



BEA WebLogic Workshop™ Help

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handlingData Samples

This section contains source code for the following samples.

Samples Included in This Section

binaryFlow Samples

complexFormBean Samples

databinding Samples

dataFlow Samples

dropdown Samples

HandlingDataController.jspf Sample

Index.jsp Sample

multipleForms Samples

simpleSubmit Samples

traditional_vs_pageFlow_webApp Samples

xmlBeans Samples

binaryFlow Samples

This section contains source code for the following samples.

Samples Included in This Section

BinaryFlowController.jspf Sample

DetailsDocumentContent.jsp Sample

DocContentDB.jcx Sample

Grid.jsp Sample

InsertDocumentContent.jsp Sample

servlets Samples

ShowImage.jsp Sample

UpdateDocumentContent.jsp Sample

BinaryFlowController.jpf Sample

This topic includes the source code for the BinaryFlowController.jpf Sample.

Sample Location

This sample is located in the following directory in your WebLogic Workshop installation:

BEA_HOME/weblogic81/samples/workshop/SamplesApp/WebApp/handlingData/binaryFlow/

Sample Source Code

```
package handlingData.binaryFlow;
import com.bea.wlw.netui.pageflow.Forward;

import handlingData.binaryFlow.docContentDB;
import java.util.Map;
import java.util.Iterator;
import javax.sql.RowSet;
import java.sql.SQLException;
import com.bea.wlw.netui.databinding.form.RowSetForm;
import com.bea.wlw.netui.pageflow.FormData;

import com.bea.wlw.netui.pageflow.PageFlowController;
import com.bea.wlw.netui.tags.databinding.SortFilterService;
import com.bea.wlw.netui.databinding.form.RowSetFormException;
import com.bea.wlw.netui.databinding.exception.RowIdentifierParseException;
import java.io.ByteArrayInputStream;
import java.io.InputStreamReader;
import java.math.BigDecimal;
import weblogic.jdbc.rowset.OptimisticConflictException;
import weblogic.jdbc.rowset.WLCachedRowSet;
import org.apache.struts.upload.FormFile;

/**
 * The following page flow shows how to handle binary files within a page flow.
 *
 * This page flow was created by:
 * (1) autogenerating a RowSet control from the database table WEBLOGIC.DOCUMENT_CONTENT
 * (2) autogenerating a page flow from that RowSet control
 * (3) modifying the page flow to upload and display images.
 *
 * Image file uploading and database storage was added by:
 * (1) adding a field, "contentUp", to the DatabaseForm FormBean
 * (2) adding a <netui:fileUpload> tag to the insertDocumentContent.jsp page
 * (3) adding a code to the submitInsert method below
 *
 * Image file database retrieval and display was added by:
 * (1) adding a getPHOTO method to the database control to retrieve Blob data.
 * (2) adding the servlet WebApp/servlets/ShowImageServlet.java
 * (3) adding a <servlet> declaration and <servlet-mapping> element to WEB-INF/web.xml
 * (4) adding a showImage.jsp page which uses the image displaying servlet
 * (5) modifying detailsDocumentContent.jsp and grid.jsp to display the image content.
 *
 * @jpf:controller
 * @jpf:view-properties view-properties:
 * <!-- This data is auto-generated. Hand-editing this section is not recommended. -->
```

navhandlingData.html Sample

```
* <view-properties>
* <pageflow-object id="pageflow:/handlingData/binaryFlow/BinaryFlowController.jspf"/>
* <pageflow-object id="action:begin.do">
*   <property value="400" name="x"/>
*   <property value="100" name="y"/>
* </pageflow-object>
* <pageflow-object id="action:insertDocumentContent.do#handlingData.binaryFlow.BinaryFlowContr
*   <property value="160" name="x"/>
*   <property value="300" name="y"/>
* </pageflow-object>
* <pageflow-object id="action:submitInsert.do#handlingData.binaryFlow.BinaryFlowController.Dat
*   <property value="280" name="x"/>
*   <property value="400" name="y"/>
* </pageflow-object>
* <pageflow-object id="action:cancelInsert.do">
*   <property value="160" name="x"/>
*   <property value="500" name="y"/>
* </pageflow-object>
* <pageflow-object id="action:detailsDocumentContent.do#handlingData.binaryFlow.BinaryFlowCont
*   <property value="520" name="x"/>
*   <property value="200" name="y"/>
* </pageflow-object>
* <pageflow-object id="action:showGrid.do">
*   <property value="400" name="x"/>
*   <property value="500" name="y"/>
* </pageflow-object>
* <pageflow-object id="action:updateDocumentContent.do#handlingData.binaryFlow.BinaryFlowContr
*   <property value="400" name="x"/>
*   <property value="300" name="y"/>
* </pageflow-object>
* <pageflow-object id="action:submitUpdate.do#handlingData.binaryFlow.BinaryFlowController.Dat
*   <property value="640" name="x"/>
*   <property value="200" name="y"/>
* </pageflow-object>
* <pageflow-object id="action:cancelUpdate.do">
*   <property value="640" name="x"/>
*   <property value="500" name="y"/>
* </pageflow-object>
* <pageflow-object id="action:deleteDocumentContent.do#handlingData.binaryFlow.BinaryFlowContr
*   <property value="700" name="x"/>
*   <property value="100" name="y"/>
* </pageflow-object>
* <pageflow-object id="action:pageAction.do">
*   <property value="160" name="x"/>
*   <property value="200" name="y"/>
* </pageflow-object>
* <pageflow-object id="action-call:@page:grid.jsp#@@action:updateDocumentContent.do#handlingDa
*   <property value="400,400,400,400" name="elbowsX"/>
*   <property value="244,250,250,256" name="elbowsY"/>
*   <property value="South_1" name="fromPort"/>
*   <property value="North_1" name="toPort"/>
* </pageflow-object>
* <pageflow-object id="action-call:@page:grid.jsp#@@action:detailsDocumentContent.do#handlingD
*   <property value="436,460,460,484" name="elbowsX"/>
*   <property value="192,192,192,192" name="elbowsY"/>
*   <property value="East_1" name="fromPort"/>
*   <property value="West_1" name="toPort"/>
* </pageflow-object>
* <pageflow-object id="action-call:@page:grid.jsp#@@action:pageAction.do@">
*   <property value="364,280,280,196" name="elbowsX"/>
*   <property value="192,192,192,192" name="elbowsY"/>
```

navhandlingData.html Sample

```
* <property value="West_1" name="fromPort"/>
* <property value="East_1" name="toPort"/>
* </pageflow-object>
* <pageflow-object id="action-call:@page:grid.jsp@@action:insertDocumentContent.do#handlingDa
* <property value="364,280,280,196" name="elbowsX"/>
* <property value="203,203,292,292" name="elbowsY"/>
* <property value="West_2" name="fromPort"/>
* <property value="East_1" name="toPort"/>
* </pageflow-object>
* <pageflow-object id="page:grid.jsp">
* <property value="400" name="x"/>
* <property value="200" name="y"/>
* </pageflow-object>
* <pageflow-object id="action-call:@page:insertDocumentContent.jsp@@action:submitInsert.do#ha
* <property value="196,220,220,244" name="elbowsX"/>
* <property value="392,392,392,392" name="elbowsY"/>
* <property value="East_1" name="fromPort"/>
* <property value="West_1" name="toPort"/>
* </pageflow-object>
* <pageflow-object id="action-call:@page:insertDocumentContent.jsp@@action:cancelInsert.do@">
* <property value="South_1" name="fromPort"/>
* <property value="North_1" name="toPort"/>
* <property value="160,160,160,160" name="elbowsX"/>
* <property value="444,450,450,456" name="elbowsY"/>
* </pageflow-object>
* <pageflow-object id="page:insertDocumentContent.jsp">
* <property value="160" name="x"/>
* <property value="400" name="y"/>
* </pageflow-object>
* <pageflow-object id="action-call:@page:detailsDocumentContent.jsp@@action:updateDocumentCon
* <property value="400,400,400,400" name="elbowsX"/>
* <property value="356,350,350,344" name="elbowsY"/>
* <property value="North_1" name="fromPort"/>
* <property value="South_1" name="toPort"/>
* </pageflow-object>
* <pageflow-object id="action-call:@page:detailsDocumentContent.jsp@@action:deleteDocumentCon
* <property value="436,550,550,664" name="elbowsX"/>
* <property value="381,381,92,92" name="elbowsY"/>
* <property value="East_0" name="fromPort"/>
* <property value="West_1" name="toPort"/>
* </pageflow-object>
* <pageflow-object id="action-call:@page:detailsDocumentContent.jsp@@action:showGrid.do@">
* <property value="South_1" name="fromPort"/>
* <property value="North_1" name="toPort"/>
* <property value="400,400,400,400" name="elbowsX"/>
* <property value="444,450,450,456" name="elbowsY"/>
* </pageflow-object>
* <pageflow-object id="page:detailsDocumentContent.jsp">
* <property value="400" name="x"/>
* <property value="400" name="y"/>
* </pageflow-object>
* <pageflow-object id="action-call:@page:updateDocumentContent.jsp@@action:submitUpdate.do#ha
* <property value="640,640,640,640" name="elbowsX"/>
* <property value="256,250,250,244" name="elbowsY"/>
* <property value="North_1" name="fromPort"/>
* <property value="South_1" name="toPort"/>
* </pageflow-object>
* <pageflow-object id="action-call:@page:updateDocumentContent.jsp@@action:cancelUpdate.do@">
* <property value="South_1" name="fromPort"/>
* <property value="North_1" name="toPort"/>
* <property value="640,640,640,640" name="elbowsX"/>
```

navhandlingData.html Sample

```
* <property value="344,400,400,456" name="elbowsY" />
* </pageflow-object>
* <pageflow-object id="page:updateDocumentContent.jsp">
*   <property value="640" name="x" />
*   <property value="300" name="y" />
* </pageflow-object>
* <pageflow-object id="page:/error.jsp">
*   <property value="760" name="x" />
*   <property value="200" name="y" />
* </pageflow-object>
* <pageflow-object id="page:showImage.jsp">
*   <property value="860" name="x" />
*   <property value="200" name="y" />
* </pageflow-object>
* <pageflow-object id="forward:path#grid#grid.jsp#@action:begin.do@">
*   <property value="South_1" name="fromPort" />
*   <property value="North_1" name="toPort" />
*   <property value="grid" name="label" />
*   <property value="400,400,400,400" name="elbowsX" />
*   <property value="144,150,150,156" name="elbowsY" />
* </pageflow-object>
* <pageflow-object id="forward:path#insert#insertDocumentContent.jsp#@action:insertDocumentCon
*   <property value="160,160,160,160" name="elbowsX" />
*   <property value="344,350,350,356" name="elbowsY" />
*   <property value="South_1" name="fromPort" />
*   <property value="North_1" name="toPort" />
*   <property value="insert" name="label" />
* </pageflow-object>
* <pageflow-object id="forward:path#inserted#detailsDocumentContent.jsp#@action:submitInsert.d
*   <property value="316,340,340,364" name="elbowsX" />
*   <property value="392,392,381,381" name="elbowsY" />
*   <property value="East_1" name="fromPort" />
*   <property value="West_0" name="toPort" />
*   <property value="inserted" name="label" />
* </pageflow-object>
* <pageflow-object id="forward:path#canceled#begin.do#@action:cancelInsert.do@">
*   <property value="South_1" name="fromPort" />
*   <property value="West_1" name="toPort" />
*   <property value="canceled" name="label" />
*   <property value="160,80,80" name="elbowsX" />
*   <property value="580,580,92" name="elbowsY" />
* </pageflow-object>
* <pageflow-object id="forward:path#view#detailsDocumentContent.jsp#@action:detailsDocumentCon
*   <property value="484,460,460,436" name="elbowsX" />
*   <property value="192,192,392,392" name="elbowsY" />
*   <property value="West_1" name="fromPort" />
*   <property value="East_1" name="toPort" />
*   <property value="view" name="label" />
* </pageflow-object>
* <pageflow-object id="forward:path#showGrid#begin.do#@action:showGrid.do@">
*   <property value="South_1" name="fromPort" />
*   <property value="West_1" name="toPort" />
*   <property value="showGrid" name="label" />
*   <property value="400,80,80" name="elbowsX" />
*   <property value="580,580,92" name="elbowsY" />
* </pageflow-object>
* <pageflow-object id="forward:path#update#updateDocumentContent.jsp#@action:updateDocumentCon
*   <property value="436,520,520,604" name="elbowsX" />
*   <property value="292,292,292,292" name="elbowsY" />
*   <property value="East_1" name="fromPort" />
*   <property value="West_1" name="toPort" />
```

navhandlingData.html Sample

```

*   <property value="update" name="label"/>
* </pageflow-object>
* <pageflow-object id="forward:path#updated#detailsDocumentContent.do#@action:submitUpdate.do#"
*   <property value="604,580,580,556" name="elbowsX"/>
*   <property value="192,192,192,192" name="elbowsY"/>
*   <property value="West_1" name="fromPort"/>
*   <property value="East_1" name="toPort"/>
*   <property value="updated" name="label"/>
* </pageflow-object>
* <pageflow-object id="forward:path#canceled#begin.do#@action:cancelUpdate.do#">
*   <property value="South_1" name="fromPort"/>
*   <property value="West_1" name="toPort"/>
*   <property value="canceled" name="label"/>
*   <property value="640,80,80" name="elbowsX"/>
*   <property value="580,580,92" name="elbowsY"/>
* </pageflow-object>
* <pageflow-object id="forward:path#deleted#begin.do#@action:deleteDocumentContent.do#handling
*   <property value="664,550,550,436" name="elbowsX"/>
*   <property value="92,92,92,92" name="elbowsY"/>
*   <property value="West_1" name="fromPort"/>
*   <property value="East_1" name="toPort"/>
*   <property value="deleted" name="label"/>
* </pageflow-object>
* <pageflow-object id="forward:path#page#grid.jsp#@action:pageAction.do@">
*   <property value="196,280,280,364" name="elbowsX"/>
*   <property value="192,192,192,192" name="elbowsY"/>
*   <property value="East_1" name="fromPort"/>
*   <property value="West_1" name="toPort"/>
*   <property value="page" name="label"/>
* </pageflow-object>
* <pageflow-object id="control:handlingData.binaryFlow.docContentDB#myControl">
*   <property value="28" name="x"/>
*   <property value="34" name="y"/>
* </pageflow-object>
* <pageflow-object id="formbeanprop:handlingData.binaryFlow.BinaryFlowController.DatabaseForm#
* <pageflow-object id="formbeanprop:handlingData.binaryFlow.BinaryFlowController.DatabaseForm#
* <pageflow-object id="formbeanprop:handlingData.binaryFlow.BinaryFlowController.DatabaseForm#
* <pageflow-object id="formbeanprop:handlingData.binaryFlow.BinaryFlowController.DatabaseForm#
* <pageflow-object id="formbeanprop:handlingData.binaryFlow.BinaryFlowController.DatabaseForm#
* <pageflow-object id="formbeanprop:handlingData.binaryFlow.BinaryFlowController.DatabaseForm#
* <pageflow-object id="formbeanprop:handlingData.binaryFlow.BinaryFlowController.DatabaseForm#
* <pageflow-object id="formbeanprop:handlingData.binaryFlow.BinaryFlowController.DatabaseForm#
* <pageflow-object id="formbeanprop:handlingData.binaryFlow.BinaryFlowController.DatabaseForm#
* <pageflow-object id="formbeanprop:handlingData.binaryFlow.BinaryFlowController.DatabaseForm#
* <pageflow-object id="formbeanprop:handlingData.binaryFlow.BinaryFlowController.DatabaseForm#
* <pageflow-object id="formbeanprop:handlingData.binaryFlow.BinaryFlowController.DatabaseForm#
* <pageflow-object id="formbeanprop:handlingData.binaryFlow.BinaryFlowController.DatabaseForm#
* <pageflow-object id="formbean:handlingData.binaryFlow.BinaryFlowController.DatabaseForm"/>
* <pageflow-object id="formbeanprop:handlingData.binaryFlow.BinaryFlowController.ViewImageForm#
* <pageflow-object id="formbean:handlingData.binaryFlow.BinaryFlowController.ViewImageForm"/>
* </view-properties>
* ::
* @jpf:catch type="RowSetFormException" method="rowSetFormExceptionHandler"
* @jpf:catch type="java.sql.SQLException" method="sqlExceptionHandler"
* @jpf:catch type="java.lang.reflect.UndeclaredThrowableException" method="exceptionHandler"
* @jpf:catch type="RowIdentifierParseException" method="rowIdentifierParseExceptionHandler"
* @jpf:catch type="OptimisticConflictException" method="ocExceptionHandler"
*/
public class BinaryFlowController extends PageFlowController
{
    /**
     * This is the control used to generate this pageflow
     * @common:control
     */

```

navhandlingData.html Sample

```
private docContentDB myControl;

// Ensures that the image displaying servlet compiles at runtime.
private transient handlingData.binaryFlow.servlets.ShowImageServlet _sis;

private transient RowSet allRows;
private transient SortFilterService sortFilterService;
private transient String gridName = "binaryFlowControllerGridName";
private transient RowSet lastRowFetched;

/**
 * This method represents the point of entry into the page group
 * @jpf:action
 * @jpf:forward name="grid" path="grid.jsp"
 * @jpf:catch method="exceptionHandler" type="java.lang.Exception"
 */
public Forward begin()
    throws Exception
{
    sortFilterService = SortFilterService.getInstance(getRequest());
    allRows = myControl.getAllDocumentContent(getSortFilterService().getDatabaseFilter(getRequest()));
    return new Forward("grid");
}

/**
 * @jpf:action
 * @jpf:forward name="insert" path="insertDocumentContent.jsp"
 */
public Forward insertDocumentContent(DatabaseForm form)
    throws Exception
{
    return new Forward("insert");
}

/**
 * @jpf:action
 * @jpf:forward name="inserted" path="detailsDocumentContent.jsp"
 */
public Forward submitInsert(DatabaseForm aDatabaseForm)
    throws Exception
{
    // The convertUploadedContentToContent method extracts the uploaded image content
    // and prepares it for insertion into the database.
    aDatabaseForm = convertUploadedContentToContent(aDatabaseForm);

    getSortFilterService().reset();
    RowSet row = myControl.detailsDocumentContentTemplate();

    // Generate a new primary key value for the record about to be inserted.
    RowSet keyRS = myControl.getNewKey();
    keyRS.first();
    row.updateInt(1, keyRS.getInt(1));

    // Set default values for the required database fields, if the user has not specified values
    if(aDatabaseForm.getContainment_of_content() == null)
        aDatabaseForm.setContainment_of_content(new Integer(1));
    if(aDatabaseForm.getVersioned_object_id() == null)
        aDatabaseForm.setVersioned_object_id(new Integer(1));
    if(aDatabaseForm.getContent_type() == null)
        aDatabaseForm.setContent_type(new Integer(1));
}
```

navhandlingData.html Sample

```
if(aDatabaseForm.getObject_type() == "")
    aDatabaseForm.setObject_type("1");
if(aDatabaseForm.getFile_last_modified() == null)
    aDatabaseForm.setFile_last_modified(new java.sql.Timestamp(new java.util.Date().get

// The remaining code is autogenerated.
aDatabaseForm.applyInsertValuesToRowSet(row);
RowSet var = myControl.insertDocumentContent(row);
aDatabaseForm.applyValuesToForm(var);

lastRowFetched = myControl.getInserted();
DatabaseForm form = new DatabaseForm();
form.applyValuesToForm(lastRowFetched);

getSortFilterService().addRowIdentifier(getGridName(),"id", form.getId() );

return new Forward("inserted",form);
}

/**
 * @jpf:action
 * @jpf:forward name="canceled" path="begin.do"
 */
public Forward cancelInsert()
    throws Exception
{
    return new Forward("canceled");
}

/**
 * @jpf:action
 * @jpf:forward name="view" path="detailsDocumentContent.jsp"
 */
public Forward detailsDocumentContent(DatabaseForm form)
    throws Exception
{
    lastRowFetched = getCurrentRow();
    form.applyValuesToForm(lastRowFetched);

    return new Forward("view",form);
}

/**
 * @jpf:action
 * @jpf:forward name="showGrid" path="begin.do"
 */
public Forward showGrid()
    throws Exception
{
    return new Forward("showGrid");
}

/**
 * @jpf:action
 * @jpf:forward name="update" path="updateDocumentContent.jsp"
 */
public Forward updateDocumentContent(DatabaseForm form)
    throws Exception
{
    lastRowFetched = getCurrentRow();
    form.applyValuesToForm(lastRowFetched);
```

navhandlingData.html Sample

```
        return new Forward("update",form);
    }

    /**
     * @jpf:action
     * @jpf:forward name="updated" path="detailsDocumentContent.do"
     */
    public Forward submitUpdate(DatabaseForm aDatabaseForm)
        throws Exception
    {
        // The convertUploadedContentToContent method extracts the uploaded image content
        // and prepares it for insertion into the database.
        aDatabaseForm = convertUploadedContentToContent(aDatabaseForm);

        // The remaining code is autogenerated.
        if(lastRowFetched == null)
        {
            System.err.println("There is no last row to manipulate.");
            return new Forward("updated");
        }
        getSortFilterService().reset();
        RowSet row = getLastRowFetched();

        aDatabaseForm.applyUpdateValuesToRowSet(row);
        RowSet var = myControl.updateDocumentContent(row);
        lastRowFetched = null;

        return new Forward("updated");
    }

    /**
     * @jpf:action
     * @jpf:forward name="canceled" path="begin.do"
     */
    public Forward cancelUpdate()
        throws Exception
    {
        return new Forward("canceled");
    }

    /**
     * @jpf:action
     * @jpf:forward name="deleted" path="begin.do"
     */
    public Forward deleteDocumentContent(DatabaseForm aDatabaseForm)
        throws Exception
    {
        getSortFilterService().reset();

        RowSet row = getLastRowFetched();

        if( row == null )
        {
            System.err.println("There is no last row to manipulate.");
            return new Forward("deleted");
        }
        row.absolute(1);
        row.deleteRow();

        lastRowFetched = null;
    }
}
```


navhandlingData.html Sample

```
        myControl.deleteDocumentContent(row);
        return new Forward("deleted");
    }

    /**
     * @jpf:action
     * @jpf:forward name="page" path="grid.jsp"
     */
    public Forward pageAction()
        throws Exception
    {
        sortFilterService = SortFilterService.getInstance(getRequest());
        return new Forward("page");
    }

    //
    // Utility methods
    //

    // This method extracts data from the uploaded file
    // and uses that data to populate the DatabaseForm.
    public DatabaseForm convertUploadedContentToContent(DatabaseForm aDatabaseForm)
        throws Exception
    {
        // Get the size of the uploaded file.
        int filesize = (aDatabaseForm.contentUp.getFileSize());

        // Make a byte Array big enough to fit the file.
        byte[] byteArr = new byte[filesize];

        //Create an input stream to read the uploaded file.
        ByteArrayInputStream bytein = new ByteArrayInputStream(aDatabaseForm.contentUp.getFileD

        // Load the input stream into the byte Array.
        bytein.read(byteArr);

        // Close the input stream.
        bytein.close();

        // Load the byte[] into the FormBean field corresponding to the database table field (C
        aDatabaseForm.setContent(byteArr);

        // Set the file name
        aDatabaseForm.setName(aDatabaseForm.contentUp.getFileName());
        // Set the file type
        aDatabaseForm.setObject_type(aDatabaseForm.contentUp.getContent_type());
        // Set the file size
        aDatabaseForm.setFile_size(BigDecimal.valueOf((long)filesize));

        return aDatabaseForm;
    }

    private RowSet getCurrentRow()
    {
        String columnName = null;
        try
        {
            columnName = "id";
        }
    }
}
```

navhandlingData.html Sample

```
Integer pk0 = new Integer(SortFilterService.decodeUniqueIdentifier(getRequest(), ge
lastRowFetched = myControl.detailsDocumentContent(pk0);

int rowCount = (( WLCachedRowSet ) lastRowFetched ).size();
if(rowCount == 1)
    return lastRowFetched;
else throw new IllegalStateException("The RowSet for the primary key is not valid")
}
catch(Exception e)
{
    RowIdentifierParseException ripe =
        new RowIdentifierParseException
            ("An exception occurred parsing the row identifier " + columnName + " f
    throw ripe;
}
}

protected RowSet getLastRowFetched()
    throws Exception
{
    String columnName = null;
    if(lastRowFetched != null)
    {
        columnName = "id";
        Integer pk0 = new Integer(SortFilterService.decodeUniqueIdentifier(getRequest(), ge

        lastRowFetched.absolute(1);

        if( pk0.equals(lastRowFetched.getObject("id")))
        {
            return lastRowFetched;
        }
        else
        {
            return getCurrentRow();
        }
    }
    else
    {
        return getCurrentRow();
    }
}

/**
 * @jpf:exception-handler
 * @jpf:forward name="errorPage" path="/error.jsp"
 */
protected Forward sqlExceptionHandler(SQLException ex,String actionName,String message,Form
{
    // log sql exception
    String displayMessage = "An exception occurred in the action " + actionName;
    getRequest().setAttribute("errorMessage", displayMessage);
    return new Forward("errorPage");
}

/**
 * @jpf:exception-handler
 * @jpf:forward name="errorPage" path="/error.jsp"
```

navhandlingData.html Sample

```
*/
protected Forward exceptionHandler(java.lang.Exception ex,String actionName,String message,
{
    // log general exception
    String displayMessage = "An exception occurred in the action " + actionName;
    getRequest().setAttribute("errorMessage", displayMessage);
    return new Forward("errorPage");
}

/**
 * @jpf:exception-handler
 * @jpf:forward name="errorPage" path="/error.jsp"
 */
protected Forward rowSetFormExceptionHandler(RowSetFormException ex,String actionName,String message,
{
    // log rowset exception
    String displayMessage = "An exception occurred in the action " + actionName;
    getRequest().setAttribute("errorMessage", displayMessage);
    return new Forward("errorPage");
}

/**
 * @jpf:exception-handler
 * @jpf:forward name="errorPage" path="/error.jsp"
 */
protected Forward rowIdentifierParseExceptionHandler(RowIdentifierParseException ex,String actionName,String message,
{
    // log rowset exception
    String displayMessage = "An exception occurred in the action " + actionName;
    getRequest().setAttribute("errorMessage", displayMessage);
    return new Forward("errorPage");
}

/**
 * @jpf:exception-handler
 * @jpf:forward name="errorPage" path="/error.jsp"
 */
protected Forward ocExceptionHandler(OptimisticConflictException ex,String actionName,String message,
{
    // log opimistic concurrency exception
    String displayMessage = "A version conflict occurs when the underlying data in the data
    getRequest().setAttribute("errorMessage", displayMessage);
    return new Forward("errorPage");
}

public SortFilterService getSortFilterService()
{
    return sortFilterService;
}

protected void beforeAction()
{
    if(getSortFilterService() == null)
    {
        sortFilterService = SortFilterService.getInstance(getRequest());
    }
}
```

navhandlingData.html Sample

```
        sortFilterService.updateRowId(getRequest());
    }

    public String getGridName()
    {
        return gridName;
    }

    public RowSet getAllRows()
    {
        return allRows;
    }

    /**
     * Database form class
     * This class is tailored after the db control specified during generation
     */
    public static class DatabaseForm extends RowSetForm
    {

        public DatabaseForm()
        {
            super();
        }

        private Integer id;
        private Integer versioned_object_id;
        private String object_type;
        private String name;
        private Integer content_type;
        private Integer containment_of_content;
        private FormFile contentUp;
        private byte[] content;
        private java.math.BigDecimal file_size;
        private java.sql.Timestamp file_last_modified;

        public Integer getId()
        {
            return id;
        }

        public void setId(Integer newOne)
        {
            registerChange("id");
            this.id = newOne;
        }

        public Integer getVersioned_object_id()
        {
            return versioned_object_id;
        }

        public void setVersioned_object_id(Integer newOne)
        {
            registerChange("versioned_object_id");
            this.versioned_object_id = newOne;
        }
    }
}
```

navhandlingData.html Sample

```
}

public String getObject_type()
{
    return object_type;
}

public void setObject_type(String newOne)
{
    registerChange("object_type");
    this.object_type = newOne;
}

public String getName()
{
    return name;
}

public void setName(String newOne)
{
    registerChange("name");
    this.name = newOne;
}

public Integer getContent_type()
{
    return content_type;
}

public void setContent_type(Integer newOne)
{
    registerChange("content_type");
    this.content_type = newOne;
}

public Integer getContainment_of_content()
{
    return containment_of_content;
}

public void setContainment_of_content(Integer newOne)
{
    registerChange("containment_of_content");
    this.containment_of_content = newOne;
}

public FormFile getContentUp()
{
    return contentUp;
}

public void setContentUp(FormFile newOne)
{
    //registerChange("content");
    this.contentUp = newOne;
}

public byte[] getContent()
{
    return content;
}
```

navhandlingData.html Sample

```
public void setContent(byte[] newOne)
{
    registerChange("content");
    this.content = newOne;
}

public java.math.BigDecimal getFile_size()
{
    return file_size;
}

public void setFile_size(java.math.BigDecimal newOne)
{
    registerChange("file_size");
    this.file_size = newOne;
}

public java.sql.Timestamp getFile_last_modified()
{
    return file_last_modified;
}

public void setFile_last_modified(java.sql.Timestamp newOne)
{
    registerChange("file_last_modified");
    this.file_last_modified = newOne;
}
}

/**
 * FormData get and set methods may be overwritten by the Form Bean editor.
 */
public static class ViewImageForm extends FormData
{
    private byte[] imageByArr;

    public void setImageByArr(byte[] imageByArr)
    {
        this.imageByArr = imageByArr;
    }

    public byte[] getImageByArr()
    {
        // For data binding to be able to post data back, complex types and
        // arrays must be initialized to be non-null.
        if(this.imageByArr == null || this.imageByArr.length == 0)
        {
            this.imageByArr = new byte[1];
        }

        return this.imageByArr;
    }
}
}
```

DetailsDocumentContent.jsp Sample

This topic includes the source code for the DetailsDocumentContent.jsp Sample.

