Memorandum

U.S. Department
Of Transportation

Federal Highway
Administration

6300 Georgetown Pike
McLean, Virginia 22101

Subject: **ACTION**: LTPP Directive TDP-48
Release of LTPP Traffic Analysis Software Version 1.7

Date: June 16, 2008

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-48. This directive discusses the Quality Control and Summary Report formatting made to the LTPP Traffic Analysis Software (LTAS) since the release of version 1.6.3. Installation instructions are included in Attachment 1. Installation of the updated software shall be completed by Friday, June 20, 2008 and full implementation of version 1.7 shall begin Monday, June 23, 2008.

In addition to the software release, an updated copy of *Volume 1 – Users' Guide* is provided. Appendices A (SPS Graphs), B (Agency Graphs), and F (STAT_QC Graphs) of *Volume 2 – Graphics* are being updated and will be provided Monday, June 30, 2008.

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:mad:493-3068:6/16/08
File: c:/mdeeney/directives/traffic/tdp48dir.doc
cc:
Jonathan Groeger
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-48
Date:	June 16, 2008	**Supersedes:**	TDP-47
Subject:	*Release of LTPP Traffic Analysis Software Version 1.7*		

Purpose
The purpose of this directive is to authorize the release of version 1.7 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, June 20, 2008 and full implementation of version 1.7 shall begin Monday, June 23, 2008. This directive discusses the Quality Control and Summary Report formatting made to LTAS. It also includes a list of all changes made to the software since the release of version 1.6.3.

Changes
This release includes the following changes:
- Set end date to December 31, 2050
- Added new method for calculating axle estimates for small amounts of weight data
- Enhanced functionality for Purge and Record Status Update modules
- Updated SPS Summary, and Sheets 7 and 10 (Traffic and IMS) reports
- Added new graphs

In addition to these changes, other Software Performance Report (SPR) issues were addressed (see Attachment 2 – List of Changes).

Distribution and Installation of Updated Software
The updated software is posted on the LTPP file transfer protocol (FTP) site in the LTAS_1_7 folder for download until Friday, June 20, 2008. Copies of the software needed after this date must be requested through the LTPP Customer Support Service Center.

The table, "Installing LTAS Version 1.7" in Attachment 1 lists the steps for installing the new release of the traffic analysis software. The installation information is also included with the software distribution.
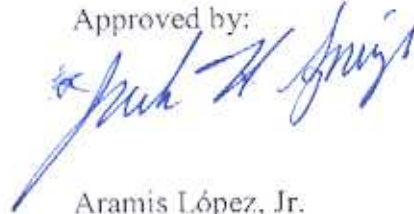
Manual Revisions
Changes made to *Volume 1 – Users' Guide* are included with the latest version of LTAS. *Appendices A (SPS-Graphs), B (Agency Graphs), and F (STAT_QC Graphs) of Volume 2 – Graphics,* are being updated and will be available Monday, June 30, 2008 and posted on the LTPP FTP site until Monday, July 7, 2008. Copies of Volumes 1 and 2 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 according to the guidelines in TDP-40.

Prepared by: FHWA/TSSC

Approved by:

Aramis López, Jr.
Team Leader, LTPP Operations

ATTACHMENT 1

The following table lists the steps for installing version 1.7 of the LTPP Traffic Analysis
Software (LTAS).

Installing LTAS Version 1.7

Step	Action
1	Create a temporary directory.
2	Unzip the Analysis_1_7.zip file in the temporary directory created in Step 1.
3	Replace the analysis.exe on the server using the updated analysis.exe located in the zip file Analysis_1_7.zip.

ATTACHMENT 2
List of Changes

Software Functionality – Analysis.exe

SPRs Addressed:

♦ *SPR 3-3788T*. Updated Detailed QC report to indicate when data in DD_GVW is reset to level C due to data in DD_AX that failed level D QC.

♦ *SPR S-3790T (4-507T)*. Resolved by region – Data problem.

