

MultiView Bridge Management

Multifunctional display and operation



MultiView Bridge Management

General

The MultiView Bridge Management system developed by Böning serves as a multifunctional display and control system. All functions essential to the ship's bridge are managed and controlled via a common management system. This creates an optimized Böning bridge system with multifunctional visualization and operation, which can be distributed across multiple display panels as required. With the help of intelligent user interfaces, even complex integrated applications can be implemented in a highly ergonomic design with maximum user-friendliness.

Böning supports the integration of ship alarm systems and other essential functions such as radar, navigation systems, or chart plotters into a combined Böning bridge system. With the MultiView Bridge Management and the new 49" ultra-wide display, multiple individual displays can also be combined.

Main operating components such as keyboards, trackballs, autopilot displays, and VHF remote controls are designed as customer-specific control panels and integrated into the bridge console or the armrest of the helm chair at optimal operating positions. All essential functions can also be accessed via the touchscreen controls of the installed display panels.

Direct Mode

All remote control modules developed for MultiView Bridge Management can be switched to "Direct" mode. This provides additional security even in the event of a device failure, as all essential functions of the remote-controlled component remain available. Multifunctional operation is manually deactivated via a separate switch, which enables direct operation on the respective device, for example the radar/ECDIS system.

Control trackball in armrest

The Böning AHD-DC T or AHD-DC TS devices serve as central operating components and can be integrated into the armrest of the helm chair, for example. This enables very comfortable control of all systems, with both image content and operator focus freely selectable between the installed display panels.

Functions

The Böning MultiView bridge management concept covers the following automation and navigation functions:

- Scalable video matrix with numerous display panels
- Combinable MultiView technology with 49" ultra-wide display
- Integration of the Böning AMCS, optionally with a security system or data logging
- Integration of video surveillance systems (Böning or third-party systems)
- Main ECDIS (Electronic Chart Display and Information System)
- Main radar
- Secondary ECDIS
- Secondary radar
- VHF (very high frequency marine radio)
- Remote control displays
- Autopilot
- Multifunctional control

Video matrix

With the help of the video matrix, the user can select which video source is displayed on any monitor. Control is via the integrated video matrix interface and the CAN-to-serial converter AHD-RA VM V2, which handles adaptation to the Böning system bus. Operation can be freely adapted to customer-specific requirements; both the use of a trackball and input via virtual touch fields are possible.

The display panels adapted by third-party manufacturers usually have several direct inputs for video signals. In order to integrate these inputs into the MultiView Bridge management concept, the CAN-to-serial converter AHD-RA MU V2 is also required. This communicates with the Böning system bus via the interface integrated in the display and enables remote control of the video source selection for all direct inputs.

Brightness control

The AHD-RA MU V2 CAN-to-serial converter has additional integrated functions, including control of the display backlight intensity. Both manual and automatic dimming (via light sensor) are provided as standard. All displays belonging to the bridge system can be dimmed in parallel via the common CAN bus.

Multiview ultra-wide display



The new 49" ultra-wide display is a compact solution with the display capacity of three individual screens. The display is combined with a 4k HDMI Multiviewer system that offers the following features:

- Up to 4 independent video sources (3 external computers and background image)
- Individual screen layout
- Free selection of image size and positioning
- Additional options such as split display, picture-in-picture, overlapping windows, or full-screen display for a single source.
- Preconfigured and user-defined layouts available

