



Apelon DTS

Distributed Terminology System

DTS Installation Guide

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1. Introduction

The *Apelon DTS Installation Guide* includes installation procedures and scripting requirements for the Apelon Distributed Terminology System (DTS). This guide was prepared to help new and experienced administrators successfully perform all operations necessary to install the Apelon DTS product. Refer to the *Knowledgebase Administrators Guide* for procedures on creating the required DTS schema, and for populating the DTS tables with either vocabulary subscription data provided by Apelon, or data migrated from your current DTS database.

For instructions on how to configure and run the DTS Server, refer to the *DTS Server Operations Guide*. Matching capabilities that are available during knowledgebase searches are described in the *DTS Matching – Quick Overview*. Preparation of the knowledgebase to support these matching capabilities is detailed in the *Knowledgebase Administrators Guide*.

2. Apelon DTS Installation

This section details the procedures necessary to install and uninstall Apelon DTS. This assumes that the prerequisite software (listed below) has been installed and is capable of supporting the application.

2.1. Installation Requirements

The following are system and software requirements for installing and running DTS.

Minimum System Requirements (Server)

- Pentium III 1 GHz PC
- 512 MB byte RAM
- 10 GB free space

Minimum Software Requirements (Server)

- Windows 2000, Windows XP, or Unix (for DTS Server only).
- Internet Explorer 6.0.
- Oracle Version **8.1.7** or **9i release 2**.
 - If **Microsoft SQL 2000 Server** is used, a SQL Server 2000 Type 4 JDBC driver also is required (the default **Microsoft** drivers are installed automatically).
 - For **Microsoft SQL 2000 Server** connections, Apelon recommends that you obtain and install the **iSprinta Enterprise™** driver (not included).
 - The **iSprinta Enterprise** driver allows the multiple connections required to run and use DTS (the trial driver version does not provide these multiple connections).
 - You can obtain information on the driver at:
<http://www.inetsoftware.de/English/Produkte/JDBC2/Default.htm>

- Download the file from the provider and save the jar files to the **DTS\lib** directory of the Apelon DTS installation.
- If you are running the Tomcat server, download the **iSprinta Enterprise** driver to the **DTS\tomcat\shared\lib** directory.

* Note: If you are running the Tomcat server, download the **iSprinta Enterprise** driver to the **DTS\tomcat\shared\lib** directory.

- DTS 3.1 includes Version 1.4 of the Sun **Java Development Kit (JDK)**; DTS 3.1 software was compiled using JDK Version **1.4.2**.
 - This installation of Java 1.4 will be visible to DTS only (existing Java installations on the target machine are not affected).
 - The required Java files are installed automatically in a new **java** directory under the DTS installation (**DTS\java**).
- If you are installing the **DTS Server** on UNIX, you must install the version of the Unix JDK that is appropriate for your machine.
 - When you install a version of the Unix JDK, you must create the subdirectories **java/jdk** (if these directories do not exist).
 - You then must install the **Unix JDK** in DTS/java/jdk in order for batch files to function.
 - A bin directory (DTS/java/jdk/**bin**) is created when you install the **Unix JDK**.
 - DTS batch files look for the java executable and compiler in DTS/java/**jdk/bin/java.exe** and DTS/java/**jdk/bin/javac.exe**.

2.2. Uninstall Previous DTS Version

Typically, when you receive a new release of an Apelon product you should remove the previous version of the product **before** installing the new one. With Apelon DTS, it is not necessary for you to immediately remove DTS 2.4 before you install version 3.0. You can have both versions of DTS installed until you complete migration to DTS 3.0.

After you complete the migration to DTS, Apelon recommends that you remove the previous version. Use the **Add/Remove Programs** tool included with the Microsoft *Windows*™ operation system to perform the following procedure.

1. Navigate to **Start>Settings>Control Panel**.
2. Select **Add/Remove Programs**.
3. Scroll down the list of programs and locate Apelon DTS (for DTS 2.4 and earlier) then click to select it.



