

HDM release notes.txt
M.H.Corbin, Inc. HDM Software
Release Notes

System Requirements:

OS: Windows 2000, XP, Vista, 7, 8
Processor: 900 MHz or better
Memory: 512MB Minimum
Disk Space: 100 MB of unused Disk Space (for program installation).

Addition space will

be required for storing studies.

Installation Note:

Always make sure you have backups of your study databases saved in a safe location. When upgrading or reinstalling HDM we recommend that you uninstall your existing version of the software before installing the new version.

Version 9.2.8

- * Fixed battery voltage reading bug for NC200 counters without fuel gauge.
- * Added back Location field.
- * Removed wide format report templates.
- * Added ability to select report orientation.
- * Rearranged header fields in the reports by grouping related items.

Version 9.2.7

- * Added environmental report.
- * Added French language file.
- * Added rounding of metric bins to 1 decimal place when binning data.
- * Added rounding of metric bins when programming NC200 counters.
- * Added back support for deriving NC97 studies.
- * Fixed length bins formatting issue when European locale settings are used.

Version 9.2.6

- * Added checks to prevent NC300 communication errors when receiving sequential data.
- * Fixed study list sorting by date and time.
- * Fixed binning bug with 0 period.
- * Moved port name retrieval to NMAPI.DLL. Added ability to disable port name retrieval via Communications/LoadPortDescription ini setting.
- * Added Help menu items for opening HDM config and log files.
- * Fixed environmental data merging function that was not detecting already existing entries.
- * Added detection of no study situation in NC200 driver which used to cause application crash.

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- * Added NC300 user area data double quote escaping/unescaping in NMAPI.DLL.
- * Added default bins loading menu to bins setup form.
- * Changed default date format to dd/mm/yyyy.
- * Added reports option that allows excluding target speed bin from speeding vehicles percentage calculation. This applies to vehicles going above speed limit as well as above 55mph.
- * Fixed serial number overflow bug that was detected with 0xFFFFFFFF serial number.
- * Added NC300 protocol checksum support.
- * Added support for passing catalogs as command line arguments.
- * Added check and warning for read-only HDM program folder condition.
- * Added minimum speed and length data filters.
- * Added back Trans-Q sequential file import functionality.
- * Added study export to HTV file functionality.
- * Fixed setup so it won't require previous version removal when upgrading once this version is installed.

Version 9.2.5

- * Fixed DAT file parsing bug that was causing filtering out some first speed bin vehicle records.
- * Fixed Summary report speeding vehicle percentage calculation.
- * Fixed VISPA (LP Old) speed and length bins formatting.
- * Fixed bins editing form to allow decimals in metric mode.
- * Added keystroke validation to bins editing form.
- * Fixed NC97 period temperature calculation used in study data retrieval.

Version 9.2.4

- * Increased wake up timeout to 15sec for NC300 devices. This takes care of the problem when it takes 12 seconds for NC300 device to wake up when they are stacked on top of each other.
- * Disabled NMAPI.DLL data dump due to crash on some machines.
- * Fixed bins editing dialog when using European system and metric HDM settings.
- * Made default bins show up in study programming screen if HPS file does not exit.
- * Made study programming window remember and use last saved HPS file.
- * Fixed data integrity compatibility with older HDM 9 versions issue.
- * Added study header editing capability.

Version 9.2.3

- * Set automatic device detection to be default choice.
- * Returned reports windows to their former (modeless) mode.
- * Fixed extra bin problem that caused "subscript out of range" error when NC200 device was read with v9.2.1 or later but programmed with earlier versions.
- * Changed NC300 device read timeout from default 10 to 8 seconds. This will

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make sure we have a chance to retry requests before device goes to sleep due to 10 sec inactivity timeout.

Version 9.2.2

- * Fixed bins editing dialog recursive validation that caused multiple error messages after failed validation.
- * Added data filters that are applied whenever new study is read from the NC200/300 device or derived from the existing NC200/300 study.
- * Added keyboard shortcuts for most frequently used menu items.
- * Fixed "Vehicle Percentage Graph" generation bug.
- * Fixed regional settings bug.
- * Added German language file.
- * Fixed database schema compatibility with older HDM 9 versions issue.

