

Table Navigator Software Manual

Version 1.2

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Long-Term Pavement Performance
Serving your needs for durable pavements

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Introduction

The LTPP Information Management System (IMS) is the central database for data collected as part of the long-term pavement performance (LTPP) program. The Table Navigator software was developed to provide users of the LTPP IMS a fast and easy means of navigating the complex table and record structure of the database. The program combines the contents of the Database Schema, Data Dictionary, and Codes List into a searchable database. Table Navigator simplifies the search for locations of specific data elements within the IMS. It also enables the user to find definitions for codes stored in the database. These capabilities make the program a valuable tool for users of LTPP data who are not intimately familiar with the structure of the IMS.

Table Navigator is coded in the Visual Basic 6.0 programming language for use with Windows based operating environments.

Program Installation

Table Navigator is a stand-alone program that incorporates a self-contained database of the names and descriptions of all tables, records and codes within the LTPP IMS. To install the software simply double click the setup.exe file located within the Table Navigator directory on the CD-ROM. The installation procedure provides a reminder to close any currently running applications, then will give the option of installing in the default C:\Program Files\Table Navigator directory or in one chosen by the operator. A Table Navigator shortcut will be placed within the Table Navigator program group created under the Windows start menu. Running this shortcut or double clicking the executable file within the directory chosen earlier will start the software.

Operating Systems

Table Navigator was developed for the Windows environment and has been tested successfully under Windows 95, Windows 2000 and Windows NT. It has not been tested and is not supported with any other operating system.

Getting Started

The Table Navigator has three major functions: Sort, Search and Export. These functions are accessed through a control interface at the bottom of the screen that operates in exactly the same way whether one is working with a table, field or code list.

To begin, click the Table Navigator icon within the Table Navigator program group. A screen similar to the one in Figure 1 will be displayed. The screen is divided into two parts. The top contains a data grid with columns for Module, Table Name, File Extension and Table Description. There is a separate record for each table within the IMS. The bottom portion of the screen contains a control panel for sorting the records within the

data grid, for searching any of the record fields and for exporting selected records to an external text file.

