SYNTACTICA

DESCRIPTION:

Syntactica is a software application tool designed to let you study natural language structure in a fun, interactive way. The program provides a simple interface for creating grammars, for viewing the structures they assign to expressions, and for transforming those structures by syntactic operations.

In Syntactica, a grammar consists of a set of context-free phrase structure rules and (typically) a lexicon. Phrase structure rules are created in a rule window. Lexicons are created in a lexicon window. Rules and lexicons are loaded into TreeViewer window where they are used to generate phrase-markers (or tree diagrams). The user enters a sentence (or other expression) and Syntactica tries to generate a phrase-marker for it using the grammar that has been loaded. When more than one structure is available, Syntactica displays the range.

Multiple rule and lexicon windows can be open at any one time, making it easy to load alternate grammars, and to test and compare their results. Phrase-markers can be saved for later viewing, printing or inclusion in homework assignments emailed to a central location. Sentence and Tree windows allow you to conveniently collect sentences and trees generated by a grammar, or to work with an assigned set.

Syntactica permits many aspects of syntactic theory to be explored. The rule and lexicon windows allow you to assign and control the percolation of syntactic features. The TreeViewer window lets you to perform a variety of formal operations on trees by simply pointing, clicking and using the Transforms panel. Syntactica also allows you to control various constraints on operations, including an elementary version of_Subjacency_.

Syntactica was produced as part of the NSF Course and Curriculum Development project Grammar As Science (GAS), a joint venture by the Departments of Linguistics and Computer Science at the State University of New York at Stony Brook. The leading idea of GAS is that linguistics provides a uniquely effective medium for introducing students from a wide variety of academic backgrounds to the principles of scientific reasoning and method. GAS materials include a manual and an accompanying software application tool for Syntax and Semantics. Syntactica is the software application tool for Grammar As Science. Currently under development is Semantics As Science, and its accompanying software tool: Semantica.

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