Version 9.2.1

- * Rebranding for M.H.Corbin, Inc.
- * Reworked database access class.
- * Reworked main form catalog/study windows so that a single click selects items (which is also the case when right clicking for the context menu).
- * Removed "Set as destination" functionality. The selected catalog(s) become destination automatically.
- * Merged Add, Join, Edit Header, Derive New Study to a single dialog - Derive New Study.
- * Reworked main menu which now includes all context menus (catalog and study).
- * Reorganized string table and language selection functionality. From now on any language files that are in the Languages folder will be loaded into language selection list.
- * Removed restriction on non-empty study location fields while programming study.
- * Added automatic serial port lookup functionality.

Version 9.1.5

- * Fixed derived study defaulting to NC200 device type bug.

Version 9.1.4

- * Not officially released version although due to extended logging and NC300 support it was distributed to a number of customers mostly for troubleshooting purposes.
- * Reworked device access functionality: NC200/300 - uses NMAPI.DLL, Legacy devices (NC47, 97, etc) - cleaned up VB code.
- * Added buffer sizes to NMAPI calls to prevent buffer overruns.
- * Converted language files to a text only type.

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- * Added a lot of logging.
- * Changed Study programming/reading, Battery status/discharge dialogs by removing undescriptive icons and replaced them with a list box.
- * Miscellaneous other bug fixes, code cleanup, etc.

Version 9.1.0

- * Vaisala productization changes.
- * Removed Guess_my_Speed functionality.
- * Added quite a bit of logging functionality.
- * Moved languages to a dedicated folder.

Version 9.0.38

- * Correct Issues related to trans-Q data imports and DataCollect Vispa Export.
 - * Overflow error reported by customers during download.
 1. Function calls in the catalog class both passed an integer vice long variable for count of records for appending sequential data. This produced the overflow error on download. [Updated variables associated with .seq imports to longs]
 2. Long sequential Trans-Q studies can exceed the maximum minute offset of 16383 minutes and roll over to 0 minutes offset from the start time. Added a rollover counter so that when the values exceed this value, code will add (rollover * 16383) minutes to the inbound records date/time result.
 - * Battery display for Rev P units.[HDM version 9.0.37]
Formatting issue when displaying NC200 Battery voltage with units having fuel gauge and firmware revision > 1.11B. The decimal delimiter was not replaced with a comma delimiter on international display. The numeric result is then based on translating "3,77" vice "3.77" Added Pre-format check to replace . with , if appropriate for regional settings.
 - * LPDOS export for Data Collect.
 - * Temperatures on some studies were overflowing the two character size allocation in the format. This shifted the class code over one position and left no space delimiter between the class code and array element description. 3120 vice 3 120. This cause the file not to be readable by Vispa for Windows (Data Collect's HDM like product). Forced maximum of two character temperatures on export and also put a check that there is a space character between each field. (Some import routines like

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that used in Denmark use fixed spacing, they use the HDM dat file export.

Vispa's implementation requires a space character for delineation. Forced maximum values in to fields where overflow was theoretically possible and verified import using Vispa.

Version 9.0.37

- * Corrected the filter for importation of the Trans-q data. Was a default of .dat, when in fact the trans-Q creates an .seq file. Only the extension was changed. The importation routine was not altered.
- * Corrected a bug in the LP dos export when the time was 00:00 it was not writing the time as 0000 but instead it was blank.
- * A problem in editing the header for Trans-q when in metric mode was reported. The Trans-q doesn't supply any of the data used in the header so the posted speed is blank. In metric mode the posted speed must be adjusted from english to metric and the math would error on a blank or zero field. Added a default speed to the import function and added a check in the edit header function so that if the field is blank, it will put a default value on the display that can be altered. In either case it handles the error created by a blank field correctly and will allow editing.

Version 9.0.36

- * Added export features for Data-Collect.
- * Two exports were added:
 1. Creates a normal Dat file in the existing HDM format.
 2. Creates an export that uses the same format as the LP (DOS) version.

