
**JazzMon Server Monitor
Release Notes 1.4.0**

December 12, 2012
IBM Rational Performance Engineering Team: Dave Schlegel

Version 1.4.0

[Provide Excel macro workbook like NMON to automatically format and chart all the key data tables easily \(232367\)](#)

- **ISSUE:** Creating charts by manually reading in CSV files and using the Chart Wizard is too time consuming
 - **SOLUTION:** Provide JazzMon_Visualizer.xls, an Excel macro file that produces a set of interlinked workbooks automatically charting nearly all available CSV files as standard charts. See Chapter 4 of the manual for more information.

[Streamline JazzMon monitor-gather-analyze process \(241716\)](#)

- **ISSUE:** Address user feedback to make JazzMon easier to use. The monitor-gather-analyze cycle is overly complicated and leads to confusion when users forget to gather their data before analysis and duplicates storage for large data folders. The JazzMon manual is comprehensive but imposing for new users. The jmTemplate.properties file is extensive but confusing for the basic cases most users need.
 - **SOLUTION:** Provide a new property ANALYSIS_IN_PLACE (true by default) to enable a simpler data analysis pathway. When enabled, the *monitor* command will automatically analyze the data when monitoring is complete, *gather* is unnecessary, and *analyze* and *baseline* know to use the original data monitoring folder for their operations.
 - **SOLUTION:** Provide a JazzMonQuickStart guide which reduces the instructions to a single page of simple steps to follow – install, configure, monitor (analyze), and visualize (use JazzMon Visualizer).
 - **SOLUTION:** Provide a minimal default jm.properties file that just requires server URLs and login information that summarizes default behavior that can be changed by referencing jmTemplate.properties.

[JazzMon average of interval averages is inaccurate because it includes intervals with no activity to compute average \(236829\)](#)

- **ISSUE:** JazzMon monitoring is unreliable in some customer environments because the HTTP connections it is using didn't have short duration timeouts set. This has lead to unusually long times between samples producing data analysis artifacts using the irregular sampling times.
 - **SOLUTION:** Provide a new property SERVER_HTTP_CONNECTION_TIMEOUT providing the number of seconds (default 120 seconds) to force monitor sample calls to timeout when there are communications problems.

[JazzMon average/baseline computed wrong in service_etAvg \(240969\)](#)

- **ISSUE:** The average of interval averages fixed in JazzMon 1.3.1 but the Average / Baseline computation was still using the original miscomputed value leading to incorrect ratio values. In addition, the service_etAvg table and others like it were including the Total Times and Total Counts values as literals twice – in the average computation and as separate data columns
 - **SOLUTION:** The CSV file generation process was changed to allow cross-references to the other cells by name instead of duplicating the values or computations.

Version 1.3.1

JazzMon average of interval averages is inaccurate because it includes intervals with no activity to compute average (236829)

- **ISSUE:** Computing the overall average response time by including all intervals produces an incorrect response time. Intervals with no activity have zero response times, so they reduce the average artificially.
 - **SOLUTION:** Compute a weighted average response time for the entire run by dividing the total elapsed time spent during the monitoring period by the total number of counts to produce a true average response time.
 - **NOTE:** The TotalTime and TotalCounts used for this computation are now included as additional columns in the *_etAvg data tables to allow their use as additional sorting columns. First sorting in descending order by TotalCounts and then hiding or filtering out the low frequency web services allows the analyst to ignore calls that may have high response times but that are not used often enough to contribute to significant performance problems.

