SYSTEM REQUIREMENTS

matrix
software for jewelry artisans

The following is a range-set of recommendations meaning that if you choose a computer with specifications within these ranges, you will have a good computer to run Matrix on. We encourage you to look around before you buy to familiarize yourself with current prices and availability. Since we are not able to test every type of processor, video card, and monitor, please be aware that we are recommending the components that we have had consistent success with when using Matrix and CounterSketch. We recommend that your computer has at least these specifications:

- Intel Quad Core i5 or i7 or faster
- 4 GB or better of DDR RAM. Only 64-bit operating systems support higher than 4 GB
- Nvidia GeForce Video Card with 1GB VRAM (ATI cards NOT recommended or supported)
- Matrix and CounterSketch perform best on nVidia GeForce video cards and Gemvision only supports the GeForce models of nVidia video cards. While certain models of ATI video cards may indeed work with Rhino/Matrix/CounterSketch, we have experienced various problems and therefore do not recommend ATI cards.
- 250 GB free space hard drive or larger
- 19 inch monitor (desktop) or larger
- 15-17 inch monitor (laptop) or larger
- Minimum screen resolution wide aspect is WXGA+ (1440x900) recommend WSXGA+ (1680x1050) or higher
- Minimum screen resolution 4:3 aspect is SXGA (1280x1024) or better
- DVD-ROM or DVD+/-RW drive required (install is DVD format)
- Windows 7 Home Premium, Professional, or Ultimate in either 32-bit or 64-bit versions
- Windows 7 Home Basic or Starter edition NOT supported
- Windows XP Home, Professional, or Media Center
- Windows XP 64-bit NOT supported
- Windows Vista Home Premium, Business, or Ultimate in either 32-bit or 64-bit versions
- Windows Vista Home Basic or Starter edition NOT supported
- CounterSketch is ONLY supported in English versions of Windows and language settings
- Matrix is ONLY supported in English, German, French, Italian, and Spanish versions of Windows and language settings
- There are no current plans to port Matrix over to Apple operating systems. We have users who have successfully installed Windows XP on an Intel-based Mac using Boot Camp (NOT Parallels) however, Gemvision does NOT support this platform

Processor
Matrix and CounterSketch are processor-intensive, so getting a faster processor is always a good thing. First, the difference between "dual processors" which are 2 physical CPUs and have NO speed effect on the software and "dual core" processors which are essentially 2 CPUs hardwired into 1 physical chip and have great performance and speed returns on the software.

With all the different choices and naming conventions out there, thought it might be helpful to try to break down the confusion between them all:

- "Core2Duos"-Intel- Intel's former chip is on the way out, but will still run Matrix/CounterSketch. Intel also has what they market as "Extreme" editions of most of their chips which is their top of the line, stuffed with memory cache and running at highest speeds, these are the 'top of the line' chips are almost always priced well above the 'normal' chips. In our experience, the performance difference never comes close to the price difference.
- Intel i5, i7 Processors – We don't recommend the i3 chip for Matrix or CounterSketch as these appear in entry-level computers. While you could find a suitable computer with an i5 chip, we highly recommend going to the i7 series of processors for our products as they will heavily rely on processor power. Also, by going to the i7, you will be ready for future versions of Matrix/CounterSketch that will likely require more processing power.

In our experience, the best way to specify a chip for best return on performance vs. cost is to find the fastest and most powerful chip out there (and of course usually the newest) then take 1 or 2 steps 'down' in performance to the one that was the leader usually a matter of months before. The performance difference is small and usually the price difference is substantial. For example, if the new hot chip is an Intel® Core™ i7-840Q, 1.86-3.2GHz, then look for a 1.73-2.93 GHz i7-740Q or the 1.6-2.80 GHz and see what the price 'break' is. It will usually be enough so you can afford more…

RAM
Currently, Rhino/Matrix and CounterSketch use 2GB Ram on 32-bit Windows and 3GB Ram on 64-bit Windows (Vista). Based on this, 4GB of RAM is a good buy. Eventually, Matrix and CounterSketch will be truly 64-bit applications, and that means they will take advantage of all RAM above 4GB that your system has installed.

Video Graphics Card
Gemvision only recommends the GeForce model of the nVidia brand Open GL video cards. Visit NVIDIA's website for detailed descriptions of the various models. Please contact Gemvision technical support if you have any questions. **Matrix/Rhino operating on the Vista platform is NOT compatible with ATI video graphics cards and is NOT supported by Gemvision technical support.**

Monitor

A 19 inch monitor is a comfortable size for most people, but if you present to a customer who is looking at the screen from a distance, a 21 inch monitor might be more effective. CRT, flat panel, and laptop monitors vary in display appearance and quality - it's best to visit a store so you get a feel for the monitor before deciding on a size and resolution.

Resolution

The minimum resolution for Matrix and CounterSketch is 1280x1024. Some computers may have other resolutions that will work for you (wide, for example), but this is the most common resolution. Native Resolution is the number of pixels that the monitor was made with. Flat panel monitors are available with almost any Native Resolution but must be run at that setting or else the display will be blurry. CRT (tube-style) monitors, however, can be changed from their lowest to maximum resolution with virtually no quality loss. There are various acronyms that vendors use to designate how many pixels a monitor can display. The following detailed explanation of aspect ratio, resolution, many of the acronyms, and their meaning are considered advanced information intended to be self-explanatory. It is not essential to understand all of the following to purchase a good computer for Matrix use.

For the purposes of the information below, Horizontal/Vertical (H/V) is the ratio of the image width to height in pixels, display modes with an H/V Ratio of 4/3 will appear to have square-shaped pixels, and distortion occurs when the pixel size ratio differs from the physical screen size ratio.

Quad and Hex are emerging as terms for high-resolution displays. Quad refers to 4 times as many pixels as a previous mode (2 times the vertical and horizontal pixels). Hex refers to 16 times as many pixels as a previous mode (4 times the vertical and horizontal pixels).

HDTV specifies an aspect ratio of 16/9 and digital broadcast HDTV uses 1920×1080 pixels for high resolution mode. Computer display modes are intended to be used with HDTV-style wide screen displays.Most of the wide screen modes have a pixel width to height ratio of 16/10, which yields pixel array dimensions easier to cope with in computer hardware and software. The WXGA mode, with dimensions of 1366×768 pixels, is within one pixel of a 16/9 ratio.