White Paper
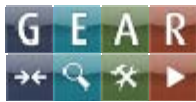# How to Upload/Download a File from MWS to IS

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1 SUMMARY

This document helps the reader to understand the technical details on how to upload/download a binary file from MWS to IS. We will also walk through the code to download the same file from IS to MWS.

2 CAF PORTLET

This use case represents a requirement to upload a binary file like MS Word or MS Excel to IS for further processing. It is represented from screen shots on a local machine but is sufficient to explain the concepts. There are scenarios where we need to move a file from IS to MWS with a pop-up dialog to save/open file.

2.1 Upload file from MWS to IS

1. Create a portlet Page with "File Input" component from palette. This example shows an added command button, which when clicked will do the job of reading the file and uploading it to IS.
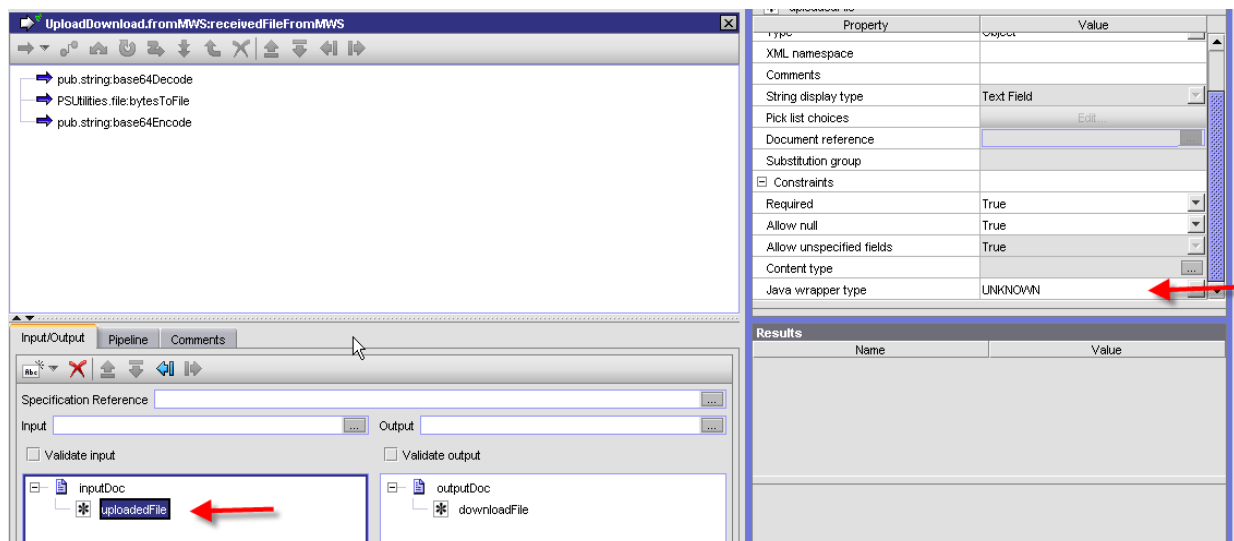