Sample Location

This sample is located in the following directory in your WebLogic Workshop installation:

BEA_HOME/weblogic81/samples/workshop/SamplesApp/WebApp/handlingData/binaryFlow/

Sample Source Code

```
<%@ page language="java" contentType="text/html; charset=UTF-8"%>
<%@ taglib uri="netui-tags-databinding.tld" prefix="netui-data"%>
<%@ taglib uri="netui-tags-html.tld" prefix="netui"%>
<%@ taglib uri="netui-tags-template.tld" prefix="netui-template"%>
    <%
        response.setHeader( "Pragma", "No-cache" );
        response.setHeader( "Cache-Control", "no-cache" );
        response.setHeader( "Expires", "1" );
    %>
<netui-template:template templatePage="/resources/jsp/grid_template.jsp">
    <netui-template:setAttribute value="test - Details View" name="title"/>
    <netui-template:section name="bodySection">
        <blockquote>
            <span class="pagehead">
                <netui:label value="Details View"/>
            </span>
            <br/>
            <br/>
            <table>
                <tr class="tablebody">
                    <td>Id:</td>
                    <td>
                        <netui:content value="{request.databaseForm.id}"/>
                    </td>
                </tr>
                <tr class="tablebody">
                    <td>Versioned_object_id:</td>
                    <td>
                        <netui:content value="{request.databaseForm.versioned_object_id}"/>
                    </td>
                </tr>
                <tr class="tablebody">
                    <td>Object_type:</td>
                    <td>
                        <netui:content value="{request.databaseForm.object_type}"/>
                    </td>
                </tr>
                <tr class="tablebody">
                    <td>Name:</td>
                    <td>
                        <netui:content value="{request.databaseForm.name}"/>
                    </td>
                </tr>
                <tr class="tablebody">
                    <td>Content_type:</td>
                </tr>
            </table>
        </blockquote>
    </netui-template:section>
</netui-template:template>
```

navhandlingData.html Sample

```

        <td>
            <netui:content value="{request.databaseForm.content_type}" />
        </td>
    </tr>
    <tr class="tablebody">
        <td>Containment_of_content:</td>
        <td>
            <netui:content value="{request.databaseForm.containment_of_content}" />
        </td>
    </tr>
    <tr class="tablebody">
        <td>Content:</td>
        <td>
            <netui:image src="/WebApp/handlingData/binaryFlow/showImage.jsp?photoid={request.databaseForm.photoid}" />
        </td>
    </tr>
    <tr class="tablebody">
        <td>File_size:</td>
        <td>
            <netui:content value="{request.databaseForm.file_size}" />
        </td>
    </tr>
    <tr class="tablebody">
        <td>File_last_modified:</td>
        <td>
            <netui:content value="{request.databaseForm.file_last_modified}" />
        </td>
    </tr>
</table>
<br />
<netui:imageAnchor action="updateDocumentContent" border="0" src="/WebApp/resources/images/update.gif" />
    <netui:parameterMap map="{pageFlow.sortFilterService.rowIdQueryParamsMap}" />
</netui:imageAnchor>
    <br />
<netui:imageAnchor action="deleteDocumentContent" border="0" src="/WebApp/resources/images/delete.gif" />
    <netui:parameterMap map="{pageFlow.sortFilterService.rowIdQueryParamsMap}" />
</netui:imageAnchor>
    <br />
<netui:imageAnchor action="showGrid" border="0" src="/WebApp/resources/images/grid.gif" />
    <netui:parameterMap map="{pageFlow.sortFilterService.queryParamsMap}" />
</netui:imageAnchor>
</blockquote>
</netui-template:section>
<netui-template:section name="navBackSection">
    <hr>
    <p><netui:anchor href="/WebApp/handlingData/handlingDataController.jspf">
        Back to Handling Data Samples</netui:anchor>
    </p>
</netui-template:section>
</netui-template:template>

```


DocContentDB.jcx Sample

This topic includes the source code for the DocContentDB.jcx Sample.

Sample Location

This sample is located in the following directory in your WebLogic Workshop installation:

BEA_HOME/weblogic81/samples/workshop/SamplesApp/WebApp/handlingData/binaryFlow/

Sample Source Code

```
package handlingData.binaryFlow;
import java.sql.SQLException;
import javax.sql.RowSet;
import com.bea.control.DatabaseControl;
import com.bea.control.DatabaseFilter;
import com.bea.control.ControlExtension;

/**
 * @jc:connection data-source-jndi-name="cgDataSource"
 * @common:schema file="#rowset-schemas" inline="true"
 * @common:define name="rowset-schemas" value::
 *   <xsd:schema targetNamespace="java:///binaryDBtest" xmlns="java:///binaryDBtest" xmlns:xsd="http://www.w3.org/2001/XMLSchema-1" >
 *     <xsd:element name="DOCUMENT_CONTENTRowSet" wld:DefaultNamespace="java:///binaryDBtest" wld:DatabaseProductName="PointBase" >
 *       <xsd:complexType>
 *         <xsd:choice maxOccurs="unbounded">
 *           <xsd:element name="DOCUMENT_CONTENTRow" wld:DatabaseProductName="PointBase">
 *             <xsd:complexType>
 *               <xsd:sequence>
 *                 <xsd:element name="ID" type="xsd:int" wld:JDBCType="INTEGER" minOccurs="0" wld:Priority="1" />
 *                 </xsd:element>
 *                 <xsd:element name="VERSIONED_OBJECT_ID" type="xsd:int" wld:JDBCType="INTEGER" minOccurs="0" wld:Priority="2" />
 *                 </xsd:element>
 *                 <xsd:element name="OBJECT_TYPE" type="xsd:string" wld:JDBCType="VARCHAR" minOccurs="0" wld:Priority="3" />
 *                 </xsd:element>
 *                 <xsd:element name="NAME" type="xsd:string" wld:JDBCType="VARCHAR" minOccurs="0" wld:Priority="4" />
 *                 </xsd:element>
 *                 <xsd:element name="CONTENT_TYPE" type="xsd:int" wld:JDBCType="INTEGER" minOccurs="0" wld:Priority="5" />
 *                 </xsd:element>
 *                 <xsd:element name="CONTAINMENT_OF_CONTENT" type="xsd:int" wld:JDBCType="INTEGER" minOccurs="0" wld:Priority="6" />
 *                 </xsd:element>
 *                 <xsd:element name="CONTENT" type="xsd:base64Binary" wld:JDBCType="LONGVARBINARY" minOccurs="0" wld:Priority="7" />
 *                 </xsd:element>
 *                 <xsd:element name="FILE_SIZE" type="xsd:decimal" wld:JDBCType="DECIMAL" minOccurs="0" wld:Priority="8" />
 *                 </xsd:element>
 *                 <xsd:element name="FILE_LAST_MODIFIED" type="xsd:dateTime" wld:JDBCType="TIMESTAMP" minOccurs="0" wld:Priority="9" />
 *                 </xsd:element>
 *               </xsd:sequence>
 *             <xsd:anyAttribute namespace="http://www.bea.com/2002/10/weblogicdata" processContents="lax" />
 *             </xsd:anyAttribute>
 *           </xsd:complexType>
 *         </xsd:choice>
 *       </xsd:complexType>
 *     </xsd:element>
 *   </xsd:schema>::
```

navhandlingData.html Sample

```
*
*/
public interface docContentDB extends ControlExtension, DatabaseControl
{
    /** Disable default Java serialization */
    public final static long serialVersionUID = 1L;

    /**
     * @jc:sql command-type="grid"
     *   rowset-name="DOCUMENT_CONTENTRowSet"
     *   max-rows="1000"
     *   statement::
     *     SELECT ID,VERSIONED_OBJECT_ID,OBJECT_TYPE,NAME,CONTENT_TYPE,CONTAINMENT_OF_CONTENT,CON
     *     ::
     */
    public RowSet getAllDocumentContent(DatabaseFilter filter)
        throws SQLException;

    /**
     * @jc:sql command-type="detail"
     *   rowset-name="DOCUMENT_CONTENTRowSet"
     *   statement::
     *     SELECT ID,VERSIONED_OBJECT_ID,OBJECT_TYPE,NAME,CONTENT_TYPE,CONTAINMENT_OF_CONTENT,CON
     *     ::
     */
    public RowSet detailsDocumentContent(Integer x)
        throws SQLException;

    /**
     * @jc:sql
     *   statement::
     *     SELECT CONTENT FROM WEBLOGIC.DOCUMENT_CONTENT WHERE ID = {x}
     *     ::
     */
    public java.sql.Blob getPHOTO(int x)
        throws SQLException;

    /**
     * @jc:sql
     *   statement::
     *     SELECT CONTENT FROM WEBLOGIC.DOCUMENT_CONTENT WHERE ID = {x}
     *     ::
     */
    public java.sql.Blob getPHOTOString(String x)
        throws SQLException;

    /**
     * @jc:sql command-type="update"
     *   rowset-name="DOCUMENT_CONTENTRowSet"
     */
    public RowSet updateDocumentContent(RowSet changedRs)
        throws SQLException;

    /**
     * @jc:sql command-type="delete"
     *   rowset-name="DOCUMENT_CONTENTRowSet"
     */
    public void deleteDocumentContent(RowSet oldRs)
        throws SQLException;

    /**
     * @jc:sql command-type="templateRow"
     *   rowset-name="DOCUMENT_CONTENTRowSet"
     */
}
```

navhandlingData.html Sample

```
*/
public RowSet detailsDocumentContentTemplate()
    throws SQLException;

/**
 * @jc:sql command-type="insert"
 *   rowset-name="DOCUMENT_CONTENTRowSet"
 */
public RowSet insertDocumentContent(RowSet changedRs)
    throws SQLException;

/**
 * @jc:sql command-type="insertedRow"
 *   rowset-name="DOCUMENT_CONTENTRowSet"
 *   statement::
 *     SELECT ID,VERSIONED_OBJECT_ID,OBJECT_TYPE,NAME,CONTENT_TYPE,CONTAINMENT_OF_CONTENT,CON
 *     ::
 */
public RowSet getInserted()
    throws SQLException;

/**
 * @jc:sql command-type="newKey"
 *   statement::
 *     Select Max ( ID ) + 1 From WEBLOGIC.DOCUMENT_CONTENT
 *     ::
 */
public RowSet getNewKey()
    throws SQLException;
}
```

Grid.jsp Sample

This topic includes the source code for the Grid.jsp Sample.

Sample Location

This sample is located in the following directory in your WebLogic Workshop installation:

BEA_HOME/weblogic81/samples/workshop/SamplesApp/WebApp/handlingData/binaryFlow/

Sample Source Code

```
<%@ page language="java" contentType="text/html; charset=UTF-8"%>
<%@ taglib uri="netui-tags-databinding.tld" prefix="netui-data"%>
<%@ taglib uri="netui-tags-html.tld" prefix="netui"%>
<%@ taglib uri="netui-tags-template.tld" prefix="netui-template"%>
<netui-template:template templatePage="/resources/jsp/grid_template.jsp">
    <netui-template:setAttribute value="test - Grid View" name="title"/>
    <netui-template:section name="bodySection">
        <blockquote>
            <span class="pagehead">
                <netui:label value="Grid View"/>
            </span>
            <br/>
            <font style="color:#ff0000;font-size:10pt;">Click Insert below, and upload a binary image</font>
            <br/>
            <netui-data:grid dataSource="{pageFlow.allRows}" name="{pageFlow.gridName}">
                <netui-data:gridStyle styleClassPrefix="gridStyle"/>
                <netui-data:pager renderInHeader="true" action="pageAction" renderInFooter="true"/>
                <netui-data:columns filterAction="begin" sortAction="begin">
                    <netui-data:anchorColumn action="detailsDocumentContent" addRowId="true" title="Details">
                        <netui-data:anchorColumn action="updateDocumentContent" addRowId="true" title="Update">
                            <netui-data:basicColumn filterable="true" title="Id" sortable="true" name="id"/>
                            <netui-data:basicColumn filterable="true" title="Versioned_object_id" sortable="true" name="versioned_object_id"/>
                            <netui-data:basicColumn filterable="true" title="Object_type" sortable="true" name="object_type"/>
                            <netui-data:basicColumn filterable="true" title="Name" sortable="true" name="name"/>
                            <netui-data:imageColumn src="/WebApp/handlingData/binaryFlow/showImage.jsp?photo={pageFlow.photoId}">
                                <netui-data:basicColumn filterable="true" title="Content_type" sortable="true" name="content_type"/>
                                <netui-data:basicColumn filterable="true" title="Containment_of_content" sortable="true" name="containment_of_content"/>
                                <netui-data:basicColumn filterable="true" title="File_size" sortable="true" name="file_size"/>
                                <netui-data:basicColumn filterable="true" title="File_last_modified" sortable="true" name="file_last_modified"/>
                            </netui-data:columns>
                        </netui-data:grid>
                        <netui:imageAnchor action="insertDocumentContent" align="center" border="0" src="/WebApp/handlingData/binaryFlow/showImage.jsp?photo={pageFlow.photoId}">
                            Insert
                        </netui:imageAnchor>
                    </netui-data:section>
                <netui-template:section name="navBackSection">
                    <hr>
                    <p><netui:anchor href="/WebApp/handlingData/handlingDataController.jspf">
                        Back to Handling Data Samples</netui:anchor>
                    </netui-template:section>
                </netui-template:template>
```

InsertDocumentContent.jsp Sample

This topic includes the source code for the InsertDocumentContent.jsp Sample.

Sample Location

This sample is located in the following directory in your WebLogic Workshop installation:

BEA_HOME/weblogic81/samples/workshop/SamplesApp/WebApp/handlingData/binaryFlow/

Sample Source Code

```
<%@ page language="java" contentType="text/html; charset=UTF-8"%>
<%@ taglib uri="netui-tags-databinding.tld" prefix="netui-data"%>
<%@ taglib uri="netui-tags-html.tld" prefix="netui"%>
<%@ taglib uri="netui-tags-template.tld" prefix="netui-template"%>
<netui-template:template templatePage="/resources/jsp/grid_template.jsp">
    <netui-template:setAttribute value="test - Insert View" name="title"/>
    <netui-template:section name="bodySection">
        <blockquote>
            <span class="pagehead">
                <netui:label value="Insert View"/>
            </span>
            <br/>
            <!--
            Many of the insert fields have been commented out because
            default values for these fields are calculated on insertion of a new record.
            -->
            <netui:form action="submitInsert" enctype="multipart/form-data">
                <netui:parameterMap map="{pageFlow.sortFilterService.rowIdQueryParamsMap}"/>
                <table>
                    <!--tr class="tablebody">
                        <td>Id: <font style="color:#ff0000;">[required field: must
                        be a unique integer]</font></td>
                        <td>
                            <netui:textBox dataSource="{actionForm.id}"/>
                        </td>
                    </tr>
                    <tr class="tablebody">
                        <td>Versioned_object_id: <font style="color:#ff0000;">[required
                        field: any integer]</font></td>
                        <td>
                            <netui:textBox dataSource="{actionForm.versioned_object_id}"/>
                        </td>
                    </tr>
                    <tr class="tablebody">
                        <td>Object_type: <font style="color:#ff0000;">[required
                        field: any string]</font></td>
                        <td>
                            <netui:textBox dataSource="{actionForm.object_type}"/>
                        </td>
                    </tr>
                    <tr class="tablebody">
                        <td>Name: [required]</td>
                        <td>
                            <netui:textBox dataSource="{actionForm.name}"/>
                        </td>
                    </tr>
```

navhandlingData.html Sample

```
</tr>
<tr class="tbody">
    <td>Content_type:</td>
    <td>
        <netui:textBox dataSource="{actionForm.content_type}" />
    </td>
</tr>
<tr class="tbody">
    <td>Containment_of_content: <font style="color:#ff0000;">[required field: any integer]</font></td>
    <td>
        <netui:textBox dataSource="{actionForm.containment_of_content}" />
    </td>
</tr-->
<tr class="tbody">
    <td>Content: <font style="color:#ff0000;">Upload a binary image file: GIF,</td>
    <td>
        <netui:fileUpload dataSource="{actionForm.contentUp}" />
    </td>
</tr>
<!--tr class="tbody">
    <td>File_size:</td>
    <td>
        <netui:textBox dataSource="{actionForm.file_size}" />
    </td>
</tr>
|
|  |

```

servlets Samples

This section contains source code for the following samples.

Samples Included in This Section

ShowImageServlet.java Sample

ShowImageServlet.java Sample

This topic includes the source code for the ShowImageServlet.java Sample.

Sample Location

This sample is located in the following directory in your WebLogic Workshop installation:

BEA_HOME/weblogic81/samples/workshop/SamplesApp/WebApp/handlingData/binaryFlow/servlets/

Sample Source Code

```
package handlingData.binaryFlow.servlets;

import java.io.IOException;
import java.io.OutputStream;
import javax.servlet.ServletException;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;

/*
 * This servlet reads image data (in the form of a byte[]) from the request object.
 * It outputs the byte[] as a visible image.
 */
public class ShowImageServlet extends HttpServlet
{
    protected void service(HttpServletRequest request, HttpServletResponse response) throws ServletException
    {
        byte[] rgb = (byte[]) request.getAttribute("byArr");
        if (rgb != null)
        {
            response.setContentType("image/gif");
            OutputStream stream = response.getOutputStream();
            stream.write(rgb);
        }
        else
        {
            response.setContentType("text");
            response.getWriter().write("attribute byArr not found");
        }
    }
}
```


ShowImage.jsp Sample

This topic includes the source code for the ShowImage.jsp Sample.

Sample Location

This sample is located in the following directory in your WebLogic Workshop installation:

BEA_HOME/weblogic81/samples/workshop/SamplesApp/WebApp/handlingData/binaryFlow/

Sample Source Code

```
<%@ page language="java" contentType="image/gif"%>
<%@ page import="java.sql.Blob"%>
<%@ taglib uri="netui-tags-databinding.tld" prefix="netui-data"%>
<%@ taglib uri="netui-tags-html.tld" prefix="netui"%>
<%@ taglib uri="netui-tags-template.tld" prefix="netui-template"%>
<netui-data:declareControl type="handlingData.binaryFlow.docContentDB" controlId="test"/>
<!--
Get the 'photoid' parameter from the URL and call the getPHOTO() method on the docContentDB.jcx
database control.
-->
<netui-data:callControl controlId="test" method="getPHOTO" resultId="blob">
<netui-data:methodParameter type="int" value="{url.photoid}" />
</netui-data:callControl>
<!--
The database control returns the image data as a java.sql.Blob object.
Convert the Blob into a byte[] and place the byte[] on the request object.
-->
<%
Blob blob = (Blob) pageContext.getAttribute("blob");
byte[] rgb = blob.getBytes(1, (int) blob.length());
request.setAttribute("byArr", rgb);
%>
<!--
The image data is now on the request object.
Forward the user to the showImage servlet.
That servlet will process and display the image data contained on the request object.

Note: ignore the compiler warning below (indicated by green underscoring).
Workshop issues the warning because it cannot find the servlet class named "/showImage".
The reason it cannot find the class is because "/showImage" is a mapping-defined name
for the class "handlingData.binaryFlow.servlets.ShowImageServlet" and Workshop is
not aware of mapping-defined names for classes. The mapping-defined name is specified in
WEB-INF/web.xml.
-->
<jsp:forward page="/showImage" />
```

UpdateDocumentContent.jsp Sample

This topic includes the source code for the UpdateDocumentContent.jsp Sample.

Sample Location

This sample is located in the following directory in your WebLogic Workshop installation:

BEA_HOME/weblogic81/samples/workshop/SamplesApp/WebApp/handlingData/binaryFlow/

Sample Source Code

```
<%@ page language="java" contentType="text/html; charset=UTF-8"%>
<%@ taglib uri="netui-tags-databinding.tld" prefix="netui-data"%>
<%@ taglib uri="netui-tags-html.tld" prefix="netui"%>
<%@ taglib uri="netui-tags-template.tld" prefix="netui-template"%>
    <%
        response.setHeader( "Pragma", "No-cache" );
        response.setHeader( "Cache-Control", "no-cache" );
        response.setHeader( "Expires", "1" );
    %>
<netui-template:template templatePage="/resources/jsp/grid_template.jsp">
    <netui-template:setAttribute value="Edit View" name="title"/>
    <netui-template:section name="bodySection">
        <blockquote>
            <span class="pagehead">
                <netui:label value="test - Edit View"/>
            </span>
            <br/>
            <netui:form action="submitUpdate" enctype="multipart/form-data">
                <netui:parameterMap map="{pageFlow.sortFilterService.rowIdQueryParamsMap}"/>
                <table>
                    <tr class="tablebody">
                        <td>Id:</td>
                        <td>
                            <netui:content value="{actionForm.id}"/>
                        </td>
                    </tr>
                    <tr class="tablebody">
                        <td>Versioned_object_id: <font style="color:#ff0000;">[required
field: any integer]</font></td>
                        <td>
                            <netui:textBox dataSource="{actionForm.versioned_object_id}"/>
                        </td>
                    </tr>
                    <tr class="tablebody">
                        <td>Object_type: <font style="color:#ff0000;">[required
field: any string]</font></td>
                        <td>
                            <netui:textBox dataSource="{actionForm.object_type}"/>
                        </td>
                    </tr>
                    <tr class="tablebody">
                        <td>Name:</td>
                        <td>
                            <netui:textBox dataSource="{actionForm.name}"/>
                        </td>
                    </tr>
                </table>
            </netui:form>
        </blockquote>
    </netui-template:section>
</netui-template:template>
```

navhandlingData.html Sample

[illegible]

complexFormBean Samples

This section contains source code for the following samples.

Samples Included in This Section

ComplexFormBeanController.jspf Sample

controls Samples

EnterCoupon.jsp Sample

Thankyou.jsp Sample

ComplexFormBeanController.jspf Sample

This topic includes the source code for the ComplexFormBeanController.jspf Sample.

Sample Location

This sample is located in the following directory in your WebLogic Workshop installation:

BEA_HOME/weblogic81/samples/workshop/SamplesApp/WebApp/handlingData/complexFormBean/

Sample Source Code

```
package handlingData.complexFormBean;

import com.bea.wlw.netui.pageflow.FormData;
import com.bea.wlw.netui.pageflow.PageFlowController;
import com.bea.wlw.netui.pageflow.Forward;
import handlingData.complexFormBean.controls.CustomerControl;
import handlingData.complexFormBean.controls.CustomerControl.Customer;

/**
 * This sample demonstrates how to pre-populate a form and submit it to a page flow using
 * a FormBean that contains a custom Java object.
 *
 * Note that the FormBean CustomerForm contains the custom Java object
 * complexFormBean.controls.CustomerControl.Customer.
 *
 * @jpf:controller
 * @jpf:forward name="index" path="enterCoupon.jsp"
 * @jpf:view-properties view-properties::
 * <!-- This data is auto-generated. Hand-editing this section is not recommended. -->
 * <view-properties>
 * <pageflow-object id="pageflow:/handlingData/complexFormBean/complexFormBeanController.jspf"/>
 * <pageflow-object id="action:begin.do">
 *   <property name="x" value="120"/>
 *   <property name="y" value="60"/>
 * </pageflow-object>
 * <pageflow-object id="action:submitCouponNumber.do#handlingData.complexFormBean.complexFormBe
 *   <property value="300" name="x"/>
 *   <property value="220" name="y"/>
 * </pageflow-object>
 * <pageflow-object id="action-call:@page:enterCoupon.jsp#@@action:submitCouponNumber.do#handli
 *   <property value="156,210,210,264" name="elbowsX"/>
 *   <property value="212,212,212,212" name="elbowsY"/>
 *   <property value="East_1" name="fromPort"/>
 *   <property value="West_1" name="toPort"/>
 * </pageflow-object>
 * <pageflow-object id="page:enterCoupon.jsp">
 *   <property name="x" value="120"/>
 *   <property name="y" value="220"/>
 * </pageflow-object>
 * <pageflow-object id="action-call:@page:thankyou.jsp#@@action:begin.do@">
 *   <property value="264,210,210,156" name="elbowsX"/>
 *   <property value="52,52,52,52" name="elbowsY"/>
 *   <property value="West_1" name="fromPort"/>
 *   <property value="East_1" name="toPort"/>
 * </pageflow-object>
```

navhandlingData.html Sample

```

* <pageflow-object id="page:thankyou.jsp">
*   <property value="300" name="x"/>
*   <property value="60" name="y"/>
* </pageflow-object>
* <pageflow-object id="forward:path#success#enterCoupon.jsp#@action:begin.do@">
*   <property value="120,120,120,120" name="elbowsX"/>
*   <property value="104,140,140,176" name="elbowsY"/>
*   <property value="South_1" name="fromPort"/>
*   <property value="North_1" name="toPort"/>
*   <property value="success" name="label"/>
* </pageflow-object>
* <pageflow-object id="forward:path#success#thankyou.jsp#@action:submitCouponNumber.do#handlin
*   <property value="300,300,300,300" name="elbowsX"/>
*   <property value="176,140,140,104" name="elbowsY"/>
*   <property value="North_1" name="fromPort"/>
*   <property value="South_1" name="toPort"/>
*   <property value="success" name="label"/>
* </pageflow-object>
* <pageflow-object id="forward:path#failed#enterCoupon.jsp#@action:submitCouponNumber.do#handl
*   <property value="264,210,210,156" name="elbowsX"/>
*   <property value="212,212,212,212" name="elbowsY"/>
*   <property value="West_1" name="fromPort"/>
*   <property value="East_1" name="toPort"/>
*   <property value="failed" name="label"/>
* </pageflow-object>
* <pageflow-object id="control:handlingData.complexFormBean.controls.CustomerControl#customerC
*   <property value="46" name="x"/>
*   <property value="34" name="y"/>
* </pageflow-object>
* <pageflow-object id="formbeanprop:handlingData.complexFormBean.complexFormBeanController.Cus
* <pageflow-object id="formbeanprop:handlingData.complexFormBean.complexFormBeanController.Cus
* <pageflow-object id="formbean:handlingData.complexFormBean.complexFormBeanController.Custome
* <pageflow-object id="forward:path#index#enterCoupon.jsp"/>
* </view-properties>
* ::
*/
public class complexFormBeanController extends PageFlowController
{
    /**
     * @common:control
     */
    private handlingData.complexFormBean.controls.CustomerControl customerControl;

    public String message;

    /**
     * When the pageflow is first invoked, forward the user to the enterCoupon.jsp
     * page and pre-populate the form fields on that page.
     *
     * Note that the FormBean CustomerForm is forwarded to the enterCoupon.jsp page,
     * so that the fields on that page are pre-populated with values.
     *
     * @jpf:action
     * @jpf:forward name="success" path="enterCoupon.jsp"
     */
    protected Forward begin()
    {
        message="";
        CustomerForm form = new CustomerForm();
        form.setCustomer(customerControl.getCustomer(42));
    }
}

```

navhandlingData.html Sample

```
        return new Forward("success", form);
    }

    /**
     * @jpf:action
     * @jpf:forward name="success" path="thankyou.jsp"
     * @jpf:forward name="failed" path="enterCoupon.jsp"
     */
    protected Forward submitCouponNumber(CustomerForm form)
    {
        /*
         * In a real-world situation, you would do something here with the data from the form,
         * such as enter the data in a database, or run some other business process.
         */
        boolean outcome = customerControl.updateCustomer(form.getCustomer(), form.getCouponNumber());
        /*
         * If the updateCustomer method returns true, forward the user to the
         * thankyou.jsp page.
         */
        if(outcome == true)
            return new Forward("success", form);
        /*
         * If the updateCustomer method returns false, send the user back to the
         * enterCoupon.jsp page.
         */
        else {
            message="Submission failed. Please try again";
            return new Forward("failed");
        }
    }

    /**
     * The following FormBean has two uses in this page flow.
     *
     * (1) It is used to pre-populate the fields of the enterCoupon.jsp page (see the begin method)
     *
     * (2) It is used to submit values from the enterCoupon.jsp page.
     *
     * These two uses cannot be accomplished by a single instance of the FormBean.
     * That is why we have included the reset method in the FormBean below.
     * The reset method allows the Workshop runtime to create two instances of the
     * FormBean for one pre-population / submission cycle.
     */
    public static class CustomerForm extends FormData
    {
        private String couponNumber;

        private Customer customer;

        public void setCustomer(Customer customer)
        {
            this.customer = customer;
        }

        public Customer getCustomer()
        {
            return this.customer;
        }

        public void reset(org.apache.struts.action.ActionMapping mapping,
            javax.servlet.http.HttpServletRequest request)
```

navhandlingData.html Sample

```
{
    // Create an instance of the bean when
    // the data is submitted to the page flow.
    this.customer = new Customer();
}

public void setCouponNumber(java.lang.String couponNumber)
{
    this.couponNumber = couponNumber;
}

public java.lang.String getCouponNumber()
{
    return this.couponNumber;
}
}
```


controls Samples

This section contains source code for the following samples.

