

# Release Notes GC-PowerPlace v8.1

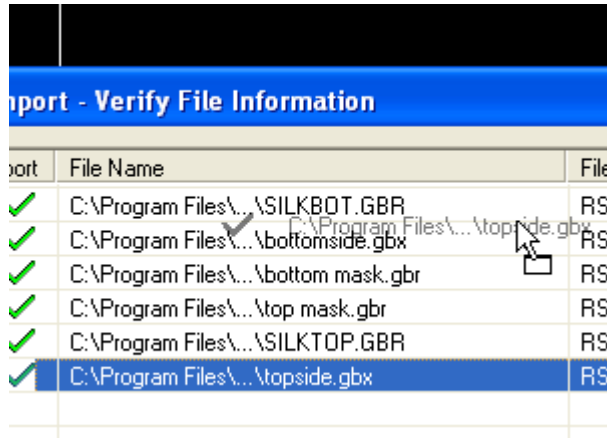
## Table of Contents

<b>NEW FEATURES</b> .....	<b>2</b>
CHANGE THE IMPORT ORDER OF GERBER LAYERS .....	2
<b>ENHANCED FEATURES</b> .....	<b>2</b>
ADVANCED SCAN AND REPLACE.....	2
<i>Convert Specific Rotations:</i> .....	2
<i>Additional Shapes:</i> .....	2
DEFAULT EXPORT DIRECTORY .....	3
ON LINE HELP .....	3
<b>ITEMS FIXED SINCE V7.4.2</b> .....	<b>4</b>

## New Features

### Change the Import order of Gerber Layers

It has been a long-standing issue that the user could not set the import order of Gerber Layers during the Import process. This release of all products addresses that issue by allowing the drag and drop of layers to reorder them directly in the Verify File Information dialog.



If a layer is moved it will end up above (meaning a lower physical layer number) the layer upon which it is dropped. This allows the stackup of layers to be defined during the import process. Once this order has been specified it is maintained throughout the import process so the File Import Results will appear in the same order, aiding the identification and setting up of Physical Layer types.

## Enhanced Features

### Advanced Scan and Replace.

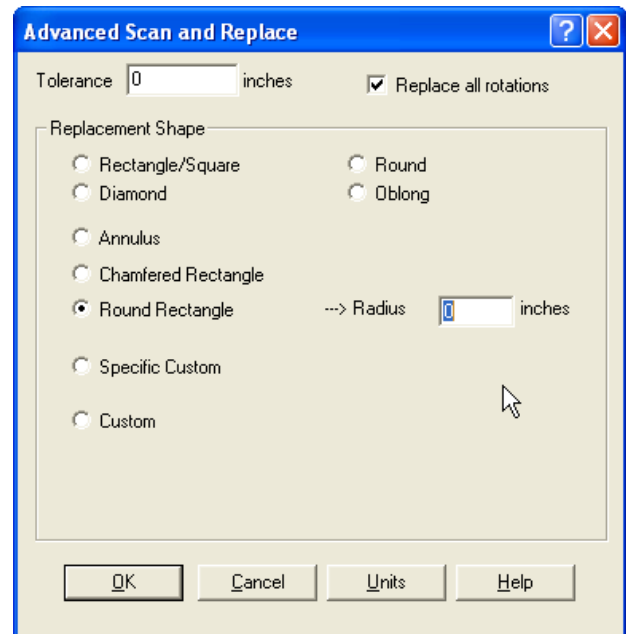
The Advanced Scan and Replace function has been improved in a number of ways. These are described below:

#### Convert Specific Rotations:

The Advanced Scan and Replace dialog now has an option (checked by default) to search for all rotations. This is the current behavior of the function. However, if this checkbox is unchecked only entities that match the selected entity are converted and rotations of the selected entity are ignored.

#### Additional Shapes:

The ability to convert selected data directly to a Chamfered Rectangle, a Rounded Rectangle, Diamond, or a specific Custom Aperture has been added. The Diamond aperture takes the extents of the selected data and creates an aperture based on those extents. Rounded and Chamfered Rectangles use this approach also, but also present the user with a radius field to enter. If the selected data is constructed using a single round aperture the radius of this round aperture is used as the default radius for the Rounded Rectangle. If this is not the case then zero is the default radius.



If the specific Custom option is chosen then the user can specify a CAP file from anywhere on the network to replace the selected entity (matching the datum point of the custom to the center of the extents of the selected entity or entities).

