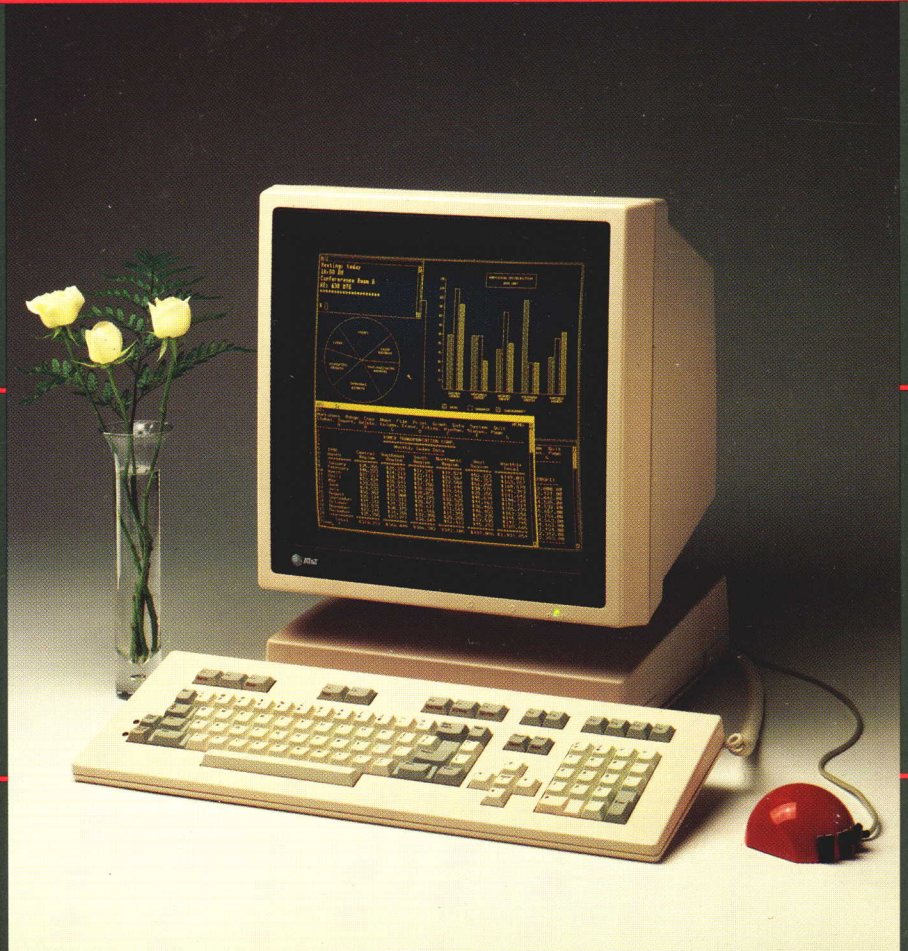![AT&T logo] **AT&T**

AT&T 630 MTG
MULTITASKING TERMINAL
WITH GRAPHICS

AT&T's 630 MTG—Programmable Multitasking Terminal with Graphics Featuring a Large Screen and Dual Host Capability

The 630 MTG's advanced text and graphic capabilities redefine the concept of a display terminal. Like the other members of the AT&T 600 family of asynchronous display terminals, the 630 MTG makes the UNIX® Operating System more powerful and easier to use than ever before. It provides the ability to interact with up to seven separate application programs from each of two host computer connections simultaneously. The large high resolution display enables the operator to view multiple standard terminal screens in their entirety or work with oversize screens up to 140 columns by 69 lines.

The 630 MTG is further enhanced by an exceptionally simple user interface that allows the user to create and jump between multiple applications on the screen by means of a mouse. Each application is contained in its own window which can be positioned anywhere on the screen. Windows may partially or fully overlap each other and may be reshaped or moved at the operators' discretion. In addition, the user can choose from a variety of fonts in each window, transfer data between windows or hosts and scroll back through off screen memory no longer visible in a window.

Programmability of the terminal provides a vehicle for development of custom applications. A variety of alternatives are available including the execution of applications locally in the terminal, programming multiple terminal emulations for different windows, creating custom pop-up menus and icon based user interfaces. Programs for the 630 MTG may be either downloaded from a host or installed via a ROM cartridge port in the terminal. Once a program is downloaded to the 630 MTG it may be "cached" in local memory to save further downloading.

