# What's New in OMEGA 4.0

## GERBER OMEGA™ 4.0 Introduction

P83012A Rev A

GERBER OMEGA 4.0 is billed as the OMEGA Output and Production Release! While OMEGA 3.0 included scores of features to improve the design process, OMEGA 4.0 is packed with output features for vinyl cutting, routing, GERBER EDGE® and EDGE FX thermal transfer Printing and inkjet workflow/import/export improvements. OMEGA 4.0 includes features to improve output quality, save time preparing for and outputting to various devices, and helps users optimize their production with tools to automatically leverage features that already exist. A full table of contents is on the next page; *some* of the OMEGA 4.0 highlights are listed below!


300


600


EDGE FX Hi Rez

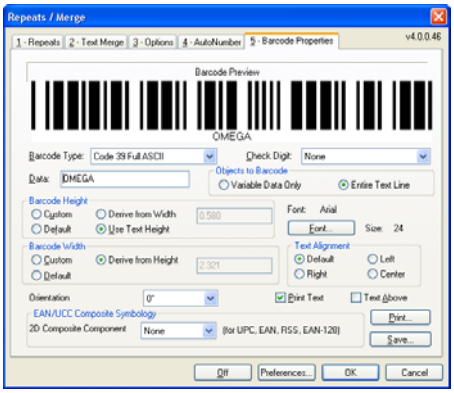
Output Highlights

- GERBER EDGE FX HiRez Printing Mode
- Much Faster rendering of Autotext, Autonumber, or any repeats generated in Composer
- Auto halftone Settings for EDGE Printing
- Easier And Faster Backcut Or Liner-Cut Decal Production
- Better integration of Foil Adjust program (formerly called RegFixer)
- Grid cut or butt-cut weedborder
- ART Path automatic nesting
- Plotter output "smart start" technology
- Support for more friction-fed plotters


Easier Backcut Decals

In addition to output features highlighted above, Composer also is chock full of Production-Oriented enhancements and improvements as well…

- Easier, improved barcode layout features
- More undo's, and ability to undo after saving
- Auto "Strokes for Chokes" button
- Choke/Spread top color designation
- Automatic message when overprint and normal heat settings are applied to the same color
- Ability to add a PDF wrapper to JPG exports
- Automatic mapping of imported EPS/PDF and AI colors to EDGE spot colors
- …And much more!
- This document includes details all the improvements and enhancements in OMEGA 4.0 (more than 40 pages of features!), so dig in and start benefitting from OMEGA 4.0 today!



# What's New in OMEGA 4.0



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Feature Key: Setup=Setup; Support=Support; D=Design; P=Production; E=EDGE; V=Vinyl; R=Router; X=Import/Export

# What's New in OMEGA 4.0

## *Setup: OMEGA 4.0 Installation Changes*

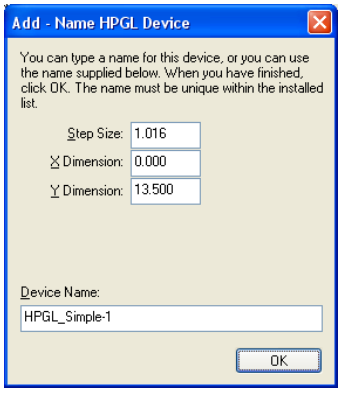
- At the beginning of the OMEGA 4.0 installation, users will be prompted to reboot their systems to allow for the installation of a new Sentinel security key driver. THIS REBOOT SHOULD BE DONE IN ALL CASES as soon as the reboot prompt appears. If this reboot does not occur, OMEGA 4.0 will run in DEMO mode until a reboot occurs, and may interfere with the installation process.

- During installation, users will be prompted to back up critical files before upgrading, and will be prompted to register their OMEGA software with Gerber for product updates and warranty support.

- OMEGA 4.0 can reside side-by-side with OMEGA 3.0 and OMEGA 2.6. This means that programs from these OMEGA versions can reside on the same system, and programs from these different OMEGA versions can run at the same time. This side-by-side installation is completely optional. The above previous OMEGA versions can also be uninstalled automatically at the end of the OMEGA 4.0 installation. Any pre-2.6 OMEGA versions will automatically uninstall when OMEGA 4.0 is installed.

Because of security and non-administrator User Access Control (UAC) restrictions in Windows Vista and Windows 7, GERBER OMEGA 4.0 has some important installation and installation folder changes.

- OMEGA 4.0 has moved many .ini file settings to the registry. The remaining .ini files reside in user-writable folders that comply with Windows UAC controls. .INI files are used to control program defaults or behavior. OMEGA will provide a user interface to access any .ini file settings that users have been able to change in previous versions of OMEGA. For example, before OMEGA 4.0, certain HPGL plotter settings had to be configured by manually editing an .ini file. In OMEGA 4.0, the installation process has been improved where these HPGL settings can be changed as part of the installation process instead of editing an .ini file.
  - Other former .ini file settings can be accessed through the GSPRegEdit program that can be accessed from the Gerber OMEGA 4.0 program file listing in Windows Explorer.




- Certain important OMEGA 4.0 installation folders have changed to adhere to the same Windows Vista and 7 UAC restrictions. User-editable files should not be installed in the "c:\" or "c:\program files" subfolders. Therefore, the following OMEGA 4.0 components are installed in the folders listed below.
- The OMEGA 4.0 Program Group includes a new Gerber Folder Location that opens these folders with the click of the mouse instead of manually browsing to these locations.

| | Windows XP | Windows Vista and Windows 7 |
|---|---|---|
| OMEGA 4.0 Programs | C:\Program Files\Gerber Scientific Products\OMEGA 4.00\Software\ | C:\Program Files\Gerber Scientific Products\OMEGA 4.00\Software\ |

| | | |
|---|---|---|
| OMEGA 4.0 Fonts | C:\Documents and Settings\All Users\Application Data\Gerber\Fonts | C:\ProgramData\Gerber\Fonts |
| OMEGA 4.0 Libraries (GCA Files) | C:\Documents and Settings\All Users\Application Data\Gerber\Library | C:\ProgramData\Gerber\Library |
| OMEGA 4.0 Queue Folder (for network plotter and EDGE output installations)* | If installed as an upgrade on a system that previously had OMEGA, queue remains in c:\queue. If installed on a system that had no OMEGA, C:\Documents and Settings\All Users\Application Data\Gerber\Queue | If installed as an upgrade on a system that previously had OMEGA, queue remains in c:\queue. If installed on a system that had no OMEGA, C:\ProgramData\Gerber\Queue |
| OMEGA 4.0 Spell Check Dictionaries | C:\Documents and Settings\All Users\Application Data\Gerber\Dicts | C:\ProgramData\Gerber\Dicts |
| OMEGA 4.0 Design Time Log file | C:\Documents and Settings\All Users\Application Data\Gerber\LogFiles | C:\ProgramData\Gerber\LogFiles |
| OMEGA 4.0 User-Created Custom Palettes (CMYK and Vinyl Palettes) and other OMEGA Palettes | C:\Documents and Settings\All Users\Application Data\Gerber\Palettes | C:\ProgramData\Gerber\Palettes |
| Image Rendering Color Separation Path (Seppath) | C:\Documents and Settings\All Users\Application Data\Gerber\Seppath | C:\ProgramData\Gerber\ Seppath |
| .INI files (AdvRepeats32.dll, Borders32.dll, GspRulers32.dll and GspShape32.dll, etc…) | C:\Documents and Settings\username\Local Settings\Application Data\GSP\Omega | C:\Users\username\AppData\Local\GSP\Omega |
| JOBS | Unchanged: c:\jobs | Unchanged: c:\jobs |

*The Queue folder remains in the same folder location on upgrades to help deal with systems that are networked together. The queue folder might need to be changed to new folder locations if the "Output" Omega system is upgraded as a fresh install.

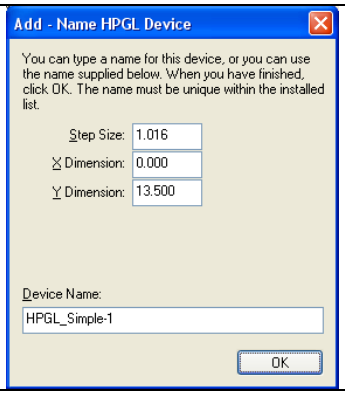
**Setup: Operating System and Hardware Requirements**

Windows XP
Windows Vista
Windows 7
32 bit operating systems are required for driving the EDGE 1 or EDGE 2. 64 bit Operating Systems will not output to the EDGE 1 or EDGE 2.
64 bit OS versions WILL output to the TCP/IP EDGE FX
24 bit monitor, at least 1024 x 768
Processor and PC hardware should be able to support the above operating systems. Generally, the more, the better
3 GB RAM or more (32 bit Windows versions cannot address more than 4 GB RAM)
250 GB hard drive or more
2 USB 2.0 ports or more
ECP Parallel port for EDGE and EDGE 2. If an ECP parallel port is not available, then the Gerber USB to Parallel Cable is required for the EDGE 2.

# What's New in OMEGA 4.0

Enough 9 pin Serial Ports to Support 9 pin Serial Plotters

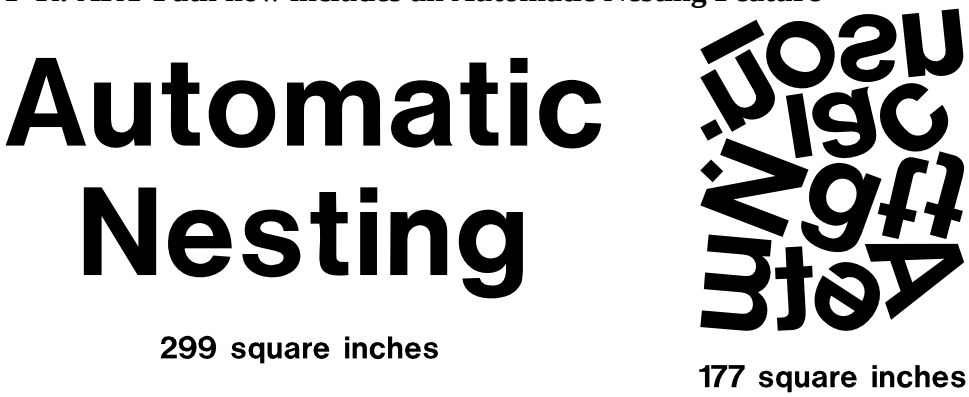
Click HERE for an OMEGA 4.0 Operating System Compatibility Chart

| | |
|---|---|
| **Setup: HPGL plotter settings are chosen at the time of HPGL plotter installation**<br>When installing an HPGL plotter, a new dialog box appears that allows the step size, plotter x and y dimensions and Device Name to be set right away. This eliminates the need to edit GSP.INI, or Device.INI. |  |

# What's New in OMEGA 4.0

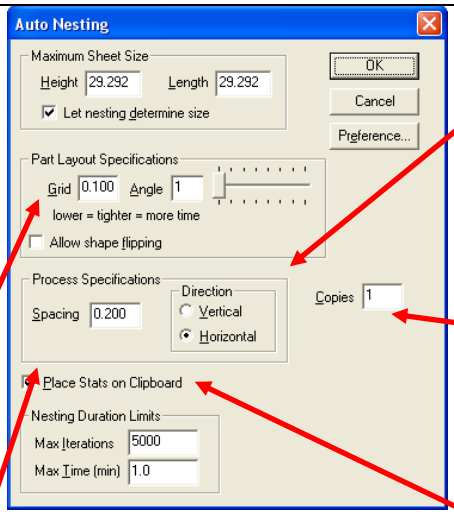
## New OMEGA 4.0 Features

**P-R: ART Path now includes an Automatic Nesting Feature**




ART Path>Shape>Nest…

1. In ART Path, select the objects to be nested
2. Shape Menu>Nest
**3. Let the function choose a starting size (recommended)** or Set the Height and Length of sheet being routed.
   - Nested objects will not exceed the Maximum Sheet Size.
   - If choosing a manual size, a message will display if the nested objects cannot fit onto the Maximum Sheet Size selected.
4. Set the Grid and Angle. The lower these settings, the more efficient the final nesting can be, but required time may increase
5. Set the Spacing. The lower the spacing, the tighter the final nesting can be.

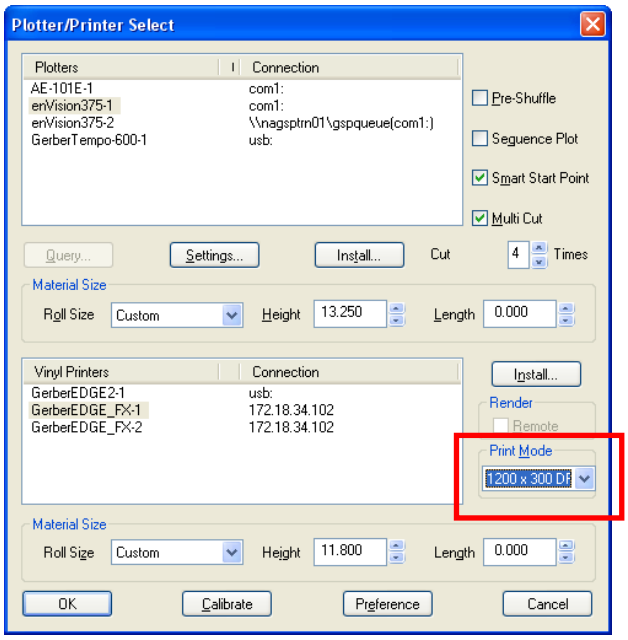



6. Set the direction of nesting (Horizontal or Vertical). If the Maximum Sheet Size is significantly larger than the space required for the final nested objects, the Direction will be biased toward the Vertical or Horizontal direction.
7. Choose the number of copies that will be integrated into nesting. For example, to nest 3 copies of the original and nest all copies of shapes, set this number to 3
8. Choose to Place the nesting statistics on the clipboard so they can be viewed in other text-editing programs
9. Choose the maximum number of nesting iterations and Maximum time. Choose higher limits to potentially increase the time allowed for the nesting, and to potentially increase the nesting efficiency.
10. Click OK to nest. Nested results are placed in a new ART Path file. The original objects are not changed by the nesting operation.

