2013 NEPPP

Road Surveying Equipment and Data Collection Technology Overview

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Road Survey Data

- What is it?
- Why collect it?
- Who uses it?

What is it?

- Road survey data is composed of sensor data and images used to assess the condition of a road or network of roads

Why Collect It?

- Road survey data is used to maximize the efficiency of materials, manpower and resources within an agency to guarantee the safest and most cost effective means of road travel
- Road survey data collection is both a responsive and proactive means of maintaining a network of roads

Who Uses It?

- Road survey data is used by agencies to gather information about the location and condition of maintained roads

- This information is used to assess funding, planning, repairs, performance and future projects

Technology Overview

- Inertial Profiler
- GPS Data
- Road Geometry Data
- Surface Condition Analysis
- Sub-grade Road Condition Analysis
- Multi-sensor Reporting

Sophisticated Equipment

- Inertial Profile Measurement Equipment
- Macrotexture Measurement
- High Precision Gyrometric Measurement System with Integrated GPS Positioning
- Roadway Imaging System
- Automated Crack Detection and Rut Measurement With 3D Laser Imaging System

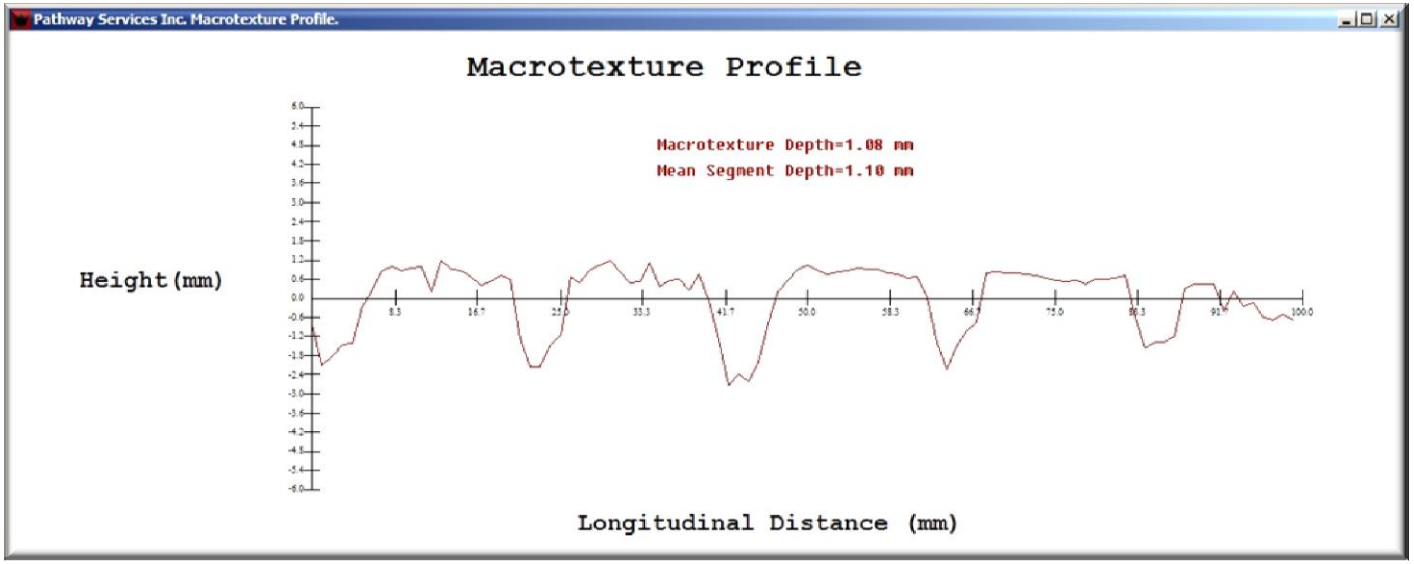
Inertial Profiler

Laser Mounted to Vehicle

Road Surface

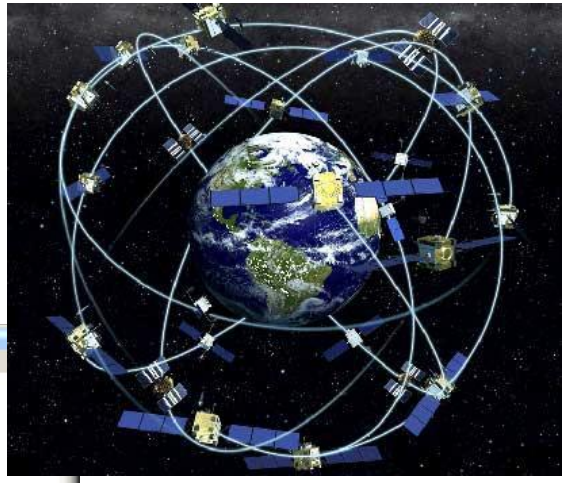
Macrotexture Measurement System

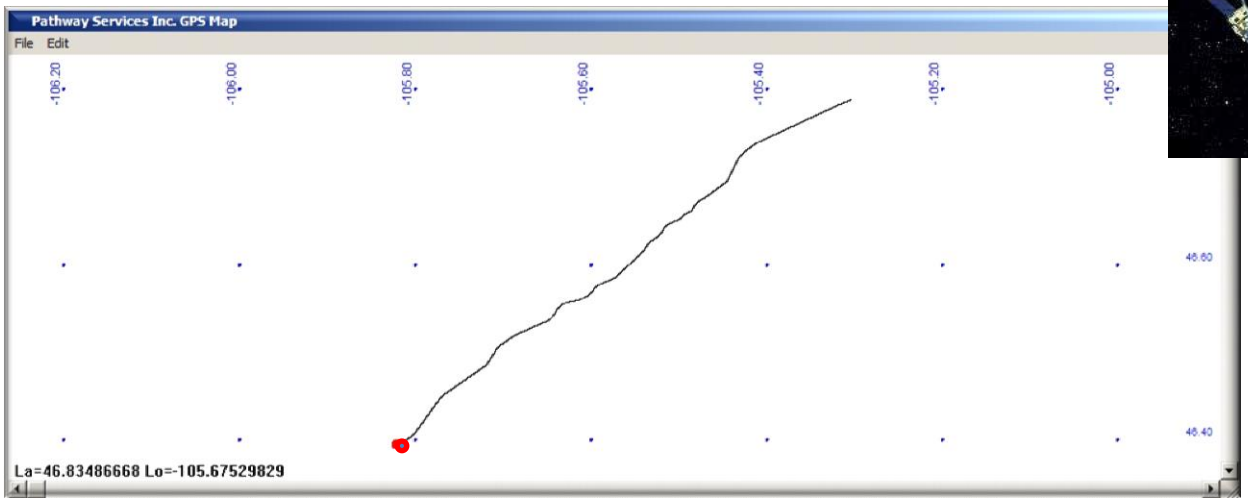
- Measure Mean Texture Depth (MTD) and Mean Profile Depth (MPD)
- ASTM E1845



Gyrometric Measurement System

- High Precision Measurement of Pitch, Roll, Cross-slope, and Heading
- Integrates GPS Location





