LexEVS 6.x UMLS Mappings

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This section will be updated with the RRF loader enhancements implemented in LexEVS v5.1 and LexEVS 6.0. Until then, go to section 3 - LexEVS 5.x Loader Source Mapping of this guide.

UMLS Mapping Coding Scheme

RRF File Name	RRF Column Name	RRF Definition	NCI Meta only	LexGrid Model Element	Comments
MRSAB.RRF	SVER	Release date or version number of a source	NA	codingScheme. representsVersion	No comments
MRSAB.RRF	SSN	Source short name	NA	codingScheme. codingSchemeName	No comments
MRSAB.RRF	SON	Source Official Name	NA	codingScheme. formalName	No comments
MRSAB.RRF	LAT	Language of Term(s)	NA	codingScheme. defaultLanguage	No comments
MRSAB.RRF	TRF	Term frequency for a source	NA	codingScheme. approxNumConcepts	No comments
MRSAB.RRF	SCIT	Source citation	NA	codingScheme. entityDescription	inherits entityDescription from versionableAndDescribable
MRSAB.RRF	SCC	Content contact info for a source	NA	codingScheme. copyright	No comments
			NA	codingScheme. codingSchemeURI	Pulled from iso mapping configuration file using method getISOString(RSAB from MRSAB.RRF)
MRDOC.RRF	EXPL	Detailed explanation	x	codingScheme. representsVersion	Where Dockey = "RELEASE" and value = "umls.release.name"
			x	codingScheme. codingSchemeName	Hard coded in java file as "NCI MetaThesaurus"
			x	codingScheme. formalName	Hard coded in java file as "NCI MetaThesaurus"
			x	codingScheme. defaultLanguage	Hard coded in java file as "ENG"
MRCONSO.RRF			x	codingScheme. approxNumConcepts	Count of CODE value in MRCONSO.RRF

File	Field	Description		Property	Comments
			x	codingScheme. entityDescription	Hard coded in java file as "NCI MetaThesaurus loaded from RRF files."
			x	codingScheme. copyright	Hard coded in java file as "Some material in the NCI Metathesaurus is from copyrighted sources of the respective copyright claimants. All sources appearing in the NCI Metathesaurus are licensed or authorized for NCI use. Users of the NCI Metathesaurus are responsible for compliance with the terms of these licenses and with any copyright restrictions and are referred to NCI Center of Bioinformatics for license terms and to the copyright notices appearing in the original sources, all of which are obtainable online by reference at http://ncimeta.nci.nih.gov/."
			NA	codingScheme. localNameList	Hard coded as constant in java file as "localName"
MRSAB. RRF	SON	Source Official Name	NA	codingScheme. localNameList.	No comments
			NA	codingScheme. localNameList	Hard coded as constant in java file as "localName"
			NA	codingScheme. localNameList.	Pulled from iso mapping configuration file using method getISOString(RSAB from MRSAB.RRF)
			NA	codingScheme.source	Hard coded as constant in java file as "source"
MRDOC .RRF	EXPL	Detailed explanation	NA	codingScheme.source. content	String concatenation of "UMLS-" and value of EXPL
			x	codingScheme. localNameList	Hard coded as constant in java file as "localName"
			x	codingScheme. localNameList.	Hard coded in java file as "NCI Thesaurus"
			x	codingScheme. localNameList	Hard coded as constant in java file as "localName"
			x	codingScheme. localNameList.	Hard coded in java file as "NCI_Thesaurus"
			x	codingScheme. localNameList	Hard coded as constant in java file as "localName"
			x	codingScheme. localNameList.	Hard coded in java file as "10001"
			x	codingScheme. localNameList	Hard coded as constant in java file as "source"
			x	codingScheme. localNameList.	Hard coded in java file as "RRF Files"
			NA	mappings. supportedFormat	Hard coded as constant in java file as "Format"
			NA	mappings. supportedFormat. localId	Hard coded as one of several constants in a java file

			NA	mappings. supportedA ssociation	Hard coded as constant in java file as "Association"
MRREL. RRF	REL, RELA	Relationship, Relationship attribute	NA	mappings. supportedA ssociation. localId	No comments
			NA	mappings. supportedC ontext	Hard coded as constant in java file as "Context" May not be used in individual RRF load
			NA	mappings. supportedS ource	Hard coded as constant in java file as "Source" May not be used in individual RRF load
			NA		No comments
			NA	mappings. supportedH ierarchy	Hard coded as constant in java file as "Hierarchy"
			NA	mappings. supportedA ssociationQ ualifier	Hard coded as constant in java file as "AssociationQualifier"
			NA	mappings. supportedP roperty	Hard coded as constant in java file as "Property"
			NA	mappings. supportedL anguage	Hard coded as constant in java file as "Language"
			NA	mappings. supportedC odingSche me	Hard coded as constant in java file as "CodingScheme"
			NA	mappings. supportedR epresentati onalForm	Hard coded as constant in java file as "RepresentationalForm"
			NA	mappings. supportedC onceptStat us	Hard coded as constant in java file as "ConceptStatus"
			NA	mappings. supportedP ropertyLink	Hard coded as constant in java file as "PropertyLink"
			NA	mappings. supportedP ropertyQual ifier	Hard coded as constant in java file as "PropertyQualifier"
			NA	mappings. supportedD ataType	Hard coded as constant in java file as "DataType"

