



# J A D E <sup>TM</sup>

## Schema Load Utility User's Guide

VERSION 6.3



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# Before You Begin

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The *JADE Schema Load Utility User's Guide* is intended as the main source of information when you are loading schemas into a deployed JADE database.

## Who Should Read this Guide

The main audience of the *JADE Schema Load Utility User's Guide* is expected to be system administrators.

## Terminology

In this document, the term Microsoft *Windows* refers to Windows 2003 Server, Windows Vista, Windows XP, Windows 2000, or Windows CE. When there are differences between the versions of Microsoft Windows, the specific version of Microsoft Windows is stated. This also applies to Linux, which is a specific version of UNIX developed by SUSE or Red Hat. The term *UNIX* is used when an issue is generic to all versions of UNIX and the term *Linux* is used if the issue is specific to the SUSE or Red Hat implementation of UNIX.

With the exception of the **jade.exe** program, when referring to Windows program executables in this document, the **.exe** file suffix is omitted; for example, **jadclient** refers to **jadclient.exe** on Windows and **jadclient.sh** on UNIX. Similarly, the Windows **.dll** (Dynamic Link Library) and UNIX **.so** (shared object library) file suffixes are omitted. For example, **jomos** refers to **jomos.dll** (Windows) and **libjomos.so** (Linux).

## Related Documentation

Other documents that are referred to in this guide, or that may be helpful, are listed in the following table, with an indication of the JADE operation or tasks to which they relate.

Title	Related to...
<a href="#">JADE Database Administration Guide</a>	Administering a JADE database
<a href="#">JADE Development Environment Administration Guide</a>	Administering the JADE development environment
<a href="#">JADE Development Environment User's Guide</a>	Using the JADE development environment to development JADE applications
<a href="#">JADE Initialization File Reference</a>	Maintaining JADE initialization file parameter values
<a href="#">JADE Installation and Configuration Guide</a>	Installing and configuring JADE
<a href="#">JADE Report Writer User's Guide</a>	Using the JADE Report Writer to develop and run reports
<a href="#">JADE Runtime Application Guide</a>	Administering JADE deployed runtime applications
<a href="#">JADE Web Application Guide</a>	Implementing, monitoring, and configuring Web applications

## Conventions

The *JADE Schema Load Utility User's Guide* uses consistent typographic conventions throughout.

Convention	Description
Arrow bullet (>)	Step-by-step procedures. You can complete procedural instructions by using either the mouse or the keyboard.
<b>Bold</b>	Items that must be typed exactly as shown. For example, if instructed to type <b>foreach</b> , type all the bold characters exactly as they are printed.  File, class, primitive type, method, and property names, menu commands, and dialog controls are also shown in bold type, as well as literal values stored, tested for, and sent by JADE instructions.
<i>Italic</i>	Parameter values or placeholders for information that must be provided; for example, if instructed to enter <i>class-name</i> , type the actual name of the class instead of the word or words shown in italic type.  Italic type also signals a new term. An explanation accompanies the italicized type.  Document titles and status and error messages are also shown in italic type.
Blue text	Enables you to click anywhere on the cross-reference text (the cursor symbol changes from an open hand to a hand with the index finger extended) to take you straight to that topic. For example, click on the " <a href="#">Controlling the Deletion of Missing Elements</a> " cross-reference to display that topic.
Bracket symbols ([ ])	Indicate optional items.
Vertical bar ( )	Separates alternative items.
Monospaced font	Syntax, code examples, and error and status message text.
ALL CAPITALS	Directory names, commands, and acronyms.
SMALL CAPITALS	Keyboard keys.

Key combinations and key sequences appear as follows.

Convention	Description
KEY1+KEY2	Press and hold down the first key and then press the second key. For example, "press SHIFT+F2" means to press and hold down the SHIFT key and press the F2 key. Then release both keys.
KEY1,KEY2	Press and release the first key, then press and release the second key. For example, "press ALT+F,X" means to hold down the ALT key, press the F key, and then release both keys before pressing and releasing the X key.

This document covers the following topics.

- [Overview](#)
- [Controlling the Deletion of Missing Elements](#)
- [Before You Get Started](#)
- [Loading a Schema and Forms into a JADE Database](#)
  - [Specifying Additional Load Options](#)
- [Loading a Schema and Forms in Batch Mode](#)

## Overview

The Schema Load utility ( **jadload** ) is supplied with the JADE release, to enable you to load runtime-only JADE applications. A set of database files that contain no JADE development information is also supplied on the JADE release medium. The **Jade Loader** icon is installed in your JADE program folder when you install JADE under Windows.

The standalone Schema Load utility enables you to load JADE applications into a cut-down database, which excludes all JADE development classes and methods. Use the Schema Load utility to load:

- User schemas into a runtime-only JADE database that can then be deployed at user sites
- Patches to your JADE system into a full JADE environment or a runtime-only environment
- Patches to a runtime-only database deployed at a user site

The Schema Load utility enables you to:

- Add new classes, interfaces, and methods
- Modify existing methods
- Add, delete, or modify properties and inverse references
- Delete existing classes, interfaces, or methods
- Reorganize user data
- Load form, RPS database map, relational view, and external database definitions
- Load JADE Report Writer data (using **jadloadb** only)

## Controlling the Deletion of Missing Elements

By default, the Schema Load utility prompts you to confirm the deletion of any schema elements (such as classes, properties, or methods) that exist in the JADE database but are not defined in the incoming schema file.

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**Note** An application in the database that is used in a package is not deleted (over-written) when a complete schema definition containing that application is loaded.

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Use the **jadload** executable program **deleteIfAbsent** command line argument to specify element deletion control different from the default behavior when loading your runtime-only application by using the Schema Load utility.

The settings of the **deleteIfAbsent** command line argument are listed in the following table.

<b>deleteIfAbsent Argument</b>	<b>Action</b>
true	Always delete absent elements (no confirmation)
false	Never delete absent elements (no confirmation)

If you want to deploy patches at a user site without requiring any intervention at the site, set up the **jadload** executable program icon with the **deleteIfAbsent** command line argument set to **true**.

## Before You Get Started

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**Caution** Before installing patches and performing a reorganization in a runtime-only environment, you *must* take a backup copy of the database as the reorganization can fail under some circumstances (for example, if there is insufficient disk space or a change in the new schema definition is not compatible with runtime data). If this occurs, your JADE application may be left in an unusable state. You should then restore the database from backup, correct the problem that caused the reorganization to fail, and then repeat the load and reorganization.

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For details about correcting data after a reorganization, see “[Correcting Data if a Reorganization Fails](#)”, in Chapter 19 of your *JADE Developer's Reference*.

---

**Note** If you have mapping method logic on subclassed controls that rely on this logic when executing, you must protect that logic from situations where properties of subclassed controls are accessed or referenced by JADE processes such as the JADE Painter, JADE Translator utility, or the loading of schemas.

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If external databases, ActiveX (COM) libraries, relational views, RPS mappings, or ActiveX exposures have been extracted separately by using the appropriate **Extract** command, the order in which you should load extracted files is as follows.

1. Relational view or ActiveX exposure extract file or files.
2. Selective schema extract file.
3. External database, RPS mapping, or ActiveX (COM) library extract file or files.

For details about loading an encrypted schema file, see “[Encrypting Schema Source Files](#)”, in Chapter 11 of your *JADE Development Environment User's Guide*.

If you are loading multiple schemas and you want to suppress the display of all warning messages resulting from compiling schema files (for example, class number conflict messages), set the **SuppressWarningDialogs** parameter in the [ **JadeCompiler** ] section of the JADE initialization file to **true**. Warning messages are then output only to the message log.

The default installation sets up the **JADE Utilities \ JADE Loader** shortcut for the JADE Schema Load utility.

The JADE Schema Load utility in GUI mode is available only under a Windows operating system. The **Jade Loader** icon is installed in your JADE program folder when you install JADE. The default installation sets up the **JADE Utilities \ JADE Loader** shortcut for the JADE Schema Load utility. For details about installing the Schema Load utility, see “[Installing Your JADE Software](#)”, in Chapter 1 of your *JADE Installation and Configuration Guide*.

The following table lists examples of the properties required to run the JADE Schema Load utility in single user mode.

Property	Example
Command line	jadload.exe path=c:\jade\system
Working directory	c:\jade\bin

If you want all methods loaded from the schema file to be compiled during the load process, including those whose source is the same as their source in the database:

- Specify the **compileUnchangedMethods** parameter in the command line with a value of **true**
- Check the **Compile Unchanged Methods** check box in the Additional Parameters group box on the extended Load Schema dialog

By default, the load process skips methods whose source is the same as their source in the database.

## Loading a Schema and Forms into a JADE Database

The JADE Schema Load utility in GUI mode is available only under a Windows operating system.

