

E01: Specification for program “cmdline”

Name

cmdline – Syntactic and semantic analysis of a command line.

Usage

cmdline – measure <MEASURE> [Search-option] File [File...]

Description

cmdline analyzes a command line for syntactic and partially for semantic correctness. The user must give the program at a minimum one measure and one file as argument; in addition, exactly one so-called search option may also be given. The order of the measurement options and search options is not important. When the command line is evaluated, all arguments beginning with the first non-option are treated as file names. The existence of such files is not checked.

If successful (i.e., if the syntax and meaning of the arguments is found to be legal), a summary of the arguments is printed out. The summary consists of the measure to be computed, the search options if any were given (including a value for -below and -above), and a list of the files to be read.

Otherwise an explanatory error message is printed, that will be different depending on the error. The messages that may appear are referred to:

- No input file has been provided. The message to appear is “No input files given”.
- No -measure option has been provided. The message to appear is “No measure option given”.
- Incorrect options (measure or search option). The message to appear is “Option arguments are incorrect”, along with any of the following clarifying messages:
 - If the –measure option appears more than once, the message to appear is “Too many measure options given”.
 - If no measure is provided, the message to appear is “No measure given”.
 - If the measure provided is invalid, the message to appear is “Invalid measure option given”.
 - If several search options have been provided, the message to appear is “Too many search options given”.

- If no number is provided in the corresponding search options, the message to appear is “No number given”.

Options

Options and arguments for options can be shortened to their unique prefixes. In the following text, the unique prefix of each option comes before the square brackets. A maximum of one search option may be used. A maximum of one measure can be used.

- -h[elp]

Help option. A helpful text is printed and nothing else is done.

- -?

Help option. See above.

- -me[asure] <MEASURE>

Acceptable measures are GKO[M], LKO[M], GKH[M], LKH[M], GI[HE], and LI[HE].

- -al[l]

Search option. The measure should be evaluated for all units.

- -ma[x]

Search option. Determines the maximum value of the measure for all units.

- -mi[n]

Search option. Determines the minimum value of the measure for all units.

- -av[erage]

Search option. Determines the average value of the measure for all units.

- -be[low] <value>

Search option. All units for which the measure lies under the boundary value will be identified. The <value> may be a real number.

- -ab[ove] <value>

Search option. All units for which the measure lies over the boundary value will be identified. The <value> may be a real number.