

# Novell exteNd Director

5.2.1

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UPGRADING EXTEND DIRECTOR  
APPLICATIONS



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*exteNd Director Upgrading exteNd Director Applications*  
[March 2005](#)

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# Contents

1		
	<b>About This Book</b> .....	<b>3</b>
	<b>PART I UPGRADING 5.X PROJECTS</b> .....	<b>5</b>
<b>1</b>	<b>Upgrading Version 5.x Projects</b> .....	<b>7</b>
	Overview .....	7
	Upgrading Version 5.2 archives to Version 5.2.1 .....	7
	About the Project Upgrade Wizard .....	8
	Running the Project Upgrade Wizard .....	8
	Upgrading Version 5.0 EARs to Version 5.2.1 .....	10
<b>2</b>	<b>Handling API Changes</b> .....	<b>13</b>
	<b>PART II UPGRADING 4.X PROJECTS</b> .....	<b>17</b>
<b>3</b>	<b>Upgrading Version 4.x Projects</b> .....	<b>19</b>
	Overview .....	19
	Upgrading your Version 4.x project .....	20
	About the Project Upgrade Wizard .....	21
	Running the Project Upgrade Wizard .....	21
	Project Upgrade Notes .....	22
	Migrating Version 4.x data .....	24
	Running the Data Migration Utility .....	24
	Using console logging .....	29





# About This Book

## Purpose

This book describes the procedure for upgrading **exteNd Director** projects.

## Audience

This book is for anyone who needs to upgrade **exteNd Director** projects from Version 4.x or 5.x to Version 5.2.1, and **exteNd Director** data from Version 4.x to Version 5.x.

## Prerequisites

This book assumes knowledge of the **exteNd Director development environment**, database utilities for creating new databases, and application server utilities for creating connection pools.

## Additional documentation

 For the complete set of **Novell exteNd Director** documentation, see the **Novell Documentation Web Site** (<http://www.novell.com/documentation-index/index.jsp>).



# Upgrading 5.x Projects

Information about upgrading **exteNd Director** projects from Version 5.x to Version 5.2.1

- [Chapter 1, “Upgrading Version 5.x Projects”](#)
- [Chapter 2, “Handling API Changes”](#)



# 1

## Upgrading Version 5.x Projects

This chapter describes how to upgrade 5.x projects to 5.2.1. It includes these sections:

- ◆ [Overview](#)
- ◆ [Upgrading Version 5.2 archives to Version 5.2.1](#)
- ◆ [Upgrading Version 5.0 EARs to Version 5.2.1](#)


### Overview




Project upgrades allow you take advantage of enhancements and bug fixes made to the subsystems used by your **exteNd Director** applications. You'll follow a different upgrade path depending on the archive type and version you are upgrading as described in the following table:

Project type and Version	Upgrade steps
Version 5.2 EAR or WAR Version 5.0 WAR	Follow the steps described in <a href="#">"Upgrading Version 5.2 archives to Version 5.2.1" on page 1</a>  <b>NOTE:</b> The structure of the Version 5.0 and 5.2 WARs are the same so you can follow the same set of steps for upgrading a 5.2 WAR.
Version 5.0 EAR	Follow the steps described in <a href="#">"Upgrading Version 5.0 EARs to Version 5.2.1" on page 4</a>

### Upgrading Version 5.2 archives to Version 5.2.1

The recommended steps are outlined below. They assume that you've already installed **exteNd Director** Version 5.2.


Step	Task
1	Backup your <b>exteNd Director</b> 5.x project, and copy the entire project directory to a safe location.
2	Setup a test environment in which to upgrade your project. The test environment should include: <ul style="list-style-type: none"> <li>◆ A new <b>exteNd Director</b> database</li> <li>◆ A connection pool for the <b>exteNd Director</b> database (added via your deployment server's utilities)</li> <li>◆ Deployment settings specific to the test environment</li> <li>◆ The same shared library/nonshared library or 3rd party JARs environment as your production environment.</li> </ul> <p> For more information, see the chapter on <a href="#">deploying applications</a> in <i>Developing exteNd Director Applications</i>.</p>

Step	Task
3	<p>Open the project in the 5.2.1 <a href="#">exteNd Director Designer</a> and run the Project Upgrade utility. Rebuild and rearchive it (if the Project Upgrade Wizard did not already do so).</p> <p>If you encounter compile errors, review <a href="#">Chapter 2, “Handling API Changes”</a> for information about the updates you’ll have to make and the API Reference for information about deprecation.</p> <p> For more information, see <a href="#">“Running the Project Upgrade Wizard”</a> on page 2.</p>
4	<p>Determine whether you want to change any of the files not changed during upgrade and that the MANIFEST.MF file is accurate.</p> <p>The following file name was changed between 5.2 and 5.2.1 and should be updated in the Manifest.MF:</p> <ul style="list-style-type: none"> <li>◆ castor-xml.jar is now castor.jar</li> </ul> <p> For more information, see <a href="#">“What to do after the project upgrade completes”</a> on page 4.</p>
6	<p>Deploy the upgraded project to your test environment.</p> <p> For more information, see the chapter on <a href="#">deploying applications</a> in <a href="#">Developing exteNd Director Applications</a></p>
7	<p>Test the upgraded application thoroughly in the test environment. Once you are satisfied with the test results, deploy the upgraded project to your production server.</p>

## About the Project Upgrade Wizard

The Project Upgrade Wizard:


- ◆ Copies the latest subsystem JARs to your project. The new subsystem JARs contain API changes, bug fixes and software enhancements.
- ◆ Modifies the config and services XML files (for each subsystem) along with the portlet.xml and novell-portlet.xml files, in these ways:
  - ◆ Adds entries to support new features and enhancements
  - ◆ Searches the XML files looking for exact key/value matches.
    - If it finds an exact match and the entry is now considered obsolete, it removes the entry.
    - If it finds an exact match and the value has changed, it changes the value.
    - If it doesn’t find an exact match, it writes a warning to the Log file. You must review the log file for these occurrences and decide if you should manually make the change.