2. Drag and drop a "File Item" into Bindings view and bind the same as the value for "File Input".
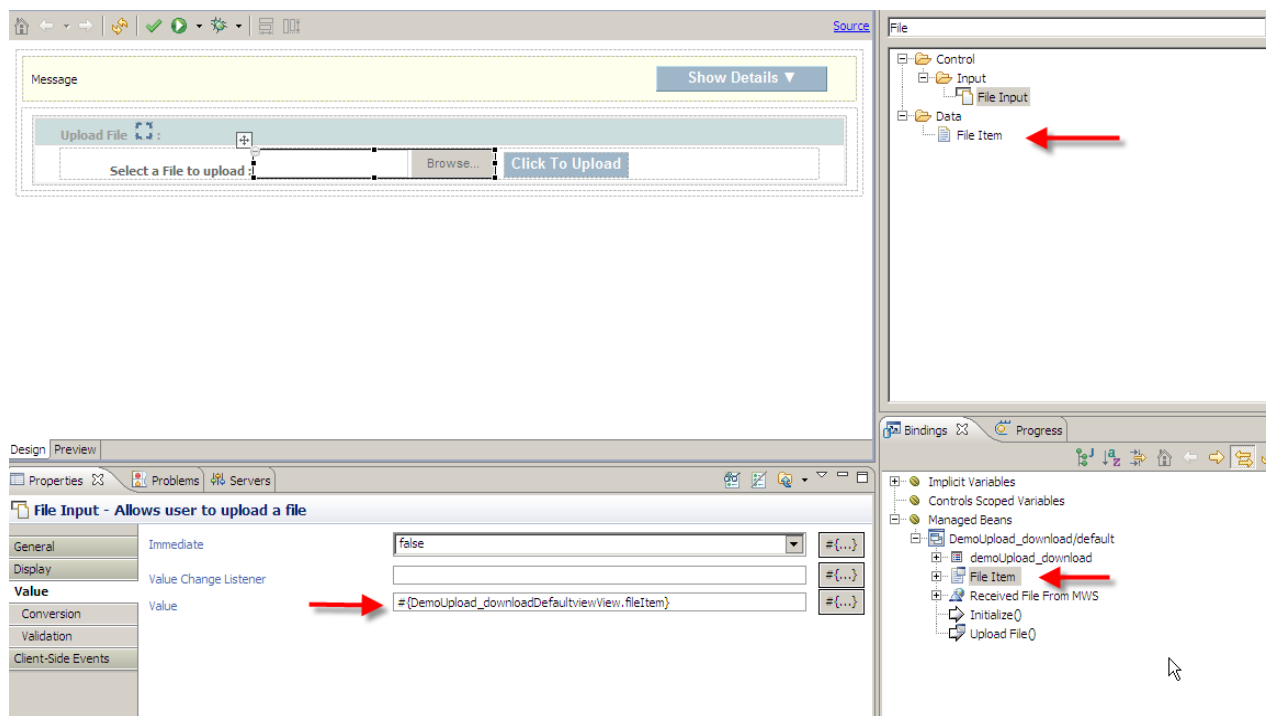
3. Create an action in binds view. For this demonstration I created Upload File() and bound it to the action property of the Command Button.
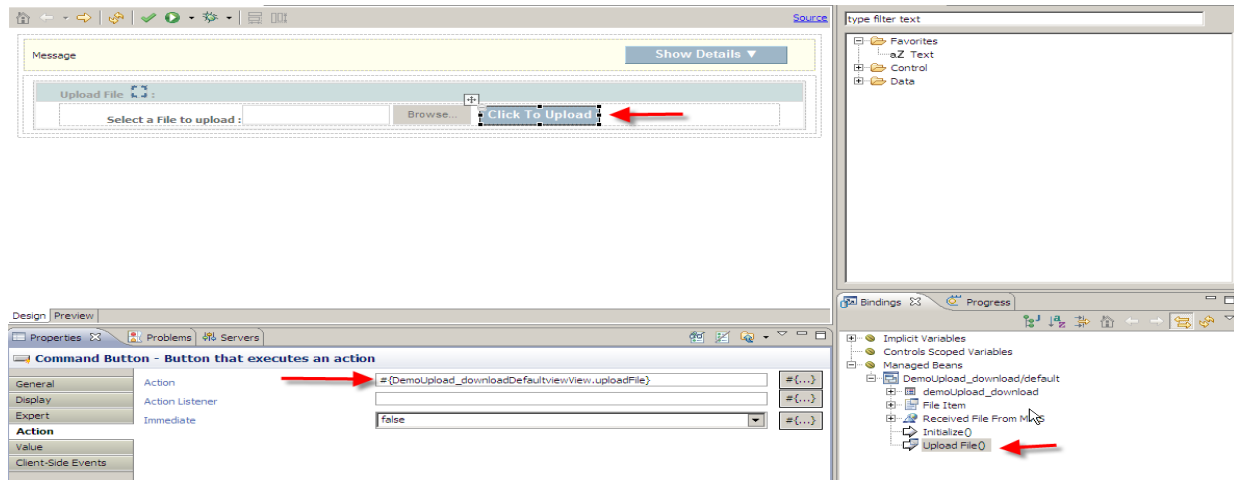
4. Create an IS service with an input variable of "object" data type.