Samples Included in This Section

CustomerControl.java Sample

CustomerControlImpl.jcs Sample

CustomerControl.java Sample

This topic includes the source code for the CustomerControl.java Sample.

Sample Location

This sample is located in the following directory in your WebLogic Workshop installation:

BEA_HOME/weblogic81/samples/workshop/SamplesApp/WebApp/handlingData/complexFormBean/controls/

Sample Source Code

```
package handlingData.complexFormBean.controls;

import com.bea.control.Control;

public interface CustomerControl extends Control
{
    public static class Customer
    {
        private String firstName;
        private String lastName;

        public Customer() {}

        public Customer(String firstName, String lastName)
        {
            this.firstName = firstName;
            this.lastName = lastName;
        }

        public String getFirstName() {return firstName;}
        public void setFirstName(String firstName) {this.firstName = firstName;}

        public String getLastName() {return lastName;}
        public void setLastName(String lastName) {this.lastName = lastName;}
    }

    handlingData.complexFormBean.controls.CustomerControl.Customer getCustomer(int id);

    boolean updateCustomer(handlingData.complexFormBean.controls.CustomerControl.Customer custo
}
```

CustomerControlImpl.jcs Sample

This topic includes the source code for the CustomerControlImpl.jcs Sample.

Sample Location

This sample is located in the following directory in your WebLogic Workshop installation:

BEA_HOME/weblogic81/samples/workshop/SamplesApp/WebApp/handlingData/complexFormBean/controls/

Sample Source Code

```
package handlingData.complexFormBean.controls;

import com.bea.control.*;
import java.util.HashMap;
import java.util.Map;
/**
 * @jcs:jcs-jar label="CustomerControl"
 * @editor-info:code-gen control-interface="true"
 */
public class CustomerControlImpl implements CustomerControl, ControlSource
{
    private boolean outcome;

    /**
     * @common:operation
     */
    public Customer getCustomer(int id)
    {
        // In a real-life example, the control would do business logic
        // and return data (for instance, query a database and return the query results).
        // For the sake of the sample, the same Customer object is returned no
        // matter what id is passed to this method.
        return new Customer("Dean", "John");
    }

    /**
     * @common:operation
     */
    public boolean updateCustomer(Customer customer, String couponNumber)
    {
        // do business logic here. For instance, add the
        // coupon number to a database.
        // For the sake of the sample, we return true, if the couponNumber is less than
        // 1000; we return false if if the coupon number is equal to or greater than 1000.
        // We also return false if the couponNumber cannot be parsed as an integer.
        try
        {
            // Try to parse the String as an integer.
            int intCoupon = Integer.parseInt(couponNumber);
            // If the parse is successful, and if the integer is less than 1000, then return true
            if(intCoupon < 1000)
                outcome = true;
            // If the parse is successful, and if the integer is greater than or equal to 1000,
            else
                outcome = false;
        }
    }
}
```

navhandlingData.html Sample

```
    }  
    // If the String can't be parsed, then return false.  
    catch (NumberFormatException e)  
    {  
        outcome = false;  
    }  
    return outcome;  
} }  
}
```

EnterCoupon.jsp Sample

This topic includes the source code for the EnterCoupon.jsp Sample.

Sample Location

This sample is located in the following directory in your WebLogic Workshop installation:

BEA_HOME/weblogic81/samples/workshop/SamplesApp/WebApp/handlingData/complexFormBean/

Sample Source Code

```
<!--Generated by WebLogic Workshop-->
<%@ page language="java" contentType="text/html; charset=UTF-8"%>
<%@ taglib uri="netui-tags-databinding.tld" prefix="netui-data"%>
<%@ taglib uri="netui-tags-html.tld" prefix="netui"%>
<%@ taglib uri="netui-tags-template.tld" prefix="netui-template"%>
<netui:html>
  <head>
    <title>Display Customer Page</title>
  </head>
  <body>
    <jsp:include page="/resources/jsp/header.jsp"/><br>
    <h3>Display Customer Page</h3>
    <p>
      <font color="red"><netui:label value="{pageFlow.message}"/></font><br>
      <br>Enter the customer's name and provide the coupon number:<br>
      <netui:form action="submitCouponNumber" focus="">
        <p>
          Last Name:
          <netui:textBox dataSource="{actionForm.customer.lastName}"/></netui:textBox>
        </p>
        <p>
          First Name:
          <netui:textBox dataSource="{actionForm.customer.firstName}"/></netui:textBox>
        </p>
        <p>
          Coupon Number:
          <netui:textBox dataSource="{actionForm.couponNumber}"/></netui:textBox>
        </p>
        <p style="font-size:8pt;">
          [An integer less than 1000 will result in successful submission,<br>
          an integer equal to or greater than 1000 (or a non-integer) will result in failed s
        </p>
        <netui:button value="Submit"/></netui:button>
      </netui:form>
      <hr>
      <p><netui:anchor href="/WebApp/handlingData/handlingDataController.jspf">
        Back to Handling Data Samples</netui:anchor>
      </p>
    </body>
  </netui:html>
```

Thankyou.jsp Sample

This topic includes the source code for the Thankyou.jsp Sample.

Sample Location

This sample is located in the following directory in your WebLogic Workshop installation:

BEA_HOME/weblogic81/samples/workshop/SamplesApp/WebApp/handlingData/complexFormBean/

Sample Source Code

```
<!--Generated by WebLogic Workshop-->
<%@ page language="java" contentType="text/html; charset=UTF-8"%>
<%@ taglib uri="netui-tags-databinding.tld" prefix="netui-data"%>
<%@ taglib uri="netui-tags-html.tld" prefix="netui"%>
<%@ taglib uri="netui-tags-template.tld" prefix="netui-template"%>
<netui:html>
  <head>
    <title>Thank You!</title>
  </head>
  <body>
    <jsp:include page="/resources/jsp/header.jsp"/><br>
    <h3>You Successfully Entered:</h3>
    <p>
      Last Name:
      <netui:label value="{request.customerForm.customer.lastName}"></netui:label>
    </p>
    <p>
      First Name:
      <netui:label value="{request.customerForm.customer.firstName}"></netui:label>
    </p>
    <p>
      Coupon Number:
      <netui:label value="{request.customerForm.couponNumber}"></netui:label>
    </p>
    <hr>
    <p><netui:anchor action="begin">Re-run this sample</netui:anchor>
    <p><netui:anchor href="/WebApp/handlingData/handlingDataController.jspf">
      Back to Handling Data Samples</netui:anchor>
    </body>
  </netui:html>
```

databinding Samples

This section contains source code for the following samples.

Samples Included in This Section

actionForm Samples

application Samples

bundle Samples

DatabindingController.jspf Sample

globalApp Samples

Index.jsp Sample

pageContext Samples

pageFlow Samples

request Samples

session Samples

url Samples

actionForm Samples

This section contains source code for the following samples.

Samples Included in This Section

ActionFormController.jspf Sample

Show.jsp Sample

Submit.jsp Sample

ActionFormController.jspf Sample

This topic includes the source code for the ActionFormController.jspf Sample.

Sample Location

This sample is located in the following directory in your WebLogic Workshop installation:

BEA_HOME/weblogic81/samples/workshop/SamplesApp/WebApp/handlingData/databinding/actionForm/

Sample Source Code

```
package handlingData.databinding.actionForm;
import com.bea.wlw.netui.pageflow.FormData;
import com.bea.wlw.netui.pageflow.Forward;
import com.bea.wlw.netui.pageflow.PageFlowController;

/**
 * @jpf:controller
 * @jpf:view-properties view-properties::
 * <!-- This data is auto-generated. Hand-editing this section is not recommended. -->
 * <view-properties>
 * <pageflow-object id="pageflow:/handlingData/databinding/actionForm/ActionFormController.jspf">
 * <pageflow-object id="action:begin.do#handlingData.databinding.actionForm.ActionFormController">
 *   <property value="160" name="x"/>
 *   <property value="100" name="y"/>
 * </pageflow-object>
 * <pageflow-object id="action:submit.do#handlingData.databinding.actionForm.ActionFormController">
 *   <property value="280" name="x"/>
 *   <property value="200" name="y"/>
 * </pageflow-object>
 * <pageflow-object id="page:submit.jsp">
 *   <property value="280" name="x"/>
 *   <property value="100" name="y"/>
 * </pageflow-object>
 * <pageflow-object id="page:show.jsp">
 *   <property value="380" name="x"/>
 *   <property value="320" name="y"/>
 * </pageflow-object>
 * <pageflow-object id="forward:path#success#submit.jsp#@action:begin.do#handlingData.databinding">
 *   <property value="196,220,220,244" name="elbowsX"/>
 *   <property value="92,92,92,92" name="elbowsY"/>
 *   <property value="East_1" name="fromPort"/>
 *   <property value="West_1" name="toPort"/>
 *   <property value="success" name="label"/>
 * </pageflow-object>
 * <pageflow-object id="forward:path#success#show.jsp#@action:submit.do#handlingData.databinding">
 *   <property value="316,330,330,344" name="elbowsX"/>
 *   <property value="203,203,312,312" name="elbowsY"/>
 *   <property value="East_2" name="fromPort"/>
 *   <property value="West_1" name="toPort"/>
 *   <property value="success" name="label"/>
 * </pageflow-object>
 * <pageflow-object id="formbeanprop:handlingData.databinding.actionForm.ActionFormController.S">
 * <pageflow-object id="formbean:handlingData.databinding.actionForm.ActionFormController.Submi">
 * <pageflow-object id="action:toDatabindingSamplesHome.do">
 *   <property value="160" name="x"/>
```

navhandlingData.html Sample

```

*   <property value="320" name="y"/>
* </pageflow-object>
* <pageflow-object id="action-call:@page:show.jsp@##action:submit.do#handlingData.databinding.a
*   <property value="344,330,330,316" name="elbowsX"/>
*   <property value="312,312,192,192" name="elbowsY"/>
*   <property value="West_1" name="fromPort"/>
*   <property value="East_1" name="toPort"/>
* </pageflow-object>
* <pageflow-object id="action-call:@page:show.jsp@##action:begin.do#handlingData.databinding.a
*   <property value="344,270,270,196" name="elbowsX"/>
*   <property value="312,312,103,103" name="elbowsY"/>
*   <property value="West_1" name="fromPort"/>
*   <property value="East_2" name="toPort"/>
* </pageflow-object>
* <pageflow-object id="action-call:@page:show.jsp@##action:toDatabindingSamplesHome.do@">
*   <property value="344,270,270,196" name="elbowsX"/>
*   <property value="312,312,312,312" name="elbowsY"/>
*   <property value="West_1" name="fromPort"/>
*   <property value="East_1" name="toPort"/>
* </pageflow-object>
* <pageflow-object id="action-call:@page:submit.jsp@##action:submit.do#handlingData.databinding
*   <property value="280,280,280,280" name="elbowsX"/>
*   <property value="144,150,150,156" name="elbowsY"/>
*   <property value="South_1" name="fromPort"/>
*   <property value="North_1" name="toPort"/>
* </pageflow-object>
* </view-properties>
* ::
*/
public class ActionFormController extends PageFlowController
{

    // Uncomment this declaration to access Global.app.
    //
    //     protected global.Global globalApp;
    //

    // For an example of page flow exception handling see the example "catch" and "exception-ha
    // annotations in {project}/WEB-INF/src/global/Global.app

    /**
     * This method represents the point of entry into the pageflow
     * @jpf:action
     * @jpf:forward name="success" path="submit.jsp"
     */
    protected Forward begin(SubmitForm form)
    {
        // Pre-populates the HTML form with the value "John".
        form.setName( "John" );

        return new Forward("success", form);
    }

    /**
     * @jpf:action
     * @jpf:forward name="success" path="show.jsp"
     */
    protected Forward submit(SubmitForm form)
    {
        return new Forward("success", form);
    }
}

```

navhandlingData.html Sample

```
}  
  
public static class SubmitForm extends FormData  
{  
    private String name;  
  
    public void setName(String name)  
    {  
        this.name = name;  
    }  
  
    public String getName()  
    {  
        return this.name;  
    }  
}  
  
}
```

Show.jsp Sample

This topic includes the source code for the Show.jsp Sample.

Sample Location

This sample is located in the following directory in your WebLogic Workshop installation:

BEA_HOME/weblogic81/samples/workshop/SamplesApp/WebApp/handlingData/databinding/actionForm/

Sample Source Code

```
<%@ page language="java" contentType="text/html; charset=UTF-8"%>
<%@ taglib uri="netui-tags-databinding.tld" prefix="netui-data"%>
<%@ taglib uri="netui-tags-html.tld" prefix="netui"%>
<%@ taglib uri="netui-tags-template.tld" prefix="netui-template"%>
<netui:html>
    <title>
        showActionForm.jsp
    </title>
    <link href="/WebApp/resources/css/style.css" type="text/css" rel="stylesheet"/>
</head>
<body>
    <jsp:include page="/resources/jsp/header.jsp"/>
    <h3>Databinding Samples: {actionForm...} Context</h3>
    <p>Here is the data you submitted:
    <blockquote>

        <netui:form action="submit">
            Name: <netui:label value="{actionForm.name}" style="color:#ff3300;" />
        </netui:form>

    </blockquote>
    <hr>
    <p><netui:anchor action="begin">Submit another form</netui:anchor>
    <p><netui:anchor href="/WebApp/handlingData/databinding/databindingController.jspf">
        Back to Databinding Samples</netui:anchor>
    </body>
</netui:html>
```

Submit.jsp Sample

This topic includes the source code for the Submit.jsp Sample.

Sample Location

This sample is located in the following directory in your WebLogic Workshop installation:

BEA_HOME/weblogic81/samples/workshop/SamplesApp/WebApp/handlingData/databinding/actionForm/

Sample Source Code

```
<%@ page language="java" contentType="text/html; charset=UTF-8"%>
<%@ taglib uri="netui-tags-databinding.tld" prefix="netui-data"%>
<%@ taglib uri="netui-tags-html.tld" prefix="netui"%>
<%@ taglib uri="netui-tags-template.tld" prefix="netui-template"%>
<netui:html>
    <title>
        actionForm.jsp
    </title>
    <link href="/WebApp/resources/css/style.css" type="text/css" rel="stylesheet"/>
</head>
<body>
    <jsp:include page="/resources/jsp/header.jsp"/>
    <h3>Databinding Samples: {actionForm...} Context</h3>
    <p>This sample uses the {actionForm...} data binding context to submit the form data
    below.
    <blockquote>
        <netui:form action="submit">
            Name:
            <netui:textBox dataSource="{actionForm.name}" /><br>
            <netui:button value="Submit" />
        </netui:form>
    </blockquote>
    <hr>
    <p><netui:anchor href="/WebApp/handlingData/databinding/databindingController.jspf">
    Back to Databinding Samples</netui:anchor>
    </body>
</netui:html>
```

application Samples

This section contains source code for the following samples.

Samples Included in This Section

Application.jsp Sample

Application.jsp Sample

This topic includes the source code for the Application.jsp Sample.

Sample Location

This sample is located in the following directory in your WebLogic Workshop installation:

BEA_HOME/weblogic81/samples/workshop/SamplesApp/WebApp/handlingData/databinding/application/

Sample Source Code

```
<%@ page language="java" contentType="text/html; charset=UTF-8"%>
<%@ taglib uri="netui-tags-databinding.tld" prefix="netui-data"%>
<%@ taglib uri="netui-tags-html.tld" prefix="netui"%>
<%@ taglib uri="netui-tags-template.tld" prefix="netui-template"%>
<netui:html>
    <title>
        application.jsp
    </title>
    <link href="/WebApp/resources/css/style.css" type="text/css" rel="stylesheet"/>
</head>
<body>
    <jsp:include page="/resources/jsp/header.jsp"/>
    <h3>Databinding Samples: {application...} Context</h3>
    <p>This sample uses the {application...} data binding context to store data in the
    <code>javax.servlet.ServletContext</code> object, representing the application to
    which this JSP belongs.
    <blockquote>

        <!--
        Saves a parameter/value pair to the javax.servlet.ServletContext.
        This pair will be readable using the {application...} data binding expression.
        -->
        <%
        ServletContext servletContext = getServletConfig().getServletContext();
        servletContext.setAttribute("appParam", "appValue");
        %>

        <p>The following value was read from the {application...} data binding context.
        <p><netui:label value="{application.appParam}" style="color:#ff3300;" />

    </blockquote>
    <hr>
    <p><netui:anchor href="/WebApp/handlingData/databinding/databindingController.jspf">
    Back to Databinding Samples</netui:anchor>
</body>
</netui:html>
```

bundle Samples

This section contains source code for the following samples.

Samples Included in This Section

Bundle.jsp Sample

BundleController.jspf Sample

Bundle.jsp Sample

This topic includes the source code for the Bundle.jsp Sample.

Sample Location

This sample is located in the following directory in your WebLogic Workshop installation:

BEA_HOME/weblogic81/samples/workshop/SamplesApp/WebApp/handlingData/databinding/bundle/

Sample Source Code

```
<%@ page language="java" contentType="text/html; charset=UTF-8"%>
<%@ taglib uri="netui-tags-databinding.tld" prefix="netui-data"%>
<%@ taglib uri="netui-tags-html.tld" prefix="netui"%>
<%@ taglib uri="netui-tags-template.tld" prefix="netui-template"%>
<netui:html>
    <title>
        bundle.jsp
    </title>
    <link href="/WebApp/resources/css/style.css" type="text/css" rel="stylesheet"/>
</head>
<body>
    <jsp:include page="/resources/jsp/header.jsp"/>
    <h3>Databinding Samples: {bundle...} Context</h3>
    <p>This sample uses the {bundle...} data binding context to read from the properties file WEB-INF/classes/labels/Messages.properties.
    <blockquote>
        <p>
            Greeting: <netui:label value="{bundle.default.greeting}" style="color:#ff3300;" />
        </p>
    </blockquote>
    <hr>
    <p><netui:anchor href="/WebApp/handlingData/databinding/databindingController.jspf">
        Back to Databinding Samples</netui:anchor>
</netui:html>
```

BundleController.jpf Sample

This topic includes the source code for the BundleController.jpf Sample.

Sample Location

This sample is located in the following directory in your WebLogic Workshop installation:

BEA_HOME/weblogic81/samples/workshop/SamplesApp/WebApp/handlingData/databinding/bundle/

Sample Source Code

```
package handlingData.databinding.bundle;
import com.bea.wlw.netui.pageflow.Forward;
import com.bea.wlw.netui.pageflow.PageFlowController;

/**
 * @jpf:controller
 * @jpf:message-resources resources="labels.Messages"
 * @jpf:view-properties view-properties::
 * <!-- This data is auto-generated. Hand-editing this section is not recommended. -->
 * <view-properties>
 * <pageflow-object id="pageflow:/handlingData/databinding/bundle/bundleController.jpf"/>
 * <pageflow-object id="action:begin.do">
 *   <property value="80" name="x"/>
 *   <property value="100" name="y"/>
 * </pageflow-object>
 * <pageflow-object id="page:index.jsp">
 *   <property value="240" name="x"/>
 *   <property value="100" name="y"/>
 * </pageflow-object>
 * <pageflow-object id="page:bundle.jsp">
 *   <property value="60" name="x"/>
 *   <property value="40" name="y"/>
 * </pageflow-object>
 * <pageflow-object id="forward:path#success#bundle.jsp#@action:begin.do@">
 *   <property value="44,29,29,60" name="elbowsX"/>
 *   <property value="92,92,-4,-4" name="elbowsY"/>
 *   <property value="West_1" name="fromPort"/>
 *   <property value="North_1" name="toPort"/>
 *   <property value="success" name="label"/>
 * </pageflow-object>
 * </view-properties>
 * ::
 */
public class bundleController extends PageFlowController
{
    /**
     * @jpf:action
     * @jpf:forward name="success" path="bundle.jsp"
     */
    protected Forward begin()
    {
        return new Forward("success");
    }
}
```

DatabindingController.jpf Sample

This topic includes the source code for the DatabindingController.jpf Sample.

Sample Location

This sample is located in the following directory in your WebLogic Workshop installation:

BEA_HOME/weblogic81/samples/workshop/SamplesApp/WebApp/handlingData/databinding/

Sample Source Code

```
package handlingData.databinding;
import com.bea.wlw.netui.pageflow.FormData;
import com.bea.wlw.netui.pageflow.Forward;
import com.bea.wlw.netui.pageflow.PageFlowController;
import javax.servlet.ServletContext;

/**
 * @jpf:controller
 * @jpf:view-properties view-properties::
 * <!-- This data is auto-generated. Hand-editing this section is not recommended. -->
 * <view-properties>
 * <pageflow-object id="pageflow:/handlingData/databinding/databindingController.jpf"/>
 * <pageflow-object id="action:begin.do">
 *   <property value="80" name="x"/>
 *   <property value="120" name="y"/>
 * </pageflow-object>
 * <pageflow-object id="action:toActionForm.do">
 *   <property value="320" name="x"/>
 *   <property value="120" name="y"/>
 * </pageflow-object>
 * <pageflow-object id="action:toApplication.do">
 *   <property value="320" name="x"/>
 *   <property value="180" name="y"/>
 * </pageflow-object>
 * <pageflow-object id="action:toBundle.do">
 *   <property value="320" name="x"/>
 *   <property value="240" name="y"/>
 * </pageflow-object>
 * <pageflow-object id="action:toGlobalApp.do">
 *   <property value="320" name="x"/>
 *   <property value="300" name="y"/>
 * </pageflow-object>
 * <pageflow-object id="action:toPageContext.do">
 *   <property value="320" name="x"/>
 *   <property value="360" name="y"/>
 * </pageflow-object>
 * <pageflow-object id="action:toPageFlow.do">
 *   <property value="320" name="x"/>
 *   <property value="420" name="y"/>
 * </pageflow-object>
 * <pageflow-object id="action:toRequest.do">
 *   <property value="320" name="x"/>
 *   <property value="480" name="y"/>
 * </pageflow-object>
 * <pageflow-object id="action:toSession.do">
```

navhandlingData.html Sample

```
* <property value="320" name="x" />
* <property value="540" name="y" />
* </pageflow-object>
* <pageflow-object id="action:toURL.do">
*   <property value="320" name="x" />
*   <property value="600" name="y" />
* </pageflow-object>
* <pageflow-object id="action-call:@page:index.jsp#@action:toGlobalApp.do@">
*   <property value="236,260,260,284" name="elbowsX" />
*   <property value="123,123,292,292" name="elbowsY" />
*   <property value="East_2" name="fromPort" />
*   <property value="West_1" name="toPort" />
* </pageflow-object>
* <pageflow-object id="action-call:@page:index.jsp#@action:toBundle.do@">
*   <property value="236,260,260,284" name="elbowsX" />
*   <property value="123,123,232,232" name="elbowsY" />
*   <property value="East_2" name="fromPort" />
*   <property value="West_1" name="toPort" />
* </pageflow-object>
* <pageflow-object id="action-call:@page:index.jsp#@action:toActionForm.do@">
*   <property value="236,260,260,284" name="elbowsX" />
*   <property value="112,112,112,112" name="elbowsY" />
*   <property value="East_1" name="fromPort" />
*   <property value="West_1" name="toPort" />
* </pageflow-object>
* <pageflow-object id="action-call:@page:index.jsp#@action:toSession.do@">
*   <property value="236,260,260,284" name="elbowsX" />
*   <property value="123,123,532,532" name="elbowsY" />
*   <property value="East_2" name="fromPort" />
*   <property value="West_1" name="toPort" />
* </pageflow-object>
* <pageflow-object id="action-call:@page:index.jsp#@action:toApplication.do@">
*   <property value="236,260,260,284" name="elbowsX" />
*   <property value="123,123,172,172" name="elbowsY" />
*   <property value="East_2" name="fromPort" />
*   <property value="West_1" name="toPort" />
* </pageflow-object>
* <pageflow-object id="action-call:@page:index.jsp#@action:toPageFlow.do@">
*   <property value="236,260,260,284" name="elbowsX" />
*   <property value="123,123,412,412" name="elbowsY" />
*   <property value="East_2" name="fromPort" />
*   <property value="West_1" name="toPort" />
* </pageflow-object>
* <pageflow-object id="action-call:@page:index.jsp#@action:toPageContext.do@">
*   <property value="236,260,260,284" name="elbowsX" />
*   <property value="123,123,352,352" name="elbowsY" />
*   <property value="East_2" name="fromPort" />
*   <property value="West_1" name="toPort" />
* </pageflow-object>
* <pageflow-object id="action-call:@page:index.jsp#@action:toRequest.do@">
*   <property value="236,260,260,284" name="elbowsX" />
*   <property value="123,123,472,472" name="elbowsY" />
*   <property value="East_2" name="fromPort" />
*   <property value="West_1" name="toPort" />
* </pageflow-object>
* <pageflow-object id="action-call:@page:index.jsp#@action:toURL.do@">
*   <property value="236,260,260,284" name="elbowsX" />
*   <property value="123,123,592,592" name="elbowsY" />
*   <property value="East_2" name="fromPort" />
*   <property value="West_1" name="toPort" />
* </pageflow-object>
```

