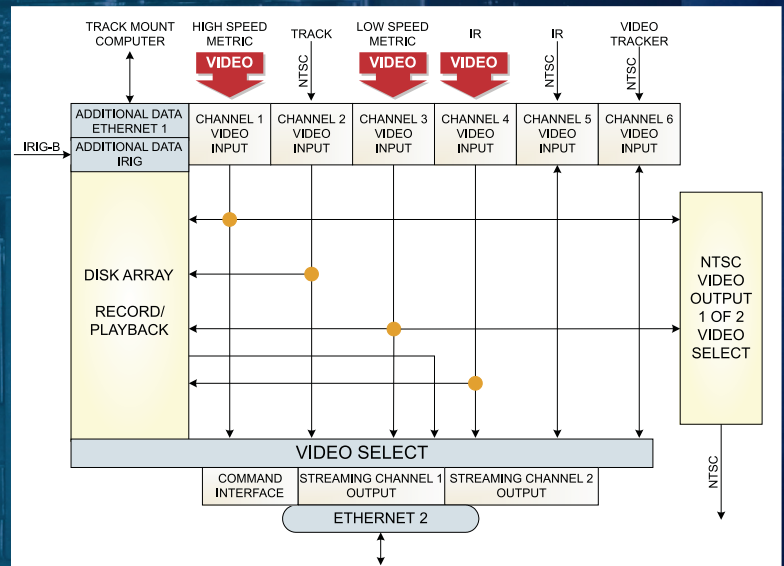


# INTEGRATED DATA AND DVR REDUCTION



The integrated DVR and Data Reduction station represents a total data capture, recording and reduction solution engineered by BAE Systems. This turn-key solution includes the total design and packaging responsibility from initial video capture and recording to display of the incoming video to archival of the video to final data reduction and data correction.

This integration is a total system solution including modifications of the system hardware and software to ensure a seamless and reliable solution.

The Digital Video Recorder station is a direct to Hard Drive recording system capable of recording up to four sensor inputs simultaneously. The DVR comes packaged with removable hard drives enabling the recorded images to be archived and easily transported to the Data Reduction station. The DVR contains the following support:

- Capture and recording of up to 30 minutes of NTSC analog video from the Track Camera.
- Capture and recording of up to 30 minutes of Hot Link Video from the IR camera.
- Capture and recording of up to 30 minutes of 30fps of Metric 1 digital video or 30 minutes of high speed (510 fps) data.
- Capture and recording of up to 30 minutes of 30fps of Metric 2 digital video.
- GPS time synchronization of all cameras.
- Control of the digital Metric 1 and 2 cameras
- Video streaming of any 2 available videos to the TSPI network for display on the consoles.

- Capture of the video tracker analog video for streaming.
- Capture, digitization, streaming and timetagging of 4 input channels of audio.
- Export of captured video as either an AVI with synchronized audio or video in the custom format for data reduction.
- Export of all of the captured video as a video library for archiving to a removable hard disk array for transport to the data reduction system.
- Playback of the captured video.

## KEY FEATURES

- Removable media from recorder to data reduction workstation
- Optimized format for data reduction
- Integrated calibration routines
- Calibration data set integrated with video frames

**BAE SYSTEMS**

INSPIRED WORK

## ABOUT US

At BAE Systems, Inc. in the United States, our employees design and deliver advanced defense, aerospace and security solutions that keep the nation at the forefront of modern technology. Our pride and dedication show in everything we do, from innovative electronic systems to intelligence analysis and cyber operations, from combat vehicles and weapons to the maintenance and modernization of ships, aircraft and critical infrastructure.

## FOR MORE INFORMATION

BAE Systems  
557 Mary Esther Cut-Off, NW  
Fort Walton Beach, FL 32548  
Telephone 850-664-1354  
Fax 850-664-1365  
www.esdradar.com  
esdinfo@baesystems.com

## TYPICAL SYSTEM CONFIGURATION



The Data Reduction station is a total turn-key data reduction solution integrated into the PLER TSPI data system. The solution includes software within the TSPI system and the DVR to generate the calibration data routines needed to assist the data reduction system in the production of a final data solution. This total turn key solution includes:

- Built-in calibration routines to generate the pre-mission images needed by the data reduction package.
- Built-in star calibration to generate system anomaly values for use by the data reduction package.
- A custom video format that includes a calibration block with the generated anomaly correction values.
- A custom video format that includes integrated time-tagged pedestal data and range data.
- A customized version of TrackEye® designed with the following customization:
  - Handling of a custom video format with integrated calibration data, pedestal data, time, range and video.
  - Post-mission refinement of skew and bias data correction
  - Data anomaly correction based on BAE Systems provided data correction algorithms.

Hardware is provided that accepts the removable hard drives for up to four OTM systems video library archives generated by their respective DVR. Software is provided allowing the data reduction personnel to open each archive and extract the relevant video from the archive and export it in the custom format for processing by TrackEye®. Provisions are also included to allow the video library to be archived to tape for long-term storage.

