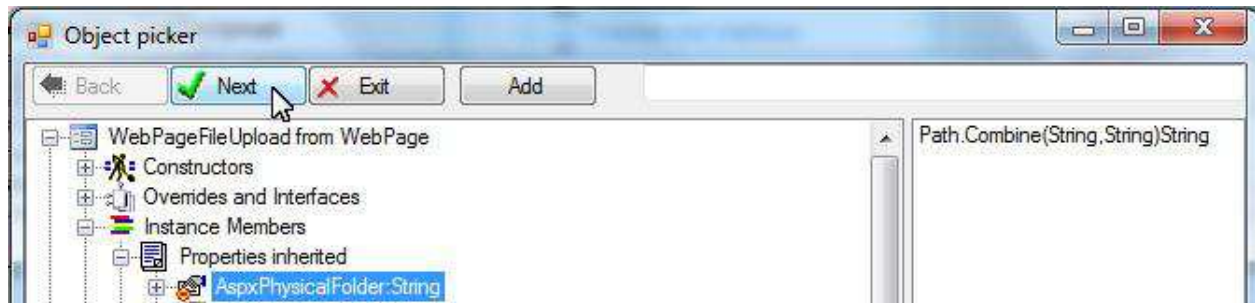
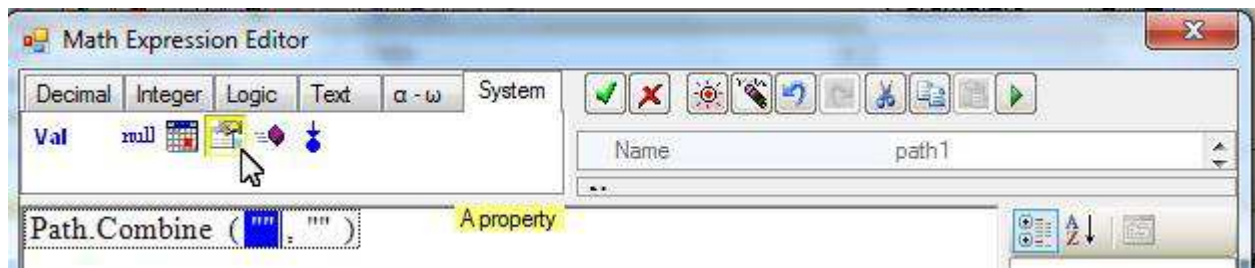


Suppose our log file name is "FileUpload.log". Where should we save the file? For this sample, we simply save it on the same folder as the web application, which is represented by property `AspxPhysicalFolder` of the web page. We may use `Path` class' `Combine` method to form the full path of the log file.





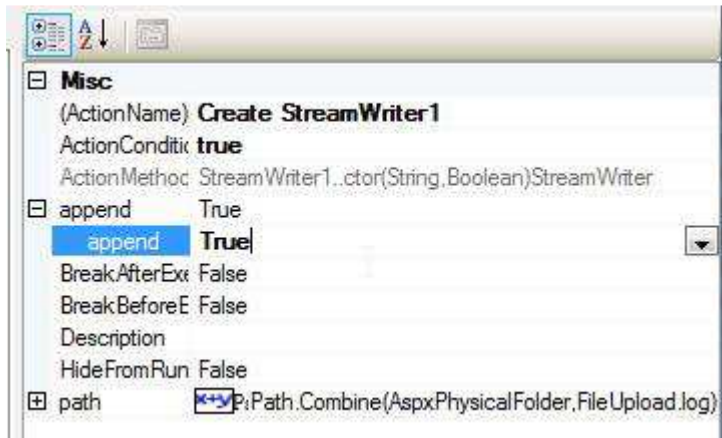
The first parameter of Combine is the folder. Let's use AspxPhysicalFolder:



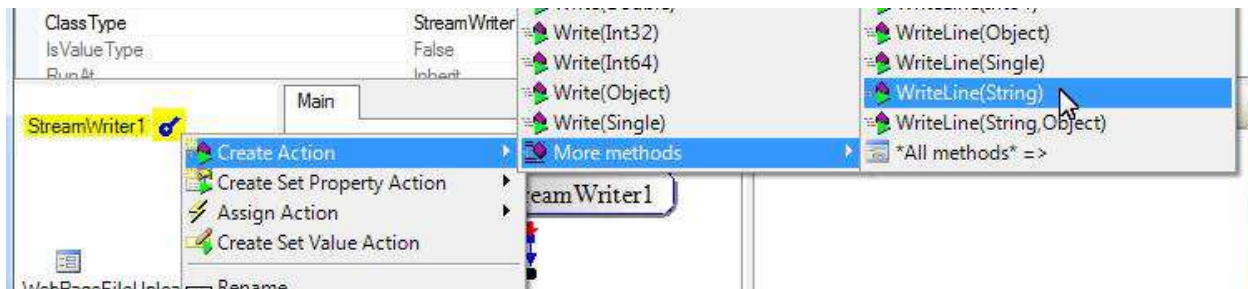
The second parameter of Combine is file name:



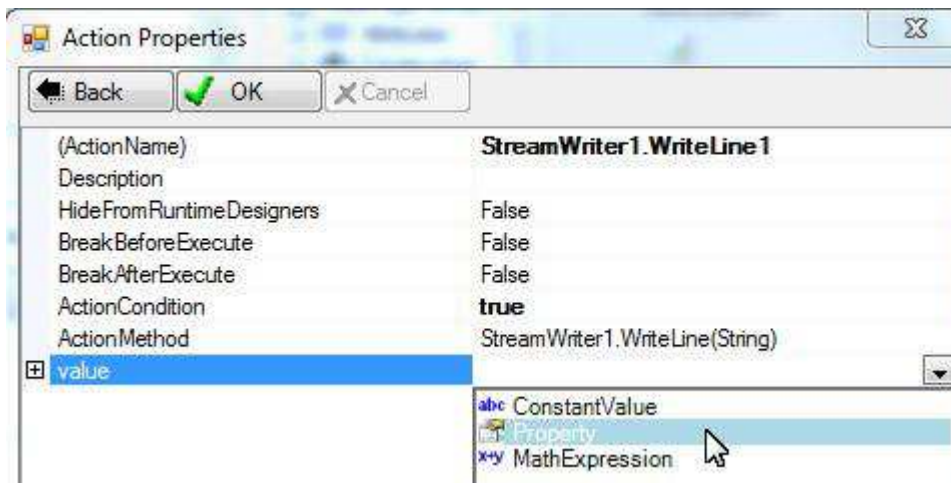
Set "append" to True:

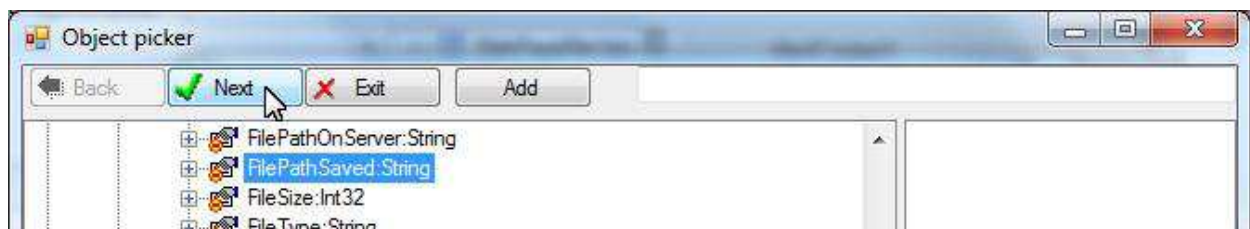
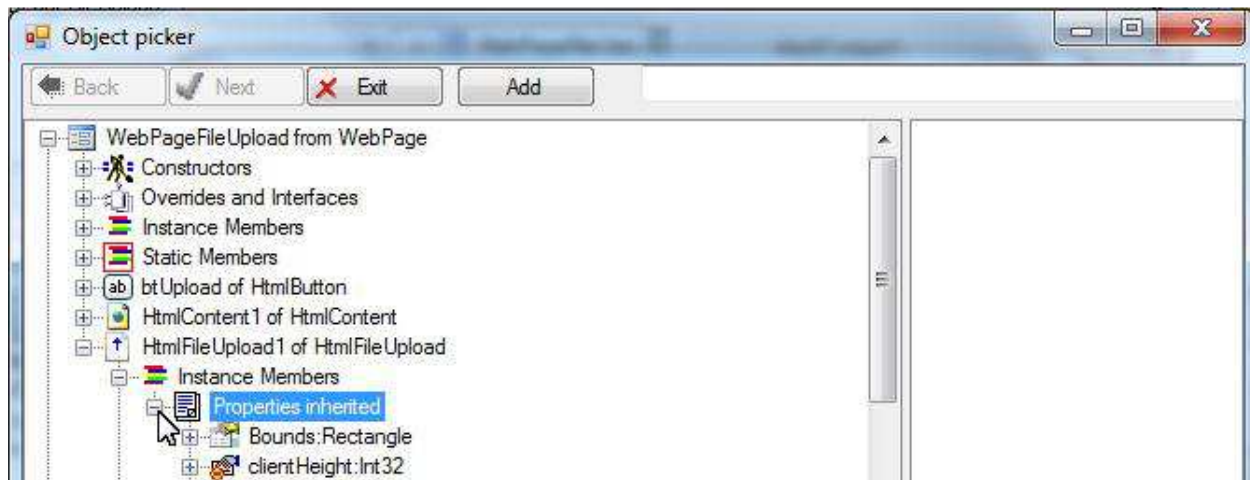


Create a WriteLine action:

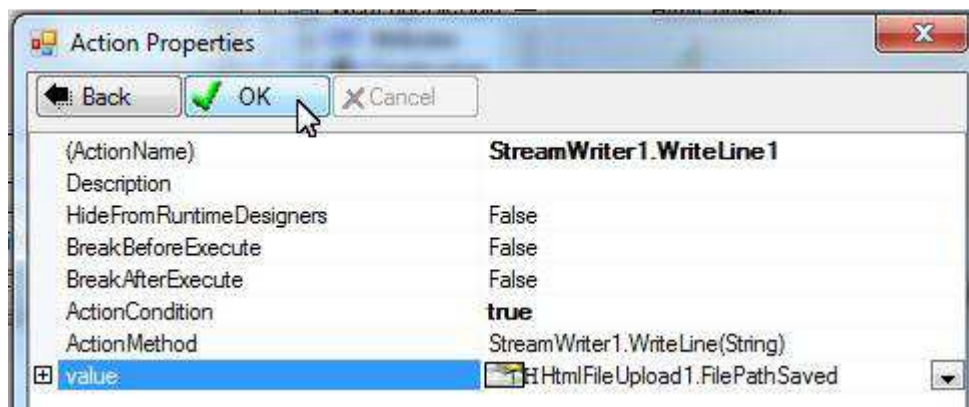


The value to write is the **FilePathSaved** property of the HtmlFileUpload component:

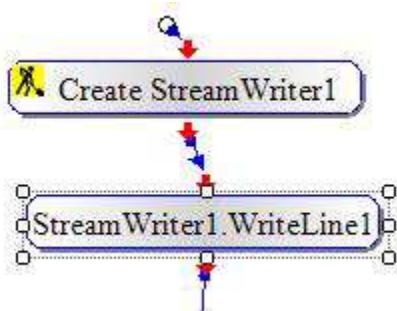




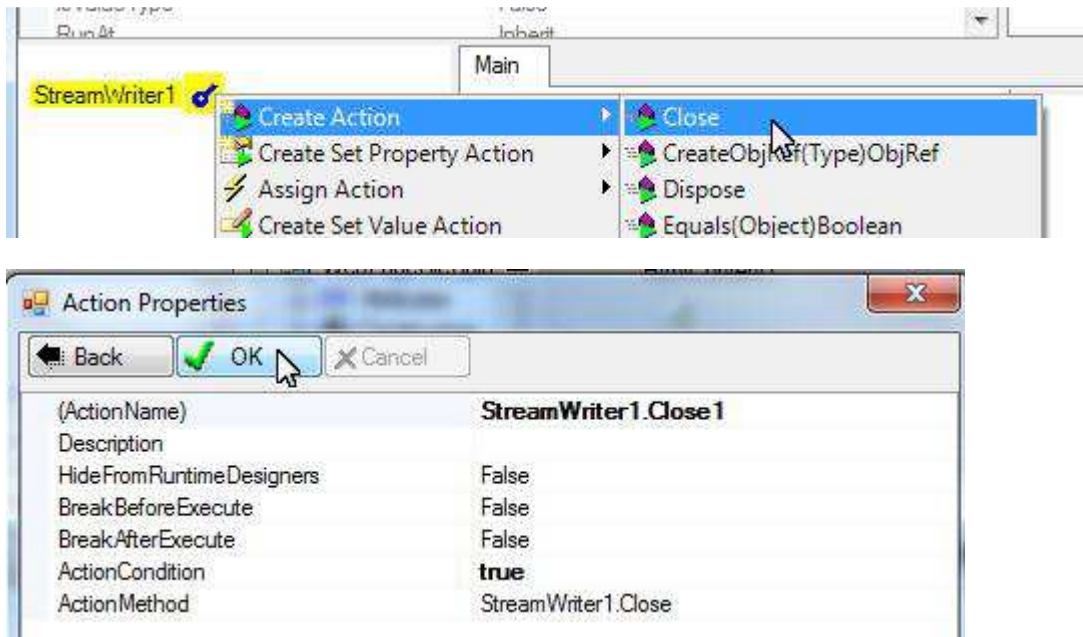
Click OK to finish creating the action:



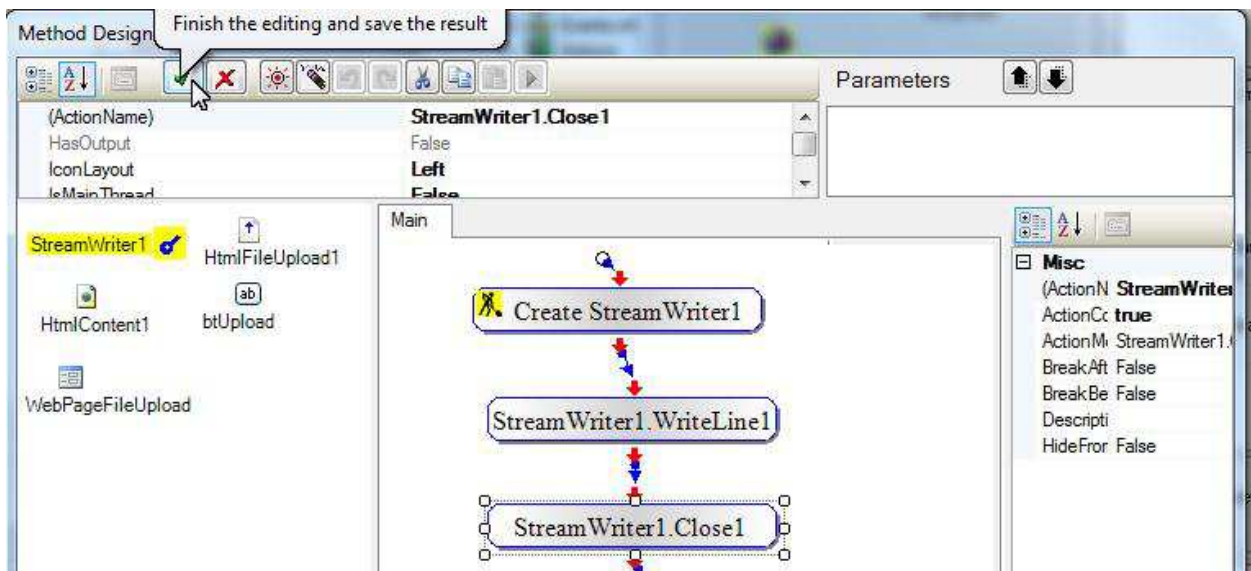
This action shows the use of FilePathSaved property on the server side. Link the action to the last action:



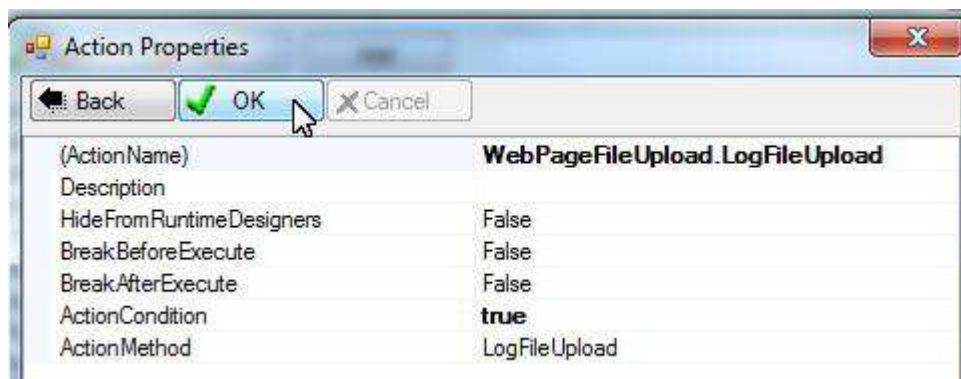
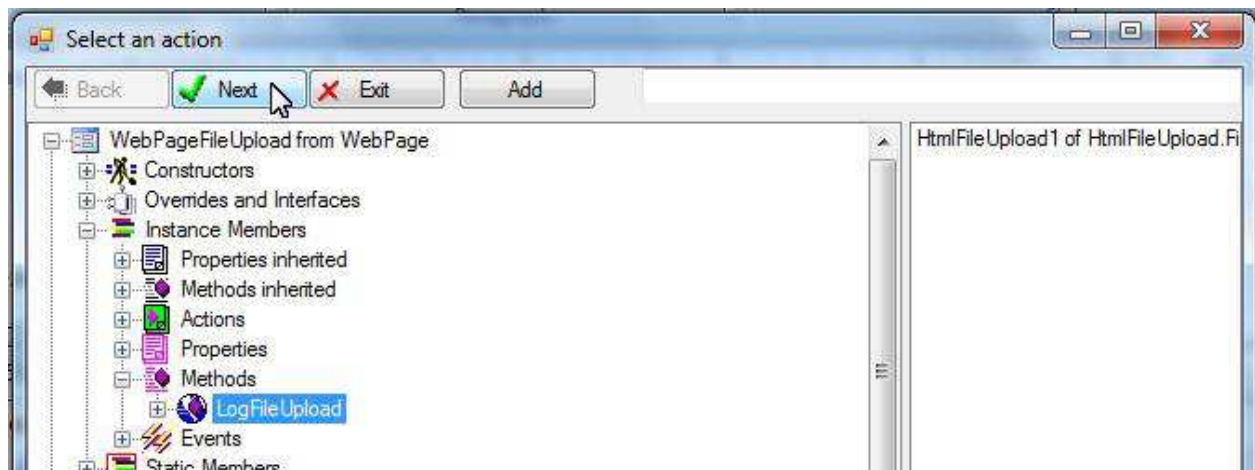
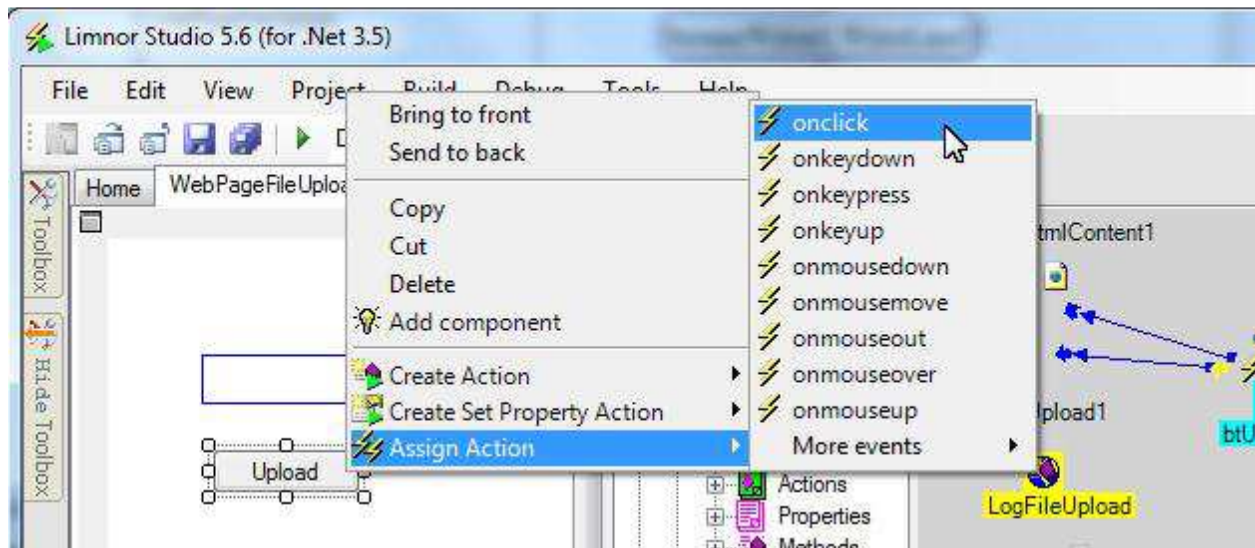
Create an action to close StreamWriter:



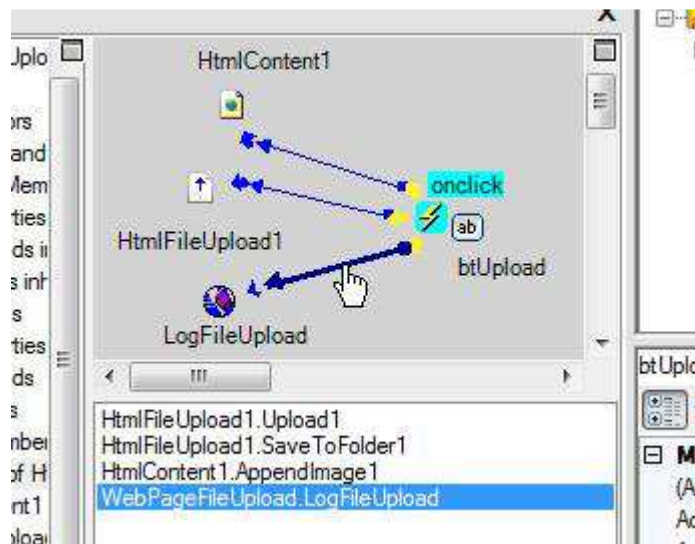
Link the action. We are done creating this server side method:



