# DUMPStat 2.1.8 Release Notes

These release notes cover all the changes made to DUMPStat since version 2.1.1; as well as documentation errors and omissions from the 2.1 User & Statistical Guides.

## Changes since version 2.1.1

### April 25, 2003 Release

**Outlier detection in Up vs. Down Prediction Limits corrected**

The January 2003 change to outlier detection in Up vs. Down Prediction Limits introduced an error such that samples for the last well in the list of upgradient wells were not compared to the median value. Since only Dixon's test was being used to determine outliers, the last well could have samples declared as outliers without them being greater than 10 times the median value which was inconsistent with the other analyses. This has been corrected.

### April 17, 2003 Release

**Manual reporting limits corrected in sublist prediction limits**

Manual reporting limits were not implemented correctly in Intra-Well Sublist Prediction Limits such that nondetects were ignored in the calculation of background limits. This did not affect the nonsublist version nor were any other analyses affected. The error was introduced in the January update.

**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 values 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 confidence limits, surface water or air analyses, 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 statistical power charts 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**

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

**Time series trend test now screens for automatic outliers**

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

**New file type displayed in Select File for Merge Data**

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.

**DUMPStat and Explorer now work more smoothly together**

When DUMPStat and 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 (in Select for Assessment), 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. |
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| **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 DUMPStat 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 DUMPStat or the Table Viewer if you have changed the printer in either one of these programs. |
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| **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 small text display** | Small text on analysis output has been clarified and is now easier to read. |

## March 2002 Release

| **Two-sided limits corrected** | In Sublist Control Charts and Prediction Limits, two-sided limits for all constituents after pH have been eliminated and the correct single limits are now being displayed. |
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## October 2001 Release

| **Viewers now more robust** | DUMPStat communicates more smoothly with the viewer applications now, eliminating occasional error messages generated when statistical settings were changed with old output still open. |
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## September 2001 Release

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

**More Time Windows options saved with zones**
All settings chosen in the Set Time Windows dialog are now saved with zones. This includes the option to include the most recent data for Up vs. Down analyses, and to ignore all data beyond a specified month.

The setting on the Miscellaneous tab of Settings > Program Options for "Load Zone Overwrites Background Time Windows" *only* applies to settings for individual wells. It does *not* apply to these 'global' Time Window settings: "Automatically include the most recent data" and "Ignore all data sampled after the month x." These global settings will always be included with the zones, regardless of what you have chosen on Settings > Program Options > Miscellaneous.

**Zones now multi-version compatible**
Zones can now be successfully transferred between different versions of DUMPStat.

**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.

**Up vs. Down Table 6 now editable**
Table 6 in Up vs. Down Prediction Limits now accepts changes in title or table number.

**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**
DUMPStat 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.

## April 2001 Release

**Correct page numbering**
Instances of page numbering starting at page 2 have been eliminated.

## March 2001 Release

**Prediction Limit Alpha**

DUMPStat now allows you to choose two alpha value options. The alpha value represents the false positive rate or Type 1 error rate, and is used to calculate the prediction limits in the Intra-Well (and Sublist) Prediction Limits analyses. You may choose "Limit to 0.01" or "Use calculated value." The former is the default setting for this option.

**Outliers in Up vs. Down Prediction Limits corrected**

Previously, there was an error in the Up vs. Down Prediction Limits statistical module that, in particular circumstances, caused DUMPStat to wrongly designate outliers and miscalculate the detection frequency. Outliers & detection frequencies for this analysis are now accurately identified in all cases.

**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 Charts that couldn't be computed are flagged with a more informative message than previously.

**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.

**No more 'installation out of sync' errors**

DUMPStat now handles unexpected Windows shutdowns more gracefully and will no longer display an "Installation out of sync" error message upon the program startup.

**'Ignore Data After' no longer causes analysis failure**

For Intra-Well (& Sublist) Control Charts, Time Series, Intra-Well (& Sublist) Prediction Limits, and Confidence Limits, analyses will not fail if the "Ignore Data After" Time Windows command has been set to exclude all data from the analysis.

**High y-intercepts now display correctly on Power Charts**

Power chart curves now display correctly when the y-intercept is 90 or higher.

# 2.1 Documentation Omissions & Corrections

The following documentation omissions contain references to the appropriate page numbers in the printed version of the User's Guide. The User's Guide PDF has been corrected.

**User Name**
Program Options>Names, 2.1 User's Guide pg. 65

If any conflicts occur between people wishing to use the same site(s), DUMPStat will notify each user as necessary and describe what actions they may take. In order to provide such notification, DUMPStat must be able to identify who is issuing the site commands. That is, DUMPStat needs to know who is working at each installation of the software.

Enter your user name on the Names card of Program Options from the Settings Menu. You can reset it as often as you wish. If no name is entered and DUMPStat needs to know who you are, you will be prompted to enter one.

**Margins**
Page Layout>Margins, 2.1 User's Guide pg. 79

Selecting Page Layout for margins allows you to set the amount of white space that will border your output on printed pages. Simply enter the number (in inches) that you wish to have at the top, bottom, left and right sides of either a portrait or landscape page.

Margins may range from 0.5 to 3 inches wide.

The headers, including the site name, client name, and page number are not drawn in the margin area. Thus, if you choose a 1" margin, you are guaranteed 1" of white space around the outside of the paper.

**Statistical notes**
Select Pairs for Surface Water and Air Monitoring, 2.1 User's Guide pages 164 and 167.

There is a correction to the statistical notes on pages 164 and 167 of Chapter 9, The Sample Points Menu, in the printed 2.1 User's Guide:

Only upstream/downstream or upwind/downwind paired samples *taken on the same day* are displayed on the graphs, but all data (paired or not) from the start of the time window are used for the trend test.

**Sample point names with '&'**
Illegal Characters, 2.1 User's Guide, pg. 268.

Any constituent names that contain '&' will be changed to contain '+' when the data records are merged into the DUMPStat database. This change does *not* occur for sample points containing '&'.

# 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.

**VOC list shows same-day entries separately**

If there are two samples on the same day, they are listed as distinct entries in the historical VOC detections list. In all other analyses, multiple matches are averaged and listed as a single entry.

**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 DUMPStat 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), DUMPStat 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 DUMPStat printing routines. This may occasionally cause a small inaccuracy with page count.

**E-mail registration requests sometimes fail**

To register DUMPStat 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:

◗ Attach DSIREQ.TXT to the email. This can be found in your DUMPStat program directory (usually C:\DUMPSTAT).

◗ Click on the Prepare a Fax button in Register Features, **OR**

◗ Phone Discerning Systems toll-free at 1-877-374-7744 to register.