Orcatech Inc.

INTRODUCTION

Orcatech Inc. is a Canadian designer and manufacturer of high performance graphics systems hardware for the engineering and computer aided design marketplace. The systems are marketed across Canada, the United States and Europe.

Sales of the hardware have grown steadily and include a number of major manufacturers such as Northern Telecom Canada and Control Data Corporation.

Sales are expected to top $2 million by 1982 and $8 million the following year. Current staff levels of 28 are expected to expand tenfold by 1985 at which time sales should top the $32 million mark.

The Orcatech terminals are significantly less costly than the present equipment on the market today, yet they provide outstanding resolution and easy programming capabilities. Basic system configurations depending on options range in price from $20,000 to $65,000 CDN.

The design workstations allow engineers, electronic designers, architects, planners and small businesses to utilize microcomputer technology in their everyday design and manufacturing operations. The graphic computers can also be used to perform a variety of business applications, process control, animation, aircraft simulation and cartography.

The units comprise a colour or monochrome display screen, an alphanumeric keyboard with joystick, a multi-processor computer, and various disc drives and associated memory units. Other peripheral hardware, such as printers, graphic digitizer pads and monitors can be added to suit particular customer requirements. The terminal components are packaged into a contemporary workstation format.

SYSTEM OVERVIEW

The Orcatech Graphic Computer System combines three fundamental building blocks present in all computer aided manufacturing (CAD/CAM) equipment: high resolution, fast graphics; computer processing power for the application; and graphics and system software to support the application development and execution.

The design philosophy of the basic architecture is one engineer, one workstation. With 100 percent dedicated resources in a stand-alone workstation, the design engineer is no longer forced to perform all large scale application work on a mainframe computer that is in many cases shared by others. Consequently, there is no degradation in response time.

Although initially developed as a stand-alone graphics computer for the design environment, the Orcatech graphic computer is designed to function in three modes:

1. As a stand-alone graphics computer with its own discs, printer, plotter and other peripherals.
2. As a front-end intelligent graphics terminal to a larger mainframe computer, using the central computer mainly for data storage and major number-crunching.
3. As an element of a cluster with other Orcatech systems. This could be a star-type network with one system acting as the hub controller, onto which central peripherals such as plotters and printers are attached and shared.

Viewed as a graphics display system, the Orcatech product is at the high quality, high technology end of the market; viewed as an application development vehicle it is in the mini to medium computer range. As an integrated graphics computer system, it has very broad and unique capabilities.

ORCATECH INC.

Head Office
Orcatech Inc.
2680 Queensview Drive
Ottawa, Ontario, Canada
K2B 8H6

Telephone: (613) 820-9602
Telex: 053-3868

In California, contact
Orcatech Corporation
3250 Ocean Park Boulevard
Santa Monica, California
90405

Telephone: (213) 452-2283

President
David J. Pearson

Director of Marketing
John Lugsdin

GRAPHICS SYSTEM

The Orcatech high-speed graphics processor is based on a 16-bit bi-polar bit-slice microprocessor architecture, controlling the generation of images into screen memory. This bit-slice microprocessor has been specifically designed to support not only high-speed graphics functions, but also specialized application functions. It has a 200 nanosecond instruction time, and is able to write pixels to the CRT display at a nominal rate of 40 million pixels per second.

The graphics screen itself has a 1000 x 1000 physical resolution, giving one million pixels per display. With a minimum of 128 Kbytes of screen memory, monochrome only is supported. With three 128 Kbyte memory planes, eight colours can be simultaneously displayed, from a palette of thousands of shades. Up to eight planes can be supported, giving 256 simultaneous colours.