

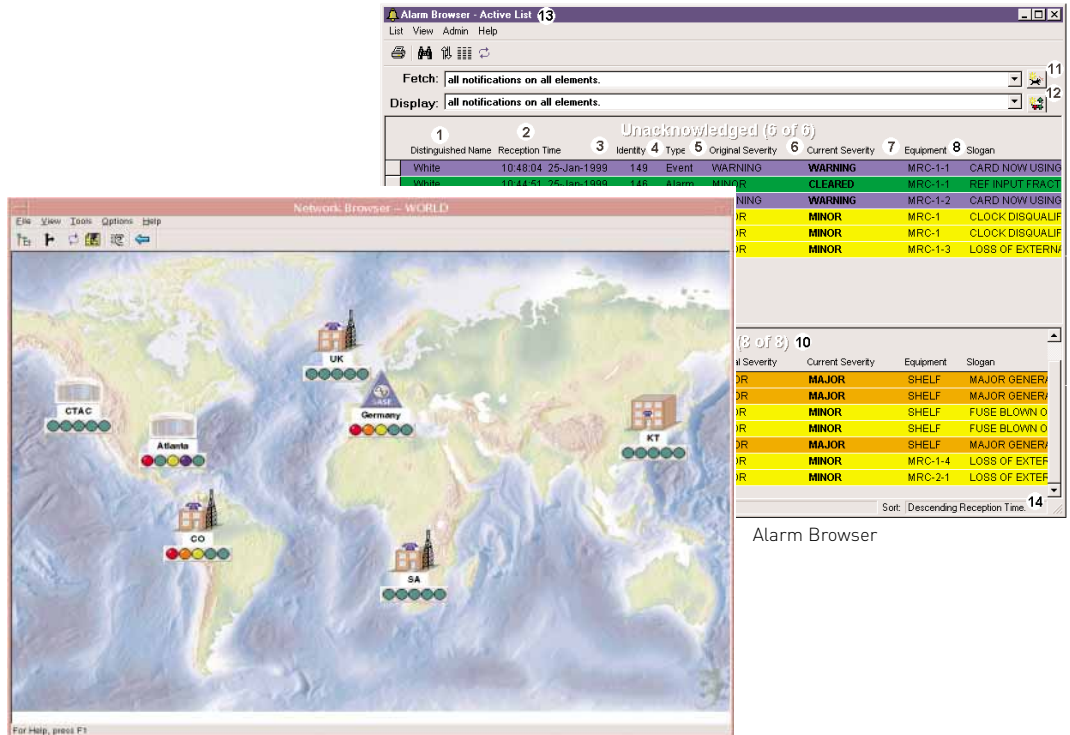


# TimeScan

## Management of Synchronization Networks

### KEY FEATURES

- Full FCAPS Functionality
- Easy to Use Graphical Interface
- Remote Management of Sync Networks
- Low Cost of Ownership
- SNMP Connector (North-Bound)



Network level view with alarms represented at the highest level of the network, and the alarm browser allowing sophisticated sorting and filtering functions.

### INTRODUCTION

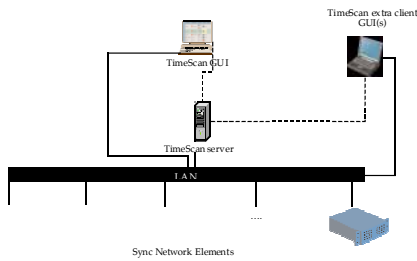
TimeScan (formerly known as TimeScan NMS NT) is a powerful management platform for accessing and controlling synchronization networks. Its intuitive graphical user interface (GUI) enable operators to monitor and control the network through icons and simple point and click operations, from remote locations.

Logical and geographical network topologies are clearly illustrated on a multi-tiered hierar-

chy. Unlimited zooming levels support standard or user-customized maps and icons, control room layouts and accurate representation of the synchronization elements as well as their composite cards.

### FAULT MANAGEMENT

Fault management is a key reason for deploying a remote management system. TimeScan reports alarms and events occurring on any synchronization element in the network rapidly.

