



Television Systems Products

**Harris
Broadcast
Manager**

Powered by NetBoss

*Facility and Network
Monitoring and Control*

next level solutions



Facility and Network Monitoring and Control



The Harris Broadcast Manager (HBM) is an advanced management, monitoring, and control system for broadcast equipment, facilities and

associated networks. It provides the functionality to fully exploit DTV studio and transmitter equipment capabilities and brings added benefits to legacy analog systems and building services.

HBM provides centralized system and equipment status display for local and remote equipment. Information is held in a database where it can be analyzed and reported to multiple users. Customized graphical screens provide a top-level status overview for all major subsystems and equipment. The user can "drill down" to lower levels for

detailed information on individual items of equipment and to access configuration and control functions.

HBM includes comprehensive alarm monitoring and logging functions. A configuration database provides detailed information on all station equipment. Optional intelligent alerts response and database analysis and reporting systems are available.

HBM is modular and extensible, from a simple single system in a local station to a complex system in a multistation environment with several HBM systems reporting to a supervisory HBM. Station groups and networks can consolidate supervision and control of multiple stations at a single centralized geographical location while improving overall system performance.

HBM-100, HBM-200 and HBM-300 products provide different levels of capability depending on customer requirements.

Applications

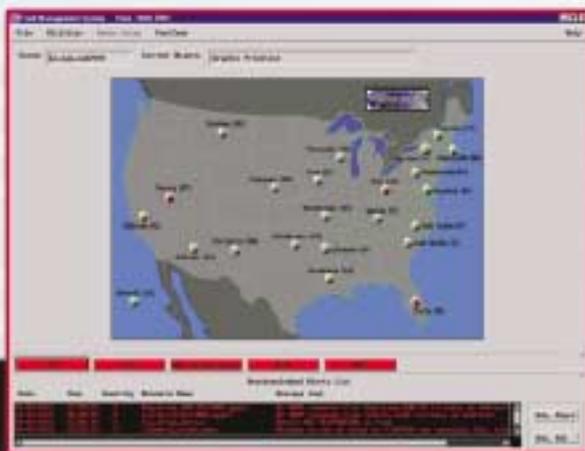
- Local broadcast stations
- Remote studios and transmitter sites
 - Monitoring and control
- Broadcast groups and networks
 - Consolidation of monitoring, control and management

Features

- Support for SNMP-compliant and legacy equipment
- Open Systems Standards
- Multiple users with assigned screen views and privileges
- Can work with existing remote element managers

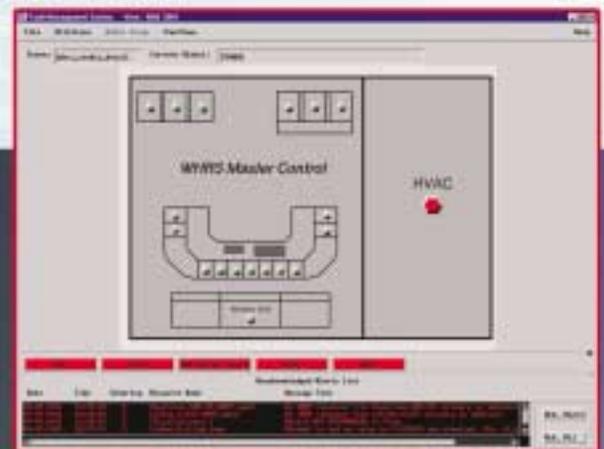
Benefits

- Increased operating efficiency
- Consolidation of expert manpower
- Decreased trouble response time
- Increased broadcast system availability
- Reduced operating cost



Top-Level Display

Icon color indicates health of linked equipment, high-level icons link to lower-level screens for more detailed information. Graphical and text displays show real-time data and measurements.



Facility Layout

Trending graphs and charts of historical data available. Control pushbuttons initiate commands to equipment. Hot buttons navigate directly to priority screens. Unacknowledged alerts show in text box. Event Viewer screen provides full alert information and historical log.