Version 9.0.35

- * Added support of the Trans-Q import of sequential data. The files imported are formatted like the NC97 sequential data. Data is read in during the import and an A-Table is created so that the same "derive new study" functions are available for

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trans-Q data as that of the NC200. A default Bin study is created during the import at one hour periods using the users default binning.

Version 9.0.34

* Battery Fuel Gauge. Added conditional code to request battery voltage and percentage of battery capacity remaining from the NC200. If the unit does not respond to the query, then the battery voltage is requested in the same method as prior versions. This allows units that do not have this modification to be read in old style.

* Binary Data from the unit includes the following modifications:
a flag is used when reading data from the unit.
if the 9th and tenth bytes in the period data are 1, and Hex 55 then the Calendar Date is embedded in the Sequential (per vehicle) stream. The temperature is now read from the Battery fuel gauge.
Byte 7 is (Fuel Guage High Order Byte), byte 8 is (Fuel Guage Low Order Byte),
byte 9&10 (Reverse vehicle count) [Not Implemented].
If Byte(9) = 1 and byte(10) = &H55 then the modified scheme is in effect
byte4 is then the 2s complement of the (hexidecimal) temperature in C.
To preserve backward compatability we then take that value and multiply it by 1.8, add 32 and then mutiply it by 256 / 500.

9.0.33

* Fix Batch Printing problem. As temporary databases were being created, they were sometimes added to or re-created before they could be renamed to a temporary file for report processing. Changed some critical SubRoutines to Functions so that program execution must wait for return value. Also altered the report form to rename the database as the first function instead of the third function to alleviate the race condition. Also included a secondary check in the Batch print loop so that if a temporary database is still present and can not be deleted, the function pauses and sleeps for a bit to allow the report form to get that database renamed.
* Added LOCATION as a conditional display line on all reports. This has been a consistant customer request.
* Modified Vehcile length settings to allow more precision for value

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selection. Metric

customers having difficulty setting the value precise enough to select tenths of meters resolution.

Version 9.0.32

- * NC200 Length Compatability Mode for ILLDOT.
- * Suppress Hourly Summaries when Report period Greater than 30
- * Batch Print as many reports as you want.
- * Batch Printing options, Added Class/Volume Graph (Wasn't selectible

before)

Version 9.0.31

- * Prep for NC200 Metric Flag support.
- * Problems with Build of HDM Lite (LP) with this version. Recompiled after removing HDM Lite from sourcesafe.

Version 9.0.30 (02/15/2007)

- * HDM does not propagate 3 fields in the A Table that are propagated by HDS.=
Add these fields to HDM in the next planned software release
- * Add NC-200 Battery life chart and memory info to help file. Review and update help file
- * The speed bins customer tries to set are not the same as read on reports after the measurements. Revise HDM code to correct problem. This is implemented in the guess_my_Speed routine. Basically the metric values are converted into a pattern of english values like (1,1,2,2,3,4,4,5,5) the guess_my_speed routine first determines how many possible initial values could match the conversion. If only 1 then it retruns it. If there is more than one it then favors a (mod 5) value as the result. IF no mod 5 value in list, it then favors a (mod 5) 5,10,15 increment of the prior speed bin value. If not mod 5 or a increment of mod 5 then returns lowest of the possible values.
- * Code also added in read routine for NC200 to force the metric flag into the dat file if user in metric. The metric conversions are done to speeds at that point.
- * Issues in "current.dat" making import of data into external systems

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problematic.

Differences in internal processing of NC90,NC97 and NC200 need to be transparent

in regards to this file.

1. Correct 1st length bin format error.
2. Correct 1Kph error in speed bins when in metric.
3. Pad Bins with zero's if not used.
4. Provide for a count only format for studies without speed or

length bins.

* Regional Date/Time issues (Study end time). Investigate/Determine if can be simulated so core issue can be resolved. [NOT Regional Issue. Core issue is

that study time can be programmed and not be evenly divisible by the programmed period]

* Add new sample studies to HDM.

* Vehicle Percentage Graph [formulas for class 09,10,11 and up point to volume vice binvolume] creates large number of fictitious trucks when more than 8 length bins used.

* Battery Voltage...