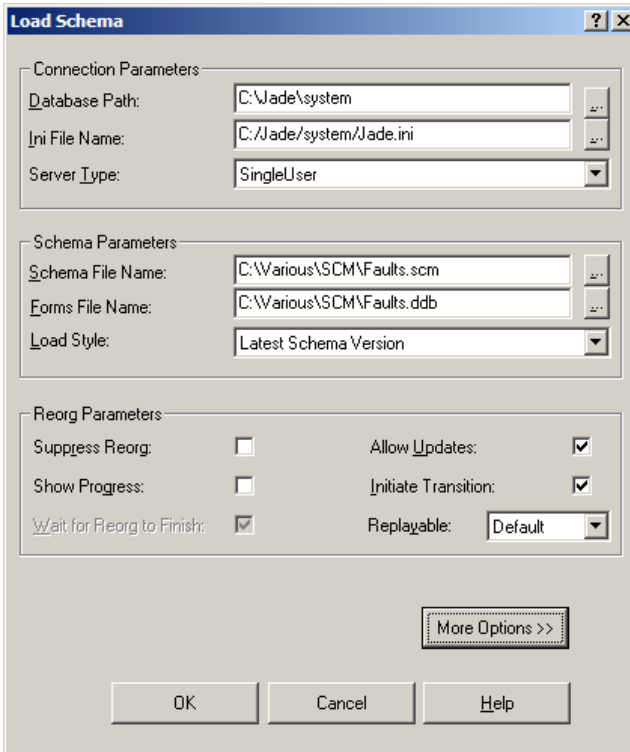
### ➤ To initiate the JADE Schema Load utility

1. Ensure that you have a full backup of your database.
2. Perform one of the following actions.
  - Select the **Jade Loader** program icon from your JADE program folder.
  - In Explorer or File Manager, access the directory in which your JADE binary files are located (for example, **c:\jade\bin**) and then double-click on the **jadload.exe** file.

**Note** If a schema load is attempted when a reorganization is in progress (regardless of whether the reorganization progress dialog is displayed), the load fails. For details about reorganizing schemas, see “[Reorganizing Your Schema](#)”, in Chapter 3 of your *JADE Development Environment User's Guide*.



The Load Schema dialog, shown in the following diagram in an example of its initial form, is then displayed in the JADE Schema Load Utility window. An extended form of the dialog is displayed when you click the **More Options >>** button. For details, see “[Specifying Additional Load Options](#)”, in the following subsection.



The controls are empty when the Schema Load utility is run for the first time. If the utility has been run previously, the values that were specified the last time the utility was run are displayed in the Connection Parameters group box controls and in the **Schema File Name** and **Forms File Name** text boxes. Other values are set to default values in the following steps of this instruction.

3. In the **Database Path** text box, specify the path in which your JADE database files are located. The database path must exist. If you are unsure of your database directory, click the adjacent browse button (indicated by the ... points of ellipsis symbol) to display the common Browse for Folder selection dialog that enables you to select the database path in which your user data is located.
4. In the **Ini File Name** text box, specify the name (and optionally the file path) of your JADE initialization file. The database path is assumed if you do not specify the file path. If you are unsure of your initialization file, click the adjacent browse button (indicated by the ... points of ellipsis symbol) to display the common Choose File dialog that enables you to select the initialization file that is used.
5. In the **Server Type** combo box, select the mode in which you want to perform the schema load process. Select the **multiUser** value if you want to connect to a running server or the **singleUser** value if you want to connect in single user mode.

6. In the **Schema File Name** text box, specify the full path of the location of your schema (**.scm**) file. If you are unsure of your schema file directory or name, click the adjacent browse button (indicated by the ... points of ellipsis symbol) to display the common Choose File dialog that enables you to select the schema file that you want to load.

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**Note** If you are loading a partial file, this may be a **.scm** file or a **.cls** file for a class or interface extract. This can also be a multiple schema file (**.mul**) for loading multiple schemas.

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7. In the **Forms File Name** text box, specify the full path of the location of your forms (**.ddb**) file if you are also loading a forms file. If you are unsure of your forms definition file directory or name, click the adjacent browse button (indicated by the ... points of ellipsis symbol) to display the common Choose File dialog that enables you to select the forms file that you want to load.

8. In the **Load Style** list box, select the load style, as follows.

- The default **Latest Schema Version** value loads a new schema or loads the when you want to release JADE applications without method source code; for example, when you release a schema containing JADE applications schema as the latest schema version (a new version will be created if required), and allows structural changes.
- The **Current Schema Version** value loads the schema into the existing current schema version, which may potentially affect current runtime behavior. As structural changes are not allowed, the load will not proceed if structural changes are to be introduced.

If you are loading a schema file containing only method changes into a multiuser system, select this option, to ensure that no structural changes are attempted that would require a reorganization of the database and impact existing users. If a structural change is detected, the schema load returns an error.

- The **Only Structural Versioning** value loads only structural changes into the latest version and does not version methods or other non-structural entities. This may potentially affect current runtime behavior.
9. Check the **Suppress Reorg** check box if you want to prevent the reorganization of any loaded schemas that require reorganization on completion of the load process.

By default, any loaded schemas that require reorganization on completion of the load process are reorganized, regardless of whether they required reorganization prior to the load.

---

**Notes** If control classes require reorganization or new **Control** subclasses are defined before loading a forms definition file, a reorganization is initiated before the forms definition file is loaded.

If a reorganization is required and you check this control, the forms load process may raise an exception if control classes require reorganization or new **Control** subclasses are defined.

---

10. If you are running in multiuser mode and you do not want to allow other users to continue development and update the database while the reorganization is in progress, uncheck the **Allow Updates** check box. (The **Initiate Transition** check box is then checked if it was unchecked and it is disabled.)

If updates are disabled while the reorganization is in progress, the reorganization must initiate the transition. Any error occurring during the reorganization results in the reorganization being aborted; that is, the reorganization cannot be restarted. For details, see “[Allowing Updates](#)” under “[Reorganization Options](#)”, in Chapter 19 of your *JADE Developer's Reference*.

As it is not possible for other applications to update the database in single user mode, this control is unchecked and disabled if **SingleUser** is selected in the **Server Type** combo box. In multiuser mode, the **Allow updates** check box is checked by default, to allow updates to proceed before the reorganization transition is initiated; for example, other users can still modify (that is, edit and compile) methods in the development environment.

11. If you do not want the reorganization progress dialog displayed during the reorganization, uncheck the **Show Progress** check box.

When this is checked (the default value), you can monitor the progress of the reorganization and you can cancel the reorganization at any time.

12. If you do not want the transition to be initiated for any reorganization, uncheck the **Initiate Transition** check box, to suspend the reorganization transition. This check box is checked and disabled if you unchecked the **Allow Updates** check box in step 15 of this instruction.

For details, see “[Initiating Transition](#)” under “[Reorganization Options](#)”, in Chapter 19 of your *JADE Developer's Reference*.

13. If you want to wait until the reorganization is complete, check the **Wait for Reorg to Finish** check box. As the load process in single user mode must wait for any reorganization to complete, this control is checked and enabled if **SingleUser** is selected in the **Server Type** combo box.

By default, this check box is not checked. In multiuser mode, you can exit from the JADE Schema Load utility and the reorganization continues.

14. If archival recovery is enabled (that is, the **EnableArchivalRecovery** parameter in the [**PersistentDb**] section of the JADE initialization file is set to **true**), a replayable reorganization of your JADE database can be performed when the schema is loaded. For details, see “[Replayable Reorganizations](#)” under “[Reorganization Options](#)”, in Chapter 19 of your *JADE Developer's Reference*.

Select **Default** in the Replayable combo box if you want to perform a replayable reorganization only if the schemas are loaded into a primary database.

Select **True** if you want to perform a replayable reorganization of your JADE database when the schema is loaded. If archival recovery is not enabled, the reorganization cannot be replayed.

Select **False** if you do not want to perform a replayable reorganization of your JADE database when the schema is loaded.

15. To display and select additional, delta, and system parameters for your schema load, click the **More Options >>** button.

The extended Load Schema dialog is then displayed. For details, see “[Specifying Additional Load Options](#)”, in the following subsection.

## Specifying Additional Load Options

Use the extended Load Schema dialog, displayed when you click the **More Options >>** button on the initial Load Schema dialog, to specify additional, delta, and system parameters for your schema load. (See also “[Loading a Schema and Forms into a JADE Database](#)”, in the previous section.)

The following diagram shows an example of the extended Load Schema dialog.

The screenshot shows the 'Load Schema' dialog box with the following sections and options:

- Connection Parameters:**
  - Database Path: C:\Jade\system
  - Ini File Name: C:\Jade\system\Jade.ini
  - Server Type: SingleUser
- Schema Parameters:**
  - Schema File Name: C:\Various\SCM\Faults.scm
  - Forms File Name: C:\Various\SCM\Faults.ddb
  - Load Style: Latest Schema Version
- Reorg Parameters:**
  - Suppress Reorg:
  - Show Progress:
  - Wait for Reorg to Finish:
  - Allow Updates:
  - Initiate Transition:
  - Replayable: Default
- Additional Parameters:**
  - Clear Restart:
  - Suppress Warning Dialogs:
  - Don't Save Sources:
  - Compile Unchanged Methods:
  - Ignore Empty Methods:
  - Allow Circular Packages:
  - Delete if Absent: Confirm
  - Delete Methods if Absent: Confirm
  - Delete Properties if Absent: Confirm
  - Override Patch Version: [Empty]
- Delta Parameters:**
  - Delta Name: [Empty]
  - User Name: [Empty]
  - Create Delta if Missing:
- System Parameters:**
  - Production Mode:  No Change,  Turn On,  Turn Off

Buttons: Hide Options <<, OK, Cancel, Help

### ➤ To specify more load options

1. Check the **Clear Restart** check box if you want to clear the schema load restart information before loading the schema. You can use this check box to clear the restart information so that the new complete definition schema file is loaded over the top of the file that terminated before completion. By default, restart information is not cleared before the schema is loaded; that is, this check box is unchecked.