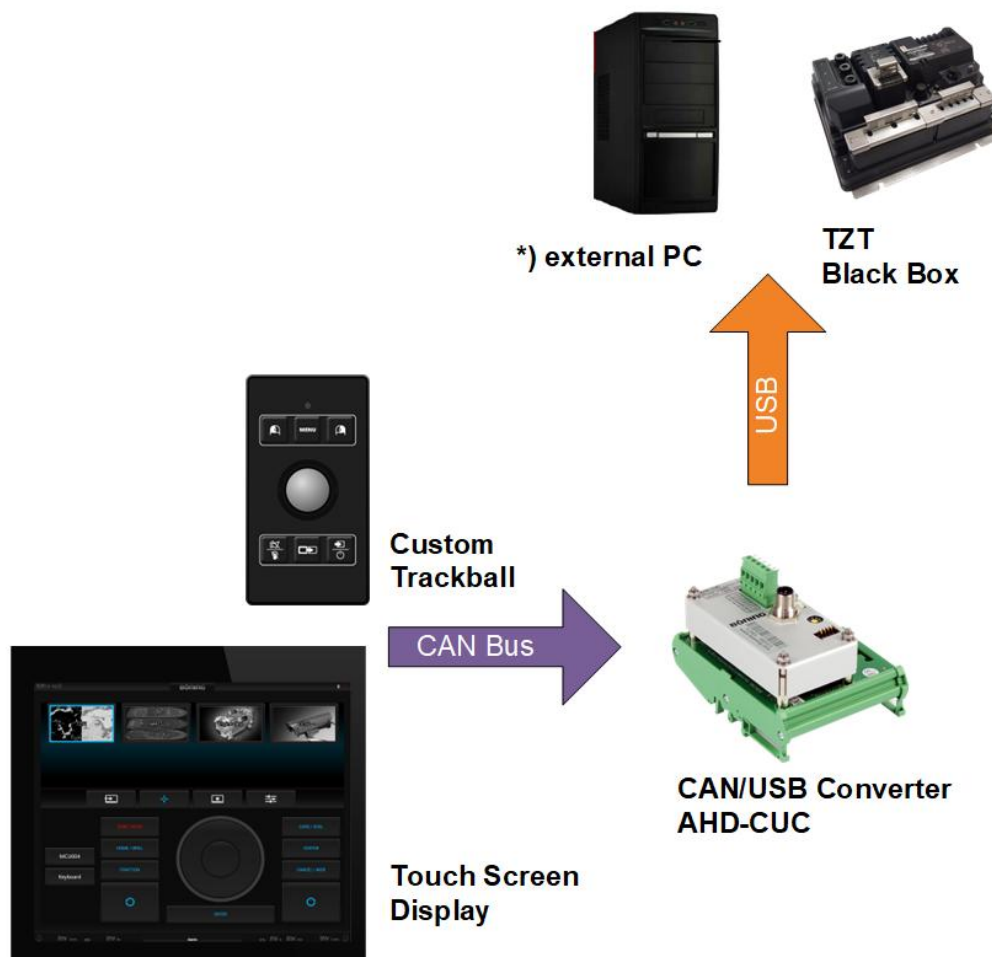
Furuno components

AHD-CUC

CAN-to-USB converter as remote-control unit for external PCs or Furuno TZT unit

External PCs or the Furuno TZT unit can be operated via trackball or display panels with touchscreen display. Control is via:

- Virtual touchpad
- Virtual keyboards
- Other customer-specific control elements (e.g., trackball)

