0. Introduction

This is the 2002AD documentation addendum to the 2002AA documentation. Changes to the documentation due to addition or deletion of new content in 2002AD are outlined here. Section 0.1a outlines what is new in the current release. The What's New section for previous releases follow in Section 0.1b, 0.1c, etc.. Some sections, like Section 6 (Content of CD-ROMS), Section B.2 (Source Abbreviations), Section B.3 (String Count by Source), Section B.5 (Precedence) and Section B.6 (Relationship Attributes), are shown in their entirety since there are significant changes to these sections with each release.

As an addendum, the content is presented in the order of the January (2002AA) documentation with the same section numbers and structure.

During the year, announcements concerning the UMLS project are made to the umls-users group. Anyone can subscribe to this discussion list. To subscribe to the listserver, simply send a message to listserver@nlm.nih.gov which includes the following line:

subscribe umls-users

0.1a What’s New for 2002AD UMLS

0.1a.0 Introduction

The UMLS Knowledge Sources are now released quarterly. The Fall 2002 release is named 2002AD; the Summer release was called 2002AC; and so on. When necessary, releases may become even more frequent; it will be up to each user to decide how frequently to load new updates. This What's New section will help a user decide by outlining changes present in a new release.

0.1a.1 Metathesaurus

The 2002AD edition of the Metathesaurus includes 873,429 concepts and 2.10 million concept names in its source vocabularies. Comparing 2002AD to 2002AC, there are 2576 more concepts; 10,554 more names in MRCON; and 13,913 more names in MRSO.

Five sources were updated for the 2002AD release – ICD9CM, International Classification of Diseases, 2003; MSH, Medical Subject Headings (MeSH 2003), August 14, 2002; PDQ, Physician Data Query, July 2002; SPN,
New possible value for Term Status (TS) in MRCON

In MetamorphoSys, it is possible to make selected Sources (SABs) and Term Types (TTYs) suppressible. Under some circumstances, the selection may include the preferred form of the preferred term. In that case, the Term Status is now set to 'p' (lowercase p) to indicate that the preferred form is suppressible.

This situation may cause problems for users' programs in cases where the new value is not anticipated. MetamorphoSys itself will now handle the new value correctly, so its output can become the input for another run. See TS - Term Status in Appendix B.1.1 for further information about this data element.

Added (last) field in MRCUI: MAPIN

To add to the usefulness of MRCUI when CUIs are not found, a new attribute 'MAPIN' has been added as the last field in MRCUI with Values 'Y' or 'N' or null. Initially all values are 'Y' for mapped rows; as concepts are excluded with MetamorphoSys, their references have MAPIN set to 'N' indicating that this CUI was excluded.

New MRSAB file: metadata about Metathesaurus Sources

Starting with 2002AD, the UMLS Metathesaurus has "versionless" or "root" Source Abbreviations (SABs) in the MR files. In each case, there is a link in MRSAB from the "versionless" SAB to fully specified version information for the current release. MetamorphoSys can produce files with either the root or versioned SABs so that either form can be utilized by a user.

For example, the released SAB for MeSH is now simply "MSH". In MRSAB, you will find the current versioned SAB is MSH2003_2002_08_14.

The major advantage of this change is that all MR file rows which represent information which has not changed between versions will also be unchanged, making an update model, using row updates, much simpler and smaller.

-- Detailed description of MRSAB:

There is one row in this file for every version of every source in the current Metathesaurus; when complete, there will also be historical information with a row for each version of each source that has appeared in any Metathesaurus release.

This table allows mapping from Root (versionless) source names and abbreviations (SABs) to versioned ones; the Versioned source name row has the corresponding versionless names. Note that the field CURVER has the value 'Y' to identify the version in this Metathesaurus release. Future releases of MRSAB will also contain historical version information in rows with CURVER value 'N'.

MRSAB allows all other Metathesaurus files to use versionless source abbreviations, so that all rows with no data change between versions also remain unchanged. Note also that those who prefer versioned SABs may elect to have them as an output option in MetamorphoSys.

The full structure of MRSAB is as follows:

<table>
<thead>
<tr>
<th>Field</th>
<th>Full Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**Revised Concept Structure for Source Concepts (SRC):**

In conjunction with the change to releasing versionless SABs and MRSAB, we have overhauled the "SRC" or "Metathesaurus Source Terminology Names" source. Each SAB will now have two or more related concepts with distinct meanings: one versionless or "root" concept and at least one versioned concept. We have introduced...
new term types to further distinguish these concepts:

- SSN: source short name, used in the UMLS Knowledge Sources Server
- RPT: root preferred term
- RHT: root hierarchical term
- RAB: root abbreviation
- RSY: root synonym
- VPT: versioned preferred term
- VAB: versioned abbreviation
- VSY: versioned synonym

For example, the root MeSH concept contains the following SRC names:

<table>
<thead>
<tr>
<th>STR</th>
<th>SAB</th>
<th>TTY</th>
<th>CODE</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSH</td>
<td>SRC</td>
<td>RAB</td>
<td>V-MSH</td>
</tr>
<tr>
<td>Medical Subject Headings</td>
<td>SRC</td>
<td>RPT</td>
<td>V-MSH</td>
</tr>
<tr>
<td>MeSH</td>
<td>SRC</td>
<td>RHT</td>
<td>V-MSH</td>
</tr>
<tr>
<td>MeSH</td>
<td>SRC</td>
<td>SSN</td>
<td>V-MSH</td>
</tr>
</tbody>
</table>

The versioned MeSH concept looks like this:

<table>
<thead>
<tr>
<th>STR</th>
<th>SAB</th>
<th>TTY</th>
<th>CODE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical Subject Headings, 2002_08_14</td>
<td>SRC</td>
<td>VPT</td>
<td>V-MSH2003_2002_08_14</td>
</tr>
<tr>
<td>MSH2003_2002_08_14</td>
<td>SRC</td>
<td>VAB</td>
<td>V-MSH2003_2002_08_14</td>
</tr>
</tbody>
</table>

The hierarchy treetop will always be the root concept. There will always be a has_version/version_of relationship between the root and versioned concepts. There may also be "has_translation/translation_of" relationships between the root concepts for English-language sources and their non-English translations.