When loading a large schema file, schema changes and recovery information are written at regular intervals to the JADE database. If the schema load fails, a subsequent load of the schema automatically restarts the loading of the schema file from the last recovery point.

2. In the **Delete If Absent** combo box, select when you want to confirm the deletion of any schema elements (such as classes, interfaces, properties, or methods) that exist in the JADE database but are not defined in the incoming schema file when you want to release JADE applications without method source code; for example, when you release a schema containing JADE applications. (For details about the deletion of missing elements, see “[Confirmation of Deletion](#)”, in Chapter 11 of your *JADE Development Environment User's Guide*.)

**Notes** The value that you specify or select in this combo box populates the **Delete Properties If Absent** and **Delete Methods If Absent** combo boxes. The **Delete Properties If Absent** and **Delete Methods If Absent** in steps 4 and 6 of this instruction provide you with more-detailed control over the deletion of missing methods and properties, by selecting a different value for these elements, if required.

An application in the database that is used in a package is not deleted (over-written) when a complete schema definition containing that application is loaded.

The values from which you can choose are listed in the following table.

Option	Action
Confirm	Prompt to confirm the deletion of any element that exists in the JADE database but is not defined in the incoming schema file (the default value)
Never	Never delete absent elements (no confirmation)
Always	Always delete absent elements (no confirmation)

If you want to deploy patches at a user site without requiring any intervention at the site, select the **Always** value.

3. Check the **Suppress Warning Dialogs** check box if you want to suppress warning dialogs resulting from compiling schema files (for example, class number conflict messages). Warning messages are then output only to the message log.

Suppressing warning dialogs is useful when loading multiple schemas. (You can also set the **SuppressWarningDialogs** parameter in the [ [JadeCompiler](#) ] section of the JADE initialization file to **true**.)

4. If you want to specify a value for the deletion of methods that differs from the value that you selected in the **Delete If Absent** combo box in step 2 of this instruction, select the required value in the **Delete Methods If Absent** combo box, using one of the values listed in the table in step 2 of this instruction.
5. Check the **Don't Save Sources** check box if you want to delete the source code from all JADE methods when the schema is loaded. By default, source code is retained when the schema is loaded.

If you want to release a JADE environment that does not contain source code, you must perform a full schema load for all schema loads into that environment, check the **Don't Save Sources** check box, and specify the **compileUnchangedMethods** parameter with a value of **true** on the **jadload** command line.

When the methods that are being loaded already exist and the source of those methods has not changed, the methods are not compiled. The source is not updated so it is therefore not deleted.

For details about including recompiled methods in patch versioning when a patch is to be applied to a schema that does not have source available, see “[Enabling or Disabling Patch Versioning](#)” and “[Setting Up a Patch Number](#)”, in Chapter 3 of your *JADE Development Environment Administration Guide*.

6. If you want to specify a value for the deletion of properties that differs from the value that you selected in the **Delete If Absent** combo box in step 2 of this instruction, select the required value in the **Delete Properties If Absent** combo box, using one of the values listed in the table in step 2 of this instruction.
7. Check the **Compile Unchanged Methods** check box if you want all methods loaded from the schema file to be compiled during the load process, including those whose source is the same as their source in the database.

By default, the load process skips methods whose source is the same as their source in the database (that is, this check box is unchecked).

If you want to release a JADE environment that does not contain source code, you must perform a full schema load for all schema loads into that environment and check both the **Don't Save Sources** check box in step 5 of this instructions and this **Compile Unchanged Methods** check box.

8. In the **Override Patch Version** text box, specify a value in the range **1** through **Max\_Integer - 1** (that is, 2,147,483,646) if you want to override the patch version number in schema entities.

All entities loaded in the schema file then have their patch version number set to the specified value, regardless of whether patch versioning is enabled for the schema. The specified value does not have to match an existing defined patch number. If the value is the same as an existing patch number, the state of the existing patch version is ignored (that is, the existing patch number in the schema file may be closed).

A value of zero (0) or blank retains the patch numbers specified in the schema file.

9. Check the **Ignore Empty Methods** check box if you want to override the default behavior when an empty method implementation is found while loading a schema file. The default behavior removes the existing source for the method and marks it as needing compilation (that is, if you do not check this check box, the default behavior is performed).

Check this check box when you want to leave the existing source and code of a method with an empty implementation untouched during a schema load.

The expected use of this check box occurs when an extracted schema that includes methods that had their source stripped is loaded into an environment where those methods had previously been loaded from an encrypted schema.

---

**Caution** Overriding the default behavior by checking this check box is considered potentially unsafe.

---

10. Check the **Allow Circular Packages** check box if you want to allow a circular dependency between packages in the schema hierarchy; that is, to permit the loading of an incomplete package (for example, **Schema1** exports **Package1** and imports **Package2**, while **Schema2** exports **Package2** and imports **Package1**).

When you subsequently create a package that would result in circularities, you are prompted to confirm that you want to continue and allow a circular dependency between packages in the schema hierarchy.

By default, this check box is unchecked; that is, the packages that are available for import are those that would not result in circular dependencies in the schema hierarchy.

If you load two schemas that are not circular and you load an importer before the exporter:

- An incomplete schema is loaded.
- The forms definition file (.ddb) is not loaded.
- Exception 8527 (*Load results in one or more incomplete schemas*) is raised.

When the **StandardExitValues** parameter in the [**FaultHandling**] section of the JADE initialization file is set to **true**, you can map this exception to generic exit value **8**. (For details about generic exit values, see “[Enabling the Use of Generic Exit Values for Windows](#)”, in Appendix A of the *JADE Installation and Administration Guide*.)

Incomplete schema definitions and their usages are resolved by loading the export definition and then reloading the importing files. (To completely resolve all of the interdependencies, more than two iterations may be required.)

An incomplete schema is displayed with the background color of a versioned schema (which defaults to red) in the Schema Browser. The incomplete schema, its subschemas, Class Browser, and any wizards for that schema and subschemas, are not available. To make the Class Browser available, it is your responsibility to make the entire schema complete (by loading the exporting schema and then reloading the incomplete schema).

---

**Note** An incomplete schema can be versioned, changing the background color, and not allowing the opening of a Class Browser on either version.

---

11. In the **Delta Name** text box, specify the delta into which all loaded methods will be checked out.

When you specify a value in this text box, you must also specify a value in the **User Name** text box, in step 12 of this instruction. When you specify the delta and user names and the specified delta does not exist, the load process fails if you have not checked the **Create Delta if Missing** check box in step 13 of this instruction.

12. In the **User Name** text box, specify the user name to associate with the delta into which the schema is loaded.

When you specify a value in this text box, you must also specify a value in the Delta Name text box in step 11 of this instruction. When you specify the delta and user names and the specified delta does not exist, the load process fails if you have not checked the **Create Delta if Missing** check box in step 13 of this instruction.

13. Check the **Create Delta if Missing** check box if you want a delta created if you specify the name of a delta that does not exist in the **Delta Name** text box in step 11 of this instruction.

By default, this check box is unchecked; that is, the delta is not created and the load process fails if you do not check this check box and you specify values in the **Delta Name** and **User Name** text boxes in steps 11 and 12 of this instruction.

14. In the **Production Mode** options, the **No Change** option retains the current production mode setting.

If you do not want the current setting of production mode retained in your JADE database, select the **Turn On** option button to set the production flag or the **Turn Off** button to turn off production mode (that is, set it to development mode).

By default, there is no change to the production mode setting in your JADE database in single user mode.