navhandlingData.html Sample

```
* <pageflow-object id="page:index.jsp">
*   <property value="200" name="x"/>
*   <property value="120" name="y"/>
* </pageflow-object>
* <pageflow-object id="external-jpf:actionForm/ActionFormController.jspf">
*   <property value="440" name="x"/>
*   <property value="120" name="y"/>
* </pageflow-object>
* <pageflow-object id="page:application/application.jsp">
*   <property value="440" name="x"/>
*   <property value="180" name="y"/>
* </pageflow-object>
* <pageflow-object id="external-jpf:bundle/bundleController.jspf">
*   <property value="440" name="x"/>
*   <property value="240" name="y"/>
* </pageflow-object>
* <pageflow-object id="external-jpf:globalApp/globalAppController.jspf">
*   <property value="440" name="x"/>
*   <property value="300" name="y"/>
* </pageflow-object>
* <pageflow-object id="page:pageContext/pageContext.jsp">
*   <property value="440" name="x"/>
*   <property value="360" name="y"/>
* </pageflow-object>
* <pageflow-object id="external-jpf:pageFlow/PageFlowContextController.jspf">
*   <property value="440" name="x"/>
*   <property value="420" name="y"/>
* </pageflow-object>
* <pageflow-object id="external-jpf:request/RequestController.jspf">
*   <property value="440" name="x"/>
*   <property value="480" name="y"/>
* </pageflow-object>
* <pageflow-object id="page:session/session.jsp">
*   <property value="440" name="x"/>
*   <property value="540" name="y"/>
* </pageflow-object>
* <pageflow-object id="external-jpf:url/urlController.jspf">
*   <property value="440" name="x"/>
*   <property value="600" name="y"/>
* </pageflow-object>
* <pageflow-object id="forward:path#success#index.jsp#@action:begin.do@">
*   <property value="116,140,140,164" name="elbowsX"/>
*   <property value="112,112,112,112" name="elbowsY"/>
*   <property value="East_1" name="fromPort"/>
*   <property value="West_1" name="toPort"/>
*   <property value="success" name="label"/>
* </pageflow-object>
* <pageflow-object id="forward:path#success#actionForm/ActionFormController.jspf#@action:toActi
*   <property value="356,380,380,404" name="elbowsX"/>
*   <property value="112,112,112,112" name="elbowsY"/>
*   <property value="East_1" name="fromPort"/>
*   <property value="West_1" name="toPort"/>
*   <property value="success" name="label"/>
* </pageflow-object>
* <pageflow-object id="forward:path#success#application/application.jsp#@action:toApplication.
*   <property value="356,380,380,404" name="elbowsX"/>
*   <property value="172,172,172,172" name="elbowsY"/>
*   <property value="East_1" name="fromPort"/>
*   <property value="West_1" name="toPort"/>
*   <property value="success" name="label"/>
* </pageflow-object>
```

navhandlingData.html Sample

```

* <pageflow-object id="forward:path#success#bundle/bundleController.jspf#@action:toBundle.do@">
*   <property value="356,380,380,404" name="elbowsX" />
*   <property value="232,232,232,232" name="elbowsY" />
*   <property value="East_1" name="fromPort" />
*   <property value="West_1" name="toPort" />
*   <property value="success" name="label" />
* </pageflow-object>
* <pageflow-object id="forward:path#success#globalApp/globalAppController.jspf#@action:toGlobalApp.do@">
*   <property value="356,380,380,404" name="elbowsX" />
*   <property value="292,292,292,292" name="elbowsY" />
*   <property value="East_1" name="fromPort" />
*   <property value="West_1" name="toPort" />
*   <property value="success" name="label" />
* </pageflow-object>
* <pageflow-object id="forward:path#success#pageContext/pageContext.jspf#@action:toPageContext.do@">
*   <property value="356,380,380,404" name="elbowsX" />
*   <property value="352,352,352,352" name="elbowsY" />
*   <property value="East_1" name="fromPort" />
*   <property value="West_1" name="toPort" />
*   <property value="success" name="label" />
* </pageflow-object>
* <pageflow-object id="forward:path#success#pageFlow/PageFlowContextController.jspf#@action:toPageFlow.do@">
*   <property value="356,380,380,404" name="elbowsX" />
*   <property value="412,412,412,412" name="elbowsY" />
*   <property value="East_1" name="fromPort" />
*   <property value="West_1" name="toPort" />
*   <property value="success" name="label" />
* </pageflow-object>
* <pageflow-object id="forward:path#success#request/RequestController.jspf#@action:toRequest.do@">
*   <property value="356,380,380,404" name="elbowsX" />
*   <property value="472,472,472,472" name="elbowsY" />
*   <property value="East_1" name="fromPort" />
*   <property value="West_1" name="toPort" />
*   <property value="success" name="label" />
* </pageflow-object>
* <pageflow-object id="forward:path#success#session/session.jspf#@action:toSession.do@">
*   <property value="356,380,380,404" name="elbowsX" />
*   <property value="532,532,532,532" name="elbowsY" />
*   <property value="East_1" name="fromPort" />
*   <property value="West_1" name="toPort" />
*   <property value="success" name="label" />
* </pageflow-object>
* <pageflow-object id="forward:path#success#url/urlController.jspf#@action:toURL.do@">
*   <property value="356,380,380,404" name="elbowsX" />
*   <property value="592,592,592,592" name="elbowsY" />
*   <property value="East_1" name="fromPort" />
*   <property value="West_1" name="toPort" />
*   <property value="success" name="label" />
* </pageflow-object>
* </view-properties>
* ::
*/
public class databindingController extends PageFlowController
{
    /**
     * @jpf:action
     * @jpf:forward name="success" path="index.jsp"
     */
    protected Forward begin()
    {
        return new Forward("success");
    }
}

```

navhandlingData.html Sample

```
}

/**
 * @jpf:action
 * @jpf:forward path="actionForm/ActionFormController.jpf" name="success"
 */
protected Forward toActionForm()
{
    return new Forward("success");
}

/**
 * @jpf:action
 * @jpf:forward path="application/application.jsp" name="success"
 */
protected Forward toApplication()
{
    return new Forward("success");
}

/**
 * @jpf:action
 * @jpf:forward path="bundle/bundleController.jpf" name="success"
 */
protected Forward toBundle()
{
    return new Forward("success");
}

/**
 * @jpf:action
 * @jpf:forward path="globalApp/globalAppController.jpf" name="success"
 */
protected Forward toGlobalApp()
{
    return new Forward("success");
}

/**
 * @jpf:action
 * @jpf:forward path="pageContext/pageContext.jsp" name="success"
 */
protected Forward toPageContext()
{
    return new Forward("success");
}

/**
 * @jpf:action
 * @jpf:forward path="pageFlow/PageFlowContextController.jpf" name="success"
 */
protected Forward toPageFlow()
{
    return new Forward("success");
}

/**
 * @jpf:action
 * @jpf:forward path="request/RequestController.jpf" name="success"
 */
protected Forward toRequest()
```

navhandlingData.html Sample

```
{
    return new Forward("success");
}

/**
 * @jpf:action
 * @jpf:forward path="session/session.jsp" name="success"
 */
protected Forward toSession()
{
    return new Forward("success");
}

/**
 * @jpf:action
 * @jpf:forward path="url/urlController.jsp" name="success"
 */
protected Forward toURL()
{
    return new Forward("success");
}
}
```


globalApp Samples

This section contains source code for the following samples.

Samples Included in This Section

GlobalApp.jsp Sample

GlobalAppController.jspf Sample

GlobalApp.jsp Sample

This topic includes the source code for the GlobalApp.jsp Sample.

Sample Location

This sample is located in the following directory in your WebLogic Workshop installation:

BEA_HOME/weblogic81/samples/workshop/SamplesApp/WebApp/handlingData/databinding/globalApp/

Sample Source Code

```
<%@ page language="java" contentType="text/html; charset=UTF-8"%>
<%@ taglib uri="netui-tags-databinding.tld" prefix="netui-data"%>
<%@ taglib uri="netui-tags-html.tld" prefix="netui"%>
<%@ taglib uri="netui-tags-template.tld" prefix="netui-template"%>
<netui:html>
    <title>
        globalApp.jsp
    </title>
    <link href="/WebApp/resources/css/style.css" type="text/css" rel="stylesheet"/>
</head>
<body>
    <jsp:include page="/resources/jsp/header.jsp"/>
    <h3>Databinding Samples: {globalApp...} Context</h3>
    <p>This sample uses the {globalApp...} data binding context to read from the global Page
    WEB-INF/src/global/Global.app.
    <p>Use global Page Flow to (1) store properties used across all Page Flows in the appli
    (2) provide universal error handling for all Page Flows.
    <blockquote>

    <%--
    Read the globalParam property from the global Page Flow WEB-INF/src/global/Global.app
    --%>
    <p>
        <netui:label value="{globalApp.globalParam}" style="color:#ff3300;" />
    </p>

    </blockquote>
    <hr>
    <p><netui:anchor href="/WebApp/handlingData/databinding/databindingController.jspf">
    Back to Databinding Samples</netui:anchor>
    </body>
</netui:html>
```

GlobalAppController.jspf Sample

This topic includes the source code for the GlobalAppController.jspf Sample.

Sample Location

This sample is located in the following directory in your WebLogic Workshop installation:

BEA_HOME/weblogic81/samples/workshop/SamplesApp/WebApp/handlingData/databinding/globalApp/

Sample Source Code

```
package handlingData.databinding.globalApp;
import com.bea.wlw.netui.pageflow.Forward;
import com.bea.wlw.netui.pageflow.PageFlowController;

/**
 * @jpf:controller
 * @jpf:view-properties view-properties::
 * <!-- This data is auto-generated. Hand-editing this section is not recommended. -->
 * <view-properties>
 * <pageflow-object id="pageflow:/handlingData/databinding/globalApp/globalAppController.jspf"/>
 * <pageflow-object id="action:begin.do">
 *   <property value="80" name="x"/>
 *   <property value="100" name="y"/>
 * </pageflow-object>
 * <pageflow-object id="page:globalApp.jsp">
 *   <property value="60" name="x"/>
 *   <property value="40" name="y"/>
 * </pageflow-object>
 * <pageflow-object id="forward:path#success#globalApp.jsp#@action:begin.do@">
 *   <property value="44,21,21,60" name="elbowsX"/>
 *   <property value="92,92,-4,-4" name="elbowsY"/>
 *   <property value="West_1" name="fromPort"/>
 *   <property value="North_1" name="toPort"/>
 *   <property value="success" name="label"/>
 * </pageflow-object>
 * </view-properties>
 * ::
 */
public class globalAppController extends PageFlowController
{
    /**
     * @jpf:action
     * @jpf:forward name="success" path="globalApp.jsp"
     */
    protected Forward begin()
    {
        return new Forward("success");
    }
}
```

Index.jsp Sample

This topic includes the source code for the Index.jsp Sample.

Sample Location

This sample is located in the following directory in your WebLogic Workshop installation:

BEA_HOME/weblogic81/samples/workshop/SamplesApp/WebApp/handlingData/databinding/

Sample Source Code

```
<%@ page language="java" contentType="text/html; charset=UTF-8"%>
<%@ taglib uri="netui-tags-databinding.tld" prefix="netui-data"%>
<%@ taglib uri="netui-tags-html.tld" prefix="netui"%>
<%@ taglib uri="netui-tags-template.tld" prefix="netui-template"%>
<netui:html>
    <title>
        index.jsp
    </title>
    <link href="/WebApp/resources/css/style.css" type="text/css" rel="stylesheet"/>
</head>
<body>
    <jsp:include page="/resources/jsp/header.jsp"/>
    <h3>Databinding Samples</h3>
    <blockquote>
        <netui:anchor action="toActionForm">{actionForm...} context</netui:anchor>
        <hr>
        <netui:anchor action="toApplication">{application...} context</netui:anchor>
        <hr>
        <netui:anchor action="toBundle">{bundle...} context</netui:anchor>
        <hr>
        <netui:anchor action="toGlobalApp">{globalApp...} context</netui:anchor>
        <hr>
        <netui:anchor action="toPageContext">{pageContext...} context</netui:anchor>
        <hr>
        <netui:anchor action="toPageFlow">{pageFlow...} context</netui:anchor>
        <hr>
        <netui:anchor action="toRequest">{request...} context</netui:anchor>
        <hr>
        <netui:anchor action="toSession">{session...} context</netui:anchor>
        <hr>
        <netui:anchor action="toURL">{url...} context</netui:anchor>
    </blockquote>
    <hr>
    <p><netui:anchor href="/WebApp/handlingData/handlingDataController.jspf">
        Back to Handling Data Samples</netui:anchor>
    </p>
</body>
</netui:html>
```

pageContext Samples

This section contains source code for the following samples.

Samples Included in This Section

PageContext.jsp Sample

PageContext.jsp Sample

This topic includes the source code for the PageContext.jsp Sample.

Sample Location

This sample is located in the following directory in your WebLogic Workshop installation:

BEA_HOME/weblogic81/samples/workshop/SamplesApp/WebApp/handlingData/databinding/pageContext/

Sample Source Code

```
<%@ page language="java" contentType="text/html; charset=UTF-8"%>
<%@ taglib uri="netui-tags-databinding.tld" prefix="netui-data"%>
<%@ taglib uri="netui-tags-html.tld" prefix="netui"%>
<%@ taglib uri="netui-tags-template.tld" prefix="netui-template"%>
<netui:html>
    <title>
        pageContext.jsp
    </title>
    <link href="/WebApp/resources/css/style.css" type="text/css" rel="stylesheet"/>
</head>
<body>
    <jsp:include page="/resources/jsp/header.jsp"/>
    <h3>Databinding Samples: {pageContext...} Context</h3>
    <p>This sample reads a property from this JSP's page-scoped attribute map.
    <blockquote>

        <!--
        Write a value to this JSP's attribute map.
        --%>
        <%
        pageContext.setAttribute("pageParam", "pageValue");
        %>
        Value read from this JSP's attribute map: <netui:label value="{pageContext.pagePara

    </blockquote>
    <hr>
    <p><netui:anchor href="/WebApp/handlingData/databinding/databindingController.jspf">
        Back to Databinding Samples</netui:anchor>
    </body>
</netui:html>
```

pageFlow Samples

This section contains source code for the following samples.

Samples Included in This Section

PageFlowContextController.jspf Sample

Show.jsp Sample

Submit.jsp Sample

PageFlowContextController.jpf Sample

This topic includes the source code for the PageFlowContextController.jpf Sample.

Sample Location

This sample is located in the following directory in your WebLogic Workshop installation:

BEA_HOME/weblogic81/samples/workshop/SamplesApp/WebApp/handlingData/databinding/pageFlow/

Sample Source Code

```
package handlingData.databinding.pageFlow;

import com.bea.wlw.netui.pageflow.FormData;
import com.bea.wlw.netui.pageflow.Forward;
import com.bea.wlw.netui.pageflow.PageFlowController;

/**
 * @jpf:controller
 * @jpf:view-properties view-properties::
 * <!-- This data is auto-generated. Hand-editing this section is not recommended. -->
 * <view-properties>
 * <pageflow-object id="pageflow:/handlingData/databinding/pageFlow/PageFlowContextController.jpf">
 * <pageflow-object id="action:begin.do#handlingData.databinding.pageFlow.PageFlowContextController">
 *   <property value="80" name="x"/>
 *   <property value="100" name="y"/>
 * </pageflow-object>
 * <pageflow-object id="action:submit.do#handlingData.databinding.pageFlow.PageFlowContextController">
 *   <property value="240" name="x"/>
 *   <property value="240" name="y"/>
 * </pageflow-object>
 * <pageflow-object id="action-call:@page:submit.jsp#@action:submit.do#handlingData.databinding.pageFlow">
 *   <property value="240,240,204,204" name="elbowsX"/>
 *   <property value="144,174,174,221" name="elbowsY"/>
 *   <property value="South_1" name="fromPort"/>
 *   <property value="West_0" name="toPort"/>
 * </pageflow-object>
 * <pageflow-object id="page:submit.jsp">
 *   <property value="240" name="x"/>
 *   <property value="100" name="y"/>
 * </pageflow-object>
 * <pageflow-object id="action-call:@page:show.jsp#@action:begin.do#handlingData.databinding.pageFlow">
 *   <property value="80,80,80,80" name="elbowsX"/>
 *   <property value="196,170,170,144" name="elbowsY"/>
 *   <property value="North_1" name="fromPort"/>
 *   <property value="South_1" name="toPort"/>
 * </pageflow-object>
 * <pageflow-object id="page:show.jsp">
 *   <property value="80" name="x"/>
 *   <property value="240" name="y"/>
 * </pageflow-object>
 * <pageflow-object id="forward:path#success#show.jsp#@action:submit.do#handlingData.databinding.pageFlow">
 *   <property value="204,160,160,116" name="elbowsX"/>
 *   <property value="232,232,232,232" name="elbowsY"/>
 *   <property value="West_1" name="fromPort"/>
 *   <property value="East_1" name="toPort"/>
 * </pageflow-object>
 * </view-properties>
 */
```


navhandlingData.html Sample

```

*   <property value="success" name="label"/>
* </pageflow-object>
* <pageflow-object id="formbeanprop:handlingData.databinding.pageFlow.PageFlowContextController"
* <pageflow-object id="formbean:handlingData.databinding.pageFlow.PageFlowContextController.Su
* <pageflow-object id="forward:path#success#submit.jsp#@action:begin.do#handlingData.databinding
*   <property value="116,160,160,204" name="elbowsX"/>
*   <property value="92,92,92,92" name="elbowsY"/>
*   <property value="East_1" name="fromPort"/>
*   <property value="West_1" name="toPort"/>
*   <property value="success" name="label"/>
* </pageflow-object>
* </view-properties>
* ::
*/
public class PageFlowContextController extends PageFlowController
{
    public SubmitForm formInstance = new SubmitForm();

    /**
     * @jpf:action form="formInstance"
     * @jpf:forward name="success" path="submit.jsp"
     */
    protected Forward begin(SubmitForm form)
    {
        form.setName("John");

        return new Forward("success");
    }

    /**
     * @jpf:action
     * @jpf:forward name="success" path="show.jsp"
     */
    protected Forward submit(SubmitForm form)
    {
        return new Forward("success");
    }

    /**
     * FormData get and set methods may be overwritten by the Form Bean editor.
     */
    public static class SubmitForm extends FormData
    {
        private String name;

        public void setName(String name)
        {
            this.name = name;
        }

        public String getName()
        {
            return this.name;
        }
    }
}

```

Show.jsp Sample

This topic includes the source code for the Show.jsp Sample.

Sample Location

This sample is located in the following directory in your WebLogic Workshop installation:

BEA_HOME/weblogic81/samples/workshop/SamplesApp/WebApp/handlingData/databinding/pageFlow/

Sample Source Code

```
<%@ page language="java" contentType="text/html; charset=UTF-8"%>
<%@ taglib uri="netui-tags-databinding.tld" prefix="netui-data"%>
<%@ taglib uri="netui-tags-html.tld" prefix="netui"%>
<%@ taglib uri="netui-tags-template.tld" prefix="netui-template"%>
<netui:html>
    <title>
        show.jsp
    </title>
    <link href="/WebApp/resources/css/style.css" type="text/css" rel="stylesheet"/>
</head>
<body>
    <jsp:include page="/resources/jsp/header.jsp"/>
    <h3>Databinding Samples: {pageFlow...} Context</h3>
    <p>Here is the data you submitted:
    <blockquote>

        Name: <netui:label value="{pageFlow.formInstance.name}" style="color:#ff3300;" />

    </blockquote>
    <hr>
    <p><netui:anchor action="begin">Submit another form</netui:anchor>
    <p><netui:anchor href="/WebApp/handlingData/databinding/databindingController.jspf">
        Back to Databinding Samples</netui:anchor>
    </body>
</netui:html>
```

Submit.jsp Sample

This topic includes the source code for the Submit.jsp Sample.

Sample Location

This sample is located in the following directory in your WebLogic Workshop installation:

BEA_HOME/weblogic81/samples/workshop/SamplesApp/WebApp/handlingData/databinding/pageFlow/

Sample Source Code

```
<%@ page language="java" contentType="text/html; charset=UTF-8"%>
<%@ taglib uri="netui-tags-databinding.tld" prefix="netui-data"%>
<%@ taglib uri="netui-tags-html.tld" prefix="netui"%>
<%@ taglib uri="netui-tags-template.tld" prefix="netui-template"%>
<netui:html>
  <head>
    <title>
      submit.jsp
    </title>
    <link href="/WebApp/resources/css/style.css" type="text/css" rel="stylesheet"/>
  </head>
  <body>
    <jsp:include page="/resources/jsp/header.jsp"/>
    <h3>Databinding Samples: {pageFlow...} Context</h3>
    <p>This sample uses the {pageFlow...} data binding context to submit the form data
    below.
    <blockquote>

      <netui:form action="submit">
        Name: <netui:textBox dataSource="{pageFlow.formInstance.name}" /><br>
        <netui:button value="Submit" />
      </netui:form>

    </blockquote>
    <hr>
    <p><netui:anchor href="/WebApp/handlingData/databinding/databindingController.jspf">
    Back to Databinding Samples</netui:anchor>
  </body>
</netui:html>
```

request Samples

This section contains source code for the following samples.

Samples Included in This Section

Index.jsp Sample

RequestController.jspf Sample

Index.jsp Sample

This topic includes the source code for the Index.jsp Sample.

Sample Location

This sample is located in the following directory in your WebLogic Workshop installation:

BEA_HOME/weblogic81/samples/workshop/SamplesApp/WebApp/handlingData/databinding/request/

Sample Source Code

```
<%@ page language="java" contentType="text/html; charset=UTF-8"%>
<%@ taglib uri="netui-tags-databinding.tld" prefix="netui-data"%>
<%@ taglib uri="netui-tags-html.tld" prefix="netui"%>
<%@ taglib uri="netui-tags-template.tld" prefix="netui-template"%>
<netui:html>
    <title>
        index.jsp
    </title>
    <link href="/WebApp/resources/css/style.css" type="text/css" rel="stylesheet"/>
</head>
<body>
    <jsp:include page="/resources/jsp/header.jsp"/>
    <h3>Databinding Samples: {request...} Context</h3>
    <p>This sample uses the {request...} data binding context to move data from the
    Controller file to this JSP page.
    <blockquote>
    <p>

        The current time is: <netui:label value="{request.requestParam}" style="color:#ff3

    </p>
    </blockquote>
    <hr>
    <p><netui:anchor href="/WebApp/handlingData/dataBinding/databindingController.jspf">
    Back to Databinding Samples</netui:anchor>
    </body>
</netui:html>
```

RequestController.jpf Sample

This topic includes the source code for the RequestController.jpf Sample.

Sample Location

This sample is located in the following directory in your WebLogic Workshop installation:

BEA_HOME/weblogic81/samples/workshop/SamplesApp/WebApp/handlingData/databinding/request/

Sample Source Code

```
package handlingData.databinding.request;
import com.bea.wlw.netui.pageflow.FormData;
import com.bea.wlw.netui.pageflow.Forward;
import com.bea.wlw.netui.pageflow.PageFlowController;
import java.util.Date;

/**
 * @jpf:controller
 * @jpf:view-properties view-properties::
 * <!-- This data is auto-generated. Hand-editing this section is not recommended. -->
 * <view-properties>
 * <pageflow-object id="pageflow:/handlingData/databinding/request/RequestController.jpf"/>
 * <pageflow-object id="action:begin.do">
 *   <property value="80" name="x"/>
 *   <property value="100" name="y"/>
 * </pageflow-object>
 * <pageflow-object id="action:submit.do">
 *   <property value="240" name="x"/>
 *   <property value="240" name="y"/>
 * </pageflow-object>
 * <pageflow-object id="action-call:@page:submit.jsp##@action:submit.do@">
 *   <property value="240,240,240,240" name="elbowsX"/>
 *   <property value="144,170,170,196" name="elbowsY"/>
 *   <property value="South_1" name="fromPort"/>
 *   <property value="North_1" name="toPort"/>
 * </pageflow-object>
 * <pageflow-object id="page:submit.jsp">
 *   <property value="240" name="x"/>
 *   <property value="100" name="y"/>
 * </pageflow-object>
 * <pageflow-object id="action-call:@page:show.jsp##@action:begin.do@">
 *   <property value="80,80,80,80" name="elbowsX"/>
 *   <property value="196,170,170,144" name="elbowsY"/>
 *   <property value="North_1" name="fromPort"/>
 *   <property value="South_1" name="toPort"/>
 * </pageflow-object>
 * <pageflow-object id="page:show.jsp">
 *   <property value="80" name="x"/>
 *   <property value="240" name="y"/>
 * </pageflow-object>
 * <pageflow-object id="forward:path#success#index.jsp##@action:begin.do@">
 *   <property value="44,32,32,60" name="elbowsX"/>
 *   <property value="92,92,-4,-4" name="elbowsY"/>
 *   <property value="West_1" name="fromPort"/>
 *   <property value="North_1" name="toPort"/>

```

navhandlingData.html Sample

```
*   <property value="success" name="label"/>
* </pageflow-object>
* <pageflow-object id="page:index.jsp">
*   <property value="60" name="x"/>
*   <property value="40" name="y"/>
* </pageflow-object>
* </view-properties>
* ::
*/
public class RequestController extends PageFlowController
{
    /**
     * @jpf:action
     * @jpf:forward name="success" path="index.jsp"
     */
    protected Forward begin()
    {
        getRequest().setAttribute("requestParam", new Date());

        return new Forward("success");
    }
}
```

session Samples

This section contains source code for the following samples.

Samples Included in This Section

Session.jsp Sample

Session.jsp Sample

This topic includes the source code for the Session.jsp Sample.

Sample Location

This sample is located in the following directory in your WebLogic Workshop installation:

BEA_HOME/weblogic81/samples/workshop/SamplesApp/WebApp/handlingData/databinding/session/

Sample Source Code

```
<%@ page language="java" contentType="text/html; charset=UTF-8"%>
<%@ taglib uri="netui-tags-databinding.tld" prefix="netui-data"%>
<%@ taglib uri="netui-tags-html.tld" prefix="netui"%>
<%@ taglib uri="netui-tags-template.tld" prefix="netui-template"%>
<netui:html>
    <title>
        session.jsp
    </title>
    <link href="/WebApp/resources/css/style.css" type="text/css" rel="stylesheet"/>
</head>
<body>
    <jsp:include page="/resources/jsp/header.jsp"/>
    <h3>Databinding Samples: {session...} Context</h3>
    <p>This sample uses the {session...} databinding context to read data from
    the JSP user session object (javax.servlet.http.HttpSession) representing an
    individual's user session.
    <blockquote>
    <p>

        <%--
        Store data in the session object.
        --%>
        <%
        session.setAttribute("sessionParam", "sessionValue");
        %>
        <netui:label value="{session.sessionParam}" style="color:#ff3300;" />

    </p>
    </blockquote>
    <hr>
    <p><netui:anchor href="/WebApp/handlingData/dataBinding/databindingController.jspf">
    Back to Databinding Samples</netui:anchor>
    </body>
</netui:html>
```

url Samples

This section contains source code for the following samples.

Samples Included in This Section

Index.jsp Sample

Page2.jsp Sample

UrlController.jspf Sample

Index.jsp Sample

This topic includes the source code for the Index.jsp Sample.

Sample Location

This sample is located in the following directory in your WebLogic Workshop installation:

BEA_HOME/weblogic81/samples/workshop/SamplesApp/WebApp/handlingData/databinding/url/

Sample Source Code

```
<%@ page language="java" contentType="text/html; charset=UTF-8"%>
<%@ taglib uri="netui-tags-databinding.tld" prefix="netui-data"%>
<%@ taglib uri="netui-tags-html.tld" prefix="netui"%>
<%@ taglib uri="netui-tags-template.tld" prefix="netui-template"%>
<netui:html>
    <title>
        url.jsp
    </title>
    <link href="/WebApp/resources/css/style.css" type="text/css" rel="stylesheet"/>
</head>
<body>
    <jsp:include page="/resources/jsp/header.jsp"/>
    <h3>Databinding Samples: {url...} Context</h3>
    <blockquote>

        <p>The link below writes a parameter/value pair to the
        URL.
        <p>The linked-to page reads the parameter/value pair
        from the URL.
        <p><netui:anchor action="toPage2">
            <netui:parameter value="urlValue" name="urlParam" />
            To Page 2
        </netui:anchor>

    </blockquote>
    <hr>
    <p><netui:anchor href="/WebApp/handlingData/databinding/databindingController.jspf">
        Back to Databinding Samples</netui:anchor>
    </body>
</netui:html>
```

Page2.jsp Sample

This topic includes the source code for the Page2.jsp Sample.

Sample Location

This sample is located in the following directory in your WebLogic Workshop installation:

BEA_HOME/weblogic81/samples/workshop/SamplesApp/WebApp/handlingData/databinding/url/

Sample Source Code

```
<%@ page language="java" contentType="text/html; charset=UTF-8"%>
<%@ taglib uri="netui-tags-databinding.tld" prefix="netui-data"%>
<%@ taglib uri="netui-tags-html.tld" prefix="netui"%>
<%@ taglib uri="netui-tags-template.tld" prefix="netui-template"%>
<netui:html>
    <title>
        page2.jsp
    </title>
    <link href="/WebApp/resources/css/style.css" type="text/css" rel="stylesheet"/>
</head>
<body>
    <jsp:include page="/resources/jsp/header.jsp"/>
    <h3>Databinding Samples: {url...} Context</h3>
    <p>The following parameter/value pair was read from the URL:
    <blockquote>
        <p>

            urlParam = <netui:label value="{url.urlParam}" style="color:#ff3300;" />

        </p>
    </blockquote>
    <hr>
    <p><netui:anchor action="begin">Re-run this sample</netui:anchor>
    <p><netui:anchor href="/WebApp/handlingData/databinding/databindingController.jspf">
        Back to Databinding Samples</netui:anchor>
    </body>
</netui:html>
```

UrlController.jpf Sample

This topic includes the source code for the UrlController.jpf Sample.