System Components

HBM-100

Includes as standard:

- 1 Sun Ultra 10 Unix server with 21" monitor
- 1 NT client workstation with 19" monitor
- Basic network components
- Oracle database
- Manage.IT 100 software
- Event Viewer (text only)
- Log Reviewer
- Dial-in remote access for Event Viewer
- Capability to control and monitor up to 10 devices expandable to 50 depending on configuration
- 2 Smart Agents for Harris SNMP or legacy equipment from current library
- 1 Smart Agent for a non-Harris SNMP or legacy item of equipment

HBM-200

As HBM-100, except:

- 1 Sun Enterprise 250 Unix server with 21" monitor
- 2 NT client workstations with 19" monitors
- Manage.IT 200 software

- Graphics module, with 20 system views
- Capability to control and monitor up to 50 devices expandable to 200 depending on configuration
- 3 Smart Agents for Harris SNMP or legacy equipment from current library
- 2 Smart Agents for non-Harris SNMP or legacy items of equipment

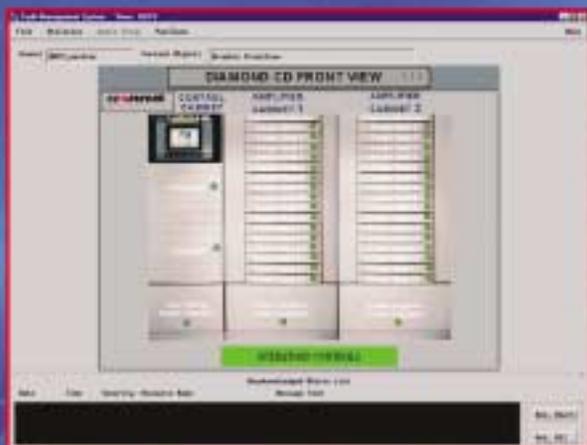
HBM-300

As HBM-100, except:

- 1 Sun Enterprise 450 Unix server with 21" monitor
- 4 NT client workstations with 19" monitors
- Manage.IT 300 software
- Graphics module, with 40 system views
- Capability to control and monitor up to 200 or more devices depending on configuration
- 3 Smart Agents for Harris SNMP or legacy equipment from current library
- 2 Smart Agents for non-Harris SNMP or legacy items of equipment

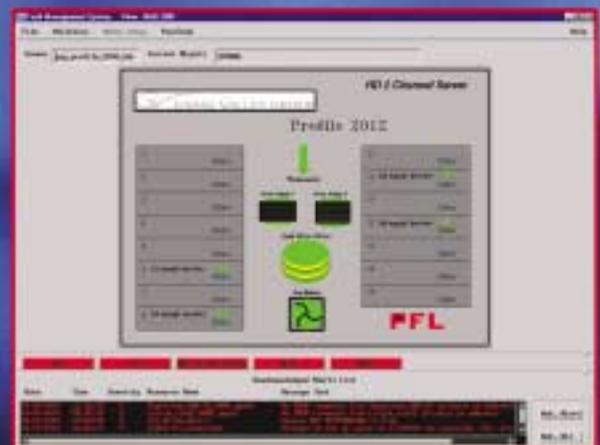
Options and Upgrades

- Graphics module for HBM-100
- Expert System Interface (ESI)—rules-based automatic executive actions module
- DB Reporter—alarm and event analysis and reporting module
- Build.IT tools package—enables customer to build custom Smart Agent interfaces for third-party equipment
- Additional Smart Agents for Harris equipment
- Additional Smart Agents for non-Harris equipment
- Additional graphics screens
- Integration of third-party element managers
- Additional client workstations
- Redundant system server
- Remote site monitoring equipment
- Remote terminal units for serial, GPI and analog interfaces



Transmitter Cabinet Status

Custom screens are readily developed to meet customer requirements; a library of standard screens and icons is available.



