Memorandum

U.S. Department
of Transportation

**Federal Highway
Administration**

6300 Georgetown Pike
McLean, Virginia 22101

Subject: **ACTION**: LTPP Directive I-121,
IMS Software Release Version 2005.04

Date: April 1, 2005

From: Eric Weaver
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 Long Term Pavement Performance (LTPP) Program Directive I-121 for the IMS software release of version 2005.04. Please make sure all office personnel involved in LTPP IMS are aware of this new directive

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

Attachments (3)

LONG TERM PAVEMENT PERFORMANCE PROGRAM DIRECTIVE

For the Technical Direction of the LTPP Program

Program Area: IMS **Directive Number:** I-121

Date: April 1, 2005 **Supersedes:** I-120

Subject: IMS Software Release Version 2005.04

This directive authorizes implementation of the IMS software upgrade from version 2004.10 to 2005.04. Upgrade instructions are provided in Attachment 1. Please notify the FHWA and TSSC when the upgrade has been installed.

Software change notice 91, contained in the attached file, SCN_91.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 the new filter for FWDWin (pddx) files and resolutions to many miscellaneous SPRs, including corrections to RHB entry forms, TST_QC, and SPS9_PMA_PROFILE entry and QC.

Version 2005.04 of the IMS software will be distributed via CD to each region. The files included on the CD are:

- VR2005_04.ZIP – A zip file with the batch file (VR2005_04.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.
- Dotnetfx.exe – A setup program for the Microsoft .Net runtime if the client machine does not already have the Microsoft .Net 1.1 runtime installed.
- ClimateData.ZIP – The region specific climate data. The file required for each region is included on the CD.

Prepared by: TSSC

Approved by:
Aramis López
LTPP Team Leader

Attachment 1

Instructions to Apply VR 2005.04 Release

1. Create the subdirectory RELEASES\VR2005_04 (the directory RELEASES should already exist).

2. Copy and unzip the VR2005_04.zip file into the subdirectory created in step 1.

3. Copy and unzip the ClimateData.zip file into the subdirectory created in step 1.

4. Run pre-installation queries listed in Table 1, below, to make sure the data will allow a new column constraint to be added. **You may proceed with the installation instructions when this script returns no rows.**

Table 1. Pre-Installation Queries

Script and Output Filenames (.sql & .lis)	Description
SPR3562ListNullMaterialTypes	List rows from SPS9_PMA_PLACEMENT_LAYER that have null MATERIAL_TYPE fields.

5. Shutdown ORACLE in normal mode and backup Server.

6. Bring ORACLE up.

7. From a DOS prompt in the RELEASES\VR2005_04 directory, type

```
VR2005_04 dbausername/dbapassword@instance <inst>
```

where <inst> is the database instance, to begin the software update. This batch file will run the scripts listed alphabetically in Table 2, below. The new CLM data will be imported at the end of this batch file. Check import logs carefully for any errors.

8. The scripts make some table changes. Check that the scripts completed successfully by reviewing the *.lis files (refer to list, below). Ignore errors about dropping non-existent objects.

9. Copy the LTPP.ZIP file from the CD 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.

10. Delete the CN_Drain.sql CN assign script from the LTPP\CN subdirectory. This script is no longer needed since CONSTRUCTION_NO was removed from the drainage tables.

11. The OracleVersions.zip file is included for reference only. Extract these files into the OracleVersions directory. It will create an OracleVersions\VR200504 subdirectory.

12. Run dotnetfx.exe on each client which does not already have the Microsoft .Net runtime installed. This is currently necessary for workstations which will work with FWD PDDX files and the Traffic Analysis software.

13. If the FWDWin PDDX loader (pddxload.exe) is to be run from a share on a central server, then the .Net security zones on each client will need to be modified to allow it to run.

    a. From the Control Panel's Administrative Tools folder, select the Microsoft .Net Framework 1.1 Configuration utility.
    b. Under the Runtime Security Policy tree (left window), select Machine/Code Groups/All_Code/LocalIntranet Zone.
    c. Right click on the LocalIntranet Zone and select New.
    d. Make sure that the "Create a new code group" radio button is selected.
    e. Type "PddxLoad" in the name box.
    f. Click Next.
    g. In the "Choose the condition type for this code group" dropdown list, select "Zone".
    h. In the "Zone" dropdown list, select "Local Intranet".
    i. Click Next.
    j. Make sure that the "Use existing permission set" radio button is selected and that the dropdown list has "FullTrust" selected.
    k. Click Next.
    l. Click Finish.
    m. Close the control panel windows.