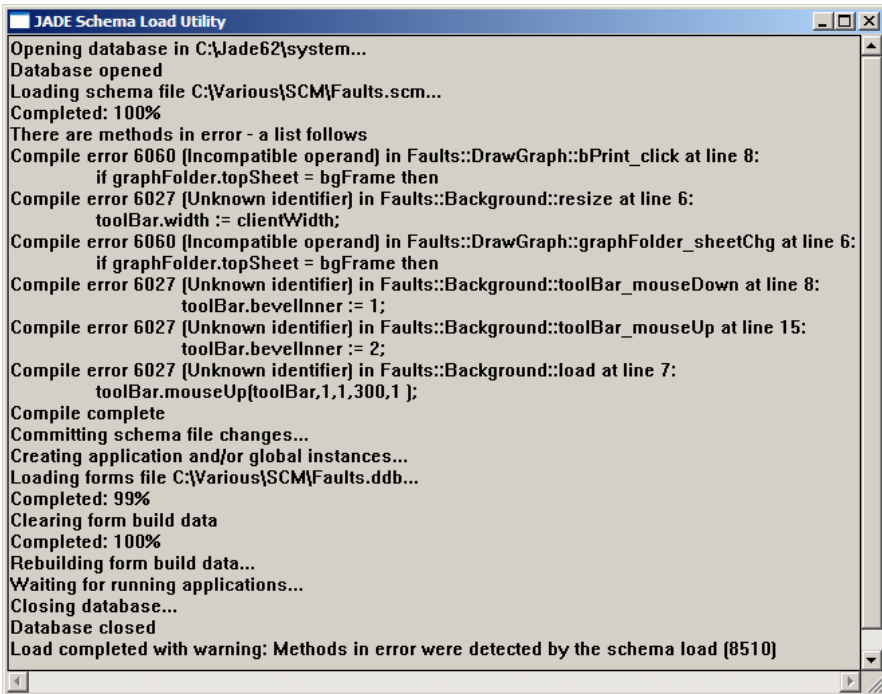
**Notes** With the introduction of schema evolution, there is no longer a requirement to turn off production mode during the loading of a schema. This option may be de-implemented in a future release.

When performing a reorganization in production mode, the transition must be initiated in single user mode. For details, see [“Running JADE Production Mode Databases”](#), in Chapter 1 of your *JADE Runtime Application Guide*.

15. To hide the display of additional, delta, and system parameters and display the initial Load Schema dialog, click the **Hide Options** << button. (For details, see [“Loading a Schema and Forms into a JADE Database”](#), in the previous section.)
16. Click the **OK** button. (Alternatively, click the **Cancel** button to abandon your selections.)

The load of your JADE schema is then started.

The background window, shown in the following diagram, displays the progress of the load operation.



```
JADE Schema Load Utility
Opening database in C:\Jade62\system...
Database opened
Loading schema file C:\Various\SCM\Faults.scm...
Completed: 100%
There are methods in error - a list follows
Compile error 6060 (Incompatible operand) in Faults::DrawGraph::bPrint_click at line 8:
    if graphFolder.topSheet = bgFrame then
Compile error 6027 (Unknown identifier) in Faults::Background::resize at line 6:
    toolBar.width := clientWidth;
Compile error 6060 (Incompatible operand) in Faults::DrawGraph::graphFolder_sheetChg at line 6:
    if graphFolder.topSheet = bgFrame then
Compile error 6027 (Unknown identifier) in Faults::Background::toolBar_mouseDown at line 8:
    toolBar.beveInner := 1;
Compile error 6027 (Unknown identifier) in Faults::Background::toolBar_mouseUp at line 15:
    toolBar.beveInner := 2;
Compile error 6027 (Unknown identifier) in Faults::Background::load at line 7:
    toolBar.mouseUp(toolBar,1,1,300,1);
Compile complete
Committing schema file changes...
Creating application and/or global instances...
Loading forms file C:\Various\SCM\Faults.ddb...
Completed: 99%
Clearing form build data
Completed: 100%
Rebuilding form build data...
Waiting for running applications...
Closing database...
Database closed
Load completed with warning: Methods in error were detected by the schema load [8510]
```

By default, the background window output buffer can contain up to 64K characters. New messages are always appended to this buffer and the window is refreshed from the buffer when a message is output. The [DisplayBufferSize](#) parameter in the [*JadeLoader*] section of the JADE initialization file enables you to configure this value in the metric format (for example, **K**, **M**, and so on), if required.

## What Happens Next

Your schema and optional forms file are then loaded. If an error is detected in the schema file, an editor window is opened to enable you to edit the file.

When the schema and forms file have been loaded, the following actions are performed.

- If you specified that you did not want source code loaded, a message is displayed informing you that the method sources will be removed. Click the **OK** button in the message box to confirm that the source code is to be removed from all methods.
- If you specified that production mode is to be turned on, the production mode option in your JADE database is set. If you specified that production mode is to be turned off, the production mode option in your JADE database is unset to development mode. For details, see [“Running JADE Production Mode Databases”](#), in Chapter 1 of your *JADE Runtime Application Guide*.
- The Schema Load utility checks whether any classes require reorganizing. If so, a reorganization of all required classes is automatically initiated.

---

**Caution** You should then run the JADE Database utility to certify and compact the files before you release them to a third party. (For details, see Chapter 3, [“Administering the JADE Database”](#), in your *JADE Database Administration Guide*.)

---

For details about reorganization, see [Chapter 19](#) of your *JADE Developer's Reference*.

## Loading a Schema and Forms in Batch Mode

The **jadloadb** program enables you to automate the Schema Load utility by running it in batch mode.

Run the batch Schema Load utility (for example, from a command script), specifying the following.

```
jadloadb path=database-path
[ddbFile=forms-file-name.ddb]
ini=initialization-file-name
[allowCircularPackages=boolean-value]
[clearRestart=boolean-value]
[commandFile=command-file-name]
[compileUnchangedMethods=boolean-value]
[createDeltaIfMissing=boolean-value]
[deleteIfAbsent=boolean-value]
[deleteMethodsIfAbsent=boolean-value]
[deletePropertiesIfAbsent=boolean-value]
[deleteSchema=schema-name]
[delta=delta-name]
[dontSaveSources=boolean-value]
[ignoreEmptyMethods=boolean-value]
[initiateTransition=boolean-value]
[loadStyle=currentSchemaVersion|latestSchemaVersion|
onlyStructuralVersioning]
[overridePatchVersion=patch-version-number]
[production=boolean-value]
[reorgAllowUpdates=boolean-value]
[replayableReorg=boolean-value or default]
```

```
[reportDefnFile=report-definitions-extract-file-name.rwr]
[reportFoldersFile=report-folders-extract-file-name.rwf]
[reportFormatsFile=report-formats-extract-file-name.rwo]
[reportLoadAllFile=report-all-extract-file-name.rwa]
[reportUsersFile=report-users-extract-file-name.rwu]
[reportViewFile=report-view-extract-file-name.rvw]
[schemaFile=schema-file-name.scm]
[server=singleUser|multiUser]
[showProgress=boolean-value]
[suppressReorg=boolean-value]
[targetSchema=schema-name [subschemaOf=schema-name]]
[unversionAllSchemas=boolean-value]
[unversionSchema=boolean-value]
[userName=user-name]
[waitForReorg=boolean-value]
[help]
```

The following is an example of the command for loading the **Test** schema.

```
jadloadb path=d:\jade\system schemaFile=d:\jade\scm\test.scm
ddbFile=d:\jade\scm\test.ddb dontSaveSources=true ini=d:\jade\myjade.ini
deletePropertiesIfAbsent=true loadStyle=onlyStructuralVersioning
replayableReorg=true compileUnchangedMethods=true
```

---

**Notes** As the batch Schema Load utility does not read parameter values (for example, the [IniFile](#) and [Path](#) parameters) from the [[JadeLoader](#)] section of the JADE initialization file, you must specify all values on the command line if you do not want to use default values.

If a schema load is attempted when a reorganization is in progress, the load fails. For details about reorganizing schemas, see “[Reorganizing Your Schema](#)”, in Chapter 3 of your *JADE Development Environment User's Guide*.

---

To run the batch Schema Load utility on UNIX under SUSE Linux Enterprise Server or the Red Hat distribution of Linux, use the **jadloadb** command line parameters described in this section and ensure that the standard JADE environment variables (documented under “Required Environment Variables” in [Chapter 3](#) or [Chapter 4](#) of your *JADE Installation and Configuration Guide*, respectively) are correctly defined.

The batch Schema Load utility program displays a progress report of each phase of the load operation. Standard load information is output to **stdout** and error information is output to **stderr**. (For details about displaying and redirecting the output from JADE batch utilities, see the [DisplayApplicationMessages](#), [LogServer](#), and [UseLogServer](#) parameters under “JADE Log Section [[JadeLog](#)]”, in your *JADE Initialization File Reference*.)

An error is returned if a file listed in a multiple (**.mul**) file does not exist.

At the end of the load operation, the running display provides a completion report. If the **jadloadb** executable program fails, a non-zero exit code is returned and an error message is displayed; for example, if the database directory was invalid.

Detailed results of the loading of files extracted from the JADE Report Writer, including the success or otherwise of the load, are logged to the **jadereportwriter.n.log** file in the log directory.

If an exception occurs during the load process, the exception text is output to the console window and the exit code from the process is non-zero.

---

**Note** An exception (that is, *8510 – Methods in error were detected by the schema load*) is raised if the batch schema load process detected methods that are in error. Although this is a warning only and the loading of the schema has completed, you should correct the methods that are in error and then run the batch schema load again.

---

The batch Schema Load program parameters are described in the following subsections.

## path

The **path** parameter specifies the full path of your JADE database directory in which your JADE database files are located. The database path must exist; for example:

```
d:\jade\system
```

## ddbFile

Use the **ddbFile** parameter to specify the fully qualified name of the forms (**.ddb**) file that you want to load, if any.

## ini

The **ini** parameter enables you to specify the fully qualified name of your JADE initialization file if it is not located in the database directory or it has a file name other than the default **jade.ini**.

