

The Only SPG and Master Clock You'll Ever Need

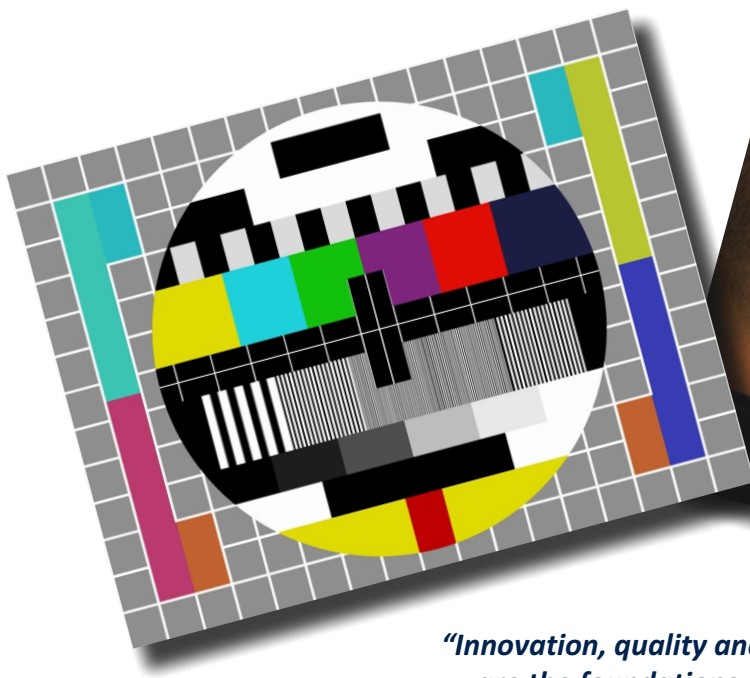
Mentor XL

Master Reference Generator

Guarantees...
...Absolute Peace Of Mind



trilogy▲



***"Innovation, quality and customer service
are the foundations of our business"***

Trilogy has a successful 25 year track record of delivering advanced, reliable Sync and Test generators to major broadcast, post and cable/satellite users in over 70 countries. Designed to satisfy the demands generated by mixed SD and HD/3G installations, Mentor XL is the most sophisticated, flexible and reliable Master Reference Generator available.

Advances in digital system design in Broadcast, and developments in HD equipment have simplified signal referencing and significantly reduced the need for test signals designed to expose cabling, timing, delays and conversion issues. However, there will invariably be exceptions, where independently timed SD and HD references together with appropriate test signals are needed to resolve a specific system design challenge. Mentor XL retains these attributes in addition to the enhanced features required for 3G and flexible GPS solutions.

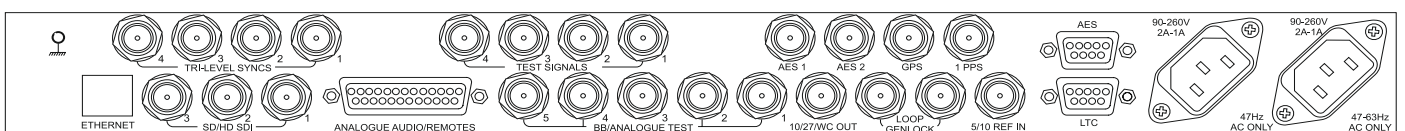
Mentor XL's innovative architecture avoids the need for numerous option boards or factory upgrades by allowing most optional features to be activated in software. This ensures that units may be easily upgraded, either locally, from a remote location, or through Trilogy's technical support service.

Key Benefits

- Single Box solution to ensure absolute synchronisation of video, audio, NTP and timecode in any Broadcast or professional media application
- The ultimate in precision timing, long term stability and reliability - for complete peace of mind
- A level of flexibility adaptable to all environments/applications - from a simple media installation to an entire Broadcast Centre

All SD and HD reference and test signals are generated simultaneously for both 525 and 625 standards with independent timing control for all outputs to meet any requirement. Special attention has been paid to the audio section with multiple audio generators assignable for AES/DARS, embedded SD/HD, wordclock & analogue stereo audio.

Utilising GPS provides an extremely stable and robust method for accurately locking multiple SPGs and also for governing the unit's LTC, VITC and NTP outputs. Accurate GPS referencing is managed by Mentor XL's



internal receiver module, or by locking to an external source of 1pps and NMEA serial data; guaranteeing the synchronisation of all video, audio, PC based devices and system clocks. Mentor XL has been designed to work with the latest array of Smart GPS antennas which allow for longer cable runs and provide the flexibility to permit installation in the widest range of customer applications.

Intuitive front panel controls allow immediate access to all important settings while Vector offers in-depth management of all parameters from any network connected location in your organisation.

GPI circuits may be configured to notify conditions such as loss of genlock while SNMP agents allow integration with higher level system management and diagnostic tools.