Equipment Detailed Status



Interfaces

- Equipment interfaces through network connections, serial ports and discrete digital or analog connections
- TCP/IP network protocol
- SNMP (Simple Network Management Protocol) to manage devices equipped with an SNMP agent
- Equipment with RS-232 or RS-422 remote ports interface through direct serial connections or via LAN/WAN access with an interface unit; interfaces available for various standard application protocols and non-standard vendor-specific protocols
- Discrete GPI and analog voltage interfaces connect through an RTU (remote terminal unit)

Connected Equipment

Interfaces exist or can be configured for a wide variety of broadcast studio, transmitter, and facility equipment, including:

Harris

- FlexiCoder
- Dataplus
- PSIPplus
- LINKplus
- NETplus
- ARX-H200
- CD-Eye
- MonitorPlus
- Harris Transmitters
- Harris Automation Systems
- Intraplex STL Equipment
- Audio Consoles by PR&E

Third Party

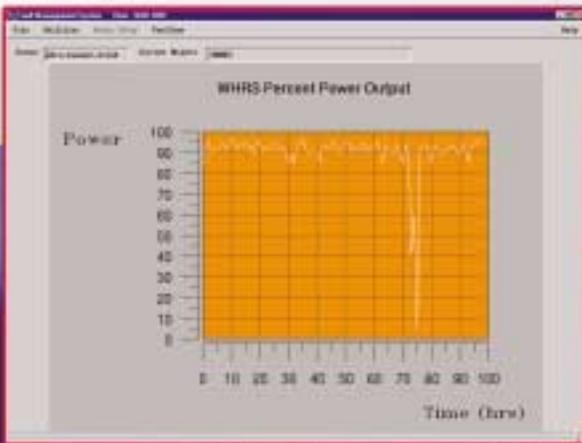
Most items of equipment with SNMP MIBs, serial remote interfaces, or discrete GPI contact closure or analog voltage interfaces

Annual Support Contract

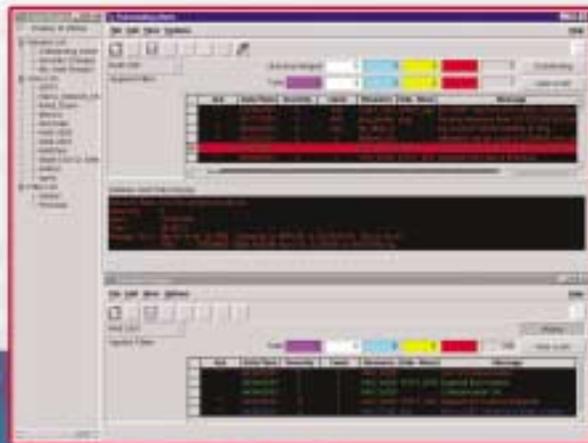
Harris is committed to providing full customer support following installation of the HBM system. All systems are sold with an annual maintenance and support contract; this provides business hours (standard) or 24/7 (premium) factory technical support, and includes software upgrades.

