



Upgrading InQuira

A Guide to Upgrading InQuira Components

InQuira Version 8.1.2.8

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About This Guide

This guide is intended for technical staff who are responsible for upgrading InQuira from a prior release to 8.2.2.2. This guide covers only the process for upgrading a “plain vanilla” installation of InQuira. It does not cover processes for upgrading any custom work done to your installation.

Important! All changes should be applied and thoroughly tested in a development environment prior to being implemented in production. Also be sure to back up your database prior to upgrading to mitigate risk of data loss.

More information about specific features and defect resolution for each release can be found in Release Notes for your point release.

In This Guide

The *InQuira Upgrade Guide* is divided into the following sections:

[Chapter 1, Upgrading Intelligent Search](#)

This chapter describes the upgrade process for the InQuira Intelligent Search component.

[Chapter 2, Upgrading Information Manager](#)

This chapter describes the upgrade process for the InQuira Information Manager component.

[Chapter 3, Upgrading Analytics](#)

This chapter describes the upgrade process for the InQuira Analytics component.

Contacting InQira

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World Wide Web:	Learn more about InQira products, solutions, services, and support on the world wide web at: www.inquire.com .

InQira Product Documentation

InQira documentation is available only to licensed users of our software products and may not be redistributed in any form without express permission from InQira, Inc.

The InQira documentation is available in PDF format. Customers can download the PDF files from:

<http://documentation.inquire.com/>

Note: You need a PDF reader application installed on each processor on which you plan to view the InQira product documentation. The Adobe Acrobat reader is available from Adobe Systems at: <http://www.adobe.com>.

If you encounter a problem, need help using the documentation, or want to report an error in the content, please contact InQira Customer Support.

If you need help obtaining InQira product documentation, or want to obtain permission to redistribute a portion of the contents, please contact your InQira account representative.

Detailed information about each product document set is available in:

- “InQira Analytics Documentation” on page 3
- “InQira iConnect Documentation” on page 3
- “InQira Information Manager Documentation” on page 3
- “InQira Intelligent Search Documentation” on page 5

InQira Analytics Documentation

InQira Analytics is distributed with the following documentation.

Document	Number	Description
InQira Analytics Installation Guide	IA80-IG-00	This guide is intended for technical staff who are responsible for installing InQira Analytics. It provides detailed information on installing and configuring the InQira Analytics product for use with an InQira application.
Analytics User Guide	IA80-CA-00	This guide is intended for systems and application administrators who need to configure the Intelligent Search and Information Manager Analytics components to report on InQira application performance.

InQira iConnect Documentation

The InQira iConnect products are distributed with the following documentation.

Document	Number	Description
iConnect Developers Guide	CA80-IG-01	This guide is intended for application developers and systems administrators who need to plan for and integrate the InQira iConnect with an InQira application and a supported CRM application.
iConnect for Siebel Contact Center Integration Guide	CA80-IG-00	This guide is intended for application developers and systems administrators who need to plan for and integrate the InQira Contact Center Advisor with an InQira application and a supported CRM application.

InQira Information Manager Documentation

InQira Information Manager is distributed with the following documentation.

Document	Number	Description
Information Manager Installation Guide	IM80-IG-00	This guide is intended for technical staff who are responsible for installing InQira Information Manager. It provides detailed information on installing and configuring the Information Manager product.

Document (Continued)	Number	Description (Continued)
Information Manager Administration Guide	IM80-CA-00	This guide is intended for systems and application administrators who need to configure and administer an InQira Information Manager application, and integrate it with an InQira application. It also contains information for general business users who need to use the Information Manager to create and manage content.
Information Manager Content Authoring Guide	IM80-AG-00	This guide is intended for technical staff who are responsible for authoring content in InQira Information Manager. It provides detailed information on creating content and managing workflow tasks in the Information Manager console.
Information Manager Developer's Guide	IM80-WSR-00	This guide is intended for application developers who need to integrate Information Manager content, content category, and user and security functions with external applications. It contains reference information and examples for all packages, classes, methods, and interfaces of the Information Manager Web Services API.

InQuira Intelligent Search Documentation

Intelligent Search is distributed with the following documentation.

Document	Number	Description
Intelligent Search Installation Guide	IS80-IG-00	This guide is intended for technical staff who are responsible for installing InQuira . It provides detailed information on installing InQuira and configuring the application on a single processor using the Installation Configuration Environment facility.
Intelligent Search Administration Guide	IS80-CA-00	This guide is intended for system and application administrators who need to configure an InQuira application in an enterprise environment. It describes InQuira integration, development, configuration, and maintenance processes and tasks.
Intelligent Search Language Administration Guide	IS80-LA-00	This guide is intended for business users and subject matter experts who need to create and maintain the language processing elements of a InQuira application using the System Manager. This book provides usage information about the System Manager, conceptual information about the InQuira language objects, and task information about the process of managing the user experience provided by the InQuira application.
Intelligent Search Language Tuning Guide	IS80-LD-00	This guide is intended for application developers who need to create and maintain advanced InQuira language-processing elements using the Dictionary and other InQuira Language Workbench applications.
Intelligent Search Optimization Guide	IS80-AG-00	This guide is intended for application developers who need to implement InQuira advanced features, including Personalized Navigation and Process Wizards.
Intelligent Search Application Development Guide	IS80-API-00	This guide provides information about integrating and customizing the InQuira Personalized Response User Interface.
Intelligent Search Language Reference	IS80-LRG-00	This guide is for language developers implementing InQuira applications that utilize the intent libraries and advanced language processing functions. These guides are published as separate documents that provide reference information for each industry-specific intent library. Each reference also contains complete descriptions of InQuira Match Language and Variable Instantiation Language.

