



U.S. Department
Of Transportation

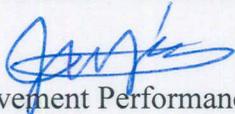
**Federal Highway
Administration**

Memorandum

6300 Georgetown Pike
McLean, Virginia 22101

Subject: **ACTION:** LTPP Directive IMS-146
IMS Software Release Version 2010.01

Date: February 2, 2010

From: Jane Jiang 
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 IMS-146: IMS Software Release Version 2010.01. This directive authorizes implementation of the IMS software upgrade from version 2009.07 to 2010.01. Please ensure that all personnel 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 202-493-3149.

Attachments (3)

FHWA:HRDI-13:JJiang:mdeeney:493-3149:2/02/10

File: c:/mdeeney/directive/ims/IMS-146dir.doc

cc:

Jonathan Groeger
Directive Binder
LTPP Team
Official file
Chron



LONG TERM PAVEMENT PERFORMANCE PROGRAM DIRECTIVE



For the Technical Direction of the LTPP Program

Program Area: IMS

Directive Number: I-146

Date: January 22, 2010

Supersedes: I-145

Subject: IMS Software Release Version 2010.01

This directive authorizes implementation of the IMS software upgrade from version 2009.07 to 2010.01. Upgrade instructions are provided in Attachment 1. Please notify the FHWA and TSSC when the upgrade has been installed.

Software Change Notice 105, contained in the file, SCN_105.pdf, lists all of the changes made to the IMS software since the last software release. This notice shall be filed in the Operator's Log.

This software update contains new TST_ESTAR* tables and EstarQC and a new structure for the TST_PC03 table. It also contains updates to two PGBinder tables and updated TST QC programs. Data for the new tables as well as DR24 data for the frozen data modules (SPS, INV) is also included. The Software Change Notice lists these and other miscellaneous changes.

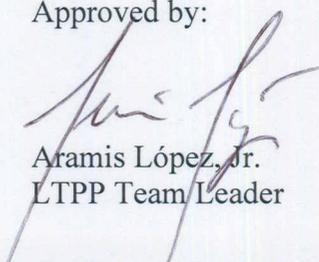
The software update for Version 2010.01 is distributed in a master zip file, SoftwareRelease201001.zip, and a separate zip file for each region called VR2010_01_Data_Region#.zip. These files may be downloaded from the VR2010_01 directory on the ltp.org ftp site.

The following files are contained in the master file:

- VR2010_01.ZIP – A zip file with the batch file (VR2010_01.BAT) and scripts needed to make miscellaneous updates to the database and to run other related administrative commands. Refer to the table included in Attachment 1 for an alphabetic list and descriptions of the scripts called by this batch file.
- LTPP.ZIP - A zip file with all files to go in the LTPP area (and subdirectories) on the server.
- OracleVersions.ZIP – A zip file with listings of all Oracle files and versions loaded on the server at the central site. These are included for reference only.

Prepared by: TSSC

Approved by:


Aramis López, Jr.
LTPP Team Leader

Attachment 1

Instructions to Apply VR 2010.01 Release

1. Create the subdirectory RELEASES\VR2010_01.
2. Copy and unzip the VR2010_01.zip file into the subdirectory created in step 1.
3. Shutdown ORACLE in normal mode and backup Server.
4. Bring ORACLE up.
5. Unzip the data import file for your region into the release area created in step 1: VR2010_01_Data_Region#, where # is the number of your region.
6. Verify that step 5 has been completed and that there are 5 dmp files for your region in the release directory. From the DOS prompt in the RELEASES\VR2010_01 directory, regions type:

```
VR2010_01 dbusername/dbapassword@instance #
```

where # is the number of your region. The batch file will run the scripts listed alphabetically in Table 1, below.

7. The scripts create new tables, update existing tables and update codes and data. **Check carefully that the scripts completed successfully by reviewing the *.lis files (refer to list, below) and import log files.** Ignore errors about dropping non-existent objects and about updating records in other regions.
8. Copy the LTPP.ZIP file into the LTPP subdirectory. Right-click on the filename and choose "Extract to Here" to unzip the file into the LTPP subdirectory. Answer "Yes to all" to overwrite existing files. Delete the LTPP.ZIP file.
9. The OracleVersions.zip file is included for reference only. Extract these files into the OracleVersions directory. It will create an OracleVersions\VR201001 subdirectory.

Table 1. Scripts run from the VR2010_01.bat file

Script and Output Filenames (.sql & .lis)	Description
ADD_SURVEY_WIDTHS	Data update from DR24 – updates SURVEY_WIDTH fields in Padias42 tables. NOTE: this script updates records in all regions; expect to see some failures in the output file.
List_TSTWithoutBasicInfoMatch	Creates a list of records in the TST tables that do not have a matching sample in TST_SAMPLE_BASIC_INFO. These orphans were created primarily when long field sets were split and related data records were not updated correctly. NOTE: This script shows records at all record status levels and can be used at any time to identify records without matches in TST_SAMPLE_BASIC_INFO.
PROF_DIPSTICK_FIXES	Data update from DR24 – updates various fields in the MON_PROFILE_MASTER table, such as software version.
Reset_TSTWithoutBasicInfoMatch	Sets the RECORD_STATUS of records identified with the select (List) script to 'D', where the RECORD_STATUS = 'E'. The number of records updated will not necessarily match the number of records listed in the select script, but the output can be compared and is useful for verification.
SPR3868CreateESTARTables	Creates the new TST_ESTAR tables; data will be imported into these tables after all scripts have run successfully.
SPR3871UpdateTstPC03	Recreates the TST_PC03 table with a new structure; new data will be imported after all scripts have run successfully.
SPR3872AlterTST_AE07-08_MASTER	This script updates the PG_HIGH_TEMP and PG_LOW_TEMP fields to be nullable to allow records without temps to be entered. Level C checks were added to the TST QC to check for existence of these values.
SPR3879LabCodes	Creates a new lab code (3711) for Trimat Materials Testing, Inc., in Raleigh, NC.
T_PROF_REPEAT_POINT_FIX	Data update from DR24 – Updates T_Prof data for 1 record in Missouri; will run in NCRO only
TSSC-98_99_100_FIX_SCRIPTS#	Data update from DR24 – Updates distress data in each region; # = 1-4.
VR2010_01TruncateFrozenAndCPTables	Truncates tables in frozen data modules (INV, SPS) and in several Computed Parameter tables; DR24 data will be reloaded after all scripts have run successfully.
VR2010_01TruncateMEPDGTables	Truncates TRF_MEPDG tables; DR24 data will be reloaded after all scripts have run successfully.