 For more information about API changes, see [Chapter 2, “Handling API Changes”](#), and for information about enhancements and bug fixes, see the [Release Notes](#).

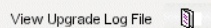
## Running the Project Upgrade Wizard

- **To upgrade your 5.x exteNd Director project to 5.2.1:**
  - 1 If you have not backed up your 5.x project, do so now before continuing with the project upgrade utility.
  - 2 Open the 5.x project in the 5.2.1 test environment.
  - 3 Choose **Project>Director>Upgrade**.
  - 4 Click **Upgrade 5.x to 5.2.1**, then click **OK**.
  - 5 Click **Next**.

- 6 Complete the Upgrade Information panel as follows:

Field	What to do
Upgrade Base Location	Accept the default. This specifies the directory containing templates that the wizard uses to upgrade the project.
Upgrade Log File	Accept the default or choose a directory where you want the wizard to write the upgrade log. The upgrade log describes the changes the wizard makes to your XML files.  For more information on the upgrade log file, see <a href="#">“Using the Project Upgrade Log” on page 3.</a>

- 7 Click **Next**.
- 8 Review the upgrade settings displayed on the Initiate Project Upgrade Panel.
- 9 If you want the upgraded project to be automatically rebuilt, make sure **Rebuild project after upgrade has completed** is checked. If you choose not to automatically rebuild your project, you will have to do this step manually later.
- 10 Click **Finish**.  
The Project Upgrade Wizard performs the upgrade, and displays the Upgrade Summary Panel when it completes.
- ◆ (Optional). To view the upgrade log, click the View Upgrade Log File icon.



- 11 Click **Done** to exit the wizard.

## Using the Project Upgrade Log

You can view the Project Upgrade Log directly after the upgrade wizard completes or by opening it in the text editor of your choice.

The Project Upgrade Log lists each file that the wizard accessed (or attempted to access) during the upgrade. Many of the messages written to the log file do not require you to take action. For example, you do not need to take any action for entries added to support new features and enhancements.

You should review the entries where the wizard was unable to find an exact match for an entry to remove or update. These are prefaced by Warning messages. The wizard will be unable to find an exact match because:

- ◆ You changed a value.  
For example, if your project includes the Autonomy based searches for the CM subsystem and you changed the value of the QueryPort for your own environment, the wizard will be unable to find an exact match for the default key/value for QueryPort. It generates a warning, but since you probably want to maintain your own QueryPort value for your particular environment you can ignore that warning.
- ◆ The wizard is searching for a value based on the EAR structure, but your project uses a WAR structure.  
You can ignore these warnings. The wizard always first searches for files using the EAR structure followed by the WAR structure. It always generates a log message when it is unable to locate an exact match.

## What to do after the project upgrade completes

The following files were changed between Version 5.x and Version 5.2.1, but the Project Upgrade Wizard does not overwrite the existing files to ensure that any customizations that you've made to these files are not overwritten.

- ◆ javascript\list.js
- ◆ javascript\pmc.css
- ◆ jsps\index.jsp

If you have not made changes to these files, replace the copies that reside in your upgraded 5.2.1 project with copies from a newly created Version 5.2.1 project.

If you have changed these files, merge the changes you've made with a copy from a newly created Version 5.2.1 project.

**For projects with content management subsystems** To ensure that you are able to use your content management system after a project upgrade, you must modify the project's config.xml file. You'll find the config.xml in one of these locations:

Project/Archive type	Location
EAR	library/ConfigService/ContentMgmtService-conf/config.xml
WAR	WEB-INF/lib/ConfigService/ContentMgmtService-conf/config.xml

Open the config.xml file and locate the following key:

```
<key>com.sssw.cm.fetch.extensions</key>
```

After upgrade, the value for this key contains an extra greater than symbol (>). (You'll see it right after <value>):

```
<value>>.html;.sgml;.xml;.txt;.doc;.pdf;.xls;.xls;.xls;.ppt;.ppt;.ppt;.rtf;.sxw;.stw;.sxc;.stc;.sxd;.std;.sxi;.sti;.sxg;.sxm</value>
```

Remove the extra symbol so that the entry looks like this:

```
<value>.html;.sgml;.xml;.txt;.doc;.pdf;.xls;.xls;.xls;.ppt;.ppt;.ppt;.rtf;.sxw;.stw;.sxc;.stc;.sxd;.std;.sxi;.sti;.sxg;.sxm</value>
```





## Upgrading Version 5.0 EARs to Version 5.2.1

Before you start your upgrade:

- ◆ Backup your exteNd Director 5.0 EAR project and database. Copy them to a safe location.
- ◆ Create a test environment for migration and and post-migration testing.