Document (Continued)	Number	Description (Continued)
Intelligent Search User Interface Guide	IS80-UI-00	This guide is intended for application developers who need to customize the InQuira Personalized Response User Interface, and integrate it with a production web application. It contains information about the elements and features of the User Interface, and provides guidelines for integrating it into an enterprise web architecture, customizing its appearance and functionality, and implementing various special features.

Screen and Text Representations

The product screens, screen text, and file contents depicted in the documentation are examples. We attempt to convey the product's appearance and functionality as accurately as possible; however, the actual product contents and displays may differ from the published examples.

References to World Wide Web Resources

For your convenience, we refer to Uniform Resource Locators (URLs) for resources published on the World Wide Web when appropriate. We attempt to provide accurate information; however, these resources are controlled by their respective owners and are therefore subject to change at any time.

Upgrading Intelligent Search

This chapter provides instructions for:

- **Upgrading from InQuira 8.1.2.x to InQuira 8.1.2.8**

Upgrading from InQuira 8.1.2.x to InQuira 8.1.2.8

Use the following instructions to upgrade InQuira:

- 1 Open an ICE window.
- 2 Stop all InQuira services running on all instances.
- 3 Extract the upgrade archive into a temporary directory.
- 4 CD into the temporary directory.
- 5 CD into the 'verify' directory.
- 6 Execute the script:

```
verifyFrom.{bat,sh} <version>
```

where `<version>` is one of 8.1.2.3, 8.1.2.4, or 8.1.2.5 (on Windows 64-bit systems).
This script compares the installation with the expected set of files. If there are any MISMATCHES, zip up the mismatched files and send them to InQuira Customer Support to evaluate if there will be any problems upgrading. If no mismatches occur, continue with step 7.
- 7 Execute the search upgrade script: `upgrade.{bat,sh}`.
- 8 Follow the instructions on screen after the upgrade completes.
- 9 Copy the `autoimport.xml` from the upgrade folder to:

```
<INSTALL_HOME>/instances/<INSTANCE_NAME>/
```
- 10 Open an ICE window and restart InQuira services.
- 11 When upgrading from 8.1.2.3 or 8.1.2.4 to 8.1.2.8, you must run a full index crawl of all the collections. This updates the indexes on all existing collections.
If you are upgrading from 8.1.2.5 to 8.1.2.8, a full index crawl of all the collections is not required.

Upgrading Information Manager

This chapter describes upgrading Information Manager from any version between 7.2.x and 8.0.3 to Version .

This chapter describes:

- **Upgrading from InQira 7.3 and Later Releases**
- **Post Upgrade Notes**
- **InfoCenter Upgrade**
- **IMUpgrader Utility Overview**
- **Limitations**

Note: Please contact InQira Customer Support for information on obtaining the required Version 8.1.2.8 components and upgrade programs.

Upgrading from InQuira 7.3 and Later Releases

This section describes how to upgrade an existing Information Manager application from 7.3 or later to 8.1.2.8.

- Make a backup of the IM database schema and content resource files prior to attempting this upgrade process.

It is important to shut down access to the Information Manager database schema and file system during the upgrade process to ensure a smooth upgrade cycle. It is only necessary to update the database schema only once during the upgrade process, the binary files for each web application on each server/instance must be replaced during the upgrade process.

- If using an Oracle database, set the maximum number of open cursors to at least 600.
- Perform the following steps on each server where Information Manager applications are running:
 - a.) Stop all Information Manager applications.
 - b.) Run the IMUpgrader utility. This utility can also be run from the ICE command prompt if necessary. If performing the upgrade for the database make sure to pass the `updatedb=true` parameter into the IMUpgrader utility. See “IMUpgrader Command Line Operation” on page 18 for more options on running the IMUpgrader from the ICE environment.

For older installations, the IMUpgrader will not be able to automatically replace the binary files for the IM JSP Tag library or the IM Web Services. These applications must be updated manually using the instructions below. There are special update instructions for InfoCenter based applications.

Upgrading IM installations that Utilize MySQL 5.x:

Prior to upgrading an IM repository that uses MySQL 5.x database, you must adjust the structure of the INSTALLHISTORY table. You must DROP the primary key constraint on the INSTALLHISTORY table prior to executing the IM upgrader to ensure the proper recording of the upgrade actions. MySQL does not support milliseconds in the DATETIME datatype. Some actions that occur during the scope of the IM upgrader could happen faster than a one second resolution causing an exception similar to the following to appear in the IM upgrade logs:

```
*****
Could not write to INSTALLHISTORY table for:
build=8.1.3.3
actionType=F
actionPerformed=Replaced IM license file on 127.0.0.1
*****
```

There is an option that can be used in the IMUpgrader to update the database. Pass in the following parameters when prompted during the IM Upgrader run (either the InstallAnywhere UI or the command line version):

```
-im_home=<path to IM HOME> -migrateDBVersion=true
```

After the upgrade of the INSTALLHISTORY table is accomplished, restart the IM upgrade process and pass in the default values of :

```
-im_home=<path to IM HOME> -updatedb=true -updatefiles=true
```

Post Upgrade Notes

Validate that the IM Upgrade was successful using the validation steps outlined below.

