

get_modifiers

The **get_modifiers** message returns all the modifiers of a particular term. A client may want a list of all modifiers for a given term.

Populating Modifiers of Tree Nodes

The **get_modifiers** message is used to populate the modifier tree nodes in the ontology Navigate Terms tool. The table / path (root) to search are known. The sequence of events is as follows:

1. The client sends a message with the *type = core*.
2. The ONT server performs the following steps:
 - a. Parses <self> to obtain the table key and path. Queries the table of tables to confirm that the user / role can access the table that is referenced by the table key passed in. If not, return coded error.
 - b. The database is queried for the entire list of modifiers whose C_ORIGINAL_ITEM meets the criteria specified by the path.
1. The client receives a list of modifiers and populates the tree.
2. If error, the client receives the error message with the code TABLE_ACCESS_DENIED.

get_modifiers Request Message

A **get_modifiers** message implies that the user is passing a key / path for a term ("self") and wants its modifiers returned. The <self> tag will tell the service what metadata table / path to search in and for the **get_modifiers** message must be specified. The structure of term "self" is organized as follows:

\\table_key\path

The key (i2b2) plus the path (Diagnoses\Circulatory system (390-459)) is the term:

<parent>\\i2b2\Diagnoses\Circulatory system (390-459)</parent>

The remaining attributes provide information about the results to be returned. The **hiddens** and **synonyms** attributes tell whether to return **hiddens** and **synonyms**. By default **hiddens** and **synonyms** are false, so if they are left out it will be false. The **type** tells which columns to select (default / core / all). By default, the **type** is set to default so you don't have to actually include it if you want the default set of columns returned. Each message will interpret "default" to be a different set of columns. **get_modifiers** default set of columns includes all columns except the blob and the system / date information. Likewise if **attributes = core**, then all columns except the blob and the system / date information will be returned. If **attributes = all** then all columns except the blob are returned. The **blob** attribute indicates whether or not to return the blob along with the default / core / all return columns.

Example:

```
<message_body>  
<get_modifiers hiddens="true" synonyms="true" type="core" blob="false">  
<self>\\i2b2\Diagnoses\Circulatory system (390-459)</self>  
</get_modifiers>  
</message_body>
```

Possible "hiddens" Settings

Some modifiers exist but for various reasons are not displayed in the query tree.

Value	Description
false	Do not return data categorized as "hidden"
true	Include data categorized as "hidden"

Possible "synonyms" Settings

Some modifiers are listed as synonyms for other modifiers.

Value	Description
false	Do not return data categorized as "synonym"
true	Include data categorized as "synonym"

Possible "type" Settings

Value	Description
default	Return all data except system / date information
core	Return all data except system / date information (same as default)
all	Return all data

Possible "blob" Settings

Value	Description	Example
false	Do not return data stored as a blob or clob	xml, comments
true	Return xml and comments	

get_modifiers Response Message

The request has the following settings:

type=core
blob=false

Response Message:

```
<message_body>
<ns6:modifiers>
<modifier>
<level>1</level>
<applied_path>i2b2\Diagnoses%</applied_path>
<key>\i2b2_DIAG\Mild{color:#0000ff}</key>
<fullName>\Mild{color:#0000ff}</fullName>
<name>Mild</name>
<visualattributes>RA </visualattributes>
<synonym_cd>N</synonym_cd>
<totalnum xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:nil="true" />
<basecode>mild</basecode>
<tooltip>Mild</tooltip>
</modifier>
<modifier>
<level>1</level>
<applied_path>i2b2\Diagnoses%</applied_path>
<key>\i2b2_DIAG\Moderate{color:#0000ff}</key>
<fullName>\Moderate{color:#0000ff}</fullName>
<name>Moderate</name>
<visualattributes>RA </visualattributes>
<synonym_cd>N</synonym_cd>
<totalnum xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:nil="true" />
<basecode>moderate</basecode>
<tooltip>Moderate</tooltip>
</modifier>
<modifier>
<level>1</level>
<applied_path>i2b2\Diagnoses%</applied_path>
<key>\i2b2_DIAG\Severe{color:#0000ff}</key>
<fullName>\Severe{color:#0000ff}</fullName>
<name>Severe</name>
<visualattributes>DA </visualattributes>
<synonym_cd>N</synonym_cd>
<totalnum xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:nil="true" />
<basecode>severe</basecode>
<tooltip>Severe</tooltip>
</modifier>
</ns6:modifiers>
</message_body>
```