Table 2. Scripts run from the VR2005_04.bat file

Script and Output Filenames (.sql & .lis)	**Description**
AlterCLMTablespaces	Increases the maximum size of the CLM tablespaces to allow multiple daily tables. Requires database instance as a parameter.
ResetRecordStatus	Resets RECORD_STATUS field for tables affected by updated QC programs (i.e., SPS9_PMA_PROFILE, TST_AC07_V2_%).
SPR3467AddMaintWorkCode	Add code 57 (Saw and Seal) to MAINT_WORK codetype.
SPR3544ChangeLTPPDDDesc	Change description in LTPPDD for MON_T_PROF_MASTER. PAVEMENT_WIDTH.
SPR3553CLMTableReorganization	Create separate daily tables for the OWS and VWS humidity, precipitation, temperature, and wind data.
SPR3554RenameSMPField	Rename SMP_GRAV_MOIST.MOIST_CONT_DEPTH field to MOIST_CONTENT and update LTPPDD.
SPR3555RemoveCNFromDrainTables	Remove CONSTRUCTION_NO field from MON_DRAIN_CONDITION and MON_DRAIN_INSPECT and update LTPPDD.

Script and Output Filenames (.sql & .lis)	Description
SPR3556CorrectLTPPDD	Add units (m) to LTPPDD for SMP_MRCTEMP_DEPTHS. THERM_DEPTH, and add codetype (PAVEMENT) for SPS_GENERAL.PAVEMENT_TYPE.
SPR3562MakeMaterialTypeNotNull	Changes SPS9_PMA_PLACEMENT_LAYER.MATERIAL_TYPE to a non-null field. ***This script will not complete successfully if there are any null SPS9_PMA_PLACEMENT_LAYER.MATERIAL_TYPE fields in the database.***
SPR3563ChangeLTPPDDDesc	Change description in LTPPDD for MON_DIS_AC_REV. PHOTO_VIDEO.
SPR3574FixLeadingSpaces	Update columns in the database with leading spaces. **This script requires extra time to re-enable a constraint. Be patient.**
SPR3576UpdateLTPPDD	Widen and update ITEM field in LTPPDD, remove LTPPDD.SHEETDATE entry and update FIELD_ORDER.
SPR3577FWDWinSoftwareVersion	Widen MON_DEFL_MASTER.SOFTWARE_VERSION field from 2 to 8 characters.
SPR3581RemoveDimVersion	Alters all distress tables to remove the DIM_VERSION field. Updates the LTPPDD to remove records with fieldname=DIM_VERSION.
TruncateImportedTables	Truncates the climate tables before the import is performed.

Attachment 2

Software Change Notice 91

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

Administrative

M-3544 **3544** **LTPPDD** **10/12/2004** **1/26/2005**

Description

Change description of field MON_T_PROF_MASTER.PVMNT_WIDTH to "Width of transverse profile measurement."

Resolution

Created SPR3544ChangeLTPPDDDesc.sql to change the description of this field.

M-3556 **3556** **LTPPDD** **11/16/2004** **1/26/2005**

Description

The unit's field for SMP_MRCTEMP_DEPTHS.THERM_DEPTH should be m for meters.

Resolution

Created SPR3556CorrectLTPPDD.sql to update units field in data dictionary. Also updated codetype to PAVEMENT for fields named PAVEMENT_TYPE.

M-3563 **3563** **LTPPDD** **12/1/2004** **1/26/2005**

Description

Change the description of the MON_DIS_AC_REV.PHOTO_VIDEO field in the LTPPDD to:

"A code indicating if photographs and/or video were taken during the distress survey."

Resolution

Created SPR3563ChangeLTPPDDDesc.sql to make this change.

M-3576 **3576** **LTPPDD** **1/24/2005** **1/25/2005**

Description

Widen and update the LTPPDD.ITEM field to accommodate larger entries. Remove LTPPDD.SHEETDATE entry in the LTPPDD table and update LTPPDD.FIELDORDER for several tables.

