Memorandum

U.S. Department
Of Transportation

6300 Georgetown Pike
McLean, Virginia 22101

**Federal Highway
Administration**

Subject: **ACTION**: LTPP Directive TDP-44
Release of LTPP Traffic Analysis Software Version 1.6.2

Date: April 5, 2007

From: Deborah Walker
Long Term Pavement Performance Team

Reply to
Attn of: HRDI-13

To: Dr. Frank Meyer, PM - LTPP North Atlantic Regional Contract
Dr. Frank Meyer, PM - LTPP North Central Regional Contract
Mr. Mark Gardner, PM - LTPP Southern Regional Contract
Mr. Kevin Senn, PM - LTPP Western Regional Contract

Attached is the Long Term Pavement Performance (LTPP) Program Directive TDP-44. This directive addresses the executable and supporting table updates made to the LTPP Traffic Analysis Software (LTAS) since the release of version 1.6.1. Installation instructions are included in Attachment 1. Installation of the updated software shall be completed by Friday, April 20, 2007 and full implementation of version 1.6.2 shall begin Monday, April 23, 2007. Please ensure that all personnel involved with the Traffic Program are aware of this new directive.

Should you have any questions or would like to discuss this directive, please do not hesitate to contact me at 202-493-3068.

Attachments (3)

FHWA:HRDI-13:DWalker:mdeeney:493-3068:04/05/07
File: c:/mdeeney/directive/traffic/tdp44dir.doc
cc:
Gonzalo Rada
Debbie Walker
Directive Binder
LTPP Team
Official file
Chron

LONG-TERM PAVEMENT PERFORMANCE PROGRAM DIRECTIVE

For the Technical Direction of the LTPP Program

Program Area:	Traffic	**Directive Number:**	TDP-44
Date:	April 6, 2007	**Supersedes:**	TDP-42
Subject:	*Release of LTPP Traffic Analysis Software Version 1.6.2*		

Purpose

The purpose of this directive is to authorize the release of version 1.6.2 of the LTPP Traffic Analysis Software (LTAS) for the LTPP Regional Support Contractors (RSCs) to begin using. Installation of the updated software shall be completed by Friday, April 20, 2007 and full implementation of version 1.6.2 shall begin Monday, April 23, 2007. This directive discusses the executable and supporting table updates made to LTAS. It also includes a list of all changes made to the software since the release of version 1.6.1.

Changes

This release addresses reporting of errors, Software Performance Reports (SPRs), miscellaneous items, and database modifications (see Attachment 2 – List of Changes).

Distribution and Installation of Updated Software

The updated software and scripts are posted on the LTPP file transfer protocol (FTP) site for download until Tuesday, April 17, 2007. These files are located in LTAS_1_6_2. Installation of this software and table corrections to permit processing with the traffic data analysis software shall be completed by Friday, April 20, 2007. Copies of the software needed after April 17, 2007 must be requested through the LTPP Customer Support Service Center.

The table in Attachment 1 "Installing LTAS Version 1.6.2" lists the steps for installing the new release of the traffic analysis software. The installation information is also included with the software distribution.

Manual Revisions

Changes made to the LTAS documentation are in *Volume 1 – Users' Guide* and *Volume 3 – ORACLE Table Specifications, Appendix B – Codes Listing*.

Volume 1 – Users' Guide was updated to add hyperlinks to report samples for the electronic version (of the guide) and to include an expanded discussion of the data supporting the graphs. The Section 508 materials are now complete so Volume 1 is no longer in draft format. For *Volume 3 – ORACLE Table Specifications*, *Appendix B – Codes Listing* was updated to include the new codes for purges and the code for the LTPP classification algorithm used at the traffic data collection pooled-fund study sites.

No other changes were made to the LTAS documentation. The updated LTAS documentation is posted on the LTPP FTP site for download until Tuesday, April 17, 2007. Copies of the documentation needed after this date must be requested through the LTPP Customer Support Service Center.

Questions or Issues
Questions concerning this directive should be addressed to the FHWA LTPP program office. If there are problems implementing this directive, please submit a Software Performance Report (SPR) according to the guidelines in TDP-40.

Prepared by: TSSC   Approved by:

Aramis López, Jr.
Team Leader, LTPP Operations

ATTACHMENT 1

The following table lists the steps for installing version 1.6.2 of the LTPP Traffic Analysis Software (LTAS).

Installing LTAS Version 1.6.2

Step	Action
1	Execute the script (as the DBA for the traffic instance) to update the STAT_QC_BC_SPACE table for spacings that defaulted to bin 25. *sqlplus useraname/usepwd@trfprod @SPR3679_UpdateSpaceBins.sql*
2	Review the SPR3679_UpdateSpaceBins.lst file to verify that the script completed successfully.
3	Execute the script (as the DBA for the traffic instance) to update the codes in the TRAFFIC_CODES table. *sqlplus dbaname/dbapwd@trfprod @Traffic_Codes_Update_1_6_2.sql*
4	Review the Traffic_Codes_Update_1_6_2.lst file to verify that the script completed successfully.
5	Replace the analysis.exe on the server using the updated analysis.exe located in the zip file Analysis_1_6_2.zip.

