New design tool tops in resolution, color

The new 4113 intelligent color display terminal is enough to make the old NBC peacock jealous.

Users of the 4113 can color the display just about any way they want, selecting from 4,096 (that's right, four thousand and ninety-six) separate colors, each variable by lightness, saturation and hue.

But you can't see all the colors at once. The basic model, costing $16,500, will display up to eight colors at a time. With an additional memory plane, for an additional $1,500, you can get 16 colors at a time.

The 4113 has a 19-inch raster-type display. In its simpler versions, as used on our home TV's, a raster display traces the picture on the CRT at the rate of 30 times per second to give us the optical illusion of a continuous picture. The 4113 display cycles at the rate of 60 times per second to provide what Gary Laroff (Graphic Computing Systems Marketing) calls a "rock solid, never flicker" display.

For home TV viewers, color may be only a luxury that adds enjoyment to watching, but users of the 4113 will have a computer design tool that will make their jobs a whole lot easier. People who work with lots of little lines and overlays, like circuit board designers and map makers, will be some of the main users of the 4113.

In addition to using color to differentiate parts of a project, 4113 users can zoom in on part of a picture. The 4113 is designed so that when a segment of a project is enlarged, it not only gets bigger, but also sharper.

"Many applications now require color graphics for effective productivity," says Gary Romans (4113 Marketing manager). "Much circuit board design and large scale integration (LSI) work, for example, is nearly impossible without color. The 4113 offers the finest performance combination of both resolution and color."

Romans expects the 4113 to help customers pick just the right graphics capabilities for interdependent activities. The common data base and user interface of the 4110 Series terminals allows the user to access and share the same data base for improved data base management.

In a computer aided design (CAD) application, for example, a user may select the 19-inch high-resolution 4114 as the primary mechanical design workstation and the new 4113 19-inch color for creation and color analysis of stress contour plots. The 15-inch raster 4112 may be used by the chief engineer or in a shop to verify designs or tool paths. The 4112 and 4114 were introduced in June.

To target primary users of the 4113, its first public showing was November 9 at the ON THE COVER: Carl Goodwin (IDD Technical Support) demonstrates the 4113 for Tekweek even though black and white doesn't do justice to the colorful display capabilities of the new product.

CAD/CAM (computer aided design/computer aided manufacturing) show in Detroit, Michigan.

"Tek's leadership in setting graphics hardware and software standards has consistently simplified the development and expansion of its customers' graphics capabilities," says Mike Kondrat (Terminals and Display Marketing manager). "Users can move among 4100 and 4110 Series terminals, now and in the future, knowing that operating systems and software are identical or easily upgradeable."

Phil Koopman, associate editor of Electronic Engineering Times, sees the introduction of the 4113 earlier than he expected as an indication that "the results of Tektronix' recent reorganization are beginning to show."

THE 4113 INTELLIGENT COLOR TERMINAL is a new product from the Information Display Division. It's the third member of the 4110 Series which started in June with the introduction of the 4112 and 4114.