CARStat 2.1.8 Release Notes

These release notes cover all the changes made to CARStat since version 2.1.1; as well as a documentation omission from the 2.1.1 User Guide.

Changes since version 2.1.1

April 2003 Release

Site information tables included with site files

Site information tables are now included in the list of site files saved to and restored from the archival directory.

Site locking improved

Minor enhancements were made to the new site lock disabling feature.

Inaccessible site directories no longer permanently alter a site's status

Inaccessible archival directories no longer cause a site to be permanently set to "read only" status. Previously, if a network drive were unavailable when DUMPStat was started a site could be put in a "read only" state such that the site could not be saved. Now the site is set to "read only" only during the time when the drive is not accessible and access is reset to "read write" when the program starts with the archival directory available to the computer.

January 2003 Release

Outlier testing improved

The outlier test was altered to eliminate round-off error caused by internal processing. For a value to be considered an outlier it must be classified as such by Dixon's test and be more than either 3 or 10 times the median value depending on the analysis being performed. Prior to this correction values that were exactly 3 (or 10) times the median value may have been considered outliers. Now the value must be strictly greater than 3 (or 10) times the median value in addition to Dixon's test to be classified as outliers.

Manual reporting limits now treated differently

When manual reporting limits are enabled, they are still used in the calculations but are no longer plotted on the graphs. Instead, the nondetect samples are plotted at their original merged values, and the manual reporting limit for that constituent is instead indicated on the graph by a small diamond. If you are doing comparison to background, the manual reporting limit is divided by two. In cases where manual reporting limits are not enabled, or where they are but the constituent doesn't have one, the median [lab] reporting limit, or half the limit, is used.

Grid display option on Comparison to Background Power Charts

There is a new display option for the Comparison to Background power chart to overlay five dotted lines on the graph. Two vertical lines appear at 3 and 4 SDs (standard deviations) along the horizontal axis, and run from the top to the bottom of the area bounded by the axes. Three horizontal lines appear at 5%, 50%, and 80% likelihood on the vertical axis. The lines provide a visual reference for judging the position and steepness of the power curve, and are displayed either all together or not at all. They will also be printed if you have them turned on.

New Site Locking options

CARStat now allows more flexibility in site locking. You may turn off site locking altogether (if you are the only one using CARStat, for example), and you may also choose when to have CARStat write to the archival site directory.

Time series trend test now screens for automatic outliers

Previously, CARStat had observed manual outliers while testing for trends in Time Series (if manual outliers were enabled). Now, CARStat screens for automatic outliers too, and then performs the trend test, if you are identifying historical trends.

PRN one of the merge format options

When you select a data file to merge, text files are now listed as .PRN as well as .TXT. in the 'List Files of Type' box. The recognized file types list includes .rec (leftover records), .csv, and .dat, and all files.

CARStat and Explorer now work more smoothly together

When CARStat and DUMPStat Explorer are using the same site, there used to be conflicts when each program was attempting to access the database. There is now a higher degree of compatibility between the two programs, and there will be no failures if the database is being accessed simultaneously.

Warning to save changes now less sensitive

For setting manual reporting limits and standards, if there was at least one item that did not have units (like pH), you were asked whether to save your changes if you simply cancelled out of the dialog without changing anything. Now, there is no enquiring message box if you cancel out of the window with no changes.

Logarithmic scaling problem fixed

In the Graph Viewer, log scaling used to work incorrectly in some cases, such that points ended up well above or below the main plotting area. This has now been fixed.

June 2002 Release

Printer switches now take effect immediately in most output viewers

Previously, if you changed the printer in either CARStat or any of the viewers, it was necessary to shut down the program and restart it for the change to take effect. Now, the Graph, Worksheet, and Power Chart viewers allow you to make a printer switch and see the change immediately, without restarting. However, it is usually still necessary to restart CARStat or the Table Viewer if you have changed the printer in either one of these programs.

Half year display corrected
When the data for a graph spans a very short period, the default time display in the Graph Viewer is a half year. This display used to range from January to June. It has now been corrected to read January - July.

Improved clarity of small text display
Small text on analysis output has been clarified and is now easier to read.

March 2002 Release

Trends now labelled correctly
Under certain circumstances, a labeling problem in Comparison to Background caused a detected increasing trend to be indicated as a decreasing trend, and vice versa. This has now been fixed.

January 2002 Release

Mean/median used correctly
In the Comparison to Background analysis, the decision to use the mean or median (as listed in Table 2) based on the limit type had been incorrect in some circumstances. It is now always correct.

October 2001 Release

Viewers now more robust
CARStat communicates more smoothly with the viewer applications now, eliminating occasional error messages generated when statistical settings were changed with old output still open.

September 2001 Release

Statistical Options saved with zones
Zone files now save the settings on all tabs of the Statistical Options dialog. This allows you to work even more quickly, with fewer settings to change when loading new zones.