- Review the upgrade logs located in `<IM_HOME>/logs/upgrade` for any errors that are not marked as info or warning.
- Verify that each web application deployed in the `appserverim/webapps` folder has been updated. In the cases of the WAR files, the WAR should have been replaced. For IM tag library applications, the files inside the `WEB-INF` folder should have been updated. The `WEB-INF/version.txt` file should reflect the newest upgraded version.
- Verify that the `<IM_HOME>/wars` folder has the latest war files copied to it.
- Verify that the `<IM_HOME>/install/taglib` folder has the latest InfoCenter JSP and binaries installed.
- Verify the `INSTALLHISTORY` table in the database reflects all of the correct upgrades as delineated in the `version.xml`. located in `<IM_HOME>\upgrade\version.xml`. If something is missing it should be reflected in the upgrader log file in the `<IM_HOME>/logs/upgrader` folder.
- Verify that the `<IM_HOME>/jms` folder has been deleted and the Windows OpenJMS service has been removed.
- Resolve potential conflicting `.jar` files in Information Manager Web Applications. For more information, see “Resolve Conflicting `.jar` Files in IM Web Applications” on page 21.

After validating the installation and restarting IM, review the start up log for errors relating to the installation. A common error looks similar to:

```
ERROR
com.inquiraservices.notification.templates.NotificationTemplateManager -
COULD NOT FIND CONTENTS FOR TEMPLATE = ../InQuira_8.0/InfoManager/config/
SYSTEM/taskconfig/contentinlimbo_en.xml -- MAKE SURE THE TEMPLATE FILES ARE
LOADED FOR ALL LOCALES
```

If this error occurs, the missing templates can be manually copied from the `<IM_HOME>/upgrade/files/deploy/InfoManager/config/SYSTEM/taskconfig` into the `<IM_HOME>/config/SYSTEM/taskconfig` folder of the system being upgraded. Once the templates have been copied, restart Information Manager and the errors should go away.

Change Notification Update

InQira Information Manager uses a change notification mechanism to notify all running IM instances when a database change is made to keep the data fresh in all of the instances. In InQira Information Manager was updated to replace the JMS change notification system with a new change notification system based on Jgroups multicast communication framework. This new mechanism does not rely on a single server to broadcast the changes like the JMS based solution and is hooked into the Information Manager database access framework in a much more robust manner.

OpenJMS Removal

As of versions 8.0.4.20 and 8.1.2.4, Information Manager no longer utilizes OpenJMS for change notification. During the upgrade to this version previous installations of OpenJMS provided with Information Manager should be removed along with the supporting files. The following files/folders can be safely removed after upgrading to 8.0.4.20 or 8.1.2.4 or newer:

- `<IM_HOME>/jms`
- On Windows platforms, remove the OpenJMS service from the control panel Services
- In each `<IM_HOME>/config/<repository>/application.properties` – remove the following properties:
 - `changenotification.topicconnectionfactory`
 - `changenotification.jndiurl`
 - `changenotification.jms.topicName`
 - `changenotification.initialcontextfactory`
- In each deployed web application remove the following files:
 - `WEB-INF/lib/openjms*.jar`
 - `WEB-INF/lib/spice-jndikit*.jar`
 - `WEB-INF/lib/jms*.jar`

Jgroups Configuration

There are new configuration options available in the `<IM_HOME>/config/<repository>/application.properties` to control the Jgroups configuration:

- `jgroups.eofsynchronizer.group.identifier = InQuiraEOFGroup`
- `jgroups.configsynchronizer.group.identifier = InQuiraConfigGroup`
- `jgroups.eofsynchronizer.enabled = true`
- `jgroups.configsynchronizer.enabled = true`

These new parameters are set to default values OOTB. Jgroups utilizes a multicast UDP broadcast and will discover other jgroups enabled applications on the same network based on the group identifier. In certain circumstances it may be necessary to change the group identifiers to segregate groups of servers to prevent messages being broadcast between the server groups. All servers/instances in the same group must have the same group identifier. There are two Jgroups defined OOTB – the InQuiraEOFGroup handles change notification messages related to database changes between instances. The InQuiraConfigGroup handles configuration changes made thru the IM mgmt console to the config.properties and sends a notification out to other IM applications on the network to re-read the config.properties file. This notification does NOT transmit the values that changed only the fact that something changed. It is still necessary to make the changes in each IM_HOME. The **enabled** parameters are used to disable the change notification functionality. These should be left on to ensure proper operation of Information Manager. Disabling either service may require IM to be restarted in order to view specific changes.

InQuira Client Library API Interface

The previous builds of Information Manager provided an earlier version of the IM web services that were deployed as `imws.war` and `IMWOWebservices.war`. These files have been consolidated into the new `IMWS.war` deployed with `.`. The older style XML based interface available prior to `.` will be *supported* but will not be *extended*. The preferred interface is now the InQuira Client Library API. All code using the older style XML based interface should be replaced with the newer client library API calls in order to take advantage of the latest functionality.

Important! During the upgrade process, remove the older IM web services providers to avoid conflicts.

Reinstall Services on Windows OS

InQuira 8.1.2.8 uses a newer version of the Java Service Wrapper, which requires the reinstallation of all of the InQuira services on Windows systems.

After the upgrade has been completed, the IM service must be uninstalled and then reinstalled, as described below.

For a Standalone Information Manager Installation:

- 1 Create an ICE window for the instance.

```
cd <install_dir>\instances\InfoManager
.\setenv.bat
```

- 2 Enter the following:

```
inquiraimservice -uninstall
inquiraimservice -install
```

For an Add-on Information Manager Installation:

- 1 Create an ICE window for the default (scheduler) instance.

```
cd <install_dir>\instances\<default_instance_name>
.\setenv.bat
```

- 2 Enter the following:

```
inquiraimservice -uninstall
inquiraimservice -install
```

Information Manager Collection Configuration Files

Check the IM collection configuration file **Force Public** setting following the upgrade. Make certain that **Force Public** is set to `Off`. If set to `On`, all IM content for this collection will be public regardless of individual document settings.