♦ *SPR S-3808T (4-508T)*. Sequence CHANGE_ID was not defined for Western Region – most likely a remnant of their upgrade to Oracle 10g. A script to create the sequence was sent to WRO. Once the sequence was defined, the record_status update worked.

♦ *SPR M-3676T*. Updated SPS Summary Report to show all class and weight comparison dates with correct breaks and labeling. Also, added additional report cases.

♦ *SPR M-3691T*. Updated Agency 4-card vs. 7-card, year-by-date graph to scale the y-axes the same for all graphs in the selection criteria. So, for all sections, dates, lanes, etc., the maximum value on the y-axes for all the graphs will be the same which will make the graphs comparable.

♦ *SPR M-3692T*. Updated Record Status Changes module to allow downgrades to record status. Removed "All" options to avoid blanket downgrades.

♦ *SPR M-3693T*. Activated the following eight graphs in the graphing module:
   1. Agency 4-card vs. 7-card Years by Day of Week. Same as year by day of week but same y-axis scale over all years in the selection interval.
   2. Agency Vehicle distribution Years by Month (avg.). Same as Year by month (avg.) but same y-axis scale over all years in the selection interval.
   3. Agency Vehicle distribution Month by day of week (%). Same as Month by day of week (avg.) but numeric.
   4. 13-bin 4-card vs. 7-card Years by Day of week. Same as Agency 4-card vs. 7-card Years by day of week but from MM_tables with differentiation by trf_data_type rather than separate DD tables.
   5. 13-bin Vehicle distribution Years by Month (avg.). Same as Agency Vehicle distribution Years by Month (avg.) but from MM_tables with differentiation by trf_data_type rather than separate DD tables.
   6. 13-bin Vehicle distribution Month by day of week (%). Same as Agency Vehicle distribution Month by day of week (%) but from MM_tables with differentiation by trf_data_type rather than separate DD tables.
   7. STAT_QC multi-year (7 graphs). The difference between the multi-year and the yearly is that the multi-year has to have the same y-axis scaling across all years. The yearly are single page graphs and scaled differently for each year.
   8. STAT_QC, Monthly, A-axle Weight

♦ *SPR M-3705T*. Updated programmer's documentation to include error reporting views, changes in ERR_WT loading process, and change in End Year to 2050.

♦ *SPR M-3755T*. In the SPS GVW graphs, the computations are the same for the DD_GVW as for the COMP_GVW. There is a note in the code that if any of the tables are inconsistent, the values in the graph will not make sense and adjustments are made to avoid strange values.

- *SPR M-3770T*. Updated Sheet 7 report was to show conversion entries for all sites over time.
- *SPR M-3771T*. Updated Load Files functionality to count and reject empty files and then move on to the next file. The filename will be listed on the processing report but will not appear in the TRAFFIC_PROCESS_LOG table.
- *SPR M-3809T*. Modified Purges functionality to allow applied purges to be removed. Added new button ("Remove Applied Purge") to the Purge Detail screen. The existing button was renamed "Remove Pending Purge."
- *SPR M-3812T*. Changed End Date to 12/31/2050 throughout LTAS software and data loading modules. End Date is now a variable and can be changed more easily, if necessary.
- *SPR M-3814T*. Updated method for calculating axle estimates to be more accurate for small numbers of trucks, axles, or days of weight data.
- *SPR M-3815T*. Updated Sheet 10 (Traffic and IMS) report to include sections with no data in TRF_MON_EST_ESAL or TRF_MONITOR_LTPP_LANE.
- *SPR M-3817T*. Corrected AgencySPS_47_YearByDate to ignore data for non-existent days.
- *SPR M-3825T*. Corrected Agency Annual Cover Sheet Report to report record level errors correctly and to print blank class-9 GVW statistics for months with no weight data.
- *SPR S-3702T*. Updated Monthly Statistics Report to display a report for each month and data type that has data in either the daily count tables or the error tables.