**RxNorm**

This release continues the creation and refinement of concepts to support the RxNorm Project. These concepts relate the names of orderable medications to a dose forms from a set proposed by the HL7 Vocabulary Technical Committee as a value set, and the components of those medications. For further discussion, see the article at:


**MetamorphoSys**

For 2002AD, MetamorphoSys was updated with some new features. One important new feature is the ability to handle versioned and versionless SABs. Other new features include:
- 4 new filters to aid in customization
  - Attributes - removes selected attributes from subset
  - Language - removes terms from selected languages
  - Relationships - removes selected relationship types from subset
  - Semantic Types - removes concepts that contain selected semantic types

- Users can create their own custom filters to use with the MetamorphoSys interface
- Redo/Undo capability
- The Output/Input formats can vary with richer format options coming in future releases
- The log file contains more information on the criteria a user selected
- User can run MetamorphoSys in batch mode or with the Graphical User Interface

For more information, please consult the README_MMS.txt file contained in the 2002AD release.

**0.1a.2 Semantic Network**

A new Semantic Type was added in 2002AD - Drug Delivery Device (TUI T203, STN A1.3.1.1). It is a child of Medical Device. A new relationship attribute (REL RO and RELA contains) relates Drug Delivery Device to the Clinical Drugs contained within. This new type is used in RxNorm.

In previous versions, SRFIL has stated that SRDEF contained 7 fields. SRDEF actually has 10 fields and this version of SRFIL was corrected to reflect this.

**0.1a.3 SPECIALIST Lexicon and Lexical Programs**

These changes were made to fix earlier errors with the LEX content.

1. The file LRWD has a final "|" added on each line.

2. In LRFIL, the row for LRFLD has the NAM column changed to COL. Also, the row for LRPRN no longer has the PRS column.

**0.1a.4 UMLS Knowledge Source Server**

There is a new version of the UMLS Knowledge Source Server. To find out more about the new features, please go to:


This page has a section on What’s New and a link to a FAQ page. For users already registered, there is documentation describing the changes once in the system.

**0.1b What’s New for 2002AC UMLS**
0.1b.0 Introduction

The UMLS Knowledge Sources are now released quarterly. The Spring 2002 release was named 2002AB; the Summer release is called 2002AC; and so on. When necessary, releases may become even more frequent; it will be up to each user to decide how frequently to load new updates. This What’s New section will help a user decide by outlining changes present in a new release.

0.1b.1 Metathesaurus

The 2002AC edition of the Metathesaurus includes 870,853 concepts and 2.27 million concept names in its source vocabularies. Comparing 2002AC to 2002AB, there are 731 fewer concepts primarily due to synonymy work done with the RxNorm Project; 11,643 more names in MRCON; and 11,063 more names in MRSO.

Five sources were updated for the 2002AC release – AOD2000, Alcohol and Other Drug Thesaurus; CSP2002, Computer Retrieval of Information on Scientific Projects (CRISP); LNC205, LOINC version 2.05; MDR50, Medical Dictionary for Regulatory Activities Terminology (MedDRA) version 5.0; and MSH2002_06_01, Medical Subject Headings (MeSH) June 01, 2002.

The SCD column in MRCXT, MRSAT and MRSO was renamed CODE due to a potential conflict with the new Term Type SCD for the RxNorm project. SCD is now a Term Type for NLM02 and CODE represents the column for “Unique identifier or code for an entry in the source vocabulary.”

MRCUI is a historical file tracking all CUIs that have been in past Metathesaurus releases and are not in the current release. This file makes better use of the information contained in MERGED.CUI and DELETED.CUI. These file exist for users who have used them in the past but all the information in these files is now contained in MRCUI. MRCUI is actually better because for some CUIs in DELETED.CUI it will provide bequeathal relationships which may allow users to make better use of old CUIs.

0.1c What’s New for 2002AB UMLS

0.1c.0 Introduction

The UMLS Knowledge Sources are now released quarterly. This Spring 2002 release is named 2002AB; the Summer release will be called 2002AC; and so on. When necessary, releases may become even more frequent; it will be up to each user to decide how frequently to load new updates. This What’s New section will help a user decide by outlining changes present in a new release. 0.1b.1 Metathesaurus

The 2002AB edition of the Metathesaurus includes 871,584 concepts and 2.10 million concept names in its source vocabularies. There are 94,644 more concepts; 142,338 more names in MRCON; and 151,870 more names in MRSO.

There are three new sources for the 2002AB release- NCBI2001, Taxonomy from National Center for Biotechnology Information; NLM02, RxNorm work done by the National Library of Medicine; and NLM03, RxNorm relationship work done by the National Library of Medicine.
Three sources were updated for the 2002AB release – INS2002, French translation of MeSH; MDR41, Medical Dictionary for Regulatory Activities Terminology (MedDRA) version 4.1; and MSH2002_02_10, Medical Subject Headings (MeSH) February 10, 2002.

VANDF01 now has a Restriction Level of 0.

MTHMSTFRE and MTHMSTITA now have a Restriction Level of 0. The file sizes in MRFILES now show the correct sizes for each format (note that ISO/PC text files have one more character per line than Unix text files).

Problems Identified in 2002AA Release and Repaired for 2002AB Release

1. 2002AA MRCXT ICPC2E/ICPC2P Problem

I. Problem

There are two problems in the 2002AA MRCXT that affect International Classification of Primary Care, Version 2-Plus (ICPC2P) and International Classification of Primary Care, 2nd ed. Electronic form (ICPC2E). First, there are a number of incomplete contexts present containing only the second level ANC row (typically with context numbers 3 or 4) without the higher or lower ANC rows, and without any CCP, SIB, or CHD rows.

For example,

C0000731|S0351958|ICPC2P|D25|3|ANC|2|Symptoms and Complaints Component|C0497525|1||

Second, there are a number of contexts attributed to ICPC2E that have "ICPC2-Plus" as the context tree-top.

For example,

C0000731|S0351958|ICPC2E|D25|4|ANC|1|ICPC2-Plus|C0848024|||
C0000731|S0351958|ICPC2E|D25|4|ANC|2|DIGESTIVE|C0521361|D||
C0000731|S0351958|ICPC2E|D25|4|CCP|ABDOMINAL DISTENSION|C0000731|D25|+

... CHD rows not shown ...

II. Scope

These errors affect only ICPC2P and ICPC2E MRCXT data.

The first problem affects about 2500 rows of MRCXT and the second problem affects another 23,000 rows. In total, about 2500 "contexts" are affected (where a "context" is a CUI,SUI,SOC,SCD,CXN tuple).

These problems will cause a failure to correctly display these 2500 contexts.

