

# UMLS SemNet Mapping

## Contents of this Page

- Coding Scheme
- Entities
- Relations

## Coding Scheme

| <i>RRF<br/>File<br/>Name</i> | <i>RRF<br/>Column<br/>Name</i> | <i>RRF<br/>Definition</i> | <i>NCI<br/>Meta<br/>only</i> | <i>LexGrid Model<br/>Element</i>              | <i>Comments</i>                                                                                                                                                                                                                                                         |
|------------------------------|--------------------------------|---------------------------|------------------------------|-----------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                              |                                |                           | NA                           | codingScheme.<br>representsVersion            | No comments                                                                                                                                                                                                                                                             |
|                              |                                |                           | NA                           | codingScheme.<br>codingSchemeName             | hard coded in java file as "UMLS_SemNet"                                                                                                                                                                                                                                |
|                              |                                |                           | NA                           | codingScheme.<br>formalName                   | hard coded in java file as "UMLS Semantic Network"                                                                                                                                                                                                                      |
|                              |                                |                           | NA                           | codingScheme.<br>defaultLanguage              | hard coded in java file as "en"                                                                                                                                                                                                                                         |
|                              |                                |                           | NA                           | codingScheme.<br>approxNumConcepts            | hard coded in java file as                                                                                                                                                                                                                                              |
|                              |                                |                           | NA                           | codingScheme.<br>entityDescription            | hard coded in java file as "The UMLS Semantic Network is one of three UMLS Knowledge Sources developed as part of the Unified Medical Language System project. The network provides a consistent categorization of all concepts represented in the UMLS Metathesaurus." |
| license.txt                  |                                |                           | NA                           | codingScheme.<br>copyright                    | Read from license.txt file or hard coded reference in java file                                                                                                                                                                                                         |
|                              |                                |                           | NA                           | codingScheme.<br>codingSchemeURI              | hard coded in java file as "urn:lsid.nlm.nih.gov:semnet"                                                                                                                                                                                                                |
|                              |                                |                           | NA                           | codingScheme.<br>relations.<br>containerName  | hard coded in java file as "relations"                                                                                                                                                                                                                                  |
|                              |                                |                           |                              |                                               |                                                                                                                                                                                                                                                                         |
|                              |                                |                           | NA                           | codingScheme.<br>localNameList                | No comments                                                                                                                                                                                                                                                             |
|                              |                                |                           | NA                           | codingScheme.<br>localNameList.               | hard coded in java file as "UMLS_SemNet"                                                                                                                                                                                                                                |
|                              |                                |                           | NA                           | codingScheme.<br>localNameList                | No comments                                                                                                                                                                                                                                                             |
|                              |                                |                           | NA                           | codingScheme.<br>localNameList.               | No comments                                                                                                                                                                                                                                                             |
|                              |                                |                           | NA                           | codingScheme.source                           | No comments                                                                                                                                                                                                                                                             |
|                              |                                |                           | NA                           | codingScheme.source.<br>content               | No comments                                                                                                                                                                                                                                                             |
|                              |                                |                           | NA                           | codingScheme.<br>localNameList                | No comments                                                                                                                                                                                                                                                             |
|                              |                                |                           | NA                           | codingScheme.<br>localNameList.               | No comments                                                                                                                                                                                                                                                             |
|                              |                                |                           | NA                           | codingScheme.<br>localNameList.               | No comments                                                                                                                                                                                                                                                             |
|                              |                                |                           | NA                           | codingScheme.<br>localNameList                | No comments                                                                                                                                                                                                                                                             |
|                              |                                |                           | NA                           | codingScheme.<br>localNameList.               | No comments                                                                                                                                                                                                                                                             |
|                              |                                |                           | NA                           | codingScheme.<br>localNameList.               | No comments                                                                                                                                                                                                                                                             |
|                              |                                |                           | NA                           | codingScheme.<br>localNameList.               | No comments                                                                                                                                                                                                                                                             |
|                              |                                |                           | NA                           | codingScheme.<br>localNameList.               | No comments                                                                                                                                                                                                                                                             |
|                              |                                |                           | NA                           | mappings.<br>supportedFormat                  | No comments                                                                                                                                                                                                                                                             |
|                              |                                |                           | NA                           | mappings.<br>supportedFormat.<br>localId      | hard coded in java file as "text/plain"                                                                                                                                                                                                                                 |
|                              |                                |                           | NA                           | mappings.<br>supportedFormat.uri              | hard coded in java file as "urn:oid:2.16.840.1.113883.6.10:text_plain"                                                                                                                                                                                                  |
|                              |                                |                           | NA                           | mappings.<br>supportedAssociation             | No comments                                                                                                                                                                                                                                                             |
| SRDEF                        | RL                             |                           | NA                           | mappings.<br>supportedAssociation.<br>localId | No comments                                                                                                                                                                                                                                                             |
|                              |                                |                           | NA                           | mappings.<br>supportedContext                 | No comments                                                                                                                                                                                                                                                             |