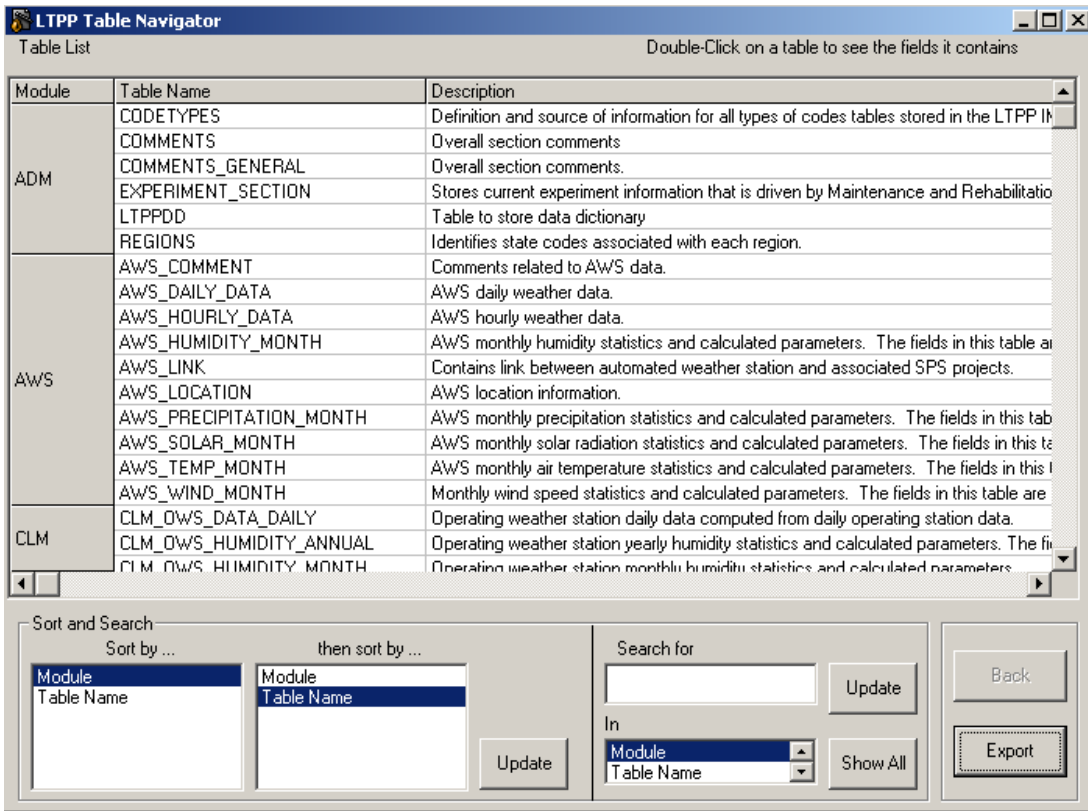


Figure 1 - Table Navigator – Table List Screen

The user may use the vertical scroll bar on the right side of the screen to browse through the entire list of modules and tables to find specific records. Alternatively, this action may be performed using the sort and search features.

Sorting and Searching Records

By default, Table List records are sorted primarily by Module and secondarily by Table Name. Normally this is the most useful order but the Sort function allows the user to customize the order. To do this, simply highlight the desired primary sort field in the list box at the bottom left labeled ‘Sort by...’. Then highlight the desired secondary sort field in the list box labeled ‘then sort by...’ and click the ‘Update’ button. The data grid will re-sort itself according to the order specified in the sort boxes. The records may be re-sorted as many times as desired.

Alternatively, the user may select a subset of records to display within the data grid by using the search function. Searching can be done within any of the four fields. Type an alphanumeric sequence within the text box labeled ‘Search for’. Then highlight the field

to be searched within the list box labeled ‘In’. Clicking the ‘Update’ button to the left of the search box will eliminate all records from the data grid except those that contain the requested sequence within the highlighted field. This search feature is not case sensitive. Figure 2 shows the screen as it appears after a search for ‘mon’ within the ‘Module’ field is performed.