Multihost, Multitasking Windows

Unlike other "windowing" terminals and software on the market today each of the 630 MTG's windows simultaneously communicates with the host. Each window behaves as if it were a standalone terminal with its own host connection. The two separate 630 host ports each providing seven windows give you the equivalent of 14 separate terminals!

Host software supporting the multitasking windows of the 630 MTG and other members of the 600 family is included in the AT&T Windowing Utilities. These utilities are distributed as a standard part of UNIX System V Release 3. For older versions of the UNIX Operating System on most AT&T computers the windowing utilities are included in the 5620 DMD Core Package which may be ordered as a separate item.

Since the host support of the 630 MTG's multitasking windows is at the operating system level, no application software needs to be modified to work in a multitasking environment. The full power of the 630 MTG, therefore, can be quickly integrated into existing applications.

Premier Software Development Terminal

The 630 MTG is the premier software development terminal for programmers in both UNIX and non-UNIX system environments. Because each window is simultaneously active, the developer is able to concurrently edit, compile and debug the same program in separate windows. With the Remote File Sharing capabilities of the UNIX Operating System the programmer can further keep track of a variety of programs executing across multiple computers. In a non-UNIX Operating System environment separate windows can be connected to different hosts by using the two host communications ports, thereby eliminating the need for multiple terminals when working on more than one computer system.
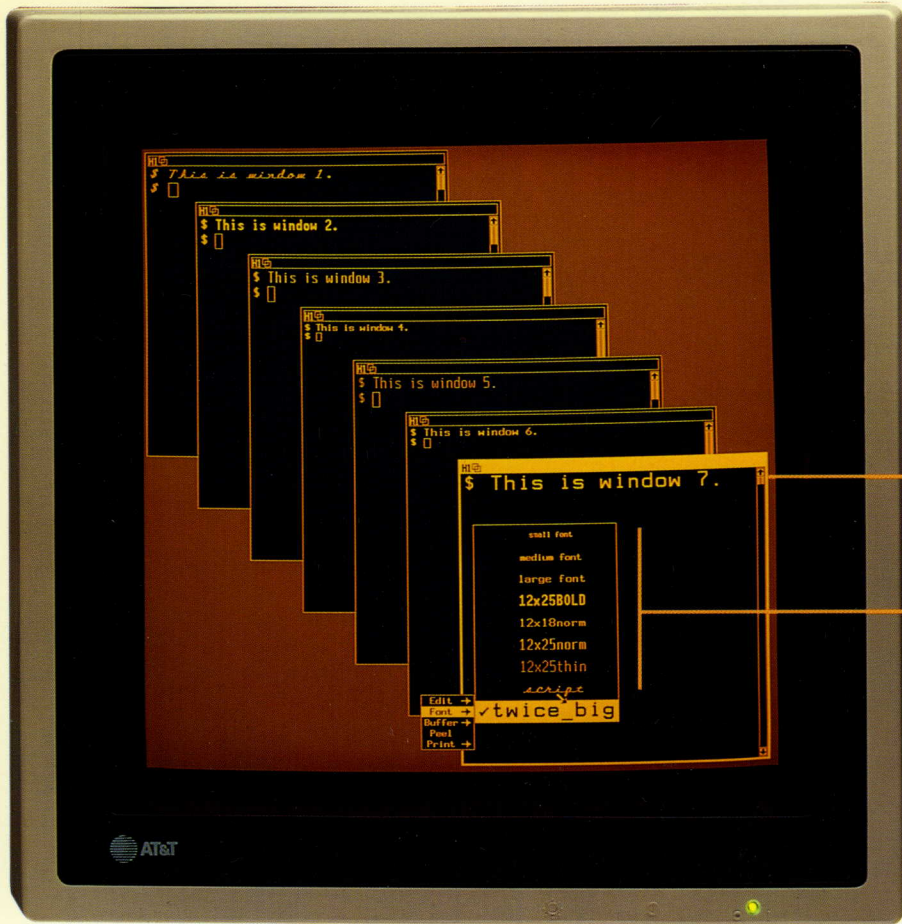
Database Retrieval

The 630 MTG is ideal for accessing information from multiple databases on either the same or different systems. Its large screen lets you simultaneously view information from a variety of sources. It is especially useful in telemarketing applications where a customer file can be brought up in one window, previous order history in a second and a third window used to input new orders. Through custom programming of the terminal the order entry process can be made even more efficient by representing items with icons and using the mouse to select them.