UMLS Mapping Entities

RRF File Name	RRF Column Name	RRF Definition	NCI Meta only	LexGrid Model Element	Comments
MRCON SO.RRF	CODE	Unique Identifier or code for string in source	NA	Entity. entityCode	No comments
MRCON SO.RRF	CUI	Unique identifier for Entity	x	Entity. entityCode	No comments
			NA	Entity. isActive	Hardcoded in parameter as true.
			NA	Entity. status	Hard coded as constant in java file as "Active"
			NA	Entity. isAnonymo us	Hardcoded in parameter as false.

MRCON SO.RRF	STR	String	NA	Entity. entityDescri ption	No comments
			NA		No comments
					No comments
			NA	Entity. Property. Format	Hard coded as constant in java file as "text/plain" or null
			NA	Entity. Property. propertyNa me	May be hard coded as constant in java file as one of several properties.
			NA	Entity. Property. usageCont ext	No comments
			NA	Entity. Property. propertyId	Generated value for property using "P" concatenated with a steadily incremented numerical value.
			NA	Entity. presentatio n.propertyId	Generated value for property textual presentation using "T" concatenated with a steadily incremented numerical value.
			NA	Entity. comment. propertyId	Generated value for property comment using "C" concatenated with a steadily incremented numerical value.
			NA	Entity. definition. propertyId	Generated value for property definition using "D" concatenated with a steadily incremented numerical value.
			NA	Entity. instruction. propertyId	Generated value for property instruction using "I" concatenated with a steadily incremented numerical value.
MRCON SO.RRF	CUI	Unique identifier for Entity	NA	Entity. Property. text. content.	No comments
			NA	Entity. Property. propertyId	Generated value for property using "CUI" concatenated with a steadily incremented numerical value.
			NA	Entity. Property. propertyNa me	hard coded as constant in java file as "UMLS_CUI"
			NA	Entity. Property. propertyType	hard coded as constant in java file as "property"
			NA	Entity. Property. format	left as null
MRSTY. RRF	STY	Semantic type	NA	Entity. Property. text.content	
			NA	Entity. Property. propertyId	Generated value for property using "SemType" concatenated with a steadily incremented numerical value.
			NA	Entity. Property. propertyNa me	hard coded as constant in java file as "Semantic_Type"
			NA	Entity. Property. propertyType	hard coded as constant in java file as "property"
			NA	Entity. Property. value. dataType	Hard coded as constant in java file as "text/plain"
MRCON SO.RRF	LAT	Language of Term(s)	NA	Entity. Property. language	Logic of code simply selects the first definition in the source as the preferred source