|       |     |  |    |                                                |                                                                                                                                        |
|-------|-----|--|----|------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|
|       |     |  | NA | mappings.supportedSource                       | No comments                                                                                                                            |
|       |     |  | NA | mappings.supportedSource.localId               | hard coded in java file as "NLM"                                                                                                       |
|       |     |  | NA | mappings.supportedSource.uri                   | hard coded in java file as "urn:lsid.nlm.nih.gov"                                                                                      |
|       |     |  | NA | mappings.supportedHierarchy                    | No comments                                                                                                                            |
|       |     |  | NA | mappings.supportedHierarchy.localId            | hard coded in java file as "is_a"                                                                                                      |
|       |     |  | NA | mappings.supportedHierarchy.isForwardNavigable | hard coded as "true"                                                                                                                   |
|       |     |  | NA | mappings.supportedHierarchy.rootCode           | hard coded as "@"                                                                                                                      |
|       |     |  | NA | mappings.supportedHierarchy.associationList    | hard coded in java file as "hasSubtype"                                                                                                |
|       |     |  | NA | mappings.supportedAssociationQualifier         | No comments                                                                                                                            |
| SRFLD | COL |  | NA | mappings.supportedProperty                     | No comments                                                                                                                            |
|       |     |  | NA | mappings.supportedProperty.localId             | If SRDEF appears in the FIL column then this is treated a potential supported property and is entered in supported properties as such. |
|       |     |  | NA | mappings.supportedProperty.uri                 | hard coded in java file as ""                                                                                                          |
|       |     |  | NA | mappings.supportedLanguage                     | No comments                                                                                                                            |
|       |     |  | NA | mappings.supportedLanguage.localId             | hard coded in java file as "en"                                                                                                        |
|       |     |  | NA | mappings.supportedLanguage.uri                 | hard coded in java file as "urn:oid:2.16.840.1.113883.6.84:en"                                                                         |
|       |     |  | NA | mappings.supportedCodingScheme                 | No comments                                                                                                                            |
|       |     |  | NA | mappings.supportedCodingScheme.localId         | hard coded in java file as "UMLS_SemNet"                                                                                               |
|       |     |  | NA | mappings.supportedCodingScheme.uri             | hard coded in java file as "urn:lsid.nlm.nih.gov:semnet"                                                                               |
|       |     |  | NA | mappings.supportedRepresentationalForm         | No comments                                                                                                                            |
|       |     |  | NA | mappings.supportedConceptStatus                | No comments                                                                                                                            |
|       |     |  | NA | mappings.supportedPropertyLink                 | No comments                                                                                                                            |
|       |     |  | NA | mappings.supportedPropertyQualifier            | No comments                                                                                                                            |
|       |     |  | NA | mappings.supportedDataType                     | No comments                                                                                                                            |

## Entities

| <i>RRF File Name</i> | <i>RRF Column Name</i> | <i>RRF Definition</i> | <i>NCI Meta only</i> | <i>LexGrid Model Element</i>                                                 | <i>Comments</i>                                                                                  |
|----------------------|------------------------|-----------------------|----------------------|------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|
| SRDEF                | UI                     |                       | NA                   | Entity.entityCode                                                            | No comments                                                                                      |
| SRDEF                | STY/RL                 |                       | NA                   | Entity.entityDescription(inheritance path Entity->versionableAndDescribable) | No comments                                                                                      |
|                      |                        |                       | NA                   | Entity.Property                                                              | No comments                                                                                      |
| SRDEF                | NH                     |                       | NA                   | Entity.Property.text.content                                                 | No comments                                                                                      |
|                      |                        |                       | NA                   | Entity.Property.value.text.dataType                                          | hard coded in java file as "text/plain"                                                          |
|                      |                        |                       | NA                   | Entity.Property.propertyName                                                 | hard coded in java file as "NH"                                                                  |
|                      |                        |                       | NA                   | Entity.Property.propertyId                                                   | Generated value for property using "P" concatenated with a steadily incremented numerical value. |
|                      |                        |                       | NA                   | Entity.presentation                                                          | No comments                                                                                      |
|                      |                        |                       | NA                   | Entity.presentation.propertyName (inherited from Property)                   | Hard coded in java file as "STY/RL" or "ABR"                                                     |
|                      |                        |                       | NA                   | Entity.presentation.propertyId                                               | Generated value for property using "P" concatenated with a steadily incremented numerical value. |
| SRDEF                | STY/RL, ABR            |                       | NA                   | concept.presentation.text.content                                            | No comments                                                                                      |
|                      |                        |                       | NA                   | Entity.presentation.value.text.dataType                                      | hard coded in java file as "text/plain"                                                          |
|                      |                        |                       | NA                   | Entity.presentation.isPreferred                                              | hard coded in java file as true.                                                                 |
|                      |                        |                       | NA                   | Entity.definition.propertyName (inherited from Property)                     | Hard coded in java file as "DEF"                                                                 |