## *GSPPlot Enhancements in OMEGA 4.0*

**P-E: New GERBER EDGE FX Hi Rez Print Mode.** (Requires firmware for the EDGE FX also. See the end of this document for instructions to load EDGE FX firmware).
GSPPlot>Device Select>Print Mode>1200x300

This new EDGE FX print mode improves the output quality of GERBER EDGE FX graphics in several ways:




- Improved edge quality of solid small text, vector text and solid objects.
- Small text sizes and objects print more clearly.
- Smaller classical dot halftone sizes can be used for objects and images that would previously exhibit banding. This is because classical dot halftone banding is reduced by 4 times as compared to the standard EDGE FX 300 dpi print mode, and 2 times compared to 600 dpi.
- GerberTone, GerberTone Fine, GerberTone Photo and GerberTone STC Photo halftone dot sizes are the same, but less halftone patterning is discernable with these halftone types.
- Foil transfer is more consistent on certain hard-to print materials such as 280 Reflective or LexEDGE.
- You may see more halftone fill in higher percentage fills .


300


600


Hi Rez

Please note that output speed of the EDGE FX is 15 inches per minute when using 1200x300 dpi.

**P-E: MUCH Faster EDGE Rendering of Composer Repeats, including Autotext and Autonumber**
Rendering speed improvements occur automatically when jobs are rendered in OMEGA 4.0. Rendering (the time required to send a print job to the EDGE once the print button is pushed) of label and decal jobs can be substantially faster with OMEGA 4.0. For example, to render 700 Autonumber repeats of the example below, OMEGA 3.0 required 413 seconds. OMEGA 4.0 required 15 seconds.

This is more than 27 times faster! This is only a single sample of the rendering improvements, but you will likely see substantial time savings on many similar jobs.

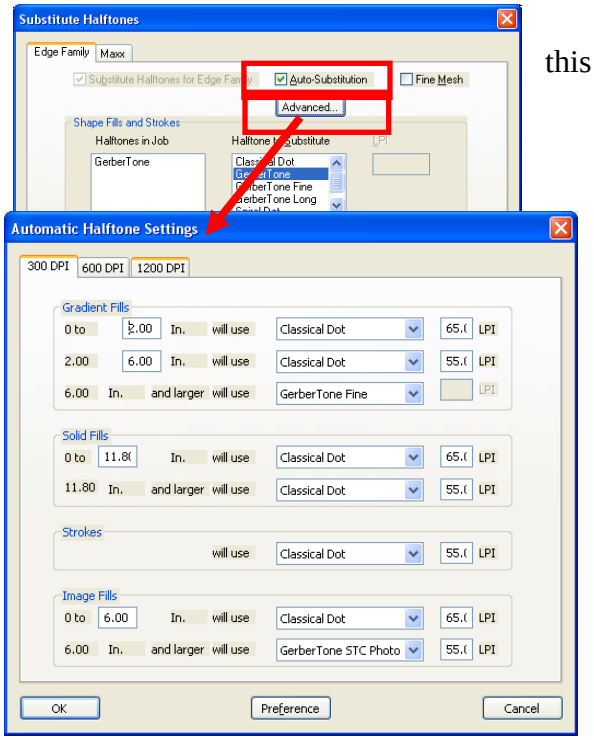
| OMEGA 4.0 Render time for 700 Autonumber repeats: | OMEGA 3.0 Render time for 700 Autonumber repeats: |
|---|---|
| 15 Seconds (27 times faster!) | 413 seconds |
| For Service Call<br>***Nocturnal Products, INC.***<br>(555) 555-5553 (800) 555-5555<br>Product #<br>**DG- 01** | For Service Call<br>***Nocturnal Products, INC.***<br>(555) 555-5553 (800) 555-5555<br>Product #<br>**DG- 01** |
| | |

This new Fast Logic feature is on by default. It can be turned on or off in GSPPlot> Tools> Options>Use Fast Render Logic

# What's New in OMEGA 4.0

**P-E: New Automatic Halftone Substitution for GERBER EDGE Output**
Automatic Halftones can be used with any GERBER EDGE-series printer. The goal of this feature is to provide tools to AUTOMATICALLY minimize halftone banding while providing the smallest possible dot at given output sizes. Automatic Halftone Substitution overrides any halftones set in Composer with a series different halftone patterns and/or LPI that are based upon object size, fill type and output resolution.

**To turn Auto-Halftone Substitute on**: GSPPlot>F11 (Print Options)>Halftone>Auto-Substitution Checkbox (click Preferences to keep feature on for all jobs.)




this

**To adjust settings for Automatic Halftone Substitution**: GSPPlot>F11 (Print Options)>Halftone>Automatic Halftone Checkbox>Advanced>Change the sizes and halftone for the various settings.

The goal of this feature is to provide tools to AUTOMATICALLY minimize halftone banding while providing the smallest possible dot at given output sizes.

Automatic Halftone Substitution overrides any halftones set in Composer with a series different halftone patterns and/or LPI that are based upon object size and fill type. Different halftones can be applied to:

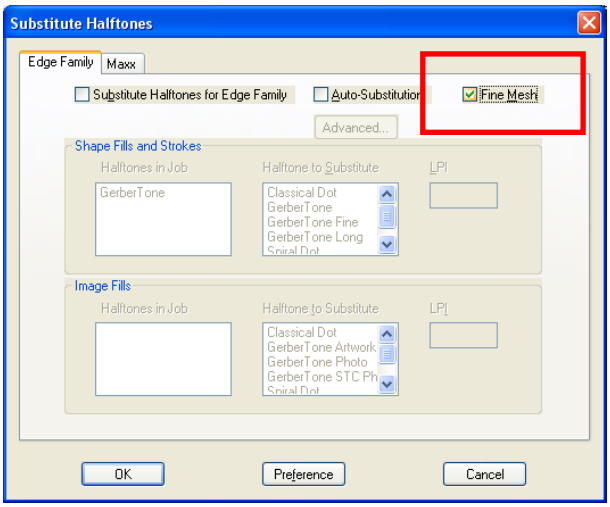
- vector-based gradient fills of 3 different sizes;
- vector-based solid fills of 2 different sizes;
- Strokes (one halftone size); and
- Image Fills of 2 sizes.
- Because different dpi offer different halftone performance, the above settings can be controlled for 300 dpi, 600 dpi, and 1200 dpi (1200 dpi is available for the EDGE FX using OMEGA 4.0 or later).

See a chart of OMEGA 4.0 default Automatic Halftone Substitutions HERE:

Click HERE for a brief explanation of Halftone Guidelines if users wish to manually change halftones, or change the automatic halftone settings.

# What's New in OMEGA 4.0

**P-E: "Fine Mesh" check box in the "Substitute Halftones" dialog box creates smaller, rectangular halftone dots for 600 and 1200 dpi printing.**

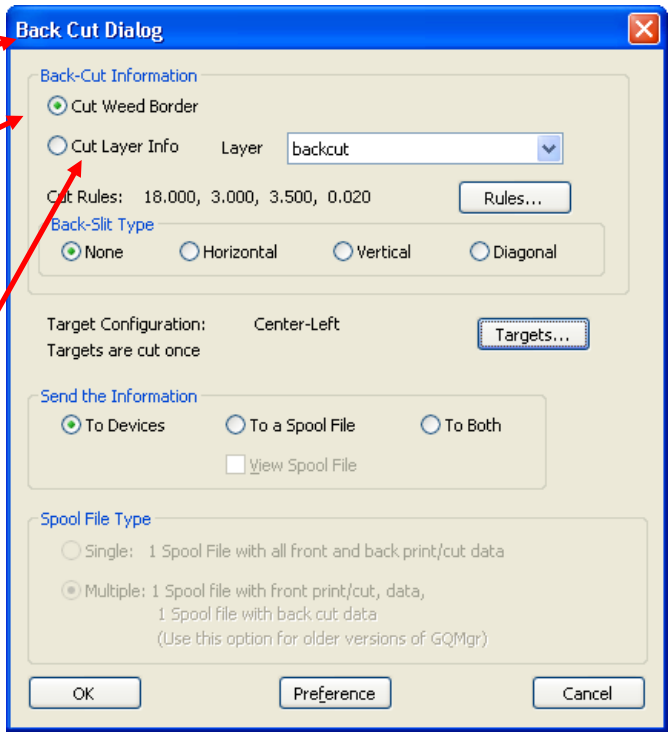



GSPPlot>Print Options (F11)> Halftone> EDGE Family Tab>Fine Mesh Checkbox
This checkbox will make 600 dpi and 1200 dpi halftone dots smaller and rectangular.

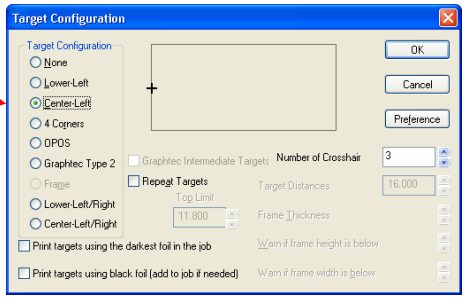
- Using Fine Mesh will print gradients and tints using smaller, rectangular halftone cells (GOOD!), but
- Using Fine Mesh will potentially increase halftone banding as the overall halftone cluster size is cut in half and will potentially increase overtransfer with the use of smaller dots. Also, certain halftones such as GerberTone Photo may appear to be as a line screen as the halftone angles are also modified (BE CAREFUL!).

**P-E: New Backcut Dialog Box offers a greatly simplified way to create backcut decals.**
GSPPlot>File>Backcut
A backcut decal has a traditional front-cut (or kisscut), then the vinyl is flipped over and the liner is also cut so the final decals can be easily separated from the liner. There is a small offset between the front cut and backcut decals, allowing the decals to stay in place after the backcutting is done. OMEGA 3.0 introduced the ability to create backcut decals; Using OMEGA 4.0, finished backcut graphic creation can be accomplished much more easily than ever before!

| | |
|---|---|
| Front Cut the Job as usual<br>  | Backcut the job with an offset from the frontcut decals. With OMEGA 4.0, this offset can be a weedborder or designed into the job in Composer.<br>  |
| Weed the job and decals are released from the liner.<br>  | Finished!<br>  |

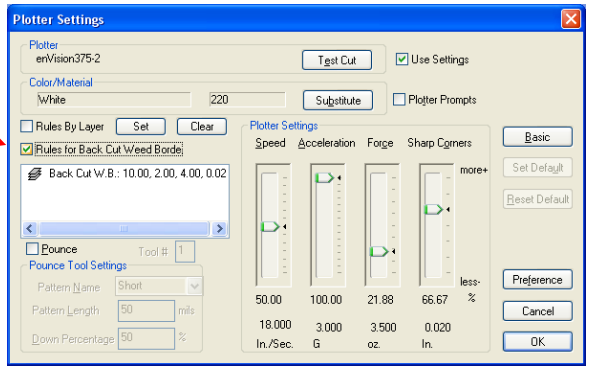



- All backcut output setup is accomplished from a new unified Backcut dialog box (GSPPlot>File>Backcut)
- A weedborder can be used as a backcut, eliminating the need for any additional design work in Composer. Simply open a job with prints and cuts, set the repeats, go into File>Backcut, Click on "Cut Weedborder, and send the job to the EDGE and the cutter.
- If a backcut layer is designed into a PLT file, this layer can be chosen and used directly from the Backcut dialog box. This allows for more complex shapes to be used as backcut data, as opposed to a simple weedborder. This new dialog box also makes backcuts with layers much easier to create as the layer can be selected from this box.
- If backcutting using Layers, this new function automatically FLIPS the backcut layer in the appropriate direction. The user does not have to flip the data before outputting.
- Backcuts can be created with a single job target instead of 2 targets, eliminating the possibility of forgetting to turn on the second target.
- Target selection for backcuts can be accessed directly from the backcut dialog box.
- The backcut data is automatically flipped in the proper axis based upon the targets chosen. If using a single target, the data is flipped along the short axis vertically (and the vinyl is flipped vertically when loaded into the plotter). If using 2 targets, the data is flipped along the long axis horizontally (and the vinyl is flipped horizontally when loaded into the plotter). This eliminates the need to manually flip cut data for the backcut.



# What's New in OMEGA 4.0

- When using the new Backcut dialog box with a single target, there is no need to manually flip the backcut data. The backcut cut data is automatically flipped and sent as a second cut job to the plotter. This occurs automatically whether using a weedborder for the backcut or if using a layer for the backcut data.
- Automatic Backslits can be created from the backcut dialog box for crack and peel decals. Backslits can also still be designed into a PLT file (in the backcut layer) for even more control over backslit data
- The print to cut target can be cut multiple times when performing the front cut. This multiple cut penetrates the vinyl and liner, so a manual cut does not have to be performed with a sharp object when using the targets for the backcut.
- New Backcut output rules and Weedborder backcut output rules (more force, less speed, etc…) can be accessed directly from the backcut dialog box.
- Front cut and back cut data can be sent directly to an EDGE and vinyl cutter, or it can be saved in a SPOOL file for repeated output without re-rendering the data.



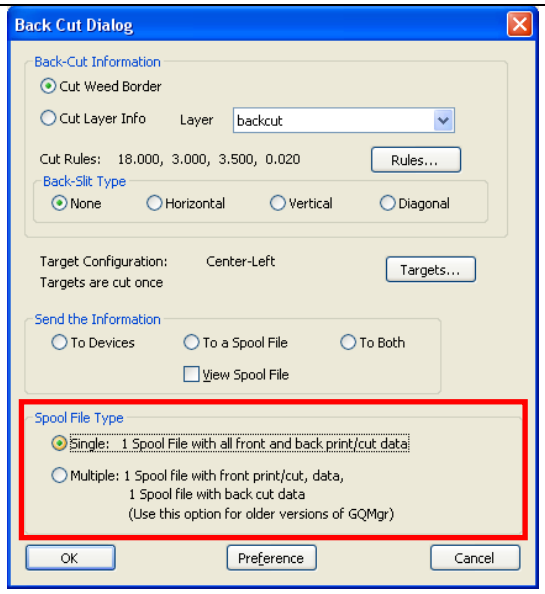

- All printing, front-cut and backcut information can be contained in a single SPL file, eliminating the need to keep track of multiple files for re-using SPL files for output. Also, if backcut jobs are to be output on pre-Omega 4.0 systems, 2 spool files can be automatically created.
- GQManager has been changed to use a single spool file with front cut and backcut data

**P-E: Different cut rules can be specified when back-cutting the weed border.**
GSPPlot>Printer Setup (F7)>Settings>Change Backcut Weedborder Settings
This can also be accessed directly from the File>Backcut dialog box

**P-E: SPL files can have 2 cut sections so front cut and back cut data can be included in a single SPL file.**
GSPPlot>File>Backcut>Send Information to a Spool File>Single

When creating frontcut and backcut decals, a job is cut twice (one cut job for the front and one cut job for the back). A single SPL file can now include both sets of cut data.

If a given SPL file has multiple cut sections, the operator is allowed to choose which one to cut. This change was needed because GspPlot now allows "front cut" and "back cut" data to be stored in a single SPL file.

