Apelon Distributed Terminology System (DTS)

Apelon DTS Version 3.5 Release Notes

March 2009

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Introducing DTS Version 3.5

Overview

Thanks for your interest in Version 3.5 of Apelon's Distributed Terminology System (DTS) suite of products. These *Release Notes* provide highlights of the released product, system and software requirements for supported platforms, implementation considerations, and Apelon contact information. Refer to the accompanying DTS documentation for installation, setup, and usage procedures.

DTS Editor enhancements in Version 3.5 include the addition of a concept/term **history** in the *Concept/Term Details* panel. Using the **Forward** and **Back** buttons that were added to the panel, you can navigate through concepts and terms that you viewed or edited earlier in the session.

In the DTS **APIs**, some of the methods were modified to allow for recognition and retrieval of duplicate properties, and for their display in the DTS GUI. In the **Property Type Editor**, you now can add, edit, or delete property types with a *Value Size* of **BIG**.

The **DTS Browser** now is compatible with the Firefox Browser (Red Hat Enterprise Linux 3 and 4). Additionally, code modifications now permit the Selector & Extractor utility to acquire local properties from local namespaces in order to populate a data silo.

In the event you want to classify an Ontylog Extension namespace, but lack the subscription namespace's current classification graph, the Subscription Import utility now lets you perform an import of **only** the current (required) version of the subscription namespace's **Classification Graph**. The DTS 3.5 Subset Editor allows you to specify an association type as part of your subset expression criteria.

In the **DTS KB Admin** utility, the ability to convert concept properties into synonymous terms was enhanced. For each concept property that is converted to a synonym, all qualifiers can now be converted to properties of those synonymous terms.

Highlights of new and enhanced functionality are included in these *Release Notes*. Setup and usage procedures are included in the updated *DTS User Guides*.

DTS Editor Enhancements

The following discussions highlight modifications made to the DTS Editor.

View *Concept/Term Details* Panel History Using Forward and Back Buttons

The *Concept/Term Details* panel now provides a **history** of the concepts and/or terms that were displayed previously in the same instance of the *Concept/Term Details* panel.

- Use the **Forward** and **Back** buttons to navigate through concepts and terms that you viewed or edited earlier

    o Example: If you are viewing a concept or term in the panel, then drag a different concept/term into the panel, the **Back** button becomes enabled
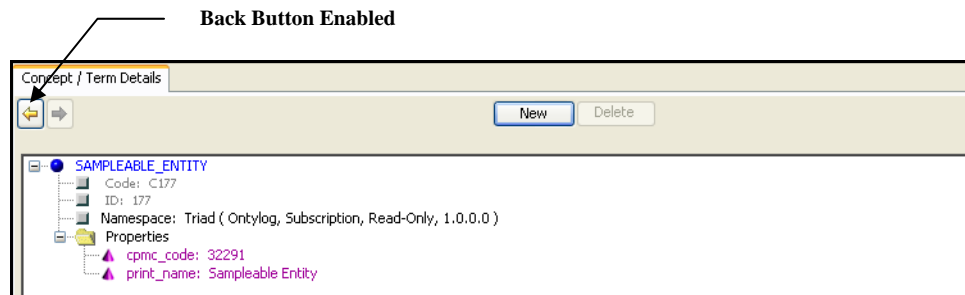
    o Click the **Back** button to review the concept/term that displayed previously (i.e., the concept/term in the panel's history)

    o The view in history always reflects the current **Configure View** setting for the *Concept/Term Details* panel

    o As soon as you click the **Back** button, the **Forward** button becomes enabled
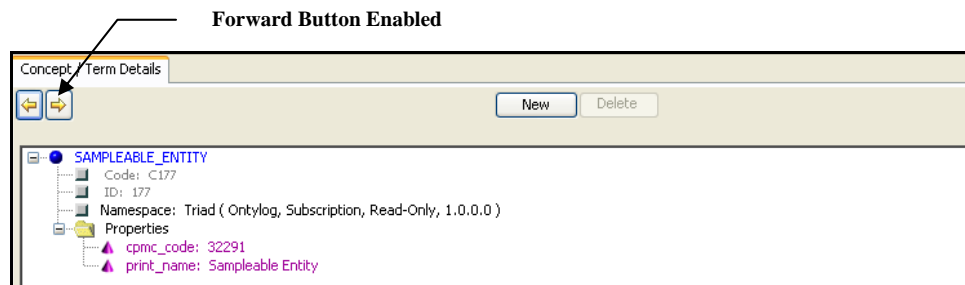
    o Click the **Forward** button repeatedly to redisplay the concept/term you dragged into the *Concept/Term Details* panel most recently

    o The button becomes disabled (grayed out) when the most recent concept is displayed

Addition, Update, and Deletion of "Big" Property Value Size Now Supported

The *Value Size* for a property type determines the maximum size of the property value string that can be assigned to properties of that type. The defined property value sizes are **Indexable** - VARCHAR2 749 (Oracle), **Searchable** – VARCHAR2 4000 (Oracle), and **Big** – BLOB (Oracle).

