INTRODUCTION AND OVERVIEW
Section 1

The Enhanced Micro TDC 3000 Control System is an extremely compact, yet fully functional control system in the Honeywell TDC 3000^X family. Figure 1-1 is an illustration of the basic Enhanced Micro TDC 3000 Control System. This control system communicates to the process via the Honeywell Universal Control Network (UCN). The process can be monitored and controlled by Program Manager or Advanced Process Manager.

This manual describes the Enhanced Micro TDC 3000 system. The system comes in two models. The model numbers are:

Model Number	Hardware Components
MX-DTAB01	K2LCN, 1 US, w/APM, 4MW AM, 875 MB HM.
MX-DTAC01	K2LCN, 1 US, w/APM, 8MW AM, 875 MB HM.

The Enhanced Micro TDC 3000 models have the following characteristics and features:

- Only "version A" models (with 1 US node) are offered as the base system. The old"version B" models (with 2 US nodes) are no longer offered as a base system (the old"version B" models are equivalent to a "version A" model, plus an optional US node).
- All nodes are equipped with K2LCN processors.
- The base models will include an Advanced Process Manager (APM) as standard equipment.
- The minimum AM processor memory is 4 MW (the base system models are offered with AM nodes in two memory sizes — either 4 MW or 8 MW).
- The US included with the base system has 6 MW processor memory and supports *'Universal'* personality.
- The US node in the base system is equipped with dual 150 MB Bernoulli cartridge 'multi-drives'. The new 'multi-drives' are compatible with 35 MB
- The HM included in the base system has a 875 MB hard drive and 3 MW processor memory.
- The NIM included in the base system has 3 MW processor memory.
- The US monitor and printer are <u>not</u> included with the "R500-Ready" Enhanced Micro TDC 3000 models. These two peripherals have their own model numbers and must be ordered separately. The operator's keyboard, however, is included with the base system model.
- The Enhanced Micro TDC 3000 models will not support U^{X}S or A^{X}M. There are currently no plans to provide U^{X}S or A^{X}M options with the system.

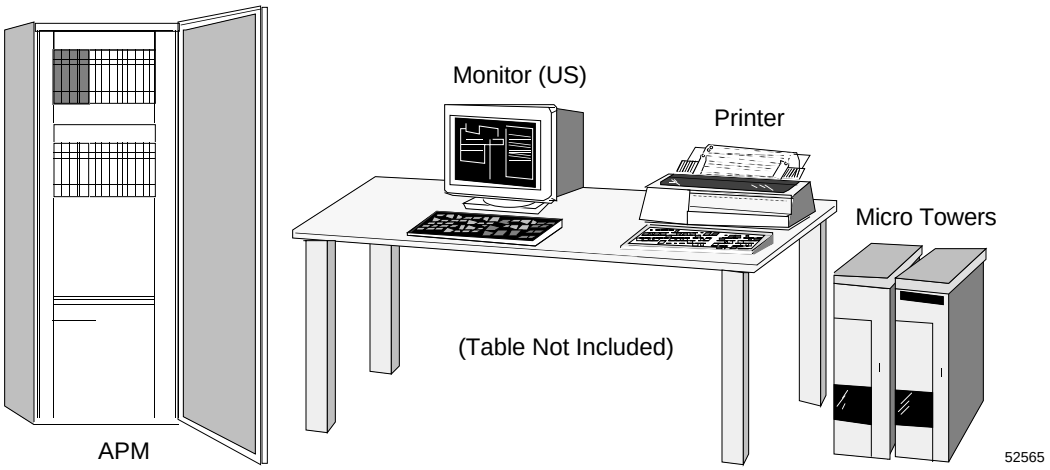

Figure 1-1 — Enhanced Micro TDC 3000 Control System

1.1 GENERAL DESCRIPTION

The Enhanced Micro TDC 3000 Control System consists of two cabinets (also called "towers") which together contain the electronics, two cartridge disk drives, and a history module. The cabinet electronics support up to four color monitors, four keyboards, and optional touchscreens or trackballs. A printer is also connected to the system.

Two electronics modules, one housed in each tower, provide all of the electronics for the Enhanced Micro TDC 3000 Control System (excluding peripherals). These modules, called Multinode Modules, are each capable of holding four TDC 3000 Nodes.

Although the Advanced Process Manager (APM) is part of the Enhanced Micro TDC 3000 Control System, it is not described in this manual. See subsection 1.5 for a list of publications that discuss the Advanced Process Manager and the Universal Control Network (UCN).