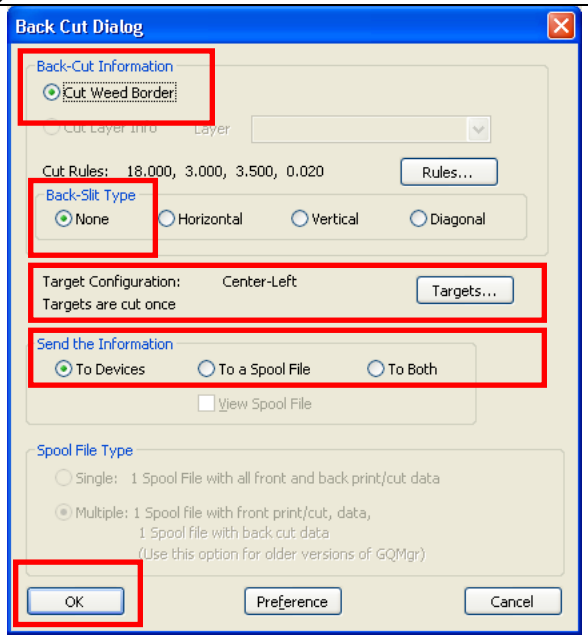


| | |
|---|---|
| The cut data can still be contained in two SPL files if a job is to be cut on a PRE-Omega 4.0 system. | |

**Support: P: E: Simplest Method to Create Backcut Decals with a single target and a weedborder**

This method allows any print/cut job to be used as a backcut job.

1. Design and save a normal single layer decal job in Composer with prints and cuts.
2. Open the job in GSPPlot or use Composer File>Output All/Selected
3. Set repeats as needed in GSPPlot (Layout>Repeats or press F5)
4. Be sure WEEDBORDER is ON (Layout>Weedborder)
5. In GSPPlot, Go to File>Backcut (CTRL+F8)
6. Click On Cut Weedborder
7. Be sure Targets are set to be Center-Left or Lower Left. If not, click on the targets button and choose a target type of either center left or lower left. Also set the target to be cut 3 or 4 times so a visible slit will be created and can be used for alignment when the vinyl is flipped over and cut.
8. Click on Send the Information To Devices. This will send the print data to the EDGE, and will send the front cut data to the plotter as one job, and will send the backcut data as a second job.
9. Print and cut the front side of the decals as usual
10. Remove the job from the plotter, flip the vinyl along the SHORT axis so the liner is facing up, and reload into the plotter. The target should still be at the beginning of the job when loaded.
11. Align to the target slit in the liner. If you cannot see the target slit from the back, you may need to poke a hole or slice it with a small blade from the front.
12. Adjust the amount of the dragknife plotter knife blade that is exposed by twisting the blade housing so the only enough if the blade is exposed to cut through the liner and NOT the front of the vinyl. Also adjust the weight to cut through the liner consistently. It may be better to have less blade exposed and more weight, but some experimentation may be needed.
13. Cut the liner. Pause the job after cutting the first shape and check that the cut is appropriate, and adjust the weight and blade exposure as needed.
14. Weed the front of the job. Once the vinyl is weeded, the decals should easily be removed from the liner.





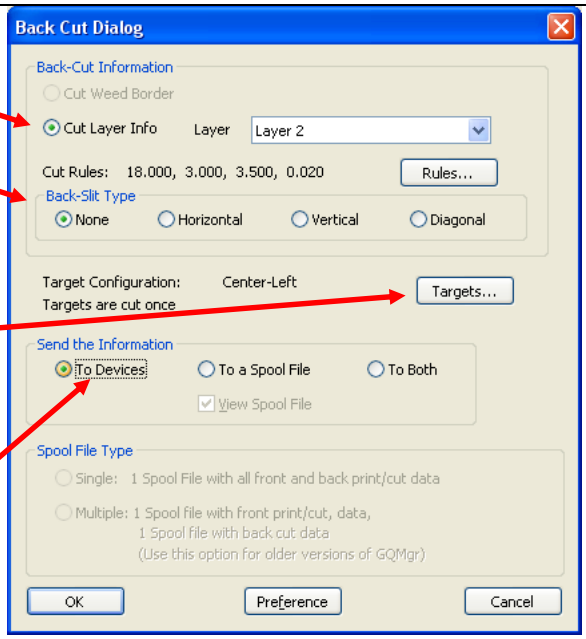
**Print and cut the front of job**

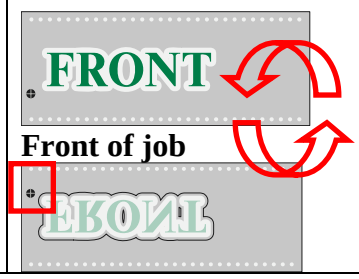
**Flip and cut the liner side of job**

**Support: P: E: To Create Backcut Decals with a single target and Backcut Data Generated in Composer**

1. Design and save a normal single layer decal job in Composer with prints and cuts.
2. IN COMPOSER, use Tools>Outline to add a small offset to the outermost cut data. Start with a value of about .02 to .05 inches.
3. Turn OFF any prints or strokes for the new offset. This offset should be cut only.
4. Select the new outline only and move it to a new layer.
   a. View>Show Layer Manager
   b. In the layer manager, the selected objects will be highlighted in the list. RIGHT CLICK on one of the selected offsets and click on Move to New Layer.
   c. A message will appear about Smart Edits and Layers. Click OK.
   d. The Layer name optionally can be renamed to make it easier to distinguish the backcut data when setting up the job in GSPPlot.
5. If a custom backslit is needed for crack and peel labels, click on the backcut layer name in the Layer Manager, then digitize an open shape from one side of the backcut data to the other. Basic backslits can also be added from GSPPlot automatically.
6. File>Save and open the job in GSPPlot or use Composer File>Output All/Selected
7. Set repeats as needed in GSPPlot (Layout>Repeats or press F5)
8. Weedborder can be on or off when using backcut data from Composer. If on, the weedborder will be cut as usual on the front of the decal.

9. Go to File>Backcut (CTRL+F8)
10. Click On Cut Layer Info and choose the layer with the offset
11. If needed, choose a backSLIT option. If chosen, this basic backslit will be added to the backcut data automatically. If a custom backslit was created in Composer do not use this option.
12. Be sure Targets are set to be Center-Left or Lower Left. If not, click on the targets button and choose a target type of either center left or lower left. Also, set the targets to be cut 3 times so a visible slit will be created and can be used when the vinyl is flipped over.
13. Click on Send the Information To Devices. This will send the print data to the EDGE, and will send the front cut data to the plotter as one job, and will send the backcut data as a second job.
14. Print and cut the front side of the decals as usual
15. Remove the job from the plotter and flip the vinyl as shown so the liner is facing up. The target should still be at the beginning of the job when loaded.
16. Adjust the dragknife plotter knife blade by twisting the blade housing so the only enough if the blade is exposed to cut through the liner and NOT the front




**Front of job**

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| of the vinyl. Also adjust the weight to cut through the liner consistently. It may be better to have less blade exposed and more weight, but some experimentation may be needed.<br>17. Align to the target slit and cut the back of the job. If you cannot see the target slit from the back, you may need to poke a hole or slice it with a small blade from the front.<br>18. Weed the front of the job. Once the vinyl is weeded, the decals should easily be removed from the liner. | **Liner side of job** |

**P-E: "Shrink Underprint" Can Now Apply to Backing White, Primer Fills, Primer Strokes, and Spectratone Base Colors**

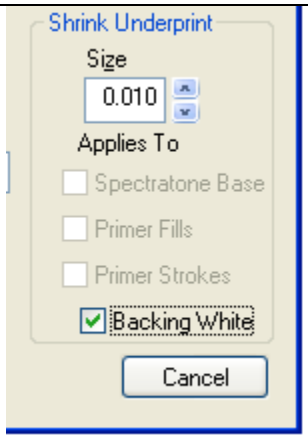
GSPPlot>Open a job with Spectratone or Primer, or turn on Backing White>Click on Print Options (F11)>Click the Underprint Type to be shrunk>Choose the amount to shrink the underprint>Print the job.

This feature used to be called Shrink Base and only applied to the base color of GerberColor Spectratone objects. In OMEGA 4.0, this feature can be used with more situations (Spectratone AND Primer Fills, Primer Strokes, and backing white) where 1 color prints directly on top of another color.

When printing one color directly on top of another color (such as with Spectratone, backing white or primer), a slight shift may occur from color to color, causing color "overhang" where the individual colors are visible on the edges of the shape.

This feature reduces the size of the bottom color by **HALF** the entered amount, reducing the possibility of the bottom and top color appearing to be misregistered. For example, if you enter a value of .01 inches, the actual base color will be shrunk by .005 inches.

- This feature may not behave as expected when a contiguous base object needs to be shrunk.
- The OMEGA 4.0 function called FoilAdjust (formerly called Regfixer.EXE in OMEGA 3.0) can also help these types of issues by manually adjusting the location of individual printed color planes.




A value of .01 reduces the size of the base object by ½ the amount (or .005).

**P-V: "Smart Start Points" Plotter Output Optimization**

GSPPlot>F7 (Device Select)>Click on "Smart Start Points"

Smart Start Point is designed to minimize the amount of plotter tool movement when cutting jobs. This feature will move the start point of each cut shape to be closest to the end point of the shape that

was just cut previously. The order that the shapes are cut does not change, and no points are added or removed from any given shape.

**P-V: Graphtec 8000 Plotters are Supported**
GSPPlot>Device Select (F7)>Install or Choose a Graphtec 8000 plotter

**P-V: Graphtec job setting control has been improved**
GSPPlot>Device Select (F7)>Choose a Graphtec plotter>Settings>Choose a Condition Number or Click Use settings and choose settings to send down to the Graphtec plotter job settings

| | |
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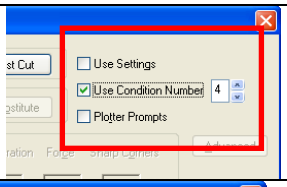
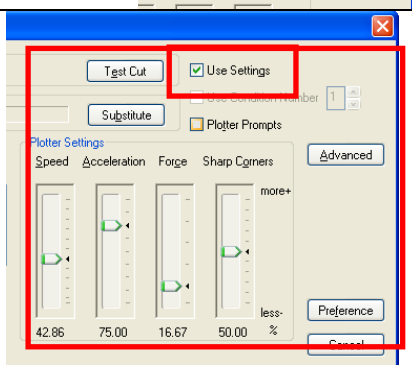
| Graphtec job settings can have been improved in the following ways:<br>Graphtec "Conditions" can now be specified in GSP Plot and sent to Graphtec plotters. |  |
| • OR Specific speed, force and acceleration settings can specified in GSP Plot and sent to Graphtec plotters<br><br>• If neither of the above two job settings techniques are used, and a Graphtec plotter has a condition set on the keypad, GSP Plot will no longer reset the condition set on the plotter keypad back to condition 1. |  |

**P-V-E: Mutoh Kona Plotters are Supported**
To Install a Kona Plotter: GSPPlot>Device Select>Install Plotter>Choose Mutoh Kona 760, 1400 or 1650>Click Add.

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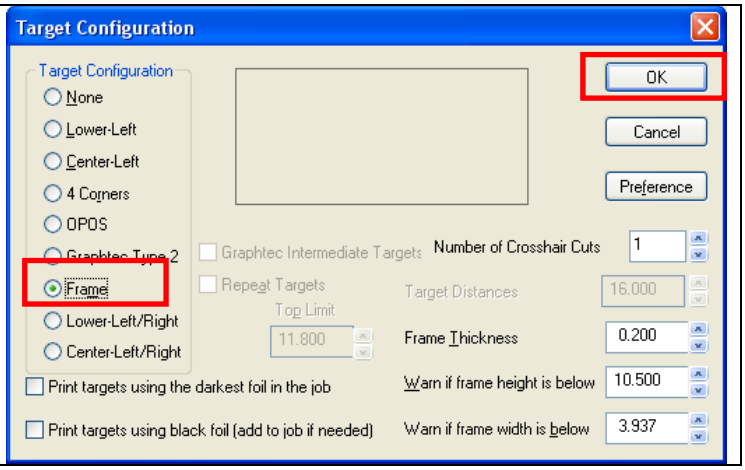
| **P-V-E: Mutoh Kona Print to Cut Frame is Generated and Used for Print to Cut**<br>GSPPlot generates the Mutoh Kona print to cut frame, and acquires the cut frame for print to cut registration frame target for the Mutoh Kona plotters. |  |

**To turn on the Kona print to cut frame and use for print to cut:**
- Open a print/cut job in GSPPlot>Device Select (F7) >Choose a Kona plotter> Click OK.
- Go to Print Options (F11)> Targets> Click on Frame>Click OK>Click OK.

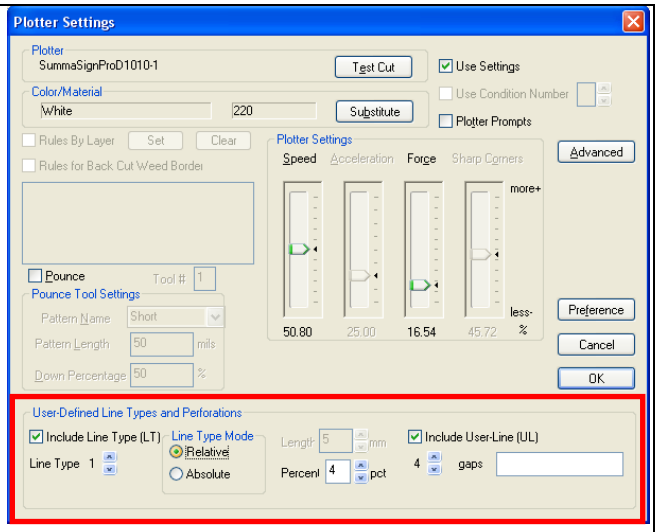
# What's New in OMEGA 4.0

- Print the job to the GERBER EDGE
- Load the job into the Kona Plotter
- Send the job to the Mutoh Cutter. Follow the Kona instructions to acquire the frame and cut the job.
- GSPPlot>Device Select>Install Plotter>Choose Mutoh Kona 760, 1400 or 1650>Click Add

**P-V-E: Perforation Lines can be output using certain HPGL plotters through the use of User-Defined line types**

GSPPlot>Plotter Select (F7)> Choose a Graphtec, Kona, Summa Plotter> Settings> Choose Include Line Type>Choose a Line Type>Choose Relative or Absolute>Choose Length (if Absolute) or Choose Percent (if Relative)>Choose to include a User Line>Choose a User Line Number.