- In previous DTS releases, an error message displayed if you used the Property Type Editor to create, edit, or delete a property type with a *Value Size* of **Big** (even though **Big** property values were supported in the schema, and could exist in the database)

- For DTS 3.5, you can use the Property Type Editor to add, edit, or delete property types with a **BIG** *Value Size*

API Support for Duplicate Properties

In DTS Version 3.5 (as well as in previous releases), you are allowed to create **duplicate properties** for concepts and terms. These are properties of the same property type, with the identical property value (property qualifiers are **not** considered for determining whether two properties are identical).

- The API in previous DTS releases did not distinguish between duplicate properties; these lead them to be filtered out at the API level, and prevented their display in the DTS GUI.

- The appropriate DTS API methods were updated in DTS 3.5 to allow for recognition and retrieval of duplicate properties, and their display in the DTS GUI

Property Editor *Value* Field Changed to *Value* Text Area

The *Property Value* field in the *Property Editor* window was changed to a text area.

Property Value Text Area
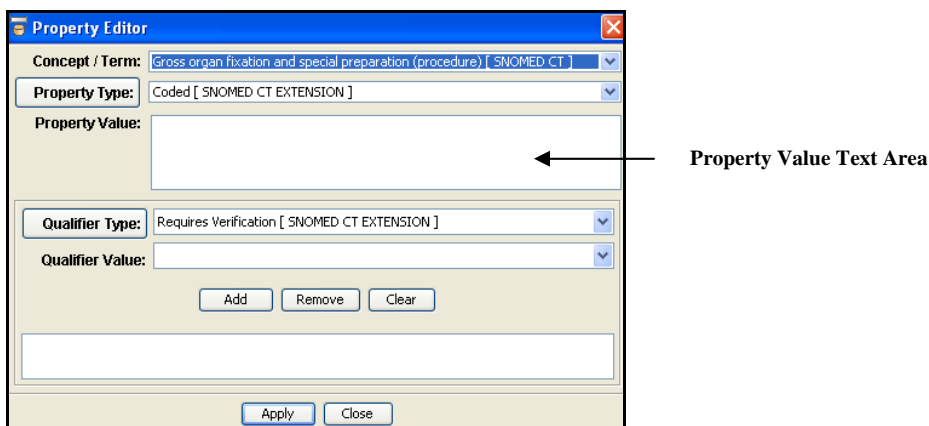
- The *Property Value* text area accommodates large amounts of text for a property value, as well as formatted text such as paragraphs, bulleted items, etc.

- The *Property Value* field in the *Add Property* window (available for a concept displayed in the *Concept/Term Details* panel) also was changed to a text area

DTS Subset Editor Enhancements

The following discussions highlight Subset Editor modifications made for DTS 3.5.

**Designate Association Types and Values as Subset Editor Expression Criteria**

Prior to the DTS 3.5 release of the Subset Editor, you could not include **associations** between concepts and terms as part of your subset expression criteria (although a workaround existed in which you could create concept properties with values that represented existing associations). The Subset Editor in DTS 3.5 allows you to specify an association type and value as part of your subset expression.

- You can add a synonym filter directly to the namespace node, or add it as an additional filter to another existing filter node.

Click to Add an Association Filter
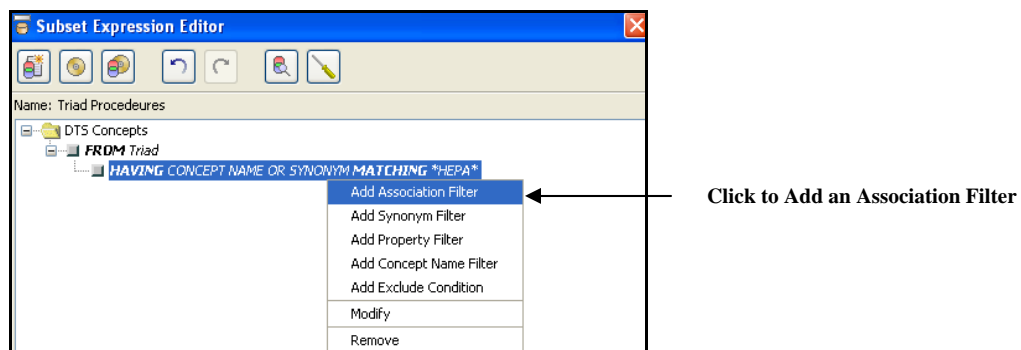
- Filter concepts based on association type, or create a more specific filter that returns only concepts with association **values** that match a specified text string

