Three Rivers Computer

Graphics programming tools

HISTOGRAM

IMPACT : INFLATION

Future Estate Cost Estimates
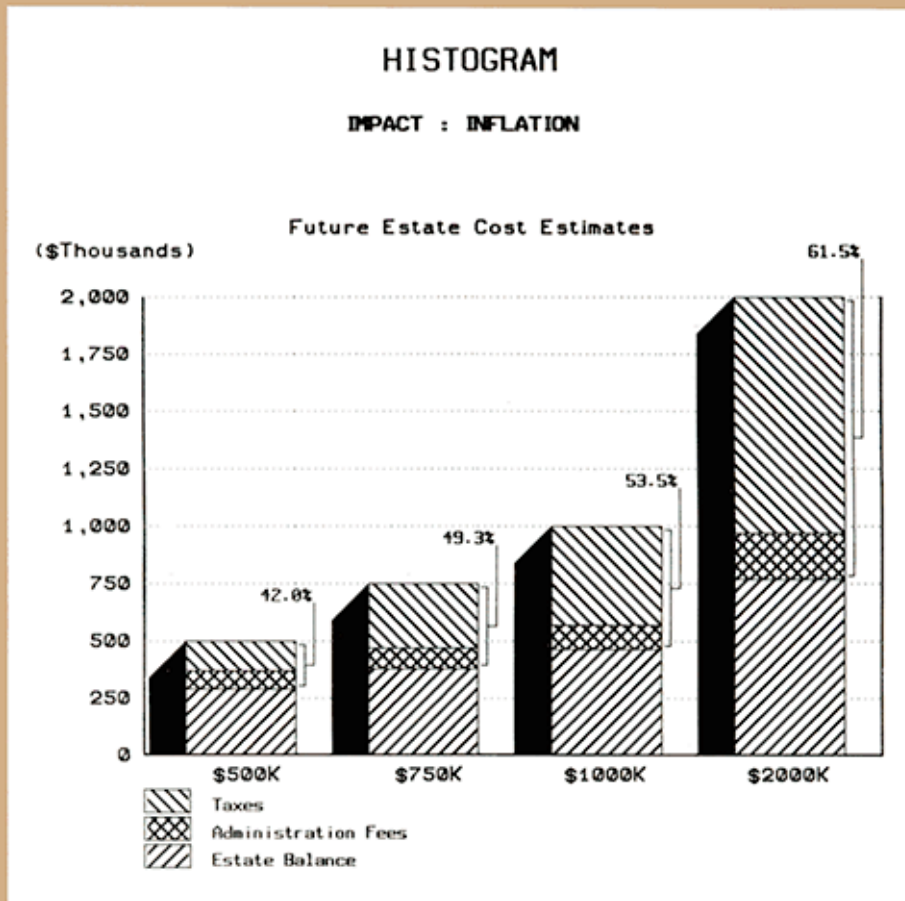
Enhance programming productivity

Graphics programming tools
enhance programming productivity

As more and more organizations discover the effectiveness of computer graphics, the need to develop application packages using graphics increases dramatically.

Programmers involved in every area today, from the technical and scientific fields, to business and industry are increasingly utilizing graphics in their work.

Recognizing this, Three Rivers Computer Corporation offers a package of graphics programming tools to compliment PERQ, the definitive graphics workstation.

GRAFIKS, a PERQ-designed raster graphics package, GINO, a portable vector graphics package, and SIMPLEPLOT, a universal, scientific graphing tool all maximize the inherent graphics capabilities of PERQ.

GRAFIKS

GRAFIKS is a comprehensive library of computer graphics software designed specifically for PERQ. As such, GRAFIKS utilizes PERQ's capabilities to their best advantage. The high resolution raster system of PERQ, in conjunction with GRAFIKS' facilities, can produce levels of shading and precision that general purpose, line-oriented packages cannot approximate.