For details, see “[Location of the JADE Initialization File](#)”, in the *JADE Initialization File Reference*.

## allowCircularPackages

The optional **allowCircularPackages** parameter enables you to set this parameter to **true** if you want to allow a circular dependency between packages in the schema hierarchy; that is, to permit the loading of an incomplete package (for example, **Schema1** exports **Package1** and imports **Package2**, while **Schema2** exports **Package2** and imports **Package1**). When you subsequently create a package that would result in circularities, you are prompted to confirm that you want to continue and allow a circular dependency between packages in the schema hierarchy.

The default value is **false**; that is, the packages that are available for import are those that would not result in circular dependencies in the schema hierarchy.

If you load two schemas that are not circular and you load an importer before the exporter:

- An incomplete schema is loaded.
- The forms definition file (**.ddb**) is not loaded.
- Exception 8527 (*Load results in one or more incomplete schemas*) is raised.

When the **StandardExitValues** parameter in the [FaultHandling] section of the JADE initialization file is set to **true**, you can map this exception to generic exit value **8**. (For details about generic exit values, see “[Enabling the Use of Generic Exit Values for Windows](#)”, in Appendix A of the *JADE Installation and Administration Guide*.)

Incomplete schema definitions and their usages are resolved by loading the export definition and then reloading the importing files. (To completely resolve all of the interdependencies, more than two iterations may be required.) If all of the related files are specified in a single multiple schema file (\*.mul) load, the reprocessing of all files is done automatically.

An incomplete schema is displayed with the background color of a versioned schema (which defaults to red) in the Schema Browser. The incomplete schema, its subschemas, Class Browser, and any wizards for that schema and subschemas, are not available. To make the Class Browser available, it is your responsibility to make the entire schema complete (by loading the exporting schema and then reloading the incomplete schema).

---

**Note** An incomplete schema can be versioned, changing the background color, and not allowing the opening of a Class Browser on either version.

---

## clearRestart

The optional **clearRestart** parameter enables you to set this parameter to **true** if you want to clear the schema load restart information before loading the schema. When loading a large schema file, recovery information is written at regular intervals to the JADE database.

If the schema load fails, a subsequent load of the schema automatically restarts the loading of the schema file from the last recovery point. If problems occur when restarting the schema load (for example, the original schema file may no longer be available), the schema may be left in an inconsistent state. You should delete the schema whose load failed, and reload it by using a schema file containing a complete definition of the schema.

You can use this parameter to clear the restart information so that the new schema file is loaded over the top of the file that terminated before completion. By default, restart information is not cleared before the schema is loaded; that is, the default value for this parameter is **false**.

## commandFile

The optional **commandFile** parameter enables you to specify the fully qualified name of a text file (for example, a JADE command **jcf** file) that contains commands to create, rename, move, or delete entities, as shown in the following example.

```
jadloadb path=d:\jade\system commandFile=d:\temp\RenameClasses.jcf
ini=d:\jade\myjade.ini
```

The command file, which has the following syntax, contains a header section, followed by the commands to be processed.

```
JadeCommandFile
JadeVersionNumber <version-number>
Commands
<commands>
<options>
```

If you require a non-default name of the JADE initialization file, you must specify this name in the **ini** parameter on the command line. If you require a non-default database path, you must specify the valid absolute path in the **path** parameter on the command line or in the **path** parameter in the [**JadeCommandLine**] section of the JADE initialization file.

The **<version-number>** value is the JADE version number (for example, **6.3.12**).

The `<commands>` value specifies a list of commands, with each command on a separate line. The following commands are supported.

```
AbortOnError [True | False]
Delete Instances schema-name::class-name
Delete Class schema-name::class-name
Rename Class schema-name::existing-class-name new-class-name
Modify Class schema-name::class-name transientsOnly true|false
Move Class schema-name::class-name new-superclass-name
Create DbFile schema-name::dbfile-name [partitioned=true|false]
Delete DbFile schema-name::dbfile-name
Remap Class schema-name::class-name dbfile-name
Delete Interface schema-name::interface-name
Rename Interface schema-name::existing-interface-name new-interface-name
Delete Property schema-name::class-name::property-name
Rename Property schema-name::existing-class-name::existing-property-name
    new-property-name
Delete Method schema-name::class-name::method-name
Delete Constant schema-name::class-name::constant-name
Delete GlobalConstant schema-name::global-constant-name
Delete GlobalConstantCategory schema-name::category-name
Delete ExternalFunction schema-name::external-function-name
Delete TranslatableString Locale schema-name::locale-number
Create Locale schema-name::locale-number CopyFrom base-locale-number
Create Locale schema-name::locale-number CloneOf base-locale-number
Modify Schema schema-name DefaultLocale locale-number
Modify Schema schema-name FormsManagementStyle style-number
Delete Locale schema-name::locale-number
Delete LocaleFormat schema-name::format-name
Delete TranslatableString schema-name::string-name
Exclude Table schema-name::rps-mapping-name::table-name
Exclude Column schema-name::rps-mapping-name::table-name::column-name
MoveInstances [Workers number]
```

For details, see the following subsections.

---

**Note** As there may be dependencies between the commands when changing the default locale, creating a locale, or deleting a locale, you should specify the **AbortOnError** command with a value of **True** so that the Schema Load utility stops at the first error.

---

The `<options>` value, which is not yet supported, specifies optional parameters for processing the command file, which is not schema-specific.

If you set the **AbortOnError** command to **True**, processing of the command file is aborted when the first error is encountered when processing subsequent commands in the file. If you set the **AbortOnError** command to **False** (the default value), subsequent commands continue to be processed regardless of error and a warning exit code (8514) is returned to indicate if one or more commands were not completed successfully. The default **False** value of the **AbortOnError** command applies only to errors that do not matter; for example, attempting to delete an entity such as a class, property, or method that does not exist. All other errors (for example, moving or renaming a class that does not exist) are always fatal errors.

When using a command file to create, rename, move, or delete entities during the batch loading of forms and schemas, all versioned schemas are reorganized by default at the end of a successful command file load (unless the **suppressReorg** parameter is set to **true**).

**Note** When a transaction is committed (that is, no errors are found) and reorganization is not suppressed, a scan is made for schemas requiring reorganization. If any schema is found to require reorganization, *all* schemas are reorganized.

For details about:

- Using the **commandFile** parameter to customize an RPS mapping for a specific site if your JADE applications are deployed to multiple sites with different requirements, see [“Site-Specific RPS Mapping Customization”](#), in Chapter 2 of the *JADE Synchronized Database Service (SDS) Administration Guide*.
- The locale Language Code Identifier (LCID) numeric values that you can specify in the *base-locale-number* or *locale-number* parameter (and their LCID descriptive names), see [“Locales”](#) under [“Locales and Translatable Messages”](#), in Chapter 3 or Chapter 4 of your *JADE Installation and Configuration Guide*.
- Creating a command file of property rename, deletion, and move actions when you extract a schema, see [“Specifying Your Schema Options”](#), in Chapter 11 of your *JADE Development Environment User's Guide*.
- Remapping classes and moving class instances, see [“Using JCF Commands to Remap Classes and Move Class Instances”](#), in [Chapter 19](#) of your *JADE Developer's Reference*.

The following is an example of a JADE command file that moves class instances.

```
JadeCommandFile
JadeVersionNumber 6.3.00
Commands
Create DbFile Bats::NewFile1
Create DbFile Bats::NewFile2
Remap Class Bats::License NewFile1
Remap Class Bats::Test NewFile2
Remap Class Bats::LicenseDict NewFile1
Remap Class Bats::Company NewFile2
Remap Class Bats::TestByNameDict NewFile2
MoveInstances Workers 2
```

The following is an example of a command file that performs various actions.

```
JadeCommandFile
JadeVersionNumber 6.3.10
Commands
AbortOnError True
Delete Class ErewhonInvestmentsModelSchema::TenderSale
Rename Class ErewhonInvestmentsModelSchema::Region Area
Rename Property ErewhonInvestmentsModelSchema::Tender::offer bid
Delete Property ErewhonInvestmentsModelSchema::Country::allRegions
Delete Method ErewhonInvestmentsModelSchema::TenderSale::addNewBid
Modify Schema ErewhonInvestmentsModelSchema DefaultLocale 1033
Modify Schema ErewhonInvestmentsModelSchema FormsManagementStyle 2
Create Locale ErewhonInvestmentsModelSchema::2057 CopyFrom 1033
```

## Delete Instances Command

The **Delete Instances** command for the **commandFile** parameter enables you to specify that persistent instances of the user class specified in the *class-name* parameter are deleted.

This command has the following syntax.

```
Delete Instances schema-name::class-name
```

You must enable you to specify the specify a **loadStyle** of **currentSchemaVersion** for this command.

The target class specified in the *class-name* parameter must be local to the target schema specified in the *schema-name* parameter (that is, it cannot be a subschema-copy class) and it must not be a system class (that is, a subclass of **Application**, **Global**, or **WebSession**) and it must not be a subclass of **Control**.

The target schema specified in the *schema-name* parameter must have at least one non-GUI application defined.