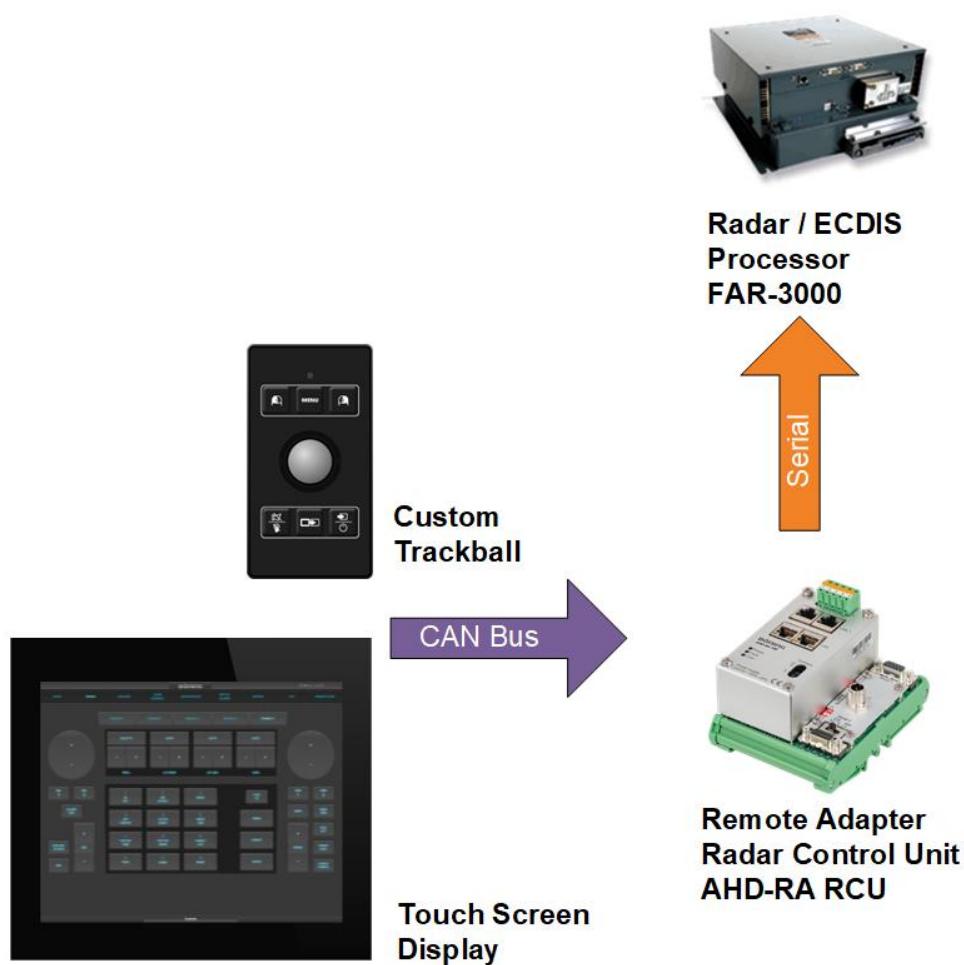


AHD-RA RCU

CAN-to-serial converter as remote-control unit for Furuno radar/ECDIS system

The Furuno Radar/ECDIS processors (FAR-3000) can be operated via trackball or display panels with touchscreen display. Control is via:

- Virtual touchpad
- Virtual keyboards
- Other customer-specific control elements (e.g., trackball)