Additionally, exceptions will occur in applications that expect the complete ANC tree to be available for contexts represented in MRCXT.
2. MetamorphoSys 2002AA Configuration File Problem

I. Problem

There is a bug in the configuration file distributed with MetamorphoSys that affects the ability of the user to configure both the precedence and suppressibility of LOINC term types. This does not affect the ability of the user to exclude the entire LOINC vocabulary from using MetamorphoSys.

II. Scope

This problem is limited to a users' ability to change the precedence and suppressibility within LOINC. Other sources are not affected.

3. MRXNS.ENG, MRXNW.ENG Problem

I. Problem

The version of LVG used to compute the MRXNW.ENG and MRXNS.ENG files was slightly different from the version distributed with the 2002AA UMLS, causing small variations in the normalized forms of some strings in MRCON.

II. Scope

A total of 26 strings were affected by this problem. There are 28 lines in the old MRXNS.ENG that have incorrect NSTR fields. The new MRXNS.ENG replaces those lines with 36 new ones which are both corrected normalized forms and additional normalized strings.

Following is an example of a corrected NSTR. The original MRXNS.ENG has this line,

ENG|02 14 19 19 19 2 2 5 5 5 alpha beta chaetocin dide dideoxy diphenyl epidithio phenylethenyl|C0292271|L0354632|S2175084|

The corrected MRXNS.ENG replaces it with this line,

ENG|02 14 14 15 19 19 19 2 2 5 5 5 7 alpha beta beta chaetocin dide dideoxy diphenyl e epidithio phenylethenyl|C0292271|L0354632|S2175084|

Here is another example. The following line comes from the original MRXNS.ENG

ENG|3r capsanthin|C0951566|L1862217|S2191205|

This is replaced in the corrected MRXNS.ENG by two lines.

ENG|13 3 3r 5 capsanthin ci isomer r|C0951566|L1862217|S2191205|
ENG|13 3 3r 5 capsanthin cis isomer r|C0951566|L1862217|S2191205|
The original MRXNW.ENG contained no incorrect lines, however there were some missing lines. The corrected MRXNW.ENG has an additional 88 lines. For example,

ENG|15|C0292271|L0354632|S2175084|

This corresponds with the first MRXNS.ENG example shown above.

This problem only affects users who make use of the normalized index files.

The incorrect normalized strings and normalized words come from the following list of sources:

RCD99, MSH2002

4. MRCXT (CST95, SNM2) Problem

I. Problem

There are cases of multiple CST95 and SNM2 contexts being assigned the same context number for a single CUL, SUI, SAB, SCD tuple, leading to cases of overlapping contexts. In one case, specifically, this causes a single context to have two CCP rows.

II. Scope

There are contexts in 52 CUIs affected by this problem. The CST95 case appears like this in MRCXT:

C0019054|S0376154|CST95|HEMOLYSIS|1|ANC|1|COSTART: coding symbols for thesaurus of adverse reaction terms|C0220949|||
C0019054|S0376154|CST95|HEMOLYSIS|1|ANC|2|Hematologic Disorders|C0018939|HEM|||
C0019054|S0376154|CST95|HEMOLYSIS|1|ANC|3|Erythrocyte Abnormalities|C0391870|HAL/RBC|||
C0019054|S0376154|CST95|HEMOLYSIS|1|ANC|4|Erythrocytes decreased|C0236147|HAL/RBC/DEC|||
C0019054|S0376154|CST95|HEMOLYSIS|1|CCP|HEMOLYSIS|C0019054|HAL/RBC/DEC/HEMOLYSIS|||
C0019054|S0376154|CST95|HEMOLYSIS|3|ANC|1|COSTART: coding symbols for thesaurus of adverse reaction terms|C0220949|||

In the corrected MRCXT, it appears as two contexts (CXN=2 is not shown here):

C0019054|S0376154|CST95|HEMOLYSIS|1|ANC|1|COSTART: coding symbols for thesaurus of adverse reaction terms|C0220949|||
C0019054|S0376154|CST95|HEMOLYSIS|1|ANC|2|Hemic and Lymphatic System|C0549527|HAL|||
C0019054|S0376154|CST95|HEMOLYSIS|1|ANC|3|Erythrocyte Abnormalities|C0391870|HAL/RBC|||
C0019054|S0376154|CST95|HEMOLYSIS|1|ANC|4|Erythrocytes decreased|C0236147|HAL/RBC/DEC|||
C0019054|S0376154|CST95|HEMOLYSIS|1|CCP|HEMOLYSIS|C0019054|HAL/RBC/DEC/HEMOLYSIS|||
C0019054|S0376154|CST95|HEMOLYSIS|3|ANC|1|COSTART: coding symbols for thesaurus of adverse reaction terms|C0220949|||
C0019054|S0376154|CST95|HEMOLYSIS|3|ANC|1|COSTART: coding symbols for thesaurus of adverse reaction terms|C0220949|||

.........
The SNM2 cases are less obvious because they involve cases where a particular CUI,SUI,SAB,SCD is its own child. In the original MRCXT it appears like this:

C0334970|S0637124|SNM2|NOCODE|1|ANC|1|Professional,Technical and Related Workers|C0334970|
C0334970|S0637124|SNM2|NOCODE|1|ANC|2|Economists|C0334970|
C0334970|S0637124|SNM2|NOCODE|1|ANC|3|Occupation Axis|C0334705|
C0334970|S0637124|SNM2|NOCODE|1|ANC|4|Professional,Technical and Related Workers|C0334704|
C0334970|S0637124|SNM2|NOCODE|1|ANC|5|Systematized Nomenclature of Medicine. 2nd ed.|C0220966|
C0334970|S0637124|SNM2|NOCODE|2|ANC|1|Economists|C0334970|
C0334970|S0637124|SNM2|NOCODE|2|ANC|2|Occupation Axis|C0334705|
C0334970|S0637124|SNM2|NOCODE|2|ANC|3|Professional,Technical and Related Workers|C0334704|
C0334970|S0637124|SNM2|NOCODE|2|ANC|4|Economists|C0334970|
C0334970|S0637124|SNM2|NOCODE|2|ANC|5|Systematized Nomenclature of Medicine. 2nd ed.|C0220966|

In the corrected MRCXT, it shows up as two separate contexts:

C0334970|S0637124|SNM2|NOCODE|1|ANC|1|Professional,Technical and Related Workers|C0334704|
C0334970|S0637124|SNM2|NOCODE|1|ANC|2|Economists|C0334970|
C0334970|S0637124|SNM2|NOCODE|1|ANC|3|Occupation Axis|C0334705|
C0334970|S0637124|SNM2|NOCODE|1|ANC|4|Professional,Technical and Related Workers|C0334704|
C0334970|S0637124|SNM2|NOCODE|1|ANC|5|Systematized Nomenclature of Medicine. 2nd ed.|C0220966|
C0334970|S0637124|SNM2|NOCODE|2|ANC|1|Economists|C0334970|
C0334970|S0637124|SNM2|NOCODE|2|ANC|2|Occupation Axis|C0334705|
C0334970|S0637124|SNM2|NOCODE|2|ANC|3|Professional,Technical and Related Workers|C0334704|
C0334970|S0637124|SNM2|NOCODE|2|ANC|4|Economists|C0334970|
C0334970|S0637124|SNM2|NOCODE|2|ANC|5|Systematized Nomenclature of Medicine. 2nd ed.|C0220966|

Note: CHD rows are not shown in this example.