To upgrade your 5.0 EAR project, follow these steps:

Step	Task	Description
1	Create a new 5.2.1 project	<p>The 5.2.1 project must:</p> <ul style="list-style-type: none"> <li>◆ Have the same name as the 5.x project that you are upgrading.</li> <li>◆ Be an EAR project.</li> <li>◆ Contain a locksmith unique to the 5.2.1 project.</li> </ul> <p>Do not use the same locksmith ID as the 4.x project, or you will encounter duplicate key errors during the migration/upgrade process, and the security system will not migrate properly.</p> <p> For more information, see the chapter on <b>creating new projects</b> in the <i>Developing exteNd Director Applications</i>.</p>
2	Propagate the 5.0 customizations to the 5.2.1 project	<p>For example:</p> <ul style="list-style-type: none"> <li>◆ Add subprojects</li> <li>◆ Change project lib paths</li> </ul>
3	Copy custom artifacts from the 5.0 project to the new 5.2.1 project	<p>For example, copy these directories:</p> <pre>Portal\data\portal-component\*.xml Portal\data\portal-style\*.xml</pre>
4	Rebuild and rearchive the new project	
5	Create a new database in the test environment	<p> For more information, see the chapter on <b>deployment</b> in <i>Developing exteNd Director Applications</i>.</p>
6	Make the database available to the server in the test environment	<p> For more information, see the chapter on <b>deployment</b> in <i>Developing exteNd Director Applications</i>.</p>
7	Deploy the upgraded <b>exteNd Director</b> project in the test environment	<p> For more information, see the chapter on <b>deployment</b> in <i>Developing exteNd Director Applications</i>.</p>
8	Move the tested project and database into production	



# 2 Handling API Changes

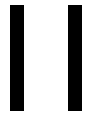
The following table lists changes to the API between 5.0 and 5.2. These changes can generate compile errors or warnings upon project builds or rebuilds.

Class/Interface/Method/Field	Change
com.novell.afw.portlet.api.EbiPortletConsumerRegistry methods	Methods moved to base interface com.novell.afw.portlet.api.EbiConsumerRegistry.
com.novell.afw.portal.proxy.EbiProxyConstants.WSRP_CONTAINER_ENABLE_KEY	This field is no longer part of the public API. Consider using the WSRP_CONSUMER_ENABLE_KEY instead.
com.novell.afw.util.EboXmlUtil.addDirectiveToXSL	Return type changed. Old signature: <pre>public static void addDirectiveToXSL(org.w3c.dom.Document xslDom, String directiveName, String attributeName, String attributeValue) throws javax.xml.transform.TransformerException</pre> New signature: <pre>public static Node addDirectiveToXSL(Document xslDom, String directiveName, String attributeName, String attributeValue) throws TransformerException</pre>
com.novell.afw.util.EboXmlUtil.xslTransform	Return type changed. Old signature: <pre>public static void xslTransform(org.w3c.dom.Document contentDom, javax.xml.transform.Transformer transformer, OutputStream out) throws javax.xml.transform.TransformerException, javax.xml.transform.TransformerConfigurationException, FileNotFoundException, IOException</pre> New signature: <pre>public static String xslTransform(Document contentDom, Transformer transformer, OutputStream out) throws TransformerException, TransformerConfigurationException, FileNotFoundException, IOException</pre>

Class/Interface/Method/Field	Change
com.sssw.cm.api.EbiContentMgmtDelegate.checkoutDocument	<p>Return type changed.</p> <p>Old signature:</p> <pre>public boolean checkoutDocument(EbiContext context, String docID) throws EboUnrecoverableSystemException, EboSecurityException, EboItemExistenceException</pre> <p>New signature:</p> <pre>public EbiDocument checkoutDocument(EbiContext context, String docPath, boolean isDocID) throws EboUnrecoverableSystemException, EboSecurityException, EboItemExistenceException</pre>
com.sssw.fw.api.EbiConstants. SECURITY_MGR CACHE_MGR USER_MGR SESSION_MGR PERSONALIZE_MGR	<p>These fields are no longer part of the public API.</p> <p>Consider using the replacements listed below:</p> <p>com.sssw.fw.security.api.SECURITY_MGR com.sssw.fw.cachemgr.api.CACHE_MGR com.sssw.fw.usermgr.api.USER_MGR com.sssw.fw.usermgr.api.PERSONALIZE_MGR</p>
com.sssw.fw.resource.EboResourceListener	<p>New modifier—Abstract</p> <p>Old signature:</p> <pre>public class EboResourceListener extends Object</pre> <p>New signature:</p> <pre>public abstract class EboResourceListener extends Object</pre>
com.sssw.fw.util.EboMisc.getElementValue	<p>Removed from the public API. Consider using com.novell.afw.util.EboXmlUtil instead.</p>
com.sssw.fw.util.crypto.EboBase64Crypto.decrypt	<p>Exception changed</p> <p>Old signature:</p> <pre>public byte[] decrypt(byte[] data) throws Exception</pre> <p>New signature:</p> <pre>public byte[] decrypt(byte[] data) throws com.sssw.fw.util.crypto.UnsupportedEncodingException</pre>
com.sssw.fw.util.crypto.EboBase64Crypto.encryptString	<p>Exception changed</p> <p>Old signature:</p> <pre>public String encryptString(String data) throws Exception</pre> <p>New signature:</p> <pre>public String encryptString(String data) throws com.sssw.fw.util.crypto.UnsupportedEncodingException</pre>