Match Both Association Type and Value
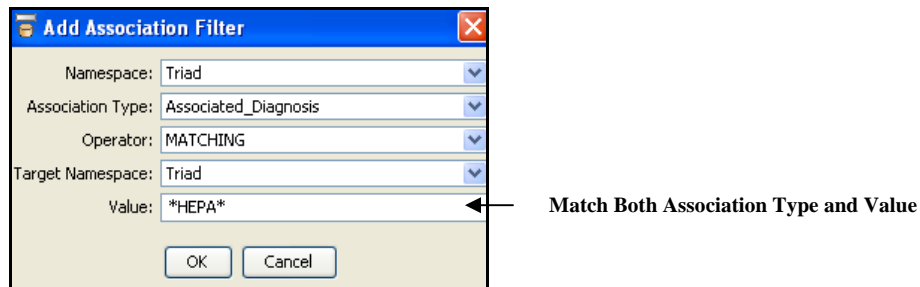
- Concepts retrieved from the **Source and Target** namespaces you designated must have both the designated association type (i.e., the type in the namespace specified in the *Namespace* field) **and** the association value text

Indicates Association Type and Value Required for Match
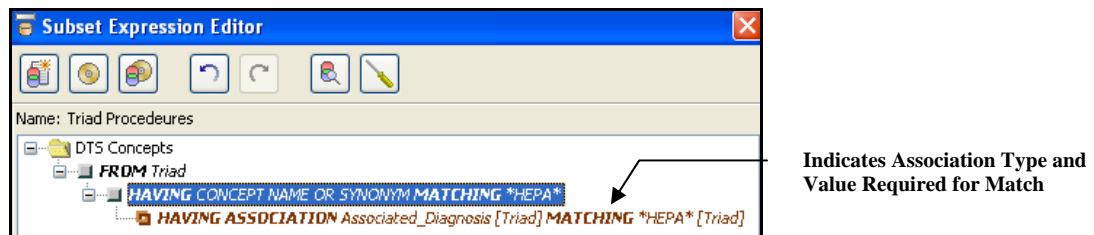
DTS Browser Enhancements

The following discussions highlight modifications made to the DTS Browser.

Multiple Browser Compatibility for DTS Browser

DTS Browser features now function identically using a variety of Internet browsers in addition to the Microsoft Internet Explorer. The DTS Browser now is compatible with the following Internet browsers:

- All Windows versions: Internet Explorer 6.x, 7

- Red Hat Enterprise Linux 4: Firefox 1.5, 2.0

- Red Hat Enterprise Linux 3: Firefox 1.5, 2.0

DTS Subscription Import Enhancements

The following discussions highlight **DTS Subscription Import Wizard** modifications.

Perform Import of Classification Graph Only

To classify an Ontylog Extension namespace, the linked subscription namespace must have a Classification Graph with the version that matches the subscription version. However, a situation may exist in which a subscription namespace that you imported does not have the current version of the classification graph. For example, during the previous update import you may have chosen to delete the outdated graph, and perform the subscription import without the graph.

- With DTS Version 3.5, you can perform an import that includes only the current version of a subscription namespace's **Classification Graph**

- The **kbcontent-import-diff.xml** file is included with the import update content for each namespace, and contains version information for the target namespace into which you are importing updated content; the **kbcontent-import-diff.xml** file is illustrated

```
<?xml version="1.0" ?>

<!--
    ########################################################################
    # This is configuration file used to import namespaces (sources)       #
    # provided in Common Data Format supplied by Apelon Inc.               #
    ########################################################################
-->

<!DOCTYPE DBConfig SYSTEM "http://apelon.com/dtd/util/db/dbconfig.dtd">
 <DBConfig>
          <!-- Content Type (full or diff) -->
          <property name="contentType" value="full" />

          <!-- Namespace(s) to import (Client KB) -->
          <namespace name="SNOMED CT" >
                    <property name="add" value="true" />
          </namespace>

          <!-- New Version In (in CDF) -->
          <property name="newVersionIn" value="2005.07.5AB" />

          <!-- Version number for content (DTS_VERSION.ID in CDF) -->
          <property name="versionNumber" value="20050731" />

          <!-- Version Out (Client KB) -->
          <property name="versionOut" value="NOT_RETIRED" />
          <property name="graphOnly" value="true" />          ◄─── Add Property
                                                                   with Value "true"

          <!-- ~~~~ Advanced Setup ~~~~ -->
          <!--     importType=DATA/SQL  defualt value{DATA}}, fileExtension=.txt/.sql defualt{.txt} -->
          <!-- <property name="importType" value="SQL" /> -->
          <!-- <property name="fileExtension" value=".sql" /> -->

 </DBConfig>
```