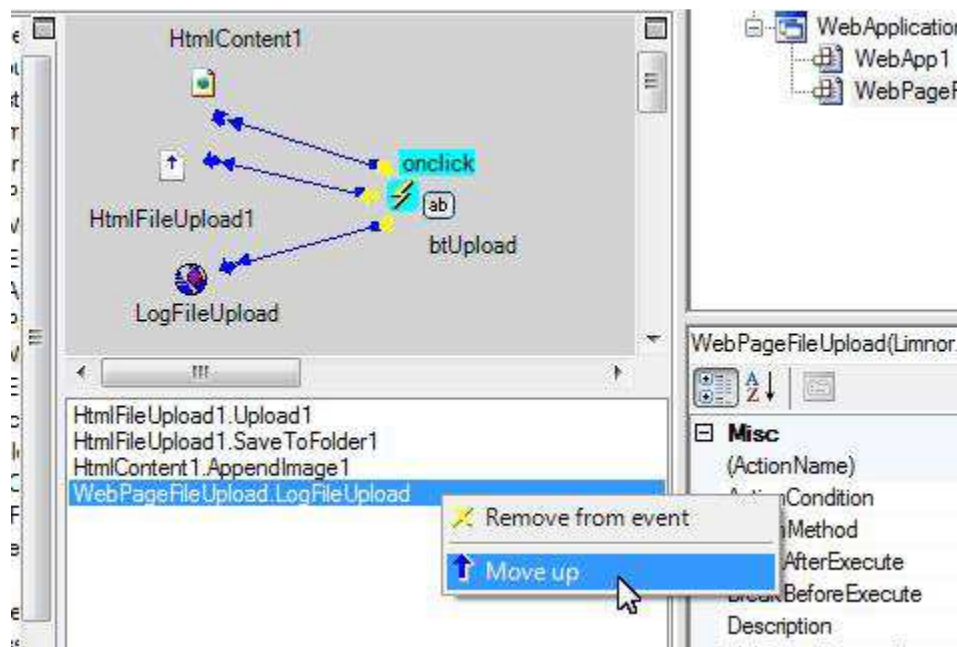
Let's execute the above method when the upload button is clicked:

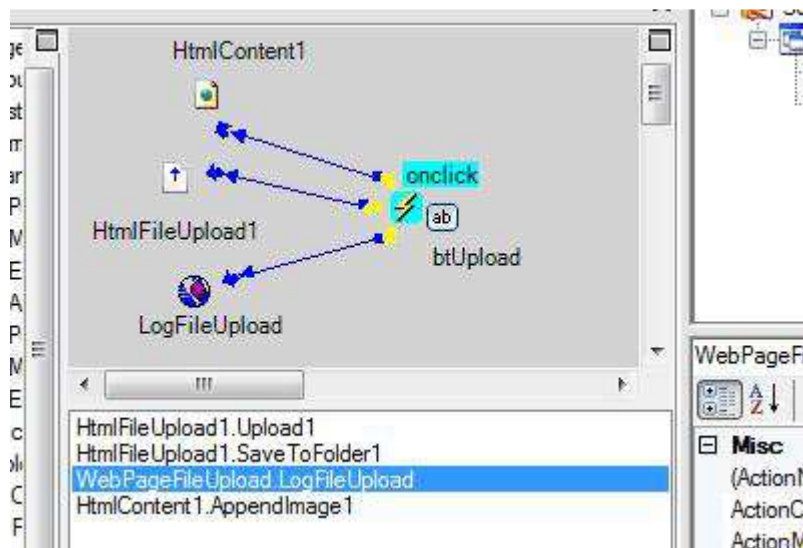


The action is created and assigned to the button:



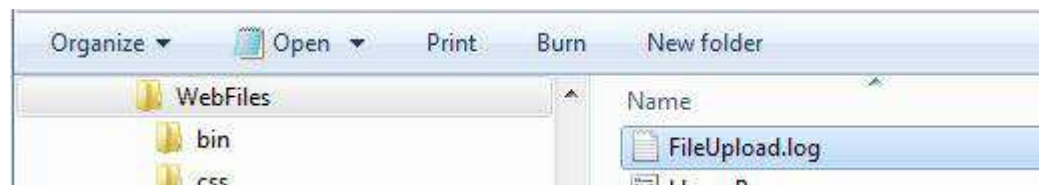
The above arrangement works but there is room for performance improvement. SaveToFolder1 is an action on web server; AppendImage1 is an action on web client. On executing a web client action, all data on web server are lost because all web servers are stateless. Following AppendImage1 is another action on web server: LogFileUpload which uses server data FilePathSaved. Because FilePathSaved loses its value due to executing AppendImage1, the web page has to use extra network traffic between web client and web server to keep this value from losing. Such network traffic can be avoided if we move LogFileUpload up before AppendImage1:





The above comments and performance improvement apply to previous PHP sample as well.

Run the web application and upload a file, we will see a log file created:

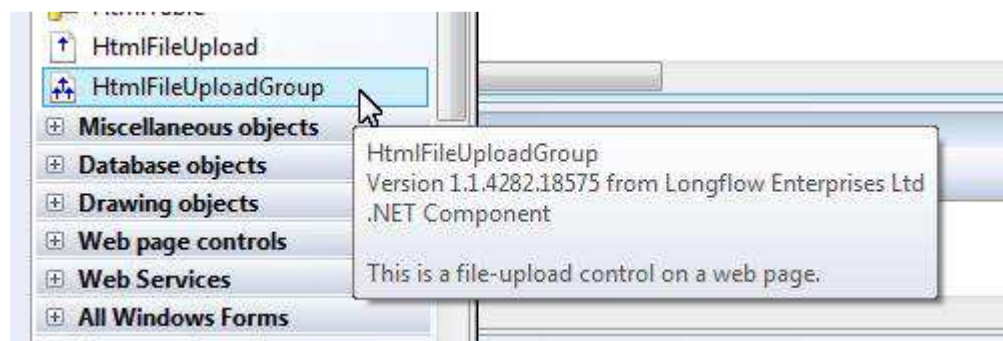


Upload Multiple Files

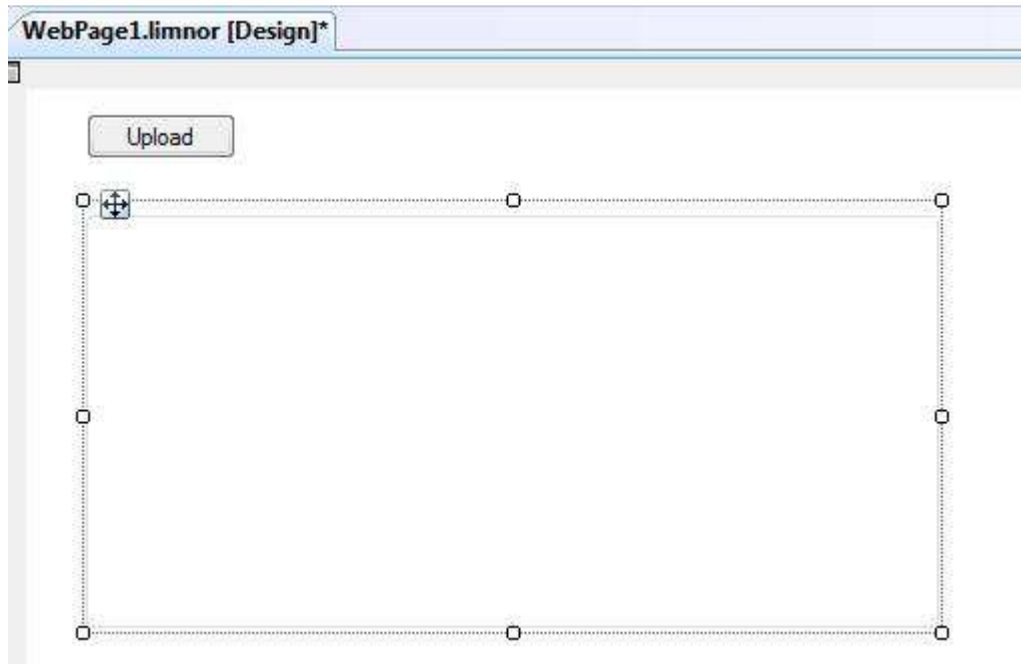
User Interface

Let's create a new PHP web application to demonstrate uploading multiple files.

Drop an HtmlFileUploadGroup to the web page:

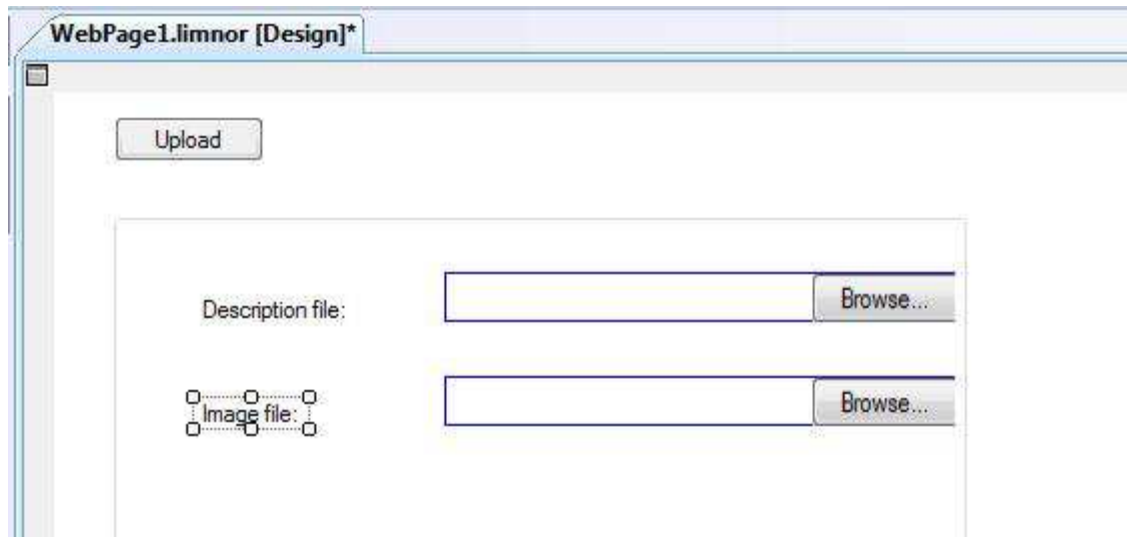


Drop a button to the page for initiating file upload action.



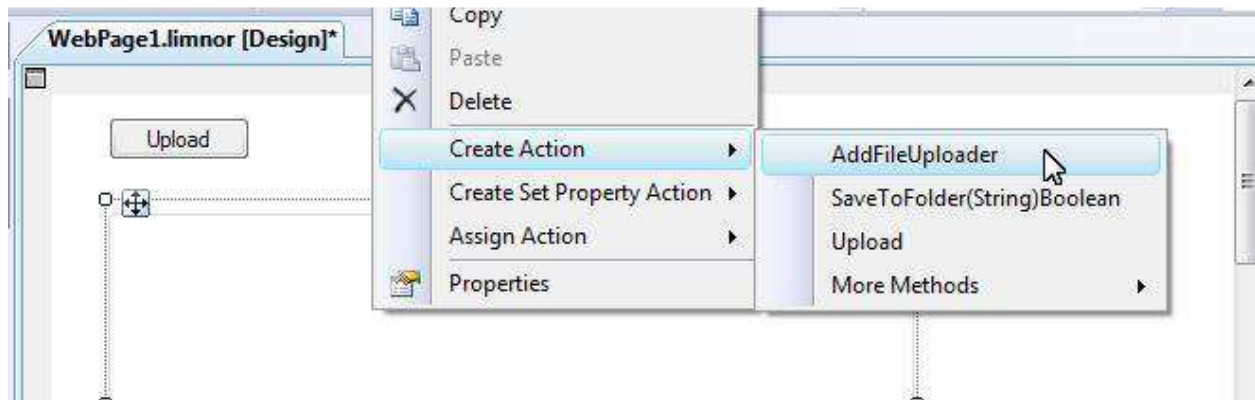
Add file upload controls at design time

Drop as many HtmlFileUpload control into the HtmlFileUploadGroup as needed. Other controls may also be added to the HtmlFileUploadGroup to form user interface:

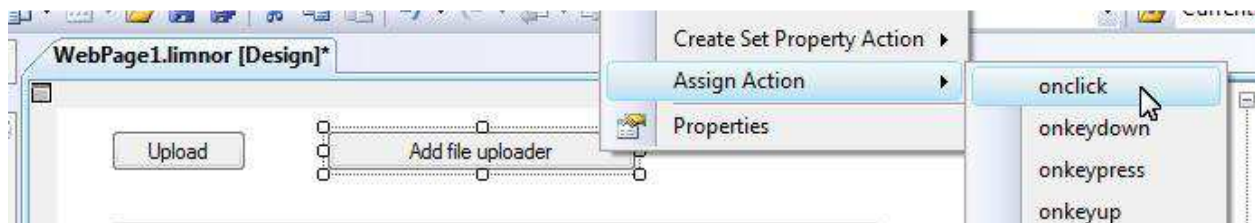


Add file upload controls at runtime

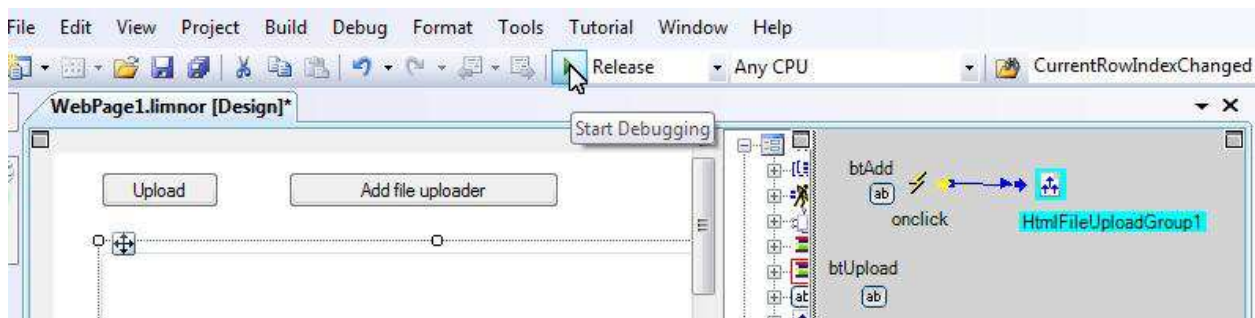
Another approach is to let the web visitor add file upload controls. Let's remove all controls from HtmlFileUploadGroup. Create an "AddFileUploader" action to it:



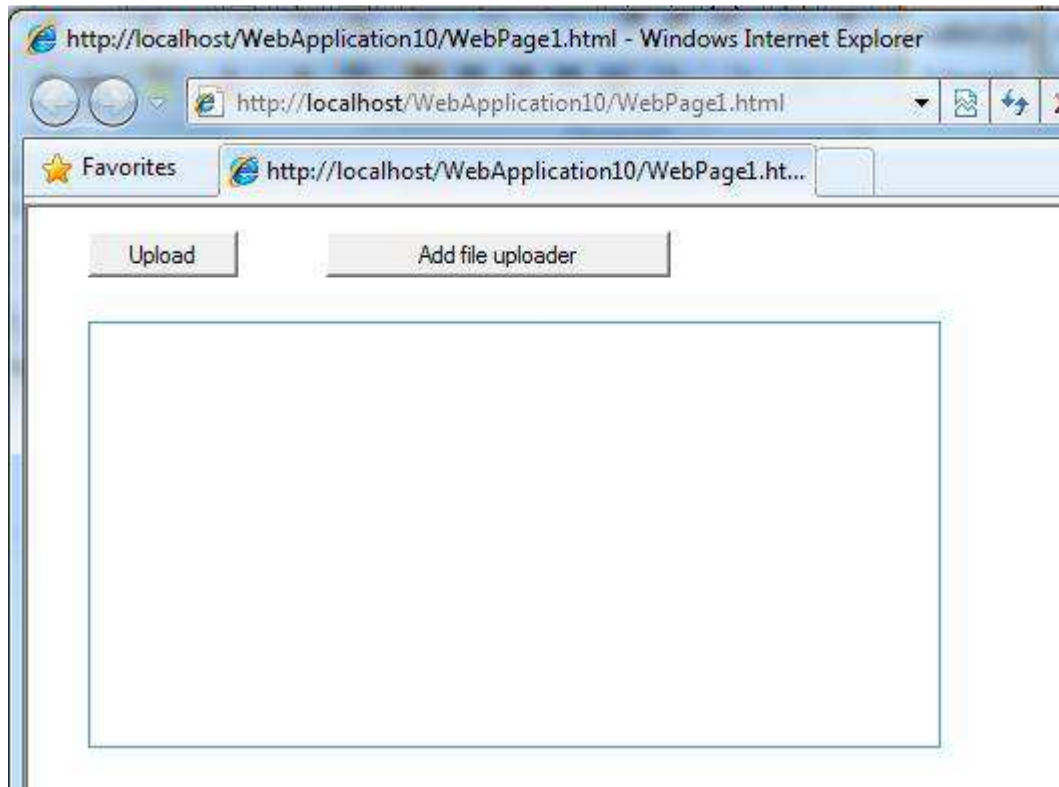
Assign the action to a button:



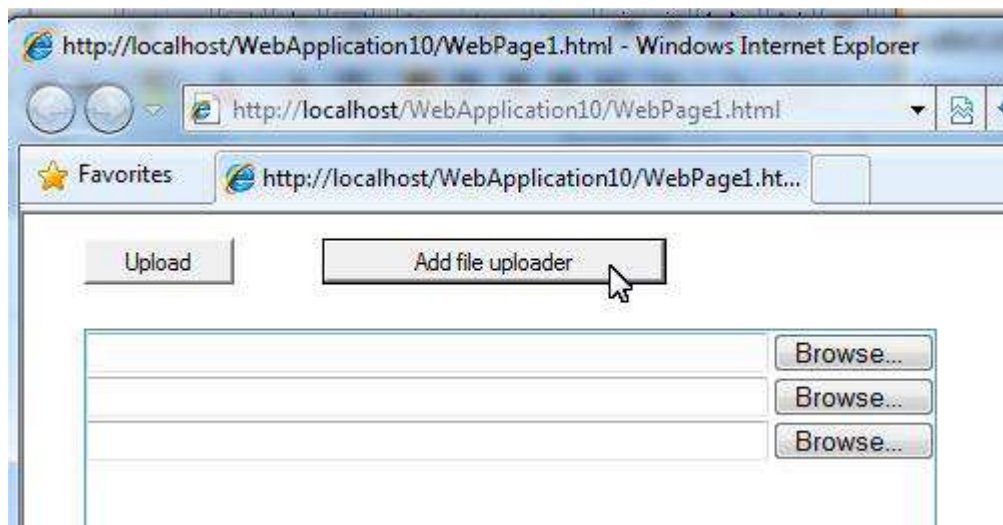
Let's test it:



The web page appears:

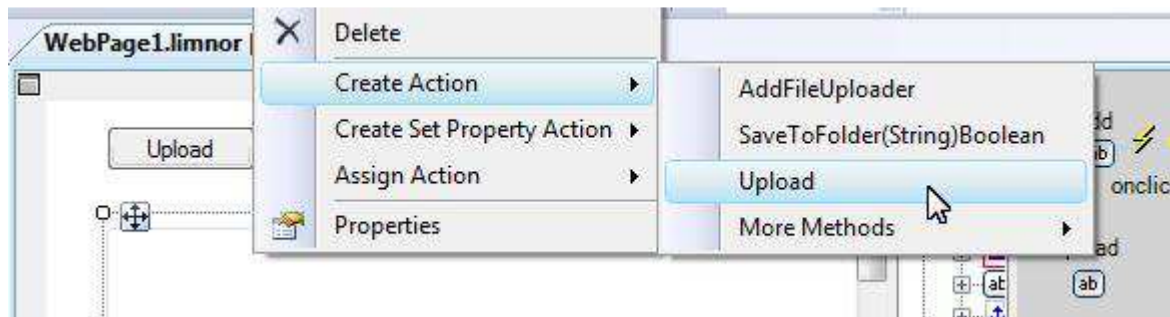


Click “Add file uploader” several times. Each time a new file upload control is added:

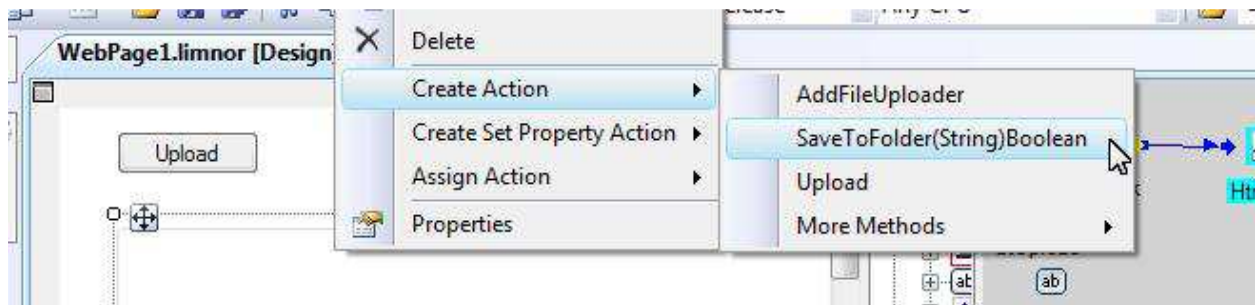


Upload files to web server

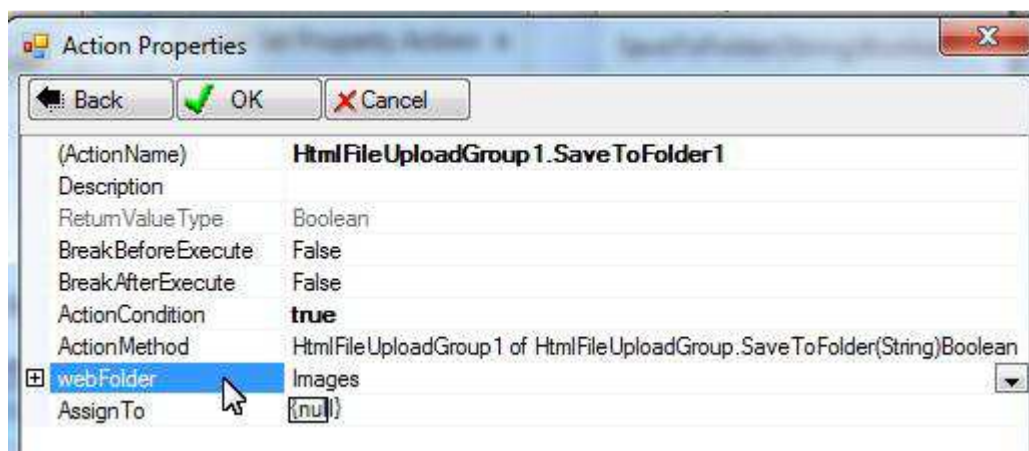
To upload all the files in the group, create an Upload action:



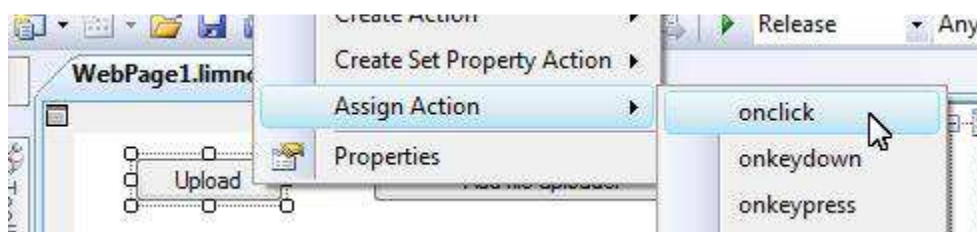
To save all the files to a folder at the web server, create a SaveToFolder action:

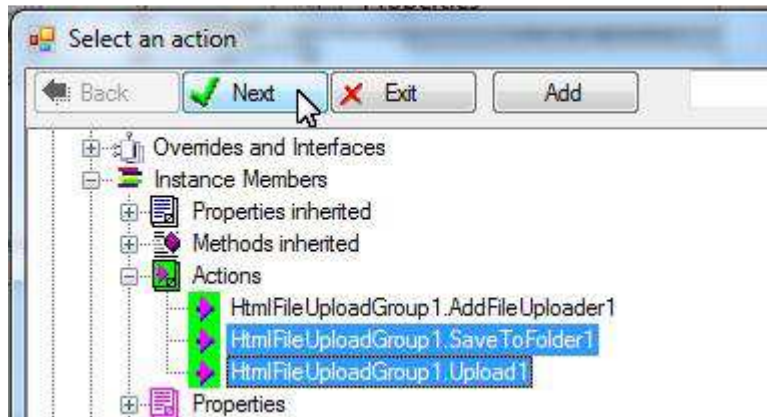


Give a folder name. We use "Images" here.