InfoCenter Upgrade

In version 8.0.1.3.x, InfoCenter was updated to provide a more flexible and higher performance design for managing the configurable properties. Starting in 8.0.1.3, the properties that were originally stored in the `i_configure.jsp` were migrated to `WEB-INF/infocenter.properties`. This change required updates to the underlying InfoCenter JSP pages in a manner similar to the following:

The old way to get a configuration parameter:

```
<%@ include file="/apps/infocenter/i_configure.jsp" %>
```

After including the `i_configure.jsp` page all of the variables that were defined there would be available to the current page.

The new way to get configuration parameters using `infocenter.properties`:

```
<%@ page pageEncoding="UTF-8" contentType="text/html; charset=UTF-8"
language="java" errorPage="" import="java.text.*,
java.util.*,com.inquiria.client.configuration.Configuration" %>
int days = Configuration.getIntForKey("daysToShowAlerts");
```

Where `daysToShowAlerts` is a value defined in the `WEB-INF/infocenter.properties` file. It will be necessary to update all customized JSP pages that use the old `i_configure.jsp` to use the newer `infocenter.properties` file.

To upgrade an older version of InfoCenter do the following:

- 1 Replace the JSP pages located in `<YOUR_WEB_APP>/apps/InfoCenter/system` with the new InfoCenter JSP files located in the `<IMUPGRADER_HOME> /IMTagLibrary/apps/infocenter/system` folder
- 2 Update any custom pages to read the `infocenter.properties` file.
- 3 The IMUpgrader utility, described in “IMUpgrader Utility Overview” on page 15, **does not** upgrade the existing deployed InfoCenter JSP page installations at this time. After running the IMUpgrader, you must manually update existing pre-deployed InfoCenter implementations by doing the following:
 - a Back up the existing deployed InfoCenter application. By default, the copy can be placed in the `<IM_HOME>/upgrade` folder by version number.
 - b Copy the files from `<IM_HOME>/install/taglib/apps/infocenter/system` and replace the files in the same location in the deployed InfoCenter installation.
 - c Validate that the files from the `<IM_HOME>/install/taglib/WEB-INF` match the ones in your web application. If they do not match, they should be copied to your web application. The `WEB-INF/version.txt` should match the expected version of your installation.
 - d Review the customized JSP pages and compare them to the newly updated InfoCenter system pages. Apply any necessary changes. In most cases, the changes are going to include localizations, JSP logic fixes, and potentially changes in URLs that could affect analytic reporting.

IMUpgrader Utility Overview

The IMUpgrader is a java based command line application that can be used to apply the required SQL scripts and data migration commands to an Information Manager database schema to update it to the current version.

For convenience the IMUpgrader is packaged into a GUI installation program that will execute the basic steps needed to upgrade a single server installation of Information Manager (IM). For more complex installations it may be required to run the IMUpgrader from the ICE environment to customize the upgrade steps. After the IMUpgrader runs using the GUI utility, it leaves behind the upgrade files in the <IM_HOME>/upgrade folder. This folder can be copied to the other IM servers that need to be upgraded manually.

Prior to 8.x, the version information for each upgrade of IM was stored in the DBVERSION table of the IM database schema. Starting in 8.x, the version upgrade information is now stored in the INSTALLHISTORY table. Data from the DBVERSION table will be automatically moved to the new table and the old DBVERSION table will be removed during the upgrade process.

Prior to performing any modifications to the files during the upgrade process, the IMUpgrader makes a backup of each of the web applications and stores it in the <IM_HOME>/backup folder. There is a backup folder for each version upgrade that occurs.

A record of the upgrade process is also stored in the <IM_HOME>/receipts folder.

The IMUpgrader tries to determine the version of the installed application by examining the database, and looking for previous upgrade information. The required steps needed for the version upgrade are then looked up in the version.xml that is located in the upgrade folder. The IMUpgrader will execute the required upgrade steps in the following order to move from the installed version to the upgrade version.

Replace the binary files for each IM based application detected (this information is stored in the <IM_HOME>/config/registeredapps.xml file, which is created/updated each time an IM application starts up)

- Execute all pre-migrate SQL scripts for the specified supported database
- Execute each listed data migration class
- Execute all post data migration SQL scripts

The output of the upgrade operation is stored in the <IM_HOME>/logs/UPGRADE folder. Each time the IMUpgrader is run a new log file is created to record the activity. It is important to review these files after each upgrade to ensure that everything succeeded correctly.

OpenJMS Uninstallation Tasks

As of 8.0.4.20 Information Manager no longer uses OpenJMS (or other JMS providers) to perform change synchronization. During the upgrade to either of these builds, the previously installed OpenJMS software will be uninstalled.

After the IMUpgrader completes, it may be necessary to manually remove portions of the JMS installation as noted below. Ensure that IM is not running prior to performing these steps.

- 1 (Windows only) Remove the OpenJMS service that is installed by using the `inquiraimservice.bat` script.

```
inquiraimservice.bat -uninstall
```

After verifying that both the InfoManager service and the OpenJMS services have been successfully removed, reinstall the InfoManager service using the `inquiraimservice.bat` script:

```
inquiraimservice.bat -install
```

- 2 (Windows only) Verify that the newly installed InfoManager service no longer has a dependency on the OpenJMS service.
- 3 There are configuration files located in `<INSTALL_DIR>/conf` that can be deleted for the JMS service configuration.
- 4 For each IM application in the `<IM_HOME>/config` folder edit the `application.properties` file and remove the following parameters:

# Change Notification Topic Name	changenotification.jms.topicName = infomanager
# Jndi URL for the JMS notifications	changenotification.jndiurl = tcp:// localhost:3035
# JMS initial context factory	changenotification.initialcontextfactory = org.exolab.jms.jndi.InitialContextFactory
# JMS topic Connection Factory	changenotification.topicconnectionfactory = JmsTopicConnectionFactory

- 5 Restart IM after all of the applications have been updated.