GC-Basic functionality has also been added to allow access to the Advanced Scan and Replace function through scripting.

### **Default Export Directory**

The run-time default directory for exporting data is defined in Tools/Customize/File Locations dialog. All XY and test output modules have been updated to correctly use this run-time default directory as the default directory for its output. However, if the export directory is changed by the user during the export process this new location is used as the default for the next export run.

Also, if a GWK is opened then the run-time default export directory is set to match the directory location of an existing GWK. This location will override the default export directory as defined in Tools/Customize/File Locations (while the GWK is open).

### **On Line Help**

GraphiCode is in the process of putting all help information onto our website to allow faster and more accurate updating, easier access and reduced product size. Function information is available to all users but additional information is only available to customers with a valid Annual Support Plan. There will be a period of overlap where the Help files are still shipped with the product but all future Help information will be placed on the website.

## Items Fixed since v7.4.2

This list is customer reported issues fixed for this release.

#4147 Due to very tiny (1 nm) rounding issues, some rounded rectangles with legal corner radii are being flagged as illegal within this dataset. Fixed.

#4131 Updated the default output directory used for XY and Test Export menu items. See above

#4130 Tangential intersection of arcs caused poorly constructed contour.

#4128 Auto fill the default rounded rectangle radius in the Advanced Scan and Replace dialog if certain constraints are met.

#4118 Fixed issue that resulted in deleted pads if Undo was run after running Register Pads.

#4115 Sped up the register pads algorithm for this kind of data construction.

#4113 Add additional aperture shapes to the standard list available to the user through the Advanced Scan and Replace dialog (see above for more detail).

#4110 The Testability Report now reports an accessible point that is always uncovered and is being used in the accessible Nets section.

#4102 Fixed an issue causing the incorrect isolation of a composite polygon.

#4100 Allow reordering of layers during import (see above for more details).

#4099 Enhanced the Import DXF and DWG options to flash all round features as pads during the import process.

#4092 Bottom side characters are right-reading in Verify Individual Characters when in bottom-side view mode. As a pleasant side-effect, characters on TOP silk layers will now also be right-reading when viewing in bottom-side mode.

#4091 Modified arc interpretation code so that certain arcs whose centers are moved are now created as very small arcs rather than as nearly complete circles.

#4085 Added checks and warnings for negative tool dimensions and for tool dimensions that are too large for internal storage when loading aperture lists for Gerber files.

#4082 Implemented a new polygon handling algorithm in order to fix a number of contour failures.

#4078 Fixed problem with formula rectangle's mirroring code which caused the angle of rotation NOT to be adjusted when only one corner was chamfered/rounded and the angle was originally 90.

#4073 Netlist extraction speed improved – previous time of 5 hours now takes 5 minutes (on specific data constructions).

#4067 Netlist failure due to incorrect contour calculation has now been resolved.

#4061 Fixed a problem when clipping selected arcs that resulted in spurious full 360 arcs being created.

#4060 Import code now screens for files with .DOC, .PDF, and .XLS extensions (whether or not they appear inside zipped files). Previously certain types of files caused a crash.

#4059 Netlist extraction issue fixed.

#4043 Updated the Testability Report to include Part Value, Tolerance and Description when the Bill of Materials section is generated.

#4042 Problem importing same file names from two zip files was caused because multiple zip files were being unzipped into a single temporary directory during import.

#4040 Data no longer needs to be flashed nor selected in order to detect an annular ring violation within this specific dataset.

#4036 Contour failure fixed. This was a similar construction to track #4011.

#4016 Suppressed the warning message regarding the datalink file if the program does not require the use of the datalink file.

#4011 Fixed a contour failure resulting in net zero.

#4009 Long strings of Reference Designators were cut off when loading a BOM from Excel. Problem was caused by Excel's limitation on the cell width. When selected ranges contain cells that exceed the width limit, a message will be displayed telling which cell(s) need to be manually split before running BOM Import.

#4006 Include option in Advanced Scan and Replace to allow the user to search for rotations of the selected entity or just the current orientation (see above for more detail).

#4005 RS-274D files that contained a format statement used in RS-274X files now correctly uses the user-defined format rather than the format statement.

#3970 In the import results window, if the space bar is used to deselect any of the layers, the layers will import even though they are deselected. If the layers are deselected using the mouse click, then the layers are not loaded. Issue fixed.

#3959 The Sieb & Meyer code reader now correctly reads the first tool diameter when there is no end-of-line between the dollar sign character and the first tool diameter.