This feature allows for different line patterns to be used for output to certain HPGL plotters. These patterns can be used to create a perforation pattern when outputting jobs. Consult plotter documentation for line type definitions.




**P-V: Graphtec and Summa Plotter End Position Allows for Running subsequent jobs without moving the position of the toolhead**

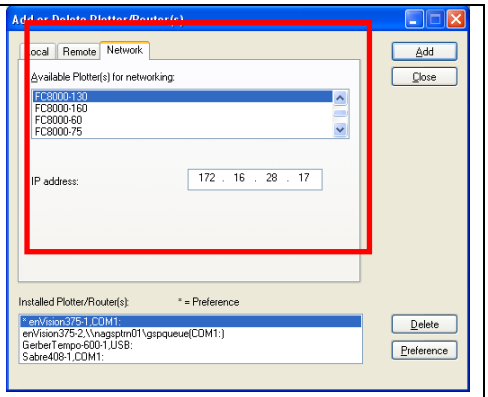
The "upper-left" end position radio button can be chosen and used if a Graphtec or Summa plotter is selected. This feature allows multiple jobs to be run in sequence without manually moving the plotter head position between jobs.

- GSPPlot>Device Select(F7)>Choose a Graphtec or Summa Plotter
- Setup Menu>Start/End Position (or press the END button)
- Choose the upper left radio button for the end position
- Click Preferences to keep this setting for all jobs.
- Click OK

**P-V: Plotters with TCP/IP connections can now be used.**

GSPPlot>Device Select (F7)>Click on Install button Below Plotters>Click on the Network Tab>Choose the plotter>Enter the IP address.

TCP/IP connections allow for the use of long cables and have error correction built into the TCP/IP Protocol. Consult with plotter documentation for other setup instructions such as DHCP settings.



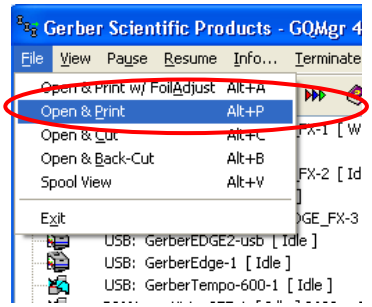
**P-V: Added the "Sequence Plot" check box to the "Plotter/Printer Select" dialog box.**
GSPPlot>Device Select (F7)>Click on Sequence Plot OR GSPPlot>Layout Menu>Click on Sequence Plot.
Sequence Plot can now be turned on or off from 2 locations: GSPPlot>Layout Menu>Sequence Plot and the Setup Menu>Device Select dialog box (F7).

**P-V: The GSP Plot "Test Cut" feature now sends cutting rules to HPGL plotters and takes multi-cut into account.**
GSP Plot>Device Select (F7)>Choose an HPGL Plotter or set up a job using multi-cut>Set cut rules>click "Test Cut" button.

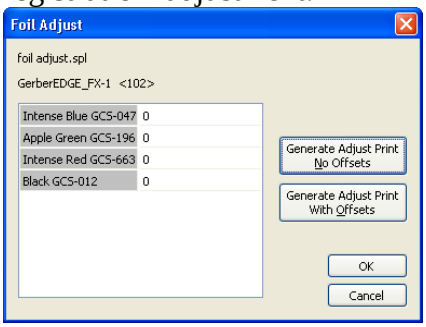
**P-E: Foil Adjust (RegFixer) Integration with GQManager**
The FoilAdjust (Regfixer) allows an entire color pass of GERBER EDGE foil colors to be adjusted to the left or to the right in single or multiple pixel increments. In many cases, this movement of an entire color plane can improve the color registration of a job where other registration tools might not be effective. These cases might include very small jobs, or GerberColor Spectratone jobs. See a video about RegFixer.exe here. "Regfixer" is now called "FoilAdjust." FoilAdjust can be accessed directly from GQManager (GQMgr>File>Open&Print with FoilAdjust), making it easier to adjust foil color registration right from GQManager.

**Adjusting color alignment for EDGE-series print jobs from GQManager FoilAdjust**
If a spool file is made for an EDGE-series printer, the physical location of each printed color plane can be manually adjusted by using Foil Adjust in GQManager.

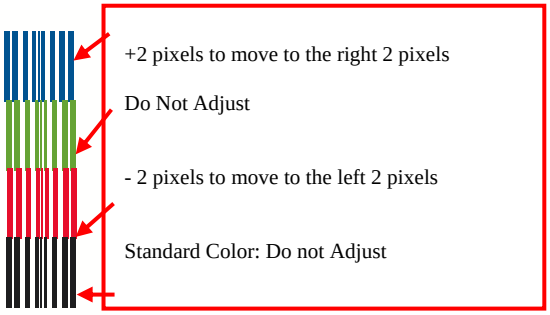
- Create a SPL file for an EDGE printer
- Open GQManager File>Open & Print w/FoilAdjust




In the FoilAdjust dialog box, click Generate Adjust Print No Offsets. This will send a small print file to the EDGE that includes color bars of all the colors in the SPL file WITHOUT any registration adjustment.




Look at the colors and approximate the amount of color plane movement required in pixels. The pixels are smaller if printing in 600 or HiRez mode, so be sure to take the print mode into account when approximating.



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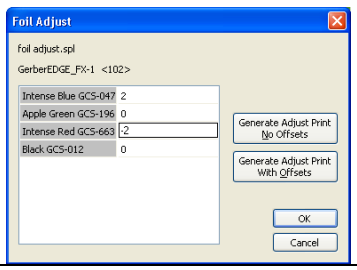
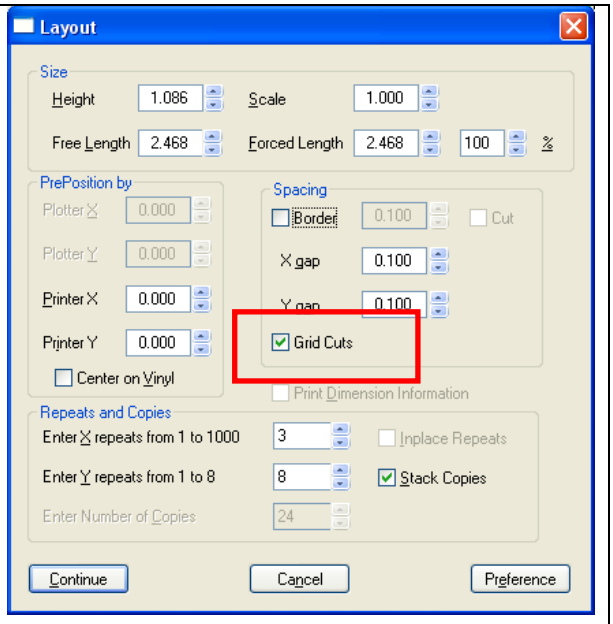
| • Keep ONE of the colors as the standard color that will not move.<br>• If colors need to be moved left, use a negative value.<br>• To move colors to the right, use a positive value. | Enter the pixel adjustment values next to the colors in the dialog box<br><br>Click Generate adjust Print With Offsets to reprint the colors with the adjustments. Make additional adjustments if needed.<br><br>Click OK to send the job to the actual Spool file to the EDGE with the adjustments.<br><br>  <br><br>  |

**P-V-E: Grid Cuts or "Butt Cuts" Between Repeats**

GSPPlot>Layout Menu>Layout (L)> Click on the Gridcut Checkbox, or click on the new Grid Cut icon in the GSP Plot Toolbar. This feature reduces output time and weeding time by creating a single common cut line between repeats and around the perimeter of repeats instead of creating traditional weed border boxes with gaps around each repeat. If the X Gap and Y gap between GSPPlot repeats is changed, then the Grid Cut location is changed. Grid cuts do not increase material usage like weed border because the grid cuts are added in the gaps between repeats and no additional border space is added. This feature has also been called "Tic tac toe" border, or a "butt cut."

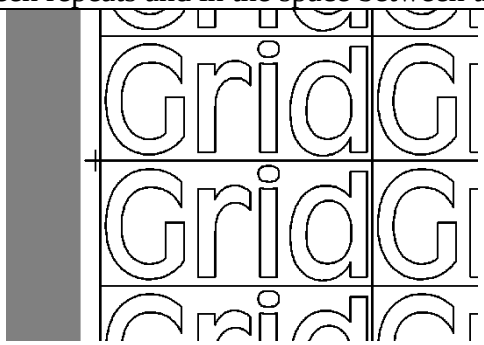



To avoid long back and forth x-axis material movement, x-axis grid cuts are performed as a series of short cuts instead of long lines between x-repeats.

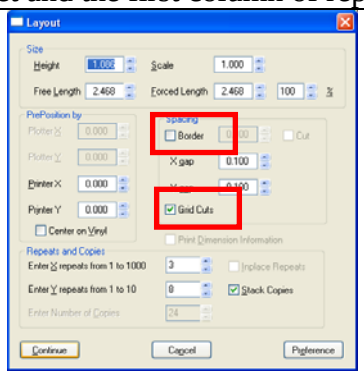
Grid Cuts are not displayed in GSPPlot wireframe or show filled mode. To determine if Grid Cuts are on, check to see if the Grid Cut button is depressed in the GSP Plot toolbar, go to Layout Menu>Layout and look at the Grid Cut checkbox.

The following grid cuts can be created:

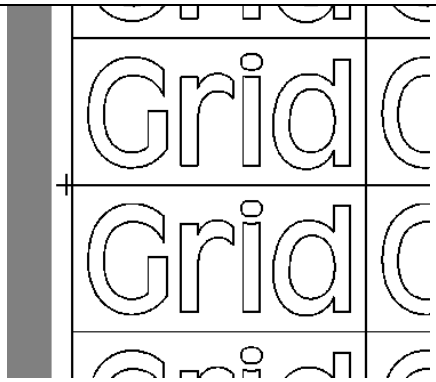
**Grid Cut ON; Weedborder OFF:** Grid cuts are added around the perimeter, in the gaps between repeats and in the space between the target and the first column of repeats.



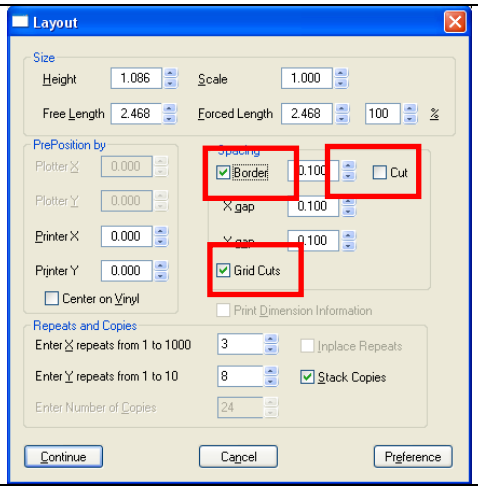
Cut data preview as shown in Splview.ex



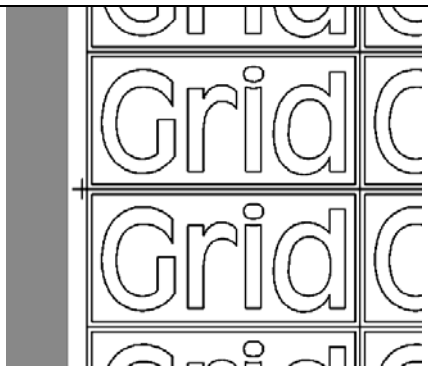

**Grid Cuts ON and Weed Border Special ON**: Only grid cuts are generated around the repeats. No weedborder is generated, but note the extra space between the repeats and the grid cuts to accommodate the location of the weedborder.



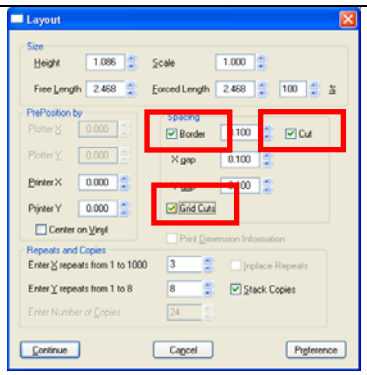
Cut data preview as shown in Splview.ex



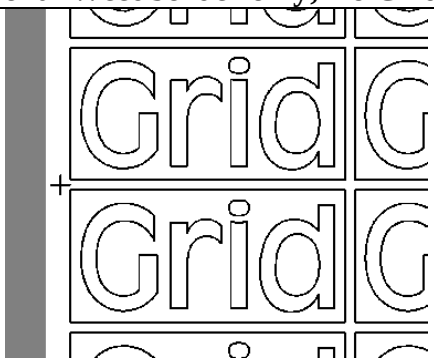

**Grid Cut ON; Weedborder Cut ON:** Grid cuts and weed borders are generated around repeats. Grid cuts are added around the perimeter of all weed borders, and in the gaps between weed borders.



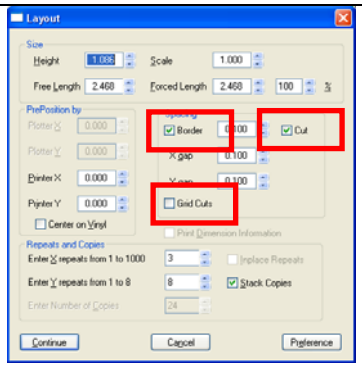
Cut data preview as shown in Splview.exe



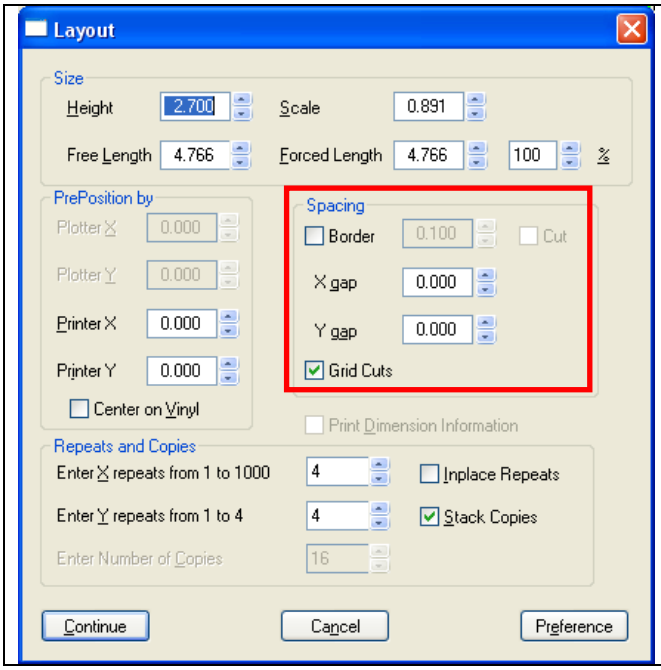

**Traditional Weedborder only; No Grid Cut.**

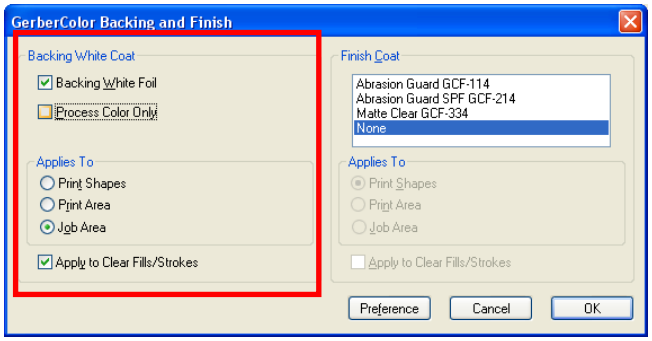


Cut data preview as shown in Splview.ex




If using grid cuts with backing white, and the application requires a complete covering of backing white behind all grid cuts, then turn OFF weed border and set the x and y gaps between repeats to 0.