|       |     |  |    |                                                           |                                                                                                  |
|-------|-----|--|----|-----------------------------------------------------------|--------------------------------------------------------------------------------------------------|
|       |     |  | NA | concept.definition.propertyId                             | Generated value for property using "P" concatenated with a steadily incremented numerical value. |
| SRDEF | DEF |  | NA | Entity.definition.text.content                            | No comments                                                                                      |
|       |     |  | NA | Entity.definition.value.text.dataType                     | hard coded in java file as "text/plain"                                                          |
|       |     |  | NA | Entity.definition.isPreferred                             | hard coded in java file as true.                                                                 |
|       |     |  | NA | Entity.comment                                            | No comments                                                                                      |
| SRDEF | EX  |  | NA | Entity.comment.propertyName (inherited from Property)     | Hard coded in java file as "EX"                                                                  |
|       |     |  | NA | Entity.comment.text.content                               |                                                                                                  |
|       |     |  | NA | Entity.comment.value.text.dataType                        | hard coded in java file as "text/plain"                                                          |
|       |     |  | NA | Entity.comment.propertyId                                 | Generated value for property using "P" concatenated with a steadily incremented numerical value. |
|       |     |  | NA | Entity.instruction                                        | No comments                                                                                      |
|       |     |  | NA | Entity.instruction.propertyName (inherited from Property) | Hard coded in java file as "UN"                                                                  |
| SRDEF | UN  |  | NA | Entity.instruction.text.content                           | No comments                                                                                      |
|       |     |  | NA | Entity.instruction.value.text.dataType                    | hard coded in java file as "text/plain"                                                          |
|       |     |  | NA | Entity.instruction.propertyId                             | Generated value for property using "P" concatenated with a steadily incremented numerical value. |

## Relations

| <i>RRF<br/>File<br/>Name</i> | <i>RRF<br/>Column<br/>Name</i> | <i>RRF<br/>Definition</i> | <i>NCI<br/>Meta<br/>only</i> | <i>LexGrid Model Element</i>                                                                                              | <i>Comments</i>                                                                                                        |
|------------------------------|--------------------------------|---------------------------|------------------------------|---------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|
| SRSTR                        | RL                             |                           | NA                           | AssociationPredicate.associationName                                                                                      | In the case of RL value is "isa" the id is hard coded to hasSubtype. The direction of the association is also reversed |
|                              |                                |                           | NA                           | AssociationEntity.isTransitive                                                                                            | hard coded to true if the value of RL is "isa"                                                                         |
| SRSTR                        | RL                             |                           | NA                           | AssociationEntity.forwardName                                                                                             | Reversed when value of RL is "isa"                                                                                     |
| SRSTR                        | STY/RL                         |                           | NA                           | AssociationSource.sourceEntityCode                                                                                        | Reversed when value of RL is "isa"                                                                                     |
| SRSTR                        | STY/RL                         |                           | NA                           | AssociationTarget.targetEntityCode                                                                                        | No comments                                                                                                            |
| SRDEF                        | RIN                            |                           | NA                           | AssociationEntity.reverseName                                                                                             | No comments                                                                                                            |
| SRDEF                        | DEF                            |                           | NA                           | AssociationEntity.entityDescription.content (inheritance path for entityDescription is Entity->versionableAndDescribable) | When SRDEF value RT is "RL"                                                                                            |
| SRSTRE1                      | UI/STY(first argument)         |                           | NA                           | AssociationSource.sourceEntityCode                                                                                        | Reversed when value of RL is "isa"                                                                                     |
| SRSTRE1                      | UI/STY(2nd argument)           |                           | NA                           | AssociationTarget.targetEntityCode                                                                                        | Reversed when value of RL is "isa"                                                                                     |