The CST problem affects just one CUI, but the SNM2 problem affects 51 CUIs.

5. MRCOC COA Sort Order

I. Problem

The ordering of the subheading frequency listings in the COA field of MRCOC changed. Although not specifically documented, the subheading frequencies have historically been listed in decreasing frequency order but were instead listed in alphabetical order.

II. Scope

All cases with multiple subheadings where the frequency order did not match the alphabetical order were affected. For example, 2001AA MRCOC had the following entry:

C0000039|C0012456|MED01|L|10|CH=8,ME=2,<>=1,AN=1|

CH is the highest frequency subheading so it appears first. The corresponding entry from the 2002AA MRCOC is
Again, CH is the highest frequency subheading, yet it appears third because the list is sorted alphabetically. In the corrected 2002AA MRCOC, this line appears as follows:

C0000039|C0012456|MED01|L|12|CH=10,ME=2,<>=1,AN=1|

This problem affects 2007720 lines in the 2002AA MRCOC, or 17% of the total file.

2. Metathesaurus

2.1 Source Vocabularies

The Metathesaurus contains relationships, attributes and concept names from more than 90 vocabularies and classifications, some in multiple editions. Many of the source vocabularies are included in their entirety; for others the Metathesaurus has partial coverage. Some material in the UMLS Metathesaurus is from copyrighted sources of the respective copyright claimants. The Metathesaurus source vocabularies include terminologies designed for varied uses: in patient-record systems; large disease and procedure classifications used for statistical reporting and billing; more narrowly focused vocabularies used to record data related to psychiatry, nursing, medical devices, adverse drug reactions, etc.; disease and finding terminologies from expert diagnostic systems, and some thesauri used in information retrieval.

Metathesaurus sources may have markedly differing purposes and views. Some of these sources may match your needs exactly, while others may be useless or even harmful in your applications. For this reason, it is important to select appropriate sources and reject others, using MetamorphoSys or with queries using the Source Abbreviation (SAB) in the distribution files.

The Metathesaurus structure can incorporate translations of its source vocabularies into languages other than English. The 2002AD Metathesaurus includes the Dutch, French, Finnish, German, Italian, Portuguese, Russian (transliterated), and Spanish translations of NLM's Medical Subject Headings (MeSH). This edition also includes German translations of ICD10 and UMDNS; ICPC terms in Basque, Danish, Dutch, Finnish, French, German, Hebrew, Hungarian, Italian, Norwegian, Spanish, and Swedish; CPT terms in Spanish; Metathesaurus Version of Minimal Standard Terminology Digestive Endoscopy in French and Italian; and WHOART terms in French, German, Portuguese, and Spanish.

Users should also determine which vocabularies would require additional license arrangements for the anticipated use. MetamorphoSys (see Section 2.8 in 2002AA documentation) should be used to exclude vocabularies; it removes all vocabulary information and thus ensures compliance with the UMLS License Agreement.

2.3.1 Relationships in the Metathesaurus

Relationships in the Metathesaurus may come from the sources themselves or may be created by Metathesaurus editors to link concepts that would not otherwise be connected. Some relationships (RELs) are further refined by
a Relationship Attribute (RELA, see Appendix B.1.1 in 2002AA Documentation).

Note that the nature and purpose of a relationship depends on its source, as indicated in the “Source Abbreviation for source vocabulary” (SAB) and the “Source of Relationship labels,” (SL). The source is the authority that asserts a relationship that is represented as transparently as possible within the Metathesaurus. Thus, relationships may adhere to pragmatic or esoteric principles; some are co-occurrences, statistical relationships, or mappings; some may even be self-referential (CUI1 = CUI2) where there are differing views of synonymy. Therefore it is important to select the RELs, RELAs, SABs, and SLs that match a user’s views and purposes. Note also that a variety of relationships from earlier editions of the Metathesaurus as well as editor-asserted relationships may carry the SAB and/or SL of “MTH.”

There are eleven types of relationships that exist in the Metathesaurus.

Broader (RB) has a broader relationship.

Narrower (RN) has a narrower relationship.

Other related (RO) has relationship other than synonymous, narrower, or broader.

Like (RL) the two concepts are similar or "alike". In the current edition of the Metathesaurus, most relationships with this attribute are mappings provided by a source.

RQ unspecified source asserted relatedness, possibly synonymous.

SY source asserted synonymy.

Parent (PAR) has parent relationship in a Metathesaurus source vocabulary.

Child (CHD) has child relationship in a Metathesaurus source vocabulary.

Sibling (SIB) has sibling relationship in a Metathesaurus source vocabulary.

AQ is an allowed qualifier for a concept in a Metathesaurus source vocabulary.

QB can be qualified by a concept in a Metathesaurus source vocabulary.

2.3.2 Context in the Metathesaurus

<table>
<thead>
<tr>
<th></th>
<th>Full-Nosib-Multiple</th>
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<th>Full</th>
<th>Full</th>
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<td></td>
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<td></td>
</tr>
<tr>
<td>ICD10AM</td>
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<td></td>
</tr>
<tr>
<td>ICD10</td>
<td>FULL-NOSIB</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ICD9CM</td>
<td>FULL</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>ICPC2E</td>
<td>FULL-NOSIB-MULTIPLE</td>
<td></td>
<td></td>
<td></td>
</tr>
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<td></td>
<td></td>
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<tr>
<td>NAN</td>
<td>FULL</td>
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<td></td>
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<td></td>
<td></td>
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<tr>
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<td>FULL-MULTIPLE</td>
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<td></td>
</tr>
<tr>
<td>NEU</td>
<td>FULL</td>
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<td></td>
</tr>
<tr>
<td>NIC</td>
<td>FULL-NOSIB-MULTIPLE</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>NOC</td>
<td>FULL</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OMS</td>
<td>FULL-MULTIPLE</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PCDS</td>
<td>FULL</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PDQ</td>
<td>FULL-NOSIB-MULTIPLE</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PPAC</td>
<td>FULL</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PSY</td>
<td>FULL-NOSIB-MULTIPLE</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RCD</td>
<td>FULL-MULTIPLE</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SNM</td>
<td>FULL-NOSIB-MULTIPLE</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SNMI</td>
<td>FULL-NOSIB</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>UMD</td>
<td>FULL-MULTIPLE</td>
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</tr>
<tr>
<td>UWDA</td>
<td>FULL-MULTIPLE</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VANDF</td>
<td>FULL-NOSIB-MULTIPLE</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WHO</td>
<td>FULL-MULTIPLE</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
2.7.1.2.1 Relation Relation (File=MRFILES)