IMUpgrader GUI Operation

In order to use the IMUpgrader it is necessary to download or obtain the IMUpgrader for your platform from the InQuira support group.

Prior to running the IMUpgrader – make sure to have a backup of your IM database schema – the changes made are not reversible.

If running the IMUpgrader for the first time or if it is necessary to update the IM database schema – make sure that the `-updatedb=true` parameter is set. The IMUpgrader uses the database configuration information from the `<IM_HOME>/config/IMADMIN/application.properties` file to connect to the database to be updated.

IMUpgrader Command Line Operation

The IMUpgrader can be run from the ICE command prompt to perform customized upgrade operations. The following parameters can be passed into the IMUpgrader on the command line.

Required Parameters

- `-im_home=<full path to InfoManager configuration files>`
- `-updatedb=<true|false>`

Flag to indicate whether or not to update the database. Defaults to false.

Optional Parameters

Parameter	Description
<code>-updatefiles=<true false></code>	Flag to indicate whether or not to update/replace the web application, IMWS, or InfoManager files. Defaults to true.
<code>-user=<db user to update></code>	Defaults to IMADMIN property JDBCuserid if not specified.
<code>-passwd=<db user passwd></code>	Defaults to IMADMIN property JDBCPassword if not specified.
<code>-jdbcurl=<db JDBC URL to update></code>	Defaults to IMADMIN property JDBCURL if not specified.
<code>-jdbcdriver=<db driver class></code>	Defaults to IMADMIN property JDBCDRIVER if not specified. ¹
<code>-version=<version to apply></code>	Installs only the specified version. ¹
<code>-script=<SQL script to apply></code>	Runs only the specified SQL script. The path needs to be relative to the IMUpgrader folder. ¹
<code>-class=<full java class name of migration class></code>	Executes the specified java migration class to perform.
<code>-migrateDBVersion=<true false></code>	Creates <code>installhistory</code> table during upgrade. Defaults to true. Use when there is no <code>installhistory</code> table present in the database.

Parameter (Continued)	Description (Continued)
-infocenter	<p>Does the following:</p> <ul style="list-style-type: none"> Upgrades InfoCenter config file (infocenter.properties). Compares the current config and the original installed config (under \InfoManager\install\taglib). Any changes are considered customer modifications. The changes are moved to a custom config file named infocenter_custom.properties. This new custom config overrides any entry in the infocenter.properties after the upgrade. Upgrades InfoCenter resource files (ApplicationResource.properties). Compares the current resource file and the original installed resource file (under \InfoManager\install\taglib). Any changes are considered customer modifications. The changes are moved to a custom config file named ApplicationResource_custom_locale.properties. This new custom config overrides any entry in the corresponding locale of the ApplicationResource_locale.properties after upgrade.

- Some options are assumed to be mutually exclusive of the others. Specifically only one of version, script, or class can be specified at a time.

When running the IMUpgrader from the command line on Windows platforms it is necessary to surround the arguments to the batch script with double quotes in order for the batch script to work properly. The command processor on Windows can only accept 10 arguments. For example:

```
C:\InQaira_8.0\InfoManager\upgrade > imupgrader.bat "-im_home=
C:\InQaira_8.0\InfoManager" "-updatedb=true"
```

Limitations

Please note the following limitations.

IMUpgrader Troubleshooting

The IMUpgrader is designed to upgrade MOST of the things within IM but it does not upgrade everything at this time.

The IMUpgrader does not replace any JSP pages that are deployed with a web application. The IMUpgrader only replaces files inside the WEB-INF folder. Any changes to InfoCenter JSP pages must be manually applied at this time.

Older installations of IM, IM web services, and JSP web applications did not do a good job of identifying the installed version. In recent builds, a file called registeredapps.xml located in <IM_HOME>/config contains an entry for each web application. This file is updated each time the web application launches and contains the version of the application as well as the location of the application. If the web application has not registered itself in this file the IMUpgrader will not update it. These applications will need to be updated manually.

The IMUpgrader log file contains a record of all actions taken during the course of the upgrade. At the top of the log, there is a section that identifies the version currently installed and lists the unapplied updates that it finds in the version.xml. If the current version cannot be found in the version.xml the upgrader will not do anything.

The upgrade folder contains all of the required SQL scripts and files needed to upgrade an IM installation. In the event that it is necessary to do a manual upgrade, the files can be copied from the upgrade folder. The version.xml file contains the list of operations required for each step of the upgrade. If it is necessary to run the upgrade manually, make sure to execute all of the <PRE> SQL scripts first, followed by the <SCRIPT> migration classes and finally execute the <POST> SQL scripts last after verifying that the upgrade steps were successful by inspecting the logs.

To run a SQL script manually using the IMUpgrader execute the following command:
`imupgrader.sh im_home=<path to $IM_HOME> -script=sql/oracle/BUILD_80200.sql`

To run a Java migration class manually, execute the following command:
`imupgrader.sh im_home=<path to $IM_HOME> -class=
com.inqura.infomanager.migration.IM80200`

If upgrading multiple servers or instances of an IM installation, it is only necessary to run the DB migration scripts once for each database environment being upgraded. After updating the files on the first server, copy the updated web applications to the other servers/instances. It is not necessary to run the IMUpgrader on the other servers.

If it is necessary to run the IMUpgrader on other instances, it will be necessary to pass in `-updatedb=false`. It will also be necessary to delete the entries in the `INSTALLHISTORY` that shows the files being copied.

The IMUpgrader stores a backup of the web apps it updates in the `<IM_HOME>/backup` folder. It does NOT keep a backup of the repository data before the update starts.

