



U.S. Department
Of Transportation

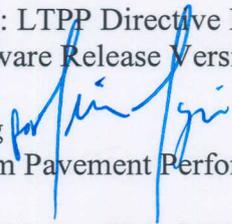
**Federal Highway
Administration**

Memorandum

6300 Georgetown Pike
McLean, Virginia 22101

Subject: **ACTION:** LTPP Directive IMS-145
IMS Software Release Version 2009.07

Date: July 22, 2009

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-143: IMS Software Release Version 2009.07. This directive authorizes implementation of the IMS software upgrade from version 2009.07 to 2009.07. 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 (2)

FHWA:HRDI-13:JJiang:mdeeney:493-3149:7/22/09

File: c:/mdeeney/directive/ims/IMS-145dir.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-145

Date: July 7, 2009

Supersedes: I-143

Subject: IMS Software Release Version 2009.07

This directive authorizes implementation of the IMS software upgrade from version 2009.04 to 2009.07. Upgrade instructions are provided in Attachment 1. Please notify the FHWA and TSSC when the upgrade has been installed.

Software Change Notice 104, contained in the file, SCN_104.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 updated QC programs for distress tables to incorporate a new check for matching records in the MON_DIS_LINK table, as well as code changes, an update to the record count program, an update to the UnboundSpecGravQC program, **and corrections to the transverse profile data (See step 5, below)**. The Software Change Notice lists these and other miscellaneous changes.

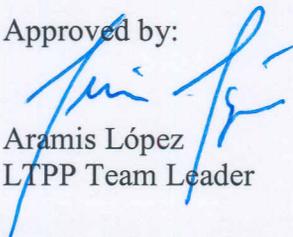
The software update for Version 2009.07 is distributed in a master zip file, SoftwareRelease200907.zip. This file may be downloaded from the VR2009_07 directory on the ltp.org ftp site.

The following files are contained in the master file:

- VR2009_07.ZIP – A zip file with the batch file (VR2009_07.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 2009.07 Release

1. Create the subdirectory RELEASES\VR2009_07.
2. Copy and unzip the VR2009_07.zip file into the subdirectory created in step 1.
3. Shutdown ORACLE in normal mode and backup Server.
4. Bring ORACLE up.
5. This release includes an update to data in the MON_T_PROF_PROFILE table.
WARNING, this script should only be run once! In order to ensure that the data will be updated correctly, **regional staff must run the script** SPR3863_TProfFinderReg#.sql, where # is the number of the region, and compare the output to the listing provided in SPR3863_TProfFinderReg#_central.lis. Every record that appears on the central list must appear in the regional list **or it will be updated incorrectly. If any record appears in one list and not the other, please do not continue with the release and call TSSC database staff for direction. [Miriam (865)481-8502); Tommy (865)481-2305]**
6. Verify that step 5 has been done and then continue. From the DOS prompt in the RELEASES\VR2009_07 directory, regions and FHWA type:

```
VR2009_07 dbusername/dbapassword@instance
```

The batch file will run the scripts listed alphabetically in Table 1, below.

7. The scripts update codes and data. **Check carefully that the scripts completed successfully by reviewing the *.lis files (refer to list, below).** 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\VR200907 subdirectory.

Table 1. Scripts run from the VR2009_07.bat file

Script and Output Filenames (.sql & .lis)	Description
SPR3863_TProfUpdate	Creates list of MON_T_PROF_PROFILE records with duplicate measurements
SPR3864_UpdateDistressTypeCodes	Updates CODES, CODETYPES, and LTPPDD tables to use DISTRESS_TYPE codetype instead of the CRACKS, and PATCH_REASON_% codetypes.

Software Change Notice 104

REG #	SAIC #	Program Name	Referred To	Date Rec	Date Comp
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Administrative

M-3864 3864 Codes

6/23/2009 6/29/2009

Description

Refer to attached email for background for these changes. The actual changes we need to make are as follows:

- In the CODES and CODETYPES tables, change the name of CODETYPE = CRACKS to DISTRESS_TYPE. This code is used in numerous places in MNT and SPS tables.
- Change the LTPPDD CODETYPE entries for
MNT_PCC_FULL_DEPTH.REASON,
MNT_PCC_FULL_DEPTH.SECONDARY_REASON,
MNT_PCC_PART_DEPTH.REASON,
MNT_PCC_PART_DEPTH.SECONDARY_REASON to DISTRESS_TYPE.
- Remove the CODES and CODETYPES entries for CODETYPE = PATCH_REASON_FD and PATCH_REASON_PD as they are not being used for anything.

Resolution

Also updated LTPPDD where codetype='CRACKS' to DISTRESS_TYPE. Created script SPR3864_UpdateDistressTypeCodes.sql.

REG #	SAIC #	Program Name	Referred To	Date Rec	Date Comp
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Data

1-3865 3865 INV Data

6/26/2009 6/30/2009

Description

Create script to update INV data to be applied to the Central production database before SDR24:

These scripts sent to us by northern regions will need to be applied centrally since they are for the INV module (I have attached the original emails for reference as well):

```
UPDATE INV_SHOULDER SET SH_SURFACE_TYPE=2 WHERE
STATE_CODE=20 AND SHRP_ID='1010' AND SHOULDER_TYPE='O';
```

```
UPDATE INV_SHOULDER SET
SH_SURFACE_TYPE=3,SH_PAVED_WIDTH=3 WHERE STATE_CODE=46
AND SHRP_ID='9187' AND SHOULDER_TYPE='O';
```

```
UPDATE INV_SHOULDER SET SH_SURFACE_TYPE=2 WHERE
STATE_CODE=51 AND SHRP_ID='1002' AND SHOULDER_TYPE='O';
```

```
UPDATE INV_SHOULDER SET SH_SURFACE_TYPE=3 WHERE
STATE_CODE=51 AND SHRP_ID='5009' AND SHOULDER_TYPE='O';
```

```
UPDATE INV_SHOULDER SET
SH_SURFACE_TYPE=3,SH_PAVED_WIDTH=3 WHERE STATE_CODE=86
AND SHRP_ID='6802'
AND SHOULDER_TYPE='O';
```

Anytime before the next data release will be fine

Resolution

Script SPR3865_UpdateNorthInvData.sql created to be run centrally only with SDR24 scripts.