Class/Interface/Method/Field	Change
com.sssw.fw.util.crypto.EboBase64Crypto.decryptString	<p>Exception changed</p> <p>Old signature:</p> <pre>public String decryptString(String data) throws Exception</pre> <p>New signature:</p> <pre>public String decryptString(String data) throws com.sssw.fw.util.crypto.UnsupportedEncodingException</pre>
com.sssw.portal.util.EboPortalUrlHelper.addUtilityNode	<p>Exception changed</p> <p>Old signature:</p> <pre>public static org.w3c.dom.Document addUtilityNode(EbiPortalContext context, org.w3c.dom.Document doc) throws Exception</pre> <p>New signature:</p> <pre>public static Document addUtilityNode(EbiPortalContext context, Document doc) throws EboFactoryException</pre>
com.novell.afw.portal.api.EbiPortalAggregationController.RENDER_SYNCH_IN_MAIN_THREAD	<p>This method is no longer part of the public API.</p> <p> For more information, see the chapter on asynchronous portlet processing in the <i>Portal Guide</i>.</p>
com.novell.afw.portal.api.EbiPortalAggregationController.setExecuteSynchronizedInCallingThread	<p>This method is no longer part of the public API.</p> <p>Consider using the following method instead:</p> <pre>public void setForceSerialSynchRender(boolean flag)</pre> <p> For more information, see the chapter on asynchronous portlet processing in the <i>Portal Guide</i>.</p>
com.novell.afw.portal.aggregation.EboPortalAggregationURLHelper.getPortalWirelessPageURI	<p>Method parameters changed.</p> <p>Old signature:</p> <pre>public static String getPortalWirelessPageURI(EbiPortalContext portalContext) throws EboFactoryException</pre> <p>New signature:</p> <pre>public static String getPortalWirelessPageURI(EbiPortalContext portalContext, boolean encode) throws EboFactoryException</pre>





## Upgrading 4.x Projects

Information about upgrading **exteNd Director** Version 4.x projects to Version 5.2.1.

- [Chapter 3, “Upgrading Version 4.x Projects”](#)





# 3



## Upgrading Version 4.x Projects

This chapter describes how to upgrade an **exteNd Director** application from Version 4.x to Version 5.2.1. It includes these sections:

- ◆ [Overview](#)
- ◆ [Upgrading your Version 4.x project](#)
- ◆ [Migrating Version 4.x data](#)






### Overview

To upgrade an **exteNd Director** application from Version 4.x to 5.x, you'll need to perform these tasks:

Step	Task
1	Backup your <b>exteNd Director</b> 4.x project and database. Copy them to a safe location.
2	Create a test environment for migration and and post-migration testing. <b>NOTE:</b> You cannot perform the project upgrade and database migration on a running application or a server processing requests. Workflows cannot be active.
3	Upgrade your <b>exteNd Director</b> 4.x project.  For more information, see <a href="#">"Upgrading your Version 4.x project" on page 2</a> .
4	Migrate the data from the 4.x database to a new 5.x database.  For more information, see <a href="#">"Migrating Version 4.x data" on page 6</a>
5	Deploy and test the upgraded project and migrated database in the test environment.
6	Deploy the tested application and database to your production environment.

## Upgrading your Version 4.x project

To upgrade your 4.x project, follow these steps:

Step	Task	Description
1	Create a new 5.2.1 project	<p>The 5.2.1 project <b>must</b>:</p> <ul style="list-style-type: none"> <li>◆ Have the same name as the 4.x project that you are upgrading.</li> </ul> <p><b>NOTE:</b> The Version 5.2.1 Project Wizard does not allow you to specify a Portal WAR name or a Custom Web App Name. For more information, see <a href="#">“Changing the Portal WAR name (EAR projects only)”</a> on page 5.</p> <ul style="list-style-type: none"> <li>◆ Be of the same project type as the 4.x project.</li> </ul> <p>For example, if the 4.x project is an EAR, then the 5.2.1 project must also be an EAR.</p> <ul style="list-style-type: none"> <li>◆ Contain a locksmith unique to the 5.x project.</li> </ul> <p>Do not use the same locksmith ID as the 4.x project, or you will encounter duplicate key errors during the migration/upgrade process, and the security system will not migrate properly.</p> <p> For more information, see the chapter on <a href="#">creating new projects</a> in the <i>Developing exteNd Director Applications</i>.</p>
2	Propagate the 4.x customizations to the 5.2.1 project	<p>For example:</p> <ul style="list-style-type: none"> <li>◆ Add subprojects</li> <li>◆ Change project lib paths</li> </ul>
3	Copy custom artifacts from the 4.x project to the new 5.2.1 project	<p>For example, copy these directories:</p> <pre>Portal\data\portal-component\*.xml Portal\data\portal-style\*.xml</pre>
4	Run the Project Upgrade wizard in the 5.2.1 <a href="#">development environment</a>	<p> For more information, see <a href="#">“About the Project Upgrade Wizard”</a> on page 3.</p>
5	Review the Upgrade Log and make the changes listed	<p>For example, you might have changed the value of the <code>com.sssw.cm.search.synch.mode.Default</code> (in the content management’s <code>config.xml</code>) from immediate to batch mode.</p> <p>The project upgrader reports this difference. You’ll need to apply these changes to the new project.</p>
6	Rebuild and rearchive the new project	
7	Create a new database in the test environment	<p> For more information, see the chapter on <a href="#">deployment</a> in <i>Developing exteNd Director Applications</i>.</p>
8	Make the database available to the server in the test environment	<p> For more information, see the chapter on <a href="#">deployment</a> in <i>Developing exteNd Director Applications</i>.</p>
9	Deploy the upgraded <a href="#">exteNd Director</a> project in the test environment	<p> For more information, see the chapter on <a href="#">deployment</a> in <i>Developing exteNd Director Applications</i>.</p>
10	Move the tested project and database into production	

## About the Project Upgrade Wizard

The Project Upgrade Wizard:

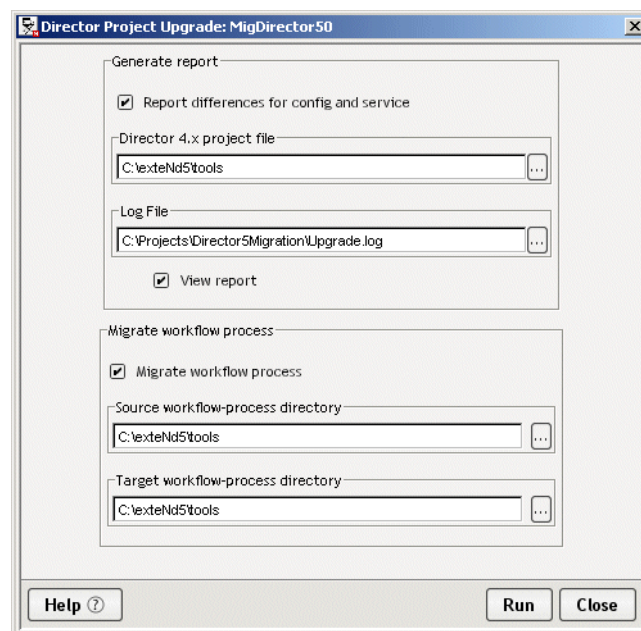
- ◆ Converts all workflow process XML files to the 5.x format.
- ◆ Generates a report listing the differences in the config.xml and services.xml files between your 4.x project and the new format for these files. Some of these differences are the result of your customizations which you will need to manually modify the files in the 5.x project.

## Running the Project Upgrade Wizard

➤ **To run the Project Upgrade wizard:**

- 1 In the **exteNd Director development environment**, open your new 5.2.1 project with the 4.x customizations applied (from the task list outlined above).
- 2 Choose **Project>Director>Upgrade**.

The Project Upgrade panel displays:



- 3 Complete the Project Upgrade panel as follows:

Field	What to do
Report differences for config and service	Check, if you want the wizard to generate a log file that lists the differences between your 4.x and 5.2.1 projects.
Director 4.x project file	Select the original 4.x project file that you are upgrading.
Log file	Specify a directory location and file name where the wizard should write the log file.
View Report	Check, if you want to view the report as soon as it is generated.
Migrate workflow process	Check, if your 4.x project contains workflow processes that you want upgraded.
Source workflow-process directory	Specify the 4.x workflow process directory. This is typically ...portal\data\workflow-processes

Field	What to do
Target workflow-process directory	Specify the 5.2.1 workflow process directory—the place where the updated files are written.

4 Click **Run**.

The Project Upgrade Wizard generates a log like the following:

```

C:\Projects\Director5Migration\Upgrade.log
===== ContentMgmt Service =====
<CONFIG>
C:\Projects\TestDirector4\Library\ContentMgmtService\ContentMgmtService-conf\config.xml ==> C:\Projects\Director5Migration
Entry with different value -- ContentMgmtService\test-db-on-startup
----> The value in 4.x = CMREPOSITORIES
----> The value in 5.0 = CMDOCFVLVBINARIES
Entry with different value -- com.sssw.cm.fetch.mime.types
----> The value in 4.x = text/html;text/sgml;text/xml;text/plain,application/msword,application/pdf,application/msexcel,application
----> The value in 5.0 = text/html;text/sgml;text/xml;text/plain,application/msword,application/pdf,application/msexcel,application
Entry with different value -- com.sssw.cm.fetch.extensions
----> The value in 4.x = .html;.sgml;.xml;.txt;.doc;.pdf;.xls;.xls;.ppt;.ppt;.rtf
----> The value in 5.0 = .html;.sgml;.xml;.txt;.doc;.pdf;.xls;.xls;.ppt;.ppt;.ppt;.rtf
Entry with different value -- com.sssw.cm.fetch.binary.filters.dir
----> The value in 4.x = C:\Program Files\Novell\exteNdDirector\Autonomy\OmniSlaves
----> The value in 5.0 = C:\exteNd5\Director\Autonomy\OmniSlaves

Entry only in 4.x project -- DocumentFieldValue.TypeKey
Entry only in 4.x project -- DocumentFieldValue.MetaTypeKey
Entry only in 4.x project -- DocumentFieldValue.PersistTypeKey
  
```

5 Click **OK**.

6 Complete the remaining upgrade steps listed in “Upgrading your Version 4.x project” on page 2.

## Using the Project Upgrade Log

The Project Upgrade Log lists all of the differences between the 5.2.1 project and your original 4.x project. Some of these changes are a result of enhancements made to the 5.2.1 product; others are customizations that you made to the 4.x project. Review the file and make the identified updates to the new project.

For example, this log entry probably does not require an update:

```

Entry with different value -- com.sssw.cm.search.queryport.Default
----> The value in 4.x = 2000
----> The value in 5.0 = 52000
Entry with different value -- com.sssw.cm.search.indexport.Default
----> The value in 4.x = 2001
----> The value in 5.0 = 52001
  
```

It just means that between 4.x and 5.x the default ports for content management search changed from 2000 to 52000.