Version 9.0.29

* Single modification done to undo change to cmd_read routine. Had split up single sleep of 200 milliseconds to a series of small sleeps while checking for characters in the input buffer as a means of speeding the programming/reading routines. This caused a problem in programming NC200's, Immediate patch and update applied.

Version 9.0.28

* Ret (integer) changed to sRet (string) for ini.ini_write in Vehcile Lengths.

* Converted the Posted Speed to English from metric prior to writing to unit.

All values are english in db, this value is not converted on read so must be converted on write. (ElectroMega STR)

* Added additional "nulls" in the wake up routine for the NC97's. Based on UAE report can Only assume that the IP10-A went asleep before the data transfers completed on NC97 Units. (UAE less data obtained with HDM9.0.27 then HDM

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7.5)

- * Two-second sequential events...

Note: Errors in the date/time must be present for this scenario to play out.

Prior Firmware (1.0.4D) Altered the date/time Checks conducted in the GetSeqRecs function. Out of sequence datetimes were being being over-analyzed. When examining

the current date/time, an error in the next records date/time caused an adjustment

to the current date/time under some conditions. This cascaded the error vice fixing it.

New method looks forward three records and decides whether this record is the

problem or the next one. The current time stamp must be greater than all of the

following three records date/time stamp to be altered.

- * Made Help Non-Modal (you can navigate other places and minimize it while working)

as per Tom G. recommendation.

- * Included Street in Summary Report Paragraph 1. (Was just in header1)

must

- * Added conditional display of location on fifth line of header. Location

not be the same as street for this line to display.

- * Fixed Dialog for menu "create new" showed text "Open Catalog" vice "Create Catalog"

Version 9.0.27

- * Removed all Serial Number Checking of units during read/write/battery check.

user

- * Altered Battery Voltage display to align the percentages shown to the

with the internal studies conducted by Nu-Metrics Engineering Staff to generate battery performance curves.

Version 9.0.26

- * Added Extended programming option to work around NC-100/200 truncation of

Speed and Length Bins.

modifications to

- * Redesigned DeriveNewStudy to standardize speed and classification bin

be consistent throughout the application.

- * Added user prompt to remove programming cable at end of read unit.

- * Added support for Metric Studies using Extended programming option.

- * Added check for valid ID when programming.

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Version 9.0.25

- * Alter Landscape Reports to be able to display 15 length Bins.
- * Remove 8 Bin Restriction on programming.
- * Reinstated After alternative approach.
- * Altered readstudy routine to wait for data from units in smaller increments (Speed up download).

Version 9.0.24

- * Single tweak to change "NC2000" check to "NC200" checks on some of the routines.

Version 9.0.23

- * Modified Wake_Sensor routine to pull up / pull down rts line faster and not
- * Drain the Cap on the Interface cable. (Dave Klimko's laptop/Cable combo problem.)

Version 9.0.22

- * MAGSYS had problem with NC200 studies. First problem was not displaying a study with only two length bins set. (Routine expected at least three. Corrected display routine.)
- * Also problems with parsing data. Regional date/time settings applied for french.
- * Sequential (A Table) data was [MM/DD] and study was [DD/MM] as per regional settings.
- * Altered routine for A table collection and date/time checking to follow regional settings.
- * After alterations, saw additional problems caused by Using 2 length bins.
- * Append report data logic was moving through class data correctly. Corrected logic to move through class data as soon as empty bin detected.
- * In isolating report function also saw that Dat file created put Length Bin 2 counts into length bin8. Altered sequential read routine so that Max values were put into all empty bins so that the routine wasn't not matching the bin and defaulting to last bin available.
- * Tweaked the size of some of the display fields in the reports to not chop off the descriptors (French).

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* Found yet another way that translated "Metric" did not match. Did wholesale replacement of logic to integers denoting the measurement scale vice strings.
* Using HDM 8.0 (French) as guide, Created language file 005 = French (France)

Version 9.0.21

* NC200 Errors reported during programming, Added additional attempts to Clear/Erase
* Flash Memory prior to programming. Also additional attempts for checking NC200 clock.