MRCON SO.RRF	TS	Term status	NA		Entity. presentatio n. isPreferred	One or a combination of these RRF values determines whether a presentation is preferred: LAT, TS, STT, ISPREF, RANK.
MRCON SO.RRF	STT	String type	NA		Entity. presentatio n. isPreferred	One or a combination of these RRF values determines whether a presentation is preferred: LAT, TS, STT, ISPREF, RANK.
MRCON SO.RRF	ISPREF	Indicates whether AUI is preferred	NA		Entity. presentatio n. isPreferred	One or a combination of these RRF values determines whether a presentation is preferred: LAT, TS, STT, ISPREF, RANK.
MRRAN K.RRF	RANK	Termgroup ranking	NA		Entity. presentatio n. isPreferred	One or a combination of these RRF values determines whether presentation is preferred: LAT, TS, STT, ISPREF, RANK.
			NA		Entity. presentatio n. isPreferred	The first presentation for each language is automatically marked as isPreferred="true" after using comparator to sort list of presentations using comparator to evaluate each presentation based on a combination of values from LAT, TS, STT, ISPREF, RANK.
MRDEF. RRF	DEF	Definition	NA		Entity. definition. text.content	No comments
			NA		Entity. definition. isPreferred	Logic of code simply selects the first definition in the source as the preferred source
			NA			No comments
MRSAT. RRF	ATN	Attribute name	NA		Entity. Property. propertyType	Translated to a LexGrid property type. For values AN, CX, HN this property is typed as a "COMMENT" in LexGrid. For value EV this property is typed "PRESENTATION" This only occurs when the STYPE points to the CODE, SCUI or SDUI columns in MRREL. RRF or MRCONSO.RRF. If the STYPE points to SAUI then the values are loaded as property qualifiers.
MRSAT. RRF	ATV	Attribute value	NA		Entity. Property. value	No comments
MRSAT. RRF	ATN	Attribute name	NA		Entity. Property. propertyQu alifier. propertyQu alifierName	If the STYPE points to SAUI then the value is loaded as a property qualifier attribute
MRSAT. RRF	ATV	Attribute value	NA		Entity. Property. propertyQu alifier.value	If the STYPE points to SAUI then the value is loaded as a property qualifier attribute
MRSAT. RRF	ATUI	Unique identifier for attribute	NA		Entity. Property. propertyId	No comments
MRSAT. RRF	METAUI	Metathesaurus asserted unique identifier	NA		Entity. Property. PropertyQu alifier. propertyQu alifierName	set to "METAUI"
MRSAT. RRF	METAUI	Metathesaurus asserted unique identifier	NA		Entity. Property. PropertyQu alifier.value	METAUI column value
MRSAT. RRF	STYPE	The name of the column in MRCONSO.RRF or MRREL. RRF that contains the identifier to which the attribute is attached	NA		Entity. Property. PropertyQu alifier. propertyQu alifierName	set to "STYPE"
MRSAT. RRF	STYPE	The name of the column in MRCONSO.RRF or MRREL. RRF that contains the identifier to which the attribute is attached	NA		Entity. Property. PropertyQu alifier.value	STYPE column value

MRSAT.RRF	SUPPRESS	Suppressible flag	NA	Entity. Property. PropertyQualifier. propertyQualifierName	set to "SUPPRESS"
MRSAT.RRF	SUPPRESS	Suppressible flag	NA	Entity. Property. PropertyQualifier.value	STYPE column value if not null
MRCONSO.RRF	SAB		x	Entity. Property. source. content	No comments
			x	Entity. Property. propertyQualifier. propertyQualifierName	hard coded as constant in java file as "source-code"
MRCONSO.RRF	CODE		x	Entity. Property. propertyQualifier.value	No comments
			x	Entity. Property. propertyQualifier. propertyQualifierName	hard coded as constant in java file as "AUI"
MRCONSO.RRF	AUI		x	Entity. Property. propertyQualifier.value	No comments
			NA	Entity. presentation. representationalForm	When ATN value is EV this presentation will be given a representationalForm of "Abbrev."
MRCONSO.RRF	TTY	Term type in source	NA	Entity. presentation. representationForm	When TTY value is FN then representationalForm is represented as "Full Form" Otherwise the representationalForm is the same as the TTY source (i.e. if TTY is PT then representationalForm is PT.) PT is one of the preferred presentations.
			NA	Entity. Property. propertyQualifier. propertyQualifierId	hard coded as "HCD"
MRHIER.RRF	HCD	Source asserted hierarchical number or code for this atom in this context	NA	Entity. Property. propertyQualifier. content	This propertyQualifier is present when the HCD is populated in the the MRHIER file. The corresponding code and property for entity or code is qualified as a code or entity with a context derived heirarchy.

UMLS Mapping Relations

RRF File Name	RRF Column Name	RRF Definition	NCI Meta only	LexGrid Model Element	Comments
MRREL.RRF	CUI1	Unique identifier for first concept	NA		No comments
MRREL.RRF	AUI1	Unique identifier for first atom	NA		No comments