Figure 1-2 is a representation of some of the nodes used to construct a sample Enhanced Micro TDC 3000 Control System.

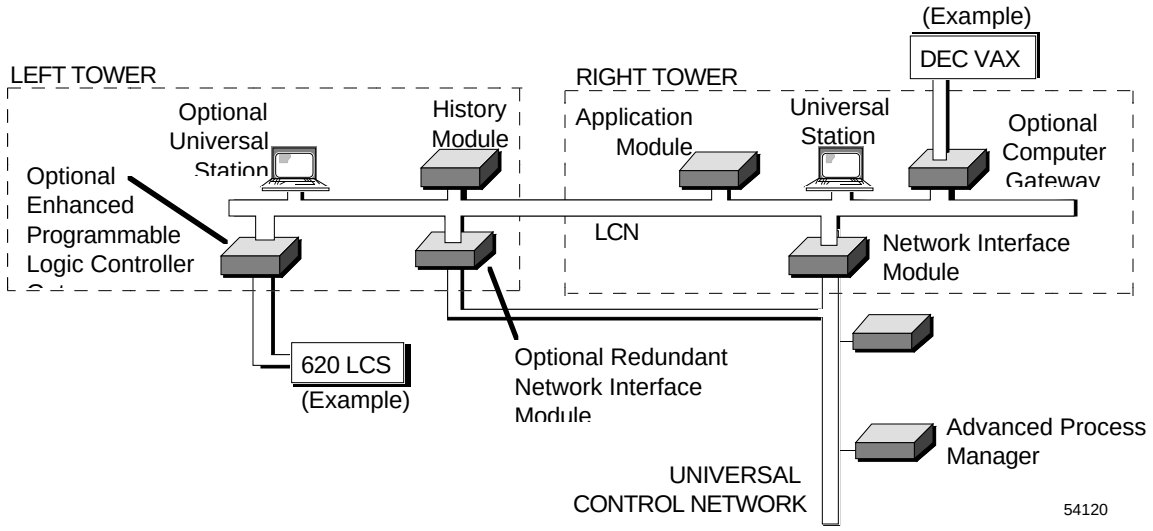

Figure 1-2 — Typical Enhanced Micro TDC 3000 Control System

1.1.1 Basic Enhanced Micro TDC 3000 Systems

The Enhanced Micro TDC 3000 Control System is furnished with one basic version. This is the single US Micro TDC 3000.

The base version consists of two 4-node towers, an operator's keyboard, an engineer's keyboard, a color monitor and printer (ordered seperately), and the Advanced Process Manager. Four nodes are contained within the two towers:

1. **US—UNIVERSAL STATION** A window to the process—allows all information supplied from process-connected devices, instrumentation subsystems, and computers to be seen and used. The color monitor, two keyboards, an optional touchscreen or trackball, two cartridge disk drives, and the ASPI-41 printer are integral parts of the Universal Station.

2. **AM—APPLICATION MODULE** Performs calculations and control strategies that are not possible or practical using only process-connected devices. The Application Module has 4 or 8 megawords of memory.

3. **NIM—NETWORK INTERFACE MODULE** Connects the Enhanced Micro TDC 3000 Control System to a process controller, generally to a Advanced Process Manager.

4. **HM—HISTORY MODULE** Provides mass storage of software, system data, and customer/user data.

1.1.2 Options to the System

Monitors, touchscreens or trackballs, and printers are options to all the Universal Stations in all versions of systems. A touchscreen or trackball allows you to "point" to areas on the graphic display and select operations to be performed. Without either of these options, you must use directional keys (arrows) on the keyboards to navigate across the screen.

Up to four additional nodes, making a total of eight nodes, may be added to basic Enhanced Micro TDC 3000 Control System. Choose from the following:

1. **NIM—REDUNDANT NETWORK INTERFACE MODULE** Provides a second path to the process controller in the event of an electrical failure.

2. **US—UNIVERSAL STATION** (4Mw and 6Mw) Provides a window to the process.

3. **EPLCG—ENHANCED PROGRAMMABLE LOGIC CONTROLLER GATEWAY** Provides a path to one or more Programmable Logic Controllers.

4. **PLNM—PLANT NETWORK MODULE** Provides the hardware and software to link the LCN to the VAX interfaces.

5. **CG—COMPUTER GATEWAY** Provides a path to a host computer.

6. **NG—NETWORK GATEWAY** Provides a path to an alternate network for an integrated plant solution (single and dual cable).