

SHMORE

DAN BRUMLEVE

1. OVERVIEW

shmore is moredos’s built-in command shell.

moredos has a library of built-in commands which includes shmore as well as equivalents to some Unix text-processing tools. Each moredos process has an associated *built-in command* (identified by its name) and argument list (a line). shmore parses its argument list into a sequence or pipeline of built-in commands, spawning processes to execute them through the moredos API.

An *atomic command line* is a command name followed by its argument words. When given an atomic command line, shmore spawns a process to execute it. For example, the atomic command line “echo hi” runs the built-in command “echo” with argument “hi”; the command line “sh echo hi” runs “sh” with argument “echo hi”, which then runs “echo” with argument “hi”.

A *command line* (the argument list given to shmore) is built out of atomic command lines joined by “|”, “;”, “(”, and “)”. shmore spawns a process for each atomic command line, connecting their inputs and outputs according to the syntax.

The special word “|” is used for pipeline-building. For example, the command line “echo hello there | cut 0” outputs the line “hello”, then finishes.

The special word “;” is used for sequence-building. For example, the command line “echo hi ; echo bye” outputs the line “hi”, then the line “bye”. then finishes. “;” has lower precedence than “|”.

The special word-prefix “\” is used for escaping. If a command name or argument word begins with “\”, that “\” is stripped immediately before spawning the built-in command process. For example, the shell command “echo hi \ | cut 0” outputs “hi | cut 0”.

The special words “(” and “)” are used for grouping. For example, “(echo hi there ; echo hello there) | cut 1” outputs the line “there” twice, then finishes. Parentheses must be balanced.

The special word-prefixes “\$”, “@”, and “%” are used for word, line, and grid variables respectively. Word and line variables are replaced with references to their values, and grid variables can be invoked as commands. They are assigned with the commands “setword”, “setline”, and “setgrid”.

The word-prefix “<” is used by moretp to indicate a binary word. It can also be effectively escaped with “\”.