11.1 Loading Sparser

Sparser’s program architecture was laid down at an odd moment in the history of Lisp: after the rich ‘defsystem’ facility of Lisp Machine Lisp had been lost because of the shift to cheaper, faster hardware, and before the advent of a workable replacement library such as ASDF. That, plus the need to create many semi-custom variations of Sparser with different grammars and capabilities, led to the development of a multi-layered procedure for loading Sparser and its grammars, one that is overly intricate but not so much so that it is presently worth the considerable effort that would be entailed to rewrite it in a modern idiom.

All of the loading code is loaded in the toplevel Sparser directory **init**, which has this layout.

init

changed-files.lisp

everything.lisp

images/

Lisp/

scripts/

versions/

workspaces/

We have the ability to vary what modules of the grammar are loaded and other toplevel parameters such as the size of the chart, the size of the word-lookup buffer, whether the characters of the text should be uniformly shifted to upper or lower case, or what settings to use for the flags that control Sparser’s execution (and many others). These parameters have default values, the first layers of the loading procedure are for overriding these defaults.

The base of the loading process is the file everything.lisp. As its name suggests, its settings will load the entire grammar and use the parameter settings that have proved most useful in recent years. Since that is only rarely what one wants – in particular the choice of what grammar modules to include is usually very specific to the application – the practice is to load a ‘script file’ instead, where the last thing that is done in the script is to load everything.lisp.

The best way to create a new script is to crib from an old one. All the standard scripts can be found in

~/Sparser/code/s/init/scripts/

The standard pattern of what happens in the execution of the forms in a script file as it loads is (a) setting up overrides for the location of standard files, notably the location of the Sparser code directory tree; (b) creating the :sparser package so that Sparser-internal parameters can be set; (c) setting the few parameters that need to be different

11.1.1 {{Parameters in everything.lisp}}

Once a script has made its call to load everything.lisp, any downstream effects it might have are mediated by actions taken during the execution of the expressions in everything.lisp. This file starts out defining the location of various salient files, using OS-specific Lisp feature switches to select the correct form of the file names (e.g. #+:unix).