Corrected Column information:

BTS Size in bytes in this format (ISO/PC or Unix)

Section 6

6.1 Content of the CD-ROMS

The 2002AD edition of the UMLS Knowledge Sources is available only in compressed formats: Unix (TGZ) and PC (ZIP). Two CD-ROMs are required for each format. To use the UMLS, you must uncompress BOTH discs to a local hard disk, which will then contain the complete distribution including the MetamorphoSys tool to customize your version.

The PC format discs (2002AD_1_ZIP and 2002AD_2_ZIP) contain the UMLS Knowledge Sources in ZIP format, with PC line termination in the ASCII files. Use this format for Windows (version 3.1 and up), Windows NT and 2000 (v4.0 and up), XP, and OS/2. PKZIP or WINZIP programs may be used to extract the data; they may be obtained using these URLs: http://www.pkware.com or http://www.winzip.com. To extract the files to your disk, assign the target directory in which you wish to create the 2002AD release and unzip the ZIP files on BOTH CD-ROMs. NOTE that your file system must support large file sizes, e.g. NTFS or FAT32.

The Unix format CD-ROMs (2002AD_1_TAR and 2002AD_2_TAR) contain the UMLS Knowledge Sources in tar GNU ZIP (gzip) format (.tar.gz), with Unix line termination in the ASCII files. Use this format for operating systems that support UNIX line termination (all flavors of UNIX and Linux). To unpack this you will need the free gzip (or gunzip) utility available from http://www.gnu.org. 'cd' to the target directory for 2002AD, then type the following commands:

```
gzip -dc [cdrom_path]/2002AD_1.TGZ | tar xvf -
```

and then

```
gzip -dc [cdrom_path]/2002AD_2.TGZ | tar xvf -
```

where [cdrom_path] is the path to the TGZ file on your CD-ROM.

NOTE that if you do not include the pipe to tar, the extraction will fail when the intermediate file exceeds most Unix file system's 2 GB size limits on single files. Appropriate Java Runtime Environments (jre) for MetamorphoSys are included for each format.

All users should extract the full 2002AD UMLS Knowledge Sources to hard disk, creating the Standard 2002AD Directory Structure below which occupies 4.2 GB. We recommend a minimum of 8 GB available disk space.

PLEASE NOTE that you must have the full 2002AD UMLS Knowledge Sources on a local hard disk to use
MetamorphoSys; you will need MetamorphoSys to comply with the license agreement and to customize the Metathesaurus to meet your needs.

Standard 2002AD UMLS Knowledge Source Directory Structure

2002AD/  root UMLS directory

   DOC/  UMLS Knowledge Source documentation (this manual) in ASCII, PDF, and HTML.

   META/  Metathesaurus concepts in ASCII relational format

   CHANGE/  Files identifying significant differences from the previous edition.

   METAMSYS/  MetamorphoSys system

   METASUBSET/  Your customized Metathesaurus (initially empty)

   NET/  Semantic Network in ASCII relational format and unit record formats; and Semantic Network documentation in ASCII format.

   LEX/  SPECIALIST lexicon in ASCII relational and unit record formats and SPECIALIST documentation in ASCII format.

      DOCS/  SPECIALIST Documentation

      LEX_DB/  SPECIALIST lexicon related lexical programs in executable and C source code.

      LEX_PGMS/  SPECIALIST lexicon related lexical programs in executable and C source code.

   MISC/  

A.1 Appendix to the License Agreement for Use of the UMLS Knowledge Sources

Additions to the Appendix include the following (new sources, updates and restriction level changes):

UMLS METATHESAURUS SOURCE VOCABULARIES -- Fall 2002AD Edition Source information for new or updated sources for the 2002AD release:


Contact:  Patricia E. Brooks, pbrooks@cms.hhs.gov; http://www.cms.hhs.gov/medicare/icd9cm.asp

This source has been translated into many languages. To date, eight of the translations have been incorporated into the UMLS Metathesaurus.

Contact: Stuart Nelson, M.D., Head, MeSH Section; e-mail: nelson@nlm.nih.gov; http://www.nlm.nih.gov/mesh/meshhome.html

---


Contact: Dr. Gisele Sarosy, National Cancer Institute; e-mail: gisele@icic.nci.nih.gov; http://cancernet.nci.nih.gov

---

RXNORM RxNorm work done by the National Library of Medicine (NLM), Bethesda (MD), National Library of Medicine.

This release contains concepts created by the National Library of Medicine which express the meaning of a drug name in a normalized form. These concepts relate the names of orderable medications to a dose form and the components of those medications. For further discussion, see the article at:


Contact: Stuart Nelson, M.D., Head, MeSH Section; e-mail: nelson@nlm.nih.gov

---


Contact: http://www.fda.gov/cdrh/prodcode.html

---


CATEGORY 1 RESTRICTIONS APPLY.
Source information for new or updated sources for the 2002AC release are below:


Contact: Kathleen Mullen; e-mail: kmullen@his.com


Contact: http://www-commons.cit.nih.gov/crisp


Contact: http://www.regenstrief.org/loinc/loinc.htm


CATEGORY 3 RESTRICTIONS APPLY

Contact: http://meddramsso.com


Contact: http://meddramsso.com

MSH2002_06_01 Medical Subject Headings (MeSH). Bethesda (MD): National Library of Medicine, June 01, 2002.

This source has been translated into many languages. To date, eight of the translations have been incorporated into the UMLS Metathesaurus.