4. Click **Change/Remove** to uninstall the previous DTS version. The following window displays.

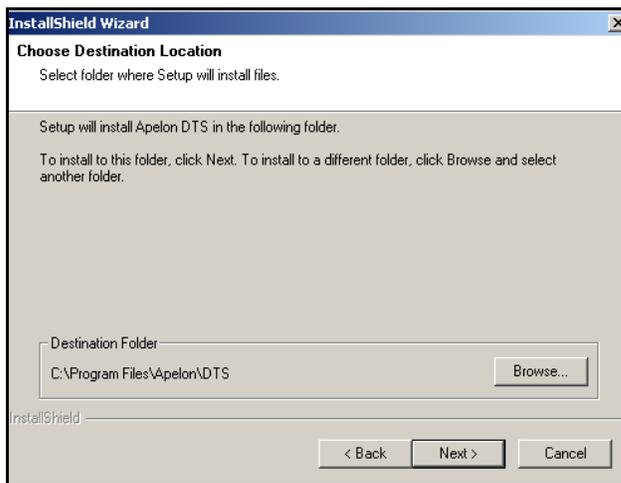


5. Click **Remove**, then click **Next** to remove all components of the previous DTS version.
6. Repeat the procedure for any other Apelon products you want removed.

2.3. Install Apelon DTS

If you have a previous version of Apelon DTS installed, you may optionally remove that version before installing the upgrade. Refer to the [Uninstall Previous DTS Version](#) discussion for procedures.

From your custom Apelon Web page, download and save the current version of Apelon DTS to a local drive on your *Windows* PC. Click the **Apelon DTS** link to run the "InstallShield" wizard, which guides you through the installation process.

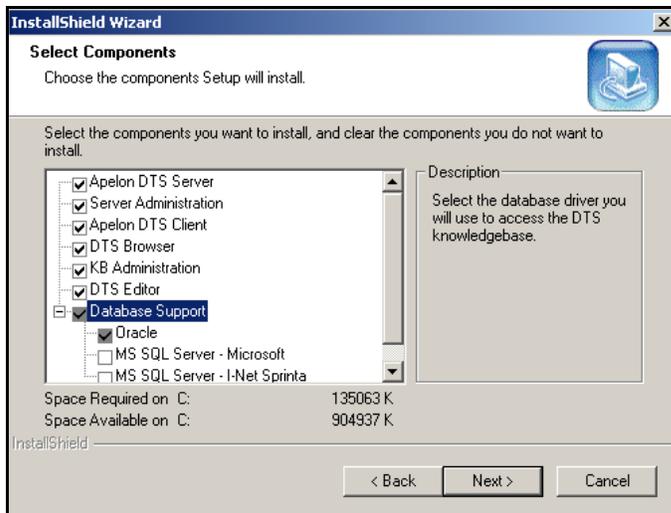


Click **Next** to install Apelon DTS in the default destination folder, or click **Browse** to select another folder.

2.3.1. Component and Database/Driver Selection

As part of the installation, you are asked to select which of the Apelon DTS components (**Apelon DTS Server**, **Server Administration**, **Apelon DTS Client**, **DTS Browser**, **KB Administration**, and **DTS Editor**) you want installed. The default is to install all of the DTS components; click the corresponding checkbox to deselect undesired components.

You can install the DTS components in various configurations, on the same machine, or each on separate machines (as long as all the machines containing the DTS components are connected by a network). The default is to install all six components on the machine on which the installer is run.



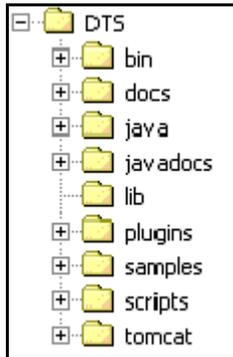
You then must specify the database on which you will maintain your DTS knowledgebase, and the driver through which the DTS Server and DTS Editor will access the data. The appropriate DTS configuration files are updated to reflect this selection.