## Project Upgrade Notes

This section contains:

- ◆ Changing the Portal WAR name (EAR projects only)
- ◆ WorkFlow Upgrade Notes
- ◆ Component Upgrade Notes

## Changing the Portal WAR name (EAR projects only)

A Version 5.2.1 EAR project defaults the Portal WAR name to *ProjectName*Portal. Project upgrade requires that the Version 4.x project and the Version 5.2.1 project have the same name. If your Version 4.x Portal WAR name does not follow this pattern, you'll have to change the Version 5.2.1 Portal WAR name to match the Version 4.x Portal WAR (or Custom Web App name) in these Version 5.2.1 **project** files:

- ◆ The EAR project file (.spf) (such as MyEAR.spf)
- ◆ *Project*Portal-resource.spf
- ◆ *Project*Portal.spf

in these **Deployment plan** files:

- ◆ *Project*Portal\_DeplPlan.xml
- ◆ *Project*\_DeplPlan.xml

in the **config.xml** files in these directories:

- ◆ PageFlowService-conf
- ◆ PortalService-conf
- ◆ RuleService-conf
- ◆ SecurityService-conf
- ◆ WorkflowService-conf
- ◆ WEB-INF/conf

in these **XML** files:

- ◆ application.xml
- ◆ web.xml
- ◆ resourceset.xml

**For example** For example, if you created a Version 5.2.1 EAR project called myTest, the PortalWAR name created is MyTestPortal. If your version 4.x project PortalWAR name is MyWAR, you'd change the MyTestPortal-resource.spf to MyWAR-resource.spf, the MyTestPortal.spf to MyWAR.spf, and so on.

---

**CAUTION:** *Perform this procedure before deploying the new project for the first time so the exteNd Director tables are created with the correct names. If you deploy before changing the Portal WAR name, delete the exteNd Director tables and redeploy after making this change.*

---

## WorkFlow Upgrade Notes

The interface com.sssw.wf.api.EbiActivity was deprecated between 4.x and 5.x. If you used the invoke() method of this interface, follow these steps to update your code:

- 1 Change any automatic activities that implemented com.sssw.wf.api.EbiActivity to implement com.sssw.wf.api.EbiJavaActivity.
- 2 Change the invoke() method to invoke(EbiContext context)
- 3 Add an empty invoke() method so you can compile.
- 4 Remove any code that created a context. Instead, use the context that is passed to the invoke() method now.
- 5 Remove the forward call to the QueueDelegate. This is no longer necessary because it is now done for you.

## Component Upgrade Notes

- ◆ If you upgrade a user or group page from 4.x to 5.2.1 and the page contains the stock quote component, you must replace it with the StockQuote portlet.
- ◆ The General component category is not used in 5.2.1. Version 4.x components migrated to 5.2.1 that are still listed in the General category will no longer be available in the Portlet list for page personalization. To make components in the General category visible, use the DAC to change the category from General to General Portlet (or some other 5.2.1 category that you find useful).

## Migrating Version 4.x data

The **exteNd Director** database schema changed between Version 4.x and Version 5.x so you must migrate your existing data to the new schema structure. The Data Migration utility copies **exteNd Director** internal data (the data stored in the **exteNd Director** database) from 4.x and transforms it to the proper format for 5.x.

## Running the Data Migration Utility

The Data Migration utility is run via a batch file (on Windows platforms) or shell script (on UNIX or Linux platforms).

**Database driver requirements** The following table describes the database driver requirements for the Data Migration utility.

Database	Restriction/Description
Oracle Thin drivers	If you are using the Oracle Thin driver, it <b>must</b> be Oracle Thin driver 9.2.0.4.0 (or higher). If not you will encounter an Invalid Column Type error during the data migration.
Microsoft SQL Server	Requires a Type 4 JDBC driver.

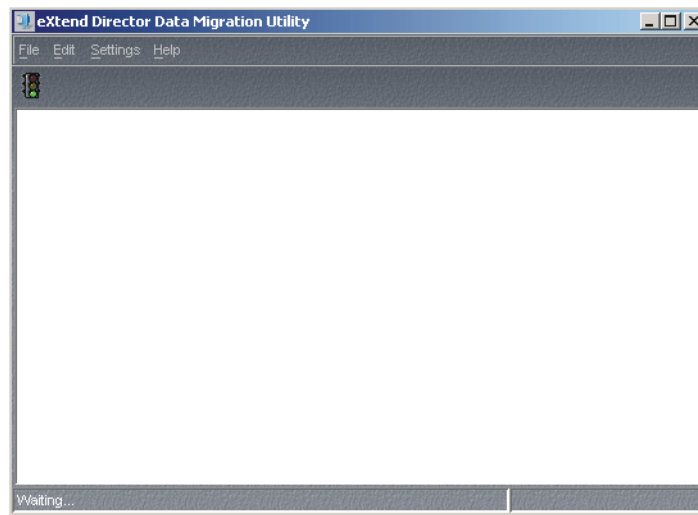
**NOTE:** The application cannot be servicing requests when you run the Data Migration Utility.

### ➤ To run the DataMigration utility:

- 1 Run the DataMigration utility file:

Operating System	Description
Windows	DataMigration.bat located at in the <b>exteNd</b> installation directory under: <code>Director\migration\bin\</code>
UNIX/Linux	DataMigration.sh located in the <b>exteNd</b> installation directory under: <code>Director\migration\bin\</code>

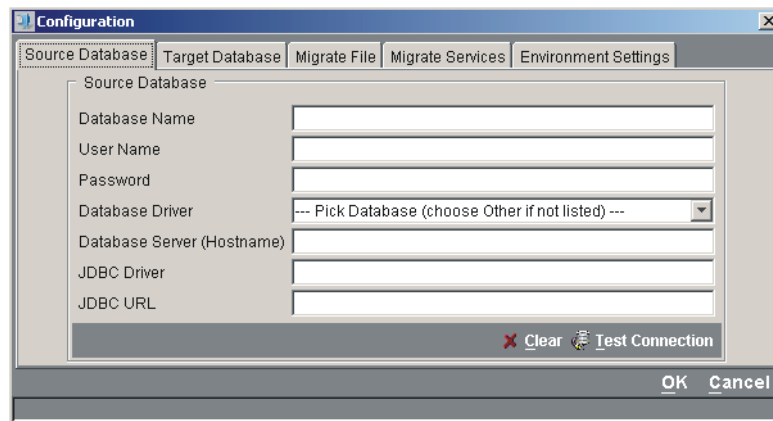
It looks like this:



**NOTE:** Disregard any error messages that appear in the command prompt window. They occur because the Data Migration Utility retrieves realm name constants. The resulting error messages include **Unable to establish database connection** and **Need to specify class name in environment or system property**. These messages do not pertain to the data migration process.