Contact: Stuart Nelson, M.D., Head, MeSH Section; e-mail: nelson@nlm.nih.gov; http://www.nlm.nih.gov/mesh/meshhome.html

Source information for new or updated sources for the 2002AB release are below:


Contact: Dr. Annie Advocat; e-mail: advocat@inserm-dicdoc.u-strasbg.fr; http://www.inserm.fr


Contact: http://meddramsso.com

CATEGORY 3 RESTRICTIONS APPLY

Contact: http://meddramsso.com


CATEGORY 3 RESTRICTIONS APPLY

Contact: http://meddramsso.com


CATEGORY 3 RESTRICTIONS APPLY

Contact: http://meddramsso.com


This source has been translated into many languages. To date, eight of the translations have been incorporated into the UMLS Metathesaurus.

Contact: Stuart Nelson, M.D., Head, MeSH Section; e-mail: nelson@nlm.nih.gov; http://www.nlm.nih.gov/mesh/meshhome.html
April 22, 1998.

*NOTE: Now a CATEGORY 0.

Contact: Michele Tringali, tringali.michele@aoud.sanita.fvg.it

April 22, 1998.

*NOTE: Now a CATEGORY 0.

Contact: Michele Tringali, tringali.michele@aoud.sanita.fvg.it


Contact: www.ncbi.nlm.nih.gov/Taxonomy/

NLM02 RxNorm work done by the National Library of Medicine (NLM), Bethesda (MD), National Library of Medicine.

This release contains concepts created by the National Library of Medicine which express the meaning of a drug name in a normalized form. These concepts relate the names of orderable medications to a dose form and the components of those medications. For further discussion, see the article at:


Contact: Stuart Nelson, M.D., Head, MeSH Section; e-mail: nelson@nlm.nih.gov

NLM03 RxNorm relationship work done by the National Library of Medicine (NLM), Bethesda (MD), National Library of Medicine.

This release contains concepts created by the National Library of Medicine which express the meaning of a drug name in a normalized form. These concepts relate the names of orderable medications to a dose form and the components of those medications. For further discussion, see the article at:
Appendix B Metathesaurus Data Elements and Source Vocabulary Information

B.1.1 Column Descriptions

Updates to Column Descriptions:

---

ATNL  Attribute Name List for a Source

Found in MRSAB

Examples:  MUI, RN, TH

---

CENC  Character Encoding

Found in MRSAB

Character set as specified by the IANA official names for character assignments
See http://www.iana.org/assignments/character-sets

---

CFR  CUI Frequency

Found in MRSAB
The number of CUIs associated with a source

Example: 10234

CURVER  Current Version Flag

Found in MRSAB

A Y or N flag indicating whether or not this row corresponds to the current version of the named source in a particular release.

CXTY  Context Type

Found in MRSAB

One or more context type for a source per Section 2.3.2 in the documentation

Examples: FULL, NOSIB, MULTIPLE, FULL-MULTIPLE

IMETA  Metathesaurus Insert Version

Found in MRSAB

The version of the Metathesaurus that a source appears

Example: 2001AB

LAT  Language

Found in MRSAB

The language of a source

Example: ENG, FRE, GER
MAPIN Mapping in Current MetamorphoSys Subset

Found in MRCUI

For use with MetamorphoSys, indicates whether CUI is in subsetted Metathesaurus created with MetamorphoSys.

Valid Values:

Y = CUI2 is in subset
N = CUI2 is not in subset
Null

MEND  Metathesarus End Date

Found in MRSAB

The date a source ceased to be active

Example: 2001_05_10

MSTART  Metathesaurus Start Date

Found in MRSAB

The date a source became active

Example: 2001_04_03

RCUI  Root Source CUI

Found in MRSAB

Concept Unique Identifier for the root SRC concept for a source

RMETA  Metathesaurus Remove Version

Found in MRSAB

The version of the Metathesaurus where a version is removed

Example: 2002AC
<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Found in MRSAB</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>RSAB</td>
<td>Root Source Abbreviation</td>
<td>Found in MRSAB</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Versionless Source Abbreviation</td>
<td>Found in MRSAB</td>
<td>MSH, AOD, RCD</td>
</tr>
<tr>
<td>SABIN</td>
<td>Source in Current Subset</td>
<td>Found in MRSAB</td>
<td>A Y or N flag indicating whether or not this row is represented in the current MetamorphoSys subset. Initially always Y where CURVER is Y, but later is recomputed by MetamorphoSys.</td>
</tr>
<tr>
<td>SCC</td>
<td>Source Content Contact</td>
<td>Found in MRSAB</td>
<td>The source contact information for users</td>
</tr>
<tr>
<td>SF</td>
<td>Source Family</td>
<td>Found in MRSAB</td>
<td>Source Family groupings defined for the Metathesaurus</td>
</tr>
<tr>
<td></td>
<td>Example: ICPC, MSH</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SLC</td>
<td>Source License Contact</td>
<td>Found in MRSAB</td>
<td>The contact information for a source regarding licensing issues</td>
</tr>
<tr>
<td>SON</td>
<td>Official Source Information</td>
<td>Found in MRSAB</td>
<td>The official name for a source</td>
</tr>
<tr>
<td></td>
<td>Example: Medical Subject Headings</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
SRL  Source Restriction Level

Found in MRSO and MRSAB

The "Category of additional restrictions" of the vocabulary source of this string. See the UMLS License agreement for the meaning of each level, and for the restriction level for any source vocabulary.

Valid Values:

0  No additional restrictions.

1  LICENSEE is prohibited from translating the vocabulary source into another language or from producing other derivative works based on this single vocabulary source.

2  All category 1 restrictions AND

   LICENSEE is prohibited from using the vocabulary source in operational applications that create records or information containing data from the vocabulary source. Use for data creation research or product development is allowed.

3  LICENSEE's right to use material from the source vocabulary is restricted to internal use at the LICENSEE's site(s) for research, product development, and statistical analysis only. Internal use includes use by employees, faculty, and students of a single institution at multiple sites. Notwithstanding the foregoing, use by students is limited to doing research under the direct supervision of faculty. Internal research, product development, and statistical analysis use expressly excludes: use of material from these copyrighted sources in routine patient data creation; incorporation of material from these copyrighted sources in any publicly accessible computer-based information system or public electronic bulletin board including the Internet; publishing or translating or creating derivative works from material from these copyrighted sources; selling, leasing, licensing, or otherwise making available material from these copyrighted works to any unauthorized party; and copying for any purpose except for back up or archival purposes.