Sample Location

This sample is located in the following directory in your WebLogic Workshop installation:

BEA_HOME/weblogic81/samples/workshop/SamplesApp/WebApp/handlingData/databinding/url/

Sample Source Code

```
package handlingData.databinding.url;
import com.bea.wlw.netui.pageflow.Forward;
import com.bea.wlw.netui.pageflow.PageFlowController;

/**
 * @jpf:controller
 * @jpf:view-properties view-properties::
 * <!-- This data is auto-generated. Hand-editing this section is not recommended. -->
 * <view-properties>
 * <pageflow-object id="pageflow:/handlingData/databinding/url/urlController.jpf"/>
 * <pageflow-object id="action:begin.do">
 *   <property value="80" name="x"/>
 *   <property value="100" name="y"/>
 * </pageflow-object>
 * <pageflow-object id="action:toPage2.do">
 *   <property value="340" name="x"/>
 *   <property value="100" name="y"/>
 * </pageflow-object>
 * <pageflow-object id="action:toDatabindingSamplesHome.do">
 *   <property value="120" name="x"/>
 *   <property value="100" name="y"/>
 * </pageflow-object>
 * <pageflow-object id="action-call:@page:index.jsp#@action:toPage2.do@">
 *   <property value="276,290,290,304" name="elbowsX"/>
 *   <property value="92,92,92,92" name="elbowsY"/>
 *   <property value="East_1" name="fromPort"/>
 *   <property value="West_1" name="toPort"/>
 * </pageflow-object>
 * <pageflow-object id="page:index.jsp">
 *   <property value="240" name="x"/>
 *   <property value="100" name="y"/>
 * </pageflow-object>
 * <pageflow-object id="action-call:@page:page2.jsp#@action:toDatabindingSamplesHome.do@">
 *   <property value="96,120,120,120" name="elbowsX"/>
 *   <property value="43,43,49,56" name="elbowsY"/>
 *   <property value="East_2" name="fromPort"/>
 *   <property value="North_1" name="toPort"/>
 * </pageflow-object>
 * <pageflow-object id="page:page2.jsp">
 *   <property value="60" name="x"/>
 *   <property value="40" name="y"/>
 * </pageflow-object>
 * <pageflow-object id="external-jpf:/handlingData/databinding/databindingController.jpf">
 *   <property value="140" name="x"/>
 *   <property value="120" name="y"/>
```

navhandlingData.html Sample

```
* </pageflow-object>
* <pageflow-object id="forward:path#success#index.jsp#@action:begin.do@">
*   <property value="116,160,160,204" name="elbowsX"/>
*   <property value="92,92,92,92" name="elbowsY"/>
*   <property value="East_1" name="fromPort"/>
*   <property value="West_1" name="toPort"/>
*   <property value="success" name="label"/>
* </pageflow-object>
* <pageflow-object id="forward:path#success#page2.jsp#@action:toPage2.do@">
*   <property value="304,200,200,96" name="elbowsX"/>
*   <property value="81,81,32,32" name="elbowsY"/>
*   <property value="West_0" name="fromPort"/>
*   <property value="East_1" name="toPort"/>
*   <property value="success" name="label"/>
* </pageflow-object>
* </view-properties>
* ::
*/
public class urlController extends PageFlowController
{
    /**
     * @jpf:action
     * @jpf:forward name="success" path="index.jsp"
     */
    protected Forward begin()
    {
        return new Forward("success");
    }

    /**
     * @jpf:action
     * @jpf:forward name="success" path="page2.jsp"
     */
    protected Forward toPage2()
    {
        return new Forward("success");
    }
}
```

dataFlow Samples

This section contains source code for the following samples.

Samples Included in This Section

Confirm.jsp Sample

DataFlowController.jspf Sample

Done.jsp Sample

Error.jsp Sample

FirstName.jsp Sample

Index.jsp Sample

LastName.jsp Sample

Confirm.jsp Sample

This topic includes the source code for the Confirm.jsp Sample.

Sample Location

This sample is located in the following directory in your WebLogic Workshop installation:

BEA_HOME/weblogic81/samples/workshop/SamplesApp/WebApp/handlingData/dataFlow/

Sample Source Code

```
<!--Generated by Weblogic Workshop-->
<%@ page language="java" contentType="text/html; charset=UTF-8"%>
<%@ taglib uri="netui-tags-databinding.tld" prefix="netui-data"%>
<%@ taglib uri="netui-tags-html.tld" prefix="netui"%>
<%@ taglib uri="netui-tags-template.tld" prefix="netui-template"%>
<html>
  <head>
    <netui:base/>
    <link href="../../resources/css/style.css" type="text/css" rel="stylesheet"/>
  </head>

  <body>
    <jsp:include page="/resources/jsp/header.jsp"/>
    <blockquote>
      <h3>Confirm</h3>
      <p>Do you want to submit the following data?</p>
      <netui:form action="confirm">
        <table border="0">
          <tr>
            <td>
              First Name: <netui:label value="{pageFlow.pageFlowScopedBean.firstname}" />
            </td>
          </tr>
          <tr>
            <td>
              Last Name: <netui:label value="{pageFlow.pageFlowScopedBean.lastname}" />
            </td>
          </tr>
          <tr>
            <td>
              <netui:imageAnchor action="cancel" src="../../resources/images/blue_cancel.gif" />
              <netui:imageAnchor action="confirm" src="../../resources/images/submit.gif" />
            </td>
          </tr>
        </table>
      </netui:form>
    </blockquote>
  </body>
</html>
```


DataFlowController.jspf Sample

This topic includes the source code for the DataFlowController.jspf Sample.

Sample Location

This sample is located in the following directory in your WebLogic Workshop installation:

BEA_HOME/weblogic81/samples/workshop/SamplesApp/WebApp/handlingData/dataFlow/

Sample Source Code

```
package handlingData.dataFlow;

import com.bea.wlw.netui.pageflow.FormData;
import com.bea.wlw.netui.pageflow.Forward;
import com.bea.wlw.netui.pageflow.PageFlowController;
import javax.servlet.http.HttpServletRequest;

/**
 * @jpf:forward name="error" path="error.jsp"
 * @jpf:view-properties view-properties::
 * <!-- This data is auto-generated. Hand-editing this section is not recommended. -->
 * <view-properties>
 * <pageflow-object id="pageflow:/handlingData/dataFlow/dataFlowController.jspf"/>
 * <pageflow-object id="action:begin.do">
 *   <property name="x" value="60"/>
 *   <property name="y" value="60"/>
 * </pageflow-object>
 * <pageflow-object id="action:start.do">
 *   <property value="60" name="x"/>
 *   <property value="340" name="y"/>
 * </pageflow-object>
 * <pageflow-object id="action:firstNameAction.do#handlingData.dataFlow.dataFlowController.NameA
 *   <property value="260" name="x"/>
 *   <property value="340" name="y"/>
 * </pageflow-object>
 * <pageflow-object id="action:lastNameAction.do#handlingData.dataFlow.dataFlowController.NameA
 *   <property value="460" name="x"/>
 *   <property value="340" name="y"/>
 * </pageflow-object>
 * <pageflow-object id="action:confirm.do#handlingData.dataFlow.dataFlowController.NameActionFo
 *   <property value="640" name="x"/>
 *   <property value="340" name="y"/>
 * </pageflow-object>
 * <pageflow-object id="action:done.do#handlingData.dataFlow.dataFlowController.NameActionForm"
 *   <property value="740" name="x"/>
 *   <property value="60" name="y"/>
 * </pageflow-object>
 * <pageflow-object id="action:cancel.do">
 *   <property value="540" name="x"/>
 *   <property value="160" name="y"/>
 * </pageflow-object>
 * <pageflow-object id="page:error.jsp">
 *   <property name="x" value="740"/>
 *   <property name="y" value="300"/>
```

navhandlingData.html Sample

```
* </pageflow-object>
* <pageflow-object id="action-call:@page:index.jsp##@action:start.do@">
*   <property value="60,60,60,60" name="elbowsX"/>
*   <property value="204,250,250,296" name="elbowsY"/>
*   <property value="South_1" name="fromPort"/>
*   <property value="North_1" name="toPort"/>
* </pageflow-object>
* <pageflow-object id="page:index.jsp">
*   <property name="x" value="60"/>
*   <property name="y" value="160"/>
* </pageflow-object>
* <pageflow-object id="action-call:@page:firstName.jsp##@action:firstNameAction.do#handlingData">
*   <property value="196,210,210,224" name="elbowsX"/>
*   <property value="332,332,332,332" name="elbowsY"/>
*   <property value="East_1" name="fromPort"/>
*   <property value="West_1" name="toPort"/>
* </pageflow-object>
* <pageflow-object id="page:firstName.jsp">
*   <property name="x" value="160"/>
*   <property name="y" value="340"/>
* </pageflow-object>
* <pageflow-object id="action-call:@page:lastName.jsp##@action:lastNameAction.do#handlingData">
*   <property value="396,410,410,424" name="elbowsX"/>
*   <property value="332,332,332,332" name="elbowsY"/>
*   <property value="East_1" name="fromPort"/>
*   <property value="West_1" name="toPort"/>
* </pageflow-object>
* <pageflow-object id="page:lastName.jsp">
*   <property name="x" value="360"/>
*   <property name="y" value="340"/>
* </pageflow-object>
* <pageflow-object id="action-call:@page:confirm.jsp##@action:confirm.do#handlingData.dataFlow">
*   <property value="576,590,590,604" name="elbowsX"/>
*   <property value="332,332,332,332" name="elbowsY"/>
*   <property value="East_1" name="fromPort"/>
*   <property value="West_1" name="toPort"/>
* </pageflow-object>
* <pageflow-object id="action-call:@page:confirm.jsp##@action:cancel.do@">
*   <property value="540,540,540,540" name="elbowsX"/>
*   <property value="296,250,250,204" name="elbowsY"/>
*   <property value="North_1" name="fromPort"/>
*   <property value="South_1" name="toPort"/>
* </pageflow-object>
* <pageflow-object id="page:confirm.jsp">
*   <property name="x" value="540"/>
*   <property name="y" value="340"/>
* </pageflow-object>
* <pageflow-object id="action-call:@page:done.jsp##@action:begin.do@">
*   <property value="604,350,350,96" name="elbowsX"/>
*   <property value="52,52,52,52" name="elbowsY"/>
*   <property value="West_1" name="fromPort"/>
*   <property value="East_1" name="toPort"/>
* </pageflow-object>
* <pageflow-object id="action-call:@page:done.jsp##@action:done.do#handlingData.dataFlow.dataFlow">
*   <property value="676,690,690,704" name="elbowsX"/>
*   <property value="52,52,52,52" name="elbowsY"/>
*   <property value="East_1" name="fromPort"/>
*   <property value="West_1" name="toPort"/>
* </pageflow-object>
* <pageflow-object id="page:done.jsp">
*   <property name="x" value="640"/>
```

navhandlingData.html Sample

```
*   <property name="y" value="60"/>
* </pageflow-object>
* <pageflow-object id="external-jpf:/Controller.jpf">
*   <property name="x" value="740"/>
*   <property name="y" value="180"/>
* </pageflow-object>
* <pageflow-object id="forward:path#index#index.jsp#@action:begin.do@">
*   <property name="elbowsY" value="104,110,110,116"/>
*   <property name="toPort" value="North_1"/>
*   <property name="elbowsX" value="60,60,60,60"/>
*   <property name="label" value="index"/>
*   <property name="fromPort" value="South_1"/>
* </pageflow-object>
* <pageflow-object id="forward:path#success#firstName.jsp#@action:start.do@">
*   <property value="96,110,110,124" name="elbowsX"/>
*   <property value="332,332,332,332" name="elbowsY"/>
*   <property value="East_1" name="fromPort"/>
*   <property value="West_1" name="toPort"/>
*   <property value="success" name="label"/>
* </pageflow-object>
* <pageflow-object id="forward:path#success#lastName.jsp#@action:firstNameAction.do#handlingData">
*   <property value="296,310,310,324" name="elbowsX"/>
*   <property value="332,332,332,332" name="elbowsY"/>
*   <property value="East_1" name="fromPort"/>
*   <property value="West_1" name="toPort"/>
*   <property value="success" name="label"/>
* </pageflow-object>
* <pageflow-object id="forward:path#success#confirm.jsp#@action:lastNameAction.do#handlingData">
*   <property value="496,500,500,504" name="elbowsX"/>
*   <property value="332,332,332,332" name="elbowsY"/>
*   <property value="East_1" name="fromPort"/>
*   <property value="West_1" name="toPort"/>
*   <property value="success" name="label"/>
* </pageflow-object>
* <pageflow-object id="forward:path#success#done.jsp#@action:confirm.do#handlingData.dataFlow">
*   <property value="640,640,640,640" name="elbowsX"/>
*   <property value="296,200,200,104" name="elbowsY"/>
*   <property value="North_1" name="fromPort"/>
*   <property value="South_1" name="toPort"/>
*   <property value="success" name="label"/>
* </pageflow-object>
* <pageflow-object id="forward:path#success#/Controller.jpf#@action:done.do#handlingData.dataFlow">
*   <property value="740,740,740,740" name="elbowsX"/>
*   <property value="104,120,120,136" name="elbowsY"/>
*   <property value="South_1" name="fromPort"/>
*   <property value="North_1" name="toPort"/>
*   <property value="success" name="label"/>
* </pageflow-object>
* <pageflow-object id="forward:path#success#index.jsp#@action:cancel.do@">
*   <property value="504,300,300,96" name="elbowsX"/>
*   <property value="152,152,152,152" name="elbowsY"/>
*   <property value="West_1" name="fromPort"/>
*   <property value="East_1" name="toPort"/>
*   <property value="success" name="label"/>
* </pageflow-object>
* <pageflow-object id="formbeanprop:handlingData.dataFlow.dataFlowController.NameActionForm#la">
* <pageflow-object id="formbeanprop:handlingData.dataFlow.dataFlowController.NameActionForm#fi">
* <pageflow-object id="formbean:handlingData.dataFlow.dataFlowController.NameActionForm"/>
* <pageflow-object id="forward:path#error#error.jsp"/>
* </view-properties>
* ::
```

navhandlingData.html Sample

```
*
*/
public class dataFlowController extends PageFlowController
{
    /*
     * This instance of the Form Bean NameActionForm has the same life-cycle as the
     * Controller file. As long as the Controller file instance exists, pageFlowScopedBean
     * exists as well and can continue to accumulate state.
     */
    public NameActionForm pageFlowScopedBean = new NameActionForm();

    /**
     * @jpf:action
     * @jpf:forward name="index" path="index.jsp"
     */
    protected Forward begin()
    {
        return new Forward( "index" );
    }

    /**
     * @jpf:action
     * @jpf:forward name="success" path="firstName.jsp"
     */
    protected Forward start()
    {
        return new Forward("success");
    }

    /**
     * This method is passed the page-flow-scoped Form Bean pageFlowScopedBean.
     *
     * If the annotation
     *
     *     jpf:action form="pageFlowScopedBean"
     *
     * were not present, this method would be passed a new instance of the Form Bean
     * and that instance would be request-scoped, not page-flow-scoped.
     *
     * @jpf:action form="pageFlowScopedBean"
     * @jpf:forward name="success" path="lastName.jsp"
     */
    public Forward firstNameAction(NameActionForm form)
    {
        return new Forward( "success" );
    }

    /**
     * @jpf:action form="pageFlowScopedBean"
     * @jpf:forward name="success" path="confirm.jsp"
     */
    public Forward lastNameAction(NameActionForm form)
    {
        return new Forward( "success" );
    }

    /**
     * @jpf:action form="pageFlowScopedBean"
     * @jpf:forward name="success" path="done.jsp"
     */
    public Forward confirm(NameActionForm form)
```

navhandlingData.html Sample

```
{
    return new Forward( "success" );
}

/**
 * @jpf:action form="pageFlowScopedBean"
 * @jpf:forward name="success" path="/Controller.jpj"
 */
public Forward done(NameActionForm form)
{
    return new Forward( "success" );
}

/**
 * @jpf:action
 * @jpf:forward name="success" path="index.jsp"
 */
protected Forward cancel()
{
    return new Forward("success");
}

public static class NameActionForm extends com.bea.wlw.netui.pageflow.FormData
{
    private java.lang.String firstname;
    private java.lang.String lastname;

    public void setLastname(java.lang.String lastname)
    { this.lastname = lastname; }

    public java.lang.String getLastname()
    { return this.lastname; }

    public void setFirstname(java.lang.String firstname)
    { this.firstname = firstname; }

    public java.lang.String getFirstname()
    { return this.firstname; }
}

}
```

Done.jsp Sample

This topic includes the source code for the Done.jsp Sample.

Sample Location

This sample is located in the following directory in your WebLogic Workshop installation:

BEA_HOME/weblogic81/samples/workshop/SamplesApp/WebApp/handlingData/dataFlow/

Sample Source Code

```
<%@page contentType="text/html; charset=UTF-8" language="java"%>
<%@taglib prefix="netui" uri="netui-tags-html.tld"%>
<html>
  <head>
    <netui:base/>
    <link href="../../resources/css/style.css" type="text/css" rel="stylesheet"/>
  </head>
  <body>
    <jsp:include page="/resources/jsp/header.jsp"/>
    <blockquote>
      <h3>Thank You</h3>
      <p>You have entered the following data.</p>
      <netui:form action="done">
        <table border="0">
          <tr>
            <td>
              First Name: <netui:label value="{pageFlow.pageFlowScopedBean.firstname}" />
            </td>
          </tr>
          <tr>
            <td>
              Last Name: <netui:label value="{pageFlow.pageFlowScopedBean.lastname}" />
            </td>
          </tr>
        </table>
      </netui:form>
      <hr>
      <p><netui:anchor action="begin">Re-run the Wizard</netui:anchor>
      <p><netui:anchor href="../../handlingDataController.jspf">Back to Handling Data Samples</netui:
    </blockquote>
  </body>
</html>
```

Error.jsp Sample

This topic includes the source code for the Error.jsp Sample.

Sample Location

This sample is located in the following directory in your WebLogic Workshop installation:

BEA_HOME/weblogic81/samples/workshop/SamplesApp/WebApp/handlingData/dataFlow/

Sample Source Code

```
<!--Generated by Weblogic Workshop-->
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN">
<%@ page language="java" contentType="text/html; charset=UTF-8"%>
<%@ taglib uri="netui-tags-databinding.tld" prefix="netui-data"%>
<%@ taglib uri="netui-tags-html.tld" prefix="netui"%>
<html>
  <head>
    <netui:base/>
    <link href="../../resources/css/style.css" type="text/css" rel="stylesheet"/>
  </head>
  <body>
    <jsp:include page="/resources/jsp/header.jsp"/>
    <br/>
    <center>
      <b>
        An internal error occured.
      </b>
      <br/>
      <br/>
      <a href="dataFlowController.jsp">Back to dataFlow Start Page</a>
    </center>
  </body>
</html>
```

FirstName.jsp Sample

This topic includes the source code for the FirstName.jsp Sample.

Sample Location

This sample is located in the following directory in your WebLogic Workshop installation:

BEA_HOME/weblogic81/samples/workshop/SamplesApp/WebApp/handlingData/dataFlow/

Sample Source Code

```
<%@page contentType="text/html; charset=UTF-8" language="java"%>
<%@ taglib uri="netui-tags-databinding.tld" prefix="netui-data"%>
<%@ taglib uri="netui-tags-html.tld" prefix="netui"%>
<%@ taglib uri="netui-tags-template.tld" prefix="netui-template"%>
<html>
  <head>
    <netui:base/>
    <link href="../../resources/css/style.css" type="text/css" rel="stylesheet"/>
  </head>
  <body>
    <jsp:include page="/resources/jsp/header.jsp"/>
    <blockquote>
      <h3>First Name</h3>
      <p>Enter a first name.</p>
      <netui:form action="firstNameAction" focus="firstname">
        <table border="0">
          <tr>
            <td>
              Please enter your first name:
              <netui:textBox dataSource="{pageFlow.pageFlowScopedBean.firstname}" />
            </td>
          </tr>
          <tr>
            <td>
              <netui:imageAnchor action="firstNameAction" src="../../resources/images/blue.gif" />
            </td>
          </tr>
        </table>
      </netui:form>
    </blockquote>
  </body>
</html>
```


Index.jsp Sample

This topic includes the source code for the Index.jsp Sample.

Sample Location

This sample is located in the following directory in your WebLogic Workshop installation:

BEA_HOME/weblogic81/samples/workshop/SamplesApp/WebApp/handlingData/dataFlow/

Sample Source Code

```
<!--Generated by Weblogic Workshop-->
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN">
<%@ page language="java" contentType="text/html; charset=UTF-8"%>
<%@ taglib uri="netui-tags-databinding.tld" prefix="netui-data"%>
<%@ taglib uri="netui-tags-html.tld" prefix="netui"%>
<html>
  <head>
    <netui:base/>
    <link href="../../resources/css/style.css" type="text/css" rel="stylesheet"/>
  </head>
  <body>
    <jsp:include page="/resources/jsp/header.jsp"/>
    <blockquote>
      <table border=0>
        <tr valign="top">
          <td width=288>
            <netui:image src="../../resources/images/dataflow2.jpg" width="278" height=
          </td>
          <td>
            <p>This sample demonstrates how data can be passed
            from one JSP to another in a page flow. We use a NameActionForm
            in /dataFlow/dataFlowController.jspf to define
            member variables and share data. </p>
            <p><netui:anchor action="start"><h3>Start</h3></netui:anchor>
          </td>
        </tr>
      </table>
    </blockquote>
  </body>
</html>
```

LastName.jsp Sample

This topic includes the source code for the LastName.jsp Sample.

Sample Location

This sample is located in the following directory in your WebLogic Workshop installation:

BEA_HOME/weblogic81/samples/workshop/SamplesApp/WebApp/handlingData/dataFlow/

Sample Source Code

```
<%@page contentType="text/html; charset=UTF-8" language="java"%>
<%@ taglib uri="netui-tags-databinding.tld" prefix="netui-data"%>
<%@ taglib uri="netui-tags-html.tld" prefix="netui"%>
<%@ taglib uri="netui-tags-template.tld" prefix="netui-template"%>

<html>
  <head>
    <netui:base/>
    <link href="../../resources/css/style.css" type="text/css" rel="stylesheet"/>
  </head>
  <body>
    <jsp:include page="/resources/jsp/header.jsp"/>
    <blockquote>
      <h3>Last Name</h3>
      <p>Enter a last name.</p>
      <netui:form action="lastNameAction" focus="lastname">
        <table border="0">
          <tr>
            <td>
              First Name: <netui:label value="{pageFlow.pageFlowScopedBean.firstname}" />
            </td>
          </tr>
          <tr>
            <td>
              Please enter your last name: <netui:textBox dataSource="{pageFlow.pageFlowS
            </td>
          </tr>
          <tr>
            <td>
              <netui:imageAnchor action="lastNameAction" src="../../resources/images/blue
            </td>
          </tr>
        </table>
      </netui:form>
    </blockquote>
  </body>
</html>
```

dropdown Samples

This section contains source code for the following samples.

Samples Included in This Section

DropdownController.jspf Sample

ItemsDBControl.jcx Sample

Select.jsp Sample

ShowSelection.jsp Sample

DropdownController.jspf Sample

This topic includes the source code for the DropdownController.jspf Sample.

Sample Location

This sample is located in the following directory in your WebLogic Workshop installation:

BEA_HOME/weblogic81/samples/workshop/SamplesApp/WebApp/handlingData/dropdown/

Sample Source Code

```
package handlingData.dropdown;

import java.util.Map;
import java.util.LinkedHashMap;
import com.bea.wlw.netui.pageflow.*;
import handlingData.dropdown.ItemsDBControl;
import handlingData.dropdown.ItemsDBControl.ItemSelectNode;
import java.sql.SQLException;
import com.bea.wlw.netui.databinding.form.RowSetForm;
import com.bea.wlw.netui.pageflow.Forward;
import com.bea.wlw.netui.pageflow.FormData;

/**
 * @jpf:catch type="java.sql.SQLException" method="sqlExceptionHandler"
 * @jpf:view-properties view-properties::
 * <!-- This data is auto-generated. Hand-editing this section is not recommended. -->
 * <view-properties>
 * <pageflow-object id="pageflow:/handlingData/dropdown/dropdownController.jspf"/>
 * <pageflow-object id="action:begin.do">
 *   <property value="100" name="x"/>
 *   <property value="60" name="y"/>
 * </pageflow-object>
 * <pageflow-object id="action:showSelection.do#handlingData.dropdown.dropdownController.Select
 *   <property value="280" name="x"/>
 *   <property value="200" name="y"/>
 * </pageflow-object>
 * <pageflow-object id="action:backToSelectPage.do#handlingData.dropdown.dropdownController.Dat
 *   <property value="100" name="x"/>
 *   <property value="360" name="y"/>
 * </pageflow-object>
 * <pageflow-object id="action-call:@page:select.jsp#@@action:showSelection.do#handlingData.dro
 *   <property value="136,190,190,244" name="elbowsX"/>
 *   <property value="192,192,192,192" name="elbowsY"/>
 *   <property value="East_1" name="fromPort"/>
 *   <property value="West_1" name="toPort"/>
 * </pageflow-object>
 * <pageflow-object id="page:select.jsp">
 *   <property value="100" name="x"/>
 *   <property value="200" name="y"/>
 * </pageflow-object>
 * <pageflow-object id="action-call:@page:showSelection.jsp#@@action:backToSelectPage.do#handli
 *   <property value="244,190,190,136" name="elbowsX"/>
 *   <property value="352,352,352,352" name="elbowsY"/>
 *   <property value="West_1" name="fromPort"/>

```

navhandlingData.html Sample

```

*   <property value="East_1" name="toPort"/>
* </pageflow-object>
* <pageflow-object id="page:showSelection.jsp">
*   <property value="280" name="x"/>
*   <property value="360" name="y"/>
* </pageflow-object>
* <pageflow-object id="forward:path#start#select.jsp#@action:begin.do@">
*   <property value="104,130,130,156" name="elbowsY"/>
*   <property value="North_1" name="toPort"/>
*   <property value="100,100,100,100" name="elbowsX"/>
*   <property value="start" name="label"/>
*   <property value="South_1" name="fromPort"/>
* </pageflow-object>
* <pageflow-object id="forward:path#showSelection#showSelection.jsp#@action:showSelection.do#h
*   <property value="280,280,280,280" name="elbowsX"/>
*   <property value="244,280,280,316" name="elbowsY"/>
*   <property value="South_1" name="fromPort"/>
*   <property value="North_1" name="toPort"/>
*   <property value="showSelection" name="label"/>
* </pageflow-object>
* <pageflow-object id="forward:path#back#select.jsp#@action:backToSelectPage.do#handlingData.d
*   <property value="100,100,100,100" name="elbowsX"/>
*   <property value="316,280,280,244" name="elbowsY"/>
*   <property value="North_1" name="fromPort"/>
*   <property value="South_1" name="toPort"/>
*   <property value="back" name="label"/>
* </pageflow-object>
* <pageflow-object id="control:handlingData.dropdown.ItemsDBControl#items">
*   <property value="26" name="x"/>
*   <property value="34" name="y"/>
* </pageflow-object>
* <pageflow-object id="formbeanprop:handlingData.dropdown.dropdownController.SelectItemForm#se
* <pageflow-object id="formbeanprop:handlingData.dropdown.dropdownController.SelectItemForm#it
* <pageflow-object id="formbean:handlingData.dropdown.dropdownController.SelectItemForm"/>
* <pageflow-object id="formbeanprop:handlingData.dropdown.dropdownController.DatabaseForm#item
* <pageflow-object id="formbeanprop:handlingData.dropdown.dropdownController.DatabaseForm#item
* <pageflow-object id="formbeanprop:handlingData.dropdown.dropdownController.DatabaseForm#quan
* <pageflow-object id="formbeanprop:handlingData.dropdown.dropdownController.DatabaseForm#prio
* <pageflow-object id="formbean:handlingData.dropdown.dropdownController.DatabaseForm"/>
* </view-properties>
* ::
*
* /
public class dropdownController extends com.bea.wlw.netui.pageflow.PageFlowController
{
    /**
     * @common:control
     */
    private ItemsDBControl items;

    /**
     * A java.util.Map to hold the options
     * to be displayed in the dropdown on select.jsp
     */
    private transient Map options = null;

    /**
     * @jpf:action
     * @jpf:forward name="start" path="select.jsp"
     */
    public Forward begin()

```

navhandlingData.html Sample

```
throws Exception
{
    initSelections();

    SelectItemForm form = new SelectItemForm();
    form.setItemOptions(options);

    return new Forward("start", form);
}

/**
 * @jpf:action
 * @jpf:forward name="showSelection" path="showSelection.jsp"
 */
public Forward showSelection(SelectItemForm form)
    throws Exception
{
    // Get the selected record from the Items database
    javax.sql.RowSet rec = items.getItems(new Integer(form.selectedOption));

    // Load the record retrieved from the Items database into dbForm
    DatabaseForm dbForm = new DatabaseForm();
    dbForm.applyValuesToForm(rec);

    // Forward the user to showSelection.jsp
    return new Forward("showSelection", dbForm);
}

/**
 * This method takes a DatabaseForm parameter so that the
 * <netui:form> element on select.jsp can be bound to the DatabaseForm class.
 *
 * @jpf:action
 * @jpf:forward name="back" path="select.jsp"
 */
protected Forward backToSelectPage(DatabaseForm dbForm)
{
    initSelections();

    SelectItemForm form = new SelectItemForm();
    form.setItemOptions(options);

    return new Forward("back", form);
}

/**
 * Retrieve the selections from the Items database
 * and load them into a LinkHashMap.
 */
protected void initSelections()
{
    if(options == null)
    {
        try
        {
            ItemSelectNode[] array = items.getItemSelectData();
            Map map = new LinkedHashMap();
            for(int i = 0; i < array.length; i++)
                map.put(new Integer(array[i].itemNumber), array[i].itemName);
        }
    }
}
```

navhandlingData.html Sample

```
        options = map;
    }
    catch(java.sql.SQLException sql)
    {
        sql.printStackTrace();
    }
}

public static class SelectItemForm
    extends FormData
{
    private String selectedOption = null;
    private Map itemOptions = null;

    public String getSelectedOption() {return selectedOption;}
    public void setSelectedOption(String selectedOption) {this.selectedOption = selectedOption;}

    public Map getItemOptions() {return itemOptions;}
    public void setItemOptions(Map itemOptions) {this.itemOptions = itemOptions;}
}

public static class DatabaseForm extends RowSetForm
{
    public DatabaseForm()
    {
        super ();
    }

    private int itemnumber;
    private String itemname;
    private int quantityavailable;
    private Double price;

    public int getItemnumber()
    {
        return itemnumber;
    }

    public void setItemnumber( int newOne )
    {
        this.itemnumber = newOne;
    }

    public String getItemname()
    {
        return itemname;
    }

    public void setItemname( String newOne )
    {
        this.itemname = newOne;
        registerChange ( "itemname" );
    }

    public int getQuantityavailable()
    {
```

navhandlingData.html Sample

```
        return quantityavailable;
    }

    public void setQuantityavailable( int newOne )
    {
        this.quantityavailable = newOne;
        registerChange ( "quantityavailable" );
    }

    public Double getPrice()
    {
        return price;
    }

    public void setPrice( Double newOne )
    {
        this.price = newOne;
        registerChange ( "price" );
    }
}

/**
 * @jpf:exception-handler
 */
protected Forward sqlExceptionHandler(Exception exception, String actionName, String message)
{
    String displayMessage = null;
    boolean trace = false;
    trace = true;

    displayMessage = com.bea.wlw.netui.util.HtmlExceptionFormatter.format("<br/><b>An exception occurred:  
<br/>An exception occurred, exception, trace);

    System.out.println("error message: " + displayMessage);

    getRequest().setAttribute("errorMessage", displayMessage);
    return new Forward("error");
}

}
```


ItemsDBControl.jcx Sample

This topic includes the source code for the ItemsDBControl.jcx Sample.

