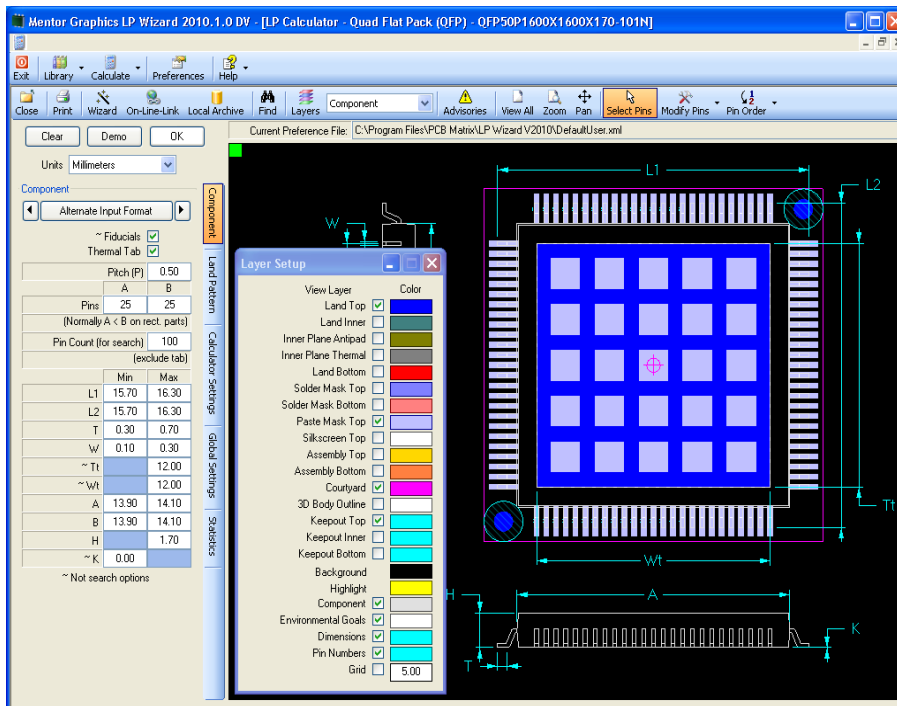


# Land Pattern Wizard

D A T A S H E E T



## Major Product Benefits

- The only CAD library generation tool approved by IPC
- 89% faster than manual part creation
- Powerful search tools improve design efficiency
- Includes a starter library of 10,000+ components
- Output requires no cleanup or additional data entry
- Exports to Expedition®, PADS®, Board Station®, Cadence Allegro®, OrCAD® PCB Editor and more!

## Overview

LP Wizard is the only CAD library-generation tool approved by IPC, enabling you to build IPC-7351B compliant CAD library parts, or create customized parts from personal rule files, in minutes.

Using component dimensions, LP Wizard automatically generates an optimized land pattern, applies design-rule checks, and displays the physical component superimposed on the lead-free land pattern. This dramatically reduces the time it takes to build CAD libraries. LP Wizard is a suite of four tools (Viewer, Calculator, Librarian, & CAD Export) that simplifies and automates CAD library creation and documentation. Additional LP Wizard features are available to significantly reduce engineering product development cycle time and resource requirements.

## LP Viewer

Search and view all library data created by the LP Wizard. Anyone can view your physical component superimposed with an IPC-approved land pattern and all the related dimensions and solder joint goals. Available for free download at [www.mentor.com/go/lpwizard](http://www.mentor.com/go/lpwizard).

## LP Calculator

Quickly browse thousands of electronic components to find a match for your component datasheet. Calculate land-pattern geometries directly from component data. The LP Calculator displays the component, dimensions, land pattern, and land-pattern name. It also links to the latest datasheet on the component manufacturer's website.

## LP Librarian

LP Librarian allows you to save, store, and reference component dimensional data and CAD library design rules to eliminate redundant work. The saved data can be shared using the free LP Viewer. CAD library (PLB) data are created automatically with every new CAD library part. Standard IPC libraries in the neutral PLB file format are included, ready for export to your desired CAD tool, one part at a time.