Modeling and Simulation

For both business and scientific applications, the 630 MTG allows users to view complex tables and spreadsheets up to a full printed page at a time. The user is also able to view graphical representations of a model or simulation in one window while inputing data in another. This allows the user to view the effect of changes at the same time the data is being manipulated.
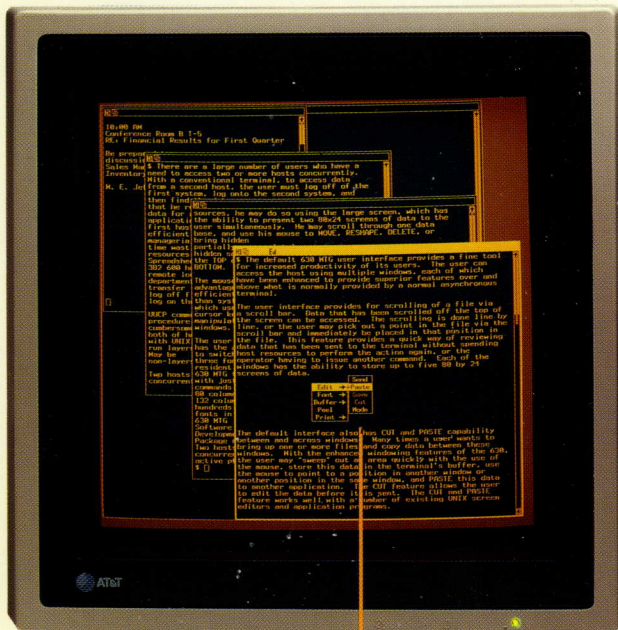
Software Development Package

The Software Development Package is a set of tools designed to assist developers who want to modify or develop new applications which run on the 630 MTG. It consists of a C Language Compilation System and supporting libraries. Examples of some of the tools provided include a debugger and icon creation utilities.
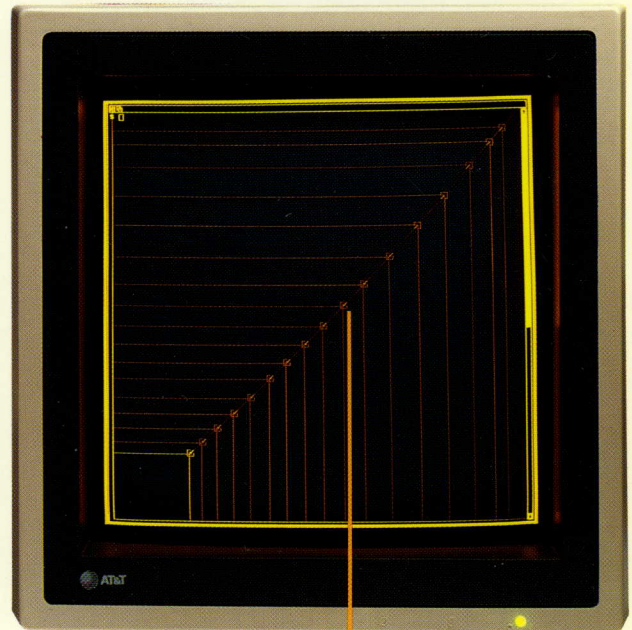
Ability to scroll through a file and pick out a point in the file via the scroll bar.

Ability to change font sizes and styles in each window. Three fonts resident in the terminal are always available to the user.

Ability to "cut and paste" between windows, even those connected to different hosts.

Ability to "sweep out" a window and place new data in it—using nothing more than a mouse.

High Performance and High Value

One of the new family of multitasking asynchronous **UNIX** Operating System-based terminals from AT&T, the 630 MTG offers you an ANSI 3.64 compatible feature set. This advanced text and graphics terminal is further distinguished by its superior display technology and ergonomic design—including tilt and swivel monitor with up-front controls.

Principal Features
> Amber 16" diagonal screen with a 10" square visible area and a resolution of 102.4 dpi—1024 x 1024 pixels, all addressable.
> Standard display format: 89 characters x 61 lines, or 140 characters x 69 lines.
> Eight user programmable function keys.
> Three resident fonts, user selectable, for 14 windows.
> Additional fonts can be downloaded with the aid of the Software Development Package.
> Support for the following character attributes: normal, reverse, underline.
> Printer control from the terminal, including print on-line, print a window, pass data directly to the printer.

Compatibility
You can change the 630 MTG's personality or provide compatibility with existing software programs by sliding a cartridge into the port on the base of the terminal.