---

**Notes** Persistent instances of subclasses of the target class are not deleted.

You can delete the target class (by specifying the **Delete Class** command) in the same command file after its instances have been successfully deleted and it has no other usage; for example, property types or collection memberships.

---

A separate application deletes the instances in a single transaction, by executing **class.instances().purge()**. This executes destructors and performs inverse maintenance (including child reference deletions).

If a destructor relies on environmental information established by initialization or log-on methods such as transient objects referred to using the **app** system variable, the destructor may raise exceptions. In this case, you must write your own scripts to delete the target class instances.

## Delete Class Command

The **Delete Class** command for the **commandFile** parameter enables you to delete the class specified in the *class-name* parameter from the schema specified in the *schema-name* parameter.

This command has the following syntax.

```
Delete Class schema-name::class-name
```

## Rename Class Command

The **Rename Class** command for the **commandFile** parameter enables you to rename the class specified in the *existing-class-name* parameter to the name specified in the *new-class-name* parameter.

This command has the following syntax.

```
Rename Class schema-name::existing-class-name new-class-name
```

## Modify Class Command

The **Modify Class** command for the **commandFile** parameter enables you to restrict the lifetime of new instances of a specified class in a specified schema to or from **transientsOnly**. You must enable you to specify a **loadStyle** of **currentSchemaVersion** for this command.

This command has the following syntax.

```
Modify Class schema-name::class-name transientsOnly true|false
```

For details about the restrictions that apply when changing persistent class definitions to or from **transientsOnly**, see “[Transient-Only Classes](#)”, in Chapter 1 of the *JADE Development Environment User's Guide*.

## Move Class Command

The **Move Class** command for the **commandFile** parameter enables you to move the class in the class hierarchy specified in the *class-name* parameter, changing its superclass to the class specified in the *new-superclass-name* parameter.

This command has the following syntax.

```
Move Class schema-name::class-name new-superclass-name
```

## Create DbFile Command

The **Create DbFile** command for the **commandFile** parameter enables you to create a new **DbFile** with the specified *dbfile-name* in the schema specified in the *schema-name* parameter. You must enables you to specify the specify a **loadStyle** of **currentSchemaVersion** for this command.

This command has the following syntax.

```
Create DbFile schema-name::dbfile-name [partitioned=true|false]
```

The optional **partitioned** parameter enables you to specify whether the file is partition-capable or not. By default, the value of this parameter is **false**; that is, the database file is not partitioned when it is created. (For details, see [Chapter 25](#) of the *JADE Developer's Reference*.)

## Delete DbFile Command

The **Delete DbFile** command for the **commandFile** parameter enables you to remove the **DbFile** specified in the *dbfile-name* in the schema specified in the *schema-name* parameter, provided that the database file has no classes mapped to it. You must enables you to specify a **loadStyle** of **currentSchemaVersion** for this command.

This command has the following syntax.

```
Delete DbFile schema-name::dbfile-name
```

## Remap Class Command

The **Remap Class** command for the **commandFile** parameter enables you to change the database file mapping for the specified class *schema-name::class-name* to the specified *dbfile-name*. You must enables you to specify a **loadStyle** of **currentSchemaVersion** for this command. This command has the following syntax.

```
Remap Class schema-name::class-name dbfile-name
```

The execution of this command is deferred until the final **MoveInstances** command is processed.

For more details, see “[Using JCF Commands to Remap Classes and Move Class Instances](#)”, in [Chapter 19](#) of your *JADE Developer's Reference*.

## Delete Interface Command

The **Delete Interface** command for the **commandFile** parameter enables you to delete the interface specified in the *interface-name* parameter from the schema specified in the *schema-name* parameter.

This command has the following syntax.

```
Delete Interface schema-name::interface-name
```

## Rename Interface Command

The **Rename Interface** command for the **commandFile** parameter enables you to rename the interface specified in the *existing-interface-name* parameter to the name specified in the *new-interface-name* parameter.

This command has the following syntax.

```
Rename Interface schema-name::existing-interface-name new-interface-name
```

## Delete Property Command

The **Delete Property** command for the **commandFile** parameter enables you to delete the property specified in the *property-name* parameter from the class specified in the *class-name* parameter.

This command has the following syntax.

```
Delete Property schema-name::class-name::property-name
```

## Rename Property Command

The **Rename Property** command for the **commandFile** parameter enables you to rename the property specified in the *existing-property-name* parameter to the name specified in the *new-property-name* parameter.

This command has the following syntax.

```
Rename Property schema-name::existing-class-name::existing-property-name  
new-property-name
```

## Delete Method Command

The **Delete Method** command for the **commandFile** parameter enables you to delete the method specified in the *method-name* parameter from the class specified in the *class-name* parameter in the schema specified in the *schema-name* parameter.

This command has the following syntax.

```
Delete Method schema-name::class-name::method-name
```

## Delete Constant Command

The **Delete Constant** command for the **commandFile** parameter enables you to delete the class constant specified in the *constant-name* parameter from the class specified in the *class-name* parameter in the schema specified in the *schema-name* parameter.

This command has the following syntax.

```
Delete Constant schema-name::class-name::constant-name
```

## Delete GlobalConstant Command

The **Delete GlobalConstant** command for the **commandFile** parameter enables you to delete the global constant specified in the *global-constant-name* parameter from the schema specified in the *schema-name* parameter.

This command has the following syntax.

```
Delete GlobalConstant schema-name::global-constant-name
```

## Delete GlobalConstantCategory Command

The **Delete GlobalConstantCategory** command for the **commandFile** parameter enables you to delete the global constant category specified in the *global-constant-category* parameter for the schema specified in the *schema-name* parameter.

This command has the following syntax.

```
Delete GlobalConstantCategory schema-name::category-name
```

The category cannot be deleted if it has global constants associated with it.

## Delete ExternalFunction Command

The **Delete ExternalFunction** command for the **commandFile** parameter enables you to delete the external function specified in the *external-function-name* parameter from the schema specified in the *schema-name* parameter.

This command has the following syntax.

```
Delete ExternalFunction schema-name::external-function-name
```

## Delete TranslatableString Command

The **Delete TranslatableString** command for the **commandFile** parameter enables you to delete translatable string specified in the *string-name* parameter from the schema specified in the *schema-name* parameter.

This command has the following syntax.

```
Delete TranslatableString Locale schema-name::locale-number
```

## Create Locale Command

The **Create Locale** command for the **commandFile** parameter enables you to create the locale specified in the *locale-number* parameter in the schema specified in the *schema-name* parameter by using the:

- **CopyFrom** expression, to copy the existing base locale in the same schema specified in the *base-locale-number* parameter as the new base locale. The form and translatable string translations are copied from the existing locale to the new locale. The new locale must not be present in the schema specified in the *schema-name* parameter.

If you specify zero (0) as the existing base locale, the default locale of the schema specified in the *schema-name* parameter is assumed. If you do not specify zero (0), you must specify an existing base locale in the **CopyFrom** expression.

- **CloneOf** expression, to create a new clone locale of the existing base locale specified in the *base-locale-number* parameter. The new locale must not be present in the schema specified in the *schema-name* parameter.

To convert a locale from a clone locale to a base locale (or the reverse), you must first delete the clone and then create it.

The **Create Locale** command has the following syntaxes.

```
Create Locale schema-name::locale-number CopyFrom base-locale-number
Create Locale schema-name::locale-number CloneOf base-locale-number
```

## Modify Schema Command

The **Modify Schema** command for the **commandFile** parameter enables you to modify the schema specified in the *schema-name* parameter by using the:

- **DefaultLocale** expression, to change the default locale of the specified schema to the existing base locale specified in the *locale-number* parameter.
- **FormsManagementStyle** expression, to change the **formsManagement** style used by the specified schema and its subschemas to the style specified in the *style-number* parameter.

The style number can be **0** (default multiple form definition and multiple translation), **1** (single form definition and single translation), or **2** (single form definition and multiple translations using translatable strings). For details, see the **Schema** class **formsManagement** property.

---

**Note** You should use the same **FormsManagementStyle** value for all user schemas in a schema branch.

---

You must enables you to specify a **loadStyle** of **currentSchemaVersion** for this command. In addition, the schema cannot be versioned.

The **Modify Schema** command has the following syntaxes.

```
Modify Schema schema-name DefaultLocale locale-number
Modify Schema schema-name FormsManagementStyle style-number
```

## Delete Locale Command

The **Delete Locale** command for the **commandFile** parameter enables you to delete the locale specified in the *locale-name* parameter and any locales that are clones of it from the schema specified in the *schema-name* parameter.

This command has the following syntax.

```
Delete Locale schema-name::locale-number
```

To avoid potential invalid reference exceptions, delete locales in single user mode.

You cannot delete the schema default locale and there must always be at least one base locale.

You can delete non-present locales without causing an error.

## Delete LocaleFormat Command

The **Delete LocaleFormat** command for the **commandFile** parameter enables you to delete the locale format specified in the *format-name* parameter from the schema specified in the *schema-name* parameter.