➤ **To specify the Source and Target database:**

- 1 Select **Settings>Configuration**:



- 2 Complete the Source Database panel as follows:

Field	What to do
Database Name	Specify the name of the database containing the <b>exteNd Director</b> Version 4.0 tables that you want to migrate.
User Name and Password	Specify the user name and password associated with the database.
Database Driver	Choose the database driver from the dropdown. When you choose the database driver, the JDBC Driver and JDBC URL fields are filled in with default values—unless you choose Other.
Database Server (Hostname)	The name of the machine hosting the database server.
JDBC Driver	Accept the default value filled in when you chose the Database Driver.

Field	What to do
JDBC URL	Accept the default value provided when you chose the Database Driver and complete any variables (such as database name and port number).

3 Click **Test Connection**.

4 Review the message bar for status messages.

If the migration utility was able to connect successfully to the source database, you'll see a message like:

`Test connection successful, Source connection parameters OK.`

Otherwise, you'll have to review the error messages on the data utility console.

**TIP:** If an error occurs and the test connection is not successful, you'll have to re-enter any JDBC URL values because these values are reinitialized when a test connection failure occurs.

5 Click **OK** to save the settings for the Source Database panel.

6 Choose the Target Database panel. Complete it as follows:

Field	What to do
Database Name	Specify the name of the <b>exteNd Director</b> Version 5.x database to which you want to migrate the Version 4.x data and services.
User Name and Password	Specify the user name and password associated with the database.
Database Driver	Choose the database driver for the target database.  When you choose a database driver, the JDBC Driver and JDBC URL fields are automatically completed — unless you choose Other.
Database Server (Hostname)	Specify the name of the machine hosting the database server.
JDBC Driver	Accept the default value filled in when you chose the Database Driver
JDBC URL	Accept the default value provided when you chose the Database Driver and complete any variables (such as database name and port number).

7 Click **Test Connection**.

8 Review the message bar for status messages.

If the migration utility was able to connect successfully to the source database, you'll see a message like:

`Test connection successful, Source connection parameters OK.`

Otherwise, you'll have to review the error messages on the data utility console.

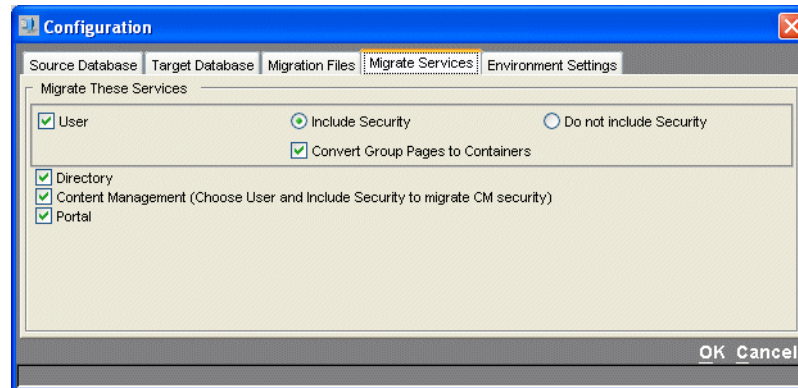
**TIP:** If an error occurs and the test connection is not successful, you'll have to re-enter any JDBC URL values because it is reinitialized at a test connection failure.

9 You can click **OK** to save the settings for the Target Database panel, but you'll have to re-enter the tool to continue.



➤ **Choosing the services to migrate:**

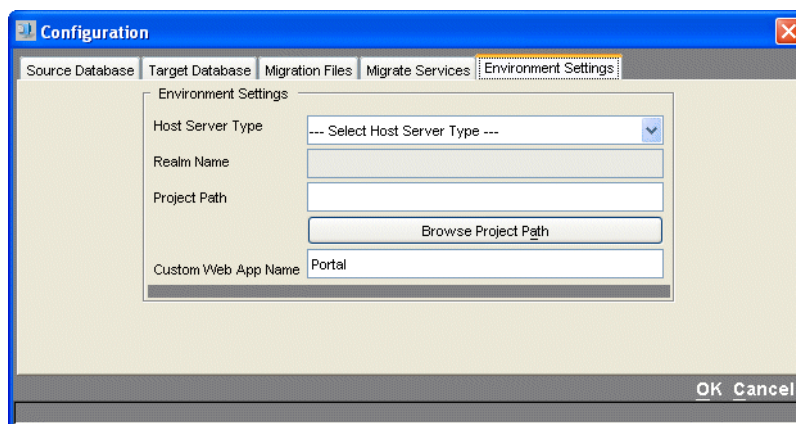
- 1 Open the Configuration section of the data migration utility.
- 2 Select the **Migrate Services** tab.