- To perform the update import for only the classification graph, add the following
  property with the value "**true**" to the **kbcontent-import-diff.xml** file, then save
  the file:

  <property name="graphOnly" value="true" />

- When you use the Subscription Import Wizard to import the graph, the **Import
  Type** and **Remarks** reflect that you are importing the classification graph only

Import of Classification Graph Only

Import of Classification Graph Only
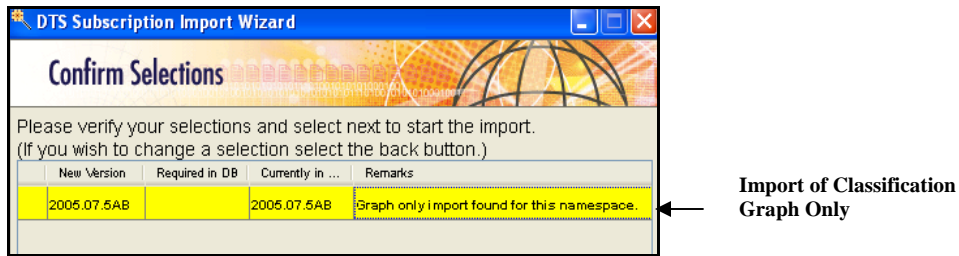
DTS KB Admin Enhancements

The following discussion highlights **DTS KB Admin** utility modifications.

Conversion of Concept Properties to Synonyms Enhanced to Include Qualifiers

Previous versions of the DTS KB Admin utility included the ability to convert concept properties into synonymous terms.

- Concept property definitions are converted to DTS synonym association types

    o Each configured concept property value is converted to a DTS term

    o Each of these terms (from a property value) is associated to the concept from which the original concept property was attached as a synonym

- In DTS 3.5, for each concept property that is converted to a synonym, all configured qualifiers now will be converted to term properties of those synonymous terms

Other DTS Enhancements

Selector & Extractor Recognizes Local Namespace Properties to Populate Silos

The **Selector & Extractor** utility creates data **silos** that may optimize knowledgebase searches. Each silo can be populated with terms and associated concepts acquired from one or more namespaces, based on customized **filterSpec.xml** file specifications.

For the **Selector** portion of the Selector & Extractor, you can specify data selection parameters based on the existence of specific **properties**, or properties with specific values

- In previous DTS versions, the ability of the Selector & Extractor to acquire local property definitions (i.e., those from local namespaces) was not supported

- Code modifications in DTS Version 3.5 permit the Selector & Extractor to acquire these local properties (neither the **filterSpec.xml** or **filterSpec.dtd** file was modified to accomplish this enhancement)

DTS Batch Processing Enhancement

The "ajc.bat" and "ajwc.bat" files, used to generate the call to java or javaw to kick of a specified program, now allow the use of an environment variable that can be preset with Java system properties for custom programs to utilize.

Use the following syntax in "ajc.bat" or "ajwc.bat" to pass the desired java system properties:

- set JAVAVMPARAMS=%JAVAVMPARAMS% -D<property>=<value>

- call runApp_cw 512 <class name>

  - <property> - property to pass

  - <value> - value of the property

  - <class name> - Class run using runApp_cw.bat

System and Software Requirements

The minimum hardware and software versions required to install and run DTS 3.5 are listed in this section.

Minimum System Requirements (Server)

- Pentium© 4 Processor

- 1G RAM

- 50G available hard drive space

    o This is the recommended available hard drive space, based on a single hard drive being used for both the DTS Server and a DTS Knowledge base configured with SNOMED

    o Actual available hard drive space must be sufficient to accommodate the DTS installation (~200M) as well as the space requirements for your specific knowledgebase configuration

Minimum Software Requirements (Server)

Supported Operating System Platforms

- Microsoft *Windows*

    o *Windows* XP Professional

    o *Windows* Server 2003

- Linux

    o Redhat Enterprise Linux 3 ES

    o Redhat Enterprise Linux 4 ES

> Supported platforms require that the DTS Server and the DTS Knowledgebase both be installed under the same platform type (*Windows* or Linux). Also, the DTS Editor is not supported on Linux.