Software Change Notice 105

REG #	SAIC #	Program Name	Referred To	Date Rec	Date Comp
Administrative					
1-3879	3879	Lab Code		1/20/2010	1/20/2010
Description			Resolution		
New lab code (3711) requested for Trimat Materials Testing, Inc. in Raleigh, NC.			Created new lab code. SPR3879LabCodes.sql		
Database Administration					
S-3875	3875	SECTMANT dba utility		10/9/2009	10/13/2009
Description			Resolution		
The section maintenance utility can update section id's throughout the database. It can also delete a section from the entire database. However, it is currently not deleting records from the TST_L05B table, though it appears that it should.			Corrected code to process deletions from TST_L05B as intended. Sectmant.exe		
Update the section maintenance program to delete records from the TST_L05B table.					
Estar					
M-3868	3868	E* Tables		7/9/2009	8/4/2009
Description			Resolution		
This memorandum contains the schema and QC specifications necessary to add a variety of new TST tables to house the newly developed dynamic modulus (E*) computed parameter data. Nine new tables are included. These tables contain the inputs used by the developed Artificial Neural Network (ANN) models as well as the outputs those models created. The tables are all tied together with a simple key field – ESTAR_LINK, which should allow for more efficient data storage and handling, as well as QC			Completed Estar development except for statements to set back related records in checks TST_ESTAR_MODULUS-E-103, 104. See SPR 3874 for this work. SPR3868CreateESTARTables.sql, EstarQC.exe, ESTAR#.zip (data import)		

REG #	SAIC #	Program Name	Referred To	Date Rec	Date Comp
M-3874	3874	Estar QC Program		7/9/2009	10/19/2009
Description		Resolution			
Incorporate statements to set back related records in checks TST_ESTAR_MODULUS-E-103, 104.		Added code to reset records related to records that fail checks TST_ESTAR_MODULUS-E-103, 104. EstarQC.exe			
Will use scripts in the meantime to set related records back.					
Materials Testing					
4-3869	3869	TST_QC		7/30/2009	10/5/2009
Description		Resolution			
Table TST_SS12 is not completing the level E QC process. Four records in this table (3 from WRO) are not progressing to level E.		Added call to TSTSS12E in MAIN. TSTSS12E module was complete - just not being called. TST_E.exe			
M-3871	3871	TST_PC03 table		9/11/2009	9/29/2009
Description		Resolution			
Remove several fields from the TST_PC03 table, add several fields, update QC checks and CODES. New data is also provided and must be loaded.		Completed changes to TST_PC03 table and related changes to CODES, CODETYPES, and LTPPDD with script SPR3871UpdateTstPC03.sql. Updated TST QC programs to recognize new table structure. SPR 3873 opened due to additional changes required in TST_E.pc program.			
S-3873	3873	TST_E QC Program		9/29/2009	10/5/2009
Description		Resolution			
Cursor records with duplicate key fields were not flagged for missing matching record in TST_SAMPLE_BASIC_INFO.		Completed changes to TST_E.pc. List and reset affected records with List_TSTWithoutBasicInfoMatch.sql and reset_TSTWithoutBasicInfoMatch.sql.			
S-3878	3878	TST_D QC		10/15/2009	10/15/2009
Description		Resolution			
Remove level D check on TST_PC03.FIELD_SET. Currently, only values 1 - 10 are allowed.		Removed level D check on field_set. TST_D.exe			

REG #	SAIC #	Program Name	Referred To	Date Rec	Date Comp
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PG Binder

1-147 3872 PGBinder Entry Forms

MACTEC

9/30/2009

10/15/2009

Description

We received PG Binder lab results on samples taken during the Forensic study done on section 360801.

This section contains conventional AC and is not a PG graded Asphalt.

The Forms in RIMS require a PG grade in order to enter data into the IMS.

The PG_HIGH_TEMP and PG_LOW_TEMP fields are set as NOT NULL and thus the form does not allow entry of any data unless this field is entered.

We request the removal of the NOT NULL constraint on the following forms:

TST_AE07_MASTER
TST_AE08_MASTER

Resolution

Removed non-null constraints on TST_AE08/AE07_MASTER.PG_HIGH_TEMP and PG_LOW_TEMP. Updated PGBinderQC and related forms as necessary. Added level C QC checks to these fields/tables. SPR3872AlterTST_AE07-08_MASTER.sql, PGBinderQC.exe, TST_AE07.fmx, TST_AE08.fmx

Record Count Utility

S-3870 3870 REC_CNT Utility

8/6/2009

9/10/2009

Description

New TST_ESTAR tables will not work with the REC_CNT program since STATE_CODE and SHRP_ID are not in each table. Modify utility to process these new tables.

Resolution

REC_CNT updated to process ESTAR tables as well as new drainage tables. Only a portion of the program had been updated to work with the new drainage tables. Rec_cnt.exe