Ports and Slots
The base of the 630 MTG contains:
> Two EIA RS232C Host Communications Ports for simultaneous data transmission at rates up to 19.2 Kbps. These ports may be used for either two host connections or one host and an auxiliary printer connection.
> An optional I/O card may also be installed in the terminal providing an additional EIA RS232 port allowing two hosts and one printer connection.
> An optional RAM expansion card may also be installed in the terminal for additional screen and/or program memory.
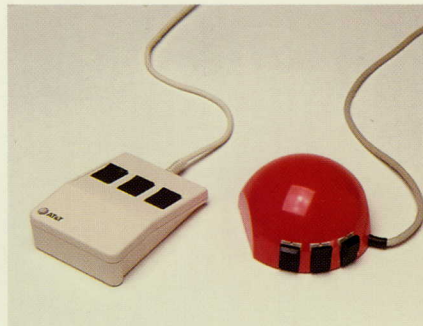
AT&T's Competitively Priced Family of Multitasking Terminals
The 630 MTG is one of a family of cost-effective multitasking terminals from AT&T. Designed to provide flexibility and compatibility in multi-host environments, each of these high-performance terminals is ergonomically designed, attractively styled and competitively priced.

The savings go on long after you have purchased a 600-Series multitasking terminal.
> Cartridge ports, which let you enhance and expand functionalities, help protect your investment over time.
> The "works-in-a-drawer" design helps to keep your maintenance costs low.
> Cable and wiring costs are kept low because each terminal operates on inexpensive twisted pair.
> Multitasking helps reduce the investment in multiple terminals and helps to make users more productive.

Each of these high performance terminals represent an exceptionally high value. Dollar-for-dollar there simply isn't a more cost-effective family of multitasking terminals available.

Choose a Mouse
Choose either the standard ergonomically designed hemispherical model that many operators prefer, or the smaller wedge shaped mouse. Easy-to-use and simple to learn, the mouse and icon interface speeds the manipulation of windows and graphic displays, and increases user productivity.

Modifiable Pop-Up Menus
Pop-Up Menus can be created through Host Escape sequences. Operators can place frequently used commands in the menu and select them with the mouse rather than typing them in repetitively.