Resolution

Created script SPR3576UpdateLTPPDD.sql to make these corrections.

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

Climatic

S-3553 **3553** **CLM_QC** **12/8/2004** **1/11/2005**

Description

Implement new QC checks provided by TSSC Engineering Staff, Dec. 8, 2004.

Resolution

Wrote ClmOwsQC.exe and ClmVwsQC.exe to implement these checks. Existing program, clm_qc.exe, was essentially "gutted" to remove tables checked in new programs. However, clm_qc is still required to check CLM_SITE_VWS_LINK, CLM_OWS_LOCATIONS, and CLM_VWS_OWS_LINK tables.

Data

S-3569 **3569** **Data in PAVEMENT_TYPE field** **MACTEC** **5/14/2004** **1/7/2005**

Description

Correct code in SPS_GENERAL.PAVEMENT_TYPE field from 26 to 23 for 390261 and 390262. The description of each section is "JPCP over Cement Treated Free Dainage Base".

Resolution

Change made to data in SDR 19.0 (and in region). We will wait for new upload for change to Central ppdb.

S-3574 **3574** **Various Database Columns** **9/30/2004** **3/21/2005**

Description

Review the tables/columns/data in the tables in the IMSPROD.TOMMY.LEADING_SPACES table for leading spaces in data. This can cause problems with matching data elements in QC programs, forms, etc.

See email, attached, for more information.

Resolution

Created script SPR3574FixLeadingSpaces.sql to update columns with most errors. Will leave the rest to the regions (sent e-mail 3/21/05).

Drainage

M-3555 **3555** **MON_DRAIN tables** **11/12/2004** **2/17/2005**

Description

Remove CONSTRUCTION_NO from MON_DRAIN_CONDITION and MON_DRAIN_INSPECT. Also remember to remove the LTPPDD entries for these two fields.

Resolution

Created SPR3555RemoveCNFromDrainTables.sql to alter tables and update LTPPDD on 1/26/05. Updated QC program and form on 2/17/05. CN_Drain.sql will no longer be needed.

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

Flexible Backcalculation

M-3552 **3552** **BKCALCQC.exe** **11/16/2004** **12/27/2004**

Description

Level C checks originally programmed as Not Null constraints on fields. At some point, the Not Null constraints were removed, but comparable level C checks were not added. Add level C checks as listed in original specs - with noted exceptions.

Resolution

Added new level C checks. Also fixed various routines to be consistent with the level of data that they were processing.

M-3559 **3559** **Backcalc QC** **11/22/2004** **3/7/2005**

Description

Modify several checks in RGD and FLX backcalc, as follows:

For both the following checks, I changed the wording so that there must be a match at 'E', instead of all matches must be at 'E'. If they were actually coded like this already, check to make sure they are working properly.

The check now:
Tables: MON_DEFL_FLX_BAKCAL_BASIN, MON_DEFL_LOC_INFO

• For records in MON_DEFL_LOC_INFO with matching STATE_CODE, SHRP_ID, TEST_DATE, LANE_NO, POINT_LOC, MON_DEFL_LOC_INFO.RECORD_STATUS = 'E'.

Error Message: Matching record in MON_DEFL_LOC_INFO must be at Level E

Change To:
Tables: MON_DEFL_FLX_BAKCAL_BASIN, MON_DEFL_LOC_INFO

• There must be a matching record in MON_DEFL_LOC_INFO with matching STATE_CODE, SHRP_ID, TEST_DATE, LANE_NO, POINT_LOC, and.RECORD_STATUS = 'E'.

Error Message: There must be a matching record in MON_DEFL_LOC_INFO at Level E

Resolution

Flex Backcalc (bkcalcqc.pc) was coded correctly - error message updated as directed. Rigid Backcalc (rgdbkqc.pc) was not correct. Code was changed and other corrections made and error message updated.