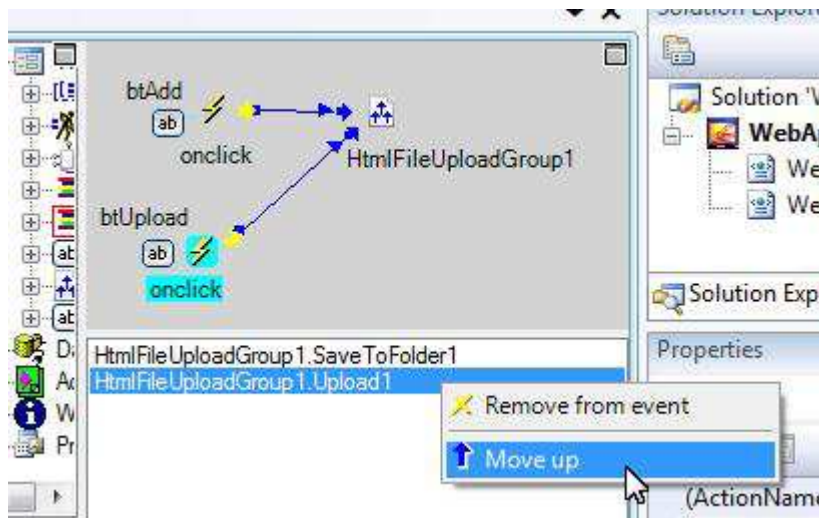


Assign the actions to the Upload button:

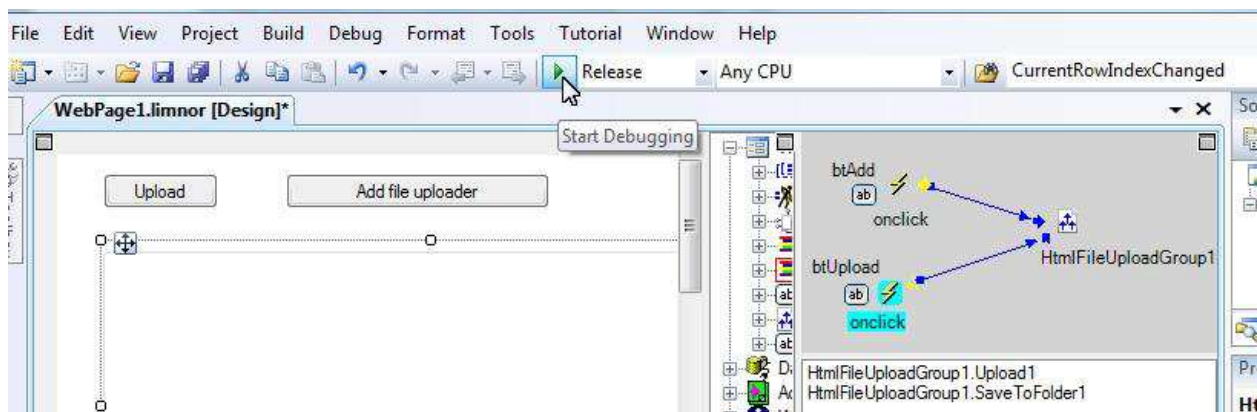




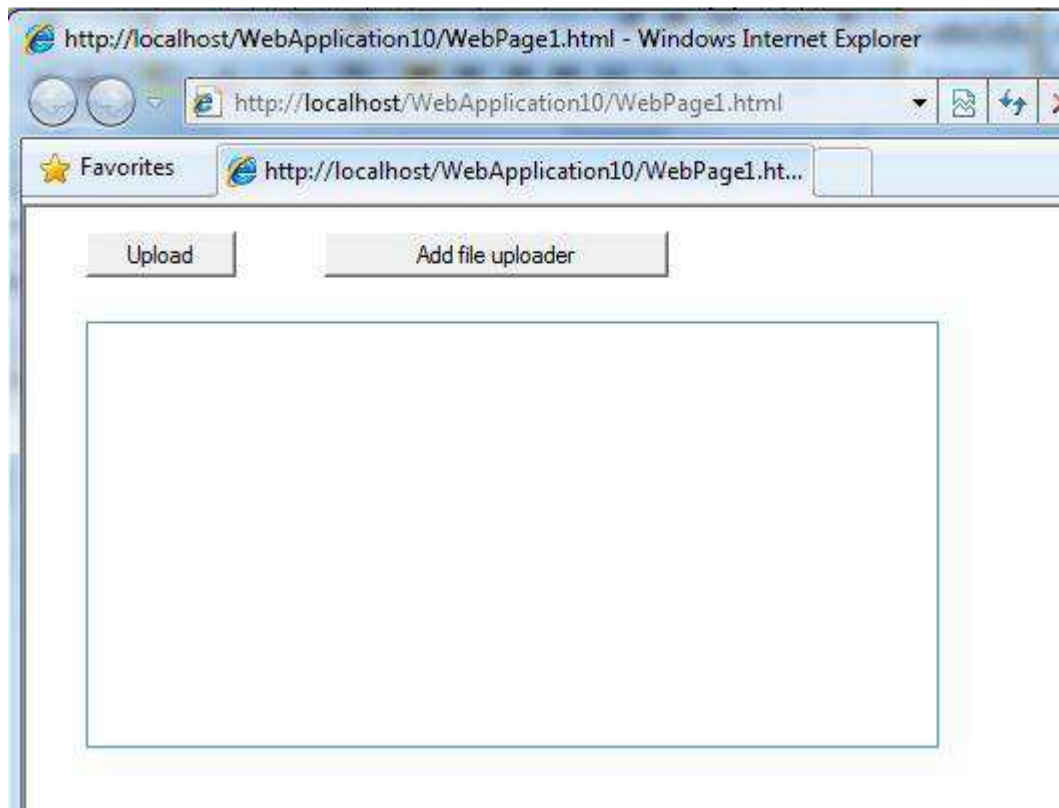
Move Upload action before SaveToFolder action:



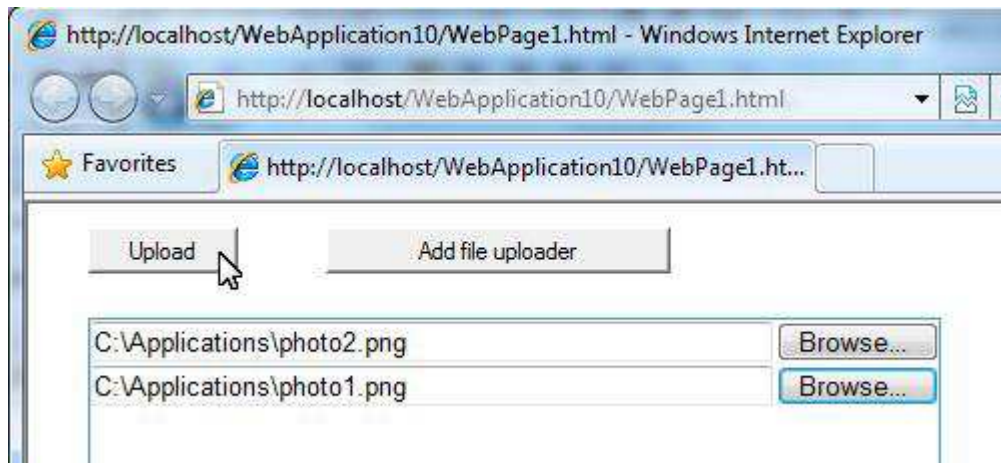
We may test it now:



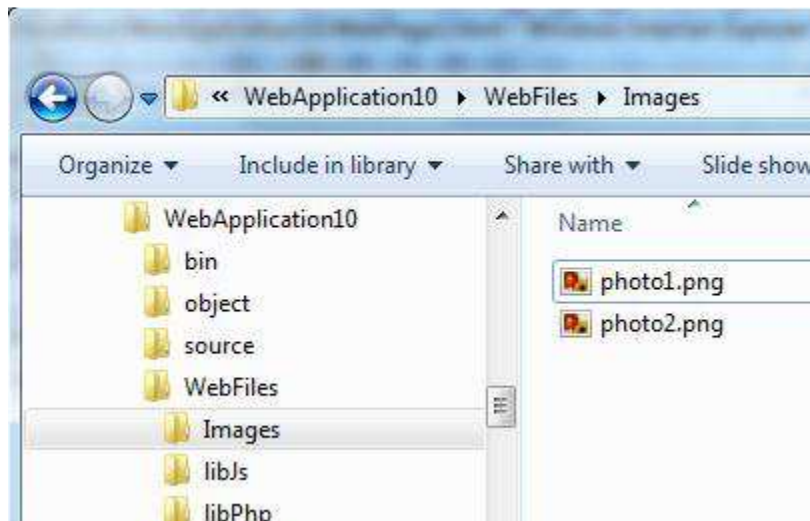
The web page appears:



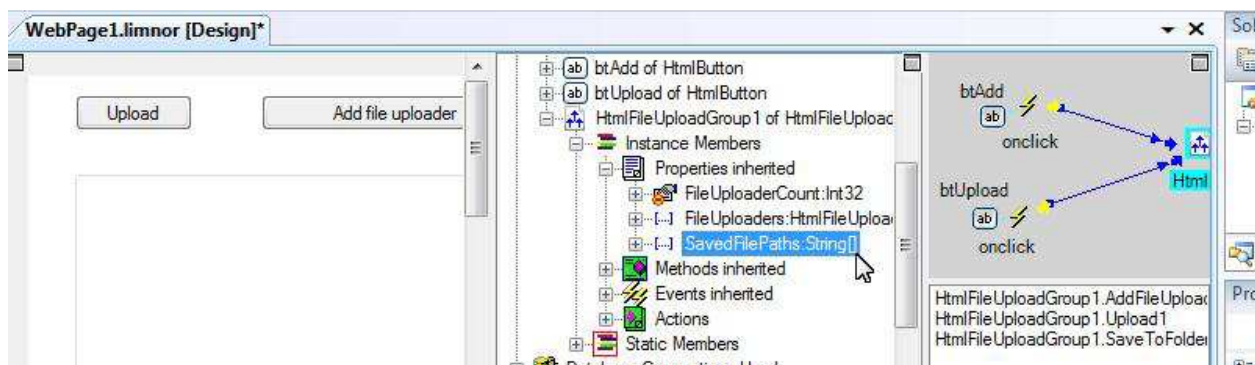
Add some file upload controls and select files. Click Upload button.



The files will be uploaded to the web server:

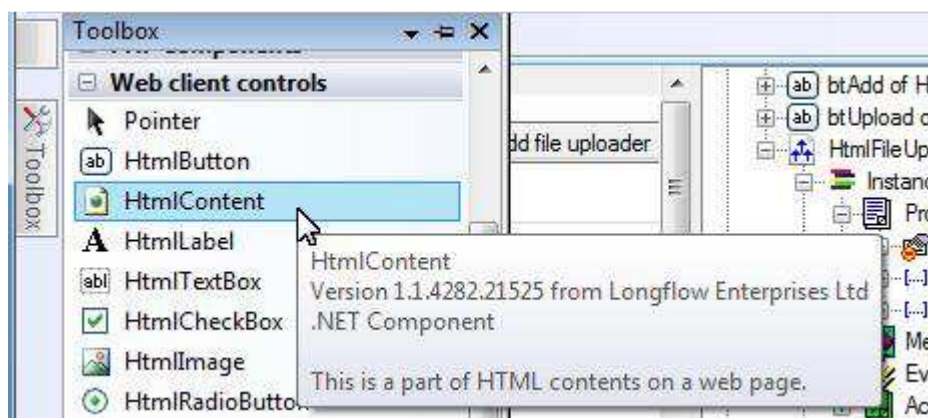


After file saving, the property `SavedFilePaths` of the `HtmlFileUploadGroup` can be used both at client and server.

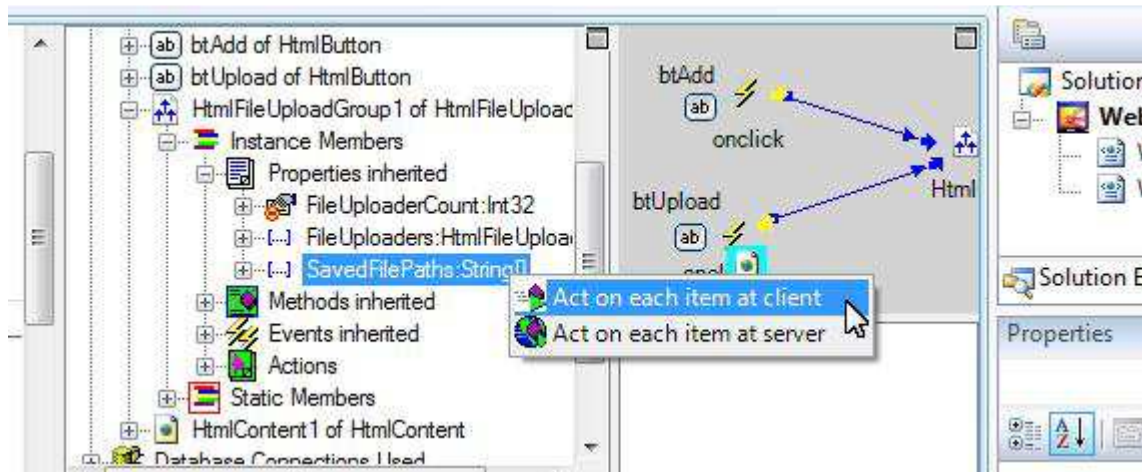


Use uploaded file names at client

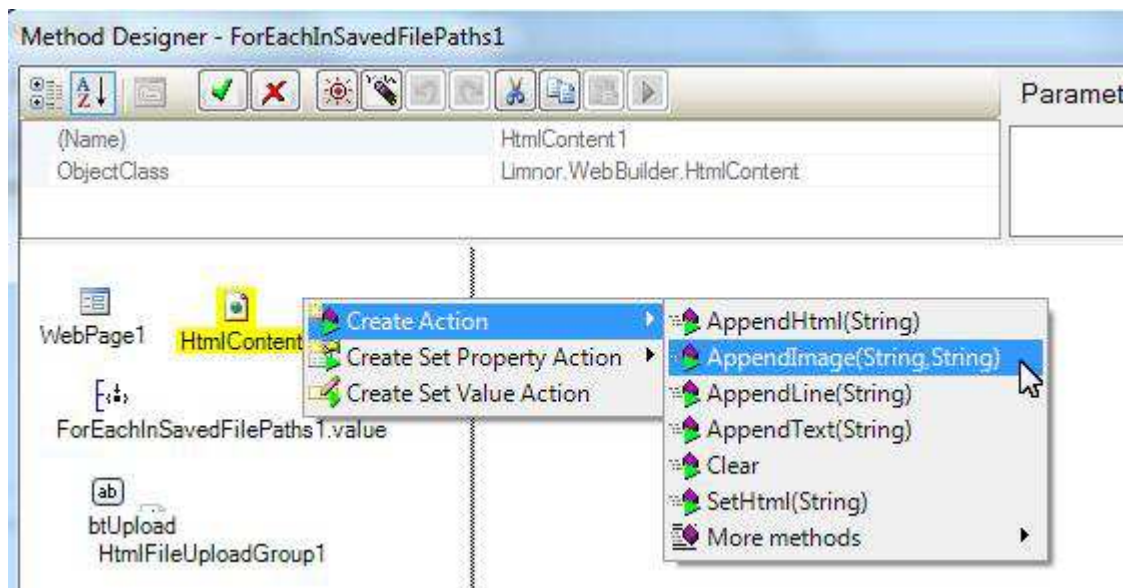
Drop an `HtmlContent` to the web page to show the usage of `SavedFilePaths` of the `HtmlFileUploadGroup`.



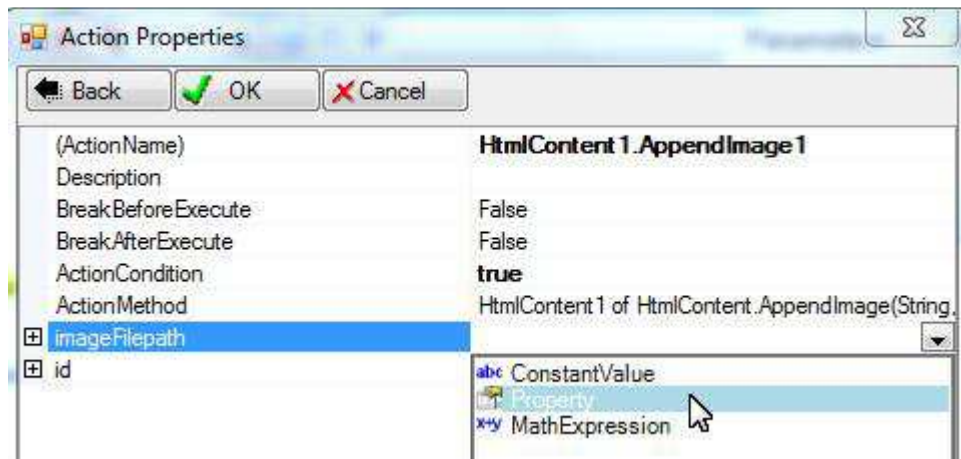
Right-click `SavedFilePaths`; choose “Act on each item at client”



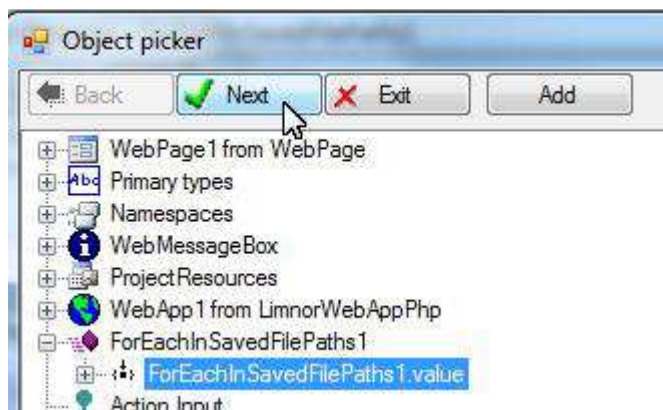
Right-click the HtmlContent; choose “Create Action”; choose “AppendImage”:



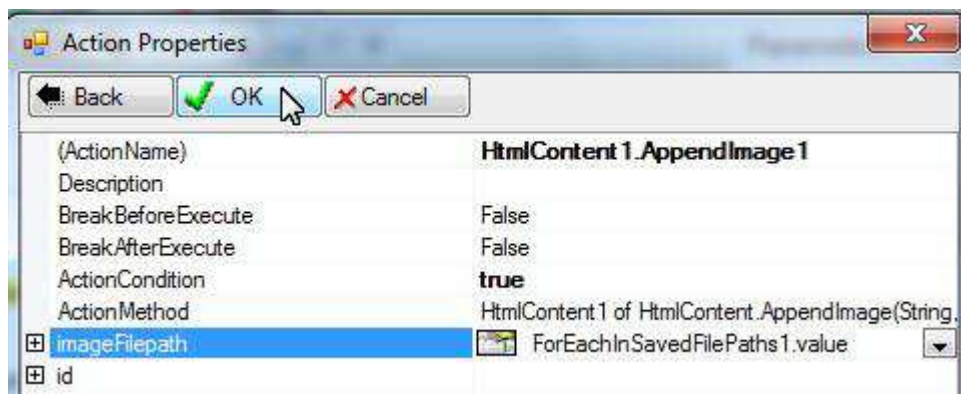
Select “Property” for the “imageFilePath”:



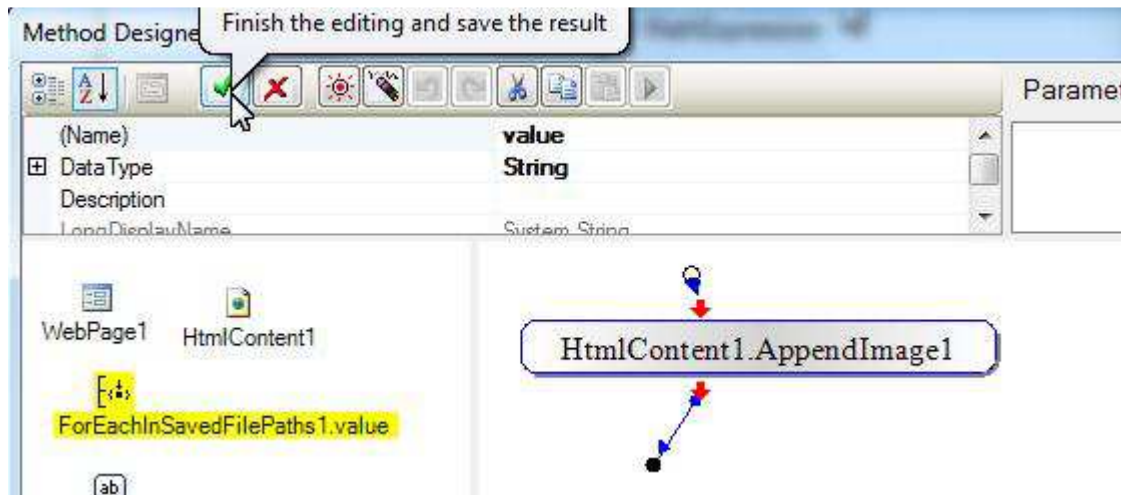
Select "ForEachInSavedFilePaths1.value":



Click OK to finish creating this action:

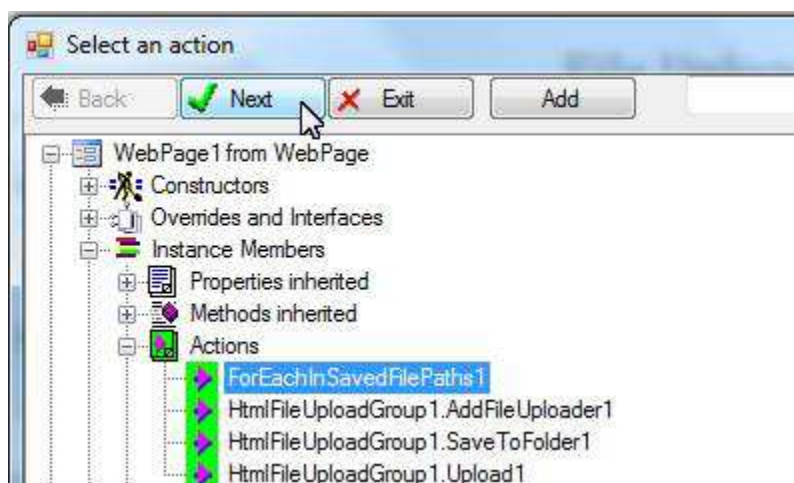
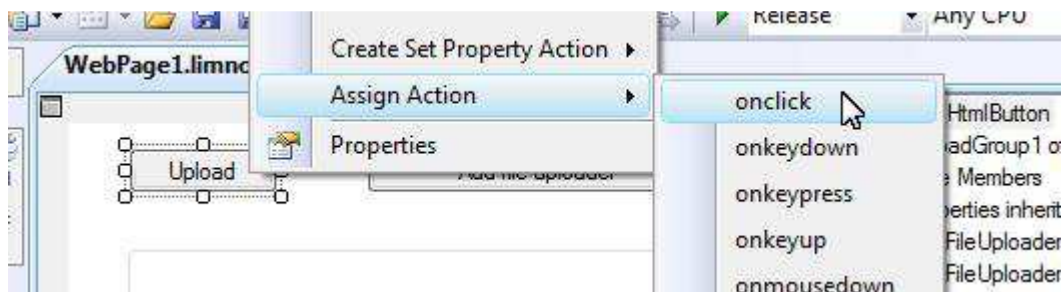


The action appears. For this sample, this is the only action we want to act on each file path:

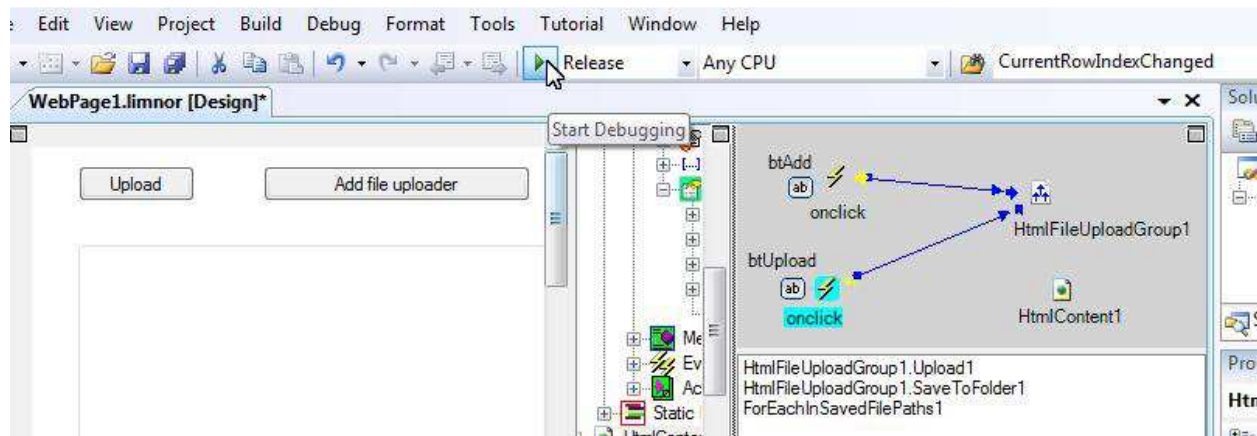


We created an action named `ForeachInSavedFilepaths1`, which contains another action named `HtmlContent1.AppendImage1`.

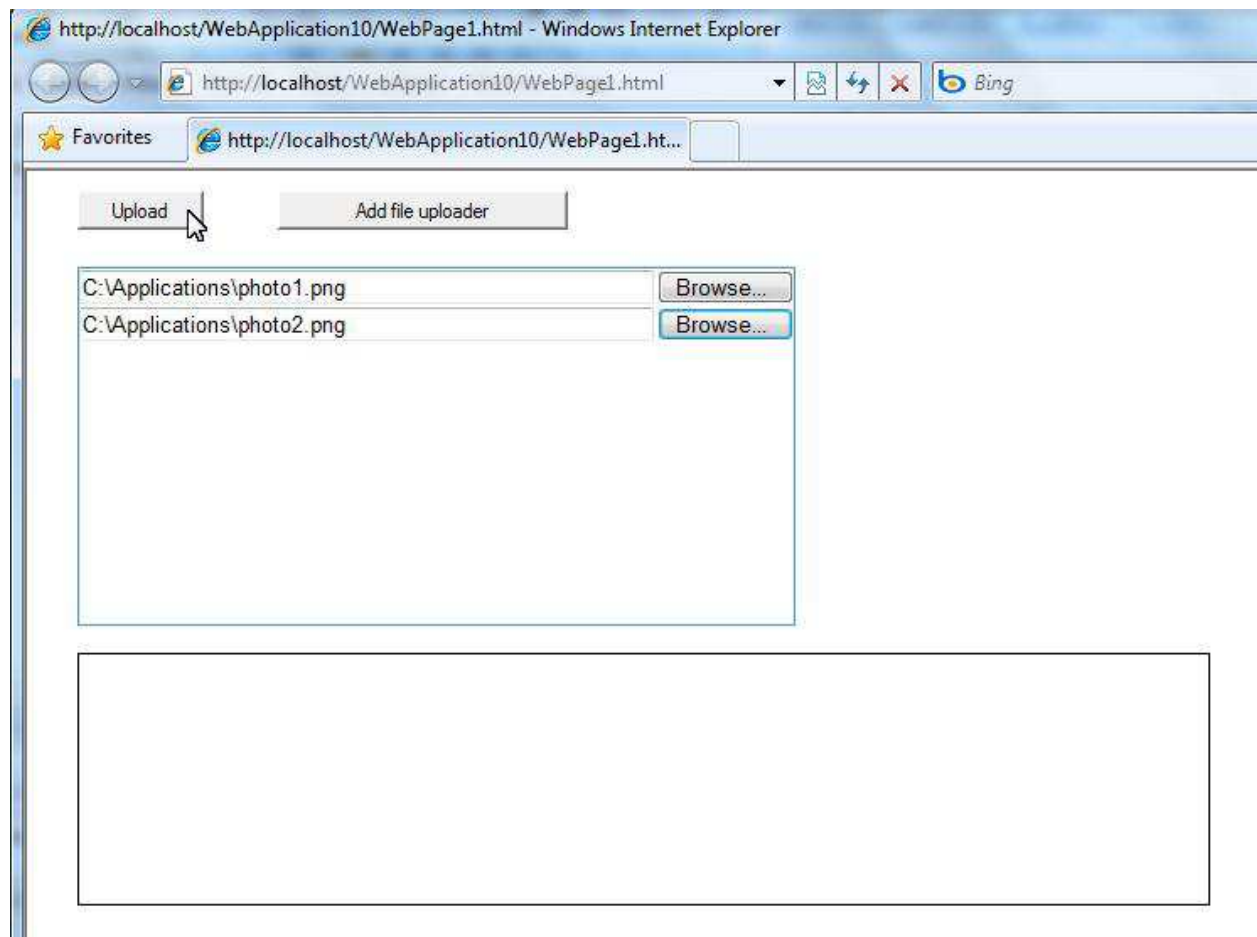
We may assign `ForeachInSavedFilepaths1` to the Upload button:



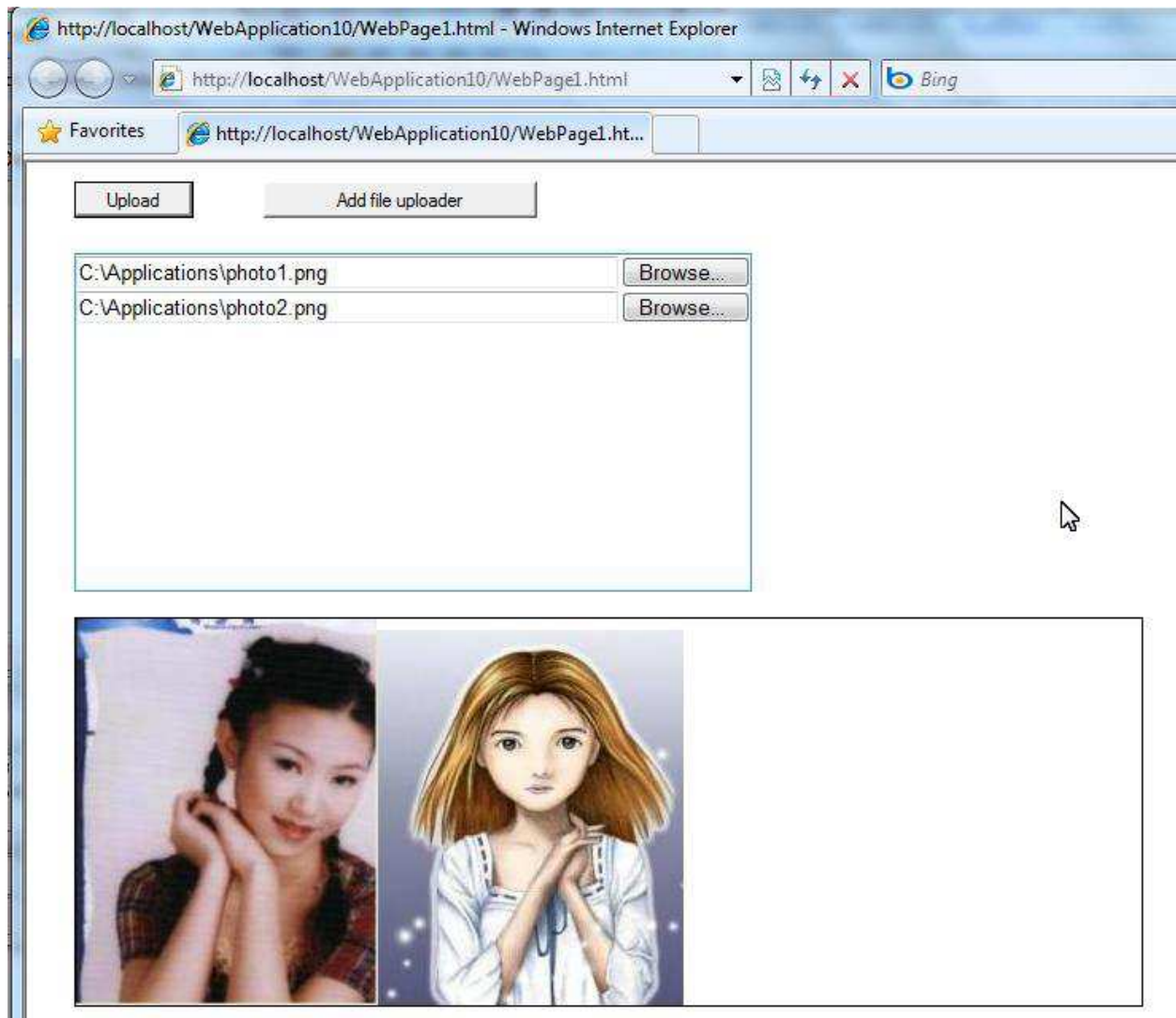
We may test it now:



The web page appears. Select two image files and click Upload:



The two image files are uploaded and displayed on the web page:

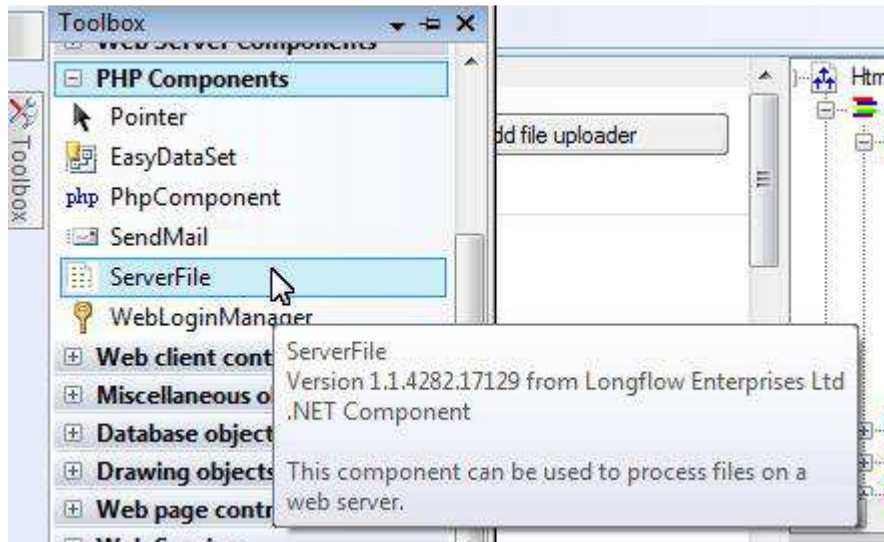


Use uploaded file names at server

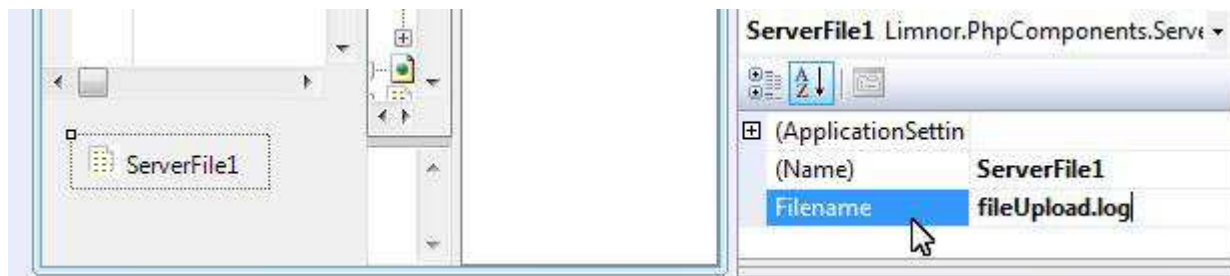
SavedFilePaths property can be used at server after file upload. Even though **HtmlFileUploadGroup** component is used in the same way for PHP and Aspx, other server processing is usually different for PHP and Aspx. Suppose we want to write file names of uploaded files to a log file. For PHP we may use **ServerFile** component to do it. For Aspx, we may use **StreamWriter** class to do it. Below we show both ways.

Use PHP to do logging

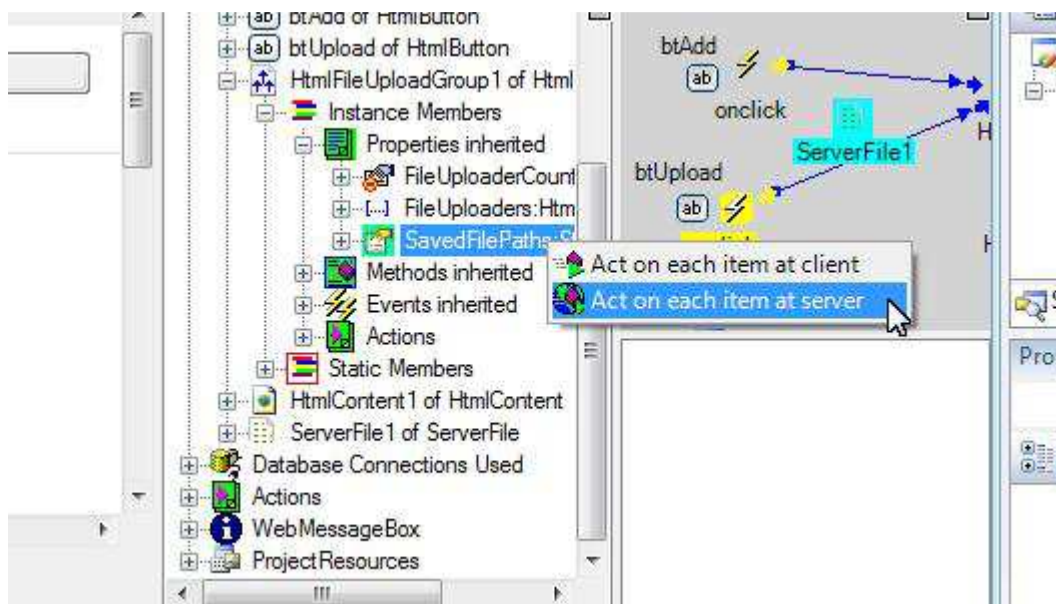
Drop a **ServerFile** component to the web page for logging the file names uploaded:



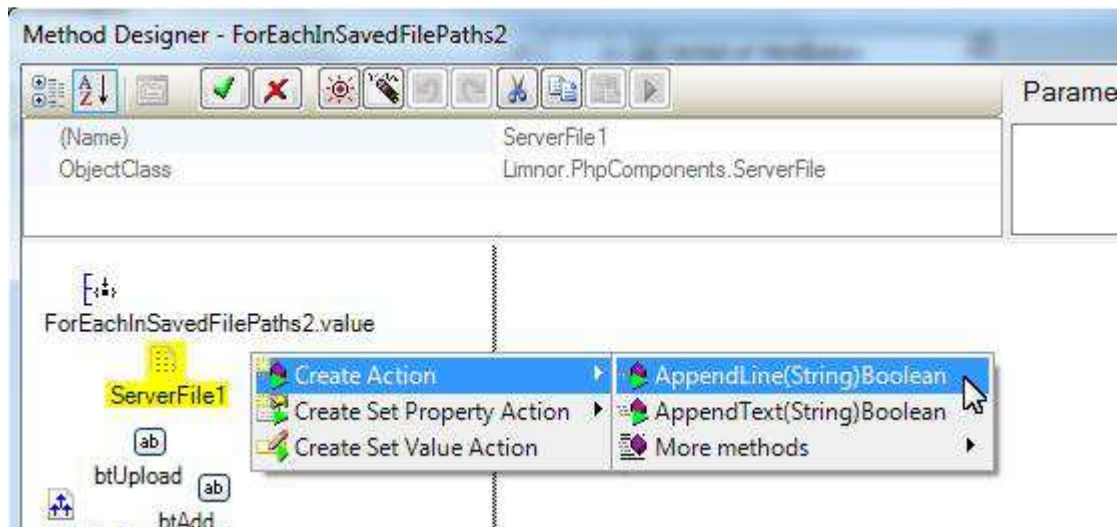
Set file name:



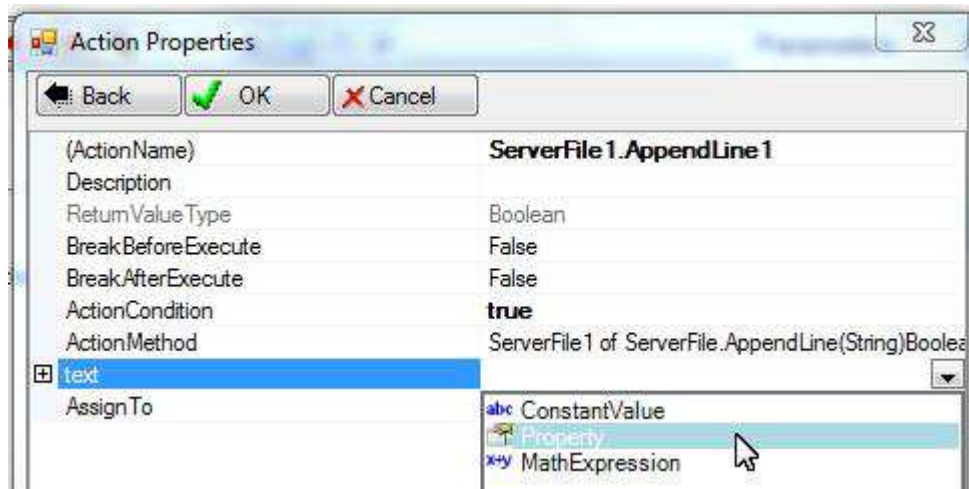
Right-click SavedFilePaths; choose "Act on each item at server":



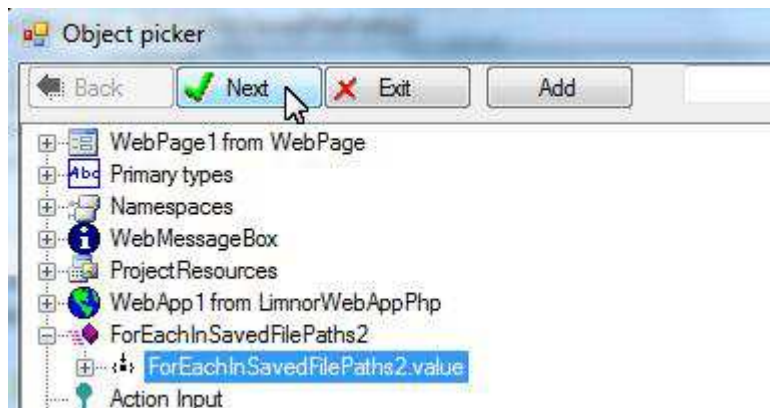
Right-click ServerFile1; choose "Create Action"; choose "AppendLine":



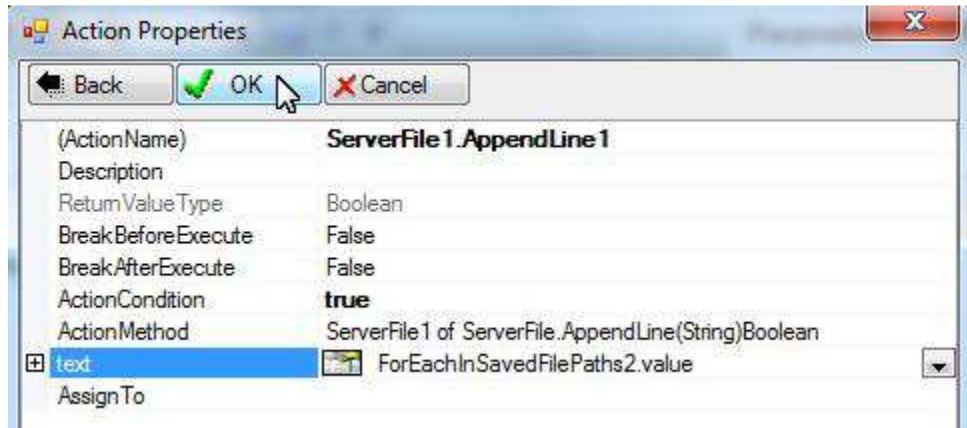
Select "Property" for the "text":