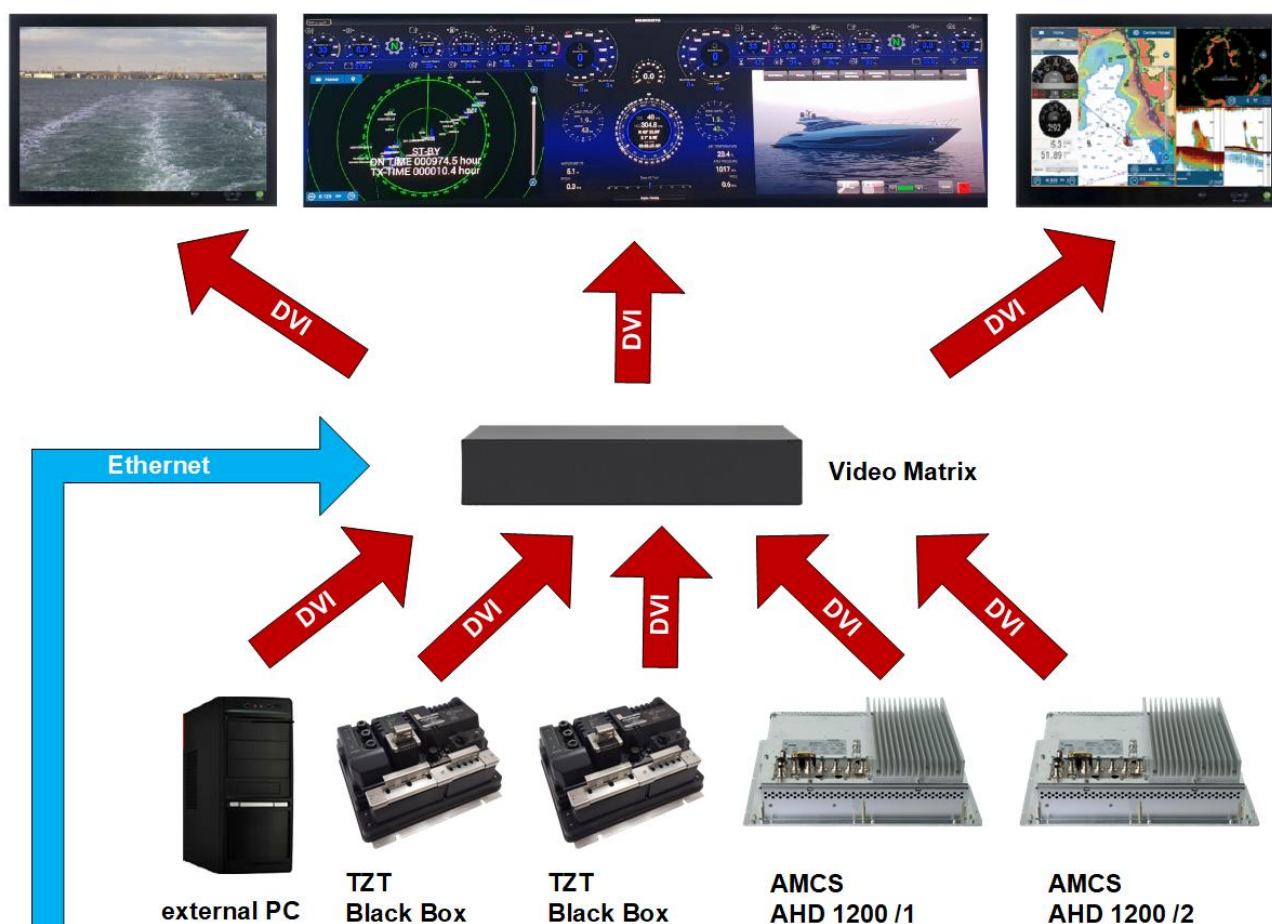


Multifunctional video matrix

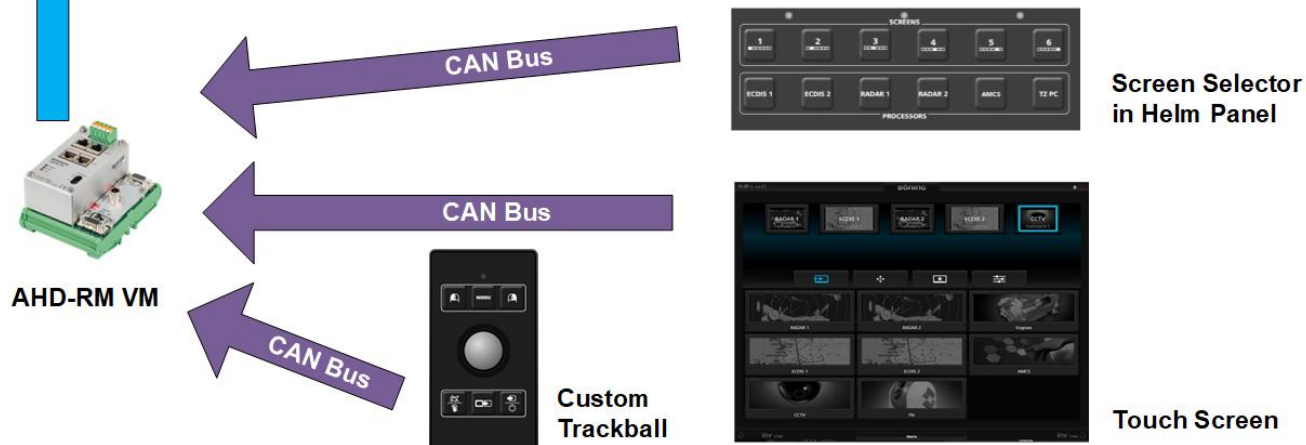
The video matrix allows all video signals to be freely assigned to the available display panels. The ultra-wide display can be combined with other displays as desired.