## Multi-Part Wizard

To mass-build thousands of parts with a single mouse click, add the “Multi-Part Wizard,” a must-have tool for every serious PCB designer. Set up your CAD library preferences and import a PLB file into the Multi-Part Wizard. In minutes, you’ll have a fully customized CAD library of thousands of parts in your native CAD tool format. Single User and Network licenses are available.

## CAD Export

LP Wizard includes CAD export tools for creating parts from existing PLB data or new component dimensions. Export parts one at a time for any of the following layout tools:

- Expedition
- PADS
- Board Station
- Allegro
- OrCAD PCB Editor
- Any other CAD tool that supports PADS ASCII import

## LP Wizard Saves Valuable Design Time

Manufacturer Part Number	Land Pattern Name	Manual Design Time	LP Wizard Design Time	Time Saved	Percentage Time Saved
Analog Devices AD9929BBCZ	BGA100C80P10X10_1000X1000X140	1 h, 3 min	6 min, 21 s	56 min, 39 s	90.5%
Panasonic ERJ-6ENF1001V	RESC2012X70N	23 min, 19 s	6 min, 54 s	16 min, 25 s	69.6%
Cirrus Logic Inc CS5012A-BL7Z	PLCC127P1752X1752X457-44N	1 h, 36 min	8 min, 20 s	1 h, 27 min	91.7%
Intersil ISL43143IR	QFN65P400X400X100-17N	1 h, 3 min	7 min, 24 s	55 min, 36 s	88.9%
Microchip Technology MCP6294-E/SL	SOIC127P600X175-14N	39 min, 48 s	8 min, 47 s	31 min, 1 s	77.5%
National Semiconductor LP3852EMP-1.8	TO230P1003X238-3N	32 min, 34 s	5 min, 26 s	27 min, 8 s	84.8%
Zetex Inc ZXT951KTC	XTAL1320X480X430N	40 min, 35 s	5 min, 9 s	35 min, 26 s	87.8%
<b>AVERAGE</b>		<b>51 min 12 s</b>	<b>6 min 54 s</b>	<b>44 min 11 s</b>	<b>84.4%</b>

## LP Wizard Saves Footprint Creation Steps

Manual Steps	LP Wizard Steps
1. Search web for datasheet	1. Search IPC-7351B Wizard for land pattern
2. Calculate pad sizes	2. If land pattern exists, export to CAD format
3. Place pads per datasheet specification	3. If land pattern doesn't exist, enter mechanical dimension component into the calculator
4. Draw/Create courtyard	4. LP Wizard calculates land pattern and builds land pattern, silkscreen, assembly and courtyard
5. Add component height	5. Export land pattern to preferred CAD format
6. Draw/Create silkscreen	
7. Draw/Create assembly outline	
8. Draw/Create pin1 indicator	
9. Add component fiducials if required	
10. Add required attributes	
11. Save land pattern to appropriate library	

Visit our website at [www.mentor.com/go/lpwizard](http://www.mentor.com/go/lpwizard)

Copyright © 2010 Mentor Graphics Corporation. Mentor products and processes are registered trademarks of Mentor Graphics Corporation. All other trademarks mentioned in this document are trademarks of their respective owners.

Corporate Headquarters  
Mentor Graphics Corporation  
8005 S.W. Boeckman Road  
Wilsonville, Oregon 97070 USA  
Phone: 503-685-7000  
North American Support Center  
Phone: 800-547-4303  
Fax: 800-684-1795

Silicon Valley  
Mentor Graphics Corporation  
1001 Ridder Park Drive  
San Jose, California 95131 USA  
Phone: 408-436-1500  
Fax: 408-436-1501

Europe  
Mentor Graphics  
Deutschland GmbH  
Annulstrasse 201  
80634 Munich  
Germany  
Phone: +49.89.57096.0  
Fax: +49.89.57096.400

Pacific Rim  
Mentor Graphics Taiwan  
Room 1603, 16F,  
International Trade Building  
No. 333, Section 1, Keelung Road  
Taipei, Taiwan, ROC  
Phone: 886-2-27576020  
Fax: 886-2-27576027

Japan  
Mentor Graphics Japan Co., Ltd.  
Golenyama Hills  
7-35, Kita-Shinagawa 4-chome  
Shinagawa-Ku, Tokyo 140  
Japan  
Phone: 81-3-5488-3030  
Fax: 81-3-5488-3031