Roadway Imaging System

- HD Imaging System

Roadway Imaging

Automated Crack Detection With 3D Imaging System

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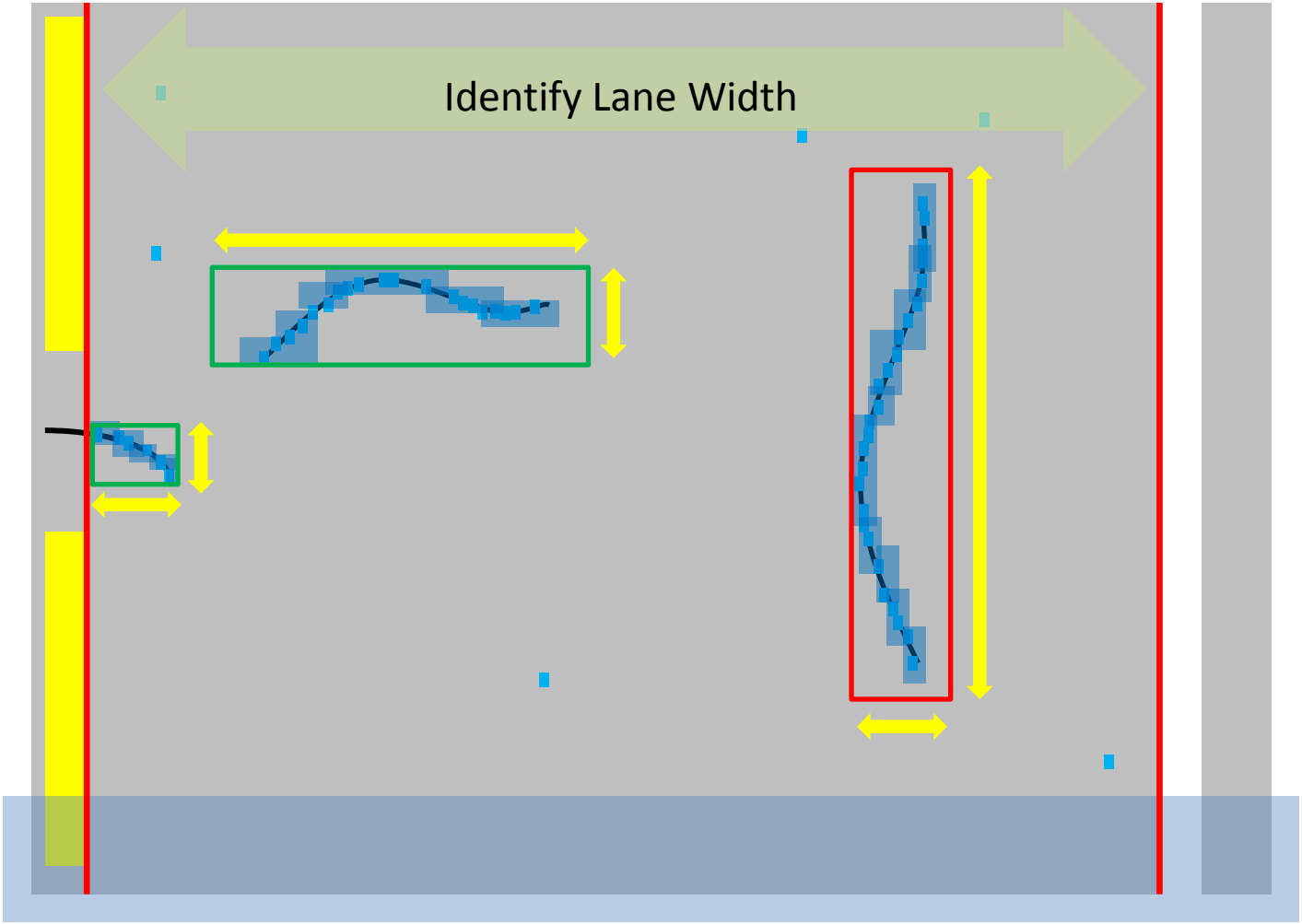
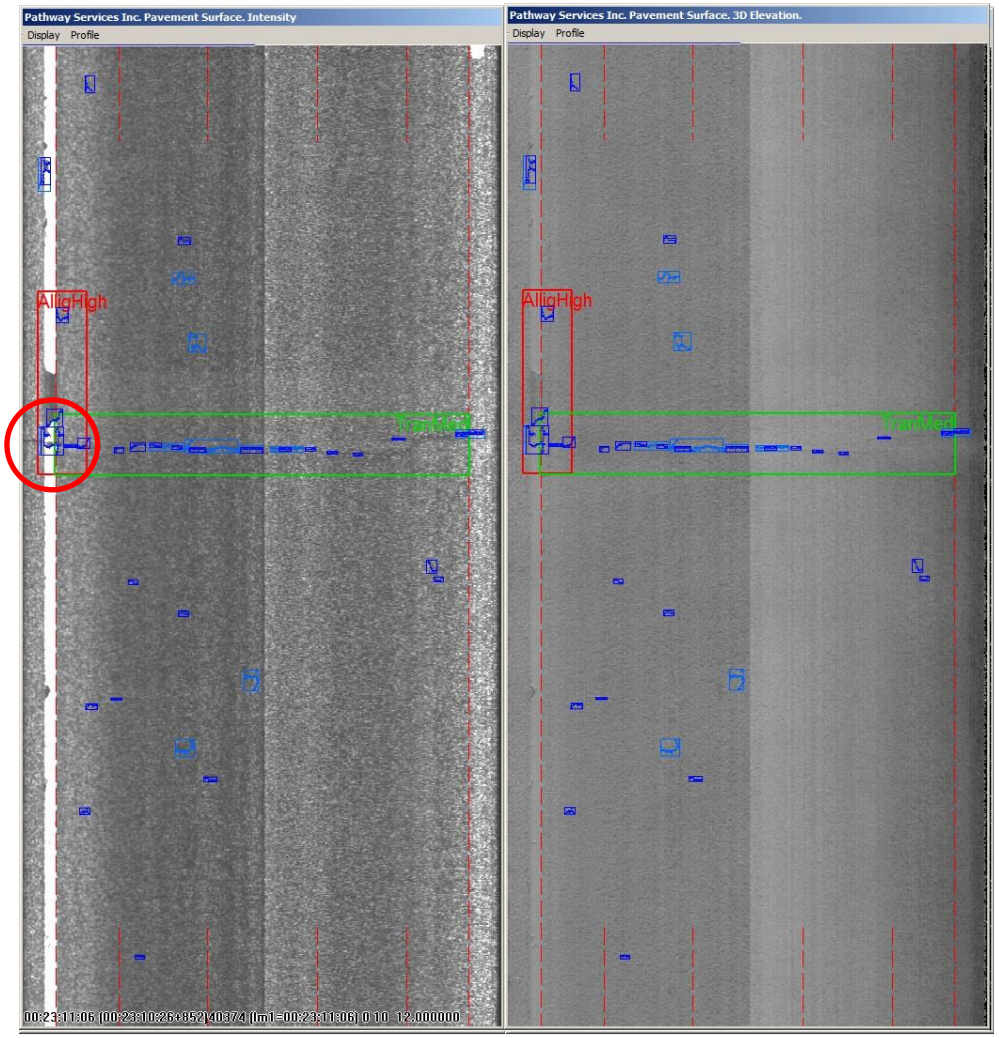
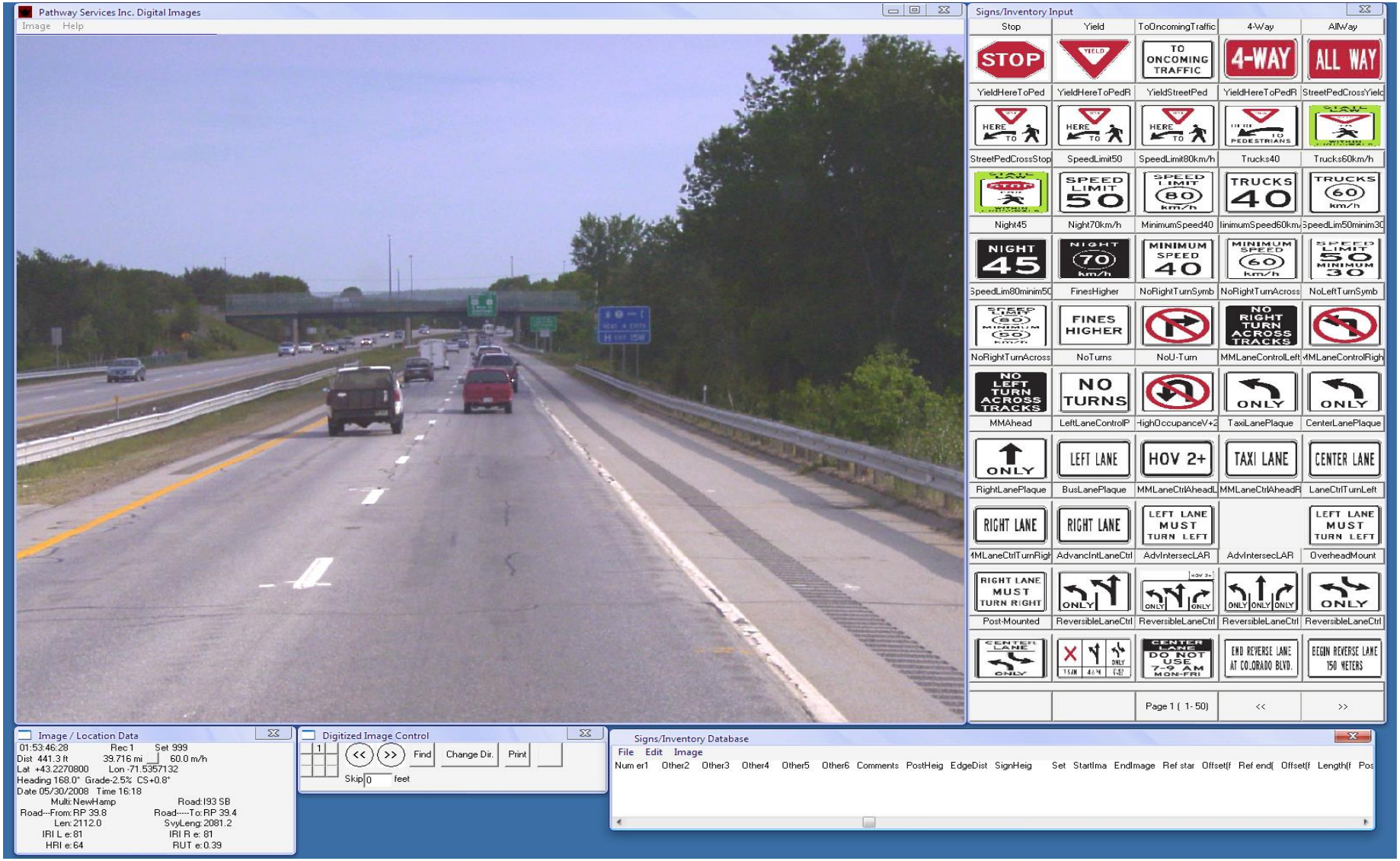
Automated Crack Detection With 3D Imaging System