Version 9.0.20

* Added error checking on wake_sensor and check_settings and getSeqRecs
* Added bail out on successive checksum failures. (Cable problem caused repeated trys with no maximum cap on failures before failing the process.)
* Added retry on clear flash and allowed one second window for clock set routine
On NC100/N200 programming.

Version 9.0.19

* Corrected Occupancy on read of NC100/NC200. Now handled in the frame read like the temperature.

Version 9.0.18

* Alter revision of listview so that entire line is selecteable and highlighted when selected. (DONE)
* Add cancel study in progress on battery check routine.
* Remove Wet/Dry line from summary report for NC100/NC200 (No Wet/Dry) (DONE)
* If 85% is in last bin, giving wierd result, should say Greater than [Last Bin value] (DONE)
* Added SPEED LABEL after average speed in summary report. (MM) (DONE)
* (Altered Metric Length bin displays so that Max = next bin - .1 vice -1)

Version 9.0.17

* Fixed issue where NC200/NC100 volume was accumulated two times during the process. (Doubled the volume count for all studies)

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Version 9.0.16

- * File > Open was not enforcing the file must exist flag. O.S. Reinstated flag.

- * Mick Murphey had Major problem with Metric mode.

1. "Metric" and "metric" were compared and did not match.

Ensured UCase(myLang.rsvalue(60)) consistency, for this field

regardless

of language/custom settings.

2. Also added conversion of posted speed back to metric and there were lbin and sbin setup areas that did not check for english/metric settings.

3. Added additional Icons for Posted speeds up to 190 (assume Kph)

Version 9.0.15

- * Modified battery display for NC100-NC200

- * Added Check for F11 status on readstudy.

- * If found, same code as F13 is executed.

Version 9.0.14

- * Fixed issues with INI file not storing formats selected by user.

Version 9.0.13

- * Added Export functions.

- * Added the rest of reports.

Version 9.0.11

- * Initial Beta release

Version 8.0.20 (05/13/2005)

- * For supporting International Versions, (FRENCH in particular). Removed all

Hard coded text strings and replaced with references to resource file.

- * For Reversed vehicles. Added report fields to Date/Time/Volume/Average Speed Report.

Modified reports/graphs to remove hard coded strings.

- * Fixed problems with re-display of grid after importing or reading from Histar.

(Affected Sorting as well).

- * Started using InstallShield versus visual basic installer to remove Windows 2000

install issues.

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Version 8.0.19 (12/14/2005)

* Fixed problems with re-display of grid after importing or reading from Histar.

Version 8.0.18 (09/16/2004)

* Fixed problems in the length/speed bins when using "," separator vice "."
For decimal positions.
* Fixes applied to Programming wizard, edit header function, summary report.

Version 8.0.17 (07/27/2004)

* IllDot reported problem with Class/Volume Report. The problem relates to a function within the report that is used to determine AM Peak and PM Peak, (previously just Peak Time).. The function looks at the date [xx:xx - xx:xx] string and attempts to determine if it is AM or PM.. Odd time formats cause a formula error and the report can't be loaded.

Version 8.0.16 (06/28/2004)

* Comms Module was calling verify speed routine after the user entered the length bins (WRONG). Specific users who were using international version and had speeds set too close would error on verify speed routine. This left them hung in a state where they could never get to the speed bin settings to fix them. They were stuck after length bin screen.
* Also, Length and speed bin check routines were enforcing an increment of 1 between bins. For metric .5 should be the minimum value.
* Added the help index into the build to stop errors with help files.

Version 8.0.15 (05/19/2004)

* Reformatted sequential report format.
* Reformatted sequential data display.
* Modified Histar read routine (wake sensor) to match programming wizard.
(USB issue)

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Version 8.0.11 (7/08/2003)

- * Added a warning message for the deletion of the record.

Version 8.0.10 (5/01/2003)

- * Fix a rounding error that occurred from kph to mph for the posted speed. This was fixed by adding one decimal place to the posted speed limit. This can not be fixed for the classified data.
- * When the date format "DD/MM/YYYY" was chosen the Classified and Raw count windows displayed the wrong date. This is now fixed.
- * The changes in version 8.0.8 caused the occu to fail and default to a zero value. This is now fixed.

