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Apelon Distributed Terminology System (DTS)

Extension Namespace Role Types

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June 2007

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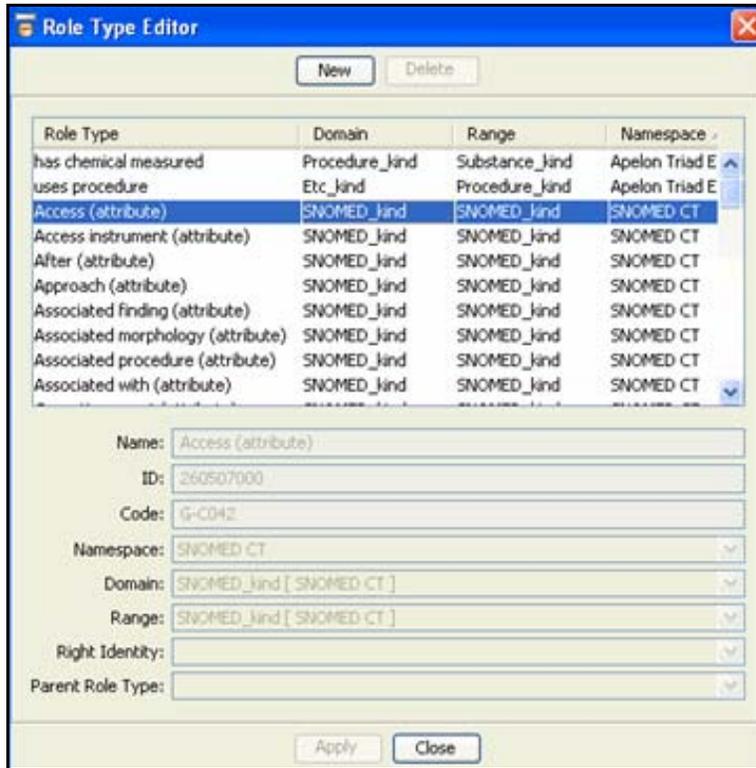
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Overview

This document describes the Extension Namespace Role Type definition capabilities developed by Apelon for the DTS Editor. These capabilities enable the creation of new types of defining relationships (Roles) for use within Ontylog Extension namespaces. Classifier support of these new capabilities is also provided (i.e., the Classifier takes these new types of role relationships into account during classification).

Role Type Editor Window for DTS Editor

A *Role Type Editor* window is included in the DTS Editor for the creation of **Extension Role Types**. Select **Role Types** from the **Tools** menu to display the *Role Type Editor* window.



The table in the upper portion of the window lists each role type, along with its Domain kind, Range kind, and Namespace. (The table can be sorted by clicking on the heading of a column; repeated clicking toggles the sort order between ascending and descending order.)

Create an Extension Role Type

- Click **New** to enable the data entry fields in the lower portion of the window.
 - In the *Name* field, enter a name that identifies the role type you are creating
 - Note that the *ID* and *Code* fields are disabled because those values will be generated automatically
 - Specify the Namespace for which you are creating the role type; click the dropdown icon to display the namespace list (Extension Role Types can be created for **Ontylog Extension** namespaces only)

- A role type acts as a “mapping” between two kinds, i.e., from the “domain” kind to the “range” kind; in the Domain field; click the dropdown icon to display the complete list of kinds available in the specified namespace, then click the appropriate domain kind to select it for this role type
- In the *Range* field, click the dropdown icon to display the complete list of kinds available in the specified namespace, then click the appropriate kind to select it for this role type
- Right identities optionally allow subsumption inferences to be made across concepts in specialized cases by means of suitably connected roles. Leave the *Right Identity* field blank if you are not specifying a right identity. Alternatively, in the *Right Identity* field, click the dropdown icon to display the list of role types available to act as right identities for this new role type (i.e., role types defined in the base Ontylog namespace or other role types defined in the same extension namespace).
- Parent role types optionally allow role types themselves to be organized in a generalization hierarchy, in which case subsumption inferences will account for relationships between more general and more specific roles. Leave the *Parent Role Type* field blank if you are not specifying a parent role type. Alternatively, in the *Parent Role Type* field, click the dropdown icon to display the list of role types available to act as parent roles for this new role type (i.e., role types defined in the base namespace or other role types defined in the same extension namespace).
- Click **Apply** to update the Extension namespace with the new role type
 - The new role type is added to the table in the upper portion of the *Role Type Editor* window
 - The *Role Type Editor* window remains displayed; you can optionally click **New** again to create additional extension role types
- Click **Close** to close the *Role Type Editor* window