Sample Location

This sample is located in the following directory in your WebLogic Workshop installation:

BEA_HOME/weblogic81/samples/workshop/SamplesApp/WebApp/handlingData/dropdown/

Sample Source Code

```
package handlingData.dropdown;

import java.sql.SQLException;
import javax.sql.RowSet;

import com.bea.control.DatabaseControl;
import weblogic.jws.control.DatabaseFilter;

/**
 * @jc:connection data-source-jndi-name="cgSampleDataSource"
 * @common:schema file="#rowset-schemas" inline="true"
 * @common:define name="rowset-schemas" value::
 *   <xsd:schema targetNamespace="http://www.tempuri.org" xmlns="http://www.tempuri.org" xmlns:xs="http://www.w3.org/2001/XMLSchema-1" >
 *     <xsd:element wld:DefaultNamespace="http://www.tempuri.org" name="ITEMSRowSet" wld:RowSet="true" >
 *       <xsd:complexType>
 *         <xsd:choice maxOccurs="unbounded" >
 *           <xsd:element name="ITEMSRow" >
 *             <xsd:complexType>
 *               <xsd:sequence>
 *                 <xsd:element name="ITEMNUMBER" wld:AutoIncrement="true" type="xsd:int" wld:readOnly="true" />
 *                 <xsd:element name="ITEMNAME" wld:AutoIncrement="false" type="xsd:string" wld:readOnly="true" />
 *                 <xsd:element name="QUANTITYAVAILABLE" wld:AutoIncrement="false" type="xsd:int" wld:readOnly="true" />
 *                 <xsd:element name="PRICE" wld:AutoIncrement="false" type="xsd:decimal" wld:readOnly="true" />
 *               </xsd:sequence>
 *             <xsd:anyAttribute namespace="http://www.bea.com/2202/10/weblogicdata" processContents="lax" />
 *           </xsd:element>
 *         </xsd:choice>
 *       </xsd:complexType>
 *     </xsd:element>
 *   </xsd:schema>::
 */
public interface ItemsDBControl extends com.bea.control.ControlExtension, DatabaseControl
{
    /**
     * @jc:sql command-type="grid"
     *   rowset-name="ITEMSRowSet"
     *   statement::
     *     SELECT ITEMNUMBER,ITEMNAME,QUANTITYAVAILABLE,PRICE FROM ITEMS
     *     {sql: filter.getWhereClause ()}
     *     {sql: filter.getOrderByClause ()}
     *   ::
     */
    public RowSet getAllItems ( DatabaseFilter filter )
        throws SQLException;
}
```

navhandlingData.html Sample

```
/**
 * @jc:sql command-type="detail"
 *          rowset-name="ITEMSRowSet"
 *          statement::
 *          SELECT ITEMNUMBER,ITEMNAME,QUANTITYAVAILABLE,PRICE FROM ITEMS
 *          ::
 */
public RowSet.getItems ( Integer x )
    throws SQLException;

/**
 * @jc:sql command-type="update"
 *          rowset-name="ITEMSRowSet"
 */
public RowSet.updateItems ( RowSet changedRs )
    throws SQLException;

/**
 * @jc:sql command-type="delete"
 *          rowset-name="ITEMSRowSet"
 */
public void.deleteItems ( RowSet oldRs )
    throws SQLException;

/**
 * @jc:sql command-type="templateRow"
 *          rowset-name="ITEMSRowSet"
 */
public RowSet.getItemsTemplate ()
    throws SQLException;

/**
 * @jc:sql command-type="insert"
 *          rowset-name="ITEMSRowSet"
 */
public void.insertItems ( RowSet changedRs )
    throws SQLException;

/**
 * @jc:sql command-type="insertedRow"
 *          rowset-name="ITEMSRowSet"
 *          statement::
 *          SELECT ITEMNUMBER,ITEMNAME,QUANTITYAVAILABLE,PRICE FROM ITEMS
 *          ::
 */
public RowSet.getInsertedItems ()
    throws SQLException;

/**
 * @jc:sql statement::
 *          SELECT ITEMNAME,ITEMNUMBER,QUANTITYAVAILABLE,PRICE FROM ITEMS ORDER BY ITEMNAME
 *          ::
 */
public ItemSelectNode[] getItemSelectData() throws SQLException;

public static class ItemSelectNode
    implements java.io.Serializable
{
    public String itemName = null;
```

navhandlingData.html Sample

```
public int itemNumber = -1;
public int quantityAvailable = -1;
public double price = 0;

public ItemSelectNode() {}

public ItemSelectNode(String itemName, int itemNumber, int quantityAvailable, double price)
{
    this.itemName = itemName;
    this.itemNumber = itemNumber;
    this.quantityAvailable = quantityAvailable;
    this.price = price;
}
}
```

Select.jsp Sample

This topic includes the source code for the Select.jsp Sample.

Sample Location

This sample is located in the following directory in your WebLogic Workshop installation:

BEA_HOME/weblogic81/samples/workshop/SamplesApp/WebApp/handlingData/dropdown/

Sample Source Code

```
<%@ page language="java" contentType="text/html; charset=UTF-8"%>
<%@ taglib uri="netui-tags-html.tld" prefix="netui"%>

<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN">
<html>
  <head>
    <title>Select an Item</title>
    <link href="/WebApp/resources/css/style.css" type="text/css" rel="stylesheet"/>
  </head>
  <body>
    <jsp:include page="/resources/jsp/header.jsp"/>
    <h3>Dynamically Populated Dropdown Sample</h3>
    <p>The dropdown below has been dynamically populated from a database.
    <blockquote>

      <h3>Select an Item</h3>
      <netui:form action="showSelection">
        <netui:select dataSource="{actionForm.selectedOption}"
          optionsDataSource="{actionForm.itemOptions}"/>
        <netui:button>Submit</netui:button>
      </netui:form>

    </blockquote>
    <hr>
    <p><netui:anchor href="/WebApp/handlingData/handlingDataController.jspf">
      Back to Handling Data Samples</netui:anchor>
    </body>
  </html>
```

ShowSelection.jsp Sample

This topic includes the source code for the ShowSelection.jsp Sample.

Sample Location

This sample is located in the following directory in your WebLogic Workshop installation:

BEA_HOME/weblogic81/samples/workshop/SamplesApp/WebApp/handlingData/dropdown/

Sample Source Code

```
<!--Generated by Weblogic Workshop-->
<%@ page language="java" contentType="text/html; charset=UTF-8"%>
<%@ taglib uri="netui-tags-databinding.tld" prefix="netui-data"%>
<%@ taglib uri="netui-tags-html.tld" prefix="netui"%>
<%@ taglib uri="netui-tags-template.tld" prefix="netui-template"%>
<html>
  <head>
    <title>
      showSelection.jsp
    </title>
    <link href="/WebApp/resources/css/style.css" type="text/css" rel="stylesheet"/>
  </head>
  <body>
    <jsp:include page="/resources/jsp/header.jsp"/>
    <h3>You Selected...</h3>
    <netui:form action="backToSelectPage" focus="">
      <table>
        <tr>
          <th align="right" valign="top">Item Number:</th>
          <td align="left"><netui:label value="{actionForm.itemnumber}"/></td>
        </tr>
        <tr>
          <th align="right" valign="top">Item Name:</th>
          <td align="left"><netui:label value="{actionForm.itemname}"/></td>
        </tr>
        <tr>
          <th align="right" valign="top">Quantity Available:</th>
          <td align="left"><netui:label value="{actionForm.quantityavailable}"/></td>
        </tr>
        <tr>
          <th align="right" valign="top">Price:</th>
          <td align="left"><netui:label value="{actionForm.price}"/></td>
        </tr>
        <tr>
          <td align="right"></td>
          <td align="left"><netui:button value="Back to selection page"></netui:button></td>
        </tr>
      </table>
    </netui:form>
  </body>
</html>
```

HandlingDataController.jspf Sample

This topic includes the source code for the HandlingDataController.jspf Sample.

Sample Location

This sample is located in the following directory in your WebLogic Workshop installation:

BEA_HOME/weblogic81/samples/workshop/SamplesApp/WebApp/handlingData/

Sample Source Code

```
package handlingData;
import com.bea.wlw.netui.pageflow.Forward;
import com.bea.wlw.netui.pageflow.PageFlowController;

/**
 * @jpf:controller
 * @jpf:view-properties view-properties::
 * <!-- This data is auto-generated. Hand-editing this section is not recommended. -->
 * <view-properties>
 * <pageflow-object id="pageflow:/handlingData/handlingDataController.jspf"/>
 * <pageflow-object id="action:begin.do">
 *   <property value="100" name="x"/>
 *   <property value="280" name="y"/>
 * </pageflow-object>
 * <pageflow-object id="action:toXmlBeans.do">
 *   <property value="540" name="x"/>
 *   <property value="100" name="y"/>
 * </pageflow-object>
 * <pageflow-object id="action:toBinary.do">
 *   <property value="540" name="x"/>
 *   <property value="160" name="y"/>
 * </pageflow-object>
 * <pageflow-object id="action:toComplexFormBean.do">
 *   <property value="540" name="x"/>
 *   <property value="240" name="y"/>
 * </pageflow-object>
 * <pageflow-object id="action:toDropdown.do">
 *   <property value="540" name="x"/>
 *   <property value="320" name="y"/>
 * </pageflow-object>
 * <pageflow-object id="action:toDatabinding.do">
 *   <property value="540" name="x"/>
 *   <property value="400" name="y"/>
 * </pageflow-object>
 * <pageflow-object id="action:toDataflow.do">
 *   <property value="540" name="x"/>
 *   <property value="460" name="y"/>
 * </pageflow-object>
 * <pageflow-object id="action:toMultipleForms.do">
 *   <property value="540" name="x"/>
 *   <property value="520" name="y"/>
 * </pageflow-object>
 * <pageflow-object id="action:toPageFlowSamples.do">
 *   <property value="540" name="x"/>
 *   <property value="660" name="y"/>

```

navhandlingData.html Sample

```
* </pageflow-object>
* <pageflow-object id="action:toTraditionalVsPageFlow.do">
*   <property value="540" name="x" />
*   <property value="580" name="y" />
* </pageflow-object>
* <pageflow-object id="action:toSimpleSubmit.do">
*   <property value="540" name="x" />
*   <property value="40" name="y" />
* </pageflow-object>
* <pageflow-object id="action-call:@page:index.jsp#@action:toComplexFormBean.do@">
*   <property value="336,420,420,504" name="elbowsX" />
*   <property value="272,272,232,232" name="elbowsY" />
*   <property value="East_1" name="fromPort" />
*   <property value="West_1" name="toPort" />
* </pageflow-object>
* <pageflow-object id="action-call:@page:index.jsp#@action:toBinary.do@">
*   <property value="336,420,420,504" name="elbowsX" />
*   <property value="272,272,152,152" name="elbowsY" />
*   <property value="East_1" name="fromPort" />
*   <property value="West_1" name="toPort" />
* </pageflow-object>
* <pageflow-object id="action-call:@page:index.jsp#@action:toSimpleSubmit.do@">
*   <property value="336,420,420,504" name="elbowsX" />
*   <property value="272,272,32,32" name="elbowsY" />
*   <property value="East_1" name="fromPort" />
*   <property value="West_1" name="toPort" />
* </pageflow-object>
* <pageflow-object id="action-call:@page:index.jsp#@action:toMultipleForms.do@">
*   <property value="336,420,420,504" name="elbowsX" />
*   <property value="272,272,512,512" name="elbowsY" />
*   <property value="East_1" name="fromPort" />
*   <property value="West_1" name="toPort" />
* </pageflow-object>
* <pageflow-object id="action-call:@page:index.jsp#@action:toDropdown.do@">
*   <property value="336,420,420,504" name="elbowsX" />
*   <property value="272,272,312,312" name="elbowsY" />
*   <property value="East_1" name="fromPort" />
*   <property value="West_1" name="toPort" />
* </pageflow-object>
* <pageflow-object id="action-call:@page:index.jsp#@action:toDataflow.do@">
*   <property value="336,420,420,504" name="elbowsX" />
*   <property value="272,272,452,452" name="elbowsY" />
*   <property value="East_1" name="fromPort" />
*   <property value="West_1" name="toPort" />
* </pageflow-object>
* <pageflow-object id="action-call:@page:index.jsp#@action:toTraditionalVsPageFlow.do@">
*   <property value="336,420,420,504" name="elbowsX" />
*   <property value="283,283,572,572" name="elbowsY" />
*   <property value="East_2" name="fromPort" />
*   <property value="West_1" name="toPort" />
* </pageflow-object>
* <pageflow-object id="action-call:@page:index.jsp#@action:toDatabinding.do@">
*   <property value="336,420,420,504" name="elbowsX" />
*   <property value="272,272,392,392" name="elbowsY" />
*   <property value="East_1" name="fromPort" />
*   <property value="West_1" name="toPort" />
* </pageflow-object>
* <pageflow-object id="action-call:@page:index.jsp#@action:toPageFlowSamples.do@">
*   <property value="336,420,420,504" name="elbowsX" />
*   <property value="272,272,652,652" name="elbowsY" />
*   <property value="East_1" name="fromPort" />
```

navhandlingData.html Sample

```
*   <property value="West_1" name="toPort"/>
* </pageflow-object>
* <pageflow-object id="action-call:@page:index.jsp#@action:toXmlBeans.do@">
*   <property value="336,420,420,504" name="elbowsX"/>
*   <property value="272,272,92,92" name="elbowsY"/>
*   <property value="East_1" name="fromPort"/>
*   <property value="West_1" name="toPort"/>
* </pageflow-object>
* <pageflow-object id="page:index.jsp">
*   <property value="300" name="x"/>
*   <property value="280" name="y"/>
* </pageflow-object>
* <pageflow-object id="external-jpf:xmlBeans/XmlBeansController.jpf">
*   <property value="700" name="x"/>
*   <property value="100" name="y"/>
* </pageflow-object>
* <pageflow-object id="external-jpf:binaryFlow/BinaryFlowController.jpf">
*   <property value="700" name="x"/>
*   <property value="160" name="y"/>
* </pageflow-object>
* <pageflow-object id="external-jpf:complexFormBean/complexFormBeanController.jpf">
*   <property value="700" name="x"/>
*   <property value="240" name="y"/>
* </pageflow-object>
* <pageflow-object id="external-jpf:dropdown/dropdownController.jpf">
*   <property value="700" name="x"/>
*   <property value="320" name="y"/>
* </pageflow-object>
* <pageflow-object id="external-jpf:databinding/databindingController.jpf">
*   <property value="700" name="x"/>
*   <property value="400" name="y"/>
* </pageflow-object>
* <pageflow-object id="external-jpf:dataFlow/dataFlowController.jpf">
*   <property value="700" name="x"/>
*   <property value="460" name="y"/>
* </pageflow-object>
* <pageflow-object id="external-jpf:multipleForms/multipleFormsController.jpf">
*   <property value="700" name="x"/>
*   <property value="520" name="y"/>
* </pageflow-object>
* <pageflow-object id="external-jpf:/Controller.jpf">
*   <property value="700" name="x"/>
*   <property value="660" name="y"/>
* </pageflow-object>
* <pageflow-object id="external-jpf:traditional_vs_pageFlow_webApp/traditional_vs_pageFlow_webApp">
*   <property value="700" name="x"/>
*   <property value="580" name="y"/>
* </pageflow-object>
* <pageflow-object id="forward:path#success#index.jsp#@action:begin.do@">
*   <property value="136,200,200,264" name="elbowsX"/>
*   <property value="272,272,272,272" name="elbowsY"/>
*   <property value="East_1" name="fromPort"/>
*   <property value="West_1" name="toPort"/>
*   <property value="success" name="label"/>
* </pageflow-object>
* <pageflow-object id="forward:path#success#xmlBeans/XmlBeansController.jpf#@action:toXmlBeans.do@">
*   <property value="576,620,620,664" name="elbowsX"/>
*   <property value="92,92,92,92" name="elbowsY"/>
*   <property value="East_1" name="fromPort"/>
*   <property value="West_1" name="toPort"/>
*   <property value="success" name="label"/>
```


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```
* </pageflow-object>
* <pageflow-object id="forward:path#success#binaryFlow/BinaryFlowController.jspf#@action:toBina
*   <property value="576,620,620,664" name="elbowsX" />
*   <property value="152,152,152,152" name="elbowsY" />
*   <property value="East_1" name="fromPort" />
*   <property value="West_1" name="toPort" />
*   <property value="success" name="label" />
* </pageflow-object>
* <pageflow-object id="forward:path#success#complexFormBean/complexFormBeanController.jspf#@act
*   <property value="576,620,620,664" name="elbowsX" />
*   <property value="232,232,232,232" name="elbowsY" />
*   <property value="East_1" name="fromPort" />
*   <property value="West_1" name="toPort" />
*   <property value="success" name="label" />
* </pageflow-object>
* <pageflow-object id="forward:path#success#dropdown/dropdownController.jspf#@action:toDropdown
*   <property value="576,620,620,664" name="elbowsX" />
*   <property value="312,312,312,312" name="elbowsY" />
*   <property value="East_1" name="fromPort" />
*   <property value="West_1" name="toPort" />
*   <property value="success" name="label" />
* </pageflow-object>
* <pageflow-object id="forward:path#success#databinding/databindingController.jspf#@action:toDa
*   <property value="576,620,620,664" name="elbowsX" />
*   <property value="392,392,392,392" name="elbowsY" />
*   <property value="East_1" name="fromPort" />
*   <property value="West_1" name="toPort" />
*   <property value="success" name="label" />
* </pageflow-object>
* <pageflow-object id="forward:path#success#dataFlow/dataFlowController.jspf#@action:toDataflow
*   <property value="576,620,620,664" name="elbowsX" />
*   <property value="452,452,452,452" name="elbowsY" />
*   <property value="East_1" name="fromPort" />
*   <property value="West_1" name="toPort" />
*   <property value="success" name="label" />
* </pageflow-object>
* <pageflow-object id="forward:path#success#multipleForms/multipleFormsController.jspf#@action:
*   <property value="576,620,620,664" name="elbowsX" />
*   <property value="512,512,512,512" name="elbowsY" />
*   <property value="East_1" name="fromPort" />
*   <property value="West_1" name="toPort" />
*   <property value="success" name="label" />
* </pageflow-object>
* <pageflow-object id="forward:path#success#/Controller.jspf#@action:toPageFlowSamples.do@">
*   <property value="576,620,620,664" name="elbowsX" />
*   <property value="652,652,652,652" name="elbowsY" />
*   <property value="East_1" name="fromPort" />
*   <property value="West_1" name="toPort" />
*   <property value="success" name="label" />
* </pageflow-object>
* <pageflow-object id="forward:path#success#traditional_vs_pageFlow_webApp/traditional_vs_page
*   <property value="576,620,620,664" name="elbowsX" />
*   <property value="572,572,572,572" name="elbowsY" />
*   <property value="East_1" name="fromPort" />
*   <property value="West_1" name="toPort" />
*   <property value="success" name="label" />
* </pageflow-object>
* <pageflow-object id="external-jpf:/handlingData/simpleSubmit/SimpleSubmitController.jspf">
*   <property value="700" name="x" />
*   <property value="40" name="y" />
* </pageflow-object>
```

navhandlingData.html Sample

```
* <pageflow-object id="forward:path#success#/handlingData/simpleSubmit/SimpleSubmitController.*
*   <property value="576,620,620,664" name="elbowsX"/>
*   <property value="32,32,32,32" name="elbowsY"/>
*   <property value="East_1" name="fromPort"/>
*   <property value="West_1" name="toPort"/>
*   <property value="success" name="label"/>
* </pageflow-object>
* </view-properties>
* ::
*/
public class handlingDataController extends PageFlowController
{
    /**
     * @jpf:action
     * @jpf:forward name="success" path="index.jsp"
     */
    protected Forward begin()
    {
        return new Forward("success");
    }

    /**
     * @jpf:action
     * @jpf:forward path="xmlBeans/XmlBeansController.jpf" name="success"
     */
    protected Forward toXmlBeans()
    {
        return new Forward("success");
    }

    /**
     * @jpf:action
     * @jpf:forward path="binaryFlow/BinaryFlowController.jpf" name="success"
     */
    protected Forward toBinary()
    {
        return new Forward("success");
    }

    /**
     * @jpf:action
     * @jpf:forward path="complexFormBean/complexFormBeanController.jpf" name="success"
     */
    protected Forward toComplexFormBean()
    {
        return new Forward("success");
    }

    /**
     * @jpf:action
     * @jpf:forward path="dropdown/dropdownController.jpf" name="success"
     */
    protected Forward toDropdown()
    {
        return new Forward("success");
    }

    /**
     * @jpf:action
     * @jpf:forward path="databinding/databindingController.jpf" name="success"

```

navhandlingData.html Sample

```
    */
protected Forward toDatabinding()
{
    return new Forward("success");
}

/**
 * @jpf:action
 * @jpf:forward path="dataFlow/dataFlowController.jspf" name="success"
 */
protected Forward toDataflow()
{
    return new Forward("success");
}

/**
 * @jpf:action
 * @jpf:forward path="multipleForms/multipleFormsController.jspf" name="success"
 */
protected Forward toMultipleForms()
{
    return new Forward("success");
}

/**
 * @jpf:action
 * @jpf:forward path="/Controller.jspf" name="success"
 */
protected Forward toPageFlowSamples()
{
    return new Forward("success");
}

/**
 * @jpf:action
 * @jpf:forward path="traditional_vs_pageFlow_webApp/traditional_vs_pageFlow_webAppControll
 */
protected Forward toTraditionalVsPageFlow()
{
    return new Forward("success");
}

/**
 * @jpf:action
 * @jpf:forward name="success" path="/handlingData/simpleSubmit/SimpleSubmitController.jspf"
 */
protected Forward toSimpleSubmit()
{
    return new Forward("success");
}
}
```

Index.jsp Sample

This topic includes the source code for the Index.jsp Sample.

Sample Location

This sample is located in the following directory in your WebLogic Workshop installation:

BEA_HOME/weblogic81/samples/workshop/SamplesApp/WebApp/handlingData/

Sample Source Code

```
<%@ page language="java" contentType="text/html; charset=UTF-8"%>
<%@ taglib uri="netui-tags-databinding.tld" prefix="netui-data"%>
<%@ taglib uri="netui-tags-html.tld" prefix="netui"%>
<%@ taglib uri="netui-tags-template.tld" prefix="netui-template"%>
<netui:base />
<netui:html>
  <head>
    <title>
      Web Application Samples: Handling Data
    </title>
    <link href="/WebApp/resources/css/style.css" type="text/css" rel="stylesheet"/>
  </head>
  <body>
    <jsp:include page="/resources/jsp/header.jsp"/>

    <h3>Web Application Samples: Handling Data</h3>
    <p>These samples show how to collect, process and display data in web applications.</p>
    <p>These samples highlight the use of data binding. Data binding lets you create
    a strong separation between the presentational and data processing parts of your
    web application. Data binding is made possible by a special library of JSP tags:
    the <netui...> tag library. The <netui...> tag library lets you bind your
    JSP pages to the data processing files in your application. This frees you from
    doing any data processing within the JSP files themselves.
    <blockquote>
      <hr>
      <h4><netui:anchor action="toSimpleSubmit">Simple Data Submission</netui:anchor></h4>
      <p>This sample shows a simple case of collecting data from a user, processing it, and displaying
      results back to the user.
      <p>Source code: <code>SamplesApp/WebApp/handlingData/simpleSubmit/</code>
      <hr>
      <h4><netui:anchor action="toDataflow">Using a Wizard to Collect User Information</netui:anchor></h4>
      <p>This sample shows how to collect data from a user, process it, and display the
      results back to the user.
      <p>Data binding expressions make for a strong separation of the
      data collection and data processing aspects of the wizard.
      <p>Source code: <code>SamplesApp/WebApp/handlingData/dataFlow/</code>
      <hr>
      <h4><netui:anchor action="toDatabinding">Data binding contexts</netui:anchor></h4>
      <p>This sample demonstrates the different data binding contexts
      available in Page Flows: {actionForm...}, {pageFlow}, etc.