- **Oracle** (the default) applies if you have installed either **Oracle 8i** or **Oracle 9i** to maintain your knowledgebase.
- Click **MS SQL Server – Microsoft** if you will maintain the knowledgebase in a *Microsoft SQL 2000 Server* database, and use the *Microsoft JDBC* driver.
 - A **SQL Server 2000 Type 4 JDBC** driver is required.
 - The default *Microsoft* driver is installed automatically.
- Click **MS SQL Server – I-Net Sprinta** if you will maintain the knowledgebase in a *Microsoft SQL 2000 Server* database, and use the *I-Net Sprinta JDBC* driver.
 - Note that for **Microsoft SQL 2000 Server** connections, Apelon recommends that you install the **iSprinta Enterprise™** driver (not).
 - The **iSprinta Enterprise** driver provides the multiple connections required to run and use DTS.

Click **Next** to begin installing the selected components in the location you specified. When the *Install Complete* window displays, click **Finish**.

2.4. Directory Structure and Descriptions

A complete Apelon DTS installation results in the following directory and file structure on the *Windows* PC.



2.4.1. bin

The **bin** directory contains the property files and batch files necessary for running Apelon DTS. Scripts for running tests and data needed for the tests also are in the **bin** directory.

xml Files

- *apelonserverlog.xml* contains the parameters to configure logging for the servers.
- *apelonserverprops.xml* contains the properties and values to run the Apelon DTS server.
- *drivers.xml* contains information on the JDBC drivers available (Oracle and/or SQL Server).
- *dtseeditor.xml* contains the parameters for configuring the DTS Editor.
- *dtseeditorlog.xml* contains the parameters to configure logging for the DTS Editor.
- *export-mappings.xml* contains configuration parameters by which the client can extract inter-source mapping in Common Data Format (CDF) from the local client namespaces for export (i.e., publication) to subscribers.
- *filterSpec.xml* contains the parameters by which knowledgebase data will be acquired to populate generated data **silos** (a silo is a repository of related data, populated with data based on your specifications).
- *import-mappings.xml* contains configuration parameters used to importing inter-source mappings in Common Data Format (CDF)
- *kbadmin.xml* contains the parameters to configure the connection against which the Knowledgebase Administration utility will run.
- *kbadminlog.xml* contains the parameters to configure logging for the Knowledgebase Administration utility.

- *kbadminable.xml* lists the tables that will be populated by the Knowledgebase Admin utility.
- *kbcontent-connection.xml* lets you specify connection parameters in a single location, parameters you can use to override connection parameters in the other knowledgebase configuration files. Each individual .bat file (e.g., **kbcontent-import.bat**) includes instructions on how to use these connection parameters.
- *kbcontent-delete.xml* contains the configuration parameters by which a namespace can be deleted from the DTS knowledgebase.
- *kbcontent-export.xml* contains the export configuration parameters by which namespaces in Common Data Format (CDF) are extracted from the Master knowledgebase.
- *kbcontent-import.xml* contains the export configuration parameters by which namespaces (sources) are imported in Common Data Format (CDF) in subscriptions.
- *kbcontentlog.xml* contains the configuration parameters by which a log file is generated as a result of a knowledgebase content import or export.
- *kbcontent-ora.xml* contains the data access object for Oracle that is required to run exports and imports.
- *kbcontent-publish.xml* contains the configuration parameters by which client namespace content is published for subscribers.
- *kbcontent-report.xml* contains the database connection parameters for running the **Content Change Report**. This report lists content in a local namespace that might be affected as a result of your subscription content import (specifically, associations that are linked to concepts are indicated).
- *kbcontent-sql2k.xml* contains the data access objects for SQL 2000 that are required to run exports and imports.
- *kbcontent-tablelist.xml* lists the tables that are populated with knowledgebase data.
- *kbcreate.xml* contains the parameters by which the schema will be created, and by which a connection will be made to the DTS database. These configurations are required before you can run the Knowledgebase Create utility.
- *kbcreatelog.xml* contains the parameters to configure logging for the Knowledgebase Create utility.
- *kbload.xml* contains the parameters for connecting the source and target databases when the Knowledgebase Load utility is run.
- *kbloadlog.xml* contains the parameters to configure logging for the Knowledgebase Load utility.
- *matchloadlog.xml* contains the parameters to configure logging for the MatchPack utility.
- *NamespaceStats-config.xml* lets configure parameters for running a statistics report on a specific namespace.