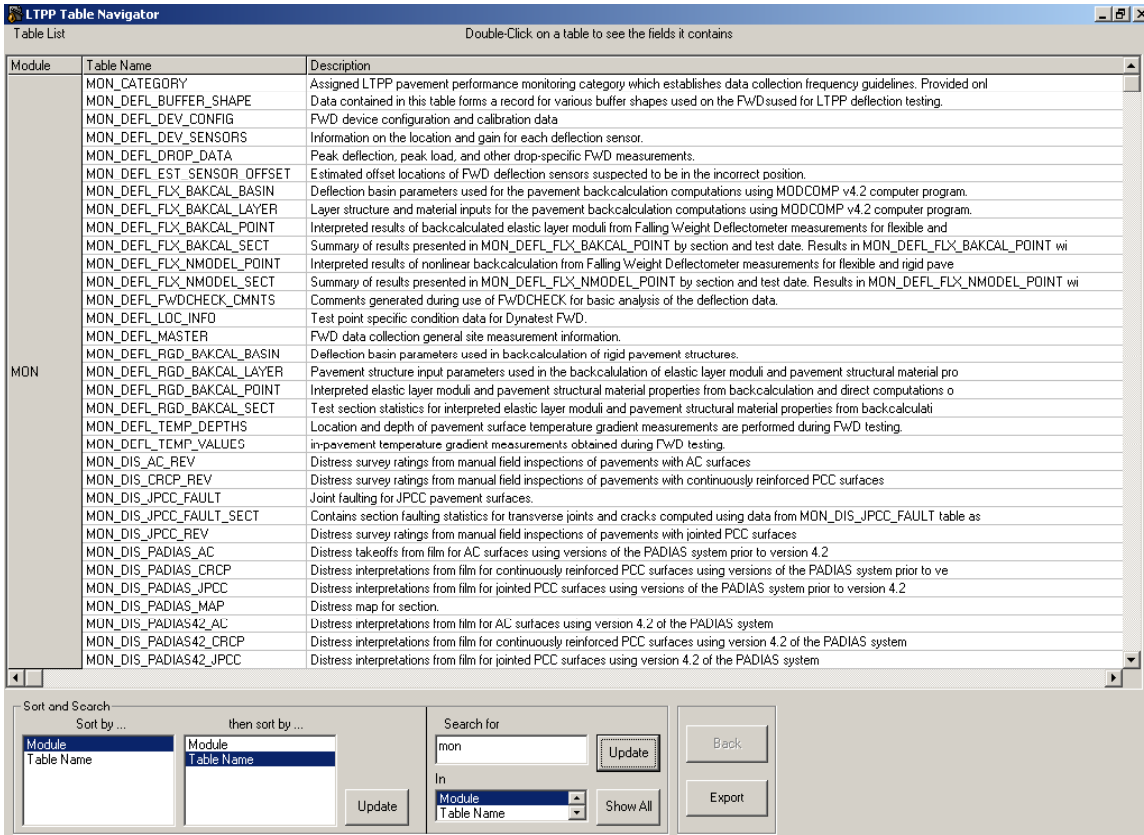


Figure 2 - Table Navigator Following a Search Procedure

To restore the complete list of records, click the ‘Show All’ button.

Exporting Records

One can export the contents of the data grid to a text or HTML file. This is typically done following a search procedure to limit the number of exported records to those of interest. To create such a file, click the ‘Export’ button to view the report option screen shown in Figure 3. Choose the desired file format by clicking the appropriate option button.

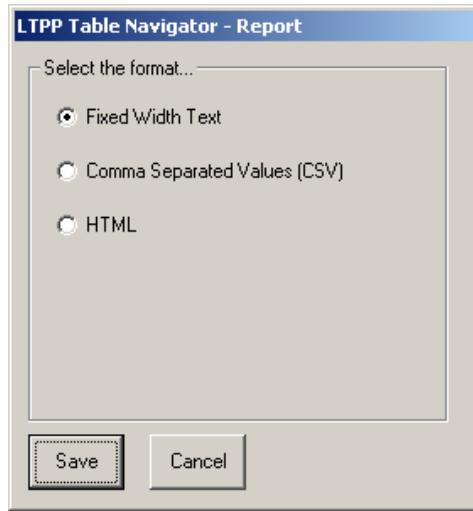


Figure 3 - Export File Format Specification

Pressing ‘Save’ will generate the file. The user will be requested to provide a filename and location. Figure 4 shows an example of exported data from the Table List screen, after undergoing a search procedure to limit the records to those with ‘clm’ within the Table Name field. The chosen file format was Comma Separated Values (CSV).