Existing Check:
Tables: MON_DEFL_RGD_BAKCAL_BASIN, MON_DEFL_LOC_INFO

• For record in MON_DEFL_LOC_INFO with matching STATE_CODE, SHRP_ID, CONSTRUCTION_NO, TEST_DATE, LANE_NO, and POINT_LOC, RECORD_STATUS must equal E

Error Message: Matching record in MON_DEFL_LOC_INFO is not at level E. {STATE_CODE,
SHRP_ID, CONSTRUCTION_NO, TEST_DATE, LANE_NO, and POINT_LOC, RECORD_STATUS}.

Change To:
Tables: MON_DEFL_RGD_BAKCAL_BASIN, MON_DEFL_LOC_INFO

• There must be a matching record in MON_DEFL_LOC_INFO with matching STATE_CODE, SHRP_ID, TEST_DATE, LANE_NO, POINT_LOC, and.RECORD_STATUS = 'E'.

Error Message: There must be a matching record in MON_DEFL_LOC_INFO at Level E

The other current checks should mean that these failures will cascade through the POINT and SECT tables so that all records associated with the failure will not get to E.

Manual Distress

3-847 **3489** **MON.DIS.05B** **MACTEC** **6/9/2004** **2/3/2005**

Description

With state code, section id, and survey date blank, clicked "Update Existing Records." Message "You must enter a value …" appeared. Clicked OK, entered "1" in the "Fault Meas Dev Control" field, then pressed return. The form apparently queried – and would possibly update, if confirmed – ALL rows in MON_DIS_JPCC_FAULT. This seems a little dangerous (see attached screen shot).

Resolution

Update will not work without the key fields being entered on the form. However, there is no message to indicate this.
Form was updated to display alert if STATE_CODE, SHRP_ID or SURVEY_DATE is null when update button is clicked.

REG #	SAIC #	Program Name	Referred To	Date Rec	Date Comp
4-404	3059	Mon.Dis.01B	LAW PCS	1/24/2002	10/15/2004

Description

In the Distress Identification Manual pp. 22 Potholes, Description: Bowl shaped holes of various sizes in the pavement surface, minimum plan dimension is 15cm or 150mm. A pothole with a dimension of 150mm X 150mm = .02m(squared). The minimum allowable entry into the database, sheet two, IMS table Mon_Dis_Ac_Rev is .1m(squared). This needs to be changed to allow two decimal places, so that potholes smaller than .1m(squared), will still be entered correctly into the database.

Resolution

No TSSC action necessary. RSC's should continue to enter data using the existing minimum of 0.1m^2 to represent those situations where the total pothole area is less than 0.1m^2 (but greater than 0).

M-3581	3581	All Distress Tables, Forms, Filters, QC Program		3/16/2005	3/20/2005

Description

The DIM Software Version field will be removed from the PPDB. The following tables and applications will need to be modified:
MON_DIS_AC_REV
MON_DIS_AC_CRCP_REV
MON_DIS_JPCC_FAULT
MON_DIS_JPCC_REV
MON_DIS_PADIAS42_AC
MON_DIS_PADIAS42_CRCP
MON_DIS_PADIAS42_JPCC
MON_DIS_PADIAS_AC
MON_DIS_PADIAS_CRCP
MON_DIS_PADIAS_JPCC
MON_DROP_SEP

It also looks like the following forms will need modification.
MON_DIS_AC_REV
MON_DIS_CRCP_REV
MON_DIS_JPCC_REV
MON_DIS_PADIAS42_AC
MON_DIS_PADIAS42_CRCP
MON_DIS_PADIAS42_JPCC
In addition, the following PRO*C Programs will need to be modified.
Padias42
Dis_QC
dispad10

Resolution

Removed DIM_VERSION field from all distress tables and updated LTPPDD. Forms listed are no longer used, so no changes made to them. All pc programs listed were modified as necessary.

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

Dispad42

Materials Testing

2-76 **3566** **TST_AG04** **12/3/2004** **12/3/2004**

Description

We have data sent from labs where they did not use all of the listed sieve sizes in this table. In some instances they used alternate sizes, in others they used all metric sieve sizes instead of US customary sieve size.

How do we get this data into the database? New table? Alter existing table?

Resolution

No TSSC action necessary. Gradation information for those sieve sizes not represented in the table should be included in the comments field only. This includes both the percent passing value and the actual sieve size.

Percent passing should not be included in a gradation field where the sieve represented by that sieve was not used.