Version 8.0.9 (4/01/2003)

- * Added the option to export in the Golden River Format
- * The reverse flag is turned on for HDM Lite

Version 8.0.8 (3/05/2003)

- * Issues with interrelation setting giving the wrong unit (mph -> Kph)
- * A German version of HDM is now available.
- * Peeks in the last bin are now distributed correctly.
- * Dat file was change to be consistent with previous versions of HDM
- * Added Views to the menu options for the toolbar

Version 8.0.7 (2/25/2003)

- * No graphs will summary the by day and by a variable number which tries to show 24 bars on a graph. The old way would only show breakdowns of 60, 30, 15 mins and would combine the last two bins.

Version 8.0.6 (12/02/2002)

- * If the 85th falls in the top bin a "N/A" will be displayed for the value instead of the previous or blank. The Help and Manual where also changed to reflect the modification.

Version 8.0.5 (11/23/2002)

- * When you view the summary report the percentage of vehicles travelling in excess of the posted speed is incorrect. If you take a typical 30mph posted

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speed with default speed settings, the 30mph to 34.99mph speed bin is not included in the calculations. The only way round this is to make sure when programming, the posted speed matches a top end speed setting of one of the bins. Alternatively the user can retrospectively alter the posted speed to 29mph, however the info' on the summary report will show the incorrect speed, i.e. 29mph not 30mph. This issue also exists with the enforced speed quote on the summary report.

- * If you decide to change the properties from mph to kph (or vice-versa) the posted speed setting will not change automatically, e.g. a posted speed of 30mph will read 30kph when converted. All the other values are translated correctly, including the enforced speed. Consequently the posted speed figure will be wrong and the percentage of vehicles exceeding the posted speed will be incorrect.
- * When Large Fonts are selected for system setting in Windows, the HDM splash screen text gets distorted and moved off of the screen.
- * If the 85th falls in the top bin, then the calculations will not be correct and there is no way of fixing it. Although under normal circumstances this is unlikely to happen; if the 85th percentile falls in the top speed bin, e.g. >75mph the calculation in the summary report does not work. In other words there is no speed recorded on the report. Also, if a normal study (one whose 85th percentile falls in a lower bin) had been previously viewed with the summary report, the figure which was displayed for that study would be transferred to the summary report of the study whose 85th percentile falls in the top bin.

Version 8.0.4 (11/12/2002)

- * Fixed the bug that if a study runs over 37000 mins the date does not get messed up.
- * Windows 2000 and NT can now view the current.dat and program.dat.
- * Battery Voltage was corrected for the NC-47
- * Serial Number is now correct in the battery screen for NC-47

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Version 8.0.2 (10-25-2002)

- * The P25MON.dll and MSVCD60.dll was added to the list of install files

Version 7.0.32 (9-2002)

- * Made sure that hot key existed for all of the menu choices.
- * Add code so if you click on the instruction from you will close that window.
- * Changes the Set File Configuration window name to say "Set File Configuration" instead of "Program Wizard"
- * Changed the catalog report to have the correct name of "Catalog Report" with caps.
- * Fixed a problem in the program wizard to handle different time formats
- * Add resource names in the code instead of hard-coding them
- * Fixed the save as routine so that it now opens the file you just saved.
- * The Help and Manual was fix so that the 85th percentile formula is correct.
- * Fixed typos in the Help file and Manual
- * Average Speed by Class Report was fixed so that correct date label was instead of the actual date.
- * Class/Volume report graph was fixed so that the range of the number in the peak time span correctly.
- * Fixed the Class/Volume Report so that the Total Unclassified label is not cut off anymore.
- * Changed the sub heading was lining up in the Date/Time/Volume/Average Headway Report
- * Fix the Class/Volume Report to handle different date formats

Version 7.0.31 (8-29-2002)

- * The options in the "about screen" are now right justified.
- * A rounding correction was made when speed bins are one MPH long.

Version 7.0.30 (8-2002)

- * The build number was added to the splash screen. If a build number has a "U" following the number this means that this versions of HDM is an update and was downloaded from our web site.
- * A correction to the calculation of the 85 percentile in the summary

report.

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