WHITECHAPEL WORKSTATIONS

PRODUCT DATA

CG-1

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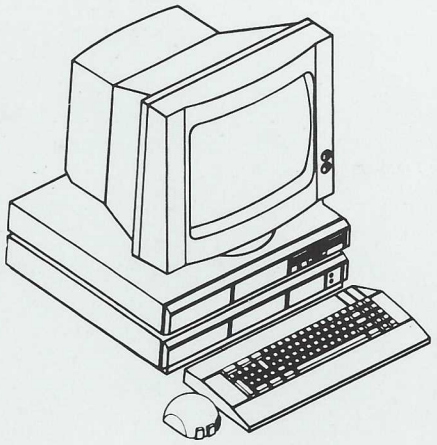
The CG-1 colour workstation has been hailed as a major breakthrough in highly effective desk top personal computing.

The CG-1 brings colour workstations out of the high-priced specialist area into the reach of the general user.

The CG-1 capitalises on the strengths of the MG-1 and provides medium resolution colour with the same superb graphics facilities and power.

CG-1 workstations have been adopted by a wide range of organisations throughout Europe. All of the MG-1 applications are available unchanged, in addition extensive use has been made of the colour palette in the areas of CAD, Solid Modelling, Finite Element Analysis and VLSI Design.



Personal Power

- Fast & responsive
- Dedicated processing power per user
- Floating point coprocessor for arithmetic speed
- Virtual Memory removes restrictions on applications size
- Local disc storage for consistent response

Superb Graphics

- Fast and efficient graphics
- Display screen is managed as a series of windows
- Interactive controls for window handling
- Point-click-see interface using mouse
- Icons for rapid manoeuvrability and visual impact
- Well-defined programming interface

Interworking with other systems

- 42-nix operating system is a superset of Berkeley Unix 4.2 bsd
- NFS and TCP/IP support are available
- VLSI implemented Ethernet to IEEE 802.3 standard
- RS232 interface and driver software are provided

Peripheral Connection

- Peripheral bus supports standard IBM PC cards
- Inexpensive connection for standard peripherals
- Hooks for user drivers for exotic peripherals
- Special peripherals eg. MGLP via fast WCW interface

Monochrome Compatibility

- Applications developed for CG-1 will also run on monochrome MG-1 systems

CG-1

TECHNICAL SUMMARY

Processor

32-bit processor (NS 32016) with 8 MHz clock, floating point unit (NS 32081) and memory management unit (NS 32082) providing a full demand-paged virtual memory system with 1 Kbyte page size.

Memory

Uses MOS semiconductor DRAM with 150ns access time. Dual ported between processor and display using 64 bits highway. Minimum systems 2 Mbyte field upgradeable to a maximum of 8 Mbytes in 2 Mbyte increments, all within the standard enclosure.

Display

The non-interlaced display has a resolution of 768 × 512 pixels with a byte defining each pixel. There are 256 displayable colours from a programmable palette of 256K.
The Display Controller uses a paged memory system compatible with the memory management unit.
The hardware cursors are 64 × 64 one bit pixels, which are video mixed onto the display using either set or invert mixing modes.

I/O Processor

A separate 8-bit microprocessor (Motorola 68121) tracks the mouse and controls hardware positioned cursor image. Provides interface to keyboard.

Input/Output

One serial port (RS232C) standard up to 9600 bps. Two IBM PC compatible expansion slots available for customer-supplied peripherals.

Screen Refresh Buffer

The screen is refreshed from a frame buffer separate from the system memory; the frame information is copied from the system memory to the frame buffer which is fitted into a socket on the IBM PC mother board.

Local Network

An optional integral IEEE 802.3 Ethernet controller.

Fixed Disk System

5.25″ Winchester technology fixed disk. Choice of capacities from 22 to 45 Mbytes, average seek time 50 ms; 93 to 125 Mbytes, average seek time 25 ms. Transfer rate 600 Kbytes/sec.

Floppy Disk System

5.25″ double-sided, double-density, 96 tpi, half-height floppy disk drive, 0.8 Mbyte formatted capacity.

Keyboard

Free-standing, fully programmable, lightweight, solid state keyboard. IBM PC layout with 83 keys including numeric pad and function keys.

Mouse

A three button mouse is standard, interfaced to the main system via the I/O processor directly connected to the cursor.

Environmental Properties

Power input: 250 watts
Power requirements: 98-125 VAC or 200-250 VAC

Cabling

All connecting cables are supplied.

Physical Dimensions

Processor Unit: 495mm × 170 mm × 475mm
Screen: 450mm × 400mm × 410mm
Keyboard: 495mm × 185mm × 50mm

Weight

Processor Unit: 17.5 Kg Screen: 13.5 Kg
Keyboard: 2.5 Kg Total: 33.5 Kg

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