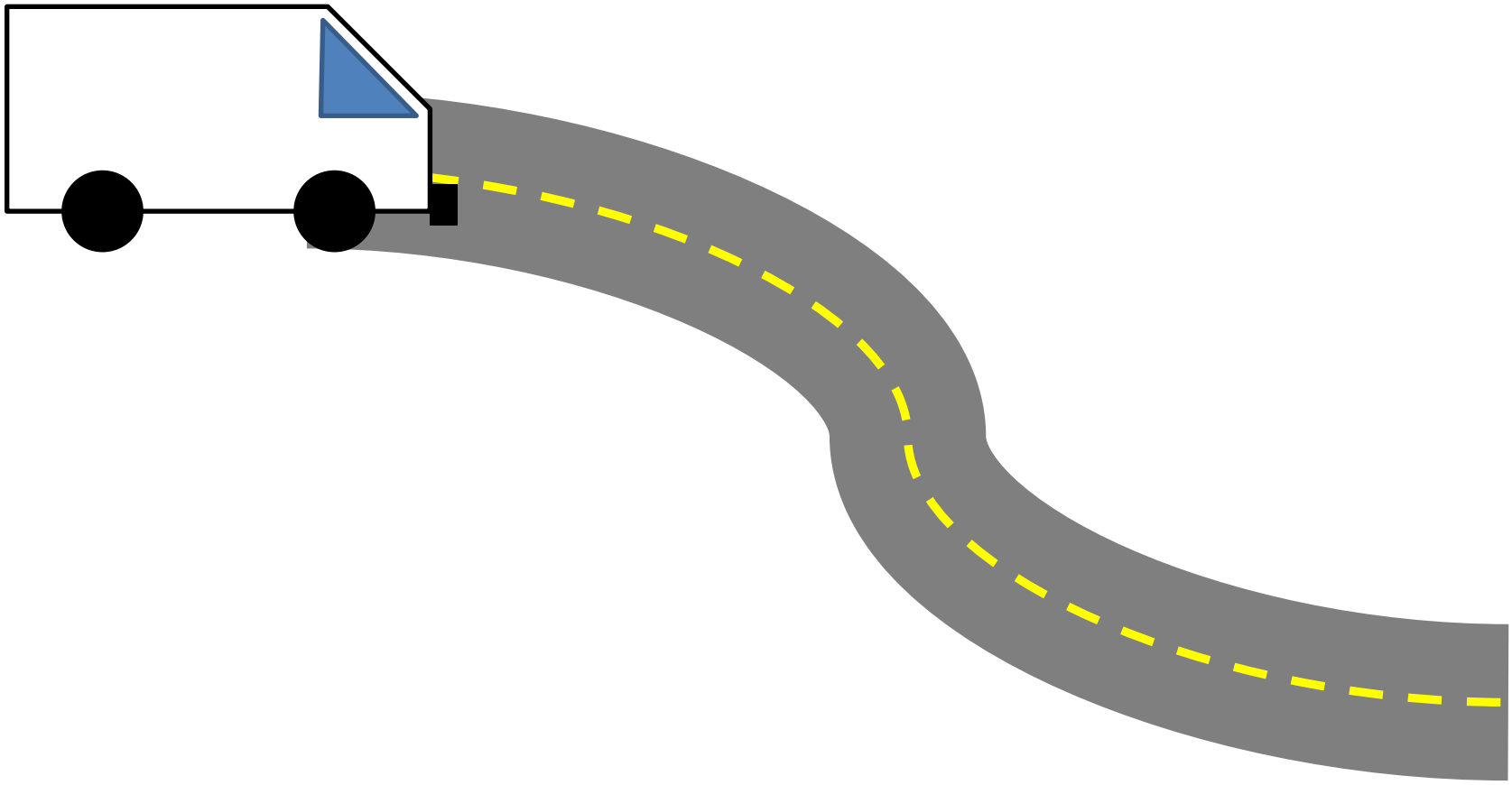
Automated Crack Detection With 3D Imaging System