This command has the following syntax.

```
Delete LocaleFormat schema-name::format-name
```

## Delete TranslatableString Command

The **Delete TranslatableString** command for the **commandFile** parameter enables you to delete the translatable string specified in the *string-name* parameter from the schema specified in the *schema-name* parameter.

This command has the following syntax.

```
Delete TranslatableString schema-name::string-name
```

## Exclude Table Command

The **Exclude Table** command for the **commandFile** parameter enables you to exclude the table specified in the *table-name* parameter from the RPS mapping specified in the *rps-mapping-name* parameter in the schema specified in the *schema-name* parameter.

This command has the following syntax.

```
Exclude Table schema-name::rps-mapping-name::table-name
```

## Exclude Column Command

The **Exclude Column** command for the **commandFile** parameter enables you to exclude the column specified in the *column-name* parameter from the table specified in the *table-name* parameter from the RPS mapping specified in the *rps-mapping-name* parameter in the schema specified in the *schema-name* parameter.

This command has the following syntax.

```
Exclude Column schema-name::rps-mapping-name::table-name::column-name
```

## MoveInstances Command

The **MoveInstances** command for the **commandFile** parameter enables you to trigger the analysis of pending class remaps, the generation of an execution plan to move instances of classes to reflect the changed mappings followed by the execution of the move instances by the database engine. You must enable you to specify the specify a **loadStyle** of **currentSchemaVersion** for this command.

This command has the following syntax.

```
MoveInstances [Workers number]
```

The optional **Workers** parameter specifies the maximum number of worker threads that can execute file move operations concurrently. The default value is one worker.

---

**Notes** The **MoveInstances** command should always be the last command in a remap and move command file specification.

When changing the database file to which a class is mapped, the database file can be defined anywhere within the scope of the current schema or superschema hierarchy; that is, in the schema that defines the class or in any user superschema.

---

For more details, see “[Using JCF Commands to Remap Classes and Move Class Instances](#)”, in [Chapter 19](#) of your *JADE Developer's Reference*.

## compileUnchangedMethods

The optional **compileUnchangedMethods** parameter enables you to specify whether you want all methods loaded from the schema file to be compiled during the load process, including those whose source is the same as their source in the database.

By default, the load process skips methods whose source is the same as their source in the database (that is, the default value is **false**).

If you want to release a JADE environment that does not contain source code, you must perform a full schema load for all schema loads into that environment and specify the **dontSaveSources** and **compileUnchangedMethods** parameters with values of **true** on the **jadloadb** command line.

## createDeltaIfMissing

The optional **createDeltaIfMissing** parameter enables you to specify whether you want a delta created if you specify in the **delta** parameter the name of a delta that does not exist.

The default value of this parameter is **false**; that is, the delta is not created and the load process fails if you do not set this parameter to **true** and you specify values in the **delta** and **userName** parameters.

## deleteIfAbsent

The optional **deleteIfAbsent** parameter enables you to specify whether you want elements (for example, classes and properties) that exist in the JADE database but are not defined in the incoming schema file to be deleted.

You can also use the **deleteMethodsIfAbsent** and **deletePropertiesIfAbsent** parameters to provide you with more-detailed control over the deletion of missing methods and properties.

---

**Note** An application in the database that is used in a package is not deleted (over-written) when a complete schema definition containing that application is loaded.

---

By default, undefined elements are deleted.

## deleteMethodsIfAbsent

The optional **deleteMethodsIfAbsent** parameter enables you to specify whether you want to delete methods that exist in the JADE database but are not defined in the incoming schema file.

The value of this parameter defaults to the value of the **deleteIfAbsent** parameter. For example, if you want to delete the methods in the JADE database that are not in your schema file but you want to retain existing interfaces, classes, and properties that are not in the incoming file, specify:

```
jadloadb path=d:\jade\system schemaFile=d:\jade\scm\test.scm
ini=d:\jade\myjade.ini ddbFile=d:\jade\scm\test.ddb deleteIfAbsent=false
deleteMethodsIfAbsent=true
```

## deletePropertiesIfAbsent

The optional **deletePropertiesIfAbsent** parameter enables you to specify whether you want to delete properties that exist in the JADE database but are not defined in the incoming schema file.

The value of this parameter defaults to the value of the **deleteIfAbsent** parameter. For example, if you want to delete the classes, interfaces, and methods in the JADE database that are not in your schema file but you want to retain existing properties that are not in the incoming file, specify:

```
jadloadb path=d:\jade\system schemaFile=d:\jade\scm\test.scm
ddbFile=d:\jade\scm\test.ddb deletePropertiesIfAbsent=false
ini=d:\jade\myjade.ini deleteIfAbsent=true
```

## deleteSchema

The optional **deleteSchema** parameter enables you to specify the name of a user-defined schema that you want to delete from a runtime database, as shown in the following example.

```
jadloadb path=d:\jade\system ini=d:\jade\myjade.ini deleteSchema=DbAdminTest
```

When you delete a schema, all of its class instances are also deleted.

You can remove user-defined schemas only. You cannot remove a system schema or a user-defined schema that has one or more subschemas.

To remove a schema that has subschemas, you must first remove any subschemas of that schema.

---

**Notes** As this parameter is case-sensitive, you must specify the schema name exactly. For example, **deleteSchema=ErewhonInvestmentsViewSchema** is valid but if you were to specify **deleteSchema=Erewhoninvestmentviewschema**, an error would be output.

You can specify only one user-defined schema for deletion. If you want to remove more than one schema (for example, subschemas and then their superschema), you must run separate copies of the **jadloadb** program. In addition, you cannot delete a schema in a **jadloadb** execution that loads a schema (that is, you must specify either the **deleteSchema** parameter or the **schemaFile** parameter, but not both), a user-defined schema that is in reorganization state, or a schema that has exported packages that are in use by other schemas.

---

When loading schemas, you cannot:

- Load a schema in a **jadloadb** execution and remove a schema (that is, you must specify either **schemaFile** parameter or the **deleteSchema** parameter, but not both).
- Delete a user-defined schema if the schema is in reorganization state or if the schema has exported packages that are in use by other schemas.

If classes in the schema have destructors that delete dependent objects, errors may be raised if the schema deletion has already deleted those objects.

For details about deleting a schema from the JADE development environment, see “[Removing a User-Defined Schema](#)”, in Chapter 3 of your *JADE Development Environment User's Guide*.

## delta

The optional **delta** parameter enables you to specify the delta into which loaded methods will be checked out. You must also specify a value in the **userName** parameter.

When you specify the **delta** and **userName** parameters and the specified delta does not exist, the load process fails if you have not set the **createDeltaIfMissing** parameter to **true**.

## dontSaveSources

The optional **dontSaveSources** parameter enables you to specify that you want to delete the source code from all JADE methods when the schema is loaded. By default, source code is retained when the schema is loaded.

If you want to release a JADE environment that does not contain source code, you must perform a full schema load for all schema loads into that environment and specify the **dontSaveSources** and the **compileUnchangedMethods** parameters with values of **true** on the **jadloadb** command line.

When the methods that are being loaded already exist and the source of those methods has not changed, the methods are not compiled. The source is not updated so it is therefore not deleted.

For details about including recompiled methods in patch versioning when a patch is to be applied to a schema that does not have source available, see “[Enabling or Disabling Patch Versioning](#)”, in Chapter 3 of your *JADE Development Environment Administration Guide*.

## ignoreEmptyMethods

The optional **ignoreEmptyMethods** parameter enables you to override the default behavior when an empty method implementation is found while loading a schema file. The default behavior removes the existing source for the method and marks it as needing compilation (that is, if you do not specify the **ignoreEmptyMethods** parameter, it is assumed to be **false**).

Set this parameter to **true** when you want to leave the existing source and code of a method with an empty implementation untouched during a schema load.

The expected use of this parameter occurs when an extracted schema that includes methods that had their source stripped is loaded into an environment where those methods had previously been loaded from an encrypted schema.

---

**Caution** Overriding the default behavior by using the **ignoreEmptyMethods** parameter is considered potentially unsafe.

---

## initiateTransition

The optional **initiateTransition** parameter enables you to override the default behavior when the transition phase of a reorganization is reached.

By default, the transition phase of the reorganization is attempted as soon as the object conversion phase is complete. For details, see “[Initiating Transition](#)” under “[Reorganization Options](#)”, in Chapter 19 of your *JADE Developer's Reference*.

Set this parameter to **false** if you want to suspend the reorganization and explicitly initiate the transition at a later stage.

## loadStyle

The optional **loadStyle** parameter enables you to specify the load style, as follows.

- The default **latestSchemaVersion** value loads a new schema or loads the schema as the latest schema version (a new version will be created if required), and allows structural changes.

- The **currentSchemaVersion** value loads the schema into the existing current schema version, which may potentially affect current runtime behavior. As structural changes are not allowed, the load will not proceed if structural changes are to be introduced.

If you are loading a schema file containing only method changes into a multiuser system, select this option, to ensure that no structural changes are attempted that would require a reorganization of the database and impact existing users. If a structural change is detected, the schema load returns an error.

The commands that can be performed only in the current schema version are:

- Create DbFile
- Delete DbFile
- Modify Schema
- MoveInstances
- Remap Class
- Delete Instances
- Modify Class

For details about these commands, see “[commandFile](#)”, earlier in this chapter.

