PROGRAMMABLE MARQUEE DISPLAYS

INTRODUCTION:

AVG Uticor Marquees can be found in numerous applications throughout all industries. In 1996, a *CONTROL ENGINEERING* Magazine study named the AVG Uticor brand of Marquees as the most specified and recognized Marquee product line in industry.

LED Marquees by AVG UTICOR

Marquees are intended for use where messages need to be conveyed over large visual distances up to 400 ft. (121.9 m). Hence, they have larger display areas and character heights than are found in AVG Uticor's Programmable Message Display product line. These extremely versatile products, enable your PLC or control system to display vital production status or alarm messages to plant-floor personnel in real time.
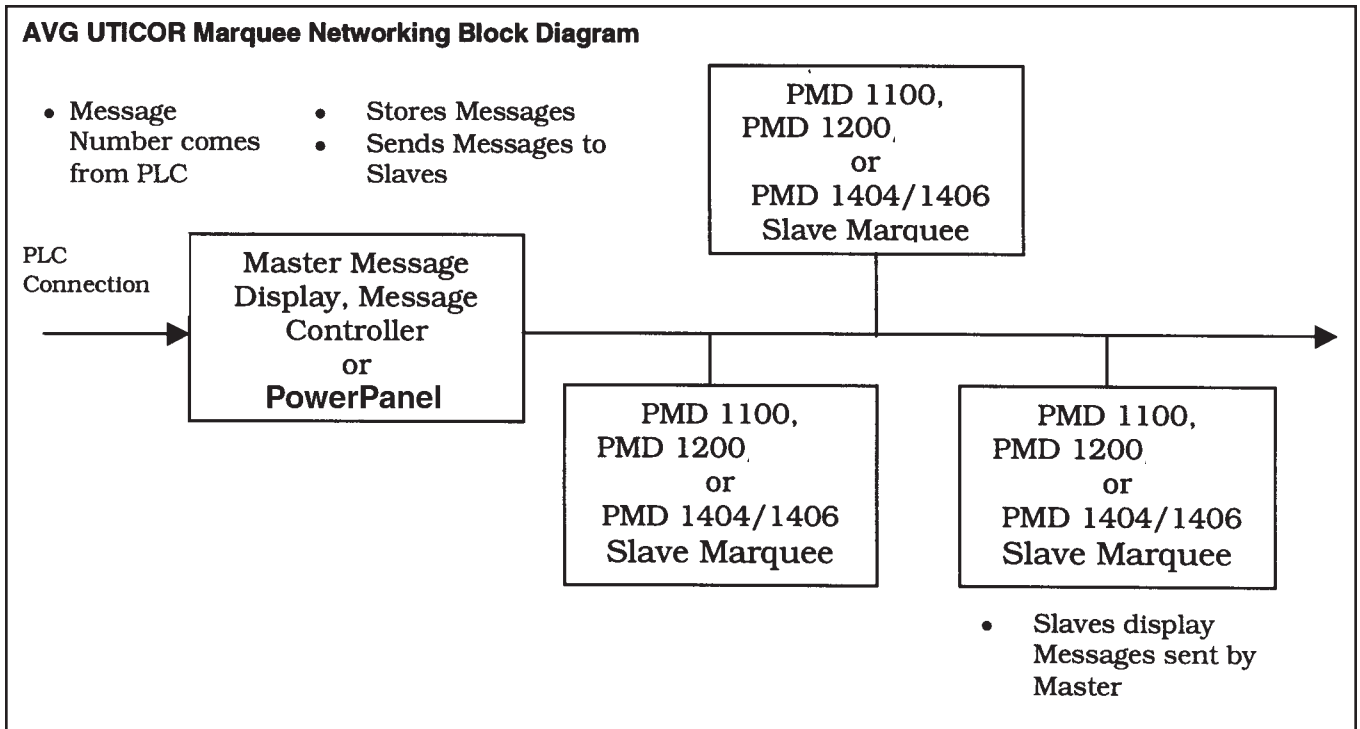
AVG Uticor offers three lines of Marquees:

- ■ LED-based Master Marquees
- ■ LED-based Slave Marquees
- ■ LED-based Numerical Marquees:

A **Master Marquee** is alphanumeric and stores up to 175, 80-character messages per 16K of memory. These messages and their characteristics (such as blinking, centering, scrolling, etc.) are programmed using a programming software (runs on a PC) available free from AVG Uticor. A Master Marquee continuously polls the connected PLC for a message number and several control parameters (may or may not be programmable in some cases). Based on the control parameters, the Master Marquee can display the message, send the message to one or a group of Slave displays (described below), or it can broadcast the message over Uticor Slave Network. A PC can also control the Master Marquee. Master Marquees come in two configurations, Red LED (PMD 3000 Series) and Tricolor LED (PMD 3600 Series).

Slave Marquees do not store messages. They are typically used with a Master Marquee, Master Message Display, Message Controller or a Touchscreen Programmable Graphical Interface. A Master Marquee, Master Message Display, Message Controller, or Touchscreen Program-mable Graphical Interface can drive a network of several Slaves. Each Slave used on a network has a unique address. Addressing scheme allows a message to be sent to one, several, or all Slaves on the network. Slave Marquees include PMD 1100, PMD 1200, and PMD 1205.

The **LED-based Numerical Marquee** comes in a 4 digit (PMD 1404) or 6 digit (PMD 1406) versions. With 7-segmented LEDs, these displays only show numerical values. Any PMD 1404 or 1406 can be used as a Master to drive additional PMD 1404 or 1406 units as Slaves.

UTICOR

AVG UTICOR Marquee Networking Block Diagram

- Message Number comes from PLC

- Stores Messages
- Sends Messages to Slaves

PMD 1100, PMD 1200, or PMD 1404/1406 Slave Marquee

PLC Connection

Master Message Display, Message Controller or **PowerPanel**

PMD 1100, PMD 1200, or PMD 1404/1406 Slave Marquee

PMD 1100, PMD 1200, or PMD 1404/1406 Slave Marquee

- Slaves display Messages sent by Master

SELECTING THE RIGHT MODEL

The PMD Master Marquee receives Message inputs from a PC or PLC and outputs Messages to one or more Slave units installed at strategic locations throughout the user's plant. A PC can be connected for programming purposes.

AVG UTICOR offers a variety of Marquee models to meet different application needs. A user will select a Marquee based on following criteria:

- Visibility Distance (size of characters)
- Number of lines on display
- Characters per line
- PLC Connectivity

In addition to above characteristics, Slave Marquees offer a wide variety of features. A list of features is given later in this section. Please refer to data sheets of each model for more information on a model.

MARQUEE FEATURES

Slave Marquees offer many features that enhance your ability to display pertinent information. Here's a brief listing of some of the more common features and what they are *(Every model may not support all of the following features)*:

Blinking

A character, word, or message flashes on and off at a user-programmable rate; used to attract attention to a message of high priority.

Chained Message

Links up to 115 individual messages together and displays at a user-defined rate.

Circular Message Queue

A list of messages displayed in the order that they are triggered according to their message display time. The list wraps around from the last message back to the first message and continues to cycle through the queue until the user makes a change.

Data Log

An area of memory set aside for a time- and date-stamped historical record of events in the unit.

Invisible Messages

Messages sent to a printer or Slave Marquee, but not to the Master Marquee's own display.

Off-line Programming

Message programs are developed with programming software and stored to disk. The message file can then be uploaded to the Master Marquee unit. The computer does not need to be connected to the unit for this programming process.

On-line Programming

Master Marquee unit is programmed directly from the computer. The unit must be connected to the programming computer. With on-line programming, the user can develop screens while the display unit is running. This allows modification of the screens without having to take the unit off line.

Real-Time Clock

A clock that indicates the passage of actual time.

Scrolling Message

A message that moves from the bottom of the display to the top, or from the right of the display to the left.