

Release GC-PowerStation v5.4 Notes

Table of Contents

- NEW FEATURES2**
 - EXPORT BITMAP IMAGE.....2
 - LANGUAGE SUPPORT2
- ENHANCED FEATURES2**
 - TEARDROP CREATION2
 - DFM RESULTS.....2
 - GC-BASIC FUNCTIONALITY.....2
 - ON LINE HELP2
- ITEMS FIXED SINCE V5.3.23**

New Features

Export Bitmap Image

This Export function allows the user to export a layer or layers to a bitmap file. The resolution of the bitmap file is user defined with a number of standard resolutions that correspond to common monitor resolutions in addition to a custom level.

The bitmap is currently supported in Black and White and Greyscale. There is also the ability to invert the image (i.e. a white background and black image or a black background with a white image).

Language Support

In preparation for translation of the entire GraphiCode product range in multiple languages, a complete overhaul of the code-base has taken place to ensure that any menu entry, error message, and dialog can be translated into any ASCII or Unicode language. While this work is not noticeable to users in this release the fruits of this work will become apparent with dedicated language versions available in the future.

Enhanced Features

Teardrop Creation

The Teardrop Creation function now has additional parameters within the dialog. The new teardrop creation algorithm can now automatically run a spacing check after creating the teardrop. The values of pad/pad, pad/trace, and trace/trace spacing are taken from the existing DFM settings and displayed. They are also editable by the user. After teardrop creation a spacing check is run to detect any created violations. If a teardrop violates the spacing parameters set in the dialog the error is displayed within the DFM results view.

In addition to the spacing checks, any trace or pad used to create the teardrop is now tagged with the attribute of teardrop. This attribute is accessible through GC-Basic and allows all teardrops that have been created to be selected and then subsequently removed if required by the user.

DFM Results

DFM Results can now be removed (in addition to the existing Hide/Unhide functionality). A DFM result or group of results can now be highlighted and the Remove option is available in the right click context menu. A warning is given to the user verifying the removal of highlighted errors.

GC-Basic functionality

GC-Basic functionality added for

BMarked – provides the ability to generate a pad list or trace list of selected entities without having to go through the entire layer and generating a selected data list.

Select Inside – Mimics the Select Inside functionality in the UI.

Updated the GC-Basic help for Clip Selected and Box Creation.

On Line Help

As always the On Line Help has been updated to include these new and enhanced functions.

Items Fixed since v5.3.2

This list is customer reported issues fixed for this release.

- #3355 Additional Shave Pad issues fixed.
- #3331 Fixed Shave Pad issues.
- #3321 Fixed issue with cutting order of stencil files following polygon updates.
- #3318 Following polygon work in v5.3.2 polygons did not display correctly when used on a composite layer but drawn in color. This is now fixed and polygons display as expected.
- #3315 Fixed a bug where two GC-Basic functions were returning the internal datalayer index of netcompare results from 0 rather than 1. Also the command CompareNetList now accepts datalayer numbers that begins from 1 instead of 0.
- #3304 Updated the clearing of the selection buffer when changing in and out of Panel Mode.
- #3295 Fix applied to the Merge GWK algorithm for handling GWKs with gaps in the layer list caused by layers that exist but contain no data. The Merge function is now ignoring these layers correctly.
- #3294 Select connected updated to handle rounded rectangles.
- #3292 Isolation of certain polygon constructions caused the application to hang. This has been fixed.
- #3291 Scaling of Formula Customs now handles non-equal scaling factors.
- #3286 DFM Results can now be removed from the DFM Results list.
- #3283 A GCBasic run time error will be generated when the UpdateGWK function is incorrectly utilized.
- #3279 Select Connected now works correctly with Oblong pads that are connected to a trace that enters in the center of the oblong pad rather than at either end.
- #3271 Updated the algorithm for Advanced Scan and Replace to handle polygon formed shapes. This bug was related to a specific construction of polygons.
- #3267 Updated Multi-up recognizer to handle tolerance variations caused by the choice of working units.
- #3256 Fixed problem caused by incorrect handling of diamond apertures within an ODB++ file.
- #3254 Fixed problem with opening a compressed ODB++ file.
- #3249 Now correctly copy data from multiple layers to a Physical layer when the Merge option is deselected.
- #3244 Updated example GC-Basic scripts to replace out of date examples.
- #3222 The ability to change the units of queried drills is now enabled.
- #3214 Added support for AcDb entity in a DWG file.
- #3192 CU coverage check updated to include pad to mask violations in addition to trace to mask violations.
- #3190 Updated via to pad DFM check to handle this data construction case.
- #3182 Auto Convert Sketched Pads routine now forms a single solder paste pad when the starting construction is formed by multiple pads.
- #3181 Fixed a problem where a soldermask to silkscreen spacing check crashed the software. This was caused by the extents of the silkscreen layer lying outside the extents of the soldermask layer.
- #3180 Added PTH annular ring check for power/ground layers to the DFM suite of checks.
- #3177 Selected the pad apertures that do not have a cutting path generated for them after stencil path generation in Stencilight.
- #3176 Generated a warning if illegal apertures are encountered during the Stencilight output procedure.
- #3166 Fixed problem with the Stencilight output process for this particular dataset.
- #3144 Updated the netlist extraction process to correctly handle plated slots.
- #3123 Implemented GC-Basic Select Inside function
- #3106 Exterior Polygon apertures were not being correctly converted by Auto Convert Sketched Pads. This issue has been resolved and the conversion is now correct.
- #3068 Scaling of a named aperture table or drill table to a new table now names the newly scaled table as 'scaled copy of xxx' where xxx is the name of the original aperture table.
- #2879 Fixed a problem with net number assignment algorithm for this dataset.
- #2851 Added support for the display of characters upto ANSI 255 for Truetype fonts.
- #2827 Improvement of Advanced Scan and Replace for complex polygon shapes.

#2405 Display of drill holes is now independent of the View Mode used (True Film v Color). This allows drill holes to be better seen in True Film mode.

#2173 Added a GC-Basic function to quickly create a padlist based on selected data.