



### Reverse Engineering:

Reverse Engineering takes your archived or legacy data, converts it back into an intelligent format and database, allowing you to use it with your current CAD database.

If you are working with "legacy" data in a Gerber format, DownStream can "Reverse Engineer" it for you. Reverse engineering is the process of starting with Gerber files then adding part and netlist information, to create an intelligent database, which can be brought back to any CAD system.

### How Does it Work

Using Gerber files, Reverse Engineering will perform a Netlist Extraction. The netlist extraction process is fully automated and supports complex blind and buried vias, MCMs and hybrid designs. Once the information has been recreated and recovered, the new data file can be imported back into your CAD system of choice.

- Add part and netlist information to a Gerber file
- Perform Netlist Extraction
- Import the new intelligent data into your current CAD system

We have created three demonstrations to show this unique functionality.

- Part One: Data Preparation
- Part Two: Building and Adding Parts
- Part Three: Exporting Data and Reading into your CAD System

Please view these online at:

[http://www.downstreamtech.com/support/Reverse\\_engineering.html](http://www.downstreamtech.com/support/Reverse_engineering.html)

### When Do You Need Reverse Engineering

Reverse Engineering is important if you have an archive of old designs — stored as Gerber files or in another CAD database - that you wish to view, use, or convert to your new system. With the right tools, you can reverse engineer those files to be useful again.

### Reverse Engineering Software and Services

**Software** - DownStream sells Reverse Engineering as a separate product. This software provides an alternative solution to PCB redesign or Gerber modification. The Reverse Engineering process takes PCB artwork Gerber layers created in older CAD systems and converts them into an intelligent database. Using this electronic, intelligent database with your current CAD system, you can make changes at the design level instead of the Gerber level.

**Services** - If you have data which you need "Reverse Engineered", but you don't want to do it yourself or invest in the software long-term, DownStream offers Reverse Engineering Services. All you need to provide is: Gerber files including silkscreen information, Drill Files, BOM if available, Board if Available, and CAD Netlist if available, IPC-d\_356 is ideal.

The final deliverable will be the CAD Database of your choice.