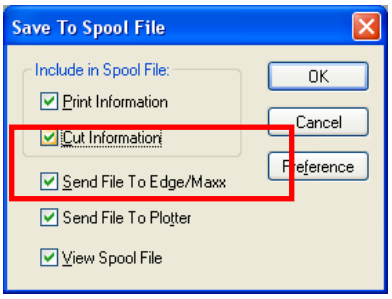
**P-V-E: Stacked PLOT copies will end at the bottom of the job.** Made change for Gerber plotters to omit the final move if the job is a panel job and the last panel has stacked copies.

**P-E: The SPL file name now prints in the JOB INFO area at the start of EDGE jobs.**
GSPPlot>Print Options (F11)>Output Job Settings

- When saving a permanent spool file, the name of the spool file will be included in the job settings section of the print. This change allows an operator to distinguish between several different prints of the same PLT file, simply by using unique SPL file names.

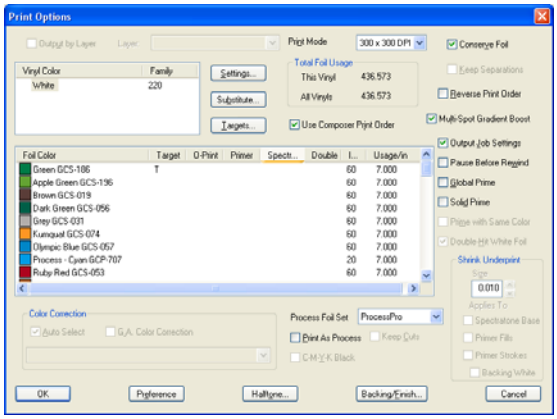
**P-V-E: Double Cut is now Multi Cut**
GSPPlot> Setup>Device Setup (F7)>Double Cut is now Multi Cut where the number of cut passes can be specified.


**P-V-E: GSPPlot>File>Save to SPL File allows SPL files to be sent to cutter AND printer**




**P-E: Process Pro foil will automatically be substituted for an equivalent Super CMYK or Original CMYK foil when sending data to the EdgeFX.**

**P-V-E: Print Options Dialog box is larger and displays more information**
GSPPlot>Print Options (F11)
The foil list is much larger so the columns are wider and the labels are more visible. Also, the substituting vinyl and foil dialog boxes are larger so more items can be viewed at a given time.




**P-V-E: "Rules by Layer" will now properly change output setting parameters for every layer.**

- To use Rules By Layer: Design a job in Composer with Layers
- Output Job to GSPPlot and go to F7 (Device Select)
- Click on Settings Button then click on Rules By Layer.
- Click on a Layer Name, change the output settings for that layer
- Click on SET to lock in the output rules for that layer
- Repeat for any other layers in that job

**P-E: Reverse printing with a monochrome image and backing white will now print the monochrome image.**

**P-E: Target preferences will now behave properly if Center-Left/Center-Right or Lower-Left/Lower-Right targets are preferenced.**

**Support: GSPPlot>File>Send Files now allows PLT, PRM, SPL files to be emailed using the default email program on a user's computer.**
This function used to only allow these files to be sent via PERU (Problem Enhancement and Reporting Utility). If "Output Selected" were used from Composer, only the data sent from Composer to Plot is included as the PLT file. When sending via email, a ZIP file is automatically created and included as an email attachment.

## *Composer Enhancements in OMEGA 4.0*

**D: Max undo levels can be set to 999.**
Tools>Options>General Tab: The previous maximum number of undo's was 100.

**D: UNDO remains available after saving a file.**
Click UNDO after saving a file. Undo used to become unavailable after saving a file.

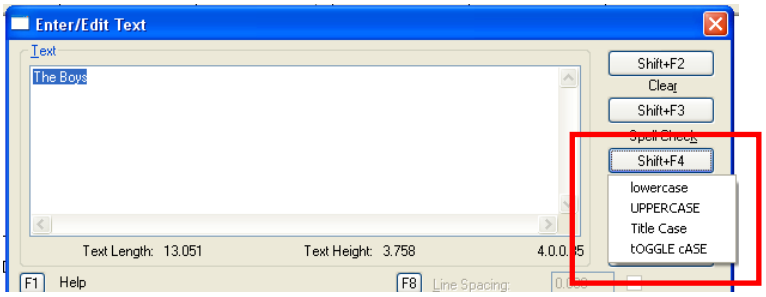
**P: OMEGA PLT files can be saved backwards from version 4.0 to version OMEGA 3.0, 2.6, 2.5, 2.1, 2.0, 1.56 and GA 6.2.**
Composer>File>Save As>Choose the file format needed. Some features may get converted to objects. If saving to a pre-OMEGA 2.5 PLT format, embedded images will become linked.

**P: The backward saving of PLT files to previous OMEGA versions is more reliable.**

**D: Composer Zoom to all and Zoom to Selected Now include a Viewing Buffer**
Tools>Options>View>Zoom Percent Margin:
**Zoom to all** and **Zoom to selected** now have a viewing buffer where a small space is added around the zoomed objects. Added a setting to Tools/Options/View called Zoom Percent Margin to allow users to set the percent used to calculate the margin size for both Zoom to All and Zoom to Selected.

**D: Connected fonts can be made to close automatically in the text entry dialog box.**
Also, TOWS (text on the Worksurface) allows for connected fonts to be entered on the worksurface, but characters are closed automatically. Tools>Effect>Contour should be run after creating TOWS connected fonts to close them.

**D: Text Entry Dialog Box Now Has Change Case Commands**
Composer>Text Entry Dialog Box>Highlight Text with cursor>Change Case



**D: Support for Chinese Double Byte Text Entry:**
Added support for double byte text entry languages such as Chinese.

Chinese language support is available for OMEGA 4.0 on Windows XP, Windows Vista, and Windows 7. Enabling Chinese for OMEGA 4.0 requires the following steps:

- Enable Chinese language support in Windows XP, Vista, or Windows 7.
- Install the Chinese Font Pack using Font Manager.

After enabling Chinese language support for OMEGA 4.0, Chinese text may be entered using the Enter/Edit Text dialog box or the Enter/Edit Small Text dialog box. Chinese text can be entered using Text on the Work Surface (TOWS) as long as it is horizontally oriented. You cannot enter vertically oriented Chinese using TOWS; you must go through the text dialog box.
For complete instructions on how to enable Chinese and load the Chinese fonts, see "Installing Chinese for OMEGA 4.0.pdf" located in the Documentation\How Tos folder on the OMEGA 4.0 System Software DVD.

**D: Preview button in the Fill/Stroke dialog box shows filled mode from the Fill or Stroke dialog box.** This new button allows users to remain in the Fill dialog box, and see changes applied to objects on the screen even if the display mode was originally in wireframe. Preview can be used if Apply is enabled and if Composer is not already in filled mode. Preview is disabled if the fill or stroke dialog boxes were accessed from the text entry dialog box or dimensions.

| | |
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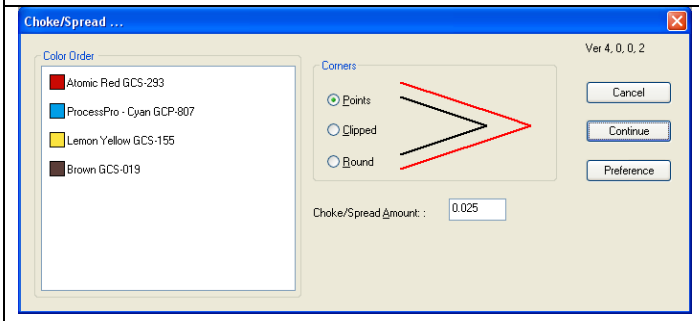
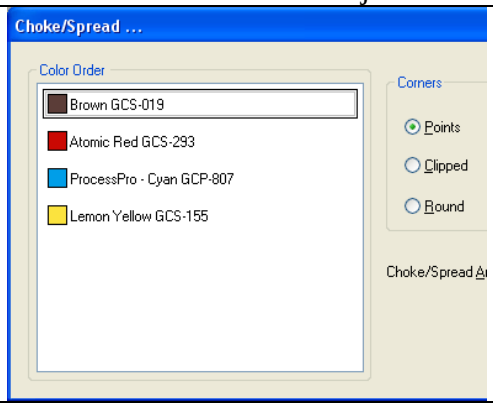
| **P-E: New Color Registration tool: "Make stroke same color as fill" creates Automatic "Strokes for Chokes"**<br>Select Objects>Click on the Stroke Flyout from the Main Toolbar>Click on the last icon |  |

This new tool automatically adds strokes to all selected objects that are the same color as the fill of the objects. This tool also automatically turns on OVERLAP for the newly added strokes.

- If objects already have a stroke, the stroke color is changed to be the same color as fill. The width of the stroke remains the same as the original assignment.
- If objects have a solid fill, then that color is used for the stroke
- If objects have a gradient fill, then the added stroke will use first color of the gradient fills,
- If selected objects have no fill, then add stroke if one doesn't exist, turn overlap on for these strokes,
- Strokes are not added to objects with clear fills,
- If objects have a Spectratone tint fill, the stroke color is forced to 100% tint of the SpectraTone colors because Spectratone tint colors are not allowed on strokes.

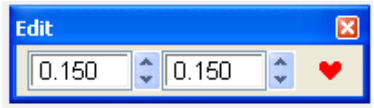
**P-E: Choke/Spread allows for the top most color to be moved to the top of the list.** This allows darker colors to hide lighter colors by dragging them to the top of the color list.

| Original Choke Spread Color Order has brown at the bottom. The original color order is based upon "To Fronts and To Backs" | Click and Drag Brown to the top of the list to use it as the hiding color, without changing the look of the job. |
|---|---|
|  |  |





**D: A Duplicate and Paste Offset Toolbar called EDIT has been added.**
**D: The Paste/Duplicate Offset Field has been removed from Tools>Options**
**D: Duplicate and Paste Offset values include X and Y values.**

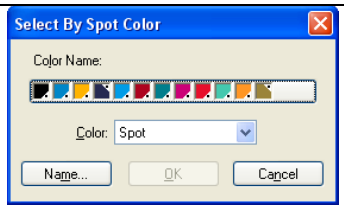



To turn on the toolbar: Composer>View>Toolbars>Click on EDIT >Click OK
To change the X and Y values for Paste and Duplicate, type in values in the X and Y fields
To set these values as the preferenced default for future duplicate or paste operations, click on the heart icon.

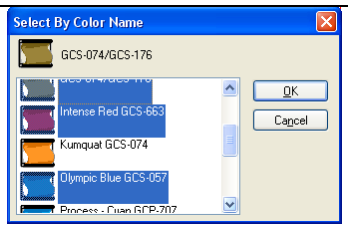
**D: Truetype fonts that get converted into Gerber Soft Fonts through the use of the Truetype font converter can now be Character Spaced in Composer.**
Truetype fonts that were converted in previous versions could not be character spaced in Composer Text on the Worksurface (TOWS). These converted fonts now CAN be character spaced using TOWS. To do this:

- Convert a Truetype font using the Truetype font converter
- Enter Text using the converted font with TOWS.
- Character Space using the TOWS character spacing tool.

**D: Certain Select Menu Commands now Allow for Multiple Selections**
Commands changed: Select by Vinyl Color..., Spot Color..., Process Color... and Halftone...
Composer>Select>Vinyl Color..., Spot Color..., Process Color... and Halftone...
Multiple Options can be selected from these dialog boxes. For example, Select By Spot Color now allows more than 1 color to be selected.

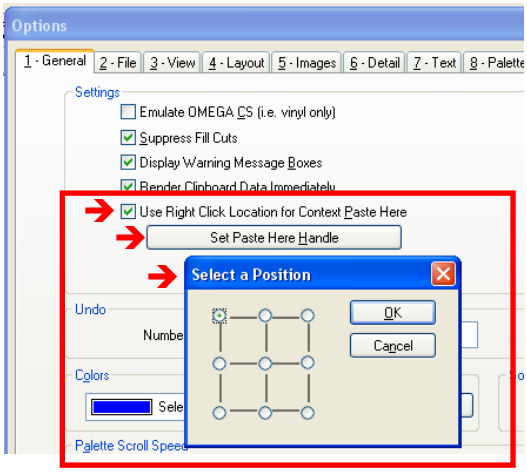
| Standard Windows Conventions are used to Select From the Lists<br>• If using the mouse with the color palette, click on colors to turn them on or off.<br>• If using the arrow keys and keyboard with the color palette, move to colors using the arrow keys, and turn colors on or off by pressing the spacebar on the keyboard. |  |
|---|---|

- If using the name list, choose individual colors with the spacebar and CTRL+Click.
- Choose sequential colors with SHIFT+Click
- If using the keyboard, move to colors with arrow keys and hold down CTRL and or SHIFT to select colors.