- *pingtestconfig.xml* contains the configuration parameters that determine which type of ping tests will be executed.
- *SelectorLog.xml* contains the parameters to configure logging when the Selector & Extractor is run.
- *selextconnection.xml* contains the server connection parameters for running the Selector & Extractor utility.

bat Files

- *acp.bat* is used by **runApp.bat** to generate the classpath and start the specified program.
- *ajc.bat* is used by **runApp.bat** to generate the call to java to start the specified program with a command window.
- *ajwc.bat* is used by **runApp.bat** to generate the call to java to start the specified program without a command window.
- *compplugins.bat* compiles a code and ID generator source file when run.
- *content-change-report.bat* generates the **Content Change Report**, which lists the content of a local namespace that might be affected as a result of your subscription content import (specifically, associations that are linked to concepts are indicated).
- *export-mappings.bat* exports mappings (associations) between source and target namespaces.
- *import-mappings.bat* imports mappings (associations) between source and target namespaces.
- *kbadmin.bat* runs the Knowledgebase Admin utility, which creates synonymous terms, mapping between concepts with similar property values in any two namespaces.
- *kbcontent-delete.bat* deletes a subscription namespace.
- *kbcontent-export.bat* exports a namespace from the Master subscription namespace.
- *kbcontent-import.bat* imports content from subscription namespaces into your knowledgebase.
- *kbcontent-publish.bat* allows Apelon clients to publish selected local namespace content for their own subscribers.
- *kbcreate.bat* runs the Knowledgebase Create utility; if this is the first time **kbcreate.bat** is being run, the utility creates all of the tables required to load data into the knowledgebase.
- *kbload.bat* runs the Knowledgebase Load utility, which loads either migrated data or new subscription data into the DTS tables.
- *LicenseUtility.bat* Apelon users who import only subscription content from Apelon are not required to run this file. This file must be run if your company, in turn, publishes content to your own subscribers.

- ***namespaceStats.bat*** retrieves information for namespaces in a given knowledgebase.
- ***pingtest.bat*** runs ping tests based on the configuration parameters in ***pingtestconfig.xml***.
- ***RemoteAdmin.bat*** allows administrators to connect to the server to check server resources, connections, and to shutdown the server from a remote site.
- ***runApp.bat*** is a script used to run Apelon products in a *Windows* environment.
- ***runApp_cw.bat*** is a script used to run applications from the **Start** menu that may need a Command window; works the same as ***runApp.bat***.
- ***runtomcat.bat*** starts or stops a local rem copy of Apache Tomcat 4.0.1.
- ***selext.bat*** starts the Selector & Extractor utility.
- ***StartApelonServer.bat*** executes the command to start the Apelon DTS Server.
- ***UserManager.bat*** provides the capability to add users for authentication on a secure socket connection to the server.

dtd Files

- ***filterSpec.dtd*** defines the selection and extraction language used.

2.4.2. bin\logs

The **logs** directory is empty at point of installation. During the operation of Apelon DTS various log files will be generated and archived in this directory.

2.4.3. docs

The **docs** directory contains the User Guides and Release Notes specific to the installed version of DTS, each in *.pdf* format. The documents are available from the *Windows* DTS **Start** menu, and can be viewed by any system that includes a copy of the Adobe Acrobat Reader.

The **ReadMe.txt** file that displays during installation also is included.

- The ***Apelon DTS Browser Operations Guide.pdf*** is the *DTS Browser Users Guide* in Adobe Acrobat portable document format.
- The ***Apelon DTS Installation Guide.pdf*** is the *DTS Installation Guide* in Adobe Acrobat portable document format.
- The ***Apelon DTS Server Operations Guide.pdf*** is the *DTS Server Operations Guide* in Adobe Acrobat portable document format.
- The ***Apelon DTS Web Developer Guide.pdf*** is the *DTS Web Developers Guide* in Adobe Acrobat portable document format.
- The ***DTS Editor.pdf*** is the *DTS Editor Users Guide* in Adobe Acrobat portable document format.
- The ***DTS Release Notes.pdf*** provides information on changes and enhancements included in the current release.