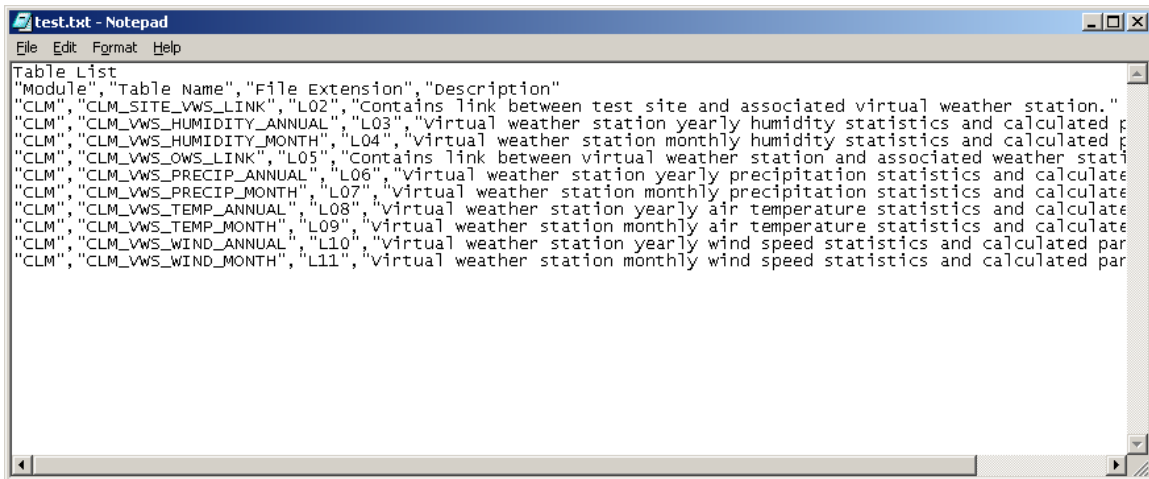


Figure 4 - Text File Generated with Table Navigator’s Export Function

The Field List and Code List Screens

To move from the Table List to the Field List screen, simply double-click on the desired table name in the data grid. A new screen will appear a list of fields within the selected table. The newly generated data grid has columns for Field Name, Code Type, Data Type, Units, QA Range, Protocol and Description. There is a separate record for each field within the table. The search, sort and export functions work for this screen exactly the same as for the Table List screen. Figure 5 shows the Filed List screen for the INV_AGGR_COMP table.

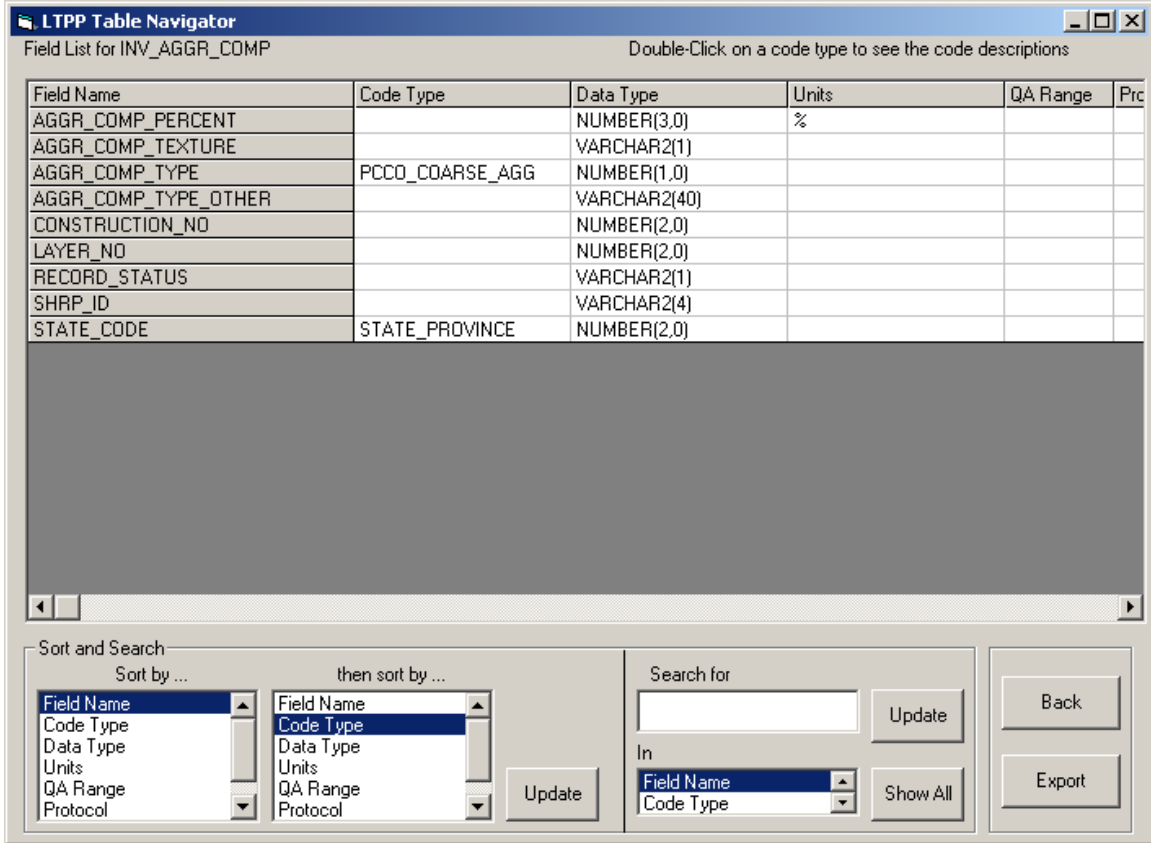


Figure 5 – Field List Screen for INV_AGGR_COMP Table

For those fields that have an entry in the Code Type column, the user may display the code description table by double clicking on the desired field. For instance, double-clicking on the ‘AGGR_COMP_TYPE’ field brings up a new screen with Code, Description and Additional Code fields. As before, the sort, search and export functions work with the Code List screen data in the standard procedure.