Time Windows saved with zones
Time windows settings (Locations > Set Time Windows) are now saved in zones; mirroring the Time Windows options in the Statistical Options, which are also now saved in zones. (see above)

Analytical Data Summary tables now accept numbering changes
Analytical Data Summary tables can now be custom numbered. You may have consecutive numbering, or set all ADS tables to have the same number.

Longer tables numbers allowed
All tables can now be custom numbered with numbers up to 3 digits long. If necessary, you may also use negative numbers for all except Analytical Data Summary tables.

New default merge file format	There is a new default file extension (*.txt) displayed in the Select Sample Data File to Import window (when merging new data files).
Improved program/ viewer communication	CARStat communicates smoothly with the viewer applications now, eliminating occasional DDE error messages generated when statistical options were changed while viewer windows were open.
Merge Data window no longer fails with illegally grouped data	Merge Data window is now more robust, with no more failures due to illegally-grouped numbers resulting from accidental inclusions in the wrong columns.

April 2001 Release

Correct page numbering	Instances of page numbering starting at page 2 have been eliminated.
Isolate Constituents print option fixed	In Comparison to Standard Power Charts, the "isolate constituents" option for printing now works correctly.

March 2001 Release

Fix Horizontal Axis works with empty graphs	The Fix Horizontal Axis function has been fixed to work with graphs that don't have any data points.
Clearer message for Power Charts	Statistical Power Chart Viewer now clearly indicates when a chart could not be created due to insufficient data.
Better log scaling with prediction limits	Log scaling has been improved so that lower prediction limits are now drawn at 0.
Printing without output handles better	Print command is handled more gracefully now if there are no graphs to view.
Median nonparametric limit displayed in Comparison to Background	In the Comparison to Background analysis, the nonparametric limit displayed was the mean instead of the median. The display has now been corrected to show the median.
Trend test period now shown	The Time Series graph now displays the trend test period if this option has been selected in Statistical Options.
High y-intercepts now display correctly on Power Charts	Power chart curves now display correctly when the y-intercept is 90 or higher.
Comparison to Standard more robust	Comparison to Standard now longer fails when none of the data falls within the selected time window. Instead, it will simply display a graph with no data points.

Outstanding Issues

Large records cause analytical data summary error message

An error message of "Record is too large" may occur during the analytical data summary analysis. Although MS Access has a specific limit of 255 on the number of columns, it appears there is also a limitation on the number of rows as well. At this time, we have not determined what the maximum allowable size is for the analytical data summary.

Graph viewer Y-axis incorrectly labels small values as zero

At present the program does not allow label sizes of less than 0.0001; instead they are rounded down to zero. Depending on the units used, this limitation may results in '0' labels.

Wide worksheet columns can overlap

Lengthy expressions appearing in the equation column of a worksheet can obscure the first few letters of an item in the description column. However, this will not likely be a problem with printed output.

Windows NT reverses output orientation to PDFWriter

If you print any viewer output using PDFWriter as your printer, WIndows NT will cause your chosen orientation to be switched. If you need to make a PDF document, simply set the orientation in CARStat to be the opposite of the one you really want.

Windows decimal separator must be period (.) for viewers to work

If you have set your Windows' decimal separator as a comma (as is done for the internationalization settings in Europe), CARStat will be unable to display the viewers correctly. For this reason, please ensure that the decimal is a period.

Time in edit log incorrect with Windows 2000 24-hr clock

If you use the 24-hour clock time display option in Windows 2000, your database edits will be entered in the Edit Log as being 12.5 or more hours later than the time the edits were actually performed.

Table Viewer page count may be inaccurate

There are programmatic discrepancies with the interpretation of font size between the table viewer and the CARStat printing routines. This may occasionally cause a small inaccuracy with page count.

E-mail registration requests sometimes fail

To register CARStat for full functionality, the Register Features dialog automatically generates an e-mail message for Discerning Systems which contains the required codes for authorization. However, the correct information may not always be inserted in the e-mail message. When you review the message before sending, please ensure that the query string, user ID, and two status strings are present. If they are not, click on the Prepare a Fax button in Register Features, or simply phone Discerning Systems toll-free at 1-877-374-7744 to register.

Documentation Omissions

See Effective Backup Strategy on page 21 of Chapter 2, The First Time You Use CARStat.

In the User's Guide on page 21, the set of instructions describing a site backup routine is missing a final point. It has been added here.

When you receive new data:

1. Preview your new data file. If you have any doubts about its validity, you should check with your lab.

2. Merge the new data.

3. Set any new aliases/unit conversions required.

4. Perform your analyses and create your reports.

5. Release the site lock and accept the option to back up the current information. This will copy your database, the monitoring network, and all site-specific files to your archival directory.

6. Using a file utility, e.g. PKZIP, compress the archival directory and save it as a file under a name that is easily identifiable.

7. Save the file on diskette, tape, network drive, or whatever your office uses for backup storage.

8. Choose Restore Current Site from the Site Menu. This will allow you to establish the site lock and save any changes you make to the site.