JOINT TRANSPORTATION RESEARCH PROGRAM

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SNIP Light User Manual

Introduction

A systemic approach to identifying road locations that exhibit safety problems was provided by the Safety Needs Identification Program (SNIP and SNIP2) developed by the Purdue University Center for Road Safety (CRS). To date, this tool has been implemented by INDOT for routine system-wide screening of public roads network for sites that exhibit excessively high risk of severe crashes. However, the framework of this software tool has the potential to provide other uses with planning level traffic safety analysis capability for a wider range of uses. For example, several Metropolitan Planning Agencies (MPOs) have expressed interest in using the SNIP2 for planning cost-effective safety programs in their metropolitan areas. This required modifications and improvements of the SNIP2 version to create SNIP Light.

Improvements

- Reduced demand of computing and data storage resources. SNIP2-incorporated SQL server database system is replaced with an integrated module coded in-house which is considerably faster than the original component.
- Certain proficiency required to install SNIP2. Removing the SQL component dramatically simplified the installation process.
- Management of input and output files by the end user. The complex set of windows and multiple operations on files are replaced with a single-window interface and file operations executed by user are eliminated.
- SNIP2 complexity of use has been simplified by the new and intuitive user interface that does not require a prescribed-order of operations. Some operations, such as optimizer of funding safety projects are removed to further simplify use of the tool.
- Implementation

The SNIP Light is computer software developed with close collaboration of INDOT users. It includes an updated crash and state road database. A user's manual describes the necessary details of the software and various aspects of its use. Example studies are also included in the manual to illustrate its use and to better presents the SNIP Light features.

The Center for Road Safety will be involved in all the SNIP Light implementation by providing requested help, collecting the users' feedback, and implementing the recommendations.

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