View a Role Type

The table in the upper portion of the *Role Type Editor* window lists all the role types defined in DTS, including base Ontylog namespaces and Ontylog extension namespaces. To view the definition of a particular role type, click its row in the table. Note that the definitions of role types defined in base Ontylog namespaces are grayed out, because they are not editable.

Update an Extension Role Type

To update the definition of a particular extension role type, click its row in the table shown in the upper portion of the *Role Type Editor* window, change its details as desired, then click **Apply** to update the Extension namespace accordingly. Alternatively, click **Close** if you decide not to update the Extension namespace.

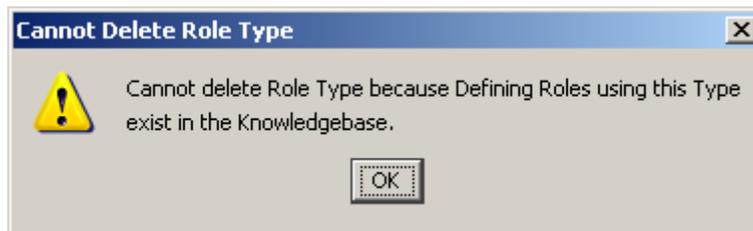
Note that the definitions of role types defined in base Ontylog namespaces are grayed out; they can not be updated.

Also note that the *Code*, *ID* and *Namespace* of role types can not be changed. When a role type is used in one or more roles (within concept definitions), only the name of the role type can be modified. Fields which cannot be modified are grayed out.

Delete an Extension Role Type

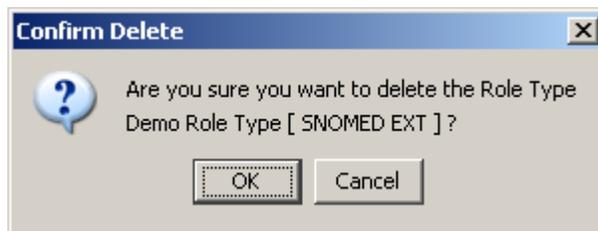
To delete a particular extension role type, click its row in the table shown in the upper portion of the *Role Type Editor* window, then click **Delete**.

If the selected extension role type is currently being used by one or more defining roles, then the extension role type can not be deleted, and a window similar to the following will appear.



In that case, click **OK** to acknowledge the message.

Alternatively, if the selected extension role type is not being used, a confirmation window similar to the following will appear:



Click **OK** to proceed with deletion, or **Cancel** if you change your mind.

Note that the definitions of role types defined in base Ontylog namespaces are grayed out; they can not be deleted.

Extension Role Types in *Concept/Term Details* Panel

The *Concept/Term Details* Panel of the DTS Editor makes extension role types available for editing concepts in the same extension namespace (and no other namespace). Refer to the guide on *Ontylog Extension Namespaces and Extension Namespace Classification in DTS* regarding use of role types when editing concepts.

Extension Role Types in *Search* Panel

The *Search* Panel of the DTS Editor makes extension role types available for searching concepts. The Search By Role option *filters in* extension role types for an extension namespace being searched, and filters out other extension role types. The Search By Inverse Role option works similarly. To search by inverse role for concepts in both a base Ontylog namespace or an Ontylog extension namespace, according to extension role types defined in that extension namespace, specify **All** namespaces. Refer to the *DTS Editor Users Guide* regarding general use of role types for searching.

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