- The **onlyStructuralVersioning** value loads only structural changes into the latest version and does not version methods or other non-structural entities. This may potentially affect current runtime behavior.

## overridePatchVersion

The optional **overridePatchVersion** parameter enables you to override the patch version number in schema entities by specifying that all loaded entities have their patch version number set to the specified value, which can be in the range **1** through **Max\_Integer - 1** (that is, 2,147,483,646).

When you specify a valid value, it is effective regardless of whether patch versioning is enabled for the schema. A value of zero (**0**) causes the **overridePatchVersion** parameter to be ignored. The **overridePatchVersion** parameter is not required if you want to retain the patch number specified in the schema file.

The specified value does not have to match an existing defined patch number. If the value is the same as an existing patch number, the state of the existing patch version is ignored (that is, the existing patch number in the schema file may be closed).

## production

The optional **production** parameter enables you to specify that you want production mode set (value of **true**) or unset (value of **false**) for your JADE database. Production mode retains its current setting by default.

If you specify the **production** parameter to change the current production mode setting when loading schemas, you should do so only when loading or following the load of your last schema, as it applies to you entire database in single user mode only.

**Note** With the introduction of schema evolution, there is no longer a requirement to turn off production mode during the loading of a schema. This option may be de-implemented in a future release.

For details about production mode, see [“Running JADE Production Mode Databases”](#), in Chapter 1 of your *JADE Runtime Application Guide*.

## reorgAllowUpdates

The optional **reorgAllowUpdates** parameter enables you to specify whether you want to allow other users to continue development and update the database while the reorganization is in progress when you are loading schemas in multiuser mode. For details, see [“Replayable Reorganizations”](#) under [“Reorganization Options”](#), in Chapter 19 of your *JADE Developer's Reference*.

In multiuser mode, the **reorgAllowUpdates** parameter is set to **true** by default, to allow updates to proceed before the transition is initiated; for example, other users can still modify (that is, edit and compile) methods in the development environment.

## replayableReorg

If the **EnableArchivalRecovery** parameter in the [**PersistentDb**] section of the JADE initialization file is set to **true**, in the optional **replayableReorg** parameter you can specify:

- **true** if you want to perform a replayable reorganization of your JADE database when the schema is loaded.
- **false** if you do not want to perform a replayable reorganization of your JADE database when the schema is loaded.
- **default** if you want to perform a replayable reorganization only if the schemas are loaded into a primary database.

For details, see [“Replayable Reorganizations”](#) under [“Reorganization Options”](#), in Chapter 19 of your *JADE Developer's Reference*.

## reportDefnFile

The optional **reportDefnFile** parameter enables you to specify the fully qualified name of a JADE Report Writer report definitions unload (extract) file that you want to load, as shown in the following example.

```
jadloadb path=d:\jade\system reportDefnFile=d:\reports\SalesReports.rwr  
ini=d:\jade\myjade.ini
```

For details about extracting report definitions, see the [JADE Report Writer User's Guide](#).

## reportFoldersFile

The optional **reportFoldersFile** parameter enables you to specify the fully qualified name of a JADE Report Writer report folders unload (extract) file that you want to load, as shown in the following example.

```
jadloadb path=d:\jade\system reportFoldersFile=d:\reports\DevFolders.rwf  
ini=d:\jade\myjade.ini
```

For details about extracting report folders, see the [JADE Report Writer User's Guide](#).

## reportFormatsFile

The optional **reportFormatsFile** parameter enables you to specify the fully qualified name of a JADE Report Writer formats unload (extract) file that you want to load, as shown in the following example.

```
jadloadb path=d:\jade\system reportFormatsFile=d:\reports\AcctsFormats.rwo
ini=d:\jade\myjade.ini
```

For details about extracting report formats, see the [JADE Report Writer User's Guide](#).

## reportLoadAllFile

The optional **reportLoadAllFile** parameter enables you to specify the fully qualified name of a single unload (extract) file that contains all JADE Report Writer view, folder, system option, user, and report definitions that you want to load, as shown in the following example.

```
jadloadb path=d:\jade\system reportLoadAllFile=d:\jade\rpts\alldata.rwa
ini=d:\jade\myjade.ini
```

When loading a report view from the all file, existing view items that are unused or are not in the loaded report all file are replaced.

For details about extracting all report writer data, see the [JADE Report Writer User's Guide](#).

## reportUsersFile

The optional **reportUsersFile** parameter enables you to specify the fully qualified name of a JADE Report Writer report users unload (extract) file that you want to load, as shown in the following example.

```
jadloadb path=d:\jade\system reportUsersFile=d:\reports\MgmtUsers.rwu
ini=d:\jade\myjade.ini
```

For details about extracting report users, see the [JADE Report Writer User's Guide](#).

## reportViewFile

The optional **reportViewFile** parameter enables you to specify the fully qualified name of a JADE Report Writer reporting view unload (extract) file that you want to load, as shown in the following example.

```
jadloadb path=d:\jade\system reportViewFile=d:\reports\TestViews.rvw
ini=d:\jade\myjade.ini
```

When loading a report view, existing view items that are unused or are not in the loaded report view file are replaced.

For details about extracting reporting views, see the [JADE Report Writer User's Guide](#).

## schemaFile

Use the **schemaFile** parameter to specify the fully qualified name of the schema that you want to load.

If you are loading a partial file, this may be a **.scm** file or a **.cls** file for a class or interface extract. This can also be a multiple schema file (**.mul**) for loading multiple schemas.

---

**Note** When deleting a user-defined schema (by using the optional **deleteSchema** parameter) or loading a report view, formats, folders, users, definitions, or all report data file (by using the optional **reportViewFile**, **reportFormatsFile**, **reportFoldersFile**, **reportUsersFile**, **reportDefnFile**, or **reportLoadAllFile** parameter), you do not have to specify the otherwise mandatory **schemaFile** parameter. However, you must always specify the **path** parameter.

---

## server

The optional **server** parameter enables you to specify the mode in which the load operation is actioned. By default, this parameter is set to **singleUser**.

If you want to connect to a running server by loading schemas and forms in multiple user mode, set this parameter to **multiUser**.

## showProgress

The optional **showProgress** parameter enables you to specify that you want to suppress the progress (status) message display resulting from compiling schema files (for example, class number conflict messages) and from any reorganization, by setting this parameter to **false**.

When using a command file to create, rename, move, or delete entities during the batch loading of forms and schemas, all versioned schemas are reorganized by default at the end of a successful command file load (unless the **suppressReorg** parameter is set to **true**).

---

**Note** When a transaction is committed (that is, no errors are found) and reorganization is not suppressed, a scan is made for schemas requiring reorganization. If any schema is found to require reorganization, *all* schemas are reorganized.

---

Suppressing progress dialogs is useful when loading from a script or command file.

By default, progress messages are displayed; that is, the default value is **true**.

---

**Note** Full details of the load operation are still output to the appropriate log file.

---

## subschemaOf

If you specify the name of a new schema by using the optional **targetSchema** parameter, you must specify its superschema by using the **subschemaOf** parameter.

This parameter is not required if you specify the name of an existing schema for the **targetSchema** parameter.

## suppressReorg

The optional **suppressReorg** parameter enables you to specify if you want to prevent the reorganization of any loaded schemas that require reorganization on completion of the load process.

By default, any loaded schemas that require reorganization on completion of the load process are reorganized, regardless of whether they required reorganization prior to the load; that is, the default value is **false**.

---

**Notes** If control classes require reorganization or new **Control** subclasses are defined before loading a forms definition file, a reorganization is initiated before the forms definition file is loaded.

If a reorganization is required and you set this parameter to **true**, the forms load process may raise an exception if control classes require reorganization or new **Control** subclasses are defined.

---

## targetSchema

The optional **targetSchema** parameter enables you to specify a different target schema name from the names defined in the schema file.

You can specify a new name for your schema or the name of an existing schema if you want to load into a schema other than the one defined in the schema file. This parameter has no effect if you are loading multiple schemas.

## unversionAllSchemas

The optional **unversionAllSchemas** parameter enables you to specify that you want to remove the latest version of all versioned schemas, by setting this parameter to **true**.

## unversionSchema

The optional **unversionSchema** parameter enables you to specify that you want to remove the latest version of a versioned schema (and any related schema) specified in the **schemaFile** parameter when a new version is loaded, by setting this parameter to **true**.

## userName

The optional **userName** parameter enables you to specify the user name to associate with the delta. You must also specify a value in the **delta** parameter.

When you specify the **delta** and **userName** parameters and the specified delta does not exist, the load process fails if you have not set the **createDeltaIfMissing** parameter to **true**.

## waitForReorg

The optional **waitForReorg** parameter enables you to specify that you do not want to wait for a reorganization to complete, by setting the value to **false**.

As the load process in single user mode must wait for any reorganization to complete, this parameter is set to **true** by default if the value of the **server** parameter is **singleUser**.

The **waitForReorg** parameter is set to **true** by default.

## help

The optional **help** parameter displays the required parameters and their values.

---

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