

# Release Notes GC-PowerPlace v11.1

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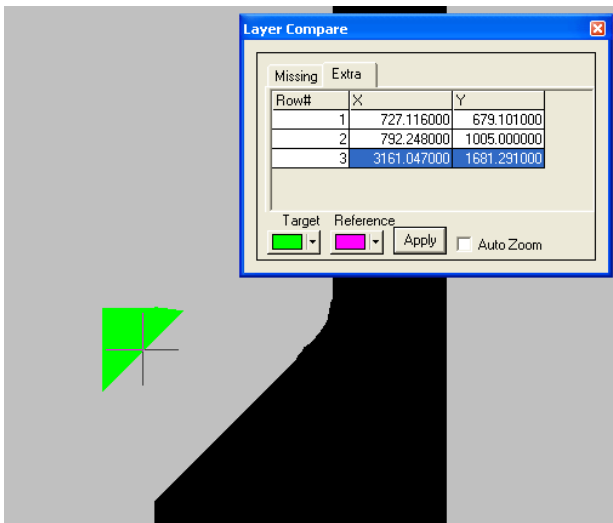
# New Features

## Layer Compare Overhaul

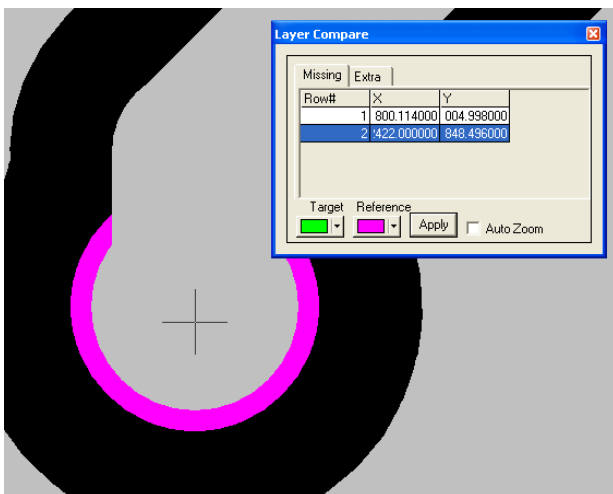
The Layer Compare function has been totally redesigned to provide more understandable and more accurate information regarding the differences between layers

Firstly, the menu item for Layer Compare has been moved from the Test Menu to the DFM menu.

Secondly, the Layer Compare report has been enhanced to define errors as either 'Extra' or 'Missing'. Areas are defined as Extra if they appear on the Target layer but not on the Reference Layer. The reverse is true for Missing areas.



As can be seen in the above screenshot, common areas are shown in a third color to make identification of the Extra and Missing Areas clear. Each unique area is listed in the Error list and navigation between errors can be done via up / down arrows, the scroll buttons or clicking with the mouse.



Options for changing the displayed colors for the Target and Reference Layers are provided as well as an option to have the software modify the zoom level to display the area of interest at the appropriate zoom level.

The data is still selectable if necessary. Once the Layer Compare Results window is closed, the results are not retained.

## Faster ODB++ loading

The ODB++ loading time has been dramatically shortened with results being most noticeable on very large database files. Examples show reductions for 300+ MB files being reduced from 150 minutes to 8 minutes with no loss of information.

## Faster and cleaner DXF/DWG Import

A significant amount of data cleanup is now performed on DXF and DWG files being imported into the GWK database.

Certain constructions have been converted from small straight-line segments into singular arcs with a dramatic reduction on file size and number of data elements. Other constructions are now automatically converted to flashed, round pads upon import. As well as reducing the number of elements contained within each layer these improvements have significant ripple-down advantages in terms of draw-speed, selection and conversion time.

The extents of the data are now being used to determine whether the user defined units will result in an image that can be displayed within the software's addressable space. The process of determining the data extents (as compared to reading the page extents) will result in a slightly longer loading time for DXF and DWG files but will reduce the number of occurrences when the data is being incorrectly scaled to fit within the addressable space.

Finally, there is an option given to the user (Tools > Customize > Settings) to fix any round outlines. This will make use of a polygon apertures rather than a zero draw aperture.

Additional cleanup was undertaken to address issues occurring with Traditional Chinese Windows operating systems.

## Previous Layer Viewing

To compliment the existing View Next Layer (Hotkey '1') function we have added a View Previous Layer

(Hotkey '2') function that works in the same manner, only in reverse. Now it is quicker to navigate back to a Physical Layer in the Layer List.

In addition, we have added an option under the Tools > Customize > Settings called

'Include Associated Drills in Next Layer View'

If this option is checked then the drill layers that pierce the displayed physical layer will be displayed. This is especially useful for blind / buried boards where the automatic update of relevant boards can save significant time and improve accuracy.

### **Improved programming for CyberOptics SE300/500**

The existing workflow approach to programming CyberOptics Solder Paste Inspection machines has been further improved to synchronize the rotation and offset between the paste layer and the part layer and also to better streamline the fiducial creation process when step and repeated images has been detected.

## Items fixed since v10.4.2

This list is customer reported issues fixed for this release.

- #4507 Fixed a crash occurring in Traditional Chinese build with DXF loading of certain files.
- #4506 Corrected isolation issue generate by the fix for Track #4501.
- #4503 Modified the DXF/DWG import code to generate required spline constructions in a much shorter time.
- #4502 Modified the software aperture behavior when an ODB++ file contained Reverse commands within a symbol definition.
- #4501 Corrected an issue in the isolation function that generated very small arcs. These small arcs led to a failure of the isolation function when the layer was re-isolated with a reduction added.
- #4500 Added switch to Next Layer View that includes or ignores the associated drill files
- #4499 Improved the Find Reference Designators algorithm to correctly recognize text when the text construction consisted of a large number of traces.
- #4498 Fixed an issue during contour generation that resulted in the incorrect isolation of certain paste apertures within specific datasets.
- #4494 Addressed an issue whereby a gerber file loaded with incorrect panelised copies due to a failure to reset the step and repeat pattern following newly defined layers within an RS-274X file.
- #4493 Updated the status line information for opening an ODB++ database file. This was done as part of the speed-up work of loading an ODB++ file. As part of this incident, a memory issues was found and fixed.
- #4491 Tiny arcs within this dataset caused several failures (see also #4490 and #4489). This incident fixed an issue that caused the contour to fail when isolating the layer.
- #4490 This incident describes the tiny arc being output to a DPF file and being re-read back into the GWK. When the file was read back in, a full 360 degree arc was generated.
- #4489 The tiny arc caused mirroring of the layer to fail because the center point of the arc fell outside the job extents.