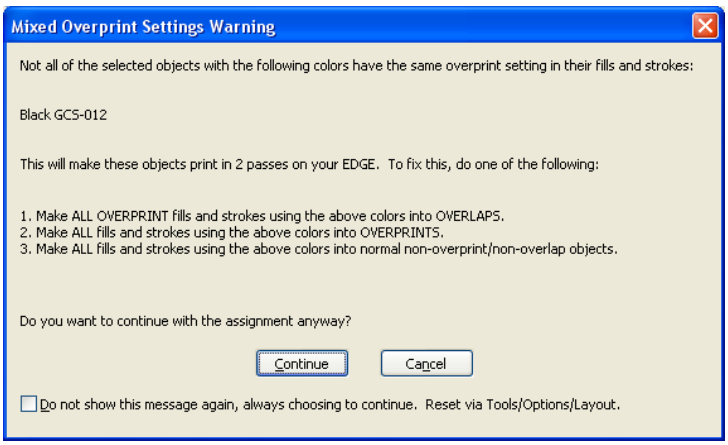

**P: Edit>Paste Here command can be made to behave as in OMEGA 2.0**
**D: Edit>Paste Here handle location can be chosen "Paste Here" command has been added to the Edit Menu, instead of only being a right click**

- Composer>Right Click>Paste Here to access the command
- Composer>Tools>Option>General Tab>"Use Right Click Location for Context Paste Here" and "Set Paste Here Handle Button."
- Composer>Edit>Paste Here (New Menu Item)




This Tools>Options setting allows for Paste Here operations to be performed in 2 clicks instead of 3. If "Use Right Click Location for Context Paste Here" is chosen, then the Composer right-mouse-click is used to set the location of the pasted items AND accesses the context menu so "Paste Here" can be selected. If this checkbox is off, then the user must right click, click on paste here, then click the mouse to set the paste here location

**A new message will appear when any single foil has OVERPRINT settings as well as overlap or normal heat settings assigned to it.**




This message alerts users that a foil will print twice due to the use of overprint (which uses higher energy print settings) and overlap or normal print settings (which use normal energy print settings) for the same foil color. This difference in heat settings for the same foil will cause the EDGE to print the color once, rewind, then print the same color again without any prompts. This occurs because the EDGE can only print one heat setting for a color in a single print pass.

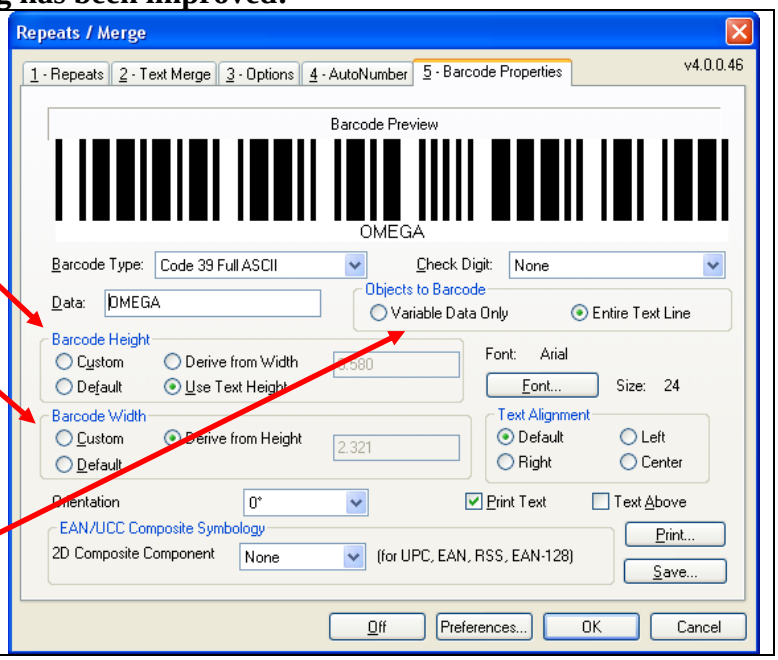
**D: P: Autotext / Repeats Merge and Barcode Improvements**

- When barcoding with Autotext, both Autonumber 1 and Autonumber 2 can be used. Previously (with 3.0 SP1), only Autonumber 1 could be used.
- Also added a "Generate as Barcode" check box for AutoNumber2.

## D: Barcode Height and Length formatting has been improved:

Barcode Height and length can be altered independently.

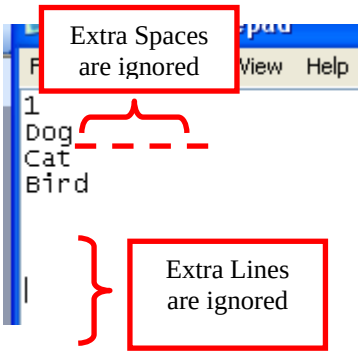
- Height and length can be set using the default recommended size for that symbology
- The barcode height can be set based upon the height of the &1 or #1 text
- The height or length can be set, and the length will automatically change to the recommended size for that height
- Barcode width can be set to be derived from the height, the recommended default, or a custom entered value.
- Human Readable Barcode text can now be aligned to be left, center, or right justified.
- Users can choose to turn an entire line of Autonumber or Autotext into a barcode, or choose to only encode the variable data.




## D: Autotext .TXT Data Files Are Easier to Create

When Creating Autotext using the "Text Merge" tab of the repeats/merge dialog box, the user creates a TXT file that gets merged into Composer "&1" fields. Several changes have been made to make the use of these TXT files easier.

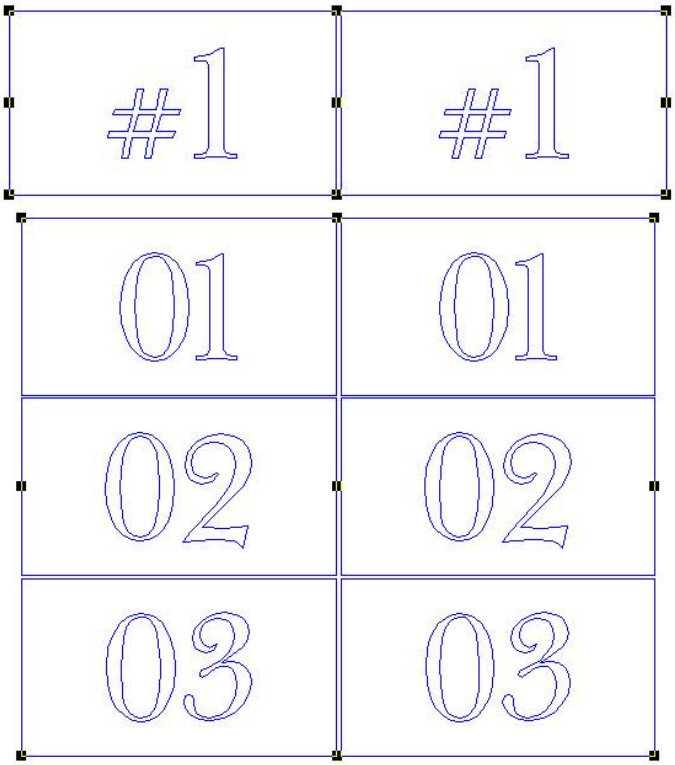
- Autotext now ignores extra blank spaces after a word in the autotext .txt file. Sometimes the operator would see strange-looking autotext justification because blank spaces were being used as part of the text length.
- Autotext now ignores blank lines caused by extra (<CR/LF/Enter>) at the end of the autotext .txt file. Previously, extra blank lines in the .TXT file would generate repeats with blank data in Composer.
- AutoText .TXT files no longer require an extra blank line (<CR/LF/Enter>) at the end of the file. Previously, the last line of data in a .TXT file would be ignored if the file did not end with a new-line.
- Double-byte character set .TXT files (Chinese/Japanese, etc.) can now be used as the .TXT to generate auto-text.




## D: Made change to Auto-number results when "#1" is used in two separate decals and when both are repeated at the same time

Composer>Create 2 AutoNumber decals with the same #1>Select both decals>Repeats Merge>Generate AutoNumber Repeats

Previously, each substitution would be given a different number for the same repeat. Now, each repeat will contain multiple copies of the same value. For example, 4 repeats of #1,#1 (in two separate text blocks) would produce 1,2 3,4 5,6 7,8, and will now produce 1,1 2,2, 3,3 4,4.



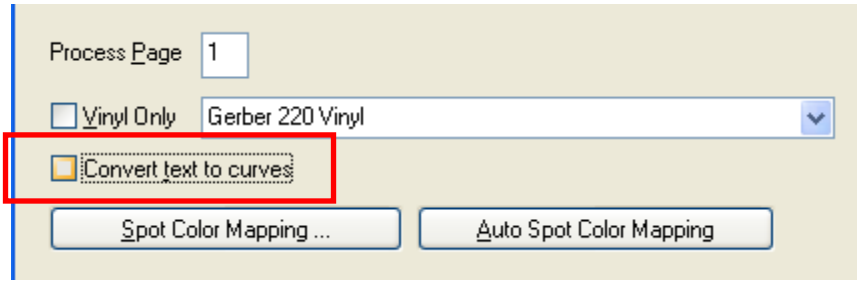

**P: The EDIT FILL HALFTONE button (accelerator="4")has been added to the Arrange toolbar.**


**P: Edit Halftone will no longer clear your fills if cut only objects are selected.**
Previously, if the last selected object was a cut only object (no spot or process color fills), Edit Halftone would remove all print information from the shapes whose halftones were edited. This no longer occurs. The fill information is retained and only the halftone changes.

## *File Import Enhancements*

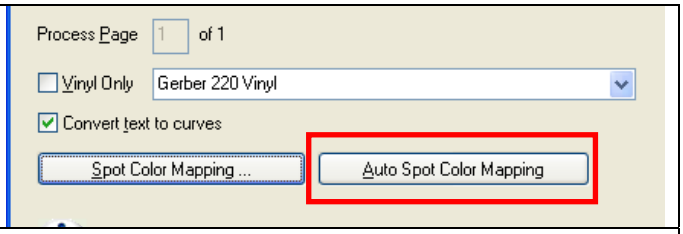
**X: AutoCAD 2010 DWG files can now be imported**
File>Open or Import>Choose DWG as file type to open

**X: P: Importing of PDF, AI, and EPS now *optionally* allows for importing of text if it is present in the original file.**
Composer or Plot>File>Open or Import>Turn OFF Convert text to curves




To alleviate differences between Unicode and non-Unicode text that might be present in files, SPELLChecker automatically occurs during import to improve importing of proper wording. If the text is not usable as text, there is a CANCEL ALL for spell check to save time clicking the ignore button

**X: PDF, AI, and EPS importing now optionally converts imported colors to Gerber EDGE spot colors.**
Composer>File>Import>Choose a file>OK>Click on Map Spot Colors *OR* click on Auto Spot Color Mapping.
This feature converts colors from an original PDF, EPS or AI file into GERBER EDGE Spot colors. Colors can be mapped to solid spot colors, percentage tints of spot colors, or GerberColor Spectratone colors. EDGE spot colors can also be LOCKED (or always used) for future automatic spot color mappings, or excluded from future automatic spot color mappings.

| | |
|---|---|
| To automatically and quickly map imported colors in an EPS, PDF or AI file to EDGE spot colors: |  |

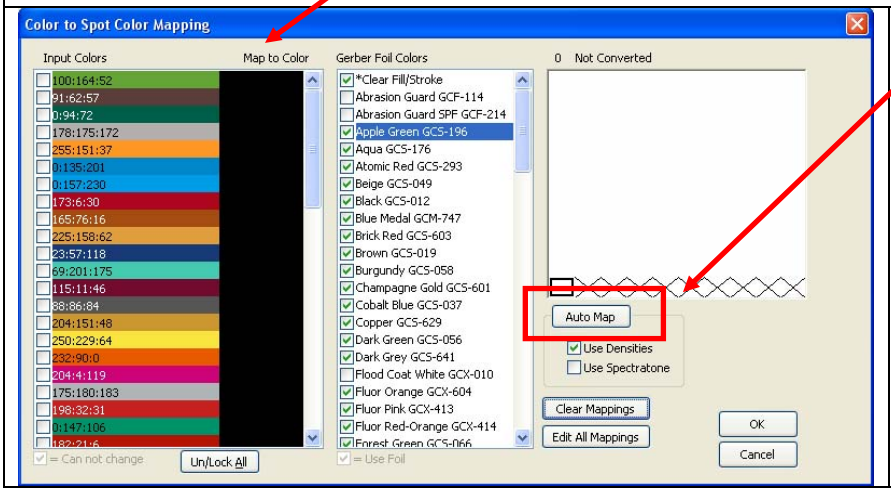


- File>Open or import>Choose the file to be imported>OK>
- Click on Auto Spot Color Mapping. This will find the closest EDGE spot colors for any RGB values in the original file.
  - The settings and locked colors from the full "Spot Color Mapping" dialog box will be used when this quick technique is used.

To Map Imported Colors to EDGE Spot colors with More Control:

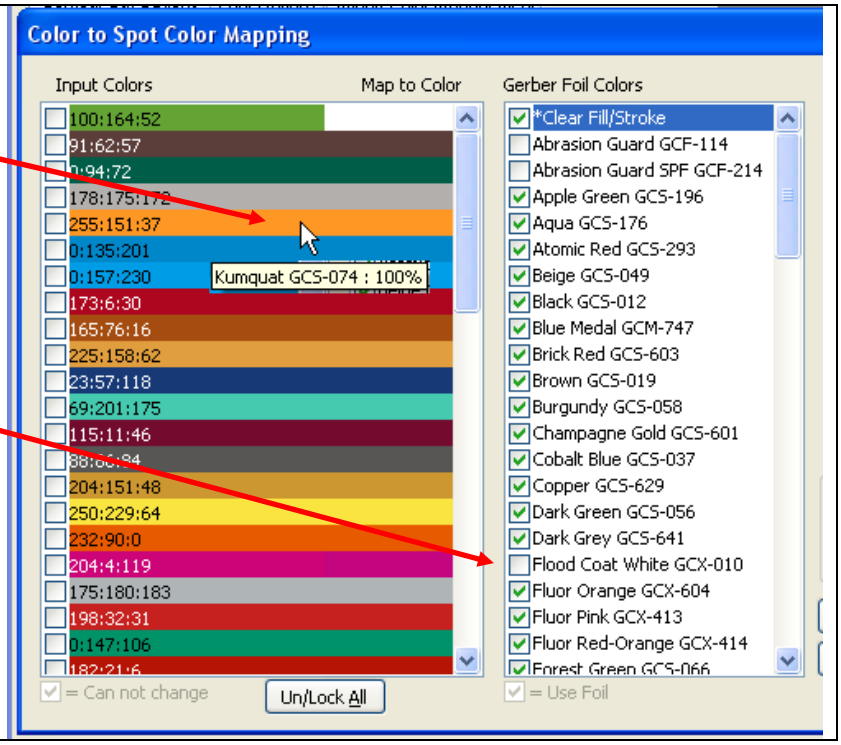
- File>Open or Import>Choose the EPS, AI or PDF file to be imported>OK>click on Spot Color Mapping... A Spot Color Mapping Dialog box will appear..