Training

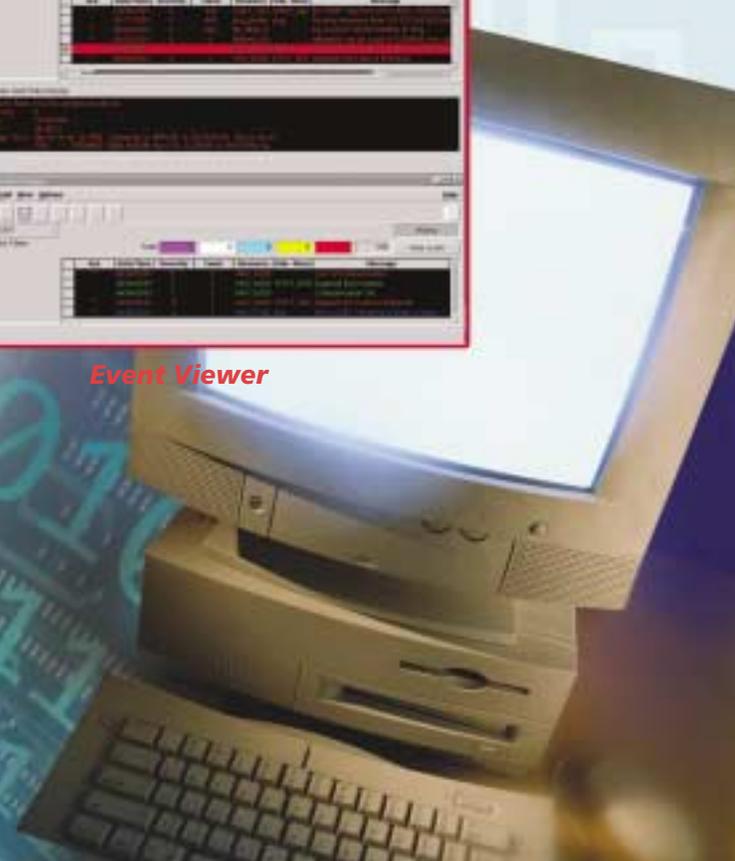
Comprehensive training is available for customer engineers and operators to ensure a successful implementation of the Harris Broadcast Manager.