ATTACHMENT 2
List of Changes

Software Functionality – Analysis.exe
- ♦ No changes were made.

SPRs Addressed
- ♦ *SPR M-3679T, Part 1*. Corrected the binning for the BC axle spacing. The conversion from dm to 0.1ft was creating values outside the min and max values for any bin. These values were falling into bin 25 by default. The script SPR3679_UpdateSpaceBins.sql is included to correct data previously loaded.
- ♦ *SPR M-3687T*. Created script Traffic_Codes_Update_1_6_2.sql to add TRF_SENSOR codes, a CLASS_SCHEME code and new purge codes (TRF_ORA_ERR). Updated LTAS to process and display additional codes. Updated QC and reporting modules to allow new values.
- ♦ *SPR M-3688T*. Updated default selections on several Agency Graph types.
- ♦ *SPR S-3696T (4-505T)*. Modified LTAS to select SHRP_INFO record by start_date rather than by year, only. **The user should not process files from the same site and year that use different SHRP_INFO records.**
- ♦ *SPR S-3697T (3-893T)*. Reformatted the Load Processing Report to include a new column named Restricted Records to indicate how many records are not loaded due to the LTPP_LN_ONLY flag. This **does not** count records that are updated with the LTPP LN and DIR and loaded. The count **does** include continuation records. A footnote at the bottom of the report explains the record count in the new column. A record is written to the TRAFFIC_PROCESS_LOG to indicate the number of restricted records per input file. Other minor reformatting was done to clarify the counts in other columns. Also corrected the problem with non-LTPP lane records of type 1 being written to the LW file when the LTPP_LN_ONLY flag was set to Y.
- ♦ *SPR M-3701T*. Added code 7 (LTPP Algorithm) to CLASS_SCHEME code_type in the TRAFFIC_CODES table (updated Traffic_Codes_Update_1_6_2.sql file). Updated QC and reporting on SITE_EQUIPMENT_INFO table to allow code 7 in the CLASS_SCHEME field.
- ♦ *SPR M-3731T*. Added separate error message for W-card when columns 10 & 11 have an error. Corrected the list of processed sites by calling the addStateSHRP routine at the end where only loaded files are counted.
- ♦ *SPR M-3733T*. The Total Records column in the Load Processing Report is now called Total Lines. Total Lines includes invalid, valid, 2-card/S-card, and continuation records plus blank lines.
- ♦ *SPR M-3734T*. Updated the Load Files by filename functionality to cross check the first character of the filename with the contents (data type) of the file. Daily Summaries functionality was also modified to check the first character of the filename with the first character of the first non-2/S card record.
- ♦ *SPR M-3735T*. Added STAT_QC tables and related informational messages to the Daily QC Report.
- ♦ *SPR M-3736T*. Updated software to handle unmatched continuation cards correctly; separate processes are required for handling unmatched 1's and unmatched 9's.
- ♦ *SPR M-3740T*. Changed LTAS to only do the total volume check if SHRP_INFO is not set to ignore columns past 89.

Miscellaneous Items

- Modified QC reporting as follows:
  - Added a label at the top of the Daily QC Report indicating the state, shrp_id, and year included in QC processing.
  - Updated QC for STAT_QC_GVW_9_DD to be based on class 9 records from the DD_GVW table.
  - Updated the QC on STAT_QC_A_AX_9_DD table to be based on class 9 records from the DD_AX table.
  - Moved reporting from the Daily QC process to occur after all QC updates are completed to ensure consistency in record counts.
  - Added message to Detail Report for DD_GVW table for records at C and/or D due to corresponding record in DD_AX being at C or D.
  - Modified the Daily QC Report to be clearer and more consistent.
- Modified QCAdmin reporting as follows:
  - Updated the QCAdmin Report to handle null end_dates correctly.
  - Changed the update statements for level D and level E
  - Changed the level D report output.
- Detected problem in SITE_EQUIPMENT_INFO-E-101. Records with START_DATE = END_DATE were not being reported. Corrected this problem and updated the error message text.
- Updated entries to the TRAFFIC_PROCESS_LOG where incorrect information was being included.
- Corrected Daily Summaries processing of 2/S-card records. These records were going into the error tables. However, they did not show up in the Error Summary Report in an obvious place (only in totals) because the month field was greater than 12.
- Updated population of ERR_CL to calculate volumes for all hours of each day with errors detected during loading.

Database Modifications

- Provided script (SPR3679_UpdateSpaceBins) to update data in STAT_QC_BC_SPACE to correct the binning for the BC spaces that fell into bin 25 (default bin).