VM Errors

Xitron Navigator Technical Note

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Overview

When the RIP runs out of conventional memory (RAM) while it is processing a file the result is a VMError. Certain RIP processes must take place in RAM and if the amount of RAM available to the RIP be too low the file will error. The error will look something like this:

```
Error: vmerror; OffendingCommand: renderbands
```

The error does not have to match this exactly, it is the "vmerror" part that matters.

There are two distinct causes for this error. One possibility involves the interaction of some RIP settings found in the Page Setup. The other possibility is that there is not enough memory in the computer to complete the process being requested.

Solutions

The first thing to try if a VM Error is occurring is to change the number of gray levels set in the "Screening" section of the Page Setup. Often increasing or decreasing this setting will eliminate the error. Also, if "extra gray levels" is on, lowering the number found under "Limit screen levels to" in the HPS dialogue may help. Another option is to turn off the HPS screens (found just under the extra gray levels setting). Try these options one at a time and in combination. Restore these items to their original settings if changing them doesn't work.

If the above suggestions do not solve the problem, then it is most likely caused by a lack of physical memory (RAM) available to the RIP. There can be two causes for this problem. Firstly, it is quite possible that the RIP's memory settings are incorrect, which will limit the amount of RAM that the RIP can use. To check this possibility, locate the Xitron Technical Note entitled, "Memory Configuration." This Tech. Note will explain how to set the RIP's memory for optimal use and efficiency.

If optimizing the RIP's memory settings does not solve the VM Error, and trapping is being used, there is one more step that can be taken to eliminate the error. The number of traps applied to the job consume RAM as they are processed. If you can reduce the number of traps that EasyTrap is creating, you may be able to eliminate the VM Error. This can often be done without harm to the printability of the job.

In the trap setup there are four settings under the heading "Trap thresholds:" Cyan, Magenta, Yellow, and Black. These settings determine the extent of trapping applied to the file. The default for these settings is 10%. This means that a difference in build colors of less than 10% will not be trapped. Briefly, this means that there is more than enough of the specified color (Cyan, Magenta, Yellow, or Black) between the two adjacent build (CMYK) colors that there is no need to trap. However, 10% may be an excessive setting. That is, it may trap where traps are not necessary. Increasing this setting will create fewer unnecessary traps and use less memory. By adjusting these numbers upward, colors have to have an increasingly obvious difference in color before the trap is applied.

It is suggested that these numbers be increased in 5 to 10% increments. As the numbers are increased the VM errors will be eliminated. It will then be necessary to check the job to make sure that all necessary traps have been applied. If these numbers are set too high, trapping will not occur where necessary. These are decisions that must be made by each user individually, as trapping needs differ from process to process and from press to press.

If all of the above solutions do not eliminate the VM errors there is only one other possibility -- there is not enough RAM in the machine to complete the process. In this case, the only solution is to purchase and install more RAM in the system. After the RAM is installed the RIP's memory configuration should be changed to take advantage of the new resources. When resetting the RIP's memory configuration, refer to the Xitron Technical note entitled: "Memory Configuration," which can be found on the RIP's installation disk or on the Xitron web site.