Possible video sources:

- CCTV, radar/ECDIS, TZT (black box), redundant AMCS



Operation of DVI Matrix by:

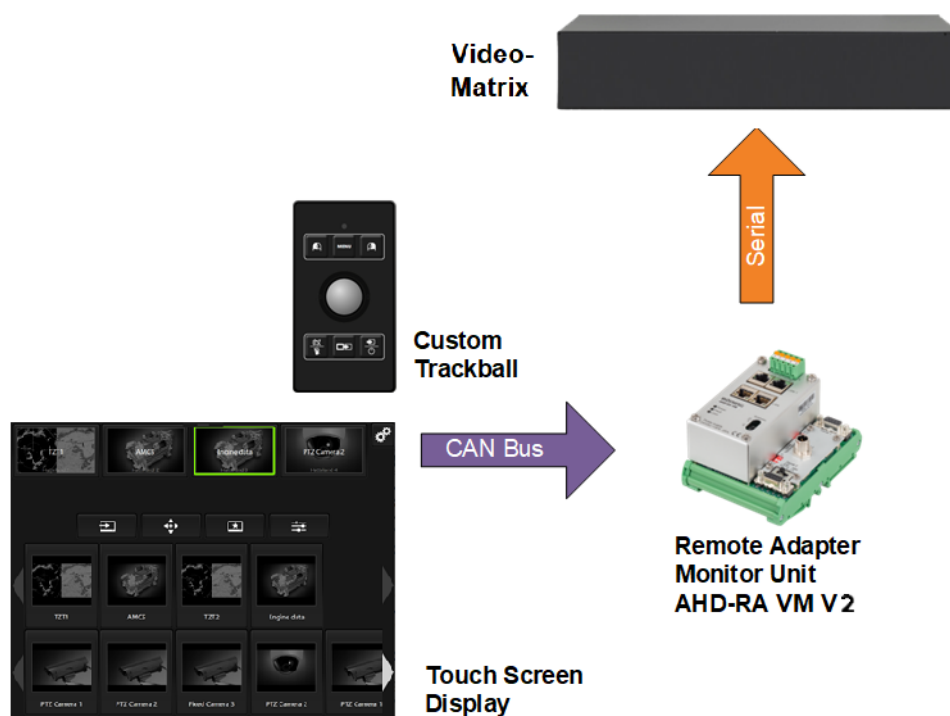


AHD-RA VM V2

CAN-to-serial converter as remote control unit for the video matrix

AHD-RA VM enables control of a DVI video matrix switcher via the Control CAN bus from Böning systems. This allows different DVI video signals to be assigned to any monitor. Control is via:

- Virtual touchpad
- Virtual keyboards
- Other customer-specific control elements (e.g., trackball)

