Release Notes for the IHSDM 2008 Public Release

This document lists major changes from the 2007 IHSDM public release (v. 4.00) to the 2008 public release (v. 5.0.0). This information is provided mainly for users of the 2007 release, rather than new users of IHSDM.

Summary of Changes to IHSDM Software (from 2007 Release to 2008 Release)

Significant improvements were made to the IHSDM software in the following areas:

- Evaluation Modules
- Output/Reporting
- Evaluation Process/Wizard
- Appearance/Graphical User Interface (GUI)
- Data
- Highway Editor
- Accessibility Mode
- Help/Documentation
- Administration Tool
Evaluation Modules

A fully-functioning beta version of a Driver/Vehicle Module (DVM) was added. The DVM is the first new Module added since the first IHSDM public release in 2003. The DVM simulates driving behavior and vehicle dynamics on a two-lane highway, providing predicted time histories of speed and other response variables, along with statistical measures of safety-related performance metrics, via a simulation of a single driver/vehicle combination.

Output/Reporting

Improvements to Output/Reporting include:

- A Report Template Editor was added to assist users in accessing and customizing Evaluation Reports. “System” (default) templates are provided for each evaluation type. Users can select and order result components to create customized templates for producing reports. The customized templates can be saved as desired by the user.
- An option to Create/View Evaluation Reports in different formats (HTML, PDF, RTF) was added via Evaluation Operations (Show Report).
- Diagnostic Spreadsheets are now accessible from the user interface (via Evaluation Operations > Show Spreadsheet) for the Crash Prediction, Design Consistency and Driver/Vehicle evaluations (Note: Crash Prediction spreadsheets are only generated when the “Debug” option is selected via Edit > Preferences > Data Display > Output Level > Debug). The new DVM also provides an option to create detailed output files.
- A “Bookmark” capability for Evaluation results was added. A “Bookmarks” folder on the IHSDM Navigation Tree serves as a container for Evaluation Results (from which Evaluation Reports, Graphs, Spreadsheets can be generated) that users wish to Bookmark for easy retrieval. This capability allows users to organize results from multiple projects in one location. Users can add names/titles, comments and descriptions to bookmarked reports. The bookmarked results, reports, graphs are retained when the underlying project/highway/intersection/evaluation is deleted.

Evaluation Process/Wizard

Changes to the Evaluation Process/Wizard include:

- The “Report and graph attributes” screen was removed from the Crash Prediction evaluation wizard. Users can now specify report contents via the Report Template Editor, and manipulate graphs via the Edit Interactive Graph Properties” dialog.
- “Set graph settings” screens were removed from the TAM evaluation wizard (users can manipulate graphs via the Edit Interactive Graph Properties” dialog).
• The option to “Bookmark on Run Completion” was added to the Evaluation Settings Summary screen for each evaluation type. (See “Output/Reporting”)
• A “Run” panel was integrated into the Evaluation Wizard for all evaluation types.
• Crash Prediction evaluation:
  o An error in calculating AMF 4 (Superelevation) for AASHTO 2004 English policy was fixed.
  o An error that allowed crash prediction evaluations with crash history data to be performed with only one year of data (rather than a minimum of 2 years) was fixed.

Appearance/Graphical User Interface (GUI)

Changes to the GUI include:

• Addition of an optional “Accessible” menu item (see “Accessibility Mode”)
• Access to the new Report Template Editor via Edit > Report Template Editor from the main menu
• The following Evaluation Operations items were added and/or modified:
  o Show Report
  o Show Graphs
  o Show Spreadsheet
  o Bookmark

Data

Data-related changes include the following:

• A lane assignment option during import of LandXML data was added.
• An error in importing vertical alignment data in LandXML format from GEOPAK v8.9.5 was fixed.

Highway Editor

Changes to the Highway Editor include:

• A Driver/Vehicle Data view was added for a total of 7 views of data (“All Data,” plus views of data for each evaluation type)

Accessibility Mode

An Accessibility Mode is now available to users with such needs. When the user installs IHSDM, an option is provided to include the Accessibility package. An “Accessible” menu option is then added to the main IHSDM menu bar, which allows the user to switch the focus between the different IHSDM interface components (Menu Bar, Navigation Tree, Button Panel, Desktop, Message Box) without requiring use of a mouse.
**Help/Documentation**

Improvements to Help/documentation include:

- The documentation was updated to reflect the 2008 release, including extensive documentation related to the new Driver/Vehicle Module (e.g., DVM Engineers Manual).
- The Tutorial was updated, including the addition of a Driver/Vehicle Module lesson.

**Administration Tool**

Changes to the Administration Tool include:

- A Driver/Vehicle Module Configuration Data Sets panel was added to the Administration Tool Graphical User Interface (GUI).