MAIN COMPONENTS OF GRAFIKS

DISPLAYING STATISTICS

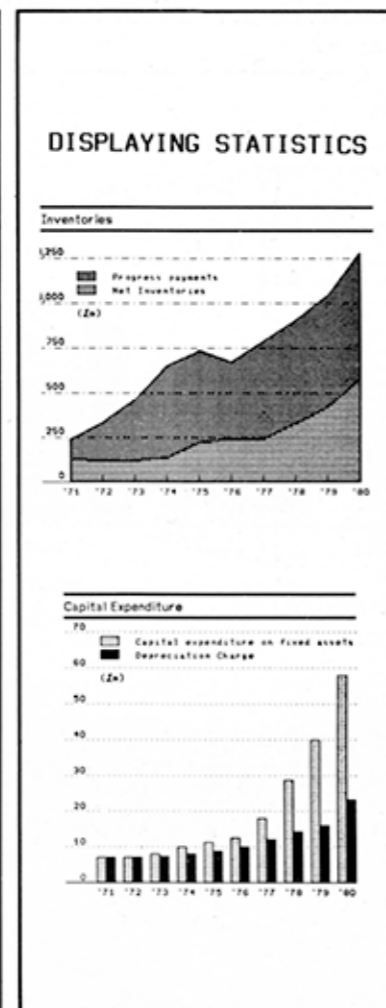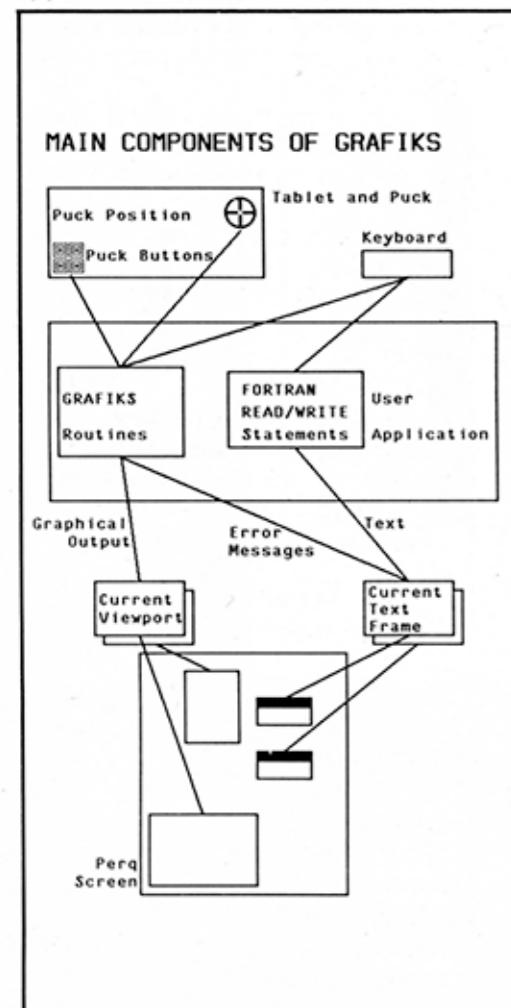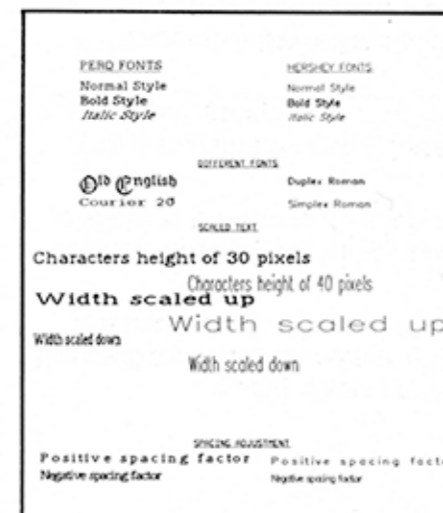GRAFIKS' wide range of facilities can enhance your programming productivity by enabling you to:
□ Explore more design options before making a final choice.
□ Reduce expensive and time consuming re-work.
□ Improve design quality.
□ Incorporate late changes more easily.
□ Reduce programming efforts.
□ Automate production drawings.
□ Reduce cycle design times.

