



Memorandum

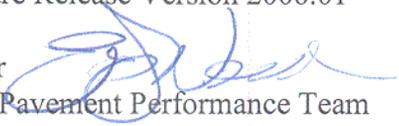
U.S. Department
of Transportation

6300 Georgetown Pike
McLean, Virginia 22101

**Federal Highway
Administration**

Subject: **ACTION**: LTPP Directive I-127
IMS Software Release Version 2006.01

Date: February 7, 2006

From: Eric Weaver 
Long Term Pavement Performance Team

Reply to
Attn of: HRDI-13

To: Dr. Frank Meyer, PM - LTPP North Atlantic and 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 I-127, which authorizes implementation of the IMS software upgrade from version 2005.07 to 2006.01. Upgrade instructions are provided in attachment 1. Please notify the FHWA and TSSC when the upgrade has been installed.

Please make this directive available to all personnel involved in data and processing.

If you have any questions concerning this transmittal, please do not hesitate to call me at (202) 493-3153.

Attachments (3)

FHWA:HRDI-13:EWeaver:mad:493-3153:2/07/06

File: c:\mdeeney\directives\IMS\I-127.doc

cc:

Gonzalo Rada (TSSC)

Aramis López

Jack Springer

Directive File

Official File

Chron



LONG TERM PAVEMENT PERFORMANCE PROGRAM DIRECTIVE



For the Technical Direction of the LTPP Program

Program Area: IMS

Directive Number: I-127

Date: February 7, 2006

Supersedes: I-126

Subject: IMS Software Release Version 2006.01

This directive authorizes implementation of the IMS software upgrade from version 2005.07 to 2006.01. Upgrade instructions are provided in attachment 1. Please notify the FHWA and TSSC when the upgrade has been installed.

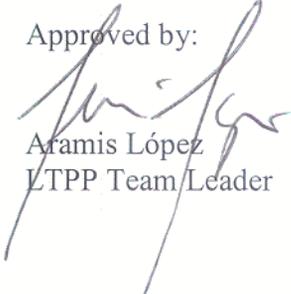
Software change notice 94, contained in the attached file, SCN_94.pdf, lists all of the changes made to the IMS software since the last software release. This notice shall be filed in the Operator's Log. This release includes resolutions to several SPRs. In addition, three tables to store results from the Dynamic Cone Penetrometer (DCP) test have been added to the TST module, TST_SS14_UG14_MASTER, TST_SS14_UG14_DATA, TST_SS14_UG14_COMMENT, and a data entry form has been provided (SS14). The mouse function has been disabled on the entry form for consistency and to save programming time. All DCP data must be converted to the April 2005 version of Lab Data Sheet T72. All calculations should be completed on the forms and the data verified for appropriateness and accuracy prior to data entry.

Version 2006.01 of the IMS software will be distributed via e-mail to each region. The files included in the password protected zip file are:

- VR2006_01.ZIP – A zip file with the batch file (VR2006_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
LTPP Team Leader

Attachment 1

Instructions to Apply VR 2006.01 Release

1. Create the subdirectory RELEASES\VR2006_01 (the directory RELEASES should already exist).
2. Copy and unzip the VR2006_01.zip file into the subdirectory created in step 1.
3. Shutdown ORACLE in normal mode and backup Server.
4. Bring ORACLE up.
5. One of the scripts will add constraints and a database trigger to the TRF_EQUIPMENT_MASTER, TRF_CALIBRATION_AVC, and TRF_CALIBRATION_WIM tables. However, if there are orphans in the TRF_CALIBRATION tables, this script will not complete successfully. To create a list of orphans that need to be corrected, run the following script from a DOS prompt:

```
Sqlplus dbusername/dbapassword@instance @ListOrphanTRFRecords
```

Once the script has run, correct any orphan records listed in the ListOrphanTRFRecords.lis file before continuing with step 6. Note: The WIM_AVC_CALIB_DATE field seems to be the cause of the orphans. Repeat step 5 until no orphan records are identified.

6. From a DOS prompt in the RELEASES\VR2006_01 directory, type

```
VR2006_01 dbusername/dbapassword@instance
```

to begin the software update. This batch file will run the scripts listed alphabetically in table 1, below.

7. The scripts make some table changes. Check that the scripts completed successfully by reviewing the *.lis files (refer to list, below). Look specifically at the SPR3662FindOrphanTRFRecords.lis and SPR3662CreateTRFConstraints.lis files to be certain that the constraints and db trigger were created successfully. Ignore errors about dropping non-existent objects.
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\VR200601 subdirectory.

Table 1. Scripts run from the VR2006_01.bat file

Script and Output Filenames (.sql & .lis)	Description
SPR3622LTPPDD	Updates the size of field TST_AE08_DATA.STIFF_PCT_DIFF in the Data Dictionary.
SPR3649LTPPDD	Updates units in data dictionary for TST_TB02.MAX_LOAD from psi to lbs.
SPR3660And3651Codes	Corrects various code list entries.
SPR3662CreateTRFConstraints	Creates foreign key constraints on the TRF_CALIBRATION_WIM and TRF_CALIBRATION_AVC tables.
SPR3662FindOrphanTRFRecords	Looks for orphan records in TRF_CALIBRATION_* tables and, if it doesn't find any, calls SPR3662CreateTRFConstraints.
SPR3665CreateDCPTables	Creates the TST_SS14_UG14_* tables which will contain the Dynamic Cone Penetrometer (DCP) data from protocol P72.
SPR3666LTPPDD	Correct units in data dictionary for TST_AC07_V2_MR_SUM.INST_MR_POISSON_CALC_CYCLE_3.