Supported Databases

- *Windows*

    o Oracle 9i Standard or Enterprise Edition

    o Oracle 10g Standard or Enterprise Edition

    o MS SQL Server 2000

        ▪ If **Microsoft SQL 2000 Server** is used, an SQL Server 2000 Type 4 JDBC driver also is required (the default **Microsoft** drivers are installed automatically if this option is selected)

        ▪ For **Microsoft SQL 2000 Server** connections, Apelon recommends that you obtain and install the **iSprinta Enterprise**™ driver (not included); this 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/products/jdbc/mssql/sprinta/**   Download the file from the provider and save the jar files to the *DTSInstall***\lib** directory of the Apelon DTS installation (where *DTSInstall* represents the folder name used when DTS was installed).

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

    o MS SQL Server 2005

- Linux

    o Oracle 9i Standard or Enterprise Edition

    o Oracle 10g Standard or Enterprise Edition

Windows installations support both Oracle and MS SQL databases

The Microsoft SQL Server 2005 driver that is distributed with this release is compatible with MS SQL Server 2005. Other Type 4 JDBC drivers that are JDBC 3.0 compliant and run on the Java Runtime Environment (JRE) 1.5 may also work but are not tested and are not officially supported.

MS SQL Server is not supported when DTS is installed on a Linux platform

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Supported Browsers

- Internet Explorer **6.0** or **7.0**

- Firefox **1.5** or **2.0**

Java

- JDK **1.5**

  o DTS 3.5 includes Version 1.5 of the Sun **Java Development Kit** (JDK) and the Java Runtime Environment (JRE)

  o DTS 3.5 software was compiled using JDK Version **1.5.0_06**

  o This installation of Java 1.5 will be visible to DTS only (existing Java installations on the target machine are not affected)

- JRE **1.5**

- The required Java files are installed automatically in a **java** directory under the DTS installation (*DTSInstall***java**)

Tomcat

- Tomcat **5.5**

DTS.NET

- NET Framework Version 1.1.
  o Requires separate download of the corresponding DTS .NET dll

  o Windows .NET support is limited to DTS API's for use in .NET application development environments

- To run DTS applications on Unix (except for the DTS Browser) you must install the version of the Unix JRE that is appropriate for your machine

  o If you install a version of the Unix JRE, you must create the subdirectories java/jre (if these directories do not exist)

    ▪ You then must install the Unix JRE in DTS/java/jre in order for batch files to function

    ▪ A bin directory (DTS/java/jre/bin) is created when you install the Unix JRE; DTS batch files look for the java executable in DTS/java/ jre/bin/java.exe

- o If you intend to use Tomcat to run the DTS Browser Web application on Unix, you must install the version of the Unix JDK that is appropriate for your machine

- o If 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

- Because differences between Unix platforms may exist, Apelon cannot guarantee that scripts included with DTS 3.5 will run on all Unix platforms. For information on support of other Unix platforms, please contact Apelon Customer Support

- For Oracle Server customers who install DTS 3.5, Apelon recommends that you implement the Redundant Arrays of Inexpensive Disks, Level 5 (**RAID 5**) controller on the server where the database is located.

  - o Your DTS search performance may be optimized by implementing **RAID**.

  - o Refer to the discussions at this link for an overview on using **RAID** with Oracle: **http://help.netscape.com/kb/corporate/19970930-3.html**

Implementation Considerations

Modify Tomcat Port for Multiple DTS Installations on Same Machine

The version of Tomcat that is bundled with DTS Version 3.5 is preset to use port **8081**. If you have multiple versions of DTS (e.g., **DTS 3.4**, **DTS 3.5**) installed on the same machine, you should modify the port number for the current installed version using this procedure.

1. Navigate to *DTSInstall***tomcat\conf**.

2. Locate the file **server.xml** and open it in Notepad.

3. Locate the following section of the file:

```
<!-- Define a non-SSL HTTP/1.1 Connector on port 8080 -->
<Connector className="org.apache.catalina.connector.http.HttpConnector"
           port="8081" minProcessors="5" maxProcessors="75"
           enableLookups="true" redirectPort="8443"
       acceptCount="10" debug="0" connectionTimeout="60000"/>
```

4. Change the number in: **port="8081"** to another port number.

5. Save the file.

6. Restart the Tomcat Server to implement the change.

Note: A similar conflict can occur with the Apelon DTS Server, as the default port **6666** will be used by both DTS 3.4 and DTS 3.5.

Contacting Apelon

Apelon welcomes your suggestions and comments.

- For Customer Support, please send email messages to: **support@apelon.com**.

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

  - Indicate the software version you are using.

  - An example illustrating the problem is appreciated.

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