GRAFIKS lays the foundation for the development of software within the draft International Standards Organization (ISO) standard Graphical Kernel System (GKS). GRAFIKS' routines can be used to build interactive computer graphics systems (such as packages for management and technical diagrams) and to produce specific graphics in the form of charts, plans, maps, reports, graphs, and circuit designs.
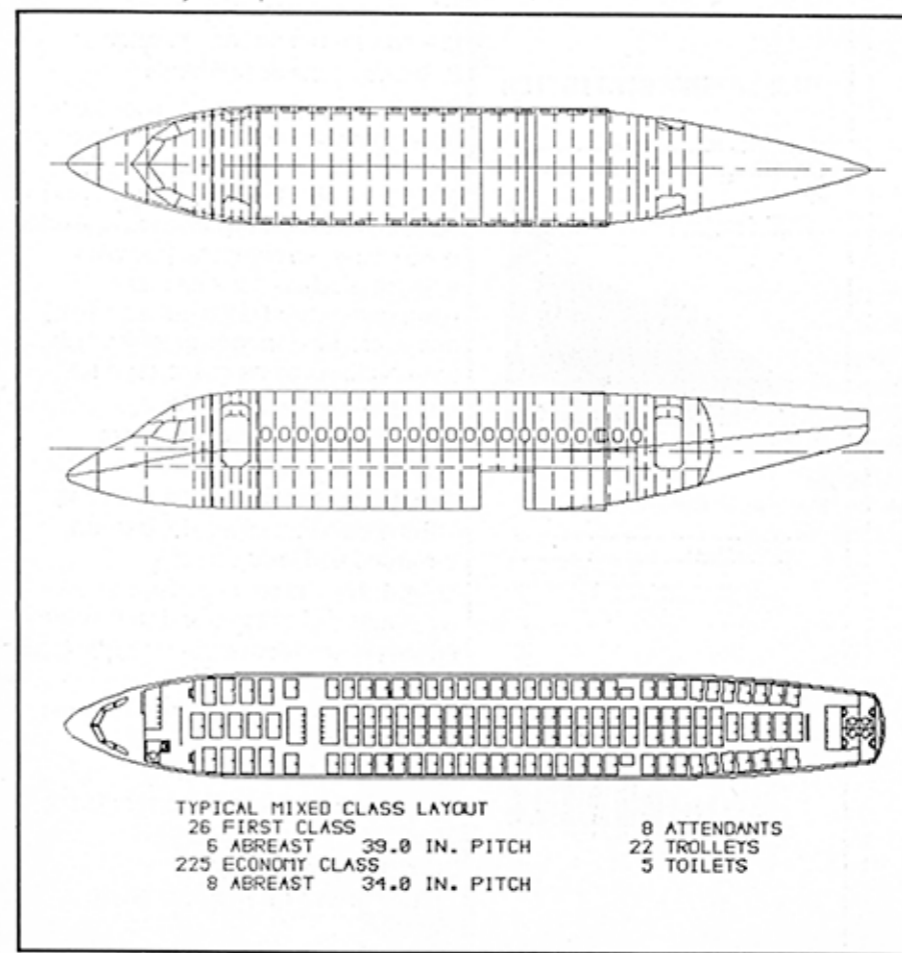
GRAFIKS offers a complete set of facilities including:
□ Wide choice of text styles and sizes.
□ Solid, dotted, dashed, dot-dashed, patterned and textured lines.
□ Areas filled instantaneously using a wide variety of patterns and line textures.
□ Lines of any width drawn in black or white.
□ Rectangles and polygons with same line qualities.
□ Circles and circular arcs.
□ Any mixture of sizes for symbols and texts.
□ Extensive range of fonts.
□ Text that can be angled in any direction.

□ Automatic cut-off of drawings and text at viewport boundaries.
□ Numerous patterns for on-screen cursor display.
□ Gray scale shading.

GINO

GINO is a proven vector graphics input and output package, written in FORTRAN 77. Universally accepted, GINO adapts to almost any computer, large or small, as well as to a multitude of output devices. This means that your work can be easily ported to PERQ from other machines, and visa versa, without any of the programming problems you would normally expect. Hardcopy too, can be simply obtained from any device you may require or prefer. GINO's portability and device independence make it essential in any multiple machine environment.
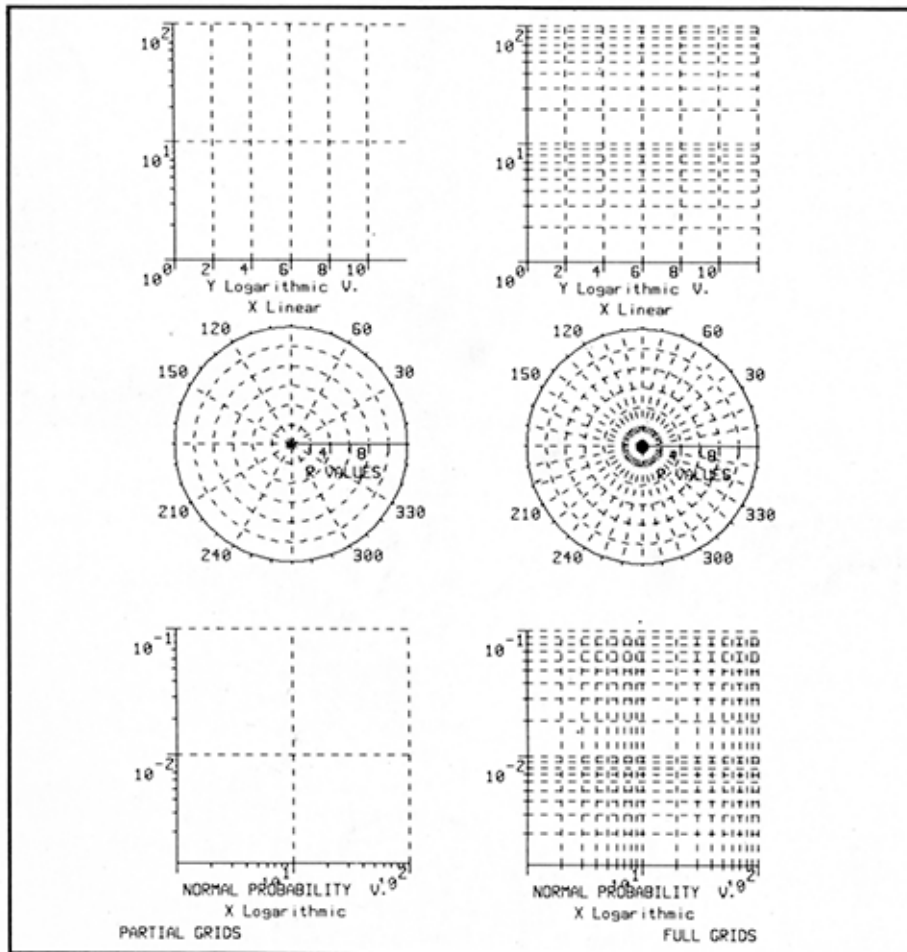