      <p>Source code: <code>SamplesApp/WebApp/handlingData/databinding/</code>
      <hr>
      <h4><netui:anchor action="toDropdown">Dynamically populating the options in a dropdown</netui:anchor></h4>
      <p>A dynamically populated dropdown menu.
```

navhandlingData.html Sample

```
<p>Source code: <code>SamplesApp/WebApp/handlingData/dropdown/</code>
<hr>
<h4><netui:anchor action="toBinary">Handling Binary Data</netui:anchor></h4>
<p>Shows how to handle binary image data, such as GIF, JPEG, and BMP files.
<p>Source code: <code>SamplesApp/WebApp/handlingData/binaryFlow/</code>
<hr>
<h4><netui:anchor action="toComplexFormBean">Handling Complex Java Objects</netui:anchor></h4>
<p>Shows how to handle complex Java objects in Page Flows.
<p>Source code: <code>SamplesApp/WebApp/handlingData/complexFormBean/</code>
<hr>
<h4><netui:anchor action="toMultipleForms">Multiple Forms on a Page</netui:anchor></h4>
<p>Shows how to submit data from a JSP page which contains multiple forms.
<p>Source code: <code>SamplesApp/WebApp/handlingData/multipleForms/</code>
<hr>
<h4><netui:anchor action="toXmlBeans">Handling XMLBean Data</netui:anchor></h4>
<p>Shows how to handle XMLBean data within a Page Flow Controller file and how to render
as HTML.
<p>Source code: <code>SamplesApp/WebApp/handlingData/xmlBeans/</code>
<hr>
<h4><netui:anchor action="toTraditionalVsPageFlow">Traditional JSP Web Applications vs.
<p>This sample compares a traditional JSP web application with a Page Flow web applicati
<p>The traditional JSP application does not have a strong separation between the user-i
and the application logic. The Page Flow application has a clear separation between
the user interface and the application logic.
<p>Notice that the traditional JSP version of the application places both the applicati
and the user interface within the JSP pages, but the Page Flow version places all of th
application logic within the Controller file.
<blockquote><b>Note:</b> both of these sample call a Web Service through the Web Wervic
client instead of through a Web Serivce control. For related proxy client samples see
<code>SamplesApp/ProxyClient/</code>.</blockquote>
<p>Source code:
<p>Traditional Version: <code>SamplesApp/WebApp/handlingData/traditional_vs_pageFlow_we
<p>Page Flow Version: <code>SamplesApp/WebApp/handlingData/traditional_vs_pageFlow_webA

<hr>
<h2>Related Samples</h2>
<p><a href="../../tagSamples/netui/tree_dynamic/treeController.jspf">Dynamic Tree Sample</a>
<p> Source code: <code>SamplesApp/WebApp/tagSamples/netui/tree_dynamic/</code>

</blockquote>
<hr>
<p><netui:anchor action="toPageFlowSamples">Back to Web Application Samples Home</netui:
</body>
</netui:html>
```

multipleForms Samples

This section contains source code for the following samples.

Samples Included in This Section

FormPage.jsp Sample

MultipleFormsController.jspf Sample

SelectFormPage.jsp Sample

FormPage.jsp Sample

This topic includes the source code for the FormPage.jsp Sample.

Sample Location

This sample is located in the following directory in your WebLogic Workshop installation:

BEA_HOME/weblogic81/samples/workshop/SamplesApp/WebApp/handlingData/multipleForms/

Sample Source Code

```
<%@ page contentType="text/html; charset=UTF-8" language="java" %>
<%@ taglib uri="netui-tags-html.tld" prefix="netui" %>

<html>
<head>
<title>Page with Multiple Forms</title>
</head>
<body bgcolor="white">
<jsp:include page="/resources/jsp/header.jsp"/>

<h3>Page with multiple forms</h3>

    <font color="red"><netui:label value="{pageFlow.message}"/></font>
    <br>
    <br>

    <b>Form 1</b>:
    <netui:form action="submitForm1">
        <netui:label value="Field A" />
        <netui:textBox dataSource="{actionForm.fieldA}"/>
        <br>
        <netui:label value="Field B" />
        <netui:textBox dataSource="{actionForm.fieldB}"/>
        <br><br>
        <netui:button>submit Form 1</netui:button>
    </netui:form>
    <hr>

    <b>Form 2</b>:
    <netui:form action="submitForm2">
        <netui:label value="Field A" />
        <netui:textBox dataSource="{actionForm.fieldA}"/>
        <br>
        <netui:label value="Field B" />
        <netui:textBox dataSource="{actionForm.fieldB}"/>
        <br><br>
        <netui:button>submit Form 2</netui:button>
    </netui:form>

    <hr>
    <p><netui:anchor action="begin">Re-run this sample</netui:anchor>
    <p><netui:anchor href="/WebApp/handlingData/handlingDataController.jspf">
    Back to Handling Data Samples</netui:anchor>
```

navhandlingData.html Sample

```
</body>  
</html>
```


MultipleFormsController.jspf Sample

This topic includes the source code for the MultipleFormsController.jspf Sample.

Sample Location

This sample is located in the following directory in your WebLogic Workshop installation:

BEA_HOME/weblogic81/samples/workshop/SamplesApp/WebApp/handlingData/multipleForms/

Sample Source Code

```
package handlingData.multipleForms;

import com.bea.wlw.netui.pageflow.*;

/**
 * @jpf:view-properties view-properties::
 * <!-- This data is auto-generated. Hand-editing this section is not recommended. -->
 * <view-properties>
 * <pageflow-object id="pageflow:/handlingData/multipleForms/multipleFormsController.jspf"/>
 * <pageflow-object id="action:begin.do">
 *   <property value="60" name="x"/>
 *   <property value="60" name="y"/>
 * </pageflow-object>
 * <pageflow-object id="action:goFormPageWithoutValues.do">
 *   <property value="160" name="x"/>
 *   <property value="300" name="y"/>
 * </pageflow-object>
 * <pageflow-object id="action:goFormPageWithValues.do">
 *   <property value="160" name="x"/>
 *   <property value="120" name="y"/>
 * </pageflow-object>
 * <pageflow-object id="action:submitForm1.do#handlingData.multipleForms.multipleFormsController.do">
 *   <property value="500" name="x"/>
 *   <property value="100" name="y"/>
 * </pageflow-object>
 * <pageflow-object id="action:submitForm2.do#handlingData.multipleForms.multipleFormsController.do">
 *   <property value="500" name="x"/>
 *   <property value="300" name="y"/>
 * </pageflow-object>
 * <pageflow-object id="action-call:@page:selectFormPage.jsp#@@action:goFormPageWithoutValues.do">
 *   <property value="96,110,110,124" name="elbowsX"/>
 *   <property value="212,212,292,292" name="elbowsY"/>
 *   <property value="East_1" name="fromPort"/>
 *   <property value="West_1" name="toPort"/>
 * </pageflow-object>
 * <pageflow-object id="action-call:@page:selectFormPage.jsp#@@action:goFormPageWithValues.do">
 *   <property value="96,110,110,124" name="elbowsX"/>
 *   <property value="212,212,112,112" name="elbowsY"/>
 *   <property value="East_1" name="fromPort"/>
 *   <property value="West_1" name="toPort"/>
 * </pageflow-object>
 * <pageflow-object id="page:selectFormPage.jsp">
 *   <property value="60" name="x"/>
 *   <property value="220" name="y"/>

```

navhandlingData.html Sample

```
* </pageflow-object>
* <pageflow-object id="action-call:@page:formPage.jsp##@action:begin.do@">
*   <property value="284,190,190,96" name="elbowsX"/>
*   <property value="52,52,52,52" name="elbowsY"/>
*   <property value="West_1" name="fromPort"/>
*   <property value="East_1" name="toPort"/>
* </pageflow-object>
* <pageflow-object id="action-call:@page:formPage.jsp##@action:submitForm1.do#handlingData.mul
*   <property value="356,410,410,464" name="elbowsX"/>
*   <property value="52,52,92,92" name="elbowsY"/>
*   <property value="East_1" name="fromPort"/>
*   <property value="West_1" name="toPort"/>
* </pageflow-object>
* <pageflow-object id="action-call:@page:formPage.jsp##@action:submitForm2.do#handlingData.mul
*   <property value="356,410,410,464" name="elbowsX"/>
*   <property value="52,52,292,292" name="elbowsY"/>
*   <property value="East_1" name="fromPort"/>
*   <property value="West_1" name="toPort"/>
* </pageflow-object>
* <pageflow-object id="page:formPage.jsp">
*   <property value="320" name="x"/>
*   <property value="60" name="y"/>
* </pageflow-object>
* <pageflow-object id="forward:path#page1#selectFormPage.jsp#@action:begin.do@">
*   <property value="60,60,60,60" name="elbowsX"/>
*   <property value="104,140,140,176" name="elbowsY"/>
*   <property value="South_1" name="fromPort"/>
*   <property value="North_1" name="toPort"/>
*   <property value="page1" name="label"/>
* </pageflow-object>
* <pageflow-object id="forward:path#formPage#formPage.jsp#@action:goFormPageWithoutValues.do@">
*   <property value="196,240,240,284" name="elbowsX"/>
*   <property value="292,292,52,52" name="elbowsY"/>
*   <property value="East_1" name="fromPort"/>
*   <property value="West_1" name="toPort"/>
*   <property value="formPage" name="label"/>
* </pageflow-object>
* <pageflow-object id="forward:path#formPage#formPage.jsp#@action:goFormPageWithValues.do@">
*   <property value="196,240,240,284" name="elbowsX"/>
*   <property value="112,112,52,52" name="elbowsY"/>
*   <property value="East_1" name="fromPort"/>
*   <property value="West_1" name="toPort"/>
*   <property value="formPage" name="label"/>
* </pageflow-object>
* <pageflow-object id="forward:path#formPage#formPage.jsp#@action:submitForm1.do#handlingData.
*   <property value="464,410,410,356" name="elbowsX"/>
*   <property value="92,92,52,52" name="elbowsY"/>
*   <property value="West_1" name="fromPort"/>
*   <property value="East_1" name="toPort"/>
*   <property value="formPage" name="label"/>
* </pageflow-object>
* <pageflow-object id="forward:path#formPage#formPage.jsp#@action:submitForm2.do#handlingData.
*   <property value="464,410,410,356" name="elbowsX"/>
*   <property value="292,292,52,52" name="elbowsY"/>
*   <property value="West_1" name="fromPort"/>
*   <property value="East_1" name="toPort"/>
*   <property value="formPage" name="label"/>
* </pageflow-object>
* <pageflow-object id="formbeanprop:handlingData.multipleForms.multipleFormsController.Form1#f
* <pageflow-object id="formbeanprop:handlingData.multipleForms.multipleFormsController.Form1#f
* <pageflow-object id="formbean:handlingData.multipleForms.multipleFormsController.Form1"/>
```

navhandlingData.html Sample

```

* <pageflow-object id="formbeanprop:handlingData.multipleForms.multipleFormsController.Form2#f
* <pageflow-object id="formbeanprop:handlingData.multipleForms.multipleFormsController.Form2#f
* <pageflow-object id="formbean:handlingData.multipleForms.multipleFormsController.Form2"/>
* </view-properties>
* ::
*
*/
public class multipleFormsController extends PageFlowController
{
    public String message = "";

    /**
     * @jpf:action
     * @jpf:forward name="page1" path="selectFormPage.jsp"
     */
    public Forward begin()
    {
        return new Forward( "page1" );
    }

    /**
     * @jpf:action
     * @jpf:forward name="formPage" path="formPage.jsp"
     */
    public Forward goFormPageWithoutValues()
    {
        return new Forward( "formPage" );
    }

    /**
     * @jpf:action
     * @jpf:forward name="formPage" path="formPage.jsp"
     */
    public Forward goFormPageWithValues()
    {
        Forward fwd = new Forward( "formPage" );

        Form1 form1 = new Form1();
        form1.fieldA = "Form 1, field A";
        form1.fieldB = "Form 1, field B";
        fwd.addOutputForm( form1 );

        Form2 form2 = new Form2();
        form2.fieldA = "Form 2, field A";
        form2.fieldB = "Form 2, field B";
        fwd.addOutputForm( form2 );

        return fwd;
    }

    /**
     * @jpf:action
     * @jpf:forward name="formPage" path="formPage.jsp"
     */
    public Forward submitForm1( Form1 form )
    {
        message = "submitted Form 1 -- Field A = \" + form.fieldA + "\", Field B = \" + form.
        return new Forward( "formPage" );
    }

    /**

```

navhandlingData.html Sample

```
* @jpf:action
* @jpf:forward name="formPage" path="formPage.jsp"
*/
public Forward submitForm2( Form2 form )
{
    message = "submitted Form 2 -- Field A = \"" + form.fieldA + "\", Field B = \"" + form.
    return new Forward( "formPage" );
}

public static class Form1 extends FormData
{
    private String fieldB;

    private String fieldA;

    public String foo;

    public void setFieldA(String fieldA)
    {
        this.fieldA = fieldA;
    }

    public String getFieldA()
    {
        return this.fieldA;
    }

    public void setFieldB(String fieldB)
    {
        this.fieldB = fieldB;
    }

    public String getFieldB()
    {
        return this.fieldB;
    }
}

public static class Form2 extends FormData
{
    private String fieldB;

    private String fieldA;

    public String bar;

    public void setFieldA(String fieldA)
    {
        this.fieldA = fieldA;
    }

    public String getFieldA()
    {
        return this.fieldA;
    }

    public void setFieldB(String fieldB)
    {
        this.fieldB = fieldB;
    }
}
```

navhandlingData.html Sample

```
    public String getFieldB()
    {
        return this.fieldB;
    }
}
```

SelectFormPage.jsp Sample

This topic includes the source code for the SelectFormPage.jsp Sample.

Sample Location

This sample is located in the following directory in your WebLogic Workshop installation:

BEA_HOME/weblogic81/samples/workshop/SamplesApp/WebApp/handlingData/multipleForms/

Sample Source Code

```
<%@ page contentType="text/html; charset=UTF-8" language="java" %>
<%@ taglib uri="netui-tags-html.tld" prefix="netui" %>

<html>
<head>
<title>Multiple Forms Sample</title>
</head>
<body bgcolor="white">
<jsp:include page="/resources/jsp/header.jsp"/>

<h3>Multiple Forms Sample Home Page</h3>
<br>This sample shows a JSP page with multiple forms. You can choose to prefill the form fields
or leave the form fields blank.<br><br>

<netui:anchor action="goFormPageWithValues">Show the JSP page with prefilled form fields.</netui:anchor>
<br><br>
<netui:anchor action="goFormPageWithoutValues">Show the JSP with blank form fields.</netui:anchor>

</body>
</html>
```

simpleSubmit Samples

This section contains source code for the following samples.

Samples Included in This Section

[Index.jsp Sample](#)

[ShowName.jsp Sample](#)

[SimpleSubmitController.jspf Sample](#)

Index.jsp Sample

This topic includes the source code for the Index.jsp Sample.

Sample Location

This sample is located in the following directory in your WebLogic Workshop installation:

BEA_HOME/weblogic81/samples/workshop/SamplesApp/WebApp/handlingData/simpleSubmit/

Sample Source Code

```
<%@ page language="java" contentType="text/html; charset=UTF-8"%>
<%@ taglib uri="netui-tags-databinding.tld" prefix="netui-data"%>
<%@ taglib uri="netui-tags-html.tld" prefix="netui"%>
<%@ taglib uri="netui-tags-template.tld" prefix="netui-template"%>
<netui:html>
  <head>
    <title>
      index.jsp
    </title>
    <link href="/WebApp/resources/css/style.css" type="text/css" rel="stylesheet"/>
  </head>
  <body>
    <jsp:include page="/resources/jsp/header.jsp" />
    <blockquote>
      <h3>Simple Data Submission Sample</h3>
      <netui:form action="SubmitName">
        Name: <netui:textBox dataSource="{actionForm.name}" /><br />
        <netui:button value="SubmitName" type="submit" />
      </netui:form>
    </blockquote>
  </body>
</netui:html>
```


ShowName.jsp Sample

This topic includes the source code for the ShowName.jsp Sample.

Sample Location

This sample is located in the following directory in your WebLogic Workshop installation:

BEA_HOME/weblogic81/samples/workshop/SamplesApp/WebApp/handlingData/simpleSubmit/

Sample Source Code

```
<%@ page language="java" contentType="text/html; charset=UTF-8"%>
<%@ taglib uri="netui-tags-databinding.tld" prefix="netui-data"%>
<%@ taglib uri="netui-tags-html.tld" prefix="netui"%>
<%@ taglib uri="netui-tags-template.tld" prefix="netui-template"%>
<netui:html>
  <head>
    <title>
      showName.jsp
    </title>
    <link href="/WebApp/resources/css/style.css" type="text/css" rel="stylesheet"/>
  </head>
  <body>
    <jsp:include page="/resources/jsp/header.jsp"/>
    <blockquote>
      <h3>Simple Data Submission Sample</h3>
      <p>
        Here is the data you submitted: <netui:label value="{request.name}" />
      </blockquote>
      <hr>
      <netui:anchor href="../../handlingDataController.jspf">Back to Navigation Samples</netui:an
    </body>
</netui:html>
```

SimpleSubmitController.jspf Sample

This topic includes the source code for the SimpleSubmitController.jspf Sample.

Sample Location

This sample is located in the following directory in your WebLogic Workshop installation:

BEA_HOME/weblogic81/samples/workshop/SamplesApp/WebApp/handlingData/simpleSubmit/

Sample Source Code

```
package handlingData.simpleSubmit;
import com.bea.wlw.netui.pageflow.FormData;
import com.bea.wlw.netui.pageflow.Forward;
import com.bea.wlw.netui.pageflow.PageFlowController;

/**
 * @jpf:controller
 * @jpf:view-properties view-properties::
 * <!-- This data is auto-generated. Hand-editing this section is not recommended. -->
 * <view-properties>
 * <pageflow-object id="pageflow:/handlingData/simpleSubmit/SimpleSubmitController.jspf"/>
 * <pageflow-object id="action:begin.do">
 *   <property value="80" name="x"/>
 *   <property value="100" name="y"/>
 * </pageflow-object>
 * <pageflow-object id="page:index.jsp">
 *   <property value="240" name="x"/>
 *   <property value="100" name="y"/>
 * </pageflow-object>
 * <pageflow-object id="forward:path#success#index.jsp#@action:begin.do@">
 *   <property value="116,160,160,204" name="elbowsX"/>
 *   <property value="92,92,92,92" name="elbowsY"/>
 *   <property value="East_1" name="fromPort"/>
 *   <property value="West_1" name="toPort"/>
 *   <property value="success" name="label"/>
 * </pageflow-object>
 * <pageflow-object id="formbean:handlingData.simpleSubmit.SimpleSubmitController.SubmitNameFor">
 * <pageflow-object id="action:SubmitName.do#handlingData.simpleSubmit.SimpleSubmitController.S">
 *   <property value="360" name="x"/>
 *   <property value="100" name="y"/>
 * </pageflow-object>
 * <pageflow-object id="formbeanprop:handlingData.simpleSubmit.SimpleSubmitController.SubmitNam">
 * <pageflow-object id="page:showName.jsp">
 *   <property value="460" name="x"/>
 *   <property value="100" name="y"/>
 * </pageflow-object>
 * <pageflow-object id="forward:path#success#showName.jsp#@action:SubmitName.do#handlingData.si">
 *   <property value="396,410,410,424" name="elbowsX"/>
 *   <property value="92,92,92,92" name="elbowsY"/>
 *   <property value="East_1" name="fromPort"/>
 *   <property value="West_1" name="toPort"/>
 *   <property value="success" name="label"/>
 * </pageflow-object>
 * <pageflow-object id="action-call:@page:index.jsp#@@action:SubmitName.do#handlingData.simpleS">
 *   <property value="276,300,300,324" name="elbowsX"/>
```

navhandlingData.html Sample

```
*   <property value="92,92,92,92" name="elbowsY"/>
*   <property value="East_1" name="fromPort"/>
*   <property value="West_1" name="toPort"/>
* </pageflow-object>
* </view-properties>
* ::
*/
public class SimpleSubmitController extends PageFlowController
{
    /**
     * @jpf:action
     * @jpf:forward name="success" path="index.jsp"
     */
    protected Forward begin()
    {
        return new Forward("success");
    }

    /**
     * @jpf:action
     * @jpf:forward name="success" path="showName.jsp"
     */
    protected Forward SubmitName(SubmitNameForm form)
    {
        getRequest().setAttribute("name", form.getName());
        return new Forward("success");
    }

    public static class SubmitNameForm extends FormData
    {
        private String name;

        public void setName(String name)
        {
            this.name = name;
        }

        public String getName()
        {
            return this.name;
        }
    }
}
```

traditional_vs_pageFlow_webApp Samples

This section contains source code for the following samples.

Samples Included in This Section

Index.jsp Sample

pageFlow_webApp Samples

Traditional_vs_pageFlow_webAppController.jspf Sample

traditional_webApp Samples

Index.jsp Sample

This topic includes the source code for the Index.jsp Sample.

Sample Location

This sample is located in the following directory in your WebLogic Workshop installation:

BEA_HOME/weblogic81/samples/workshop/SamplesApp/WebApp/handlingData/traditional_vs_pageFlow_webApp/

Sample Source Code

```
<%@ page language="java" contentType="text/html; charset=UTF-8"%>
<%@ taglib uri="netui-tags-databinding.tld" prefix="netui-data"%>
<%@ taglib uri="netui-tags-html.tld" prefix="netui"%>
<%@ taglib uri="netui-tags-template.tld" prefix="netui-template"%>
<netui:html>
  <head>
    <title>
      index.jsp
    </title>
    <link href="/WebApp/resources/css/style.css" type="text/css" rel="stylesheet"/>
  </head>
  <body>
    <jsp:include page="/resources/jsp/header.jsp"/>
    <blockquote>
      <h1>Traditional JSP Applications Vs. Page Flow Applications</h1>
      <h2>Introduction</h2>
      <p>This sample shows the differences between traditional JSP web applications and Page Flow web applications.
      <p>Two web applications are provided. To an end user, the applications appear identical. Both applications call a web service, MazeGenerator.jws, and display a maze to the user based on the results returned from the web service.
      <p>The difference between these web applications is in the way that they process user requests. The traditional JSP version of the application processes user requests within the JSP pages, but the Page Flow version processes user requests in a separate Controller file. This makes the Page Flow version of the application much easier to build, edit and maintain.
      <h2>Contents</h2>
      <blockquote>
        <p>Traditional JSP Version</p>
        <blockquote>
          <b><code>errorpage.jsp</code></b>: This JSP error page is invoked whenever exceptions encountered on the main JSP page.<br>
          <b><code>mazeDisplay.jsp</code></b>: This is the main JSP page. It has four jobs. It (1) receives user requests, (2) invokes the web service, (3) converts the results to a graphical display and (4) displays the results to the user.
          <b><code>specifyMaze.html</code></b>: This HTML page collects requests from the user and submits them to <code>mazeDisplay.jsp</code> which processes the request and displays the results.
        </blockquote>
      </blockquote>
    </blockquote>
    <blockquote>
      <p>Page Flow Version</p>
      <blockquote>
        <b><code>errorpage.jsp</code></b>: This JSP error page is invoked whenever exceptions encountered in the Controller file <code>mazeController.jspf</code>.<br>
```

navhandlingData.html Sample

```
<b><code>mazeController.jspf</code></b>: This is the main data processing page. It has three
jobs. It (1) receives user requests, (2) invokes the web service, and (3) converts the
results to a graphical display.
<b><code>mazeDisplay.jsp</code></b>: This is the main JSP page. It has one job. It
displays the results to the user.<br>
<b><code>specifyMaze.jsp</code></b>: This JSP page collects requests from the user and
submits them to the Controller file <code>mazeController.jspf</code>
which processes the request and forwards the results to the display page
<code>mazeDisplay.jsp</code>.
</blockquote>
</blockquote>
<p>It is especially instructive to compare the two JSP pages named "mazeDisplay.jsp" in
the application. Notice how the little code is contained in the Page Flow version compared
to the traditional version.</p>

<h2>Instructions</h2>
<ol>
  <li>Run either the <netui:anchor action="toTraditional">
    traditional JSP application</netui:anchor> or the
    <netui:anchor action="toPageFlow">Page Flow application</netui:anchor>.
  <li>Enter integers for rows and columns and click Submit.</li>
</ol>
<p>If you invoke "Display Text Maze", you will see a text
representation of the maze that was returned from the web service.
<p>If you invoke "Display Graphical Maze", you will see a graphical
maze with a stone textured background and black walls.</p>

<h2>Proxy Classes</h2>
<p>Both of these web application access the web service through its
proxy client classes. These proxy client classes are used as an alternative to
a web service control.
<p>The web service, MazeGenerator.jws, is available in the SamplesApp
application at <code>SamplesApp/WebServices/proxy/mazegen</code>.
This web service was used to generate the proxy classes called by the
web applications. The web service
exposes two operations. Each accepts two integers as parameters representing the
desired number of rows and columns in a randomly generated maze. getRandomMaze
returns the maze as an array of integers that encode the walls present in each
cell of the maze. printRandomMaze returns a "text graphics"
representation of the maze.</p>
<p>The proxy for any given Workshop web service is
available from that service's Test
View on the Overview Page. The proxy comes as a web service-specific JAR file
containing proxy classes. To use the proxy, you also need the generic
webserviceclient.jar that is also available from Test View.</p>
<hr>
</blockquote>
<p><netui:anchor href="/WebApp/handlingData/handlingDataController.jspf">Return to Web Appli
<p><netui:anchor href="/WebApp/Controller.jspf">Return to Web Application Samples Home</netui
</body>
</netui:html>
```

pageFlow_webApp Samples

This section contains source code for the following samples.

Samples Included in This Section

Errorpage.jsp Sample

MazeController.jsp Sample

MazeDisplay.jsp Sample

SpecifyMaze.jsp Sample

Errorpage.jsp Sample

This topic includes the source code for the Errorpage.jsp Sample.

Sample Location

This sample is located in the following directory in your WebLogic Workshop installation:

BEA_HOME/weblogic81/samples/workshop/SamplesApp/WebApp/handlingData/traditional_vs_pageFlow_webApp/

Sample Source Code

```
<%@ page language="java" contentType="text/html; charset=UTF-8"%>
<%@ page isErrorPage="true" %>
<html>
<body>
There was an error in the form you submitted. The detailed error message is:
<blockquote>
<%= exception.getMessage() %>
<% if( exception.getClass().getName() != "java.lang.NumberFormatException") { %>
    <pre>
    <% java.io.StringWriter sWriter = new java.io.StringWriter();
        java.io.PrintWriter pWriter = new java.io.PrintWriter(sWriter);
        exception.printStackTrace(pWriter);
        out.print(sWriter.toString()); %>
    </pre>
<% } %>
</blockquote>
</body>
</html>
```


MazeController.jpf Sample

This topic includes the source code for the MazeController.jpf Sample.

Sample Location

This sample is located in the following directory in your WebLogic Workshop installation:

BEA_HOME/weblogic81/samples/workshop/SamplesApp/WebApp/handlingData/traditional_vs_pageFlow_webApp/

Sample Source Code

```
package handlingData.traditional_vs_pageFlow_webApp.pageFlow_webApp;
import com.bea.wlw.netui.pageflow.FormData;
import com.bea.wlw.netui.pageflow.Forward;
import com.bea.wlw.netui.pageflow.PageFlowController;
import java.io.IOException;
import java.text.DecimalFormat;
import weblogic.jws.proxies.MazeGeneratorSoap;
import weblogic.jws.proxies.MazeGenerator_Impl;

/**
 * @jpf:controller
 * @jpf:view-properties view-properties::
 * <!-- This data is auto-generated. Hand-editing this section is not recommended. -->
 * <view-properties>
 * <pageflow-object id="pageflow:/handlingData/traditional_vs_pageFlow_webApp/pageFlow_webApp/m
 * <pageflow-object id="action:begin.do">
 *   <property value="40" name="x"/>
 *   <property value="280" name="y"/>
 * </pageflow-object>
 * <pageflow-object id="action:printRandomMaze.do#handlingData.traditional_vs_pageFlow_webApp.p
 *   <property value="380" name="x"/>
 *   <property value="400" name="y"/>
 * </pageflow-object>
 * <pageflow-object id="action:getRandomMaze.do#handlingData.traditional_vs_pageFlow_webApp.pag
 *   <property value="380" name="x"/>
 *   <property value="180" name="y"/>
 * </pageflow-object>
 * <pageflow-object id="action-call:@page:specifyMaze.jsp#@@action:printRandomMaze.do#handlingD
 *   <property value="256,300,300,344" name="elbowsX"/>
 *   <property value="272,272,392,392" name="elbowsY"/>
 *   <property value="East_1" name="fromPort"/>
 *   <property value="West_1" name="toPort"/>
 * </pageflow-object>
 * <pageflow-object id="action-call:@page:specifyMaze.jsp#@@action:getRandomMaze.do#handlingDat
 *   <property value="256,300,300,344" name="elbowsX"/>
 *   <property value="272,272,172,172" name="elbowsY"/>
 *   <property value="East_1" name="fromPort"/>
 *   <property value="West_1" name="toPort"/>
 * </pageflow-object>
 * <pageflow-object id="page:specifyMaze.jsp">
 *   <property value="220" name="x"/>
 *   <property value="280" name="y"/>
 * </pageflow-object>
 * <pageflow-object id="page:mazeDisplay.jsp">
 *   <property value="540" name="x"/>
```

navhandlingData.html Sample

