

Implementing RxNav, a RxNorm Browser

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The RxNorm Navigator^{1,2} (RxNav) is a browser that allows users to query the RxNorm³ database by any of its components (ingredient, clinical drug, brand name, etc) and displays all the information related to a given component on a single page, as illustrated in the example shown in Figure 1. RxNorm data are extracted from the Unified Medical Language System[®] (UMLS[®]). The client/server architecture was chosen over a local installation of the data because drug information is updated frequently. RxNav is implemented in java and makes use of several open-source software resources, including Java Web Start, Apache Axis, Apache HTTP Server and GSpell. More specifically, the Apache HTTP Server hosts all the application files; Java Web Start serves as the deployment mechanism; the spelling suggestion module, based on GSpell, is implemented as a web service via Apache Axis. These open-source software components enabled an efficient implementation, and a flexible and extensible architecture. Fast and reliable, RxNav has been in increasing use since its launch in September 2004.

¹ <http://mor.nlm.nih.gov/download/rxnav/>

² Bodenreider O, Nelson SJ. *RxNav: A semantic navigation tool for clinical drugs*. Medinfo 2004:1530.

³ http://www.nlm.nih.gov/research/umls/rxnorm_main.html

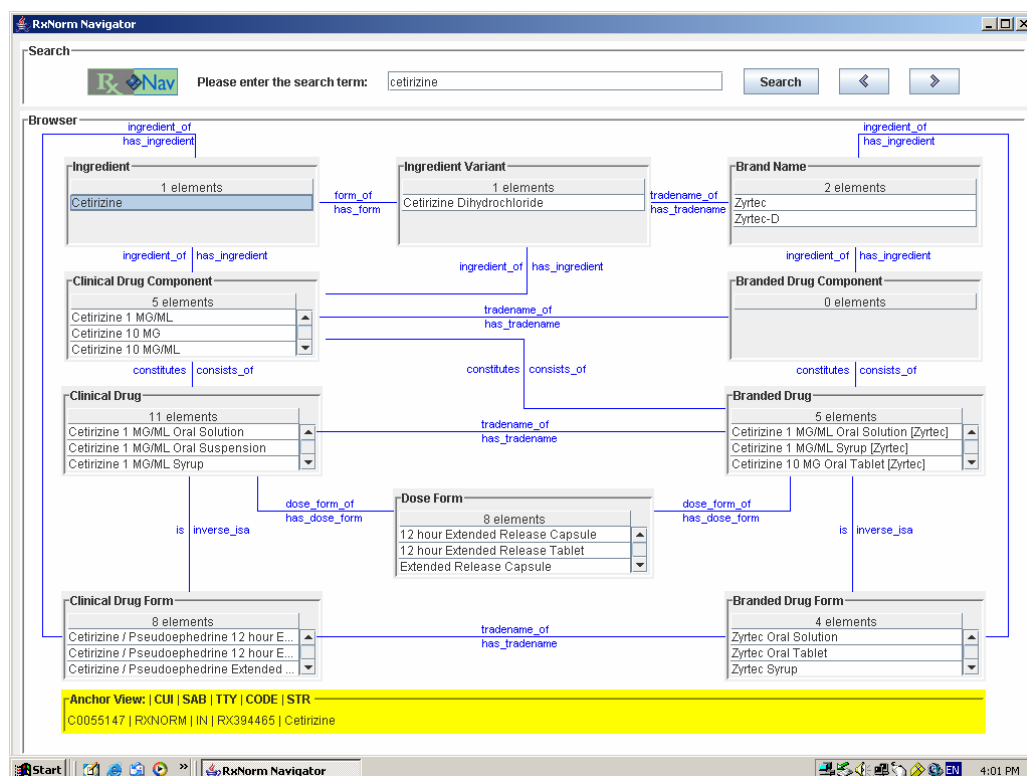


Figure 1—RxNav Screenshot for Cetirizine