Version 1.3.0

Reduce effort to import JazzMon data files into Excel and make data sortable (230720)

- **ISSUE:** Tab-separated .txt files require manual intervention to import into Excel or Lotus Symphony
 - **SOLUTION:** Convert JazzMon data output to comma separated CSV files that can automatically launch the preferred spreadsheet application or be directly read without using the Import Wizard
- **ISSUE:** Sorting data tables to find the most interesting data requires relying on the last data sample column, which is not reliable, or manually adding computed totals or averages column to provide reliable sort keys.
 - **SOLUTION:** Embed spreadsheet formulas in the last columns to provide Totals, Max, Averages and computed ratio of data Average to baseline Average to provide sorting keys to help highlight or filter data without manual interaction.
- **ISSUE:** Spreadsheet formulas are not completely compatible between Microsoft Excel and Lotus Symphony because of a conflict in commas or semicolons as parameter separators. This causes formula evaluation errors.
 - **SOLUTION:** Add a new property (ANALYSIS_TARGET) to select between Excel (default) and Symphony output patterns
- **ISSUE:** Secondary files for grand totals and all fields confuse users about which files to use
 - **SOLUTION:** Remove extraneous files for *Totals* and *allfields and *sorted (now easier using sort keys)

Compute interval averages rather than reporting long cumulative averages that hide performance extremes (233260)

- **ISSUE:** Average response times (service_etAvg, async_etAvg, etc) for time trend intervals were based on cumulative averages reported in the original server reports at the end of each interval. Extreme response times were averaged into cumulative averages for frequently used operations hiding them and reducing the value of the response time data.
 - **SOLUTION:** Compute interval averaged based on dividing the total time spent during the interval by the total count during that interval. This eliminates the confusing situation where the average time would remain constant even when no calls were made to the web service during the interval. The etAvg reports now show each interval's average instead of the cumulative average which allows you to see response time variations over the workday.

JazzMon defaults should be more in line with recommendations and FAQ (232365)

- **ISSUE:** The JazzMon FAQ (Frequently Asked Questions) recommended property settings at odds with the property default values.
 - **SOLUTION:** Adjust the defaults to be in line with the FAQ
 - SEQ_RUN_LENGTH_ARG default is now 7d (7 days)
 - PARM_COUNTER_RATE_MINS default is now 60 minutes
 - PARM_REPOREPORT_RATE_MINS default is now 480 (8 hours)

JazzMon baseline selection fails with server application names like jazz02 (232620)

- **ISSUE:** Baseline comparison data was selected based on an exact match to the application suffix, i.e. “jazz” or “ccm” but some servers use an extended suffix such as “jazz02” which doesn’t fit this pattern.
 - **SOLUTION:** Search for baseline matches if the server suffix *contains* one of the available baseline suffixes.

JazzMon formatting precision rounding off data in totals and component-based reports (234358)

- **ISSUE:** Output of elapsed time totals fields (i.e. “service_etTot.csv”) and component summary data for times and average response times (i.e. “servicecomponents_etAvg.csv”) were using formatting that rounded values to whole numbers when finer precision is important.
 - **SOLUTION:** Fix formatting to show three decimal places in line with other fields like average times.

Version 1.2.2

JazzMon passwords with special characters don't work (221027)

- **ISSUE:** Passwords that were multiples of 8 characters long with special characters were causing exceptions in the decoder
 - **SOLUTION:** Alter the decode password handler.

Version 1.2.1

Documentation changes only

- **New download location for both IBM field teams and customers:** <https://jazz.net/wiki/bin/view/Main/JazzMon>.
- **New support process:** Please ask support questions on the Jazz.net forums (<https://jazz.net/forum>) , using the tag “jazzmon”.
- **New section 3.1.3:** Description of Web Service Components to provide more context for interpreting web service reports

Version 1.2.0

Assorted JazzMon fixes or improvements (212194)

- **ISSUE:** JazzMon table column headings use unconventional date format (mm_dd_yyyy, etc)
 - **SOLUTION:** Changed to use conventional format (mm/dd/yyyy hh::ss::ms)
- **ISSUE:** Excel chart wizard sometimes displays numbers for X-Axis instead of date headers
 - **SOLUTION:** Added Excel instructions to JazzMon manual for problems with X-axis showing numbers
- **ISSUE:** Password command sometimes produces encrypted passwords with special characters that have sometimes produced run-time errors
 - **SOLUTION:** Fixed password generation to try to avoid embedding special characters that cause runtime problems, displaying a warning if unable to avoid using +, -, / chars

JazzMon baselines not dividing to get per hour rate correctly (214365)

- **ISSUE:** Baseline data files are not adjusting counts or total times data values to get hourly rates
- **SOLUTION:** Fixed the data analysis file pattern matching to cover this situation.