2-77 **3570** **TST_AC05** **MACTEC** **1/19/2005** **1/24/2005**

Description

As can be seen from the attached page, it was found that the AC05/P05 protocol equation yields suspicious results and the values calculated from the NAPA equation are reasonable. To test this hypothesis, results from OH SPS-1, ME, and WI were compared using both sets of equations and it was found out that the results reported are closer to the NAPA equation # 2, in the attached page. Please review and advise on which equation to use and if the Moisture Susceptibility AC05/P05 equation needs to be revised.

See e-mail discussion, attached.

Resolution

No TSSC action necessary.

3-848 **3458** **TST.SDS.10** **MACTEC** **4/29/2004** **2/1/2005**

Description

Bulk samples taken from haul truck in the field are supposed to have location numbers beginning with “F” instead of “B”. Originally, 86 records were entered to TST_UNCOMP_BITUMINOUS with location numbers beginning with “B.” The data was subsequently corrected via SQL. Now, the data cannot be retrieved using this form (see attached screen shot and sample data). Need modified form or direction on alternate handling for this data from TSSC.

Resolution

Modified form to allow loc_no beginning with F or B.

REG #	SAIC #	Program Name	Referred To	Date Rec	Date Comp
3-851	3473	TST_E.exe	MACTEC	5/19/2004	2/3/2005

Description

Data fails per: "TST_L05A-E-16, A layer for DESCRIPTION = 2 cannot be below a layer for DESCRIPTION 5,6,8 or 11" (see attached report excerpt). In this particular case, the interlayer was placed in CN 4 – two seal coat layers thus ended up below the fabric layer. There doesn't appear to be a good reason for failing the data in such cases.

Resolution

Updated TST_E.exe to allow layer with desc = 2 below layer w/desc=8.

REG #	SAIC #	Program Name	Referred To	Date Rec	Date Comp
3-3571	3571	CN_TST.sql	MACTEC	12/10/2004	3/8/2005

Description

Correct CN_TST.sql script to check for matching records in the TST_UNCOMP_BITUMINOUS table when updating the CN in the TST_AC05 table.

Resolution

Added check against TST_UNCOMP_BITUMINOUS to update CN in TST_AC05 table. CN vs. field_set data problems will be addressed separately.

Rehabilitation

REG #	SAIC #	Program Name	Referred To	Date Rec	Date Comp
2-73	3467	RHB Data Sheets	MACTEC	5/7/2004	2/1/2005

Description

Ohio has informed us that they have performed a seal and saw operation at one of their AC overlaid PCC GPS sites. In going over the forms in the rehab chapter 7 of the Data Collection Guide, no such forms, that we can send to the agency to document this operation, exists. We have 2 options, 1st consider the saw and seal as a sealed crack and use the maintenance sheet to document this, or 2nd use one of the forms in the SPS-6 guidelines that were used to document the saw and seal operation performed on one of the overlaid SPS-6 sections.Please advise as to what should be followed in such a situation and how the data can be entered into the IMS.

Resolution

Created SPR3467AddMaintWorkCode.sql to add code 57 - 'Saw and Seal.'

REG #	SAIC #	Program Name	Referred To	Date Rec	Date Comp
3-866	3538	RHB.SHEET.06		10/6/2004	2/15/2005

Description

Unable to retrieve or enter data. See attached screenshots.

Resolution

Updated: RHB_06, RHB_03, RHB_05, RHB_07, RHB_08, RHB_10 for this and to use global dates consistently. Other RHB forms will need to be updated similarly.

REG #	SAIC #	Program Name	Referred To	Date Rec	Date Comp
3-867	**3539**	**RHB.SHEET.08**		**10/6/2004**	**2/15/2005**

Description

Unable to retrieve or enter data. See attached screenshots.

Resolution

See resolution for SPR 3538.

3-871	**3549**	**RHB.SHEET.07**		**10/29/2004**	**2/15/2005**

Description

Data item numbers skip from 12 to 14 - don't match data collection form. See attached screenshot and scanned form.

Resolution

Corrected item numbers on canvas.

3-873	**3573**	**RHB.SHEET.15**		**11/9/2004**	**2/15/2005**

Description

Date defaults – in invalid format -- from previous form while moving from the prior sheet in sequence to Sheet 15 (see attached screenshot).