1. When the Color Mapping dialog box first appears, there will be a column of RGB colors from the original file on the far left side of the dialog box, with a column of black colors next to it. This column of all black colors means that no color mapping has been done yet and the original colors will map to CMYK colors when imported.



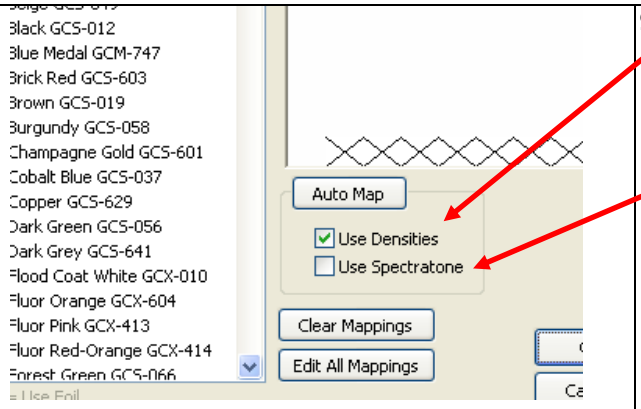

2. Get started by clicking on Auto Map Colors located in the right-center of the dialog box. This will map the imported colors to the EDGE spot colors that are checked in the middle column.
3. Or, double click on a particular color on the left side to automatically map only that individual color.

4. Once Automap has been clicked, a second column of colors will display next to the original RGB colors. These are the EDGE spot colors that have been auto-mapped. To see the color name that has been mapped, move the cursor (don't click) over the color name in the second column.
5. To eliminate certain EDGE spot colors from automatic mapping, turn OFF the checkbox next to the color names in the middle column. For example, to NOT map RGB colors to Abrasion Guard or Floodcoat White, click those colors off in the middle column. You may need to click on the Auto Map button again to refresh the mappings.



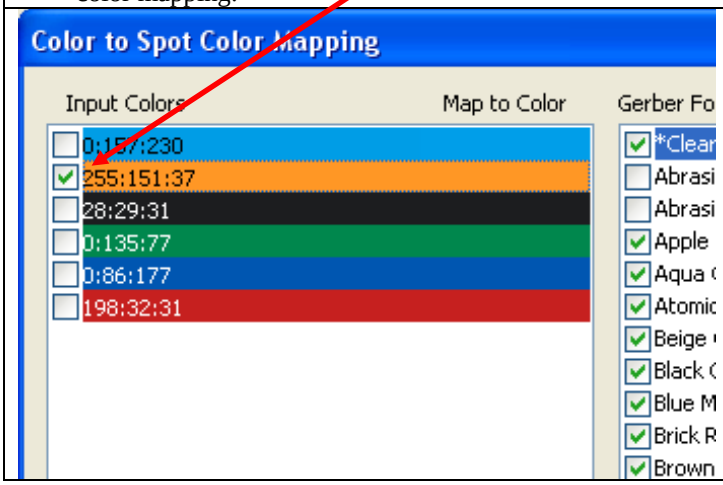

6. To automatically map a single color to an EDGE spot color, double click on the color on the left side.

7. To manually map a single RGB color to an EDGE spot color, click on the RGB color on the left side, then click on an EDGE spot color name in the middle column. The tint of the spot color can also be set by clicking in the tint box on the right side of the dialog box.
8. To UNMAP a single spot color mapping, hold down SHIFT and double click on the spot color that has been mapped.

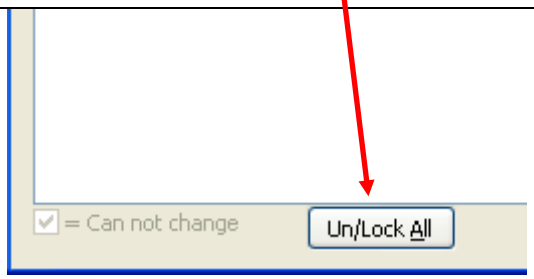



9. To use percentage tints of EDGE spot colors in the automatic mapping process, turn ON the "Use Densities" checkbox in the center-right of the dialog box, then click the Auto Map button again to refresh the mappings
10. To use GerberColor Spectratone colors in the automatic mapping process, turn ON the "Use Spectratone" checkbox in the center-right of the dialog box, then click the Auto Map button again to refresh the mappings.
11. To start the mapping process over, click on CLEAR MAPPINGS.

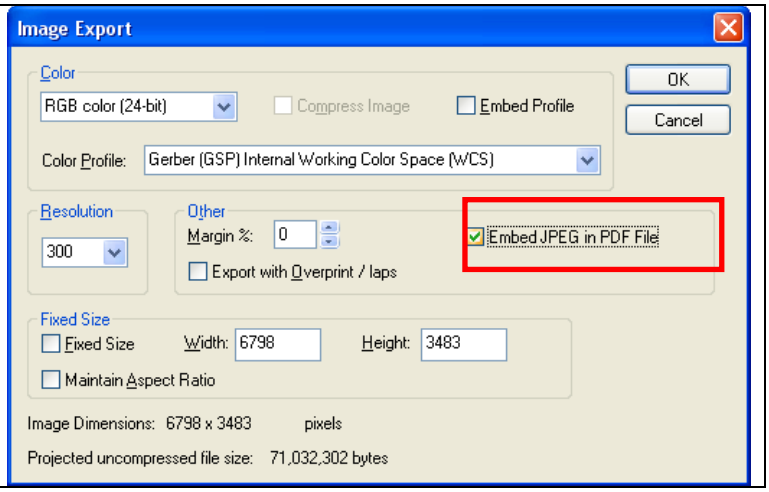
12. To LOCK or always map a certain RGB color to a specific spot color in subsequent Automatic Mapping operations, click the checkbox ON to the left of an RGB color that has a spot color mapping.



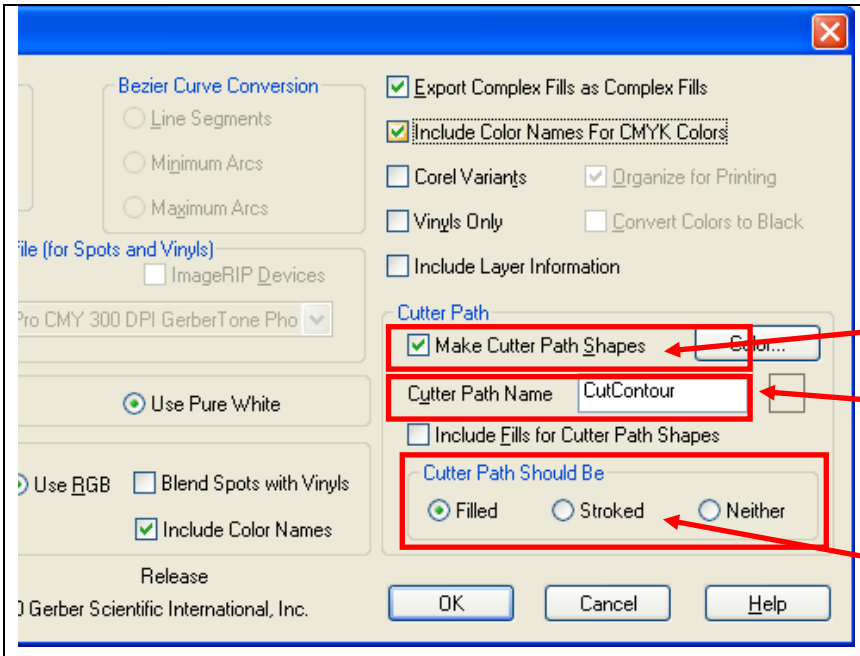

13. To lock or unlock all mappings, click the "Un/Lock ALL" button to turn all locked checkboxes on or off.



**X: JPG export now includes the ability to add a PDF "wrapper" around JPG files.** This allows for exporting jpg files at low resolution for proofing, while allowing the files to be read in PDF readers such as Adobe Acrobat reader. File>Export>Choose JPG as Export File type>Click on "Embed JPG in PDF File" checkbox




**X: Exporting to EPS files supports CutContour paths and named spot colors for use in Inkjet RIPs**

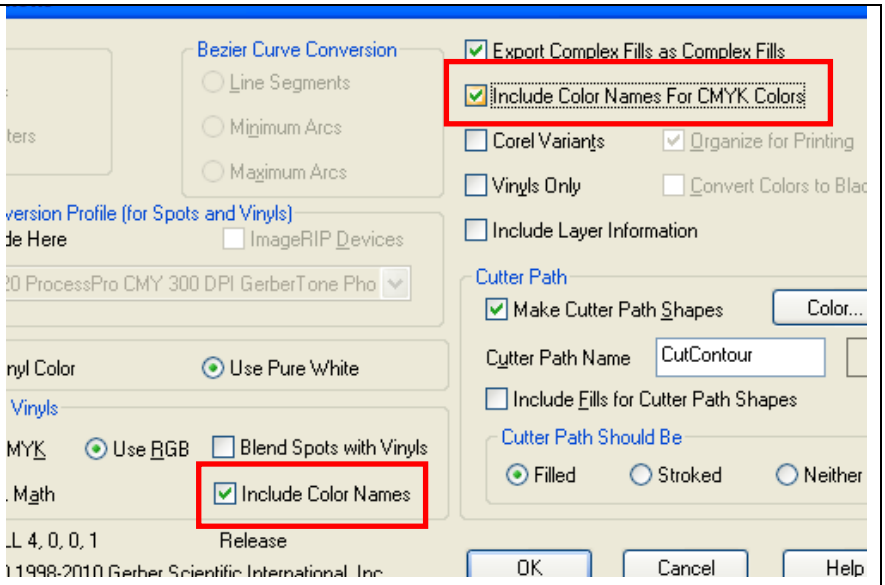



To export an EPS file with Cut Paths:

1. Create a job in Composer using print and cut objects
2. Composer>File>Export or Save As>Choose EPS or AI as the file type>Click on Options>
3. **Click on Make Cutter Path Shapes**.
4. Depending on the RIP, choose the name for the Cut Paths (such as CutContour), and
5. Choose to make the Cutter Path Filled (ONYX), Stroked (Wasatch) or Neither.

To export an EPS file with Named Spot Colors such as GerberColor Foils or PANTONE® colors that can be used with Look Up Tables in RIPS:

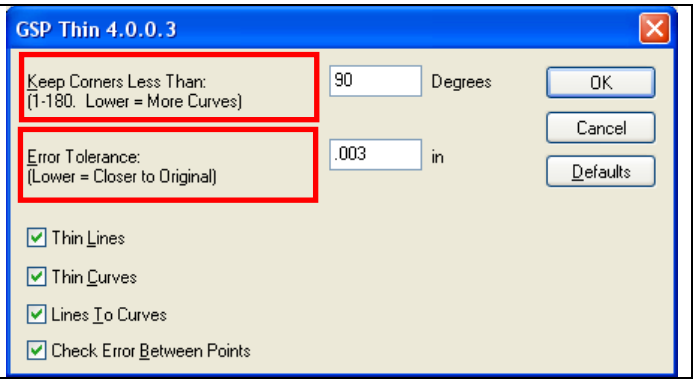
1. Design a job with Spot Colors or Pantone Colors
2. Composer>File>Export or Save As>
3. Choose EPS or AI as the file type>
4. Click on Options>
5. **Click on INCLUDE COLOR NAMES** and
6. **Include Color Names for CMYK Colors**




7. Follow the RIP instructions to load and use Color Look Up Tables.
8. EDGE Spot Color Look Up Tables can be found at: http://www.gspinc.com/default.asp?contentID=204#TABLES
9. OMEGA PANTONE Export Color Names adhere to Pantone Licensee Naming conventions and will be recognized by RIPs that are Pantone Licensees such as ONYX.

**X: Composer Export to Hot Folders allows a unique filename to be entered.**
Export to hotfolder will either use the name of the original PLT file, or now allows a unique Filename to be entered. "Export to Hotfolder" is used with RIP products such as ONYX ProductionHouse so a particular set of output parameters can be used to RIP and output files that are saved in that HotFolder. Composer>File>Export to Hot Folder>Set Unique Filename

**D: GSP Thin includes better function descriptions in the Dialog Box**
Composer>Tools>Thin and Composer Detail>Thin
The Thin function removes points while trying to maintain the original shape, based upon settings used in the Thin dialog boxes. These settings in the dialog box now have more descriptive labels.




**X: D: When importing files, Composer's vinyl settings will be used for the vinyl color for imported jobs.**
There is no longer a single default vinyl color for imported EPS, PDF and AI files. The current-style vinyl color selected in Composer will be used instead.

**X: P: Support: Images are maintained when saving PLT files with Images to previous PLT versions.**
Composer>File Save As or Export>Save to OMEGA 3.0, 2.6, etc…

**P: Support: The minimum AutoBackup save time can now be set to 1 minute instead of 5 minutes.**
Tools>Option>File Tab>Perform AutoBackup every XX minutes.

**P: Support: Files opened from the c:\jobs\backup folder cannot be resaved with the same name to the same folder. This prevents unwanted loss of data.**
If a job is opened from c:\jobs\Backup folder after Composer unexpectedly ends, the file is forced to be named a different name than the original file. A message warning is displayed that says "This is a backup file. The PLT file name has been changed to avoid data loss. Please save this file outside of the backup folder with a new name."

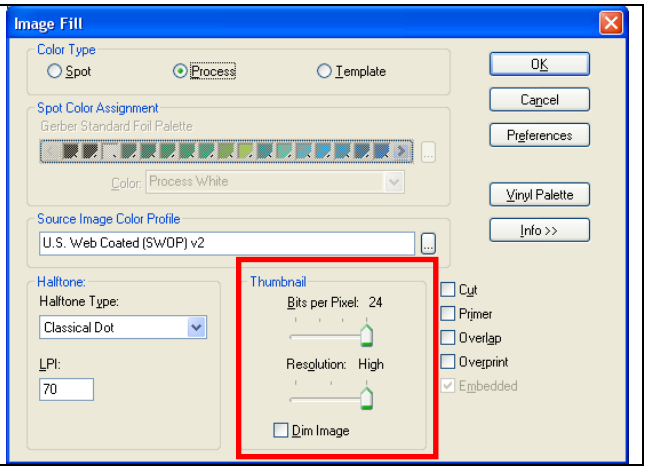
**Support: Please note that AutoBackup is not a general backup function that saves all files.**
AutoBackup only retains backup files if Composer shuts down in an unexpected manner (power outage, unexpected program termination, etc…). Auto Backup files from a particular Composer session can be viewed while Composer is running. However, these same backup files from a particular Composer session are discarded if Composer shuts down in a normal manner if the files are not saved in a different folder with a different name.