REG #	SAIC #	Program Name	Referred To	Date Rec	Date Comp
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Manual Distress

M-3835 3835 Distress QC

8/14/2008 6/26/2009

Description

Discuss ways to apply the level E existance check for records in MON_DIS_LINK to all distress records at 'E' in all distress tables.

Resolution

Updated all distress QC programs (DIS_QC, Dispad10, Dispad42, tprof) to add a check after level E processing to check each record regardless of record_status for a match in the MON_DIS_LINK table. Any records without a match is sent to the QC output file, but the record status is not changed.

Materials Testing

M-3861 3861 UnboundSpecGravQC.exe

5/11/2009 5/29/2009

Description

TST_UNBOUND_SPEC_GRAV currently has a check against TST_SAMPLE_BASIC_INFO and TST_SAMPLE_LOG.

The TST_SAMPLE_LOG check (TST_UNBOUND_SPEC_GRAV-E-104) is now incorrectly failing records for combined samples and should be deleted.

Resolution

Removed check UNBOUND_SPEC_GRAV-E-104. Added bell to the indicate the program is complete.

Record Count Utility

4-3862 3862 rec_cnt.exe

6/3/2009 6/4/2009

Description

We receive an error message when running the record counts program:
ORA-00904: "A"."SITE_ID": invalid identifier.

Any ideas?

Resolution

The record count program was not handling the new MON_DRAIN tables correctly. Unlike the other MON_DRAIN tables, these new CP tables do not have the "SITE_ID" field. New tables should use the default processing for tables with STATE_CODE and SHRP_ID.

REG #	SAIC #	Program Name	Referred To	Date Rec	Date Comp
Traffic					
1-146	3854	Traffic Data Sheets	MACTEC	3/23/2009	6/30/2009
Description			Resolution		
<p>To help identify traffic data from sections on the opposite direction of the road, it was agreed to create a new SHRP ID in the Traffic Database replacing the "0" with "O". For example, the SPS-9 experiment in CT is 090900 with the 3 core sections in the EB direction while the 3 supplemental sections are in the WB direction. These 3 WB sections are identified in the traffic database as 09O900.</p> <p>The Agency has sent us sheet 16 data that is different for the EB lanes than the WB lanes. We are not able to enter sheet 16 traffic data for the WB sites in RIMS as the "O900" section is not recognized in the EXPERIMENT_SECTION table. The software does not allow the 4 digit SHRP ID "O900" to be entered; therefore the rest of the data can not be entered.</p> <p>The problem is how do we enter the sheet data into RIMS when the "O900" section is not a valid section?</p> <p>The 4 experiments in the NR with sites on opposite directions are: NA - CT Site 09O900, MD Site 24O900, and NC Site 37O900 NC - WI Site 55O200.</p>			<p>It has been decided that we should abandon the convention of using an 'O' to identify traffic information for sections in the non primary traffic direction. Instead, we will use the SHRP_ID from the first section on the opposite side of the road to indicate that the traffic data applies to that direction of travel. So, instead of O900 use 0960.</p> <p>TSSC Action. For this SPR, no further action is necessary. Another SPR has been opened to deal with the remaining 'O' issues.</p> <p>RSC Action. Enter data for traffic on the opposite side of the road using the SHRP_ID from the first section on that side, instead of the previously suggested 'O' convention.</p>		
M-3860	3860	TRF_QC		4/22/2009	5/26/2009
Description			Resolution		
<p>Move check TRF_EQUIPMENT_MASTER-E-104 to the end of the level E processing, and only check the records that have passed all other level E checks.</p>			<p>Moved check TRF_EQUIPMENT_MASTER-E-104 and renamed it TRF_EQUIPMENT_MASTER-E-110. Included note to explain that this check should always be run last on the records that pass all other level E checks.</p> <p>Also, fix column heading on level D output for TRF_CALIBRATION_WIM.WIM_CALIB_TECHNIQUE.</p> <p>Sent to MACTEC for test/distribution on 5/26/09.</p>		

REG #	SAIC #	Program Name	Referred To	Date Rec	Date Comp
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Transverse Profile

M-3863 3863 T_Prof Data

5/8/2009 6/4/2009

Description

In MON_T_PROF_PROFILE, There are a handful of records with multiple measurements with the same x value. For instance, 010504 has both x26 and x27 = 2969. In most cases, the y values are also identical as well.

Because this data is no longer being collected, the simple fix is to just identify the offending records and put together a bunch of scripts to remove one of the duplicates (always the second...)

Resolution

Travis provided the following:

- A script to identify the problem records (there are two versions, one that just counts, one that lists...)
- A file of scripts to correct them (99).
- A list of all the problem records that I developed scripts for. To make sure things haven't changed we need to compare the new list to this one.

These data changes were tested on the development database and will be distributed in the next software release. Put off changes to the filter or QC for now; added to the list of potential problems for the future (see SPR 3850). Script SPR3863_TProfUpdate.sql.