Resolution

Problem corrected with SPRs 3538 & 3539.

Resilient Modulus

M-3551	**3551**	**P07V2.exe**		**11/4/2004**	**11/8/2004**

Description

E level checks E-103, E-104, E-105 check for correspondence between TST_AC07_V2_SPECIMEN_INFO and TST_SAMPLE_LOG for SAMPLE_NO_1, SAMPLE_NO_2 and SAMPLE_NO_3, respectively.These checks should also look for a matching record in TST_SAMPLE_LOG_LAB if one cannot be found in TST_SAMPLE_LOG. The matched fields in TST_SAMPLE_LOG_LAB should be STATE_CODE, SHRP_ID, FIELD_SET and LAB_SAMPLE_NO.

Resolution

Updated P07V2.pc to include checking TST_SAMPLE_LOG_LAB. Also added FIELD_SET to keys in TST_SAMPLE_LOG query. Several records currently at E will need to be reset and the QC re-run.

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

Rigid Backcalc

M-3567 **3567** **RGD Backcalc QC** **12/6/2004** **12/28/2004**

Description

Our QC manual has no error numbers, so I just copied the full text.

These appear to be written correctly in the QC manual, so they just need to be coded that way. I know the first one isn't working. The second one may be working, but I can't tell. Based on the QC output, MON_DEFL_RGD_BAKCAL_POINT-E-1 accomplishes what is written in the second check. It is possible that we don't even check the first one?

Tables: MON_DEFL_RGD_BAKCAL_POINT, MON_DEFL_RGD_BAKCAL_LAYER
• One record must exist in MON_DEFL_RGD_BAKCAL_LAYER with matching SHRP_ID, STATE_CODE, and CONSTRUCTION_NO with RECORD_STATUS = E

Error Message: No matching records in MON_DEFL_RGD_BAKCAL_LAYER with RECORD_STATUS = E.

Tables: MON_DEFL_RGD_BAKCAL_POINT, MON_DEFL_RGD_BAKCAL_LAYER

• For records in MON_DEFL_RGD_BAKCAL_LAYER with marching STATE_CODE, SHRP_ID, and TEST_DATE = CN_REF_DATE, RECORD_STATUS must equal "E"

Error Message: Matching record in MON_DEFL_RGD_BAKCAL_LAYER is not at Level E.

The rest of the Level E QC appears to be correct based on what I have seen in the output.

Resolution

The existing E-1 check was kind of a combination of these two checks. I split the check into E-1A and E-1B. They are now coded like the QC Manual. Because they often appear together in QC output, they could have been combined on purpose.

Note: A lot more records for point are rejected than have error messages printed. This is because E-1A and E-1B only print if the current section and construction number are different from the previous values.

S-3580 **3580** **Backcalc QC Programs** **3/15/2005** **3/26/2005**

Description

Resolution

REG #	SAIC #	Program Name	Referred To	Date Rec	Date Comp
While updating the QC Manual to match the code, have found several minor changes that should be made to the code. Update code with direction of MACTEC engineering staff.			Completed the reconciliation of flexible and rigid backcalculation code to the QC Manual. Several changes were made to the Rigid backcalc code, in particular. Some records were being promoted even though they had errors. All records should be set back to A and the QC re-run.		

RIMS

2-78 **3579** **RIMS application** **1/31/2005** **1/31/2005**

Description

The list of Lab data sheets has form TST_AC01 not listed. This form cannot be accessed unless it is listed.
Also form TST_L05A is not listed in the Experiment_Section list.
Attached are screen captures.

Resolution

SRO sent correction suggestions based on recent experience with this problem. Problem resolved.

Seasonal Monitoring Program

M-3554 **3554** **SMP_GRAV_MOISTURE table** **11/11/2004** **1/27/2005**

Description

Change field name SMP_GRAV_MOISTURE.MOIST_CONT_DEPTH to MOIST_CONTENT, per e-mail from Gary on 11/11/2004.

Resolution

Created SPR3554RenameSMPField.sql to update table and data dictionary. Updated SMP_C, SMP_D, and SMP_E to reflect change in field name.

SPS9

3-3561 **3561** **sps9.sheet.14** **11/23/2004** **3/4/2005**

Description

Form inserts blank records into SPS9_PMA_PROFILE when record entered for SPS9_PMA_DENSITY.