   LICENSEE may be required to display special copyright notices before displaying data from the vocabulary source. Applicable notices are included in the list of UMLS Metathesaurus Vocabulary sources, that is part of the "License Agreement for Use of UMLS Products".
SVER  Source Version
Found in MRSAB
Release date or version of a source
Example: 5.1, 2001

TFR  Term Frequency for a source
Found in MRSAB
The number of terms for a source
Example: 12343

TTYL  Term Type List for a Source
Found in MRSAB
List of all term types in a source
Example:  PT, EN

VCUI  Versioned Source CUI
Found in MRSAB
CUI of the versioned SRC concept for a source

VSAB  Versioned Source Abbreviation
Found in MRSAB
The versioned source abbreviation for a source
Example:  MSH2003_2002_08_14

B.1.2 Attribute Descriptions
Attribute additions and changes for 2002AD include the following:

---

**LT  Lexical Tag**

*NOTE: This attribute was present in older versions of the Metathesaurus. It was discontinued but has been brought back in 2002AD.*

Indicates if a chemical or medical device is a tradename

Valid Value: TRD

---

**MED####  MEDLINE Backfile Postings 1910 through 2002 (MeSH only)**

'MED' followed by a numeric value followed by another numeric value preceded by an asterisk (*); one of the two values may be absent, indicating no occurrences.

Data elements which give the number of times a MeSH term has been used in MEDLINE, by year on the NLM system. For MeSH main headings, each element has two values: the total occurrences and the occurrences in which the term was designated a principal concept, preceded by an asterisk. For subheadings, only the total postings are given. These attributes have a SAB of NLM-MED.

This is the only source of information in the Metathesaurus on the frequency of use of MeSH headings in MEDLINE from 1910 and on the total frequency of use of MeSH headings in MEDLINE from 1966 to the present.

---

**B.2 Source Vocabularies and their Abbreviations**

Complete list of Source Abbreviations with the new updates and new sources for 2002AD included. Note that both the versionless and versioned source abbreviations are now included:

<table>
<thead>
<tr>
<th>Versionless SAB</th>
<th>Versioned SAB</th>
<th>Source Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Code</td>
<td>Code Description</td>
<td></td>
</tr>
<tr>
<td>------</td>
<td>------------------</td>
<td></td>
</tr>
<tr>
<td>DMD</td>
<td>German translation of MeSH. Cologne (Germany): Deutsches Institut fuer Medizinische Dokumentation und Information, 2002.</td>
<td></td>
</tr>
<tr>
<td>Code</td>
<td>Description</td>
<td></td>
</tr>
<tr>
<td>-----------</td>
<td>---------------------------------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>FIN</td>
<td>Finnish translation of MeSH. Helsinki (Finland): Finnish Medical Society Duodecim, 2002.</td>
<td></td>
</tr>
</tbody>
</table>
ICPC ICPC93 The International Classification of Primary Care (ICPC). Denmark: World Organisation of Family Doctors, 1993.

ICPC2E ICPC2E_1998 International Classification of Primary Care (ICPC) / prepared by the Classification Committee of the World Organization of National Colleges, Academies, and Academic Associations of General Practitioners/Family Physicians (WONCA), known more briefly as the World Organization of Family Doctors. 2nd ed. Henk Lamberts and Inge Hofmans-Okkes, 1998.


ICPCBAQ ICPCBAQ_1993 Basque translation of ICPC93; see ICPC93

ICPCDAN ICPCDAN_1993 Danish translation of ICPC93; see ICPC93

ICPCDUT ICPCDUT_1993 Dutch translation of ICPC93; see ICPC93

ICPCFIN ICPCFIN_1993 Finnish translation of ICPC93; see ICPC93

ICPCFRE ICPCFRE_1993 French translation of ICPC93; see ICPC93

ICPCGER ICPCGER_1993 German translation of ICPC93; see ICPC93

ICPCHEB ICPCHEB_1993 Hebrew translation of ICPC93; see ICPC93

ICPCHUN ICPCHUN_1993 Hungarian translation of ICPC93; see ICPC93

ICPCITA ICPCITA _1993 Italian translation of ICPC93; see ICPC93

ICPCNOR ICPCNOR_1993 Norwegian translation of ICPC93; see ICPC93

ICPCPOR ICPCPOR_1993 Portuguese translation of ICPC93; see ICPC93

ICPCSPA ICPCSPA_1993 Spanish translation of ICPC93; see ICPC93

ICPCSWE ICPCSWE_1993 Swedish translation of ICPC93; see ICPC93


<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCM</td>
<td>Glossary of Methodologic Terms for Clinical Epidemiologic Studies of Human Disorders. Canada: McMaster University.</td>
</tr>
<tr>
<td>MSH</td>
<td>Medical Subject Headings (MeSH 2003). Bethesda (MD): National Library of Medicine, August 14, 2002.</td>
</tr>
<tr>
<td>MTHCH</td>
<td>Metathesaurus Hierarchical CPT Terms (These terms were created by the NLM to provide contextual information for CPT). Bethesda (MD): National Library of Medicine.</td>
</tr>
<tr>
<td>MTHHH</td>
<td>Metathesaurus Hierarchical HCPCS Terms (These terms were created by the NLM to provide contextual information for HCPCS). Bethesda (MD): National Library of Medicine.</td>
</tr>
<tr>
<td>Code</td>
<td>Details</td>
</tr>
<tr>
<td>--------</td>
<td>---------</td>
</tr>
<tr>
<td>RCD</td>
<td>Clinical Terms Version 3 (Read Codes) (Q199). England: National Health Service Centre for Coding and Classification, March, 1999.</td>
</tr>
</tbody>
</table>


RXNORM  RXNORM_02AD  RxNorm work done by the National Library of Medicine (NLM), Bethesda (MD), National Library of Medicine.


