Weigh In Motion Data Conversion and Analysis Tool (20130326, Dr. Taek Kwon)

Technology ID

20130326

Category

Express License
Engineering & Physical Sciences/Transportation
Software & IT/Algorithms
Software & IT/Data Mining
Software & IT/Databases
Software & IT/End User Software
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Weigh In Motion Freight Data Software

The BullConverter and Report software package is designed to convert, analyze, and report on Weigh in Motion (WIM) data. This software package includes:

- BullConverter – data conversion software developed for WIM data. WIM systems provide 24 hours of raw data that include axle weights, axle spacing, speed, and classification. BullConverter converts all types of binary data into one open standard format (ASCII and CSV).
- BullReporter – a data analysis and reporting tool that takes the converted data and generates easy-to-use and effective data analysis reports for WIM analysts. The reports are used for transportation asset management and forecasting.

Applications include freight analysis, traffic speed analysis and enforcement, weight violation analysis, traffic forecast, pavement design, pavement life forecast, asset management, permit system, and decision support system.

Freight Analysis Tools

The existing WIM data collection and analysis tools are only available from WIM system manufacturers who provide the hardware. Currently, these tools use proprietary binary formats which require propriety software to read and analyze the data, making the users dependent on the software provider. The data cannot be used with other vendors' software. BullConverter converts different types of binary formats into ASCII and CSV which are standard formats. This conversion allows uniform data analysis of the raw data produced by machines from different manufacturers. BullReporter decision support system produces sophisticated data analysis reports in different report formats (text, excel, pdf, graph) with customizable parameters from the data generated by different manufacturers.

BENEFITS OF BULLCONVERTER and BULLREPORTER

- Data is converted into ASCII and CSV which are standard formats
- The data format is not proprietary and can be used by any software vendor
- Customized reports can be created for the needs of individual transportation departments

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External Link (www.cts.umn.edu)