Resolve Conflicting .jar Files in IM Web Applications

After upgrading to , inspect the `WEB-INF/lib` folder of each deployed IM web application for jar files that may conflict with the newer .jar files provided with the installation. The installed WAR files should be correct. This only applies to IM JSP tag library based web applications (InfoCenter and custom UIs).

The following table provides a complete list of the .jar files that should be deployed with . If the installation directory contains .jar files other than those listed below, delete the extra .jar files, *unless* they are being used by custom code in the deployed web applications.

• activation.jar	• ajax-wrapper-comp-1.0.1.jar	• axis.jar
• bsf.jar	• castor-1.2-anttasks.jar	• castor-1.2-codegen.jar
• castor-1.2-ddlgen.jar	• castor-1.2-jdo.jar	• castor-1.2-xml-schema.jar
• castor-1.2-xml.jar	• castor-1.2.jar	• cayenne.jar
• commons-beanutils.jar	• commons-codec-1.3.jar	• commons-collections-3.1.jar
• commons-configuration-1.4.jar	• commons-dbc-1.1.jar	• commons-discovery-0.2.jar
• commons-fileupload-1.2.jar	• commons-io-1.3.2.jar	• commons-lang-2.3.jar
• commons-logging-1.0.4.jar	• commons-pool-1.1.jar	• concurrent-1.3.4.jar
• derby.jar	• derbyclient.jar	• ERExtensions.jar
• ERJars.jar	• ERJGroupsSynchronizer.jar	• erxservletadaptor.jar
• erxwo54.jar	• httpunit.jar	• icu4j-3_8_1.jar
• infra-1.0.jar	• iqflexjson.jar	• j2eeclient.jar
• javacsv.jar	• JavaWOExtensions.jar	• JavaWOJSPServlet_client.jar
• javawojpservlet.jar	• JavaXML.jar	• jaxrpc.jar
• jcommon-0.8.0.jar	• jdbc-se2.0.jar	• jettison-1.0-RC2.jar
• jgroups-all.jar	• jms-1.1.jar	• js.jar
• jsonorg.jar	• jsse.jar	• jta.jar
• jta1.0.1.jar	• jtids-1.2.jar	• jug-1.5-rc1.jar
• ldap.jar	• log4j-1.2.14.jar	• lucene-1.5-rc1-dev.jar
• mail.jar	• mysql-connector-java-5.0.8-bin.jar	• nekohtml.jar
• NetComponents.jar	• ojdbc14.jar	• orai18n.jar
• org.json-0.0.1.jar	• PDFBox-0.7.1.jar	• poi-2.5-final-20040302.jar
• quartz.jar	• saaj.jar	• saxpath.jar
• serializer.jar	• shared.jar	• slf4j-api-1.5.0.jar
• slf4j-log4j12-1.5.0.jar	• soap.jar	• ssce.jar
• standard.jar	• stax-1.2.0.jar	• stax-api-1.0.1.jar
• swing-layout-1.0.jar	• Tidy.jar	• tm-extractors-0.4.jar
• trove-2.0.1.jar	• velocity-1.5.jar	• webserviceutils.jar
• woproject.jar	• wsdl4j-1.5.1.jar	• xalan.jar
• xercesImpl.jar	• xml-apis.jar	• xmlParserAPIs.jar
• xmlunit-1.1.jar	• xpp3_min-1.1.4c.jar	• xstream-1.3.jar

Upgrading Analytics

You upgrade InQira Analytics applications using the following processes to upgrade the Intelligent Search Analytics and Information Manager Analytics projects, as appropriate for your installation.

Note: Before upgrading to InQira Analytics 8.1.2.8, confirm that you have Microstrategy 8.1.1. If not, you will need to upgrade to Microstrategy 8.1.1 and obtain a new license key from Microstrategy. It can take up to 7 days to receive a new license key from Microstrategy.

From the InQira release site, download the `upgrade.zip` file:

```
http://releases.inqira.com/releases/8.1.2.8/upgrade.zip
```

This file is necessary to complete the InQira Analytics upgrade.

This chapter describes the following upgrade procedure:

- **Upgrading Analytics from Version 8.0.x to 8.1.2.8**
and presents additional information on:
 - **Schema Tables**
 - **Processing ETL Log Files Created in Previous Releases**

Important! Make certain to check the **Microsoft SQL Server Database Collation Values** in the *8.1.2.8 Release Notes*.

Upgrading Analytics from Version 8.0.x to 8.1.2.8

General steps:

- 1 Load and process all the remaining logs.

By design, ETL does not process old log files. For example, version 8.1.2.8 ETL does not process 8.1.2.3 IM ETL log files.

When upgrading from 8.1.x.x to 8.1.2.8, process all 8.1.x.x ETL log files, using 8.1.x.x, prior to upgrading to 8.1.2.8.

If it is not possible to process existing ETL log files, see “Processing ETL Log Files Created in Previous Releases” on page 32.

- 2 Backup the following files:

```
<install_home>\archive\inquirawb.war
<install_home>\inquira\lib\inquira\inquira.jar
```

- 3 Run the command `upgrade.bat/sh`

- 4 Translate the schemas from the previous two datasources (Analytics datasource and Information Manager Star Schema datasource) to the current single datasource (Analytics datasource)

In InQuira 8.1.2.8, one datasource is used for all the analytics schemas. If you are upgrading from a release that uses two different datasources, dump all the tables from the two datasources into a single datasource. Please do this step with the help of a DBA and then confirm the tables listed under “Upgrading Analytics from Version 8.0.x to 8.1.2.8” on page 24 are included in your datasource.