TYPICAL MIXED CLASS LAYOUT
26 FIRST CLASS
6 ABREAST   39.0 IN. PITCH
225 ECONOMY CLASS
8 ABREAST   34.0 IN. PITCH
8 ATTENDANTS
22 TROLLEYS
5 TOILETS

GINO's facilities include:
□ Drawing routines for straight lines/arcs in 2D or 3D and for characters, symbols and smooth curves in 2D.
□ Control routines for selecting dashed or chained lines, line thickness, pen type and colour.
□ Administration routines for pictures, device nomination (incl. pseudo device), windowing, selecting units/paper size and type.
□ Transformation routines to shift, scale, rotate, shear in 2D or 3D and for producing orthogonal/perspective views in 3D.
□ Segment handling routines for building display files and for manipulating segments of them.
□ Graphical input routines for handling discrete input events from keyboard, puck, mounts etc.

GINO provides a fast and efficient means for visualizing ideas and problems in many different industries and amongst people with different forms of expertise. Application possibilities include:
□ Architectural design.
□ Design research.
□ Cartography.
□ Graphics artwork.
□ Integrated circuits.
□ Textile research.
□ Tool design.
□ Shipbuilding.
□ Aircraft design.
□ Automobile design.
□ Budget Control.
□ Transportation planning.
□ Medical analysis.

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SIMPLEPLOT

SIMPLEPLOT is a universal, scientific graphing tool which enables you to easily transform data into high quality graphs and charts.
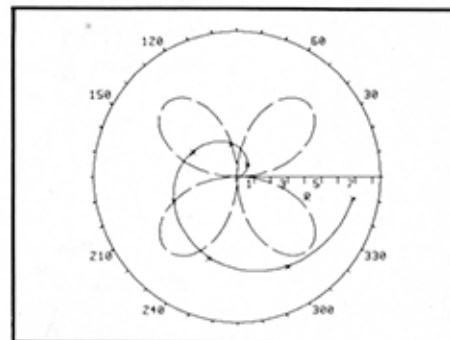

SIMPLEPLOT lets you work from a large library of graph styles that include:
- Plotting Smooth Graphs.
- Plotting Straight Line Graphs.
- Axis Annotation.
- Plotting Functions.
- Linear and Quadratic Regression.
- Range Plotting.
- Histogram Plotting.
- Polar Graph Plotting.

SIMPLEPLOT lets you produce high quality graphs at the first attempt because:
- Layout of graphs within the page is organized automatically.
- Annotation of axes at sensible intervals is automatic.
- Unit referencing points on a graph are your own.
- Titles and keys are positioned by description (top, left, etc.).
- Errors are evaded so that plotting machines rarely cause program failure.

PERQ—the ideal graphics environment

GRAFIKS, GINO, and SIMPLEPLOT were designed or adapted specifically to enhance the basic graphics capabilities of PERQ. PERQ's features include:
- A high resolution screen with fast refresh rate.
- A graphics tablet and pointing device in addition to a keyboard for easy, efficient designing.
- Powerful processing hardware for rapid image manipulation.
- Large main store capacity for quick access to information, plus sufficient disk capacity for permanent storage.
- Standard interfaces to graphics peripherals.
- Networking capabilities for data and resource sharing.

Tools of choice

GRAFIKS, GINO and SIMPLEPLOT offer programmers a choice of features which can tremendously increase the quality and ease of graphics application design. Coupled with PERQ, the definitive graphics workstation, these tools provide the ultimate in graphics programming packages.

For further information contact