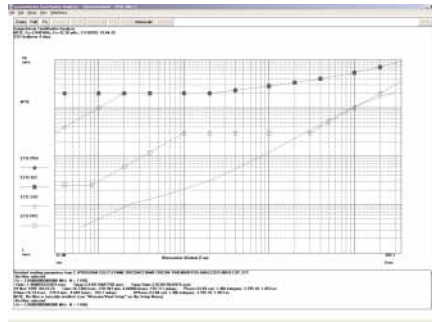


TimeScan Sync EMS

TimeScan's intuitive display icons indicate an alarm at any topology level, so that the problem could be identified rapidly. Degraded synchronization network performance or hardware failures can be quickly identified, before they become a threat to the network. Comprehensive alarm management functions allow quick viewing of alarms, alarm acknowledgements, logging, archiving and complete forwarding control between element and network levels.

### CONFIGURATION MANAGEMENT

TimeScan's GUI allows a user to rapidly drill down complex multi-layered network topologies, to reach to the element level and examine a graphical representation of its status and configuration at the card and port level rapidly. The element presentation supports a physical view allowing management operators to guide maintenance staff. Logical views illustrate the current operational state of the network element within the network hierarchy. Both views not only provide status information to the operator, but also provide access for configuration actions. Detailed configuration capabilities are supported through sophisticated GUI tools. Users may place, move and delete icons, maps or elements on the screen when setting up or re-configuring the network and its topology (as long as their security levels allow such operations).



Detailed performance monitoring through the TimeMonitor Option

### PERFORMANCE MONITORING

Monitoring performance parameters on key network facilities and elements is the first step to keep a synchronization network free of problems. TimeScan provides this capability in order to thwart threatening situations from developing. TimeScan can present graphical MTIE, TDEV and phase performance parameters of any network element. In addition, this data can be compared across time with different synchronization network elements, even against user created templates of 'masks' or industry standard 'masks'. This data collection could be done on a user selectable schedule. TimeScan may also be used to collect data that can then be fed into Symmetricom's sync and timing performance measurement system, TimeMonitor, for detailed analysis. The TimeMonitor software may be used in conjunction with TimeScan as an optional

### SPECIFICATIONS

The following summarizes configurations recommended as minimum platform requirements (note: for network larger than 250 managed sync elements, please call for custom configurations).

Server Configuration: (Small networks 1-25 sync elements, medium: 26-100, large 101-250)  
PC compatible running Windows 2000, XP or NT v4

Network Size	Small	Medium	Large
Processor	Pentium III CPU 1GHz	Pentium IV CPU 2.0 GHz	Pentium IV CPU 2.0 GHz
RAM	384 MB	512 MB	2 GB
Hard Disk Space	9 GB	18 GB fast disk	36 GB Ultra 160 SCSI (15,000 rpm disk)

Client Configuration: (PC compatible running Windows 2000, XP or NT v4)  
Processor: Pentium II CPU 700 MHz  
RAM: 256 MB  
Hard Disk Space: 300 MB available

software add-on for advanced performance measurement and analysis capabilities.

### SECURITY MANAGEMENT

Access control and security are essential to sophisticated management systems such as TimeScan. TimeScan provides an extensive and sophisticated security sub-system catering to a network operation center's ability to support multiple operators. The security sub-system allows the operators to configure authority for different users and to create and maintain profiles. An unlimited number of profiles can be supported. Each profile may be scoped to define access authority to a granularity down to individual actions on given elements. TimeScan makes it possible to customize authority profiles to suit the requirements of different policies or to enforce "fire walls" for virtual network management.

### SNMP CONNECTOR

Synchronization management may be called on for root-cause analysis of a problem in the network or to understand the real reasons behind an alarm. As such, a connector to conduit alarms and traps to a network level management system is indispensable. Symmetricom's SNMP connector option accomplishes just that with a patent pending MIB design. This design ensures that all sync network elements can be accessed using one SNMP MIB and connector.



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