Key Features

- An extensive and evolving library of reference and test signals – to satisfy both current and future needs
- Independent Tri-Level Sync outputs for all 720 and 1080 standards
- 3G level A and level B offered in a wide range of formats
- Dual LTC outputs plus VITC/DVITC
- NTP server, client and SNMP support
- Intelligent MasterMind or Watchdog auto changeover units for redundant operation
- Test Pattern and Logo Import facility

Auto Changeover Options

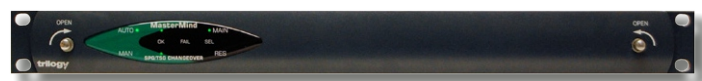
For enhanced security, main and reserve Mentor XL units may be deployed with either a MasterMind or Watchdog auto changeover to create a highly resilient master generator package.

MasterMind

MasterMind's design allows it to be scaled to suit specific requirements, in terms of signal formats, number of channels and detection/changeover criteria.

Inputs may be analogue, digital or a mix with the changeover implemented manually or by auto detection.

A variety of option boards to monitor Black & Burst, Tri-Level Syncs, SD/HD, LTC and AES enables the user to define which signals can effect an entire main to reserve changeover. MasterMind also allows less critical signals in all formats to be switched via passive boards following the detection regime preferred by the operator.



- Comprehensive range of signal monitoring and changeover facilities
- Compact 1RU format to minimise installation footprint
- Failsafe changeover to maintain signal integrity for absolute peace of mind
- Local and remote alarms on signal failure in addition to auto and manual changeover capability

Watchdog

Where an application requires a larger number of signals to be switched, the Watchdog system is capable of providing up to 12 channels in its 1RU frame or 24 in the 2RU version which also includes a redundant power supply option for the ultimate in peace of mind operation.

Watchdog offers a powerful and expandable detection solution with remote PC control and monitoring. It features modular architecture and advanced detection circuitry that automatically recognises the signal format of each input and applies appropriate checks for signal integrity and stability. The software also supports interfacing to other system management and diagnostic tools via SNMP.



- Dual Channel Detection/Changeover boards for all video, audio, or timecode reference and test signals
- Sophisticated GUI (Graphical User Interface) allows for configuration, control and remote monitoring
- Flexibility to handle all outputs from a Main & Reserve Reference system in any combination of signal format

Vector Editor

Vector is a powerful browser based utility designed to facilitate remote configuration and status monitoring of multiple Mentor XL units.

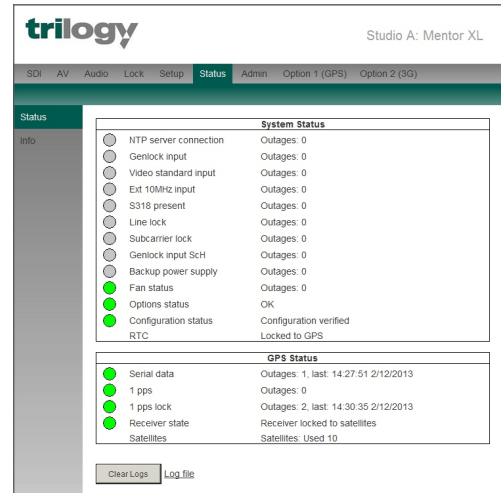
All of Mentor XL's parameters, including output formats, test and reference timings can be easily set and adjusted with immediate effect.

Configurations can be instantly verified, amended or saved: alternatively, complete preset configurations can be loaded.

Vector also indicates the unit's status, allowing visual confirmation of Genlock, GPS operation and power supply integrity. Remote browser access enables TrilogY to provide full diagnostics support via direct connection to in-service units.

Key Features

- Remotely configure any IP connected Mentor XL
- Indicates current status of all parameters
- Displays event log file with time stamp
- Simple cloning of Mentor XL configuration
- Upgrade system firmware and software options



Mentor XL Packages

For unbeatable versatility in a wide range of TV and media applications, a number of the most common configurations are offered as packages, starting with a base system for standalone generation of the essential video and audio reference signals. Combinations of hardware and software options optimise desired features and price, while still allowing a simple upgrade path for any eventuality.

A sub-set of typical packages are shown below, with further standard configurations available to suit specific system and user requirements.

	✓ Included ○ Optional	Base System	Standard SD System	SD/HD system with additional TLS	GPS Referenced Master Reference Generator
Base Unit Features: - 5 Black/Burst - Wordclock / Misc I/O clocks - Genlock with loopthrough - 3 SDI Black - 2 AES (DARS)		✓	✓	✓	✓
SD Test Patterns		○	✓	✓	✓
Analogue and AES Test Tones		○	✓	✓	✓
HD-SDI Test Patterns		○	○	✓	✓
GPS Receiver and Antenna		○	○	○	✓
Dual LTC & VITC on SDI		○	○	○	✓
NTP		○	○	○	○
SNMP		○	○	○	○
4 O/P Tri-Level Sync Expansion Board		○	○	✓	○
4 O/P HD/3G Expansion Board		○	○	○	○
Redundant Power Supply		○	○	○	○
Smart GPS Antenna		○	○	○	○

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