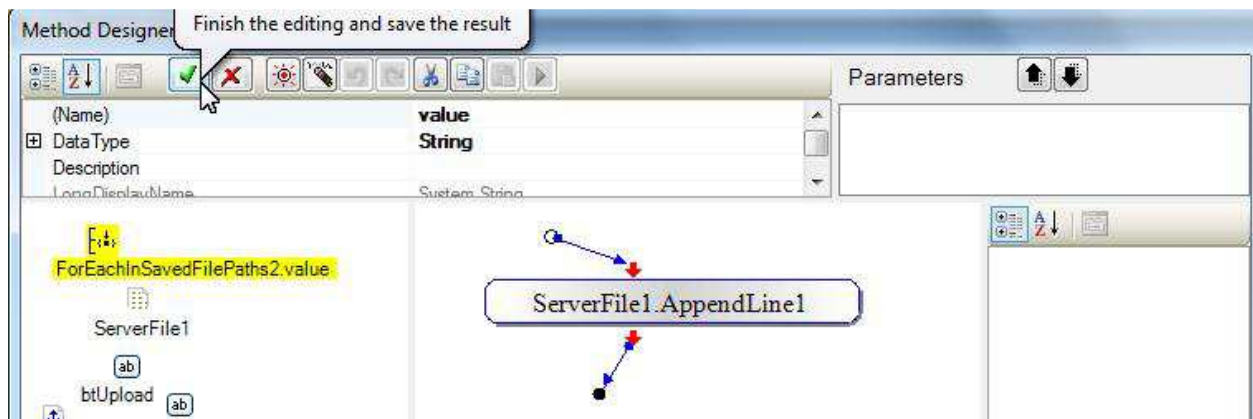
Select "ForEachInSavedFilePaths2.value":



Click OK to finish creating this action:

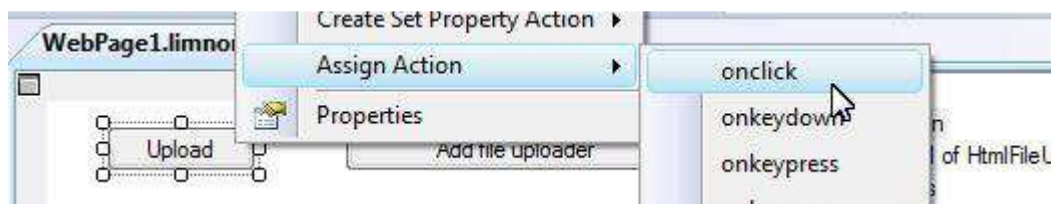


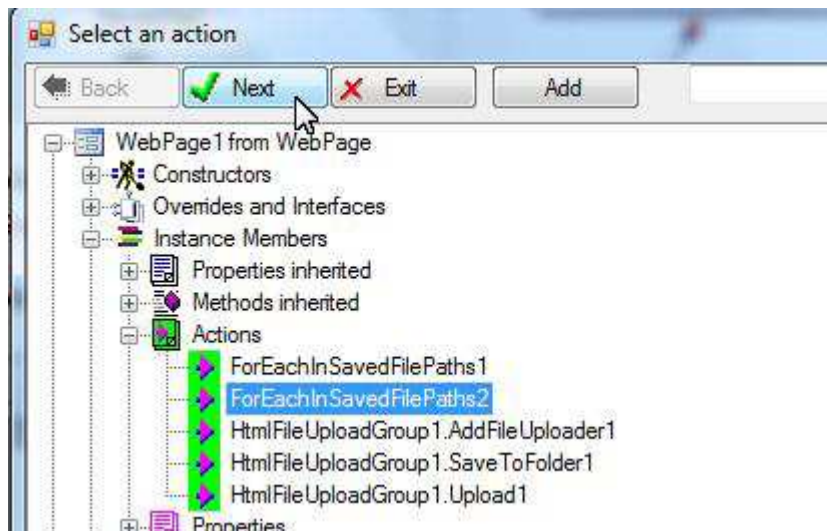
The action appears. For this sample, this is the only action we want to act on each file path:



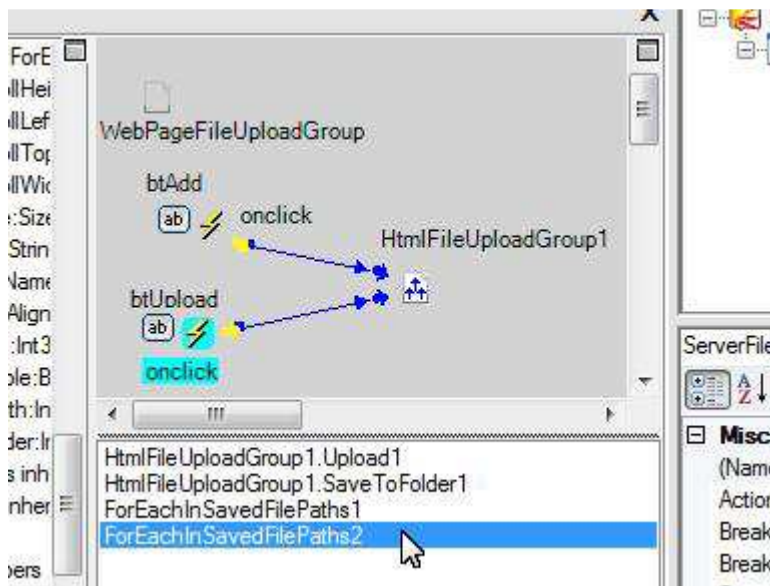
We created an action named `ForEachInSavedFilePaths2`, which contains another action named `ServerFile1.AppendLine1`.

We may assign `ForEachInSavedFilePaths2` to the Upload button:



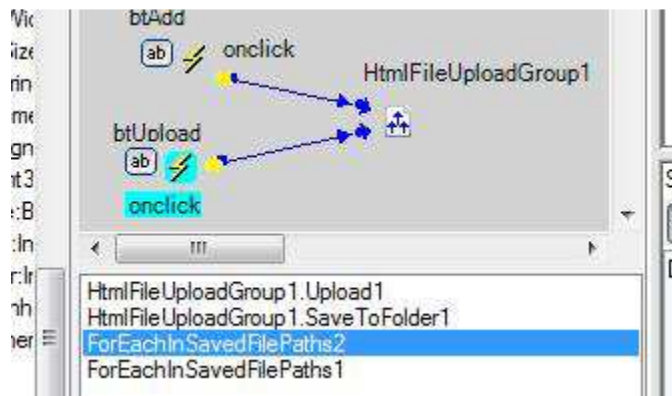


The action appears at the end of the actions list:



We may move this action up to make it appear before action ForEachInSavedFilePaths1:

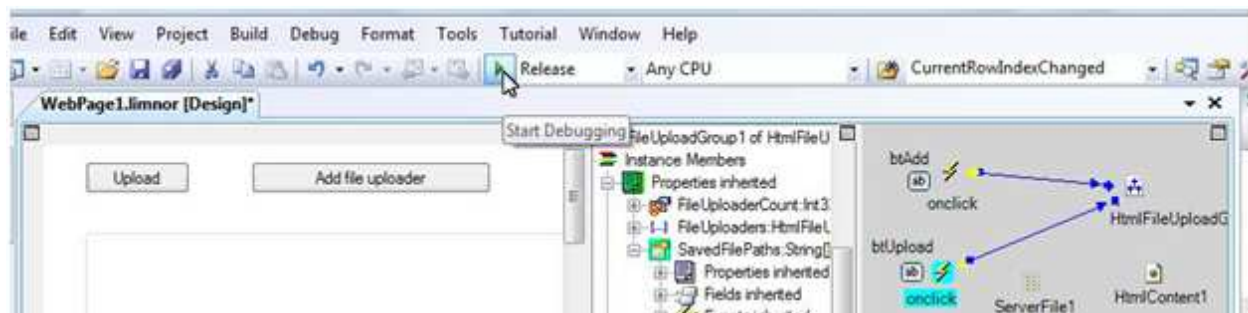




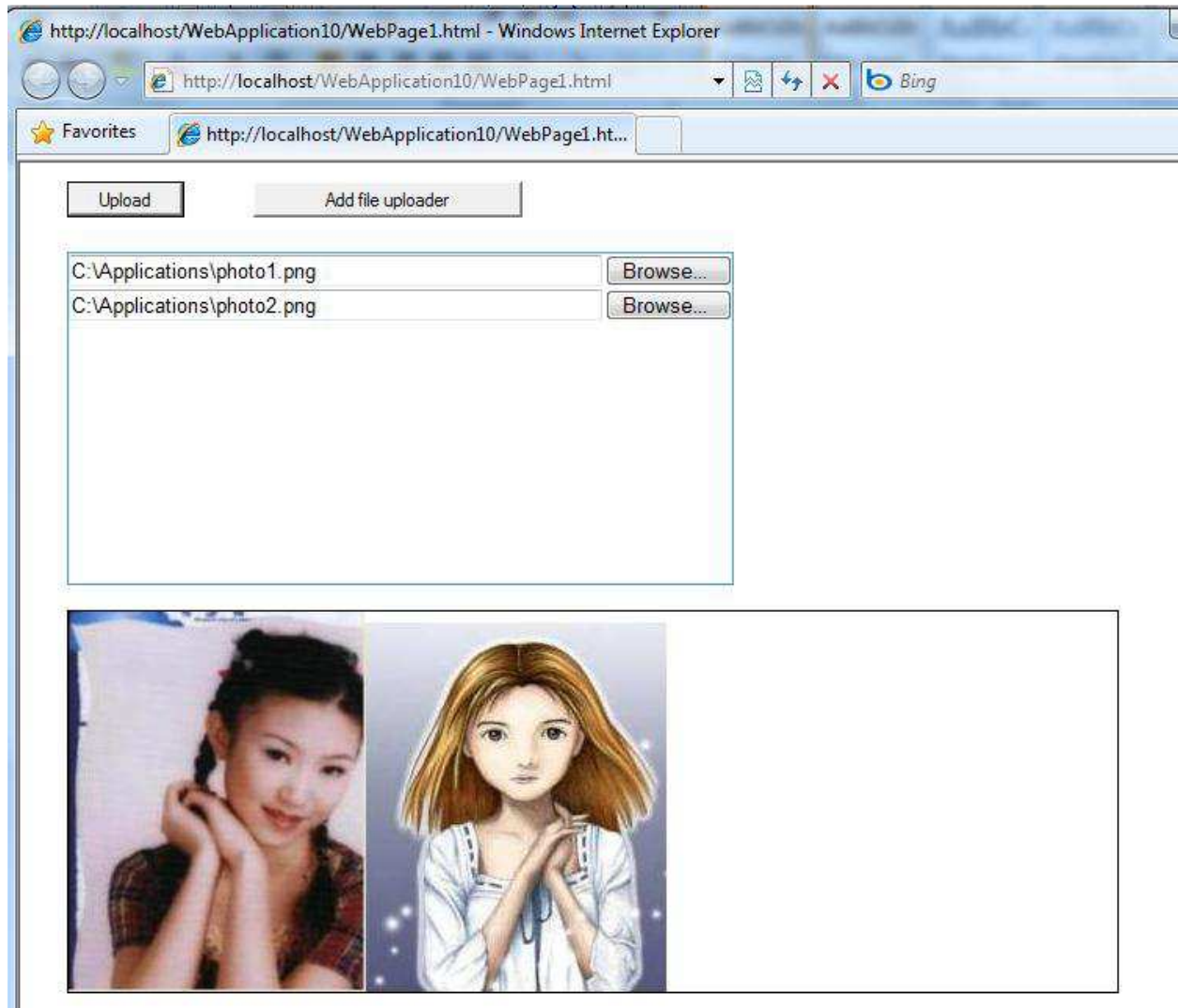
The above re-ordering of the action sequence helps improve web page performance in this situation.

ForEachInSavedFilePaths2 is a server side action which uses the values in a server side object, *HtmlFileUploadGroup1*. *ForEachInSavedFilePaths1* is a client side action. After executing a client side action, the server side object, *HtmlFileUploadGroup1*, loses all its values. For executing a server side action, *ForEachInSavedFilePaths2*, the values have to be uploaded to the server. If *ForEachInSavedFilePaths2* executes before *ForEachInSavedFilePaths1* then it avoids the data uploading.

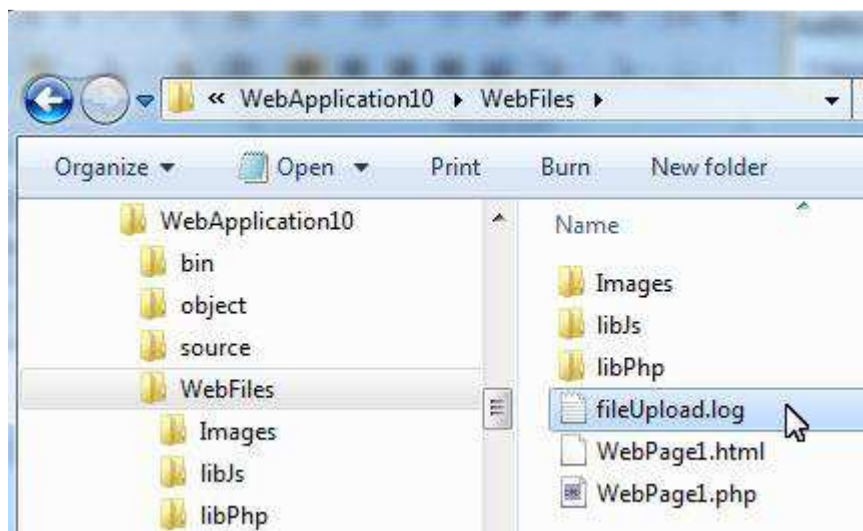
We may test it now:

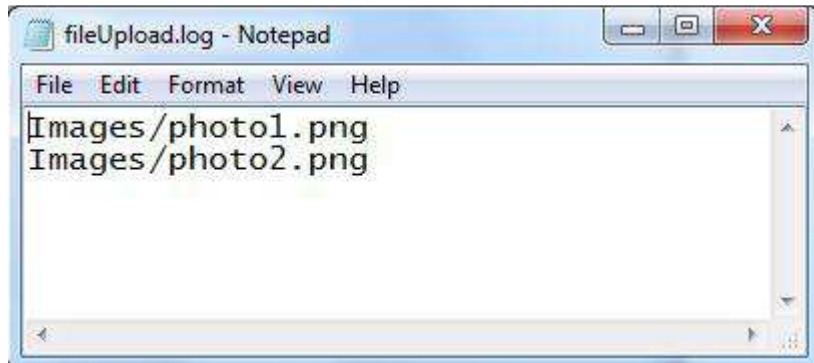


The web page appears. Add 2 image files. Click Upload. The files are uploaded. The images appear on the web page.



The log file on the web server is also uploaded:

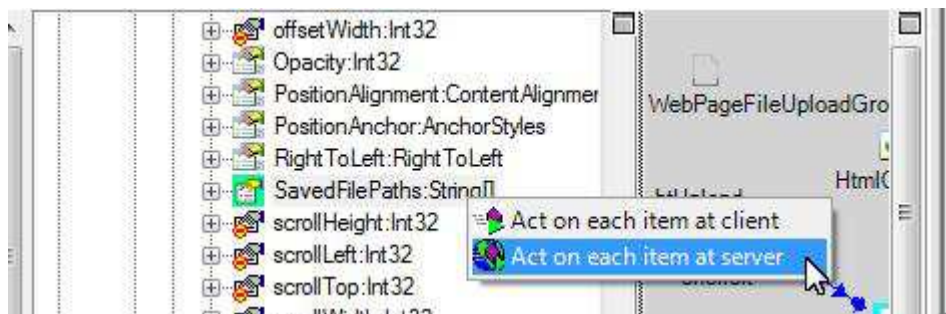




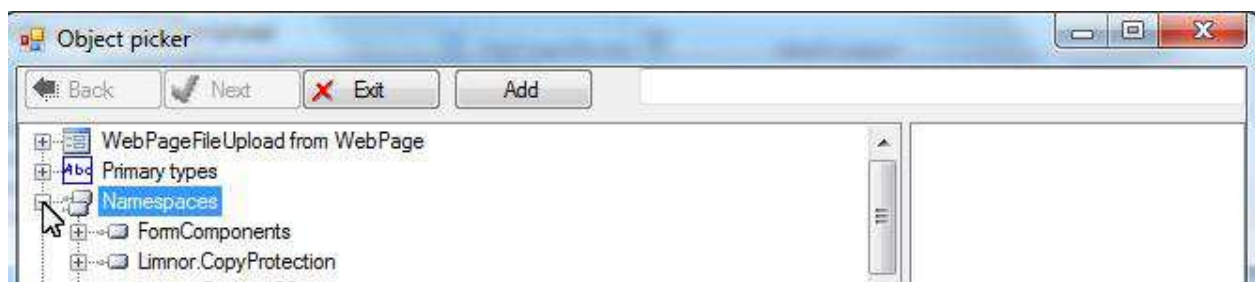
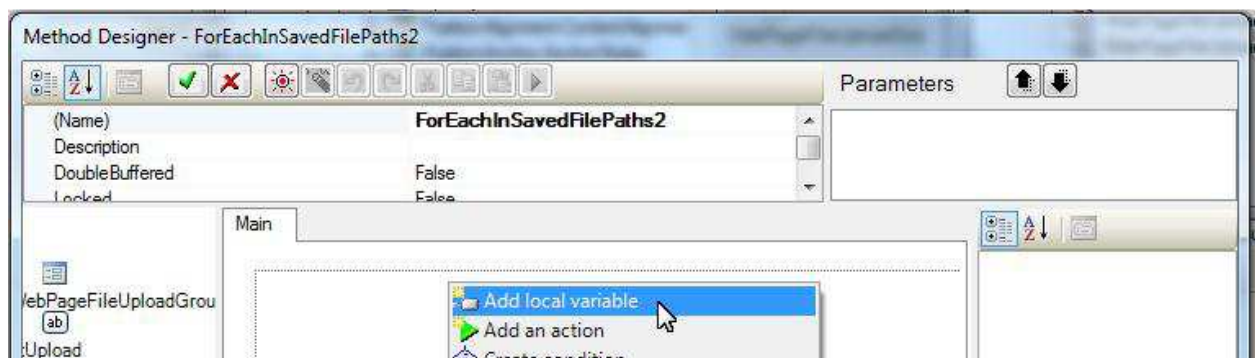
We can see that the names for uploaded files are logged in the file.

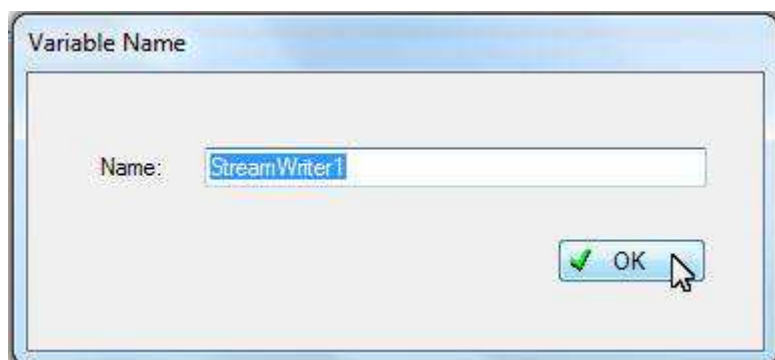
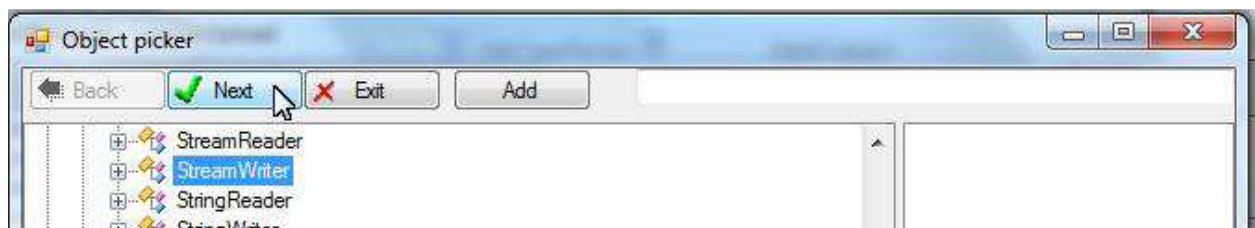
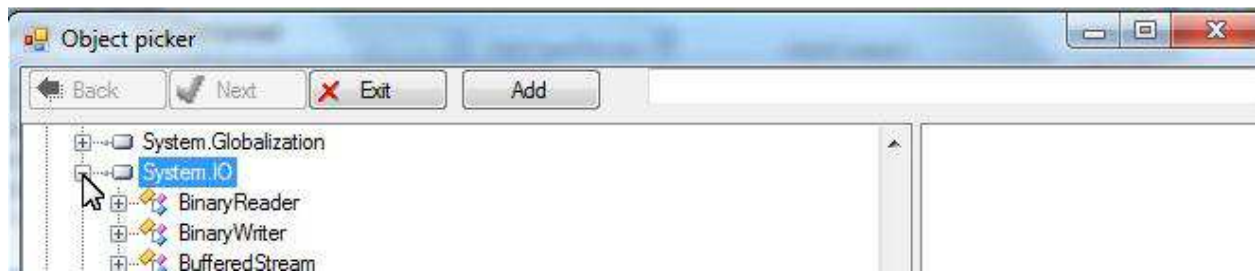
Use ASPX to do logging

Right-click SavedFilePaths of HtmlFileUploadGroup1; choose "Act on each item at server"

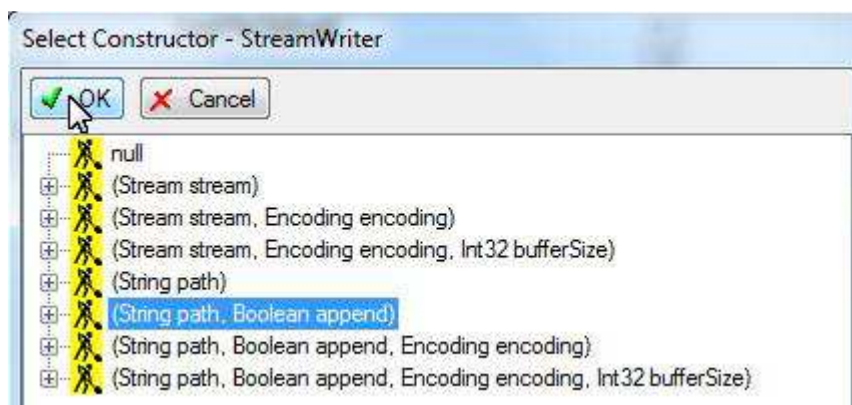


Create a StreamWriter to do the job:

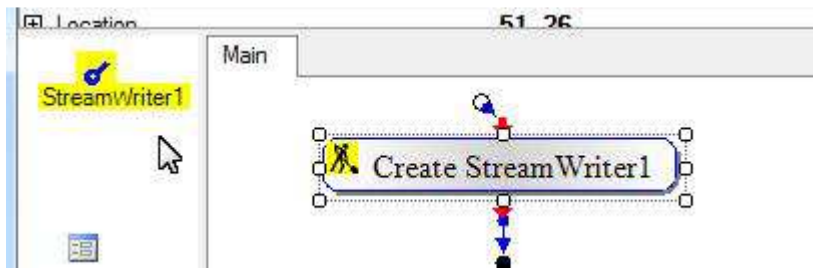




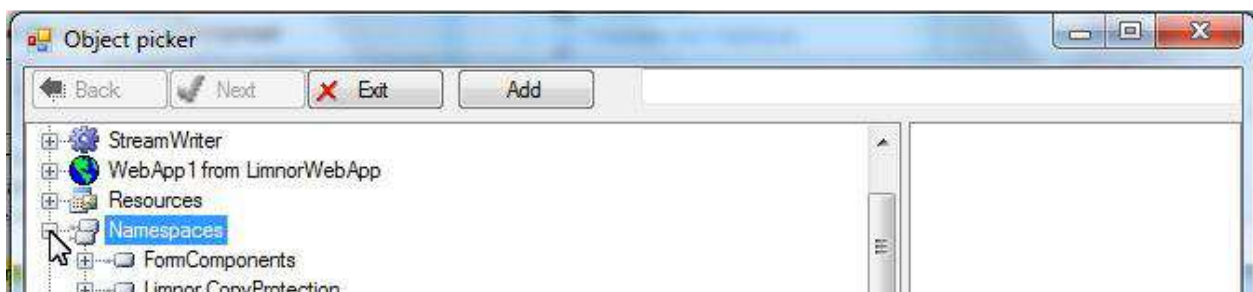
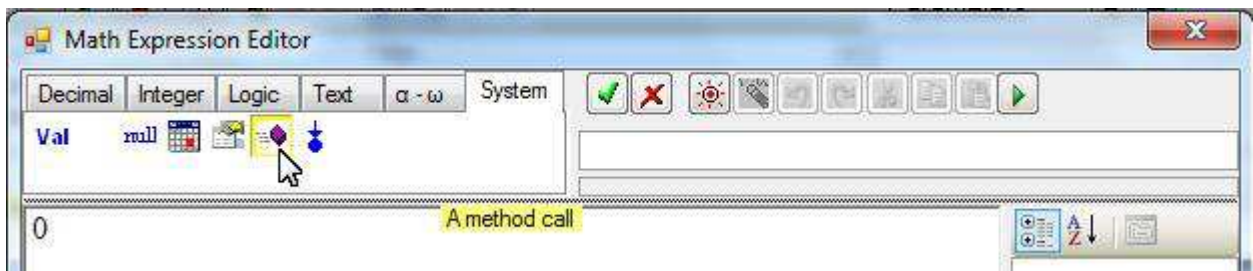
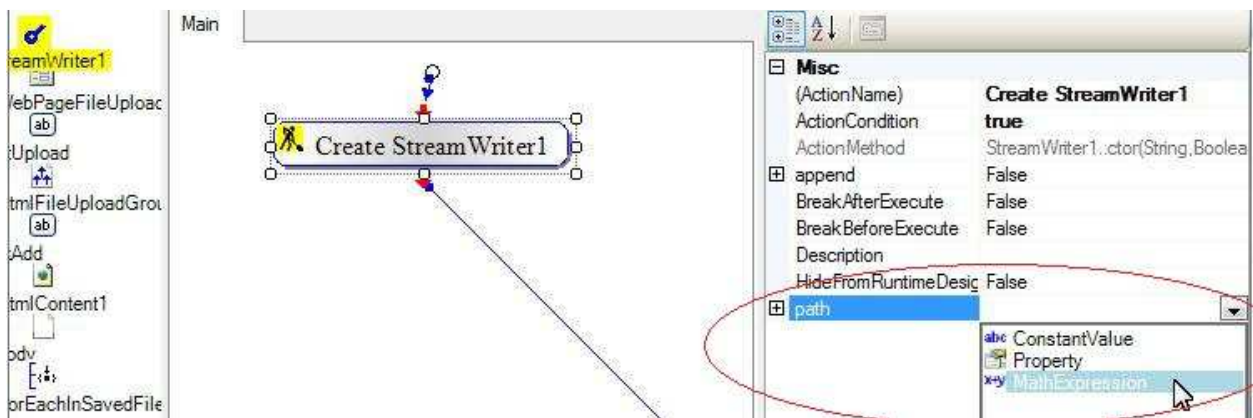
Select a constructor which accepts a file path and a flag indicating that we want to append the file:

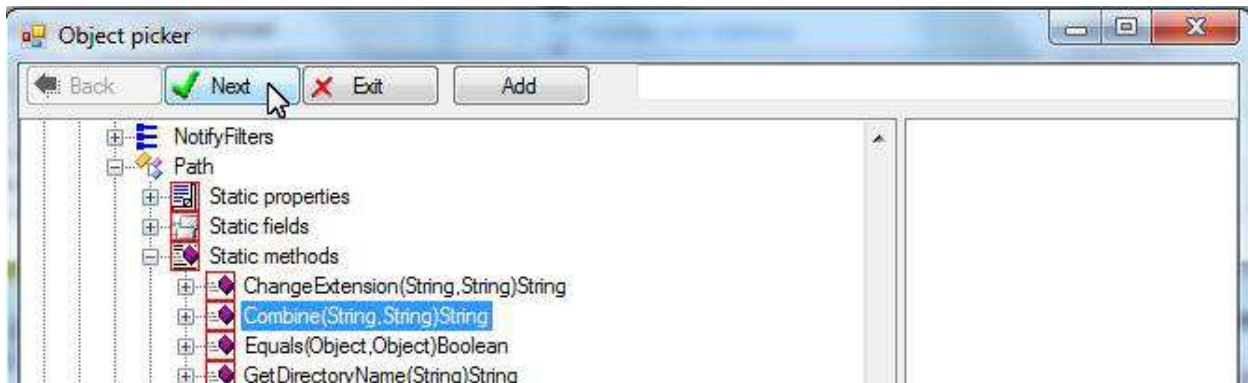
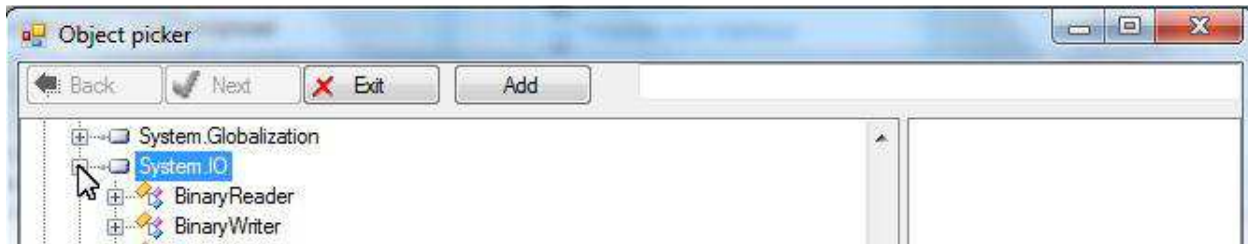


A variable of StreamWriter is created and an action appears for creating the variable:

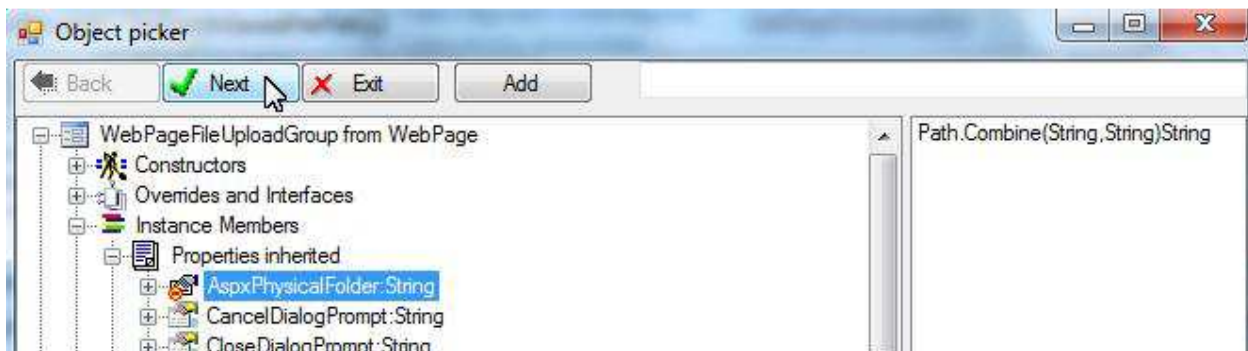
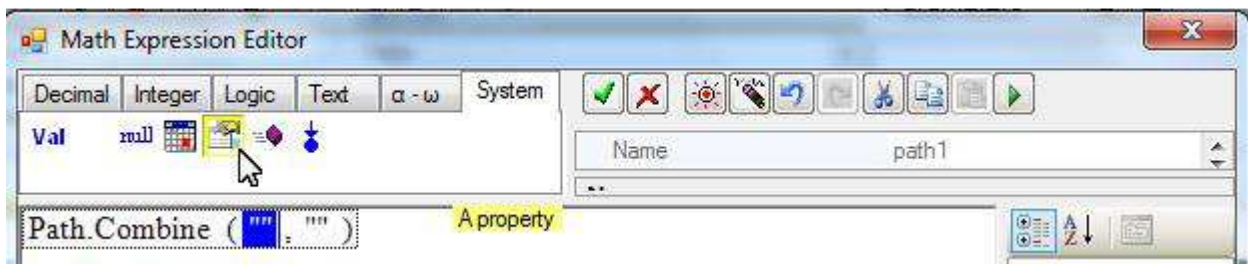


Suppose our log file name is "FileUpload.log". Where should we save the file? For this sample, we simply save it on the same folder as the web application, which is represented by property `AspxPhysicalFolder` of the web page. We may use `Path` class' `Combine` method to form the full path of the log file.





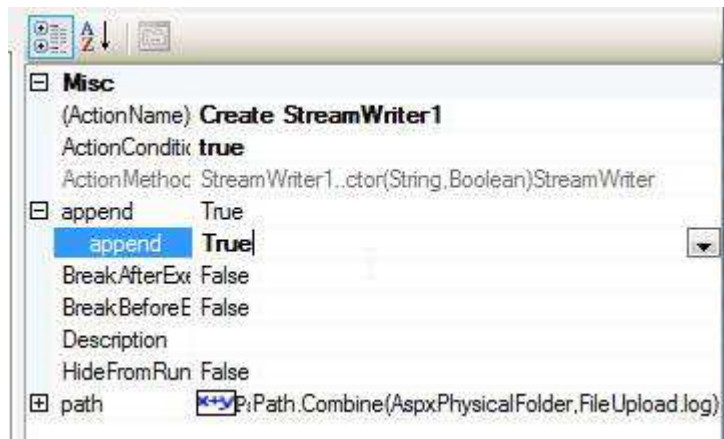
The first parameter of Combine is the folder. Let's use AspxPhysicalFolder:



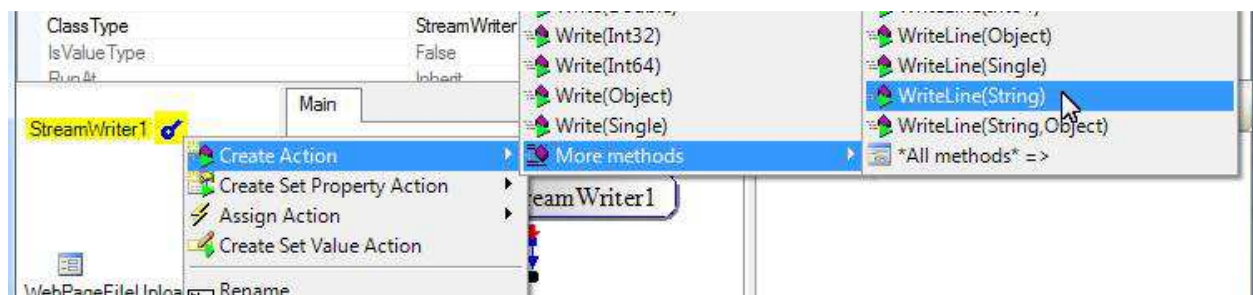
The second parameter of Combine is file name:



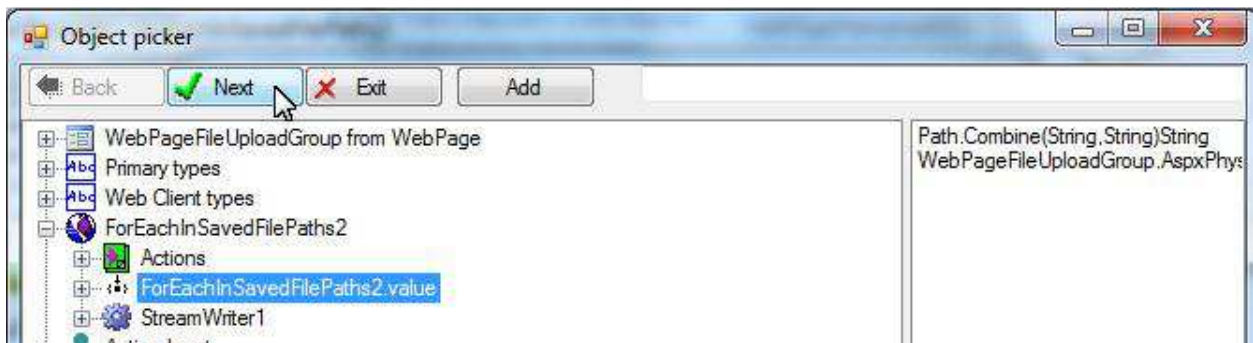
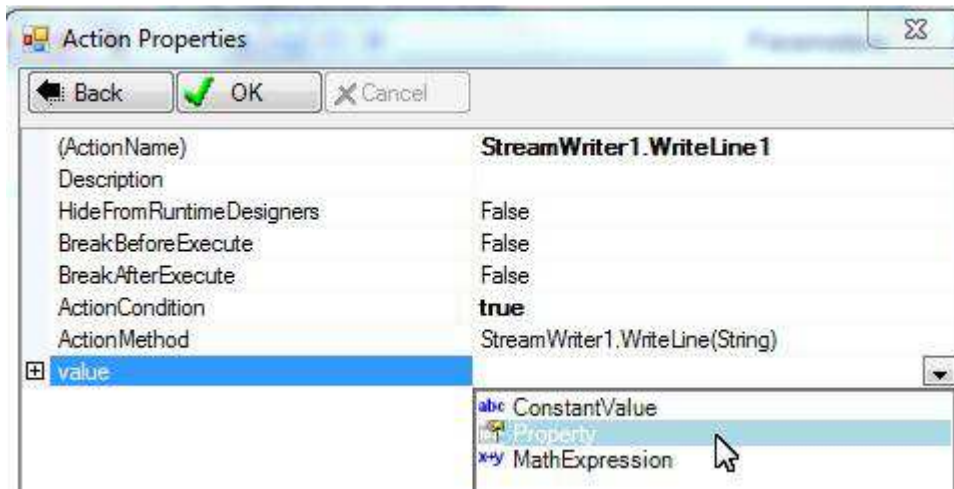
Set "append" to True:



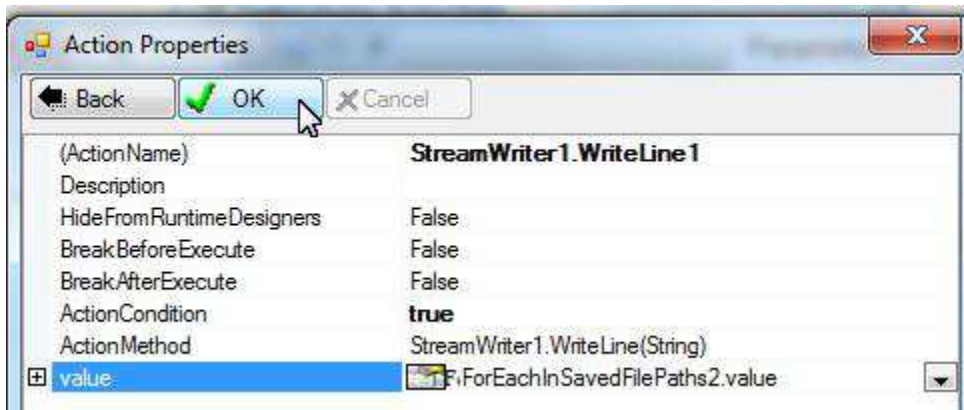
Create a WriteLine action:



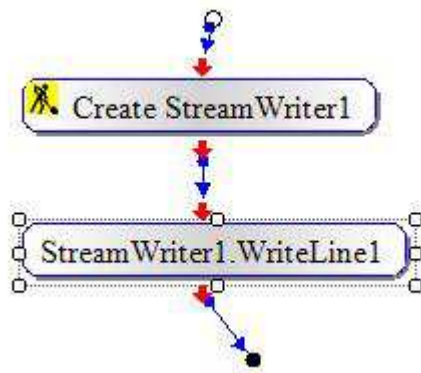
The value to write is the array item we are processing, which is a file name:



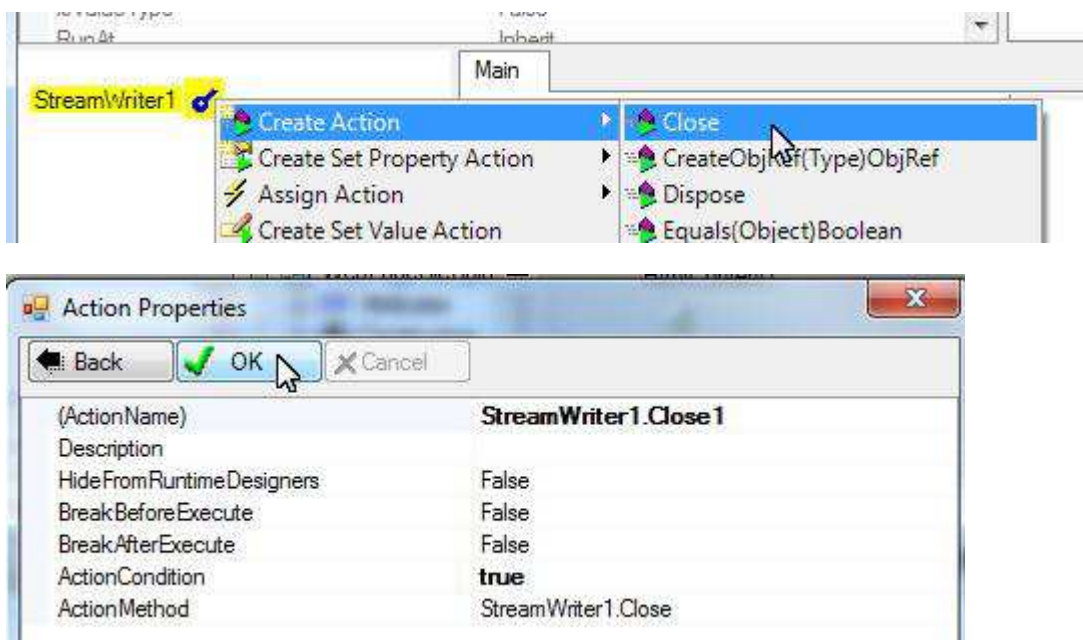
Click OK to finish creating the action:



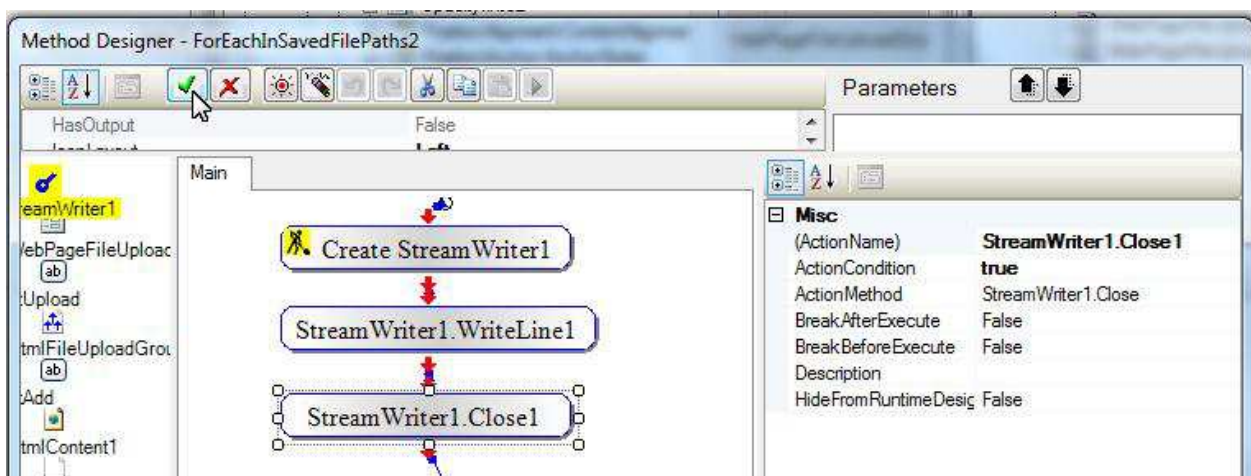
This action shows the use of SavedFilePaths property on the server side. Link the action to the last action:



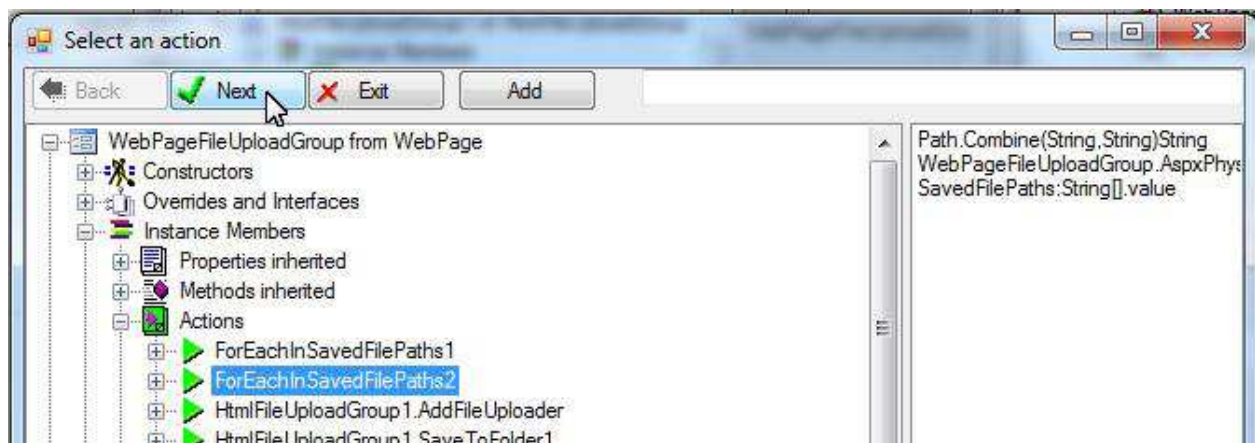
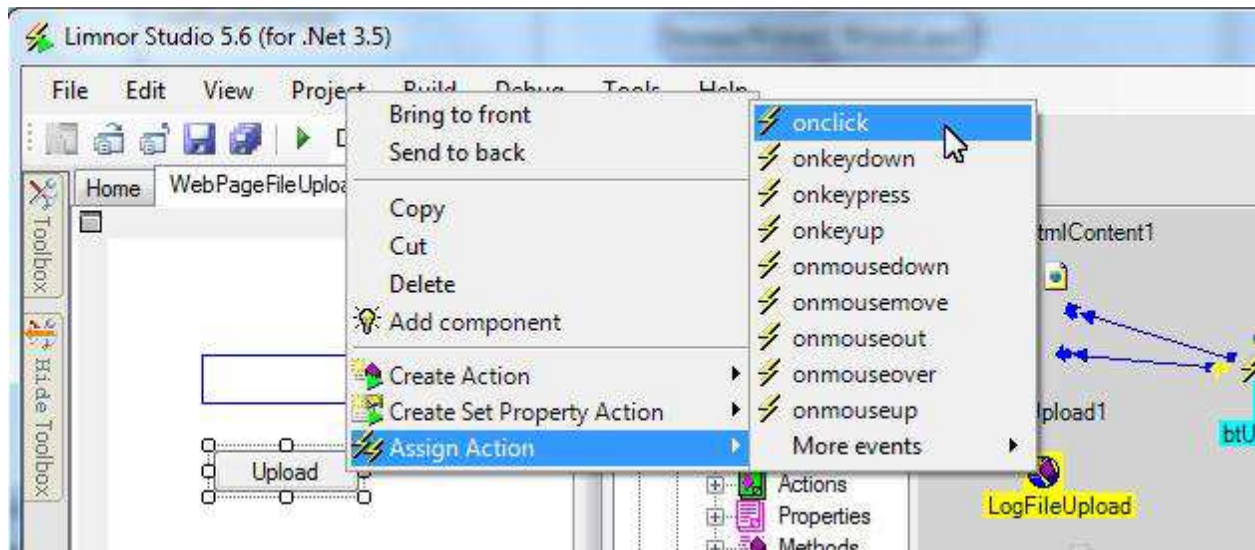
Create an action to close StreamWriter:



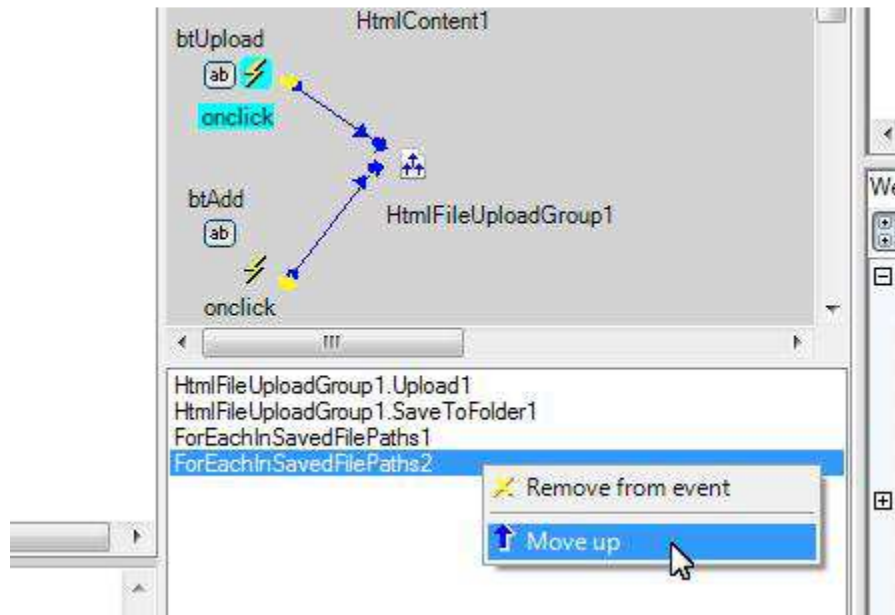
Link the action. We are done creating this server side method:



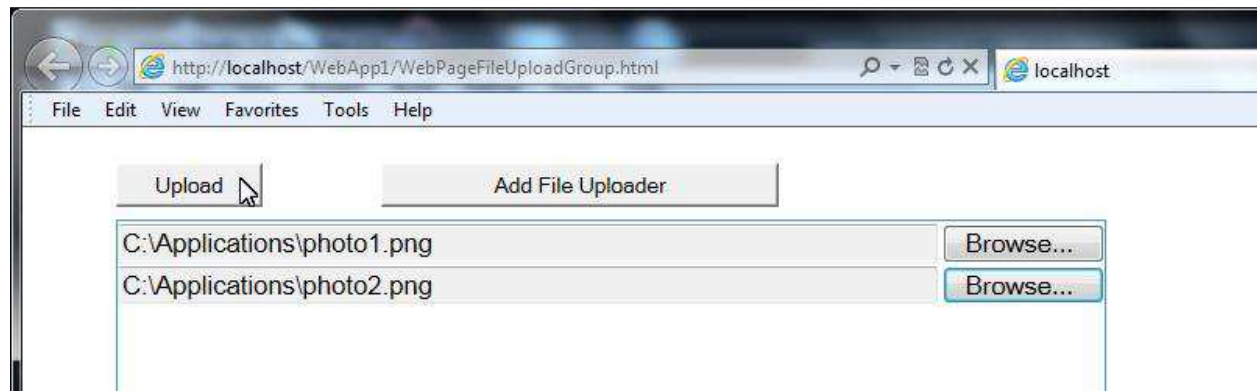
Let's execute the above method when the upload button is clicked:

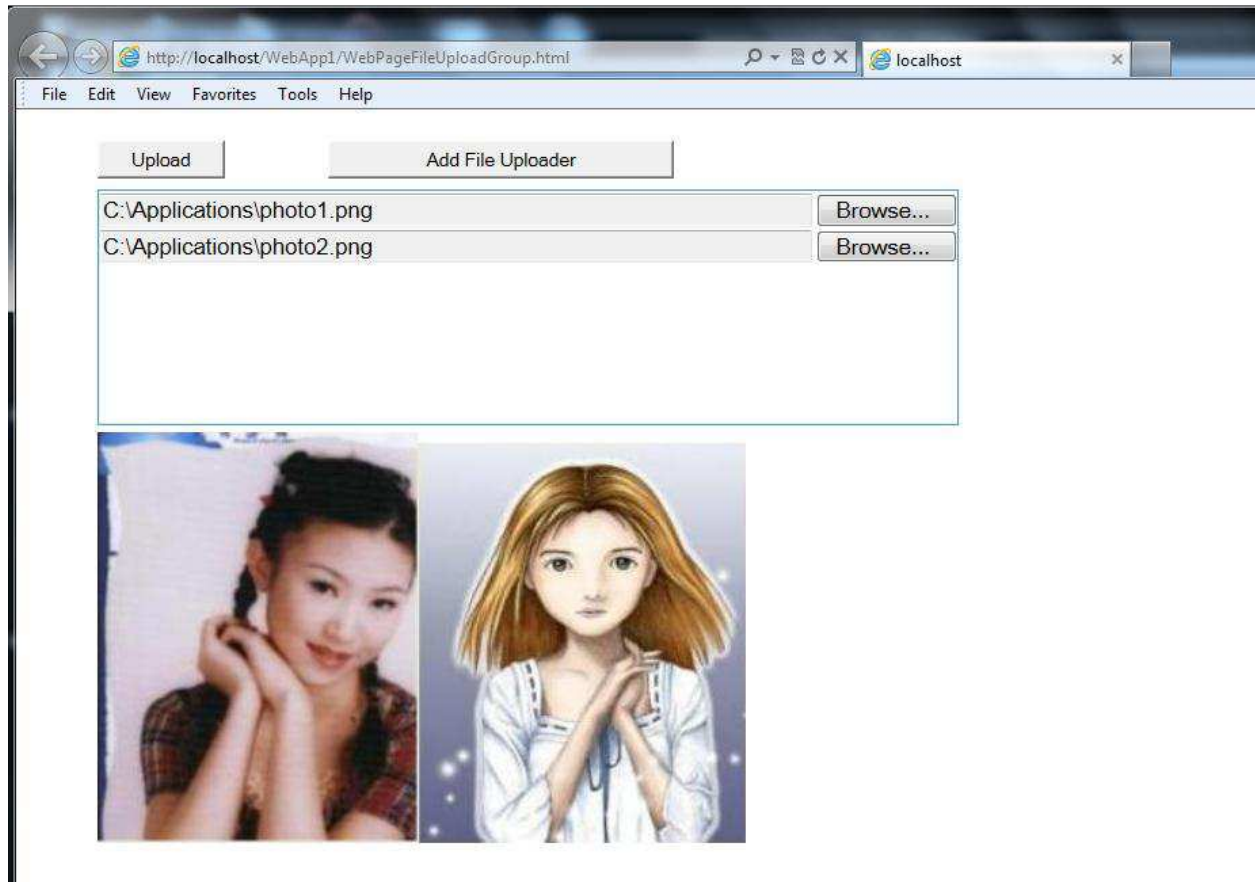


The action is assigned to the button. Move it up to make all server side actions together to improve performance:

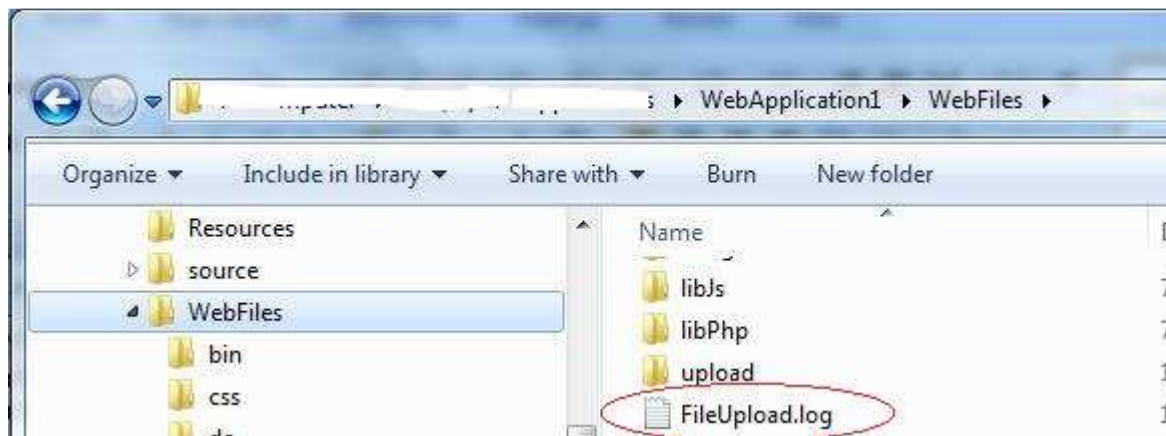


Compile and launch the Aspx web page. Upload two files:

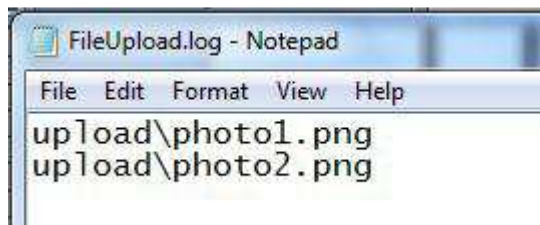




A log file is created:



The log file records the file names:



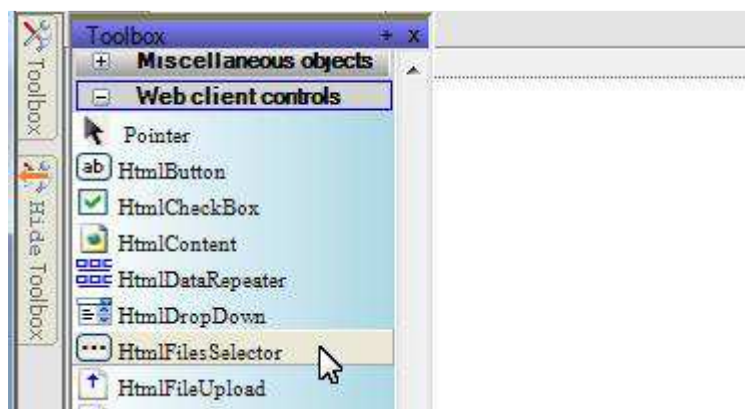
Files Selector

HtmlFileSelector appears as an image on the web page. You may change the image. The web visitors click the image to select files. It can be programmed in a similar way as programming using HtmlFileUploadGroup but displays file selections as icons and file names. It can also be used by PHP SendMail component for file attachments.

For examples of using HtmlFilesSelector in creating PHP Web Mail, see <http://www.limnor.com/support/WebEmail.pdf>

Web UI with File Selector

Add an HtmlFileSelector and a button to a web page:

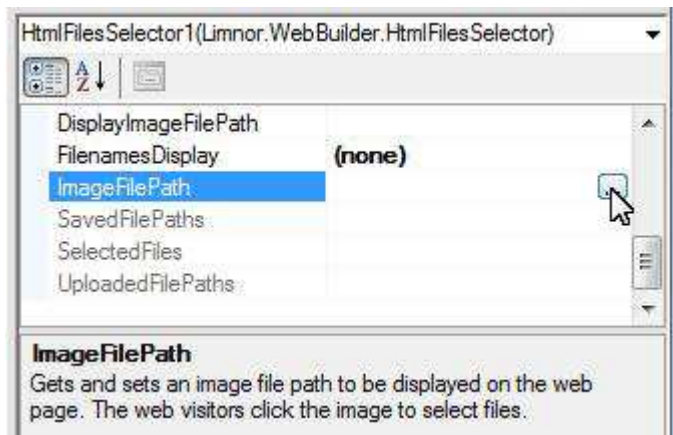


We can see that HtmlFileSelector appears as a button:

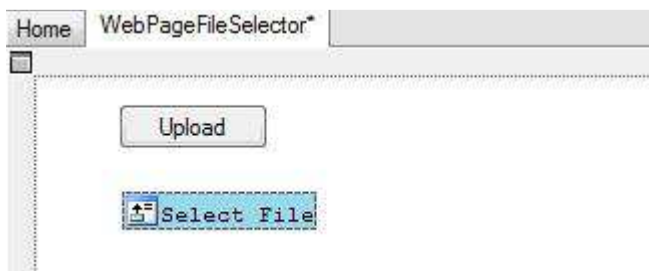


Change File Selector Appearance

We may change its appearance by using a picture for its ImageFilePath property:

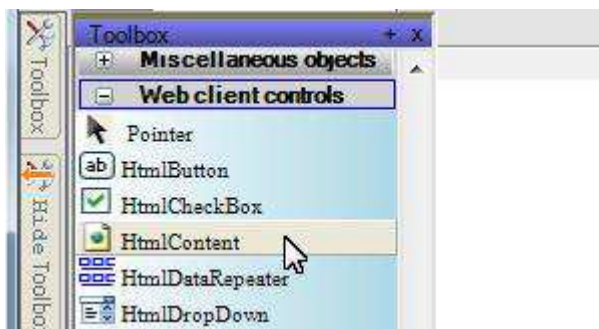


A file selection dialogue box appears for selecting an image file. Selected image appears in place of the HtmlFileSelector:



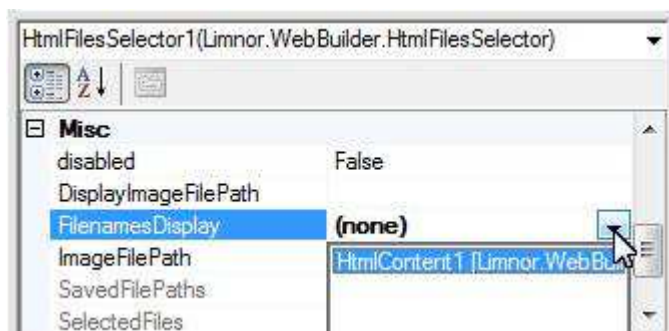
Display Selected File Names

HtmlFileSelector does not have an UI for displaying selected file names. We may use an HtmlContent component to display selected file names.

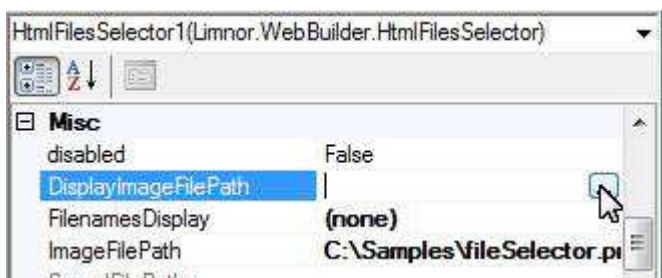


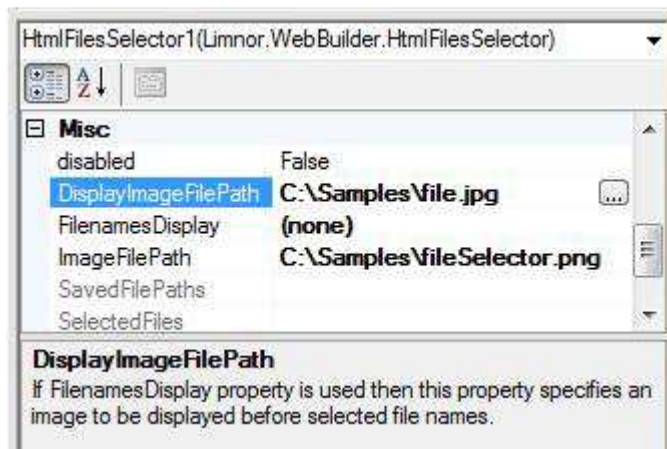


Set "FileNamesDisplay" property of HtmlFileSelector to the HtmlContent:



All selected file names will be displayed in the HtmlContent. We may also display an image before each file name so as to separate file names:

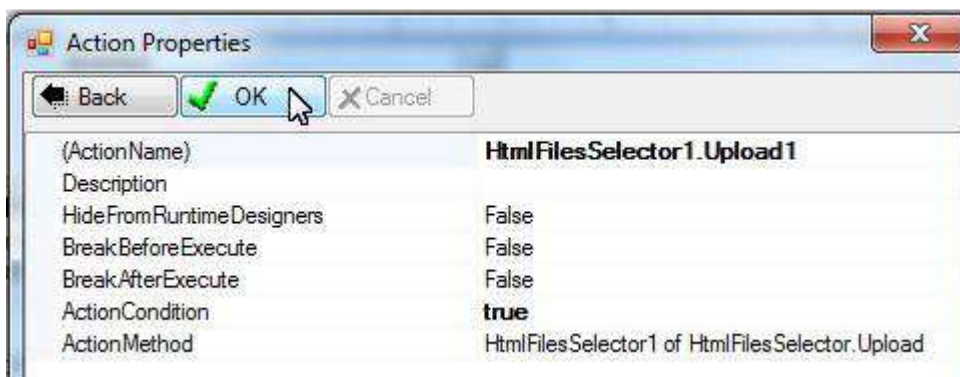
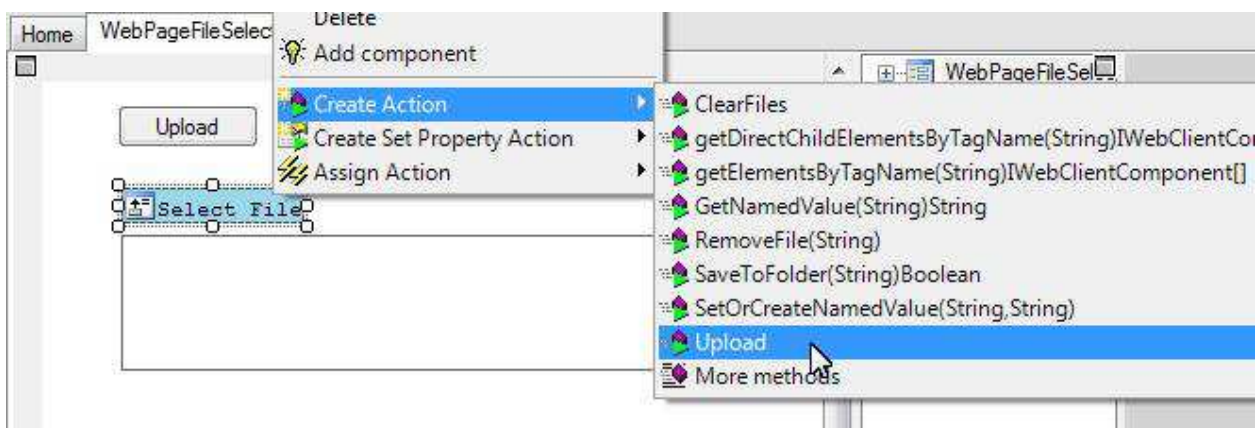




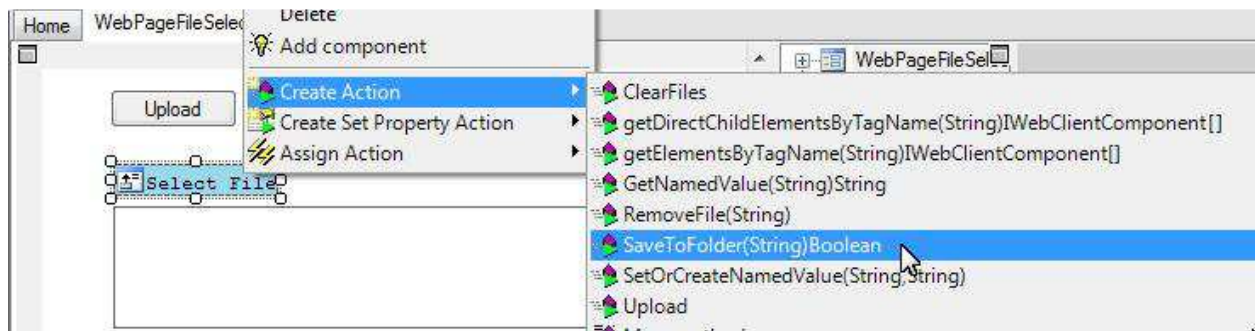
Actions

Create Upload Actions

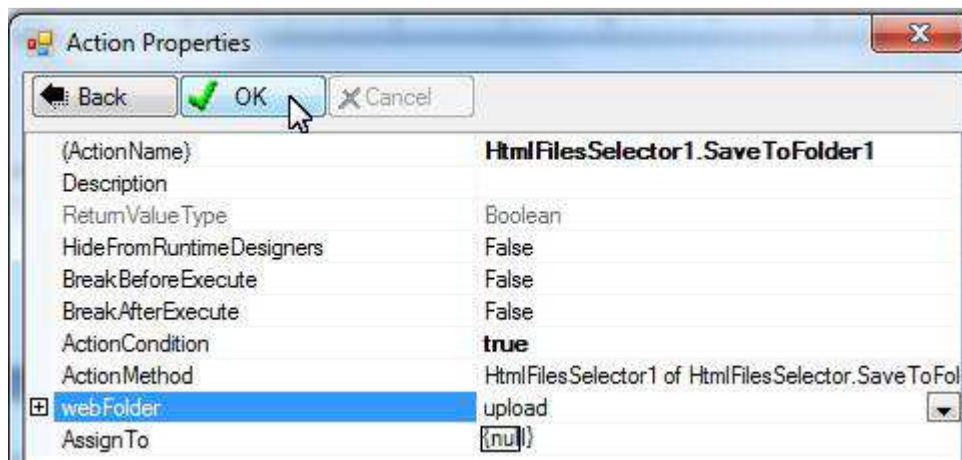
Create an Upload action to upload all selected files to web server:



Create a SaveToFolder action to save all uploaded files to a folder on web server:

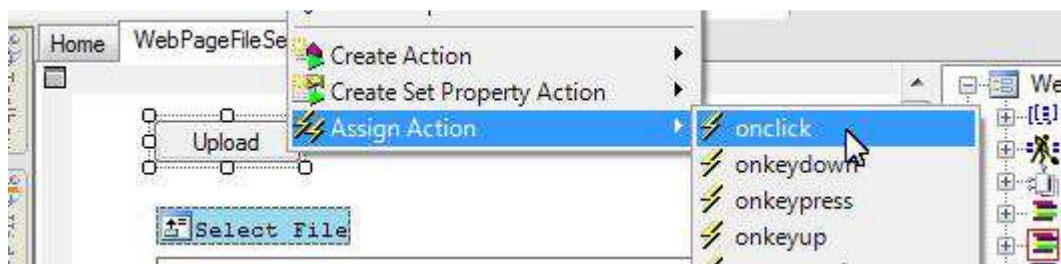


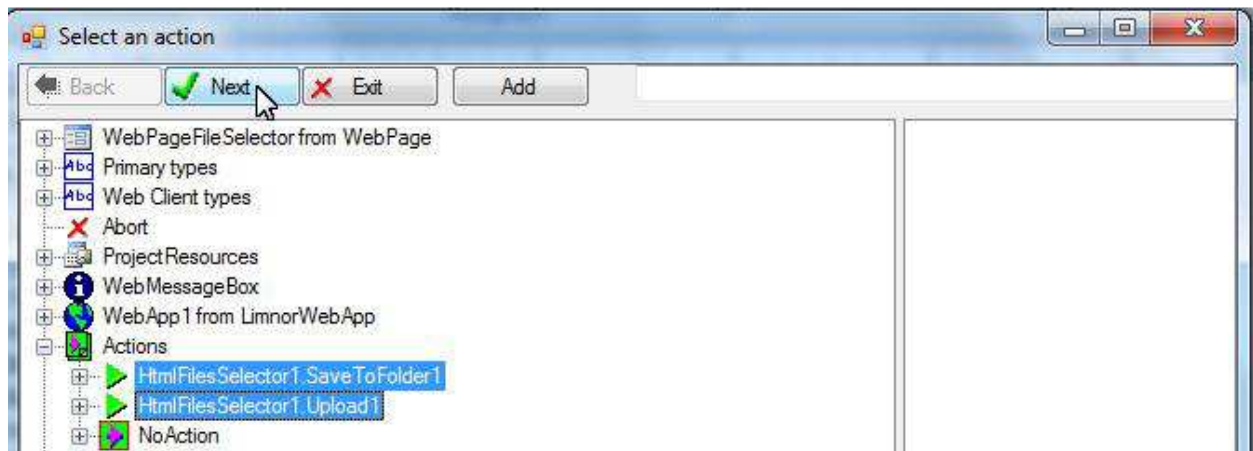
Give a folder for “webFolder” parameter and click OK:



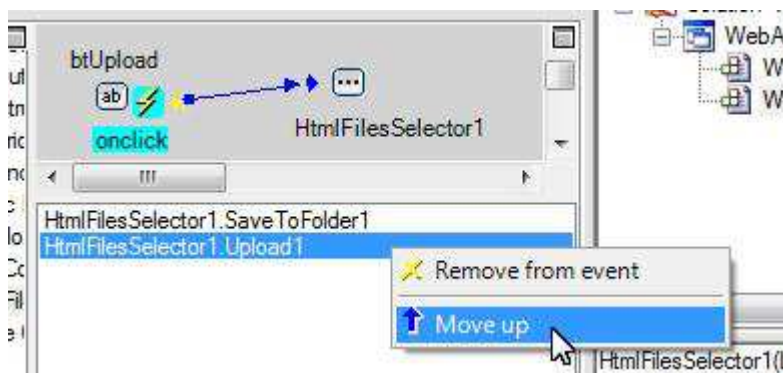
Assign actions

We may assign the above two actions to the Upload button:

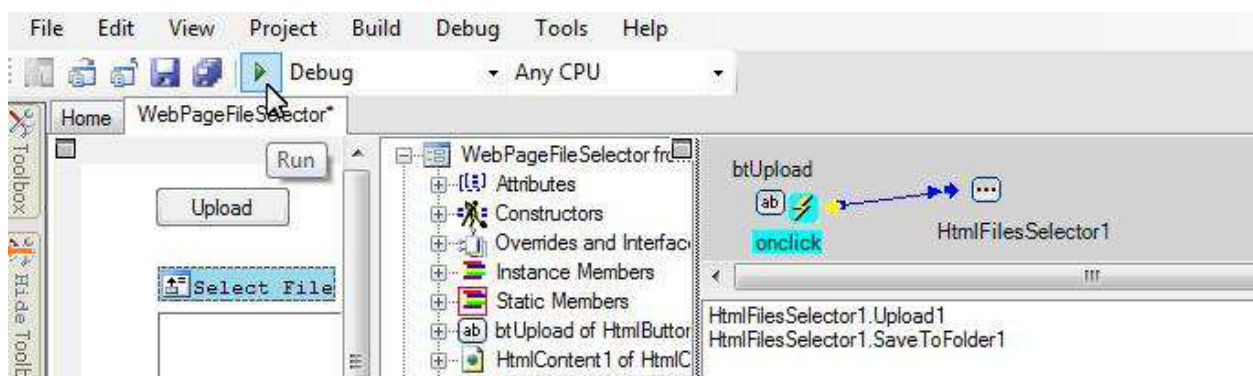




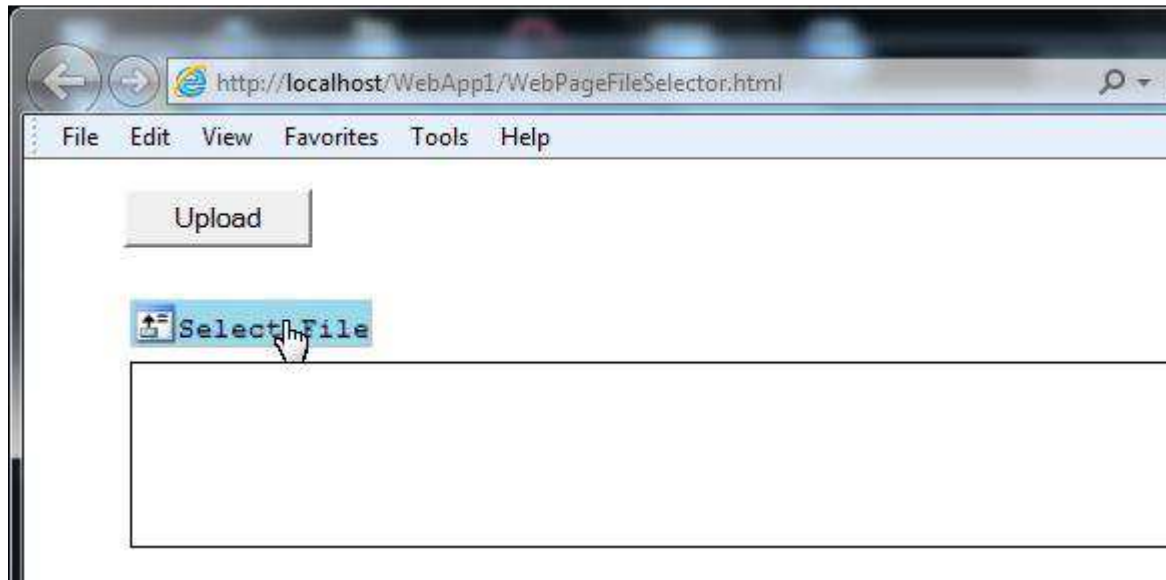
These actions are assigned to the button. Move Upload action to be the first one:



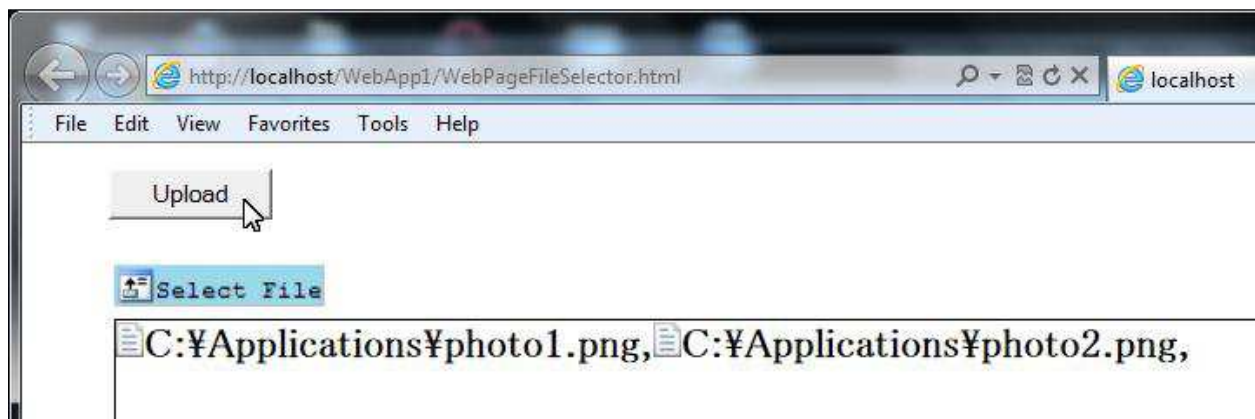
We may test our programming now:



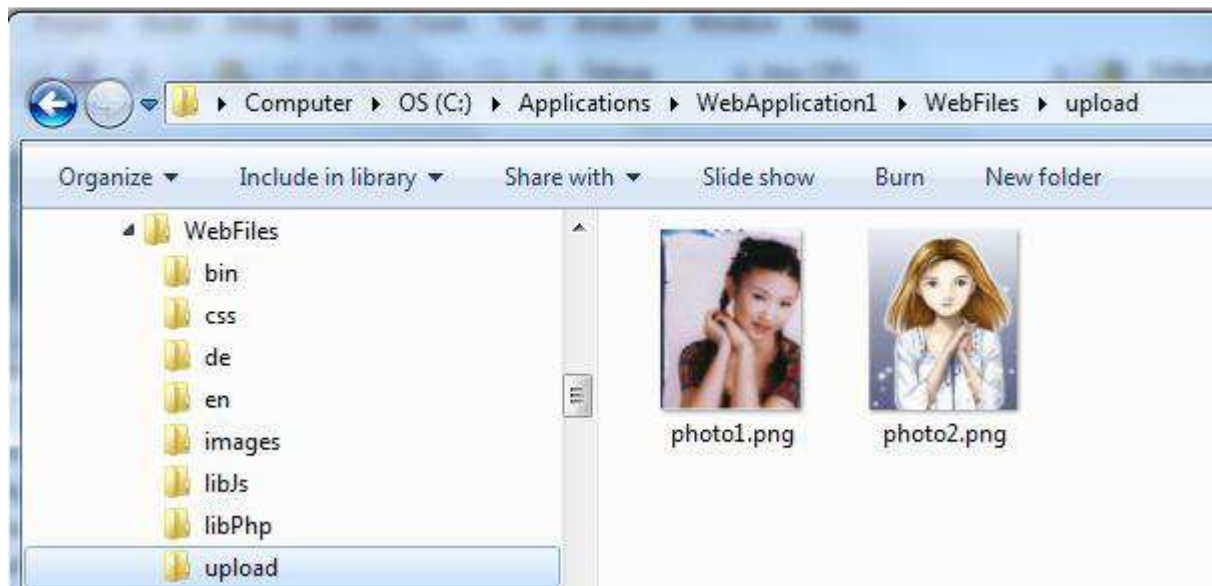
The web page appears. Click the file selector to select a few files:



Selected file names appear in the HtmlContent component. We may click Upload to upload selected files:



We can see that the selected files are uploaded to the web server:

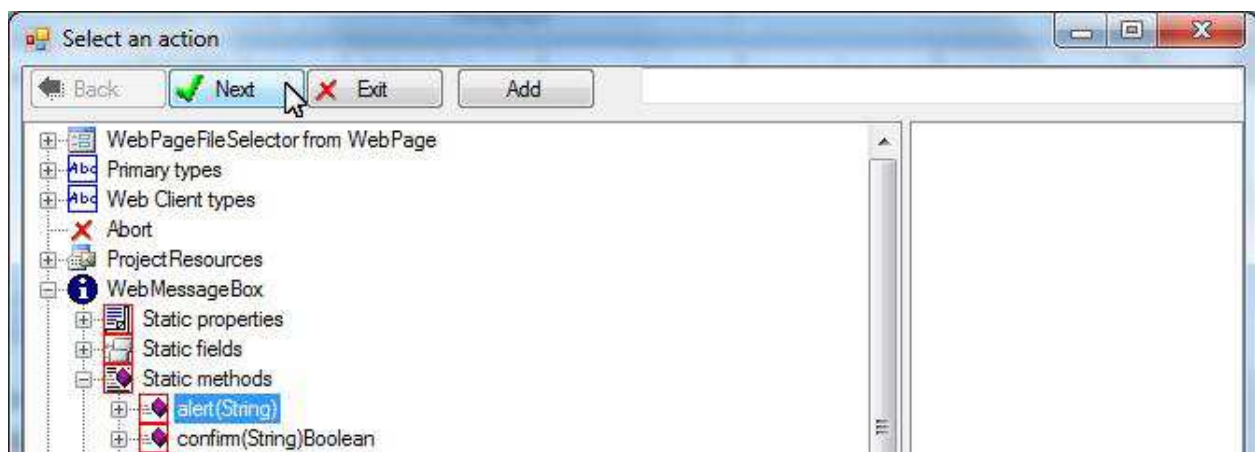
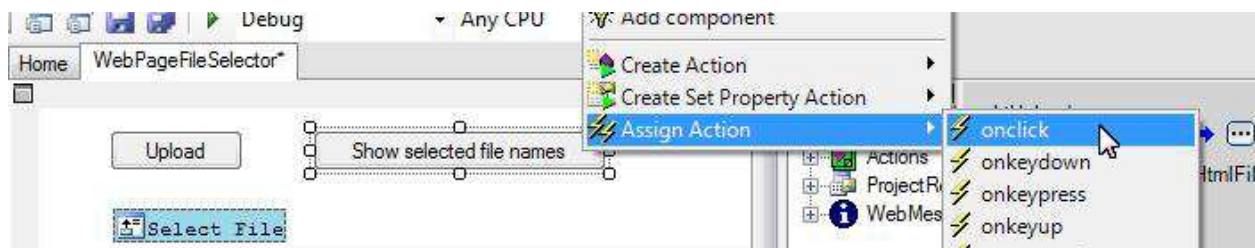


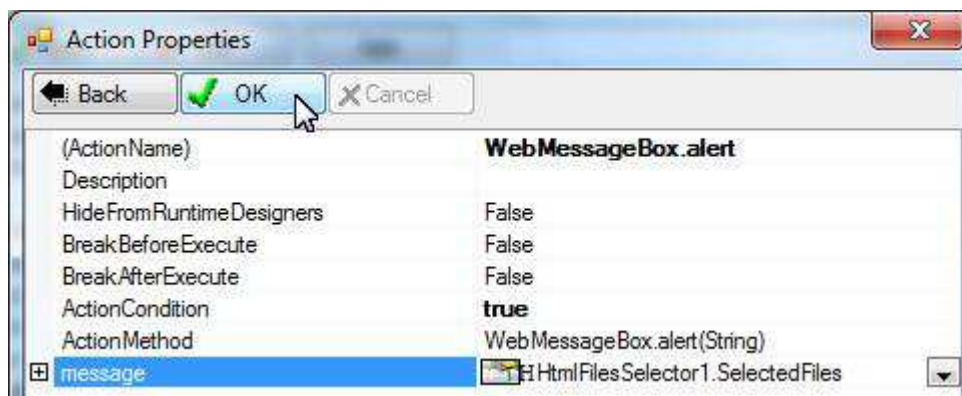
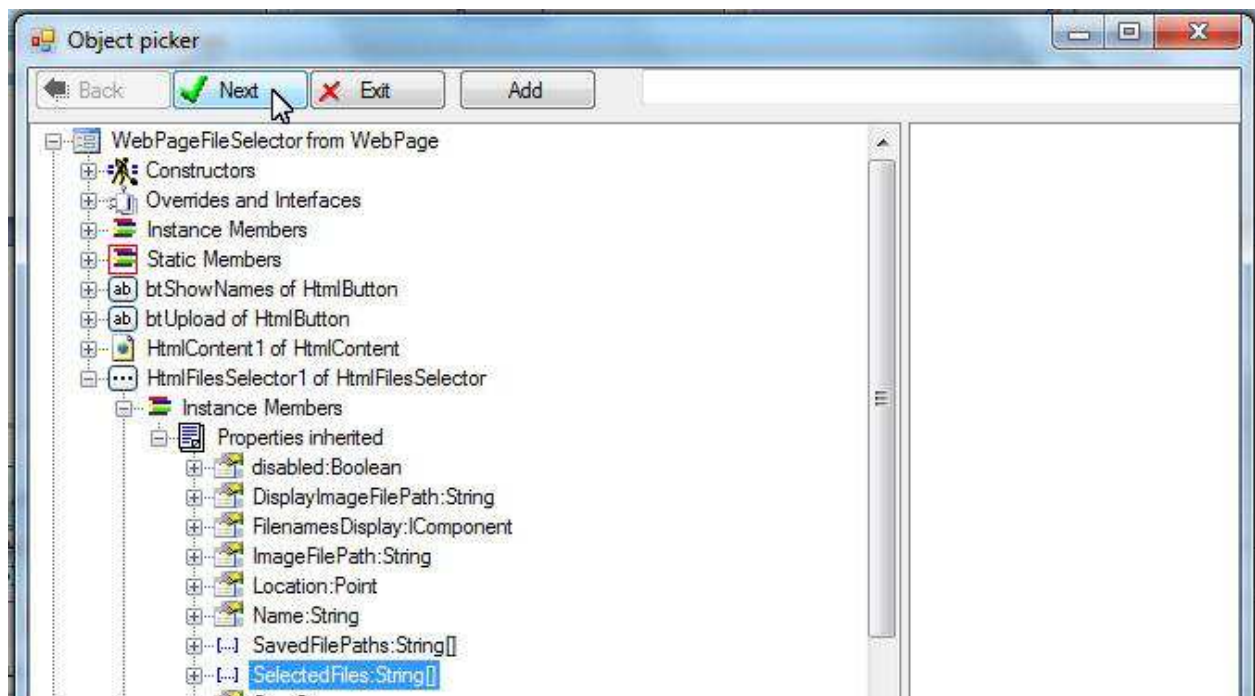
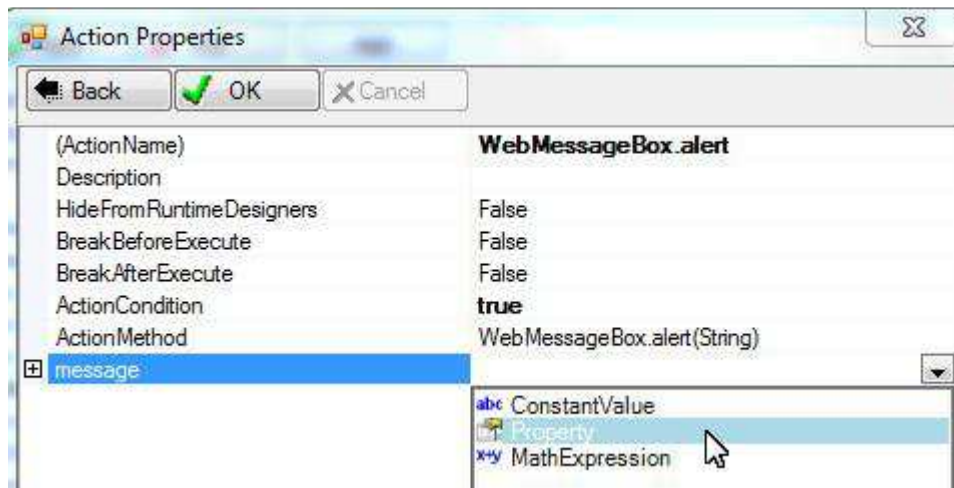
Information about uploaded files

HtmlFileSelector has properties about uploaded files.

Like HtmlFileUploadGroup, it has a SavedFilePaths property, which is an array containing all file URL's for all uploaded files. You may use it as previous HtmlFileUploadGroup sample did.

It has a SelectedFiles property, which is an array containing all file paths of selected files. We use a simple action to show a usage of it.

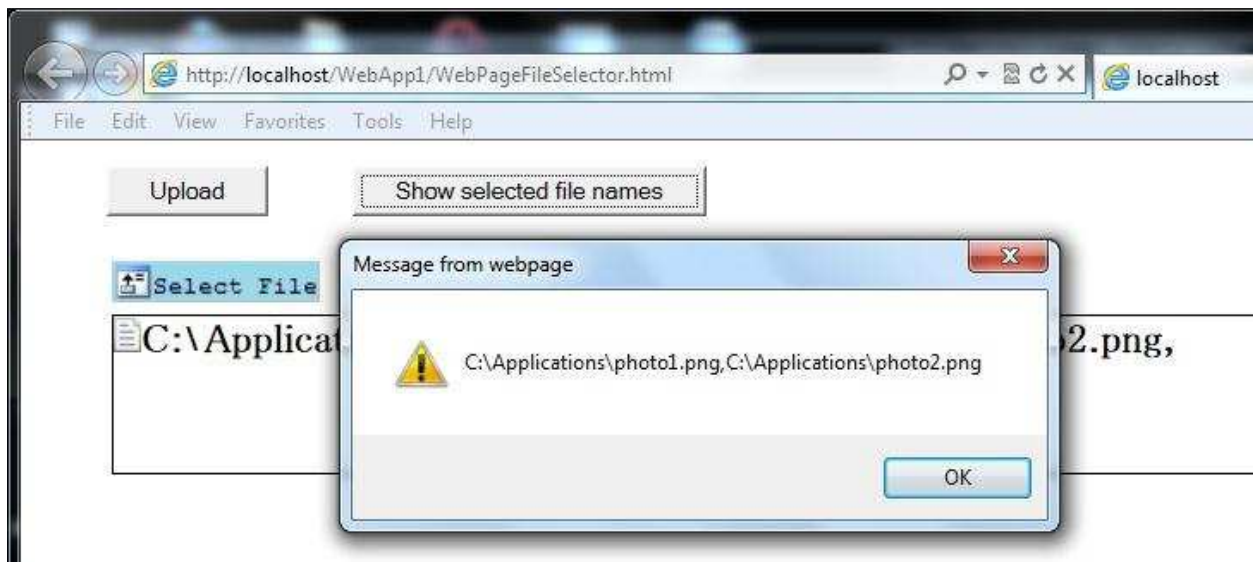




Let's test it. Launch the web application. Select a few files. Click the button:



A message box appears, showing selected file names:



Feedbacks

Please send your feedbacks to support@limnor.com. Thanks!