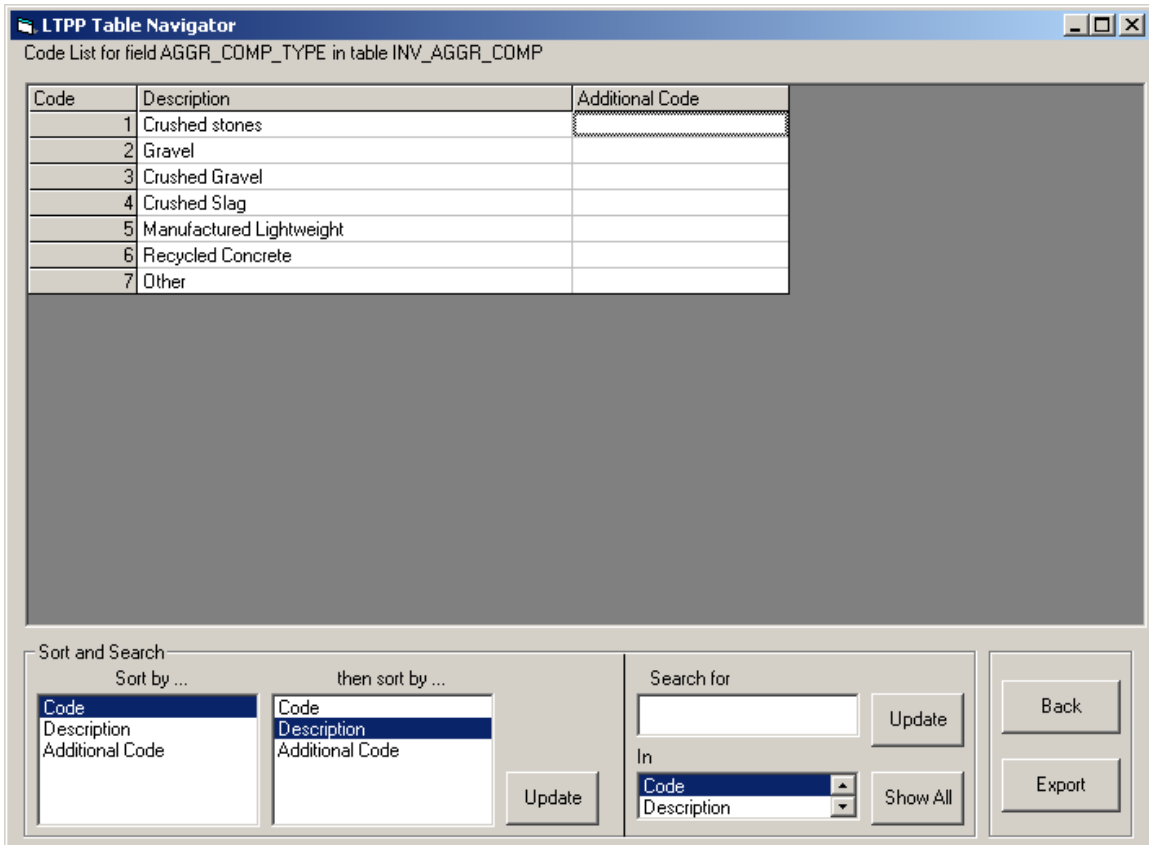


Figure 6 – Code List Screen for the AGGR_COMP_TYPE Field

Future Updates

Updates to the Table Navigator will be distributed to reflect changes in the IMS as necessary.

Technical Support

For technical support, please contact LTPP by e-mail at ltpinfo@fhwa.dot.gov.