File	Column	Description		Model Element	Comments
MRCON SO.RRF	CODE	Unique Identifier or code for string in source	NA	ConceptReference. conceptCode (Model element is a ResolvedConceptReference with the value sourceOf attached to the appropriate AssociationList containing this particular REL or RELA association name.)	Mapping to the CODE depends upon the CUI or a combination of CUI and AUI values. If the CODE value is "NOCODE" then LexBIG concatenates "NOCODE" with a "-" and the CUI value. Target or source code value requires use of the DIR flag which indicates the directionality of the relationship in REL or RELA. CUI1 can be used as a pointer to the source CODE value if DIR equals Y, else CUI1 is the targetCode. Similarly, if an AUI exists AUI1 can be an indicator for CODE value to be either or source or target depending on the DIR flag.
MRREL. RRF	CUI2	Unique identifier for second concept	NA		No comments
MRREL. RRF	AUI2	Unique identifier for second atom	NA		No comments
MRCON SO.RRF	CODE	Unique Identifier or code for string in source	NA	ConceptReference. conceptCode (Model element is a ResolvedConceptReference with the value targetOf attached to the appropriate AssociationList containing this particular REL or RELA association name.)	Mapping to the CODE depends upon the CUI or a combination of CUI and AUI values. If the CODE value is "NOCODE" then LexBIG concatenates "NOCODE" with a "-" and the CUI value. Target or source code value requires use of the DIR flag which indicates the directionality of the relationship in REL or RELA. CUI2 can be used as a pointer to the source CODE value if DIR equals Y, else CUI1 is the targetCode. Similarly, if an AUI exists AUI2 can be an indicator for CODE value to be either or source or target depending on the DIR flag.
MRREL. RRF	DIR	Source asserted directionality flag	NA		The UMLS directional flag. Y indicates that this is the direction of the RELA relationship in its source; N indicates that it is not; otherwise indicates that it is not important or has not yet been determined. (If blank RELA, we interpret as 'N', based on empirical review of meta files).
MRREL. RRF	RELA	Relationship attribute	NA	AssociationPredicate. associationName	Source defined associations. If RELA value is "inverse_isa" then it is changed to "hasSubtype." All others mapped as defined in source.
MRREL. RRF	REL	Relationship	NA	AssociationPredicate. associationName	UMLS defined associations
MRSAT. RRF	METAUI	Metathesaur us asserted unique identifier	NA		Presence of RUI in MRSAT.RRF METAUI column indicates the association defined in MRREL has an association qualifier. Currently only MedDRA uses these.
MRSAT. RRF	ATN		NA	AssociatedConcept. nameAndValueList.name	No comments
MRSAT. RRF	ATV		NA	AssociationQualification. nameAndValueList.content	No comments
			NA	AssociatedConcept. nameAndValueList.name	qualifier name is hard coded to "HCD" This association qualifier is attached to an association when the HCD field in MRHIER.RRF is populated. Associations are identified by evaluating a structured series of AUI's that describe the path to root (PTR field in MRHIER) Once these associations are identified they have and association qualifier attached to them with the value of the HCD loaded as the qualifier.
MRHIER .RRF	HCD		NA	AssociationQualification. nameAndValueList.content	No comments
MRSAB. RRF	SSN	Source short name	NA	association.codingSchemeId (Inherited from Entity)	No comments
MRREL. RR	REL or RELA	Relationship or Relationship attribute	NA	AssociationEntity. forwardName	unqualified REL or RELA value (inverse_isa remains the same)
MRDOC .RRF	EXPL	Detailed explanation	NA	AssociationEntity. reverseName	Where DOCKEY in MRDOC equals REL or RELA and value is the association name and TYPE is REL or RELA name prepended to "_inverse".
			NA	association.isNavigable	hard coded as Boolean with value true.
MRREL. RRF	SAB, REL, RELA	Source abbreviation	NA	AssociationEntity.isTransitive	True when the name of the association can be mapped to a source defined in the SAB attribute of MRREL.RRF. Not the SAB value itself, but extrapolated from it using SAB to REL, RELA relationship.

				NA	AssociatableElement. entityDescription.content (inheritance path for entityDescription is Entity->versionableAndDescribable)	Hard coded to: "UMLS-defined relationships"
				NA	relations.containerName	If REL, this is hard coded as "UMLS-Relations" if RELA then it is hard coded to "Relations"
MRREL. RRF	REL, RELA			x	propertyLink.link	This is a link established when the MRREL.RRF file contains a relationship where the CUI is related to itself. Under these conditions the relationship is mapped as a property link with the MRREL defined relationship mapped as the link value.
				x	propertyLink.sourceProperty	Generated as a propertyId for concept, ex: "T-10" This is retrieved based on the AUI value in MRCONSO.RRF from the entityPropertyMultiAttrib table where the AUI equals the attributeValue column.
				x	propertyLink.targetProperty	Generated as a propertyId for concept, ex: "T-10" This is retrieved based on the AUI value in MRCONSO.RRF from the entityPropertyMultiAttrib table where the AUI equals the attributeValue column.

SNOMED UMLS Mapping

RRF File Name	RRF Column Name	RRF Definition	LexGrid Model Element	*Comments*
RSAB.RRF	SVER	Release date or version number of a source	codingScheme.representsVersion	No comments
RSAB.RRF	SSN	Source short name	codingScheme.codingScheme?	No comments
RSAB.RRF	SON	Source Official Name	codingScheme.formalName	No comments
		Hard coded to "en"	codingScheme.defaultLanguage	No comments
MRSAT.RRF	ATV	None	concept.presentation.language	Unique to snomed.