

digitalimaging

Forward and ROW (Right of Way) Digital Image Data Collection

The International Cybernetics Corporation Digital Image Data Collection System provides the hardware and software required to collect high quality digital images of the roadway's right of way at highway speeds.

Digital Image Data Collection System

The Digital Image Data Collection System consists of a camera subsystem mounted outside the vehicle and an image capture subsystem mounted inside the vehicle. The image capture subsystem utilizes software operating under Windows 2000. The system receives commands to capture images from the ICC controlling MDR data collection computer and sends image catalog information back to the MDR computer to correlate with other data. The system also provides the ability to review the images on an LCD display while they are being captured or in an office with the ICC viewing software.

Camera Subsystem - The camera subsystem utilizes a digital camera mounted in a sealed enclosure containing a heater and fan. The enclosure is mounted on an optional Pan and Tilt unit controlled from within the vehicle. The subsystem including all cabling and connectors are designed to operate outside the vehicle at temperatures as low as 32 degrees F. The subsystem is designed to withstand shock, vibrations and the environmental elements required for a vehicle traveling up to 75 MPH. The minimum camera is a DVC 1310C digital progressive scan color camera 1300x1024 pixel resolution with interval rates of 25'.

Image Capture Subsystem - The Image Capture Subsystem contains a rugged computer system designed to operate within the vehicle environment at temperatures from 50 to 100 degrees F and non-operating from 32 to 140 degrees F.

The subsystem is designed to mount inside a vehicle and withstand shock, vibrations and the environmental elements inside the vehicle while traveling up to 75 MPH. The subsystem operates from 115VAC requiring less than 300 Watts. The unit utilizes Pentium IV 1.7 GHz Computers with 512 MB of memory. The images are captured on a high-speed 24-bit color PCI imaging PCB and displayed on 15" active matrix flat panel display. The subsystem contains a fixed 80 GB hard disk for the Windows operating system and software plus two 80 GB removable hard disks for data storage. A 3.5" floppy disk, CD-ROM reader/writer, keyboard and mouse are provided for software loading and data preparation.



ICC Imaging Van with Forward and ROW Area Cameras and Downward Linescan with Lighting System



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The Image review software is provided to display data collected by the Digital Imaging System, scroll through images, and display corresponding data relative to image location if the GPS subsystem is used during data collection.

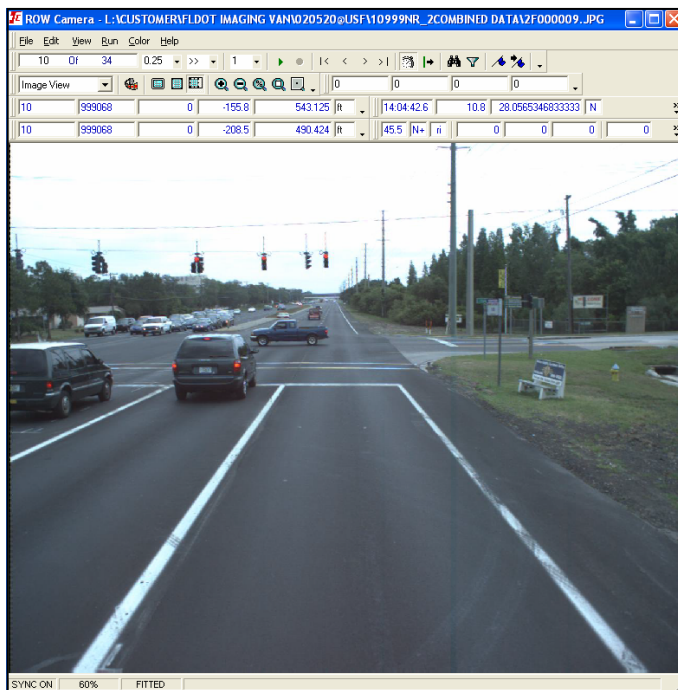
Specifications

- Digital progressive scan color CCD camera with a sensor resolution of 1300 x 1024 pixels, including lens mounted in a sealed enclosure with fan and heater to resist elements
- Optional Pan and Tilt mounting on vehicle roof or side with remote control
- Compressed digital JPEG images using on average 150 – 200 KB per image
- Selectable capture rate allowing one image per 25 feet (8 m) at speeds of 60 MPH (96 KPH)
- Rugged capture processor unit utilizing a Pentium IV 1.7 GHz PC with 512 MB RAM, 80 GB hard disk, and a CD-ROM reader/writer.
- A high-speed digital PCI bus video capture board
- Color images are compressed by the JPEG algorithm and stored on dual 80 GB removable hard drives. Selectable quality verses storage control.
- Interface control board, cabling and software for MDR control system
- Images displayed on a SVGA 15" diagonal LCD panel
- Image capture control software running under Windows 2000

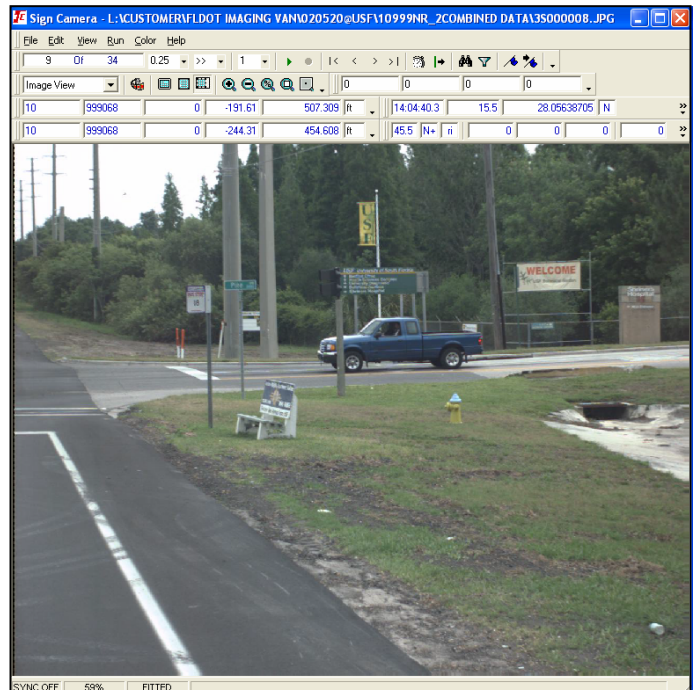
ROW and Forward Cameras



Forward Camera Sample



ROW Camera Sample



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