Choose a Keyboard
The 630 MTG is available with your choice of 98-key or 122-key low-profile, adjustable-slope keyboards. The 98-key keyboard provides an asynchronous style layout while the 122-key layout is similar to a synchronous terminal's keyboard layout. The standard 98-key keyboard is interchangeable with other terminals in the AT&T 600-Series.
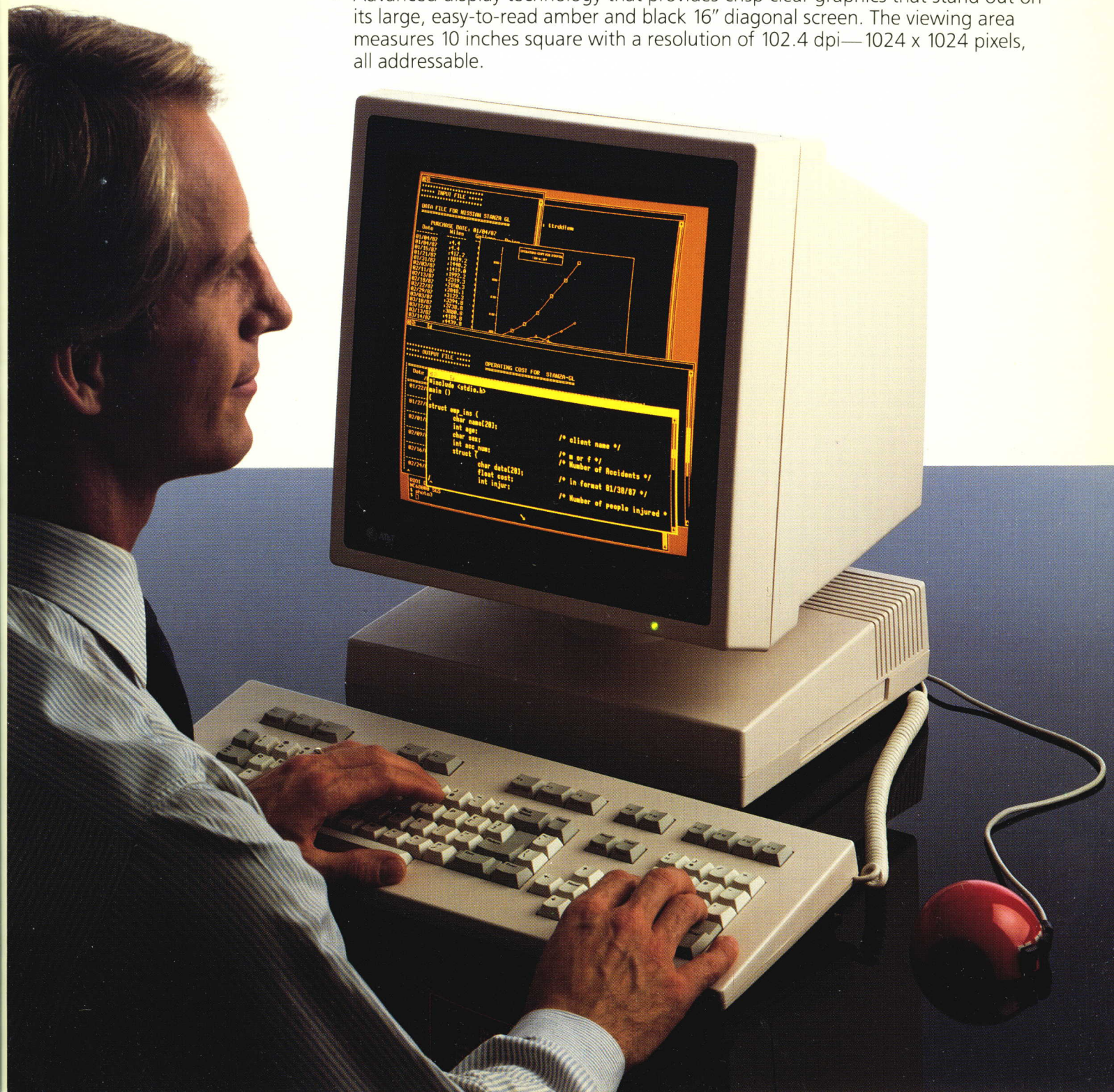
Software Development Package
The 630 MTG Software Development Package allows a programmer to develop applications to run locally in the 630 MTG. Applications can be developed in the C language and downloaded into the terminal. The Software Development Package contains the following:
> 68000 Compiler
> Libraries to support the compiler
> A debugger for programs written to run in the 630MTG
> Example programs in source code
> Applications programs such as screen editor which uses the mouse
> Icon development program.

Powerful and Intelligent, Offering High Performance at a New Low Cost, the AT&T 630 MTG Gives You:

> Simultaneous access to **two host computers.**

> Multiple concurrent windowing—up to seven windows from each host, a total of 14 windows in all. With the optional 630 MTG Software Development Package each window can run applications locally or be programmed to emulate a different type of terminal.

> Powerful graphics, including the ability to change the data in one window and watch as the graphic display of the same data changes in a second window.

> Advanced display technology that provides crisp clear graphics that stand out on its large, easy-to-read amber and black 16" diagonal screen. The viewing area measures 10 inches square with a resolution of 102.4 dpi—1024 x 1024 pixels, all addressable.

Technical Specifications and Features

Features
- Asynchronous operation
- Full duplex, character at a time with selectable local echo
- User programmable with optional 630 Software Development Package
- 640K bytes RAM
- Large high resolution display
- Three resident fonts, user selectable per window
- Default fonts resident in 630 MTG, columns × rows, (cell size): 89 × 61 (11 × 16) 109 × 69 (9 × 14) 140 × 69 (7 × 14)
- Downloadable fonts with 630 MTG Software Development Package
- Multiple active windows, up to 7 windows displayed per host
- Two EIA connections for dual host or one host and a printer
- Enhanced windowing features
  - NEW, RESHAPE, MOVE, TOP, BOTTOM, CURRENT, and DELETE operations from a pop-up window manager
  - Cut and paste between windows
  - More than 5 buffered 80 × 24 screens of data per window
  - Mouse based user interface
- Eight user programmable functions keys
- Six fixed sequence function keys, shiftable to 12
- Contents of a pop-up menu and the corresponding strings programmable via host escape sequences
- Modular designed monitor, controller, and keyboard
- Self test
- Speeds up to 19.2K BPS
- ANSI 3.64 compatible