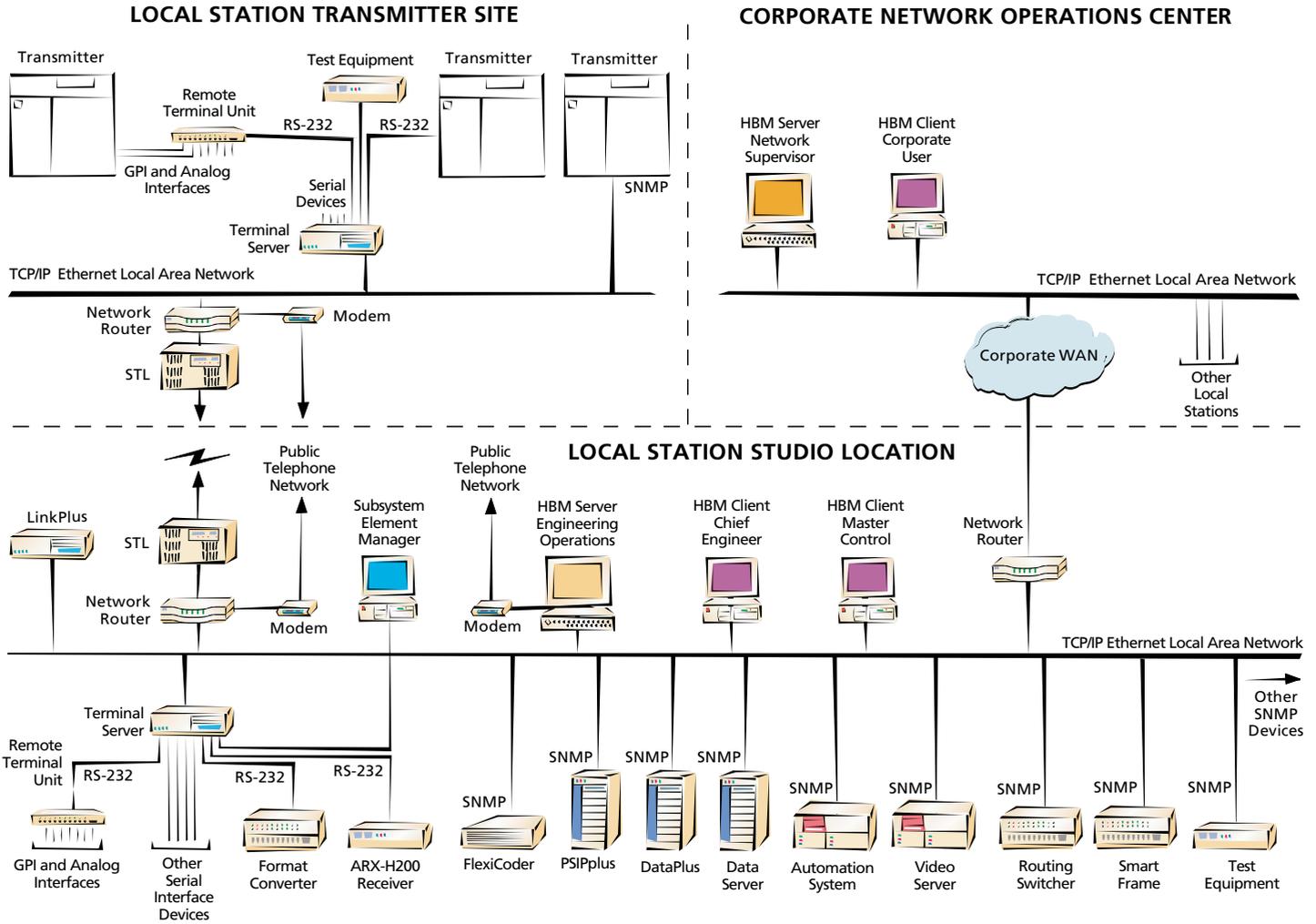
Trending Graph



Event Viewer



System Description



HBM systems are available at three basic levels, designated HBM-100, HBM-200 and HBM-300, with different server sizes, software features, number of users and capacity for connected devices. Systems are modular, expandable and upgradeable, although a new server may be required for some upgrades. Each customer's system is individually designed and configured to meet particular station requirements. HBM may range in size from a simple monitoring system for a few items of equipment, to a large multisite, multilevel system for a station group or major network. The simplified system diagram above illustrates the basic connectivity of a typical system. Many other arrangements are possible.

HBM is a multiuser, multitasking system, based on a client-server scalable architecture. It manages complex multiprotocol, multivendor local and wide area networks and is sold as an integrated hardware and software system. Core software is based on the proven Harris NetBoss Manage.IT network management system. It includes an SNMP manager and uses Smart Agents to support non-SNMP legacy equipment. A library of Smart Agents and graphical screens is available, and custom interfaces and screens can be developed to meet customer requirements. Options are available for a graphics module (standard on HBM-200 and HBM-300), Expert System Interface for intelligent alerts response, and DB Reporter for alarm and event analysis and reporting.

HBM runs on a Sun Microsystems Unix server, providing extremely reliable service. If required, fault-tolerant systems are available with critical component redundancy and database synchronization. Client PC Windows NT workstations provide operators with all monitoring and control functions from anywhere on the network. The system is highly secure and individual operators can each be assigned a different user profile for screen access and control privileges. Remote web browser access to Event Viewer is also available through the network or by dial-up phone line.



Harris Broadcast Communications Division Headquarters

Harris—Your Source for Complete Systems Integration

Harris offers far more than a comprehensive array of products and solutions that will give you a smooth and cost-effective migration path to digital television (DTV). As a resource for complete custom systems, we can help you put the pieces together—whether you are upgrading your master control or building a ground-up facility or network.

Our systems integration team can serve you in six essential areas, including:

- **Facility consulting, budgeting and planning:** We can work with you from the earliest stage of your DTV project to ensure best-in-class, value technology and make certain that you haven't overlooked any of the key elements.
- **Technical design and documentation:** Our engineers and designers have hundreds of years of combined digital experience in every discipline required for systems design and integration.
- **Equipment supply:** Because we have access to products from virtually all leading manufacturers, we can recommend the components that best meet your needs—not someone else's.
- **Systems integration and commissioning:** Our installers and technicians have a wealth of experience with digital facilities and are ready to manage your entire installation and commissioning process.
- **Custom product fabrication:** Our team can often customize and build special product solutions to maximize the effectiveness of your system.
- **Technical furniture design and construction:** If ready-made racks and consoles aren't right for your project, we can design and build consoles that will accommodate your current and future requirements. Our Integrator series of racks offer a solid foundation for your broadcast system.

We invite you to call us to discuss your specific project and ways we can be of assistance.