Attachment 2

Software Change Notice 94

REG #	SAIC #	Program Name	Referred To	Date Rec	Date Comp
Administrative					
M-3651	3651	CODES		8/11/2005	9/30/2005
Description			Resolution		
<p>I noticed that the descriptions under the DETAIL field in the CODES table for the MAT_TYPE code_TYPE are not complete for some of the codes. The words asphalt bound were left out of the descriptions for the following codes:</p> <p>Code DETAIL</p> <p>28 Asphalt bound, dense graded, hot laid, central plant mix</p> <p>29 Asphalt bound, dense graded, cold laid, central plant mix</p> <p>30 Asphalt bound, dense graded, cold laid, mixed in-place</p> <p>31 Asphalt bound, open graded, hot laid, central plant mix</p> <p>32 Asphalt bound, open graded. cold laid, central plant mix</p> <p>33 Asphalt bound, open graded, cold laid, mixed in-place</p> <p>Please make this correction in the codes table</p>			<p>Updated the codes table.</p>		
M-3666	3666	LTPPDD		11/9/2005	1/27/2006
Description			Resolution		
<p>The units for this field is shown as 0.05 – 0.75. The units for this field should be null. This looks like the old QC range for the field.</p> <p>Correction should be made in 2006 data release.</p>			<p>Created SPR3666LTPPDD.sql to update units.</p>		

REG #	SAIC #	Program Name	Referred To	Date Rec	Date Comp
S-3649	3649	Data Dictionary		1/28/2005	1/27/2006
Description			Resolution		
Change units on TST_TB02.MAX_LOAD to lbs from psi.			Created SPR3649.sql to update units.		
S-3660	3660	Codes Table	MACTEC	8/18/2005	9/30/2005
Description			Resolution		
Correct entries in various code lists as follows:			Updated the CODES table.		
New descriptions for 55, 56 and 60 in the limerock series:					
55	Limerock materials				
56	Coquina				
57	Shell				
58	Marl				
59	Caliche				
60	Other limerock materials				
Also, remove "\" in the following codes:					
CODETYPE = GEOL_CLASS, CODE=57					
CODETYPE = MATERIAL, CODE=261					
CODETYPE = MATERIAL, CODE=285					
Data					
S-3650	3650	Data Updates for Release 20.0		8/10/2005	10/5/2005
Description			Resolution		
Run all data correction/update scripts on the PPDB as directed by TSSC Engineering Staff to prepare data for Public Data Release 20.0. New exports will be tracked and applied at the same time.			Completed all changes to version 20 data per LTPP Engineering Staff.		

REG #	SAIC #	Program Name	Referred To	Date Rec	Date Comp
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Dynamic Cone Penetrometer

M-3665	3665	DCP Tables		10/27/2005	1/27/2006
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Description

Original IMS specifications for three new TST tables: TST_SS14_UG14_MASTER, TST_SS14_UG14_DATA, and TST_SS14_UG14_COMMENTS. These tables contain Dynamic Cone Penetrometer (DCP) testing results which are collected on laboratory datasheet T72 as part of the P72 protocol.

Resolution

Created script 3665CreateDCPTables.sql to create tables, LTPPDD entries, db triggers, constraints, etc. Form TST_SS14_UG14 was also created. TST_*.exe programs were all updated to include QC for these three tables.

Falling Weight Deflectometer

4-498	3634	FILTER.PDDXLoad		7/14/2005	7/15/2005
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Description

Data collected with FWD van 061 delivers the following error when attempting to filter into the database:

Unable to load "W:\FILTER\FWD\LINDA\537409E3.DDX" due to the following error at line 58.
ORA-00001: unique constraint (SHRP.PK_MON_DEFL_DEV_CONFIG) violated.

Data collected with FWD van 131 filters successfully.

Resolution

Changed the logic for assigning the configuration numbers in ProcessMonDeflDevConfig().

Manual Distress

4-493	3632	MON.DIS.04B		6/30/2005	7/6/2005
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Description

After entering data into the "Other" field on Distress Sheet 4, the record runs the wording together between line 1 and line 2.

Resolution

Form updated. Regions should review existing comments and correct spacing where necessary.

4-496	3639	MON.DIS.01B		7/11/2005	7/14/2005
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Description

Resolution

REG #	SAIC #	Program Name	Referred To	Date Rec	Date Comp
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Data entered into the "Other" field on Distress Sheet 1 is not being saved.

Data is saved if entry personnel tab through both "Other" fields as originally intended. Modified form to use only one "other" field which will update when user leaves the field.

Materials Testing

4-497 3640 TST.SDS.10

7/13/2005 7/14/2005

Description

While trying to enter data for layer 7, receive an error message stating layer must be in the range of 1 to 6.

Resolution

Form requires LAYER_TYPE and LAYER_NO. No correction necessary.

M-3633 3633 TST_E.pc

7/12/2005 7/13/2005

Description

Remove check TST_L05A-E-91.

Resolution

Commented out check TST_L05A-E-91 since we may need it in the future, per Travis Thompson.

Traffic

M-3662 3662 Traffic Tables

9/7/2005 1/9/2006

Description

Create constraints between TRF_CALIBRATION_WIM, TRF_CALIBRATION_AVC and TRF_CALIBRATION_MASTER. Also, modify data entry form to automatically populate the AVC and WIM forms with the WIM_AVC_CALIB_DATE.

Resolution

Created script SPR3662CreateTRFConstraints.sql that creates constraints on TRF_CALIBRATION_* tables and a db trigger on TRF_EQUIPMENT_MASTER.