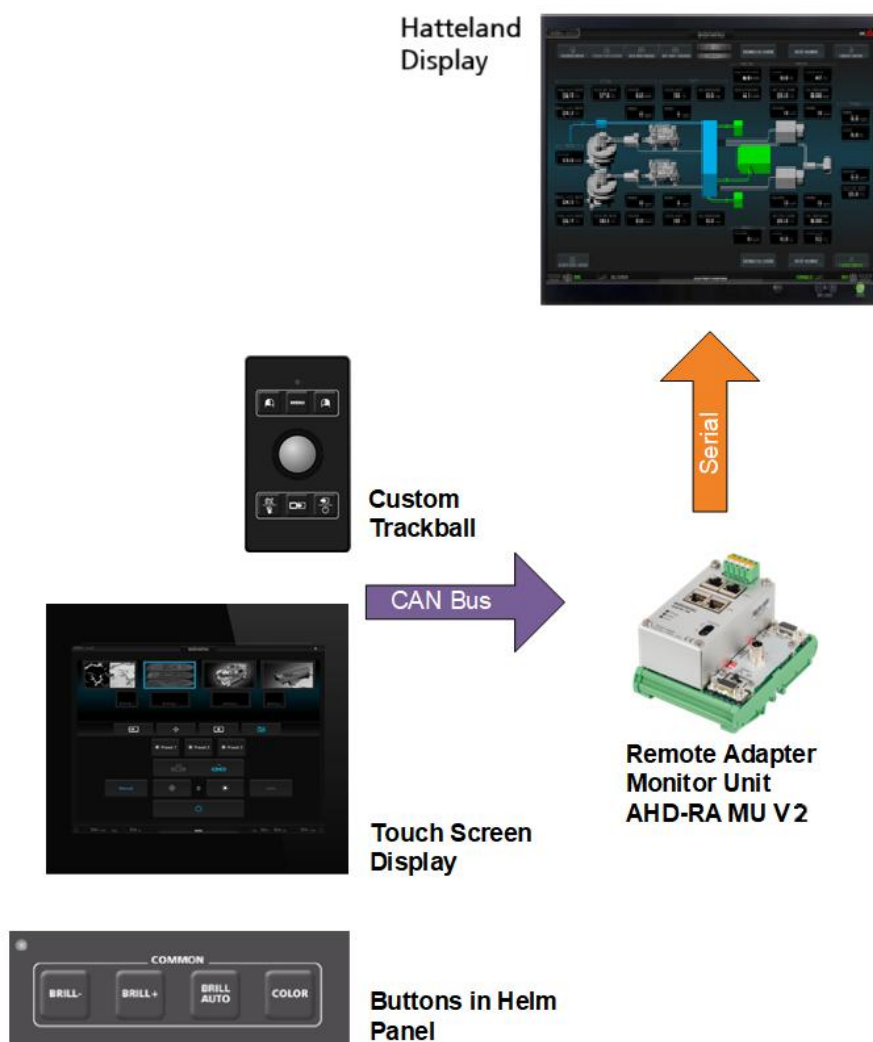


AHD-RA MU V2

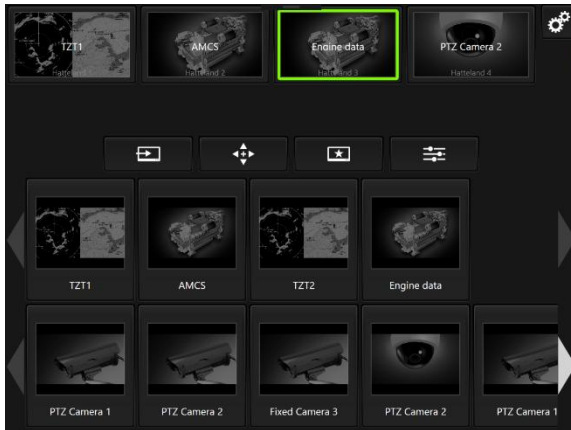
CAN-to-serial converter as a remote control unit for third-party displays:

AHD-RA VM enables common control and dimming for Hatteland or Furuno display panels. Control is via customer-specific control elements (e.g., custom trackball) or with the following virtual control elements:

- Manual dimming of the backlight
- Automatic dimming (via light sensors)
- Individual dimming (using the display buttons)
- Video source selection for screens with multiple video inputs

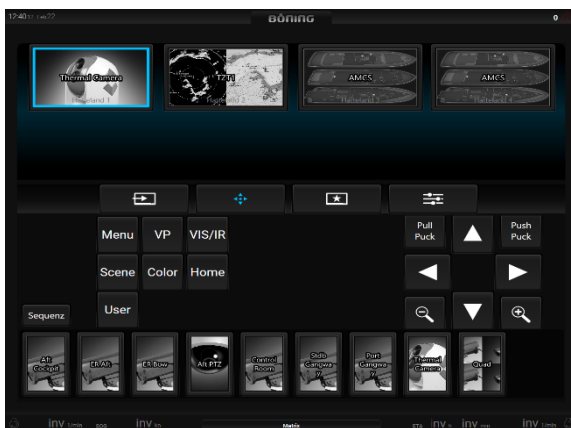


Virtual control via touchscreen



Control of all systems

- Video source selection
- Video destination selection
- Virtual CCTV control
- Virtual TZT control
- Virtual AMCS control
- Dimming settings
- Manual or automatic dimming
- Display ON/OFF