Also, fix control-Q problems with sps9.sheet.14 and .13.

Resolution

Corrected erroneous entry of blank record into SPS9_PMA_PROFILE and form exit problem on SPS9.SHEET.14. Also corrected form exit problem on SPS9.SHEET.13.

M-3560 **3560** **SPS9 QC** **11/23/2004** **3/4/2005**

Description

Add level C check on PROFILE_INDEX field in SPS9_PMA_PROFILE.

Resolution

Added level C check on SPS9_PMA_PROFILE.PROFILE_INDEX. Data in

REG #	SAIC #	Program Name	Referred To	Date Rec	Date Comp
			SPS9_PMA_PROFILE should be reset to 'A' and QC rerun.		
M-3562	**3562**	**SPS9_PMA_PLACEMENT_LAYER table**		**11/23/2004**	**3/21/2005**

Description

Make SPS9_PMA_PLACEMENT_LAYER.MATERIAL_TYPE a non-null field. Check the form after change is made.

Resolution

Created SPR3562MakeMaterialTypeNonNull.sql to alter table. Also verifies that no null values exist before executing Alter Table statement. Updated SPS9_PMA_PLACEMENT_DATA.fmb to add more error checking to this field.

Traffic

1-135 **3523** **TRF.SHEET.10** **MACTEC** **9/13/2004** **2/4/2005**

Description

Entry of data for Sheet 10 has identified a rounding of data error in the 'Anl KESAL LTPP Ln Yr' field of TRF.SHEET.10 data entry form. The system requires values to be in KESALS (ESAL divided by 1000). The North Atlantic region has received some data that has ESAL's less then 1000. When an ESAL of 293 is entered into the 'Anl KESAL LTPP Ln Yr' field, it is shown as a KESAL of 0.293 on the data entry form. Once the user exits from the form the system rounds this number off to 0. Zero is not an accurate representation of what is truly happening at this site. NARO recommends expanding the field to allow one decimal point. Doing this will eliminate the rounding off to zero problem.Also, these sites are failing the Expanded Range Checks for the IMS. The QC Check states that the 'anl_kesal_LtppLnYr' value must be greater than zero.

Resolution

Modified TRF_QC.exe to allow TRF_MON_EST_ESAL.ANL_KESAL_LTPPLNYR to be >= 0.

3-864 **3536** **TRF_QC.exe, Level E** **10/4/2004** **2/4/2005**

Description

A number of rows in TRF_EQUIPMENT_MASTER fail level E (see attached report excerpt). Message reads: "053011 07/15/2003 TRF_EQUIPMENT_MASTER-E-104: Unknown quality of traffic data for 053011 07/15/2003." The message is unnecessarily cryptic and repetitive. We now understand what it means but something like: "Matching record does not exist in TRF_CALIBRATION_AVC with RECORD_STATUS='E'." would be far more helpful and consistent.

Resolution

Modified error message to make it more clear. Corrected several output errors on report.

REG #	SAIC #	Program Name	Referred To	Date Rec	Date Comp
3-868	3540	TRF_QC.exe, Level D		10/11/2004	2/15/2005

Description

Data fails check because NO_VEH_LTPP_LN = 0 (see attached report excerpt). QC manual lists only check for this column, but from report column headers, it appears that both NO_VEH_2WAY and NO_VEH_LTPP_DIR are allowed to be 0. In either of these cases, NO_VEH_LTPP_LN would also have to be 0.

Resolution

Updated level D QC to allow TRF_HIST_CLASS_DATA.NO_VEH_LTPP_LN to be 0. New range is >= 0.

REG #	SAIC #	Program Name	Referred To	Date Rec	Date Comp
M-3547	3547	IMS Traffic QC, TRF_QC.exe		10/21/2004	2/15/2005

Description

Level D check on TRF_HIST_VOLUME_COUNT.Directional_distrib_factor is currently: > 0, < 1, or null. It should be >0, <= 1, or null

Resolution

Updated level D QC to allow value to be 0.0001 - 1.0000. Updated column heading to be clearer. Also updated column heading on TOTAL_NO_VEHICLES_COUNT to show upper limit (999999).