- 5 Run the following commands from an ICE window to update schemas and metadata:

Command	Description
<code>scheduler run DBInterface -u analytics</code>	Upgrades search ODS schema and IM analytics ODS and star schema.
<code>scheduler run DBInterface -u imoltp</code>	Upgrades IM Operational schema.
<code>scheduler run DBInterface -u odsarchive</code>	Upgrades Search ODS archive schema.
<code>scheduler run DBInterface -c metadata</code>	Upgrades analytics metadata.

Note: This command will recreate the metadata, thus all the customizations of the reports will lost.

- 6 After the upgrade has been completed, perform the entire IM ETL script process ('IME','IMD','IMM').

-
- 7 After the ETL transformation has completed successfully, you must run two scripts found in the `upgrade.zip` file, downloaded from the release site:

The two script names (depending on whether you are using Oracle or MSSQL) are:

- For Oracle -
 `oracle_23925_delete.sql`
 `oracle_23925_delete2.sql`
- For MSSQL -
 `sqlserver_23925_delete.sql`
 `sqlserver_23925_delete2.sql`

For each script, there is corresponding "how to" text describing how to run these from native SQL processes. They *do not* run from the ICE environment. The "how to" text file names are:

- For Oracle
 `oracle_8128_23925_delete_utility.doc`
 `oracle_8128_23925_delete_utility2.doc`
- For MSSQL
 `sqlserver_8128_23925_delete_utility.doc`
 `sqlserver_8128_23925_delete_utility2.doc`

These script files and 'how to' docs can be found in the `upgrade.zip` file.

Note: This step only needs to be performed once after the initial ETL transformation.

Schema Tables

Search ODS tables

REP_ODS_VERSION
REP_DRILL_ONLY
REP_GLBL_LOG_FILE_STATUS
REP_GLBL_LOG_EVENT
REP_GLBL_LOG_EVENT_COMPLETE
REP_GLBL_MAX_ID
REP_GLBL_LANG_TXT
REP_GLBL_U_QUESTION_TXT
REP_GLBL_QUESTION_TXT
REP_GLBL_I_QUESTION_TXT
REP_GLBL_N_QUESTION_TXT
REP_GLBL_SESS_TXT
REP_GLBL_ACTIVITY_TYPE_TXT
REP_GLBL_ACTIVITY_TXT
REP_GLBL_U_FACET_TXT
REP_GLBL_INTENT_TXT
REP_GLBL_INTENT_PARAM_TXT
REP_GLBL_INTENT_RESPONSE_TYPE
REP_GLBL_FACET_TXT
REP_GLBL_CONCEPT_TXT
REP_GLBL_PRODUCT_HIERARCHY
REP_GLBL_RESPONSE_TXT
REP_GLBL_PURPOSE_TXT
REP_GLBL_RESPONSE_TYPE_TXT
REP_GLBL_QUERY_SOURCE_TXT
REP_GLBL_CLUSTER_TXT
REP_GLBL_USER_TXT
REP_GLBL_USER_SEGMENT_TXT
REP_GLBL_CONTEXT_MAPPING

REP_GLBL_CONTEXT_VALUE_TXT
REP_GLBL_UNKNOWN_TXT
REP_GLBL_PROCESSW_STEP_TXT
REP_GLBL_PROCESSW_TEMP_TXT
REP_GLBL_CONFIDENCE_LEVEL_TXT
REP_GLBL_CONFIDENCE_SCORE
REP_GLBL_RATING
REP_GLBL_TIME
REP_GLBL_TEMP_HOUR
REP_GLBL_HOUR
REP_SESSION
REP_SESS_ACTIVITY
REP_SESS_QUESTION
REP_SESS_QUESTION_ACTIVITY
REP_SESS_CLICK_THRU
REP_SESS_RESPONSE
REP_SESS_NO_RESPONSE
REP_SESS_FEEDBACK
REP_SESS_RATING
REP_SESS_PROC_WIZARD_STEP
REP_SESS_PROCESS_TEMP
REP_SESS_CLUSTERS
REP_SESS_INTENT_PARAMS
REP_SESS_UNKNOWN_WORD
REP_SESS_CONTEXT1
REP_SESS_CONTEXT2
REP_SESS_CONCEPT_MATCH
REP_SESS_CONCEPT_DIRECT_MATCH
REP_SESS_FACET_SELECT
REP_SESS_FACET_ACTIVITY
REP_SESS_INTENT_MATCH

IM ODS Tables

REP_REPOSITORY_DIM
REP_VIEW_DIM
REP_CATEGORY_DIM
REP_CONTENTCHANNEL_DIM
REP_USER_DIM
REP_USERGROUP_DIM
REP_LOCALE_DIM
REP_REPOSITORY_DIM_HELPER
REP_CATEGORY_DIM_HELPER
REP_TEAM_DIM_HELPER
REP_CONTENT_DIM
REP_SURVEY_DIM
REP_SURVEY_RESULT_DIM
REP_QUESTION_DIM
REP_ANSWER_DIM
REP_CASELINK_DIM
REP_TEAM_DIM
REP_DISCUSSIONBOARD_DIM
REP_FORUM_DIM
REP_TOPIC_DIM
REP_MESSAGE_DIM
REP_REPOS_CONTENT_DIM_HELPER
REP_VIEW_CONTENT_DIM_HELPER
REP_LOCALE_CONT_DIM_HELPER
REP_REPOS_CCHAN_DIM_HELPER
REP_CCHAN_CONTENT_DIM_HELPER
REP_CAT_CONTENT_DIM_HELPER
REP_CONT_STATUS_DIM_HELPER
REP_CAT_CCHAN_DIM_HELPER
REP_REPOS_CAT_DIM_HELPER
REP_USER_GROUP_DIM_HELPER

