

# The EdFil editor program

## *Windows version*

The EdFil editor can be used to generate the input net-list file for the ASIZ program, and also for other programs, even SPICE (with some editing). It was written after the conclusion that it is virtually impossible to write a textual netlist for a nontrivial circuit without errors. Its use is recommended for any circuit analysis. This program is rather different from the schematic capture programs found in other packages, but it is very easy to use. The Windows version is compatible with the previous versions.

The circuit is drawn on the screen using the mouse and the selected keyboard keys. Names and parameters for the elements are given by moving the cursor to the component and touching the Return key, or by Ctrl-X, that causes the program to ask parameters for all the visible elements. The best method is usually to firstly draw all the circuit and later give the parameters. There are default names and parameters for all elements. The parameters are a text, and are reproduced in the net-list as given, unless for formulas, that must be enclosed in parenthesis.

Once drawn the circuit, the netlist is generated with Ctrl-Q. The program then asks the names of the files where to save the netlist (.net file) and the circuit file (.cir file). The program will ask if the circuit file (.cir file) shall be saved if you try to close the program without saving it

An important feature of the program is the optional use of formulas in the parameters. Any mathematical expression using constants and values given in a value list can be used for a numerical parameter. The expressions are evaluated in the netlist generation. This allows easy use of component value lists generated by synthesis programs, or even the use of EdFil as a synthesis program, with components parameters given by project formulas. The "=" sign can be used in formulas to create new values in the value list. Use resistors with both nodes grounded to create sets of values in this way, and operate the program as a simple spreadsheet. Evaluation is from bottom to top, left to right. Note that "=" have high precedence, not low (some day I will fix this). Always use parenthesis after "=" if what follows is a formula.

Comments and Spice commands can be added to the schematic diagram with the use of the "\*" and "." commands. Comments only appear in the netlist if the corresponding option is set.

### Recent changes:

Version 1.0k, 18/5/2005 - Added command to center the circuit in the screen (Ctrl-A). The parameters of the elements can have up to 100 characters (50 in the previous versions). Commands (".") are always sent to the netlist.

Version 1.1, 30/10/2008 - Added operational amplifier with 4 terminals and connections as the other controlled sources ("o"). The analysis programs will eventually be modified to accept it.

Version 1.1a, 06/11/2008 - Bug with the centering function corrected. Added amplifier with 4 terminals ("a").

Version 1.2, 28/10/2009 – Added elements B, N, K, and W.

Version 1.3, 25/01/2010 – Added element \$, voltage-controlled switch.

Version 1.4, 7/9/2011 – Added element # (translates to G), balanced operational amplifier. Added Exp function. Log is Ln.

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