5. Decode the input variable using our public service base64Decode. In the example below, the "value" variable contains the byte array of the File that will be uploaded from MWS. Make sure the file uploaded is intact.
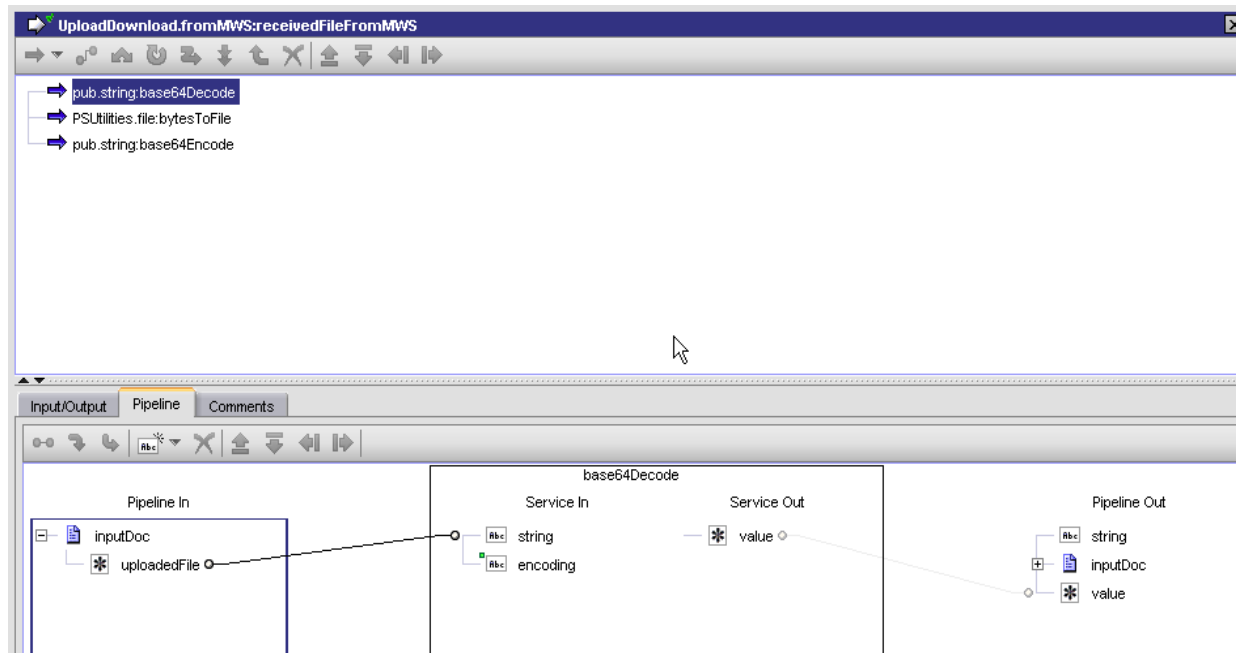
6. Connect to IS from Designer and drag and drop the IS service created above.
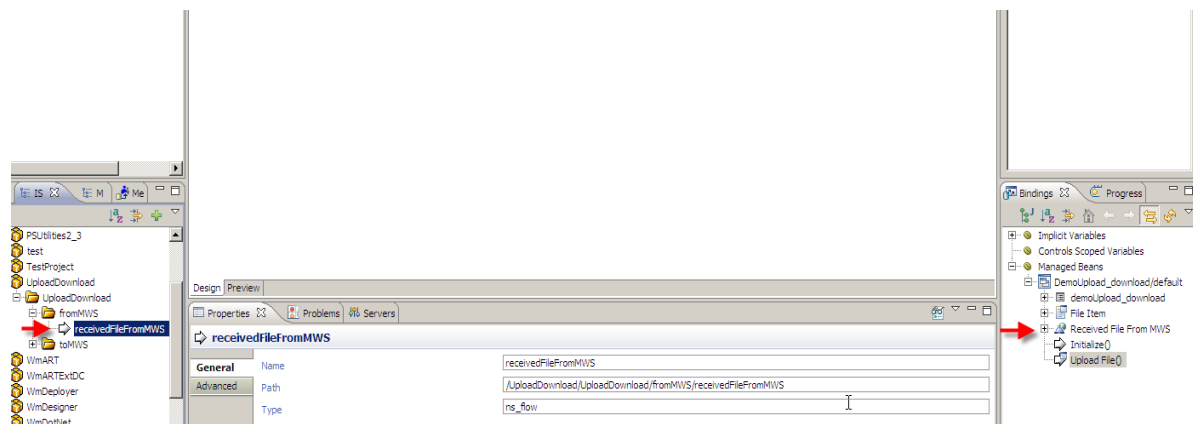
7. Double click the Upload File() function in the binding view to open the java code perspective.