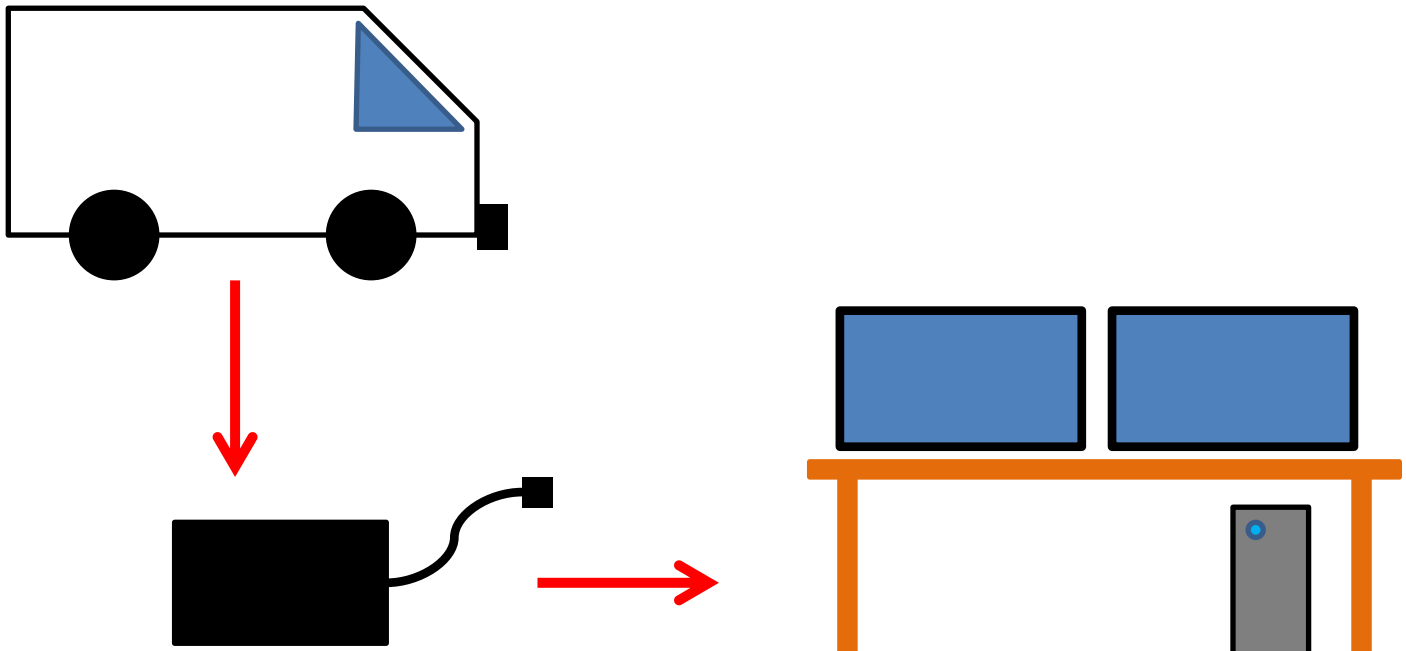
Asset Inventory



Data Collection



Data Transfer to Work Station



Process Data In Work Station

QUESTIONS?