- 3 Complete the Migrate services panel as follows:

Field	What to do
User	Select if you want to migrate <b>exteNd Director's</b> user-related information (such as preferences).
Include Security/Do not include Security	Select <b>Include Security</b> if you want to migrate the <b>exteNd Director</b> authorization information (such as ACLs). <b>NOTE:</b> This is required if you are migrating the Content Management subsystem.
Convert Group Pages to Containers	Select when your 4.x project includes Group Pages. Group pages are no longer supported and <b>must</b> be converted to Container pages. Deselect if your application does not include Group pages.
Directory	Deselect if your 4.x project uses realm other than the <b>exteNd Director</b> default realm.
Content Management	Select if your 4.x project includes the Content Management subsystem, otherwise, deselect.
Portal	Select if your 4.x project includes the Portal subsystem, otherwise, deselect.

- 4 Select the **Environment Settings** tab:



- 5 Complete the Environment Settings tab as follows:

Field	What to do
Host Server Type	Choose the type of Directory service realm used in the 5.2.1 environment.
Realm Name	If you select Other, you can specify the name of the realm. Otherwise, the name of the realm is the same as the Host Server Type.
Project Path	The root of the <a href="#">exteNd Director 5.2.1</a> project.
Custom Web App Name	Specify the Custom Web App Name for the 5.2.1 project. For EAR projects, this is the name of the WAR containing your <a href="#">exteNd Director</a> application. It's name is not editable when you create your 5.2.1 project. It is always <i>ProjectName</i> Portal. It is possible to change this name after creating the project as described in <a href="#">"Changing the Portal WAR name (EAR projects only)"</a> on page 5. For WAR projects, this is the context name for the WAR (which is also the project name).

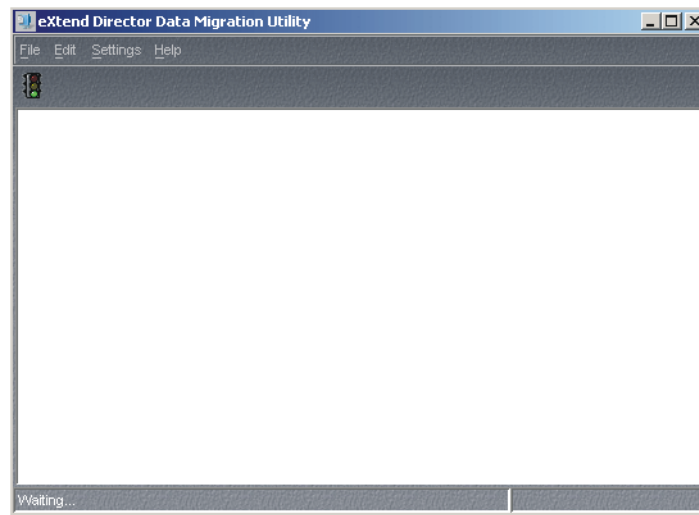
➤ **To specify runtime parameters:**

- 1 Select the menu options under Settings to specify runtime parameters for the migration process. They are:

Menu option	Description
Verbose	When selected (checked), the console output provides more detail.
Line Wrap	When selected (checked), the console output is more readable.
Halt on Error	When selected (checked), data migration terminates when an error is encountered.

➤ **To migrate your data:**

- 1 Verify that you've completed the configuration tabs for
  - ◆ Source and Target Databases
  - ◆ Services to Migrate
  - ◆ Environment settings
- 2 Click the **Start Data Migration** (traffic light) icon to initiate the migration process:



The main window displays the status of the data migration. When complete, the window reports the number of rows copied as well as the number of errors detected.

- 3 Review the utility console (command prompt window) log file to verify that no errors have been missed. In general, the utility console provides more detail for errors, such as stack traces.

## Using console logging

Console output is written to a file named **datamigrate.log** in the same directory as the **DataMigration.bat** file. The log file is created every time the Data Migration Utility is run. If there are old log files in the same directory, they are backed up and renamed before the new log file is created.

### ➤ To set up console logging:

- 1 Edit the migration properties file **datamigration.properties**, which is created in the same directory as the **DataMigration.bat** file the first time you run the Data Migration Utility.
- 2 Examine the **log.lines** setting. The default setting (0) prevents the Data Migration Utility from writing logging information to disk until the process is complete.
- 3 If you change the setting to something greater than zero (such as 100, for example), the application writes to the log file every time 100 lines (approximately) are written to the application window and clears the application window.  

This setting may be necessary when migrating large databases that create many messages in the window. Clearing the window frees some of the application's memory resources.
- 4 Shut down the Data Migration Utility and restart it to get the new buffer length.



# Index

## A

[API changes](#) 13

## C

[Custom Web App Name](#)  
selecting for data migration 28

## D

[Data Migration Utility](#)  
starting 24  
[DataMigration.bat](#) 24  
[DataMigration.sh](#) 24

## H

[Halt on Error option](#)  
Data Migration Utility 28  
[host server type](#)  
selecting for data migration 28

## L

[Line Wrap option](#)  
Data Migration Utility 28  
[Linux](#)  
starting data migration utility 24  
[log file](#)  
project upgrade 9

## O

[overview](#)  
project upgrade (4.x) 19  
project upgrade (5.x) 7

## P

[project path](#)  
selecting for data migration 28  
[project upgrade](#)  
overview (4.x) 19  
overview (5.x) 7  
steps (4.x) 19  
steps (5.x) 7  
[project upgrade wizard](#)  
running (4.x) 21  
running (5.x) 8

## R

### realms

- selecting for data migration 28
- running the project upgrade wizard (4.x) 21
- running the project upgrade wizard (5.x) 8

## S

### starting

- data migration utility 24

## U

### UNIX

- starting data migration utility 24
- upgrade base location 9
- upgrade log file 9

## V

### Verbose option

- Data Migration Utility 28

## W

### Windows

- starting data migration utility 24