Monitor
- Large 16" diagonal screen with 10 inch square visible area
- 1024 × 1024 pixel high resolution display
- 102.4 Pixels per inch
- 1:1 Aspect ratio
- 60 Hz. refresh rate which eliminates flicker and smearing
- Coated screen for reduced glare and for sharply defined characters
- Amber phosphor
- Tilt and swivel
- Front controls for brightness, contrast, and power on
- Quiet—No fan

Keyboard
- 98 key asynchronous or 122 key synchronous layout
- Low profile with adjustable slope
- Repeating keys
- Tactile feedback

Electrical Requirements
- 90-132/180-264 VAC
- 47-63 Hz.
- 2.5 A maximum @ 115 VAC 1.8 A maximum @ 230 VAC 30.0 A maximum in rush

Dimensions
- Display/Controller 19" (H) × 14.6" (W) × 13.8" (D)
- 98 Key keyboard 1.2" (H) × 20.6" (W) × 7.3" (D)
- 122 Key keyboard 1.2" (H) × 21.44" (W) × 8.0" (D)
- Mouse 1.0" (H) × 2.5" (W) × 3.5" (D)

Weight
- Display and Controller: 43#
- 98 Key Keyboard: 4.5#
- 122 Key Keyboard: 5#
- Mouse: 5#

Environmental Conditions
- Storage: −40°C to +65°C
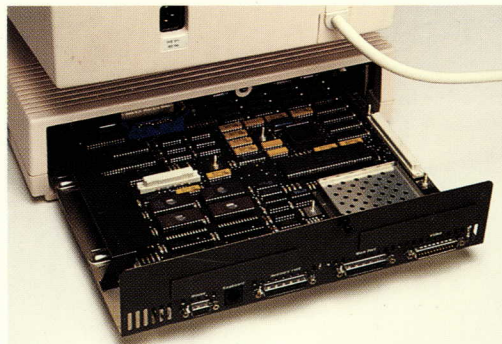- Operation: +4.5°C to 38°C −5-90% RH (non-condensing)

Standards Compliance
- FCC Part 15
  - The 630 MTG complies with FCC rules and regulations Part 15 sub-part J for Class A devices
- UL
  - The 630 MTG is UL listed satisfying United Underwriters Laboratory specification 478
- CSA
  - The 630 MTG is certified by CSA under standard number C22.2 No. 154
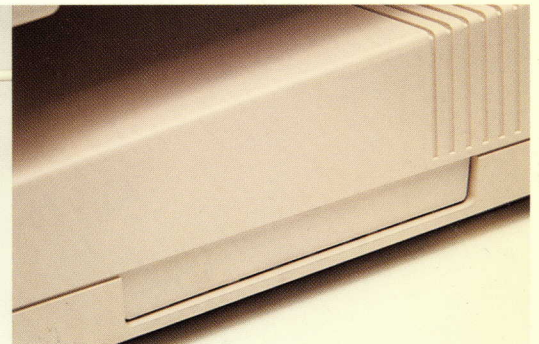
630 Coding

ITEM	COMCODE	PE CODE
• Monitor	501 001 697	33534 Col 19
• Controller	501 001 671	3344-630
• 98 Key Keyboard	500 064 865	33401
• Optional 98 Key Keyboard Modification Kit	524 604 121	33538
• 122 Key Keyboard	501 004 881	33537
• Mouse-red, round (Standard)	524 594 157	33536
• Mouse-white, flat	524 594 207	33450
• Optional 512K RAM Expansion Card	501 002 166	33422
• Optional SSI/EIA Board	524 594 306	33535
• 630 MTG Software Development Package for 3B2	—	1041-565
• 630 MTG Software Development Package for 3B15 and 3B4000	—	1051-565
• 630 MTG Software Development Package for 3B20	—	1081-565

ITEM	COMCODE	DOCUMENT NUMBER
• 630 MTG Terminal User's Guide	501 004 196	999 300 375
• 630 MTG Software Reference Manual	501 003 545	999 300 340
• 630 MTG Software Development Guide	501 003 552	999 300 341
• 630 MTG Software Development Release Notes	501 003 560	999 300 342

Works-In-A-Drawer
With all the 630 MTG's "works-in-a-drawer," you'll find it one of the simplest terminals to service or change. Motherboard components slide in and out and require no special tools.

Cartridge Port
There's a cartridge port built into every 630 MTG. Cartridge-enhanceable to protect your investment, this multihost, multitasking terminal will provide you with substantial price/performance benefits for years to come.

AT&T