No1 Number One Systems

Intelligent Gerber Import



Original Gerber files showing 'flat' unintelligent layers

Now you can reverse engineer Gerber data from any original source and create an Easy-PC design

Using the Intelligent Gerber Import option, you can load existing Gerber files into Easy-PC and rebuild them into our design format. Using the intelligence within this option you can build and use components, fully rebuild track paths with vias and layer changes and regain full component placement. The result is a layout that looks and feels like it was originally created in Easy-PC from scratch. From this you can even rebuild the PCB back into an original Schematic using the existing reverse Engineer option in Easy-PC.

Two Options in one - Viewer and Rebuild

Both Gerber and Intelligent Gerber import option licenses are supplied for viewer and design rebuild. You can use the basic Gerber Import option for viewing and verifying Gerber plots before sending them away for manufacture. The advanced option allows you to intelligently rebuild the Gerber files where the original design doesn't exist.

Easy Import

All Gerber files used for plotting the design are imported at the same time. A single dialog allows you choose multiple files and select their usage before displaying the file names.

You can add, edit and manage files in this dialog. You can import Gerber files, NC Drill files and bill of materials (BOMs).



Design rebuilt after import to create intelligent Easy-PC layout

Nothing is lost

This option imports electrical and non-electrical (silkscreen type) layers fully retaining all design information.

Intelligent Import

During the process, 'flat' artwork pads are rebuilt into their pad stacks and given appropriate style names based on their size. Drawn shapes in the Gerber files are rebuilt into tracks and automatically assigned net names. Connectivity is reconstructed through pads acting as vias at this point and to terminating pads. The full track path is rebuilt.

Component Rebuild

Component details are rebuilt in two ways depending on what is available to you. You can use existing components from your library and using a selection of areas within the design, can identify then replace components. Alternatively, you can select areas of the design (usually around identifiable components), then use the Generate Component option to recreate the component and footprint in the design.



Using this facility enables the original placement position of the components to be fully retained.



Via Rebuild

Pads within the design acting as vias on tracks can be turned into vias using the Pad to Via option. Multiple selection of pads enables this task to be completed quickly.

Use of Original Bill Of Materials

If the original bill of materials (BOM) is available, this can also be used during import. You can apply the existing BOM to recreate the original parts list. Where components match those in the existing library, they are added to the component bin for the subsequent replacement of imported pads and shapes.

Looks like an Easy-PC Originated Design

Designs are rebuilt as though they were originally created in Easy-PC, all items fully connected and maintaining full component/net integrity, all from Gerber files.

Schematics Rebuild

Once the PCB design is fully rebuilt, using the Reverse Engineer option, you can then rebuild the Schematic design as well. So, from original Gerber files, you can completely rebuild your Project in Easy-PC format, this fully rebuilds your design and library IP in a reusable format.

Prerequisites For Using Gerber Import

The Intelligent Gerber Import option works with and requires any Easy-PC For Windows V10 or a later version.

Import of Bill Of Materials and NC Drill data can be customised uisng Setup dialogs

Features

- Both Gerber and Intelligent Gerber import options supplied for viewer and rebuild options
- Imports electrical and non-electrical (silkscreen type) layers
- Rebuild pad stacks from 'flat' artworks
- Rebuild shapes back into tracks and connect to pads/vias
- Rebuild framed areas into components
- Swap framed areas to replace with existing components from your library
- Rebuilds components back in their original placement locations, no placement data is lost
- Optionally apply an existing bill of materials (BOM) during import to recreate original parts list
- Design rebuilt as though originally created in Easy-PC, all items fully connected and maintaining full component/net integrity
- Use Reverse Engineer feature on new design to rebuild Schematic design for front-to-back design, fully synchronised

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