- The ***KB Administrator.pdf*** is the *Knowledgebase Administrators Guide* in Adobe Acrobat portable document format. The guide includes instructions for creating a new DTS schema, migrating data to DTS 3.0 from previous DTS versions (as well as from other databases) loading subscription data into DTS 3.0, and using the Selector & Extractor utility.
- The ***Matching Overview.pdf*** is a copy of the *DTS Matching – Quick Overview Guide* in Adobe Acrobat portable document format.
- ***ReadMe.txt*** highlights enhancements made with each release, as well as configuration and installation requirements.

2.4.4. docs\help

The **help** directory contains the various DTS User Guides in browser format; these documents comprise the online help for the Apelon DTS products. For each document there is a corresponding **files** subdirectory, each consisting of the graphics contained in each document.

2.4.5. java

The subdirectories in the **java\jdk** directory contain the files that support JDK version **1.4.2**; these directories and files are installed automatically when you install DTS.

2.4.6. javadocs

The **javadocs** directories contain the documentation that has been packaged from the source tree. These document the API used by the Apelon DTS Browser from the struts-framework. Please refer to the ***DTS Web Application Development Guide*** for more details. Open **Index.html** to view the HTML documentation.

2.4.7. lib

The **lib** directory contains the JAR files and classes necessary for running Apelon DTS.

2.4.8. plugins

The **plugins** directory contains java class plug-ins that are used with the API (e.g., the default code and ID generator class).

2.4.9. samples

The **samples** directory contains a **tutorial** subdirectory, which contains the source code for the DTS programming tutorial.

2.4.10. scripts

The **Oracle** subdirectory contains bat and sql files specific to Oracle setup.

sql Files

- *add-indexes.sql*
- *disable-constraints.sql*
- *drop-indexes.sql*
- *enable-constraints.sql*
- *perf-analyze-tables.sql*
- *setContains.sql*
- *userCreate.sql* contains the information to create the sample database user "icd."

bat Files

- *add-indexes.bat*
- *disable-constraints.bat*
- *drop-indexes.bat*
- *enable-constraints.bat*
- *loadContains.bat*
- *perf-analyze-tables.bat*
- *userCreate.bat* should be run to create the database user.

2.4.11. tomcat

Tomcat is a type of server developed by the Apache Software Foundation. It is used in the implementation of the Apelon DTS Browser included with this release. The subdirectories in the **tomcat** directory contain the files that support Tomcat; these directories and files are installed automatically when you install DTS.

2.5. Installing the Apelon Server On an AIX Machine

If you are running the Apelon Server on an AIX machine, various files copied to the *Windows* PC during installation must be copied to the AIX machine. On the AIX machine, create the directory **DTS30**, then create the subdirectories **bin\logs** and **lib**.

To the **bin** directory, FTP the following files:

- StartApelonServer
- UserManager
- RemoteAdmin
- drivers.xml
- apelonserverprops.xml
- apelonserverlog.xml

When you run the FTP process on the contents of the **bin** directory, insure that the transfer mode is set to **ascii**.

To the **lib** directory, FTP the following files:

- ApelonCommon.jar
- ApelonDTS.jar
- ApelonMatchpack.jar
- ApelonServer.jar
- classes129i.zip (for Oracle)
- jaxp-api.jar
- log4j.jar
- xerces.jar
- xercesImpl.jar
- Sprinta2000.jar (or any other SQL driver if connecting to SQL database)
 - msbase.jar
 - mssqlserver.jar
 - msutil.jar

When you use FTP to transfer contents to the **lib** directory, you must change the transfer mode to **binary**.