REP_CONTENT_GROUP_DIM_HELPER
REP_CONTENT_TEAM_DIM_HELPER
REP_CONTENT_CASE_DIM_HELPER
REP_USER_TEAM_DIM_HELPER
REP_RATING_DIM
REP_PUB_ACTIVITY_FACT
REP_EXPIRE_ACTIVITY_FACT
REP_ACCESS_ACTIVITY_FACT
REP_FORUM_RATING_FACT
REP_USER_ACTIVITY_FACT
REP_TOPIC_ACTIVITY_FACT
REP_CONTENTAUDITLOG
REP_USERACTIVITYLOG
REP_IM_ODS_VERSION
REP_LOADED_LOG_FILE

IM Star Procedures

CAT_TEAM_HIERARCHY_UNKNOWN
MS_IM_POPULATE_TIME_DIM
MS_IM_UPDATE_TIME_DIM

IM Star Tables

MS_IM_REPOSITORY_DIM
MS_IM_VIEW_DIM
MS_IM_CATEGORY_DIM
MS_IM_CONTENTCHANNEL_DIM
MS_IM_USER_DIM
MS_IM_USERGROUP_DIM
MS_IM_LOCALE_DIM
MS_IM_REPOSITORY_DIM_HELPER
MS_IM_CATEGORY_DIM_HELPER
MS_IM_TEAM_DIM_HELPER

MS_IM_CONTENT_DIM
MS_IM_CONTENTSTATUS_DIM
MS_IM_SURVEY_DIM
MS_IM_SURVEY_RESULT_DIM
MS_IM_QUESTION_DIM
MS_IM_ANSWER_DIM
MS_IM_CASELINK_DIM
MS_IM_TEAM_DIM
MS_IM_DISCUSSIONBOARD_DIM
MS_IM_FORUM_DIM
MS_IM_TOPIC_DIM
MS_IM_MESSAGE_DIM
MS_IM_TIME_DIM
MS_IM_REPOS_CONTENT_DIM_HELPER
MS_IM_VIEW_CONTENT_DIM_HELPER
MS_IM_LOCALE_CONT_DIM_HELPER
MS_IM_REPOS_CCHAN_DIM_HELPER
MS_IM_CCHAN_CONTENT_DIM_HELPER
MS_IM_CAT_CONTENT_DIM_HELPER
MS_IM_CONT_STATUS_DIM_HELPER
MS_IM_CAT_CCHAN_DIM_HELPER
MS_IM_REPOS_CAT_DIM_HELPER
MS_IM_USER_GROUP_DIM_HELPER
MS_IM_CONTENT_GROUP_DIM_HELPER
MS_IM_CONTENT_TEAM_DIM_HELPER
MS_IM_CONTENT_CASE_DIM_HELPER
MS_IM_USER_TEAM_DIM_HELPER
MS_IM_RATING_DIM
MS_IM_PUB_ACTIVITY_FACT
MS_IM_EXPIRE_ACTIVITY_FACT
MS_IM_ACCESS_ACTIVITY_FACT
MS_IM_FORUM_RATING_FACT

MS_IM_USER_ACTIVITY_FACT
MS_IM_TOPIC_ACTIVITY_FACT
MS_IM_STAR_VERSION

Processing ETL Log Files Created in Previous Releases

Important! This section provides a workaround to allow for running multiple versions of IS Log files into a single version of ETL Search Analytics. Use this **ONLY** if you are unable to process ETL log files at the time of upgrade.

Each of the Search logs generated contains information from the version they were created from. For Example, below is the top part of a log coming out of Search -

```
[1 WrapperStartStopAppMain(1)] Event(Code=INSTANCE_EVENT, id=#0B0I1P-1)
started at 7/28/10 6:13 AM: Instance MyCompanyr1 in runtime/Development
mode with uuid c017b15f-9a30-11df-b7ec-889aa0ea362b created. Release MLD
Build 7

[2 WrapperStartStopAppMain(2)] Event(Code=START_INSTANCE, id=#0B0I2P-1)
started at 7/28/10 6:13 AM: Instance MyCompanyr1 in runtime/Development
mode with uuid c017b15f-9a30-11df-b7ec-889aa0ea362b is initializing.

[3 WrapperStartStopAppMain (2)]
#####

[4 WrapperStartStopAppMain (2)] Initializing instance with name
MyCompanyr1 in development/runtime mode at Wed Jul 28 03:13:20 PDT 2010.

[5 WrapperStartStopAppMain (2)] Release 8.1.x.xx

[6 WrapperStartStopAppMain (2)]
#####
```

Note that the version shows 8.1.x.xx.

In the InQuira Indexer instance, there is a derby database file named `logevent-n.n.n.nn.db` - where `n.n.n.nn` would need to be `8.1.x.xx` in order to read the `8.1.x.xx` files coming out of Search. So in its entirety, this file's name would look like `logevent-8.1.x.xx.db`. This file is located under -

```
<INQUIRA_HOME>\instances\<Indexer Name>\development\content\data\log\def
```

PROCEDURE

In order to have other versions of log files be processed by Search ETL, look at what the version indicates inside those log files and then do the following:

Copy the existing `logevent-n.n.n.nn.db` file to the same location as it currently exists but rename this copy based on the header information in the Search Log file. For example, an upgrade was performed from 8.1.2.0 to 8.1.2.8. This would mean that there would be a derby db file in the location already specified above called `logevent-8.1.2.0.db`. Copy this file, and name it `logevent-8.1.2.8.db`. Keep it in the same location as the original `logevent` file. Now, it should be possible to process both the old log files generated from 8.1.2.0 and new log files being generated from 8.1.2.8.