

# Gerber Expert 9.5

## Release Highlights

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### New Features

#### Assembly Reverse Engineering (ARE)

- Added "Part Identification By Package"- This new feature comes with pre-defined packages that make identifying components easier than ever. Add to the default package definition file to customize your own requirements.
- "Select Packages" option allows you to run identification on selected parts only.
- Added SilkScreen check when identifying 2 pin parts to help with ambiguous part orientations.
- Angled parts are now identified easily.
- Fixed Pin numbering issue.
- Fixed the identification of part on the bottom side with one odd size pin.
- Fixed part pin alignment.
- Identification of unusual 3-pin part is now oriented correctly.
- Layers are automatically turned on during identification of flashes for ambiguous part orientation.
- Many enhancements have been made to assist in the identification of components.

#### Convert Customs to Intrinsic

Convert Customs to Intrinsic feature has been added to Gerber Expert and is a very powerful tool to help clean up files that are using custom apertures instead of intrinsic (standard) apertures. Gerber Expert now automatically converts custom apertures on import with negligible impact on performance. This feature is also available as a command within the UI and as a Macro. Some of the common uses are:

- Automatically detect Cadence custom thermals as standard intrinsic thermals. You can now import the negative plane connections as Thermals automatically into Gerber Expert. This allows for improved processing of your jobs. The thermals are maintained and exported as thermals from Gerber Expert.
- Limitations of Gerber create many custom apertures in your files. Once you convert all your customs to intrinsic apertures within Gerber Expert you will have a much cleaner file to use for all of your subsequent processing.
- Convert Draw to Flash has been enhanced to create intrinsic apertures instead of customs whenever possible.

#### Color Bar

Two new right click options have been added for easy viewing.

- Turn on or off the viewing of the unused layers in the color bar
- Turn on or off the control for View/Edit layer sets using the "Control Layer Sets" option

#### Navigation

- Added ability to sort parts in the Navigator by part number

## Macro Enhancements

- DESIGNCOMPARE macro now works with String variables
- Design Compare Macro now has the Help and Keyword within the Developer.
- Fixed issue with nesting macro calls to a depth of six or greater.
- Double the number of macro files that can be loaded to 256.
- Macro CUSTOMSTOINTRINSICS added to support new "Customs to Intrinsic" commands.
- Added LOADRULEFILE command to DRC macro block. When this new keyword is used all other parameters withing a DRC block, except for REPPFILE, RUNNAME and GO, are ignored. This allows access to all analysis check types.
- Added DRC RUNNAME parameter to allow user control of the name assigned to the generated analysis run.
- Help system updated for LAYERN command.

## User-Requested Enhancements and Fixes

### • IPC-2581 RevB

- toolIdRef no longer exported in RevB
- Added support for pin Title attribute
- Added support for non-standard Attributes
- Changed export function mode from Fabrication to USERDEF
- Panel Border now created as Polyline instead of Draws
- Fixed "Out of Memory" message on customer file
- Fixed problem with missing layer feature transforms in Rev B

## Macros

- Corrected the position of the message box for the GETVALUE macro
- Increased the number of macro files allowable in a folder to 512
- IMPORTDXF macro updated with new parameters
- Added new EXPORTBITMAP macro

## Other

- PR# 7202005 Can't bring all parts into the Gerber Expert Job
- PR# 7233624 GE displays Top Silk when identifying parts on the bottom side using silkscr
- PR# 7233706 GE displays parts with asymmetrical pins (is SOT23) mirrored when identifying
- PR# 8252913 Not possible to disable Grid-Alphabetic option
- Pin number display is now all or nothing depending on zoom level.
- Centroid file converter dialog now resizable
- Improved ODB++ import of EDA data with corrupt net indees
- ODB++import now handle numeric only file names
- Improved GenCad import of customer files that do not conform to version 1.4
- Removed unnecessary redraws during processing of Automatic Convert Drawn Pads
- Part Association errors are now logged to the Navigator during import
- Fixed problem with file extension when exporting bitmaps using batch mode
- All text command dialog settings are now restored in the registry
- Automatic Convert Drawn Pads now works on simple rotated polygons
- DXF Import/Export now honors configuration setting "track current design folder"
- Increased the NLC error marker thickness for easier visibility on screen
- Improved import of 274X files with grossly out of range coordinates
- Improved handling of nested boundaries during DXF import
- Drag & Drop of PADS ASCII files now supported