



## Xenetech Project # 205

### Using CorelDRAW to Hatch fill ( a.k.a. paint, or vector fill )

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This document will necessarily be "general" in nature because every version of CorelDRAW handles this at least slightly different.

**Requirements for using CorelDRAW to create fill lines: refer to CorelDRAW manuals and OnLine Help.**

1. Only **Closed Paths** can be filled.
2. Those **Closed Paths** must be given a fill attribute (normally with CorelDRAW's Fill tool).
3. One must understand the difference between **Combined paths** and **paths that are Grouped**. That is, if a small circle filled with white is in the center of a larger black circle the results will not be what you expected; on the other hand, if those two circles are combined you will get the effect you probably wanted.

**Various capabilities of different versions (to the best of my recollection).**

**CorelDRAW 3 and previous versions** have **no direct** capability of creating fill lines. These earlier versions (as can later versions) can **Print** to any HPGL plotter driver which will indeed create fill lines where it finds filled objects. More detail may be supplied in later version of this document, but for now suffice it to say that you can use the **Add New Printer...** to install the HPGL printer driver that ships with all versions of Windows. Then **File | Print...** and select this driver and output an HPGL file with hatch fill and then import it into engraving program.

Begging with **CorelDRAW 4** , all subsequent versions of CorelDRAW have two additional ways to provide vector fill lines that will engrave.

1. **Contour**
2. **Export as HPGL** file turning on the **Simulated Fill** feature of the export filter.

The **Contour tool** (or Roll UP) creates concentric shapes (true vector lines) normally from the outside of an object to the center. This is the easiest way to create fill patterns and in many instances is the best way. There are three potential problems with using this method. First, an undesirable "depth" illusion is often created. Second, for plastic engraving, you will often experience "nose cone drop in" when the path gets to the center of an object and has engraved away all "shoulder" on which the nose cone needs to rest. Third, on many very complex objects the time to engrave is enormous because of the "jump around" cutter path. All of these problems can be mitigated or completely eliminated with a thorough understanding of CorelDRAW [beyond the scope of this document]. See the first Brewer Sales Xenetech Newsletter for two such workarounds.

The **File | Export** with a **file type** of **HPGL** allows the user to select **Simulated Fill lines...** and set the angle and distance between the lines. Typically (and by default) the fill lines are horizontal similar to the patterns with which we are all familiar that come from third party suppliers of computer engraving logos.

**CorelDRAW 4** has only one screen in the HPGL export filter and **Simulated Fill lines...** will be conspicuous on that screen. **CorelDRAW 5-8** HPGL export filters have a **tabbed** interface and the user must select the **Advanced** tab from the initial dialog to find the **Simulated Fill lines...** parameters.

**Warning:** Nasty bug in **CorelDRAW5:** and it's workaround. ( **5 only**, BUG does not exist in versions 4, 6,7,8 )

The **Simulated Fill lines...** as described above will not work after you have used the **File | Import...** . That is, if you have imported anything (not opened, or pasted, but Imported) then the **Simulated Fill lines...** will be "greyed out" and inoperable. The only solution is to save your file, exit Corel5 and the run again and re-open your file and then **File | Export...** and it will now be functional (until you do another import!).

Tip for **advanced users only**, for some reason Corel has never considered HPGL to be an important export type and therefore the filter does not give real good results in many cases. For the highest quality fill lines (meaning both nice smooth lines and improved cutter path) coming out of CorelDRAW, I recommend a high quality Print driver (actually plotter driver) that would come from the makers of vinyl knife machines; as you might suspect, vector quality is extremely important to these people! I use the Roland print driver which gives the user scores of contols and outstanding output quality. This can be purchased direct from Roland @ 800/542-2307 or 714-727-2100. Please do not call Xenetech or Brewer Sales for instructions on how to use this; this suggestion is only for

people who are comfortable with working with print drivers and willing to read the instructions.

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