

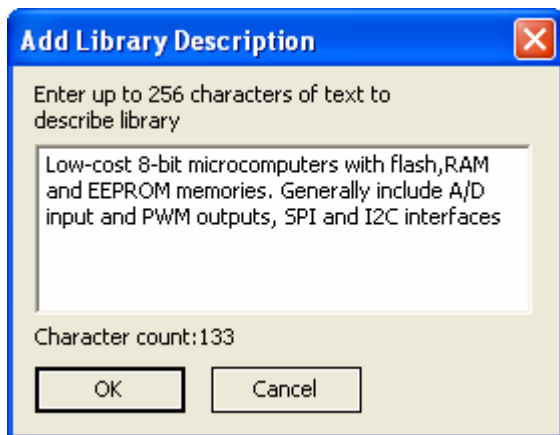
Versions 7.0 of SuperCAD and SuperPCB Released

This fall new versions of SuperCAD and SuperPCB were released. New features common to both programs include:

- Improved undo/redo
- Smooth scrolling
- Improved EPC/XPC file loading
- Improved library browser
- Library annotation feature
- Library part rename function

The improved EPC/XPC (attached library part) file loading feature now permits the attached parts to be extracted and edited, as well as be displayed. This is a boon to tech support (since you do not have to send the library files), and if you lose a library file you can recover the parts. It also greatly simplifies design sharing.

The library annotation feature allows you to attach a text description of a library. You can describe the general nature of parts in the library, without having to repeat this information for each individual part. The description is entered with the dialog shown below.



SuperPCB V7.0 now handles more geometrical objects when doing a netlist extraction or DRC (design-rule check). If you tie together pads and traces using filled polygons or rectangles, the netlister will take this into account. Likewise if you place a pad too close to a

polygon or rectangle (causing a potential short or etch problem), the DRC will flag this.

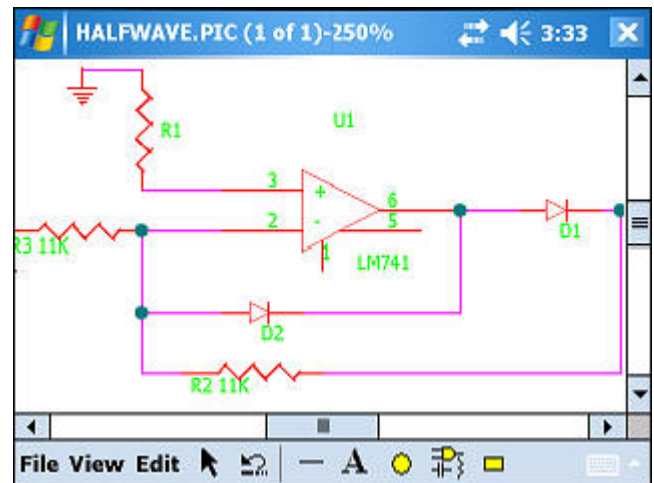
A lock parts feature allows you to prevent library parts from being accidentally moved when you are editing artwork.

SuperCAD features improved, multi-page operation and an improved library editor. The multi-page improvements include some editing improvements as well as the ability of each page to remember its offset.

The updated library part wizard allows twice as many lines to be edited (8, up from 4) as in previous versions.

You can now extract a .LIB file from a previously made part and then use this file to modify the part using the library wizard or the build utility. This simplifies revising older or previously built parts (and you do not need the original .LIB file!).

SuperCAD For Windows Mobil Introduced



This year we introduce a version of SuperCAD that runs on Pocket PCs running Windows Mobil 2003 or Windows Mobile 5.0. New versions of the Pocket PC (such as the DELL Axim 51) have VGA resolutions of up to 640 x 480. This makes them ideal for doing design on the run! SuperCAD/Mobile is completely

compatible with the desktop SuperCAD. For more details see our website.

Three more products added to Instant Ordering System

This year we added

- mentalSPICE (MA66000) for \$159
- SuperSIM (MA81000) for \$119
- SuperCAD LIB-3 (MA3011) \$29

Manuals for mentalSPICE and SuperSIM are provided on line at our web site.

To access instant ordering, see the following link:

http://www.mentala.com/instant_ordering.htm

Tips...

How to specify the outline of a board (SuperPCB) In SuperPCB board outlines and cutouts can be specified by drawing the outline on the ALL layer (use the ALL layer since then the outline can be displayed on any layer you are working on). For a simple rectangular shape use a rectangle object to specify the board outline; for something more complex, use lines (traces) or polygons. You can also use ellipses or circles. For cutouts (for example, a rectangular cut-out) you can likewise use rectangles or other objects to denote the cutout. If you have the full-up version of SuperPCB, you can also use one of the unused signal (copper layers) to specify the outline/cutouts. Make sure you tell your board manufacturer what you are doing.

Entering library pins with multiple definitions (SuperCAD Library Editor) On complex parts such as microcontrollers a pin may have multiple definitions. For example, suppose a pin is either input bit 1 of port 0 (P01), a clock signal (CLK_IN) or the data input of a SPI bus (SDA). In this case enter the label as:

P01/CLK_IN/SDA

Use the forward slash (/) to separate optional names, do not use a comma or other characters. Also allow enough space for the longer name in the part symbol.

Entering no connect (NC) library pins (SuperCAD Library Part Wizard) Frequently, ICs will have package pins that are unused (usually they are marked

as "NC" in the data sheet). To handle these in the block part editor just set the Side value to "None". The terminal will then be omitted in the symbol.

How to change a library part (SuperCAD) The **Change** operation allows you to replace a part (either schematic or artwork) with a different one. For example, suppose you want to want to replace a fixed 10K resistor with a variable one (10K POT). To do this, select the part and then right mouse click to get the edit part dialog. Then click the **Change** button and select the POT from the Device (SuperCAD) library. Then click **Place Part** and the click OK to close the edit part dialog. The new part will then appear at the same location as the old one; in the case of the variable resistor replacing the fixed resistor, the designator number and value will be the same (e.g., R4,R4, and 10K).

How to produce PDF output (SuperCAD/SuperPCB) To produce schematics and artwork in PDF format, use a third party PDF writer such as PDFcamp (<http://www.verypdf.com>). After installation, this software is accessed as an additional printer in the general Windows printer list. With SuperCAD, you can print multiple-page schematics all in one PDF file.

New Parts

An additional 10 SuperCAD schematic parts libraries have been added. Part libraries include Atmel AVR processors, Freescale parts, Maxim parts, Cypress Semiconductor PSoC microcomputer chips, and others. For those of you doing embedded processors, the Atmel AVR processors are especially nice because of their low cost and free design tools. (see our website for a link) These parts are available in SuperCAD+ or in the add-on library (MA3011).

In SuperPCB more than new package footprints have been added to the JEDEC and other libraries; these are available in the full-up MA85000 software or in the add-on library (MA85020).

This newsletter is produced by Mental Automation, Inc. We can be reached at:

6603 84th Street CT NW
Gig Harbor WA 98332
(253) 858-8104 (Voice)
(253) 858-8105 (FAX)
E-MAIL: mentala@mentala.com