```

*   <property value="300" name="y"/>
* </pageflow-object>
* <pageflow-object id="page:errorpage.jsp">
*   <property value="660" name="x"/>
*   <property value="120" name="y"/>
* </pageflow-object>
* <pageflow-object id="forward:path#success#specifyMaze.jsp#@action:begin.do@">
*   <property value="76,130,130,184" name="elbowsX"/>
*   <property value="272,272,272,272" name="elbowsY"/>
*   <property value="East_1" name="fromPort"/>
*   <property value="West_1" name="toPort"/>
*   <property value="success" name="label"/>
* </pageflow-object>
* <pageflow-object id="forward:path#success#mazeDisplay.jsp#@action:printRandomMaze.do#handlingD
*   <property value="416,460,460,504" name="elbowsX"/>
*   <property value="392,392,303,303" name="elbowsY"/>
*   <property value="East_1" name="fromPort"/>
*   <property value="West_2" name="toPort"/>
*   <property value="success" name="label"/>
* </pageflow-object>
* <pageflow-object id="forward:path#success#mazeDisplay.jsp#@action:getRandomMaze.do#handlingD
*   <property value="416,460,460,504" name="elbowsX"/>
*   <property value="183,183,292,292" name="elbowsY"/>
*   <property value="East_2" name="fromPort"/>
*   <property value="West_1" name="toPort"/>
*   <property value="success" name="label"/>
* </pageflow-object>
* <pageflow-object id="formbeanprop:handlingData.traditional_vs_pageFlow_webApp.pageFlow_webAp
* <pageflow-object id="formbeanprop:handlingData.traditional_vs_pageFlow_webApp.pageFlow_webAp
* <pageflow-object id="formbean:handlingData.traditional_vs_pageFlow_webApp.pageFlow_webApp.ma
* </view-properties>
* ::
*/
public class mazeController extends PageFlowController
{
    /**
     * @jpf:action
     * @jpf:forward name="success" path="specifyMaze.jsp"
     */
    protected Forward begin()
    {
        return new Forward("success");
    }

    /**
     * @jpf:action
     * @jpf:forward name="success" path="mazeDisplay.jsp"
     */
    protected Forward printRandomMaze(MazeForm form)
        throws Exception
    {
        /**
         * If the user invokes printRandomMaze, we just call soapProxy.printRandomMaze
         * and pass the output directly to the JSP.
         */
        MazeGenerator_Impl proxy = new MazeGenerator_Impl("http://localhost:7001/WebServices/pr
        MazeGeneratorSoap soapProxy = proxy.getMazeGeneratorSoap();

        int rows, cols;

```

navhandlingData.html Sample

```

try {
    rows = Integer.parseInt( form.getRows() );
}
catch (NumberFormatException ex) {
    String msg = "Number of rows must be a valid integer (entered value: '" +
        form.getRows() + "')";
    throw(new NumberFormatException(msg));
}
try {
    cols = Integer.parseInt( form.getCols() );
}
catch (NumberFormatException ex) {
    String msg = "Number of columns must be a valid integer (entered value: '" +
        form.getCols() + "')";
    throw(new NumberFormatException(msg));
}

// Pass the results on the "request" object.
getRequest().setAttribute("message", "<p>You invoked the <b>MazeGenerator</b> web servi
getRequest().setAttribute("mazeResult", soapProxy.printRandomMaze(rows, cols) );

return new Forward("success");
}

/**
 * @jpf:action
 * @jpf:forward name="success" path="mazeDisplay.jsp"
 */
protected Forward getRandomMaze(MazeForm form)
    throws Exception
{
    /*
     * If the user invokes getRandomMaze, call soapProxy.getRandomMaze and then convert
     * the output into images that draw the maze. For each cell of the maze, there are
     * 16 possible configurations of walls. The configuration is encoded in the value
     * returned from getRandomMaze for that cell. The encoding is defined in
     * MazeGenerator.jws; each cell is a 4 bit field with a bit each for left, top, right
     * and bottom walls.
     *
     * Prepared images for each cell configuration are stored in the images directory.
     */
    MazeGenerator_Impl proxy = new MazeGenerator_Impl("http://localhost:7001/WebServices/pr
    MazeGeneratorSoap soapProxy = proxy.getMazeGeneratorSoap();

    int r, c;
    int rows, cols;
    try {
        rows = Integer.parseInt( form.getRows() );
    }
    catch (NumberFormatException ex) {
        String msg = "Number of rows must be a valid integer (entered value: '" +
            form.getRows() + "')";
        throw(new NumberFormatException(msg));
    }
    try {
        cols = Integer.parseInt( form.getCols() );
    }
    catch (NumberFormatException ex) {
        String msg = "Number of columns must be a valid integer (entered value: '" +
            form.getCols() + "')";
        throw(new NumberFormatException(msg));
    }
}

```

navhandlingData.html Sample

```

    }

    /*
    * call getRandomMaze and get back an array of ints containing the configuration
    * encoding for each cell in the maze.
    */
    int [] rooms = soapProxy.getRandomMaze(rows,cols);
    DecimalFormat formatter = new DecimalFormat("00");

    /*
    * Loop over the cells, specifying the appropriate image for each maze cell based in
    * the cell encoding. The maze returned from getRandomMaze contains the bottom row
    * first, but * we must output the top row first - so invert the rows loop.
    */
    String output = "<br>";
    for(r = rows-1; r >=0; r--)
    {
        for(c = 0; c < cols; c++)
        {
            String image_name = new String("stone_raw_" + formatter.format(rooms[r * cols +
            output += "<img src=\"/WebApp/resources/images/mazeImages/\" + image_name + "\">

        }
        output += "<br>";
    }

    // Pass the results on the "request" object.
    getRequest().setAttribute("message", "You invoked the <b>MazeGenerator</b> web service");
    getRequest().setAttribute("mazeResult", output );

    return new Forward("success");
}

public static class MazeForm extends FormData
{
    private String rows;

    private String cols;

    public void setCols(String cols)
    {
        this.cols = cols;
    }

    public String getCols()
    {
        return this.cols;
    }

    public void setRows(String rows)
    {
        this.rows = rows;
    }

    public String getRows()
    {
        return this.rows;
    }
}
}

```

MazeDisplay.jsp Sample

This topic includes the source code for the MazeDisplay.jsp Sample.

Sample Location

This sample is located in the following directory in your WebLogic Workshop installation:

BEA_HOME/weblogic81/samples/workshop/SamplesApp/WebApp/handlingData/traditional_vs_pageFlow_webApp/

Sample Source Code

```
<%@ page language="java" contentType="text/html; charset=UTF-8"%>
<%@ taglib uri="netui-tags-databinding.tld" prefix="netui-data"%>
<%@ taglib uri="netui-tags-html.tld" prefix="netui"%>
<%@ taglib uri="netui-tags-template.tld" prefix="netui-template"%>
<netui:html>
  <head>
    <title>
      Page Flow Version: mazeDisplay.jsp
    </title>
  </head>
  <body>
    <h1>Page Flow Version: mazeDisplay.jsp</h1>
    <netui:content value="{request.message}" />
    <pre>
      <netui:content value="{request.mazeResult}" />
    </pre>

    <hr>
    <p><netui:anchor href="specifyMaze.jsp">Re-run the Page Flow version</netui:anchor>
    <p><netui:anchor href="/WebApp/handlingData/traditional_vs_pageFlow_webApp/traditional_vs_p
      Back to Traditional JSP Applications Vs. Page Flow Applications Sample</netui:anchor>
    </body>
</netui:html>
```

SpecifyMaze.jsp Sample

This topic includes the source code for the SpecifyMaze.jsp Sample.

Sample Location

This sample is located in the following directory in your WebLogic Workshop installation:

BEA_HOME/weblogic81/samples/workshop/SamplesApp/WebApp/handlingData/traditional_vs_pageFlow_webApp/

Sample Source Code

```
<%@ page language="java" contentType="text/html; charset=UTF-8"%>
<%@ taglib uri="netui-tags-databinding.tld" prefix="netui-data"%>
<%@ taglib uri="netui-tags-html.tld" prefix="netui"%>
<%@ taglib uri="netui-tags-template.tld" prefix="netui-template"%>
<netui:html>
  <head>
    <title>
      Web Application Page
    </title>
  </head>
  <body>
    <h1>Page Flow Version: specifyMaze.jsp</h1>
    <p>

    <h2>Display Text Maze</h2>
    <netui:form action="printRandomMaze" method="post">
      Enter maze size: <br>
      Rows: <netui:textBox dataSource="{actionForm.rows}" /><br>
      Cols: <netui:textBox dataSource="{actionForm.cols}" /><br>
      <netui:button type="submit"
        value="Submit"/>
    </netui:form>
    <h2>Display Graphical Maze</h2>
    <netui:form action="getRandomMaze" method="post">
      Enter maze size: <br>
      Rows: <netui:textBox dataSource="{actionForm.rows}" /><br>
      Cols: <netui:textBox dataSource="{actionForm.cols}" /><br>
      <netui:button type="submit"
        value="Submit"/>
    </netui:form>

    <hr>
    <netui:anchor
      href="/WebApp/handlingData/traditional_vs_pageFlow_webApp/traditional_vs_pageFlow_webApp/
      Back to Traditional JSP Applications Vs. Page Flow Applications Sample</netui:anchor>
    </body>
</netui:html>
```

Traditional_vs_pageFlow_webAppController.jpf Sample

This topic includes the source code for the Traditional_vs_pageFlow_webAppController.jpf Sample.

Sample Location

This sample is located in the following directory in your WebLogic Workshop installation:

BEA_HOME/weblogic81/samples/workshop/SamplesApp/WebApp/handlingData/traditional_vs_pageFlow_webApp/

Sample Source Code

```
package handlingData.traditional_vs_pageFlow_webApp;
import com.bea.wlw.netui.pageflow.Forward;
import com.bea.wlw.netui.pageflow.PageFlowController;

/**
 * @jpf:controller
 * @jpf:view-properties view-properties:
 * <!-- This data is auto-generated. Hand-editing this section is not recommended. -->
 * <view-properties>
 * <pageflow-object id="pageflow:/handlingData/traditional_vs_pageFlow_webApp/traditional_vs_pa
 * <pageflow-object id="action:begin.do">
 *   <property value="80" name="x"/>
 *   <property value="100" name="y"/>
 * </pageflow-object>
 * <pageflow-object id="action:toTraditional.do">
 *   <property value="360" name="x"/>
 *   <property value="60" name="y"/>
 * </pageflow-object>
 * <pageflow-object id="action:toPageFlow.do">
 *   <property value="360" name="x"/>
 *   <property value="160" name="y"/>
 * </pageflow-object>
 * <pageflow-object id="action-call:@page:index.jsp##@action:toPageFlow.do@">
 *   <property value="276,300,300,324" name="elbowsX"/>
 *   <property value="103,103,152,152" name="elbowsY"/>
 *   <property value="East_2" name="fromPort"/>
 *   <property value="West_1" name="toPort"/>
 * </pageflow-object>
 * <pageflow-object id="page:index.jsp">
 *   <property value="240" name="x"/>
 *   <property value="100" name="y"/>
 * </pageflow-object>
 * <pageflow-object id="page:traditional_webApp/specifyMaze.html">
 *   <property value="580" name="x"/>
 *   <property value="60" name="y"/>
 * </pageflow-object>
 * <pageflow-object id="page:pageFlow_webApp/specifyMaze.jsp">
 *   <property value="580" name="x"/>
 *   <property value="160" name="y"/>
 * </pageflow-object>
 * <pageflow-object id="forward:path#success#index.jsp##@action:begin.do@">
 *   <property value="116,160,160,204" name="elbowsX"/>
 *   <property value="92,92,92,92" name="elbowsY"/>
```

navhandlingData.html Sample

```

*   <property value="East_1" name="fromPort"/>
*   <property value="West_1" name="toPort"/>
*   <property value="success" name="label"/>
* </pageflow-object>
* <pageflow-object id="forward:path#success#traditional_webApp/specifyMaze.html#@action:toTrad
*   <property value="396,470,470,544" name="elbowsX"/>
*   <property value="52,52,52,52" name="elbowsY"/>
*   <property value="East_1" name="fromPort"/>
*   <property value="West_1" name="toPort"/>
*   <property value="success" name="label"/>
* </pageflow-object>
* <pageflow-object id="forward:path#success#pageFlow_webApp/specifyMaze.jsp#@action:toPageFlow
*   <property value="396,470,470,544" name="elbowsX"/>
*   <property value="152,152,152,152" name="elbowsY"/>
*   <property value="East_1" name="fromPort"/>
*   <property value="West_1" name="toPort"/>
*   <property value="success" name="label"/>
* </pageflow-object>
* <pageflow-object id="action-call:@page:index.jsp#@action:toTraditional.do@">
*   <property value="276,300,300,324" name="elbowsX"/>
*   <property value="92,92,52,52" name="elbowsY"/>
*   <property value="East_1" name="fromPort"/>
*   <property value="West_1" name="toPort"/>
* </pageflow-object>
* </view-properties>
* ::
*/
public class traditional_vs_pageFlow_webAppController extends PageFlowController
{
    /**
     * @jpf:action
     * @jpf:forward name="success" path="index.jsp"
     */
    protected Forward begin()
    {
        return new Forward("success");
    }

    /**
     * @jpf:action
     * @jpf:forward name="success" path="traditional_webApp/specifyMaze.html"
     */
    protected Forward toTraditional()
    {
        return new Forward("success");
    }

    /**
     * @jpf:action
     * @jpf:forward name="success" path="pageFlow_webApp/specifyMaze.jsp"
     */
    protected Forward toPageFlow()
    {
        return new Forward("success");
    }
}

```


traditional_webApp Samples

This section contains source code for the following samples.

Samples Included in This Section

Errorpage.jsp Sample

MazeDisplay.jsp Sample

SpecifyMaze.html Sample

Errorpage.jsp Sample

This topic includes the source code for the Errorpage.jsp Sample.

Sample Location

This sample is located in the following directory in your WebLogic Workshop installation:

BEA_HOME/weblogic81/samples/workshop/SamplesApp/WebApp/handlingData/traditional_vs_pageFlow_webApp/

Sample Source Code

```
<%@ page language="java" contentType="text/html; charset=UTF-8"%>
<%@ page isErrorPage="true" %>
<html>
<body>
There was an error in the form you submitted. The detailed error message is:
<blockquote>
<%= exception.getMessage() %>
<% if( exception.getClass().getName() != "java.lang.NumberFormatException") { %>
    <pre>
    <% java.io.StringWriter sWriter = new java.io.StringWriter();
        java.io.PrintWriter pWriter = new java.io.PrintWriter(sWriter);
        exception.printStackTrace(pWriter);
        out.print(sWriter.toString()); %>
    </pre>
<% } %>
</blockquote>
</body>
</html>
```

MazeDisplay.jsp Sample

This topic includes the source code for the MazeDisplay.jsp Sample.

Sample Location

This sample is located in the following directory in your WebLogic Workshop installation:

BEA_HOME/weblogic81/samples/workshop/SamplesApp/WebApp/handlingData/traditional_vs_pageFlow_webApp/

Sample Source Code

```
<%@ page language="java" contentType="text/html; charset=UTF-8"%>
<%@ page errorPage="errorpage.jsp" %>
<% request.setAttribute("sourcePage", request.getRequestURI()); %>

<%@ page import="java.text.*" %>
<%@ page import="weblogic.jws.proxies.*" %>

<html>
<body>

<h1>Traditional JSP Version: mazeDisplay.jsp</h1>

<% MazeGenerator_Impl proxy = new MazeGenerator_Impl("http://localhost:7001/Webservices/proxy/m
<% MazeGeneratorSoap soapProxy = proxy.getMazeGeneratorSoap(); %>

<% /*
   * If the user invokes printRandomMaze, we just call soapProxy.printRandomMaze
   * and pass the output directly to the output HTML.
   */
   if (request.getParameter("printRandomMaze") != null){ %>
       <p>You invoked the <b>MazeGenerator</b> web service's <b>printRandomMaze</b>
       method. This is the response:</p>
       <pre>

<%         int rows, cols;
           try {
               rows = Integer.parseInt(request.getParameter("rows"));
           }
           catch (NumberFormatException ex) {
               String msg = "Number of rows must be a valid integer (entered value: '" +
                   request.getParameter("rows") + "')";
               throw(new NumberFormatException(msg));
           }
           try {
               cols = Integer.parseInt(request.getParameter("columns"));
           }
           catch (NumberFormatException ex) {
               String msg = "Number of columns must be a valid integer (entered value: '" +
                   request.getParameter("columns") + "')";
               throw(new NumberFormatException(msg));
           }

           /*
            * Output the return value of printRandomMaze within a <pre> tag.
            */
```

navhandlingData.html Sample

```

        out.print(soapProxy.printRandomMaze(rows, cols));
    } %>
</pre>

<% /*
 * If the user invokes getRandomMaze, call soapProxy.getRandomMaze and then convert
 * the output into images that draw the maze. For each cell of the maze, there are
 * 16 possible configurations of walls. The configuration is encoded in the value
 * returned from getRandomMaze for that cell. The encoding is defined in
 * MazeGenerator.jws; each cell is a 4 bit field with a bit each for left, top, right
 * and bottom walls.
 *
 * Prepared images for each cell configuration are stored in the images directory.
 */
if (request.getParameter("getRandomMaze") != null) { %>
You invoked the <b>MazeGenerator</b> web service's <b>getRandomMaze</b> method.
This is the response:
<br>
<% int r, c;
    int rows, cols;
    try {
        rows = Integer.parseInt(request.getParameter("rows"));
    }
    catch (NumberFormatException ex) {
        String msg = "Number of rows must be a valid integer (entered value: '" +
            request.getParameter("rows") + "')";
        throw(new NumberFormatException(msg));
    }
    try {
        cols = Integer.parseInt(request.getParameter("columns"));
    }
    catch (NumberFormatException ex) {
        String msg = "Number of columns must be a valid integer (entered value: '" +
            request.getParameter("columns") + "')";
        throw(new NumberFormatException(msg));
    }
}

/*
 * call getRandomMaze and get back an array of ints containing the configuration
 * encoding for each cell in the maze.
 */
int [] rooms = soapProxy.getRandomMaze(rows,cols);
DecimalFormat formatter = new DecimalFormat("00");

out.println();

/*
 * Loop over the cells, specifying the appropriate image for each maze cell based in
 * the cell encoding. The maze returned from getRandomMaze contains the bottom row
 * first, but * we must output the top row first - so invert the rows loop.
 */
for(r = rows-1; r >=0; r--)
{
    for(c = 0; c < cols; c++)
    {
        String image_name = new String("stone_raw_" + formatter.format(rooms[r * cols + c])
            ".gif");
        out.print("<img src=\"/" + WebApp/resources/images/mazeImages/" + image_name + "\">");
    }
    out.print("<br>");
    out.println();
}

```

navhandlingData.html Sample

```
    }  
  } %>  
  
<hr>  
<p><a href="specifyMaze.html">Re-run the traditional version</a>  
<p><a href="/WebApp/handlingData/traditional_vs_pageFlow_webApp/traditional_vs_pageFlow_webApp/Back to Traditional JSP Applications Vs. Page Flow Applications Sample">  
</body>  
</html>
```

SpecifyMaze.html Sample

This topic includes the source code for the SpecifyMaze.html Sample.

Sample Location

This sample is located in the following directory in your WebLogic Workshop installation:

BEA_HOME/weblogic81/samples/workshop/SamplesApp/WebApp/handlingData/traditional_vs_pageFlow_webApp/

Sample Source Code

```
<html>
<body>

    <h1>Traditional JSP Version: specifyMaze.html</h1>

    <h2>Display Text Maze</h2>
    <form action="mazeDisplay.jsp" method="post">
        Enter maze size: <br>
        Rows: <input type="text" name="rows"><br>
        Cols: <input type="text" name="columns"><br>
        <input type="submit"
            name="printRandomMaze"
            value="Submit">
    </form>

    <h2>Display Graphical Maze</h2>
    <form action="mazeDisplay.jsp" method="post">
        Enter maze size: <br>
        Rows: <input type="text" name="rows"><br>
        Cols: <input type="text" name="columns"><br>
        <input type="submit"
            name="getRandomMaze"
            value="Submit">
    </form>

    <hr>
    <a href="/WebApp/handlingData/traditional_vs_pageFlow_webApp/traditional_vs_pageFlow_webApp/Back to Traditional JSP Applications Vs. Page Flow Applications Sample">
    Back to Traditional JSP Applications Vs. Page Flow Applications Sample</a>
</body>
</html>
```

xmlBeans Samples

This section contains source code for the following samples.

Samples Included in This Section

Index.jsp Sample

ItemsDB.jcx Sample

XmlBeansController.jspf Sample

Index.jsp Sample

This topic includes the source code for the Index.jsp Sample.

Sample Location

This sample is located in the following directory in your WebLogic Workshop installation:

BEA_HOME/weblogic81/samples/workshop/SamplesApp/WebApp/handlingData/xmlBeans/

Sample Source Code

```
<%@ page language="java" contentType="text/html; charset=UTF-8"%>
<%@ taglib uri="netui-tags-databinding.tld" prefix="netui-data"%>
<%@ taglib uri="netui-tags-html.tld" prefix="netui"%>
<%@ taglib uri="netui-tags-template.tld" prefix="netui-template"%>
<netui:html>
  <head>
    <title>
      Items
    </title>
  </head>
  <body>
    <jsp:include page="/resources/jsp/header.jsp"/>
    <h3>Handling XMLBean Data</h3>
    <p>The following HTML table from rendered by passing XMLBean data to a <netui-data:repeater>
    <blockquote>
      <netui-data:repeater dataSource="{pageFlow._rows.rows.itemsRowSet.itemsRowArray}">
        <netui-data:repeaterHeader>
          <h2>Items</h2>
          <table class="tablebody" border="1">
            <tr class="tablehead" valign="top">
              <th>ITEMNAME</th>
              <th>ITEMNUMBER</th>
              <th>PRICE</th>
              <th>QUANTITYAVAILABLE</th>
            </tr>
          </netui-data:repeaterHeader>
          <netui-data:repeaterItem>
            <tr valign="top">
              <td><netui:label value="{container.item.ITEMNAME}" defaultValue="&nbsp;"></netui:label>
              <td><netui:label value="{container.item.ITEMNUMBER}" defaultValue="&nbsp;"></netui:label>
              <td><netui:label value="{container.item.PRICE}" defaultValue="&nbsp;"></netui:label>
              <td><netui:label value="{container.item.QUANTITYAVAILABLE}" defaultValue="&nbsp;"></netui:label>
            </tr>
          </netui-data:repeaterItem>
          <netui-data:repeaterFooter></table></netui-data:repeaterFooter>
        </netui-data:repeater>
      </blockquote>
      <hr>
      <p><netui:anchor href="/WebApp/handlingData/handlingDataController.jspf">
        Back to Handling Data Samples</netui:anchor>
      </p>
    </body>
  </netui:html>
```


ItemsDB.jcx Sample

This topic includes the source code for the ItemsDB.jcx Sample.

Sample Location

This sample is located in the following directory in your WebLogic Workshop installation:

BEA_HOME/weblogic81/samples/workshop/SamplesApp/WebApp/handlingData/xmlBeans/

Sample Source Code

```
package handlingData.xmlBeans;

import java.sql.SQLException;
import com.bea.control.DatabaseControl;
import com.bea.control.ControlExtension;
import org.openuri.bea.samples.workshop.xmlBeans.items.ItemsRowSetDocument;

/**
 * @jc:connection data-source-jndi-name="cgDataSource"
 */
public interface ItemsDB extends ControlExtension, DatabaseControl
{
    /** Disable default Java serialization */
    public final static long serialVersionUID = 1L;

    /**
     * @jc:sql
     * statement::
     * SELECT ITEMNUMBER,ITEMNAME,QUANTITYAVAILABLE,PRICE FROM WEBLOGIC.ITEMS
     * ::
     */
    public ItemsRowSetDocument getAllItems()
        throws SQLException;
}
```

XmlBeansController.jspf Sample

This topic includes the source code for the XmlBeansController.jspf Sample.

Sample Location

This sample is located in the following directory in your WebLogic Workshop installation:

BEA_HOME/weblogic81/samples/workshop/SamplesApp/WebApp/handlingData/xmlBeans/

Sample Source Code

```
package handlingData.xmlBeans;
import com.bea.wlw.netui.pageflow.FormData;
import com.bea.wlw.netui.pageflow.Forward;
import com.bea.wlw.netui.pageflow.PageFlowController;
import java.sql.SQLException;
import org.openuri.bea.samples.workshop.xmlBeans.items.ItemsRowSetDocument;

/**
 * This page flow shows how to handle XMLBean data types within a page flow.
 *
 * XMLBean dat is processed in the following way:
 *
 * (1) When this page flow is invoked, XMLBean data is returned from the database control
 *     into this controller file.
 *
 * (2) The XMLBean data is stored in the Form Bean instance _rows.
 *
 * (3) Finally, the XMLBean data is passed to the JSP page, index.jsp, for display.
 *
 * @jpf:controller
 * @jpf:view-properties view-properties::
 * <!-- This data is auto-generated. Hand-editing this section is not recommended. -->
 * <view-properties>
 * <pageflow-object id="pageflow:/handlingData/xmlBeans/XmlBeansController.jspf"/>
 * <pageflow-object id="action:begin.do#handlingData.xmlBeans.XmlBeansController.ItemsForm">
 *   <property value="60" name="x"/>
 *   <property value="40" name="y"/>
 * </pageflow-object>
 * <pageflow-object id="page:index.jsp">
 *   <property value="240" name="x"/>
 *   <property value="100" name="y"/>
 * </pageflow-object>
 * <pageflow-object id="forward:path#success#index.jsp#@action:begin.do#handlingData.xmlBeans.X
 *   <property value="96,150,150,204" name="elbowsX"/>
 *   <property value="32,32,92,92" name="elbowsY"/>
 *   <property value="East_1" name="fromPort"/>
 *   <property value="West_1" name="toPort"/>
 *   <property value="success" name="label"/>
 * </pageflow-object>
 * <pageflow-object id="control:handlingData.xmlBeans.ItemsDB#itemsDB">
 *   <property value="26" name="x"/>
 *   <property value="34" name="y"/>
 * </pageflow-object>
 * <pageflow-object id="formbeanprop:handlingData.xmlBeans.XmlBeansController.ItemsForm#rows#or
 * <pageflow-object id="formbean:handlingData.xmlBeans.XmlBeansController.ItemsForm"/>
```

navhandlingData.html Sample

```
* </view-properties>
* ::
*/
public class XmlBeansController extends PageFlowController
{
    /**
     * @common:control
     */
    private handlingData.xmlBeans.ItemsDB itemsDB;

    /**
     * Create an instance of the Form Bean ItemsForm.
     * ItemsForm has one field of type ItemsRowSetDocument, an XMLBean type.
     */
    public ItemsForm _rows;

    /**
     * @jpf:action form="_rows"
     * @jpf:forward name="success" path="index.jsp"
     */
    protected Forward begin(ItemsForm form)
        throws SQLException
    {
        /**
         * Call the database control method
         * and load the results into
         * the Form Bean instance _rows.
         */
        _rows.setRows( itemsDB.getAllItems() );

        return new Forward( "success" );
    }

    public static class ItemsForm extends FormData
    {
        private ItemsRowSetDocument rows;

        public void setRows(ItemsRowSetDocument rows)
        {
            this.rows = rows;
        }

        public ItemsRowSetDocument getRows()
        {
            return this.rows;
        }
    }
}
```