Virtual CCTV control

- Camera selection
- Individual controls depending on camera type



Virtual TZT control

- Individual control depending on the currently function page displayed

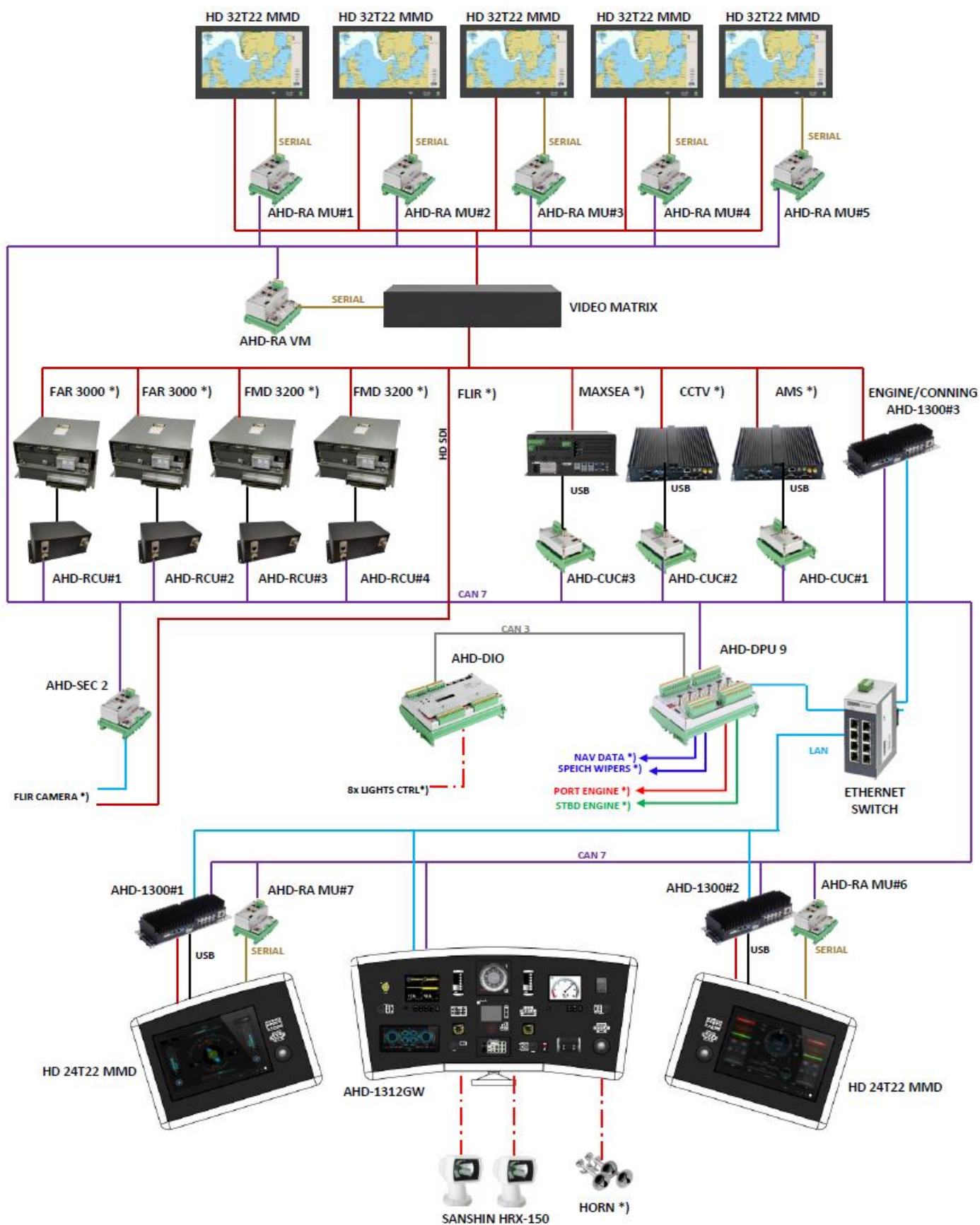


Virtual AMCS control

- Individual control depending on the measuring point displayed

MultiView Bridge Management - Application example

Example with 16 x 16 video matrix:





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