Before you start the server, it is necessary that you provide execute permissions to **StartApelonServer**, **RemoteAdmin**, and **UserManager**. For example, change to the **bin** directory and enter the following: **chmod +x StartApelonServer**.

3. Starting/Configuring the Apelon DTS Server

Some server configuration may be required before you to start the Apelon DTS server. Refer to the *Server Configurations* discussions in the *DTS Server Operations Guide*.

4. Creating and Preparing Your Knowledgebase

A series of tools included with DTS allow you to generate the required knowledgebase tables, populate the tables with desired data, then update and maintain the DTS knowledgebase moving forward. One utility allows you to create the required DTS schema. Other utilities allow you to populate the new DTS tables with either vocabulary subscription data provide by Apelon, or data migrated from your current DTS database.

A **Selector & Extractor** utility allows you to generate and populate individual repositories of knowledgebase data, called **silos**. Silos let you optimize searching capabilities in your knowledgebase; DTS servers try to match search strings that you specify to concepts and their associated synonyms in a specific silo.

The following points represent a high-level outline of the steps required to create and populate your DTS knowledgebase. Detailed procedures for performing all of these steps are provided in the *Knowledgebase Administrators Guide*.

1. **Create the DTS 3.0 Schema** - Regardless of whether you will populate the DTS 3.0 tables by migrating data from existing databases, or by importing new subscription data, you first must run the **Knowledgebase Create** utility.
 - **Knowledgebase Create** generates the DTS 3.0 schema.
 - **Knowledgebase Create** creates the tables that will eventually be populated with your imported subscription data or migrated data.

2. **Populate the DTS 3.0 Tables** - After you create the DTS 3.0 tables using the Knowledgebase Create utility, you can populate the new tables with data.
 - To populate your DTS knowledgebase with new subscription data, you perform a **full subscription load**.
 - To populate the tables with migrated data from your existing knowledgebase, you perform a data migration using the **Knowledgebase Load** utility.

3. **Prepare Knowledgebase** - Use the **Knowledgebase Admin** utility to create synonymous terms from property values. Also create associations between concepts in different namespaces, based on a property value containing a mapping code that points to a concept in another namespace..
 - The **Knowledgebase Admin** utility also creates entries , which are used in Ontylog class queries.
 - Synonyms and mapping associations are generated based on your specified configurations.
 - The **Knowledgebase Admin** utility also prepares designated properties for Word Match searches.

4. **Run Selector & Extractor** - The **Selector & Extractor** utility creates and populates **silos** with knowledgebase terms and associated concepts.
 - Each silo is a repository of concept terminology that contains data based on the selection and extraction parameters in a configuration file.
 - Apelon DTS lets you search a **silo** for concepts and terms that match search strings you specify.

5. Show/Hide Message Console Window - Client Applications

The *Message Console* window is a separate window that is used to display informational messages regarding the operation of the application that opened it. The Apelon DTS Editor client is normally set to start and run with the *Message Console* window hidden. This prevents you from viewing the housekeeping information that is displayed on the console by this client.

If you would prefer to have the *Message Console* window open, follow this procedure.

1. Go to **Start\Programs\Apelon\DTS**.
2. Right click on **DTS** to open the dropdown menu. Select **Open** to open the **DTS** folder.
3. Right click the client (**Apelon DTS Editor**) for which you want the console to display. Another dropdown menu displays. Select **Properties**.
4. The *Properties* dialog opens. Under **Target** a line similar to the following displays:

```
"D:\Program Files\Apelon\DTS\bin\runApp.bat" 128  
com.apelon.dts.apps.editor.DTSEditor
```
5. Change **runApp.bat** to **runApp_cw.bat**.
6. Click **OK** to save the change.

The next time you start the Apelon DTS Editor, the *Message Console* window will open.

6. Reporting Problems

Report problems to Apelon by accessing the Apelon e-customer site at <http://support.apelon.com> and completing the Support Request Form.

A second option is to send an e-mail message to support@apelon.com. Please specify the version of Apelon DTS you are using. It is helpful to include log configurations files, if any. A short example reproducing the problem is very much appreciated.

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