8. File Item object has a built-in service to get the byte array of the File uploaded from UI. Set the byte array as input to IS service as shown below.

```java
public org.apache.commons.fileupload.FileItem getFileItem() {
    if (fileItem == null) {
        //TODO: create/set default value here
    }

    resolveDataBinding(FILEITEM_PROPERTY_BINDINGS, fileItem, "fileItem", false, false);
    return fileItem;
}

public void setFileItem(org.apache.commons.fileupload.FileItem fileItem) {
    this.fileItem = fileItem;
}

public String uploadFile() {
    // TODO: implement java method
    //Use CAF FileInput data type to extract byte array and set it this as input to webservice Input
    getReceivedFileFromMWS().getParameters().getInputDoc().setUploadedFile(getFileItem().get());
    //Refresh webservice
    getReceivedFileFromMWS().refresh();
```
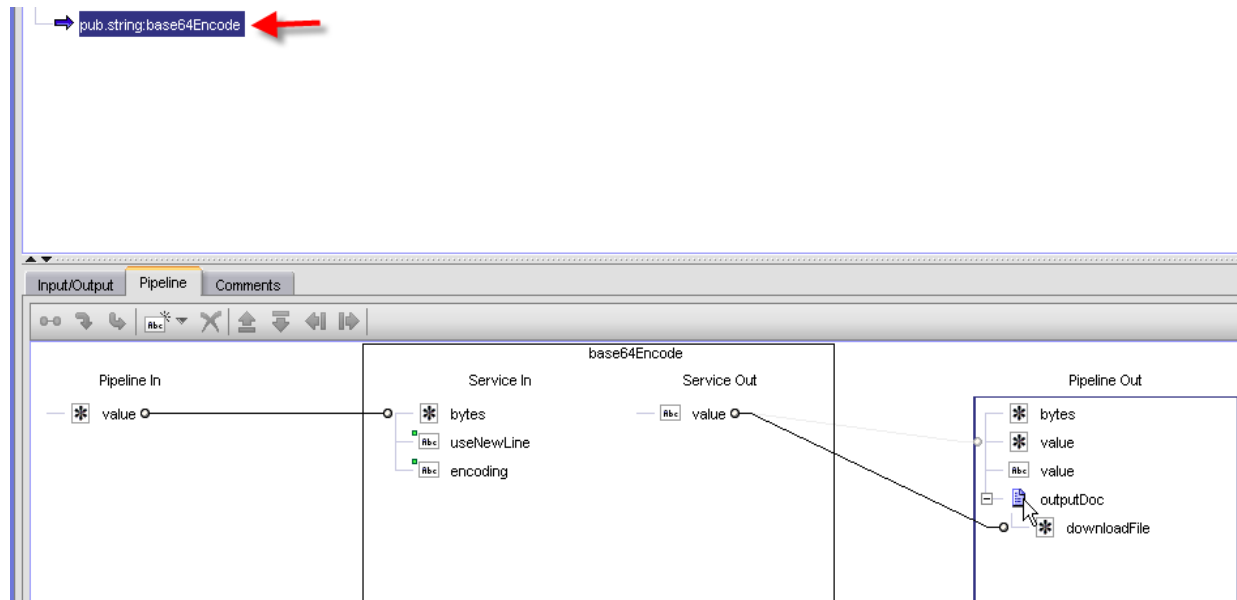
9. Test the code by uploading the file.

2.2 Download file from IS to MWS

1. Read file object in IS and covert to byte[] and encode the object using base64Encode public service.

2. Use the code snippet below to get file object from IS service and decode.

```
//Decode the file object pushed by IS
byte[] fileContents = com.webmethods.rtl.encode.Base64.decode((getReceivedFileFromMWS().getResult().getDownloadFile().toString().getBytes()));
String fileName = "ISFIle.doc";
String contentType = "application/ms-word; charset=UTF-8";
int contentLength = fileContents.length;
boolean forceDownload = true; //force the user to choose what to do with the file
//Call builtin service to push data to browser.
streamFileDataToResponse(new SimpleFileExportBean(fileName,
                                                  contentType,
                                                  contentLength,
                                                  forceDownload,
                                                  fileContents));
```

3. Use built-in SimpleFileExporter bean to push the file to client.

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