

RELMA Release Note version 3.16 - 2005 12 05

LOINC released in 3.16 RELMA is version 2.16 and contains 42,499 terms, an increase of 1,776. Approximately 1,000 terms have been edited. A grand total of 1,095 terms have been deprecated since beginning of LOINC.

Version 3.16 of RELMA (and HL7 Lint) is now available and can be down loaded from the LOINC website (<http://www.regenstrief.org/loinc/download/>). It now includes terms of which — are lab terms.

The program does not look much different but we have made changes in the database and structure that should simplify and speed the mapping of laboratory tests. (We will provide similar capabilities for clinical finding in the next release.) There should be a Regenstrief copyright notice-- on this just the (C) Regenstrief 2005. Some of this should probably be included in some version of the RELMA users guide too.

We have done four things to make the mapping more specific and faster.

1. Removal (temporary) of the ACS synonyms to reduce the number of terms that comes up in a search.

We removed the ACS synonyms from the LOINC term word index. The ACS synonyms are so rich and complete that they tend to include too many hits in the given query about a term. For example, when the ACS synonyms were including a brand of warfarin (or rat poison) that has the letter K as part of its name show up. When you type in K looking for potassium. The list of hits is now shorter and more reasonable.

We are not removing the ACS synonyms entirely - for exotic names they can be useful. In a future release we will make the use of ACS synonyms available under user option. For now, however they are not part of the indexing at all.

2. Made units restrictions sticky

If you have units in your mapping file, it makes no sense not to restrict the search to LOINC terms whose properties (e.g. mass concentration) are consistent with the units in your local lab. When you do a search for words in RELMA with units restrictions turned on, RELMA returns only the LOINC codes that are consistent with the units. So if your test is spot urine with units of mg/dl, the units restrictions screen out all of the 24 hour tests and all of the tests reported in molar concentrations, and in general the list of choices will be much smaller and more specific than if you turned off the units restrictions. We have made the units a "sticky" default. The computer starts out with units constraints turned on. The clear limits button now is labeled: "Clear *most* limits, because it does not clear the units restriction. You have to explicitly turn off the units restriction by either clicking on "units" at the bottom edge of the mapping form or going to the limits page and turning it off. When you log on again they will again be the default.

RELMA takes the units from the local mapping file (LMOF) that you load in to start your mapping session. If you do not include units (a mistake) then this change will have no effect. If you include units that RELMA does not understand, the restriction on units has no effect. The units restrictions work the same on all measurements that have units - whether they be lab or clinical.

The only down side of this new approach, is that if you are just exploring the content of RELMA, and want to just play around to see what is in RELMA - you will have to either clear the units field on the current screen or turn off the units restriction, because the default LMOF (the one that comes with the program) contains units. If you forget to turn off the units restriction and the computer finds no matches at all, it will remind you that you have units restrictions turned on. If you notice you are not finding common tests- when your are exploring, the first thing to do would be to null out the units field on the mapping screen if it contains something.

3. Common Lab tests

We have re-worked the list of common tests. Adding more laboratory tests based on a number of criteria- including some information about real use in our local RHIO. We have re-named the function to be Common Lab test and removed most non-lab measures. (In a future release we will provide specialized lists for a variety of clinical measurements). Finally, we have placed the button to restrict searches to common lab tests on the mapping page, where it is easy to trunk it on or off.

Using the common test restriction removes much of the clutter associated with mapping the more common tests. For example, if you search for Hemoglobin BLD without using common tests 100's of tests come up, including many pathologic hemoglobins such as hemoglobin Seattle. If you do the same search with common tests and Units restrictions turned on-- you get two options in the list.

At the start you should always be setting the Common lab tests button and leaving the units restrictions on.

4. Unknown words (Spelling errors) among your submitted terms.

When you include a word in the search box that is not known to RELMA, the program now highlights it with the squiggly red lines that indicate a spelling error in WORD. Unknown words are ignored in the search. So if you don't realize that you have included words that are unknown (Think of them as mis-spelled) your search will not behave as expected. So look for those words with squiggly lines and edit -when possible. Even better be sure to run the find and correct unsown (mis-spelled) words as part of the LMOF loading process.

5. Intelligent Mapper

We have improved- the function of intelligent mapper and cleaned up the screens to make them easier to work with. Try this function- It does a batch search for all of the terms in your local lab file and comes up with a list of 10 ranked "best" matches. It can use all of the same restrictions as the one by one search. It will often save you time.

6. Progress with CPT

We have shown that for radiology tests, the inclusion of CPT codes in your local file can greatly improve the speed and accuracy of mapping (Vreeman DJ, McDonald CJ Automated Mapping of Local Radiology Terms to LOINC. American Medical Informatics Association 2005 Proceedings, 769-773.). However, we will have to include CPT codes within ten RELMA distribution and have not yet worked out the mechanisms for doing this with the AMA.

7. With this release, new installations of RELMA have the automatic sizing option on the search results screen set to off. To enable the automatic sizing of the search results grid users must explicitly enable this option on the user preferences screen.

This provided users with a reasonable view of most LOINC terms with automatic columns sizing turned on. A very long component would generate very wide columns that disrupt viewing. The default columns size provides reasonable column sizes for most searches. You can still change the column size and positions and can return the program to automatic columns resizing with each search by setting the default.