**D: P: Support: Two changes make Clipboard usage (Copy and Paste) between Composer and other programs more reliable:**
1. Added a setting to Tools>Options>General to render Clipboard Data immediately instead of waiting for a paste command from another non-Composer program.
2. Added a setting to the Edit menu to restrict clipboard data to the private PLT file format. This disallows pasting into other programs but will be VERY stable when copying and pasting within Composer.

**P: Support: Legacy files opened in 4.0 are now preserved by renaming the original file, not the new file**
Composer>Tools>Options>File Tab>Preserve Legacy Files When Saving
- When a file from a previous version of OMEGA ("legacy file") is opened in 4.0 then saved, the older legacy file is now automatically renamed instead of changing the name of the saved OMEGA 4.0 file. This setting is ON as a default in OMEGA 4.0

**D: P: E: Image Fill Dialog Box now allows bits per pixel and color depth to be set. This restores functionality that was removed in OMEGA 3.0.**
Composer>Select and Image>Click on the Image Fill Dialog Box>adjust Thumbnail properties

This can be used to reduce file sizes of PLT files with images by reducing the Resolution and Bits Per Pixel before saving the PLT file.

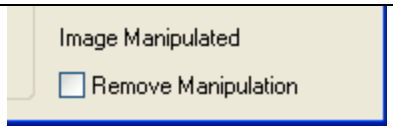



**D: P: E: The Image Fill Dialog Box allows for the Source Color Profile to be set for more than one image at a time.**
Composer>Select multiple images of the same color depth>Click on the Image Fill Dialog Box>Choose a Source Image Profile
Previously, the source profile could only be set for one image at a time. If CMYK and RGB images are in the selection at the same time, or if the Source Profile cannot be determined, this feature is disabled.

**D: P: E: The default RGB Source Color Profile for images without an embedded profile is now Gerber (GSP) Internal Working Color Space (WCS)**
This color space typically provides brighter colors that the previous default which was GSP RGB.

**D: P: Support: CMYK images will not longer display as negative colors.**

**D: E: If an image has been changed by an operation from the Image menu, "Image Manipulated" will display in the Image fill dialog box.**




**D: E: All operations that have been applied to an image from the Image menu can be removed by clicking "Remove Manipulation."**

**D: E: If an image has had an Image Menu operation applied to it, the bits per pixel and resolution are set to be at the highest level and are grayed out.**
This is because the "thumbnail" or Composer preview image becomes the live, rendered image when an image has been changed by the Image menu.

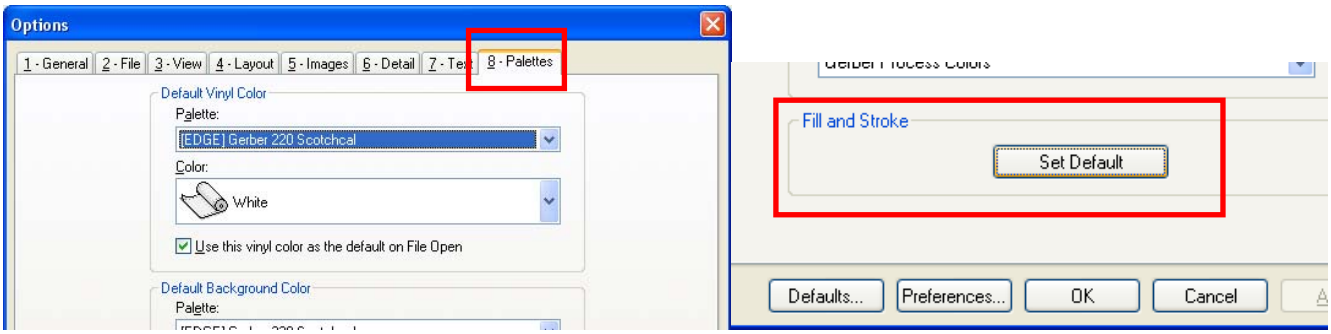
**P: E: GSPPlot includes a new automatic Halftone setting for EDGE output.**

**P: Support: If Composer is set to create a Thumbnail, PLT file previews will always be created either as a wireframe or color preview, depending on the number of shapes in the PLT file.**
IF Tools>Options>File>Color Cartoon When Saving Files is turned ON:

- If a PLT file contains less than 10000 objects, a color preview will be created.
- If a PLT file contains more than 10000 objects a wireframe preview will be created.

- This threshold has been created because previews of large files require too much time to create.

**D: P: E: V: User Settable Default Fill and Stroke when Composer Starts**
Composer>Tools>Options>Palettes now has a Fill and Stroke group box with the Set Default push button that brings up the Assign Colors box. This is in addition to the existing ability to set a default vinyl. Be sure to click on PREFERENCES in Tools>Options to keep these settings for future Composer sessions.




**The Select menu now has the correct items enabled and disabled.**

**You can now assign vinyl from the Enter/Edit Text dialog box when system is CS or emulating CS.**
Composer in OMEGA CS Mode>Text Entry Dialog Box>Color (F12)>Assign Vinyl Color
The Assign Vinyl dialog box is used instead of Assign Colors.

Changes made to edit boxes in toolbars in Composer now recognize the enter key to indicate make the change NOW as opposed to waiting for the normal delay.

**P: Composer performance will be faster when the layer tree is displayed.**

**P: Support: PLT file descriptions will no longer get overwritten by other PLT file descriptions.**

**P: Support: Small text in exported dimension objects will export more reliably**

| |
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| **Support: Enhancements added to OMEGA 3.0 SP1 that are also in OMEGA 4.0.** Even if 3.0 SP1 was never loaded, these items will load with OMEGA 4.0. |
| |
| **Support: R: ArtPath32:** Older files job limits are calculated correctly. Limits will be re-calculated upon job open. |
| |
| |
| ArtPath Output dialog now contains a checkbox to guard user from changing underlay amount without knowing. |
| ART Path saves screen position and size. |
| MSeries target tool now contains filled circles rather than + marks. |
| Added support for M-Series Turbo Router. |

# What's New in OMEGA 4.0

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| Custom tools added by users can now be used |
| 3D Autocarve data is now normalized before performing tool path generation, creating less erratic toolpath generation. |
| |
| **Composer:** |
| Image bounds are properly set for the size of an image. |
| Improved stability when importing some older PLT files. |
| Improved stability after rotation then replacing or repeating objects then trying to save the file. |
| Improved opening of 2.6 files with an image in Omega 3.0. |
| Small text generation is faster because "smoothing" is controlled directly and no longer needs to change via the System's Control Panel applet. |
| Faster performance in some larger files. |
| Faster Composer performance when moving long lines of text. |
| Changed the default fill back to "no fill". |
| Vignette tool no longer turns pictures a bluish color |
| Strokes will scale properly as shapes are scaled. |
| Composer Absolute Size dialog improved with metric measurements. |

# What's New in OMEGA 4.0

**To update the HiRez GERBER EDGE FX Firmware**

1. The EDGE FX HiRez firmware update is called **EdgeFX_L0_Build_220.gsp**. This is the file that gets loaded onto the EDGE FX.
2. Make sure the GERBER EDGE FX is OFFLINE. Press F1 from the printer's MAIN MENU to toggle between ONLINE and OFFLINE.
3. Open the GERBER EDGE FX web interface by entering the printer's IP address in the Location or Address line of your web browser (for example: http://169.254.128.129).
4. The Welcome to GERBER EDGE FX screen displays.
5. Click the Update link to open the GERBER EDGE FX Update page.
6. Type the update file name (with a GSP extension) and location in the Send file box or click Browse to find the file on a CD or your computer. The firmware update is called EdgeFX_L0_Build_220.gsp
7. Click the Send button to send the update file to the GERBER EDGE FX over the
8. network. Depending on the size of the file and the network connection this may take up to a minute or more.
9. When the firmware update is complete, a status page displays the results.

**OMEGA 4.0 Automatic Halftone Substitution Chart**

All sizes and fill specifications can be changed by the user

300 DPI

| Size Largest Dimension | Fill Type | Halftone |
|---|---|---|
| 0 to 2 inches (change) | Gradient | 65 lpi classical (Change) |
| 2 to 6 inches (change) | Gradient | 55 lpi classical (Change) |
| 6+ (change) | Gradient | GerberTone Fine (Change) |
| 0 to 11.8 (change) | Non-Gradient | 65 lpi classical |
| 11.8 + (change) | Non-Gradient | 55 lpi classical |
| CANNOT CHANGE | Strokes | Same as fill (change) |
| 0 to 6" (change) | Image | 65 lpi classical |
| 6"+ (change) | Image | GerberTone STC Photo (Change) |

600 DPI

| Size Largest Dimension | Fill Type | Halftone |
|---|---|---|
| 0 to 4 inches (change) | Gradient | Classical 65 |
| 4 to 8 inches (change) | Gradient | Classical 55 |
| 12+ (change) | Gradient | GerberTone |
| 0 to 11.8 (change) | Non-Gradient | 65 lpi classical |
| 11.8 + (change) | Non-Gradient | 55 lpi classical |
| CANNOT CHANGE | Strokes | Same as fill (change) |
| 0 to 6" (change) | Image | 65 lpi classical |
| 6"+ (change) | Image | GerberTone STC Photo (Change) |

1200 DPI

| Size Largest Dimension | Fill Type | Halftone |
|---|---|---|
| 0 to 8 inches (change) | Gradient | Classical 65 |
| 8 to 12 inches (change) | Gradient | Classical 65 |
| 12+ (change) | Gradient | GerberTone |
| 0 to 11.8 (change) | Non-Gradient | 65 lpi classical |
| 11.8 + (change) | Non-Gradient | 55 lpi classical |
| CANNOT CHANGE | Strokes | Same as fill (change) |
| 0 to 12" (change) | Image | 65 lpi classical |
| 12"+ (change) | Image | GerberTone STC Photo (Change) |

GERBER OMEGA and GERBER EDGE Halftone Summary

| Halftone Type | Halftone Description and usage |
|---|---|
| Classical Dots:<br>(vectors and images) | This traditional cluster dot halftone pattern provides a clean look especially with smaller dots. However, the smaller the classical dot, the more "banding" occurs in gradients and color transitions. Typical lpi usage ranges from 20 lpi (big dots, less banding) to 70+ lpi (smaller dots, more banding, more overtransfer)<br>Change the lpi for smaller or larger dot sizes:<br>-Higher LPI = Smaller Dots but *more* banding.<br>-Lower LPI = Bigger dots but less banding.<br>-Higher DPI= less banding for a given dot size<br><br>**Recommended Classical dot usage**<br>**300 dpi, 60 to 70 lpi:**<br>-Use for images or objects with gradient fills smaller than 2-3 inches,<br>-also use for any-size non-gradient fill<br>**600 dpi, 60 to 70 lpi:**<br>- Use for images or objects with gradient fills smaller than 5-6 inches,<br>-also use for any-size non-gradient fill<br>**1200 dpi, 60 to 70 lpi:**<br>- Use for images or objects with gradient fills smaller than 10-11 inches,<br>-also use for any-size non-gradient fill |
| GerberTone (vectors only) | Vector-only fixed dot size of about 42 lpi. "One dot size fits all." Uses "supercell" technology to provide the halftone coverage of a large dot, but the dot size of a smaller dot. Very little banding for objects up to 4 feet long, but shows some patterning. Works well for medium and large objects, but fairly course for up-close viewing. |
| GerberTone Fine (vectors only) | Similar to GerberTone but uses a smaller dot. Vector-only fixed dot size of about 60 lpi. "One dot size fits all." Very little banding for objects up to 4 feet long, but shows some patterning. Works well for smaller to large objects, but patterning intrudes on fairly course for up-close viewing. Patterning is reduced using 1200 dpi |
| GerberTone Photo | Image-only fixed dot size of about 42 lpi. "One dot size fits all." Uses "supercell" technology to provide the halftone coverage of a large dot, but the dot size of a smaller dot. Very little banding for objects up to 4 feet long, but shows some patterning. Works well for medium and large objects, but fairly course for up-close viewing. |
| GerberTone STC Photo (recommended setting of 70 lpi | Best of both worlds for images: Allows for relatively high lpi settings for images but does not show the banding associated with small classical dots. |

# What's New in OMEGA 4.0

**Windows Operating Systems Compatibility: At this time, GSP recommends use of 32 bit versions of Windows XP, Vista or Windows 7.**

Because 64-bit Windows 7 and Windows Vista do not support OMEGA ECP parallel port usage you cannot communicate with a GERBER EDGE or EDGE 2 printer via ECP parallel port when using 64-bit Windows 7 or Windows Vista. Gerber recommends that you use 32 bit Windows 7 or Vista, or upgrade to a GERBER EDGE FX which communicates via an Ethernet cable. Alternately, you can render on a 64-bit Windows 7 or Windows Vista system and output to a GERBER EDGE or EDGE 2 using a separate OMEGA Plot Station installed on a 32 bit Windows operating system with an ECP parallel port on the mother board of the PC. The following chart details compatibility.

| | Windows XP 32 | Windows XP 64 | Windows Vista 32 | Windows Vista 64 | Windows 7 Professional 32 | Windows 7 Professional 64 |
|---|---|---|---|---|---|---|
| **Design** | | | | | | |
| Composer and other design functions. Create and save PLT files. | OK | OK | OK | OK | OK<br>Turn off UAC to save custom palettes | OK<br>Turn off UAC to save custom palettes |
| **Rendering** | | | | | | |
| GSPPlot rendering of SPL files. | OK | OK | OK | OK | OK | OK |
| **Output** | | | | | | |
| EDGE via parallel cable or off-the-shelf USB-to-Parallel cable | OK | OK | OK | NO. Use a separate Plot Station on a system NOT using W7 or Vista 64-bit. | OK | NO. Use a separate Plot Station on a system NOT using W7 or Vista 64-bit. |
| EDGE 2 via parallel cable or GSP *custom* USB-to-Parallel cable | OK | OK | OK | NO. Use a separate Plot Station on a system NOT using W7 or Vista 64-bit. | OK | NO. Use a separate Plot Station on a system NOT using W7 or Vista 64-bit. |
| EDGE FX (Ethernet only) | OK | OK | OK | OK | OK | OK |
| Plotters via serial port | OK | OK | OK | OK | OK | OK |
| Plotters via Radio Shack® 26-183 USB to Serial Cable | OK | Not Tested | Not Tested | Not Tested | Not Tested | Not Tested |

*1. GSP has successfully installed OMEGA on Windows XP 64-bit, but some customers report issues with installation and output. We continue to gather data, but strongly recommend using Windows XP 32-bit.*

*2. GSP suggests you use a separate Plot Station on a system NOT using Windows XP 64-bit or Vista 64-bit.*