WHOFRE  WHOFRE_1997  French translation of WHO97; see WHO97

WHOGER  WHOGER_1997  German translation of WHO97; see WHO97

WHOPOR  WHOPOR_1997  Portuguese translation of WHO97; see WHO97

WHOSPA  WHOSPA_1997  Spanish translation of WHO97; see WHO97

B.2.1 Sources of additional (non-concept name) information

Complete list of source information with the new updates and new sources for 2002AD included:

A small number of sources contribute information to the Metathesaurus but do not contribute concept names (i.e.,
the SAB does not appear in MRSO). For example, a source may contribute relationships between concepts, but not actually name the concepts. The following versioned and versionless SABs do not appear in MRSO:

<table>
<thead>
<tr>
<th>SAB Code</th>
<th>SAB Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>HDA</td>
<td>HDA99</td>
<td>Health devices alerts. Plymouth Meeting, PA: ECRI.</td>
</tr>
<tr>
<td>HLREL</td>
<td>HLREL_1998</td>
<td>ICPC2E-ICD10 relationships from Dr. Henk Lamberts (HLREL). University of Amsterdam. Contact: <a href="mailto:H.Lamberts@AMC.UVA.NL">H.Lamberts@AMC.UVA.NL</a>.</td>
</tr>
<tr>
<td>HPC</td>
<td>HPC99</td>
<td>Healthcare product comparison system. Plymouth Meeting, PA: ECRI.</td>
</tr>
<tr>
<td>MBD</td>
<td>MBD02</td>
<td>MEDLINE (1992-1996)</td>
</tr>
<tr>
<td>MED</td>
<td>MED02</td>
<td>MEDLINE (1997-2002)</td>
</tr>
<tr>
<td>NCISEER</td>
<td>NCISEER_1999</td>
<td>NCI Surveillance, Epidemiology, and End Results (SEER) conversions between ICD-9-CM and ICD-10 neoplasm codes. National Cancer Institute, Bethesda, MD. Release Date: June 1999.</td>
</tr>
</tbody>
</table>

### B.3 Number of Strings from Each Source

Complete list of string counts with the new updates and new sources for 2002AD included:

<table>
<thead>
<tr>
<th>Source</th>
<th>Strings</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIR</td>
<td>685</td>
</tr>
<tr>
<td>ALT</td>
<td>4878</td>
</tr>
<tr>
<td>AOD</td>
<td>20685</td>
</tr>
<tr>
<td>BI</td>
<td>1251</td>
</tr>
<tr>
<td>BRMP</td>
<td>41875</td>
</tr>
<tr>
<td>BRMS</td>
<td>40288</td>
</tr>
<tr>
<td>CCPSS</td>
<td>15840</td>
</tr>
<tr>
<td>CCS</td>
<td>1608</td>
</tr>
<tr>
<td>CDT</td>
<td>508</td>
</tr>
<tr>
<td>COSTAR</td>
<td>3461</td>
</tr>
<tr>
<td>CPM</td>
<td>536</td>
</tr>
<tr>
<td>CPTSP</td>
<td>7894</td>
</tr>
<tr>
<td>CPT</td>
<td>16253</td>
</tr>
<tr>
<td>Code</td>
<td>Value</td>
</tr>
<tr>
<td>--------</td>
<td>-------</td>
</tr>
<tr>
<td>ICPCSWE</td>
<td>723</td>
</tr>
<tr>
<td>INS</td>
<td>30884</td>
</tr>
<tr>
<td>ITA</td>
<td>21158</td>
</tr>
<tr>
<td>JABL</td>
<td>3260</td>
</tr>
<tr>
<td>LCH</td>
<td>6652</td>
</tr>
<tr>
<td>LNC</td>
<td>79522</td>
</tr>
<tr>
<td>MCM</td>
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B.4 Types of Names in a Vocabulary - the TTY

New Term Types included in 2002AD:

- **RAB**: SRC root abbreviation
- **RHT**: SRC root hierarchical term
- **RPT**: SRC root preferred term
- **RSY**: SRC root synonym
- **SSN**: SRC short source name used in UMLS Knowledge Source Server
- **VAB**: SRC versioned abbreviation
- **VPT**: SRC versioned preferred name
- **VSY**: SRC versioned synonym

New Term Types included in 2002AB and 2002AC:

- **CMN**: Common name
- **EQ**: Equivalent name
- **PCN**: Preferred common name
SCN  Scientific name
UCN  Unique common name
UPC  Unique preferred common name
USN  Unique scientific name
USY  Unique synonym
XX   Expanded string

Term Types not currently in 2002AC (these became the LRN attribute):

RN   Official component related name in LOINC
RX   Alternate name of preferred name

B.5 Order of Precedence of Source Concept Names as Distributed

New Precedence for the 2002AD release:

MTH/PN
MTH/MM
MSH/MH
MSH/TQ
MSH/EP
MSH/EN
MSH/XQ
MSH/NM
RXNORM/SCD
RXNORM/SCDC
DSM4/PT
DSM3R/PT
SNMI/PT
SNMI/PX
SNMI/HT
SNMI/HX
VANDF/CD
VANDF/HT
VANDF/IN
MDDB/CD
MMX/CD
MMX/IN
RCDSA/PT
RCDSY/PT
RCDAE/PT
RCD/PT
MSH/N1
ICD10AM/PX
ICD10AMAE/PS
ICD10AM/PS
PDQ/PT
PDQ/SY
NCI/PT
NCI/SY
NCI/AB
ICPC2AE/PT
ICPC2E/PT
ICPC2AE/PX
ICPC2E/PX
ICPC/PT
ICPC/PT
ICPC2AE/PS
ICPC2E/PS
ICPC2AE/ET
ICPC2E/ET
ICPC/PS
ICPC/PC
ICPC/CX
ICPC/CP
ICPC/CS
ICPC/CC
ICPC2E/CO
ICPC/CO
ICPC2AE/AB
ICPC2E/AB
CCPSS/TX
CCPSS/TC
CCPSS/PT
CCPSS/MR
ICPCPAE/SF
ICPCPAE/SY
ICPC2P/SF
ICPC2P/SY
ICPCPAE/PX
ICPC2P/PX
ICPCPAE/PT
ICPC2P/PT
ICPCPAE/PS
ICPC2P/PS
AOD/DE
AOD/DS
AOD/XD
AOD/FN
AOD/ET
CCS/SD
CCS/MV
CCS/SP
ICD10AE/HT
ICD10/HT
ICD10AE/HX
ICD10/HX
ICD10AE/HS
ICD10/HS
ICD10AMAE/HT
ICD10AM/HT
UMD/HT
ICPC/HT
RAM/PT
RAM/RT
QMR/PT
HL7/PT
HL7/DF
HL7/DFA
HL7/VS
MTHCH/HT
MTHHH/HT
HHC/DX
BI/AB
HHC/IV
HHC/CO
NIC/IV
NIC/HC
NAN/PT
NAN/HT
NAN/RT
OMS/MT
OMS/PR
OMS/TG
OMS/HT
OMS/PQ
OMS/IV
OMS/SI
NIC/AC
NIC/SA
NOC/OC
NOC/IX
NOC/ID
PCDS/GO
PCDS/OR
PCDS/PR
NIC/HT
B.6 Relationship Attributes not Listed in the Semantic Network

As of 2002AD:

- adjectival_form_of
- classified_as
- classifies
- clinically_associated_with
- clinically_similar