Test and evaluate Jazzmon for general usability and other issues we can address before next release (214009)

- **ISSUE:** The password command output left some ambiguity of how to use the encrypted password as a property
 - **SOLUTION:** Improve password output by printing actual property line.
- **IMPROVEMENT:** Rename command line option so that “properties=<propfile>” is clearer as “file=<propFile>”. The original option is still recognized to minimize confusion on existing users.

[Convert Std Deviation code to use the math.common 1.2 apache library. \(136112\)](#)

- **ISSUE:** Internal calculation of running standard deviation calculation using textbook algorithms
- **SOLUTION:** Change to use existing Apache library to avoid legal distribution and provenance issues.

[AnalyzeServerMonitor crashes working with unchanged \(zero\) QM async data \(205270\)](#)

- **ISSUE:** Empty data from a non-functioning application or server causes crashes during analysis
- **SOLUTION:** Avoid crashing on empty data sets for whatever reason.

[Add Jazzmon support for new Distributed ObjectGrid Cache table in webservice reports \(207938\)](#)

- **ISSUE:** 4.0 Clustering support adds new table of cross-node synchronization that appears in two configurations based on cluster.
- **SOLUTION:** When new property ANALYSIS_CLUSTER is enabled, generate new object grid trend and totals output from Distributed Object Grid data in counter service report. Check the webservice data reports to determine cluster configuration.
- **NOTE:** Output file names were also standardized so that web service trend_* tables were renamed to service_*

[JazzMon doesn't parse mixed of commas and periods correctly. \(208156\)](#)

- **ISSUE:** Internationalization issue parsing data using period as thousands separator and comma as decimal point isn't parsed correctly in US locale. Should only occur when analyzing in different locale than server
- **SOLUTION:** Set new property ANALYSIS_EURO_LOCALE to true to reverse incoming period and commas

Version 1.1.0

[JazzMon package needs version identification and release notes \(191405\)](#)

- **ISSUE:** Hard to distinguish original release from updated versions
- **SOLUTION:** Add version number to zip package for distribution and provide new version command line option to display current version and compatibility
- Include JazzMon_ReleaseNotes.doc to document changes and defects addressed in each new release

[JazzMon: Compute floating license trends when possible \(197798\)](#)

- **FEATURE:** Floating license usage information is presented in a new trend table (licence_flVal.txt) in the JTS application directory. This provides an indication of active users but is subject to some caveats.
- License information is not yet aggregated or totaled across servers.

[AnalyzeServerMonitor should total up the async tasks as it currently does for web services \(199831\)](#)

- **FEATURE:** Compute totals for async total time and counts across multiple servers or nodes. This can serve as a guide to multiple servers or applications to identify site wide time or traffic.

[Data collection glitches cause gaps in analysis \(190512\)](#)

- **ISSUE:** JazzMon monitoring keeps going even if it fails to get occasional snapshots because the server is down or inaccessible but wasn't saving any data to indicate the gaps in reliable data. This could lead to confusion later on when the timeline gets skewed when compared to other servers or leads to unexplained spikes or dips in the output.
- **SOLUTION:** JazzMon will now write out copies of the last reliable data to act as place holders and record the errors matching those samples. Analysis output for the place holder time samples is highlighted with a leading marker on the column name "(?)". Documented more fully in updates to main documentation

[Integrate server monitoring aggregation feature into standard processing \(190884\)](#)

- **ISSUE:** Counter service reports from main proxy entry point for cluster get individual node reports randomly.
- **SOLUTION:** Monitor cluster by monitoring individual nodes then enable aggregation to get an accurate site-wide report. Documented in updates to main documentation

- Includes 2 new properties documented in jmTemplate.properties and main documentation
 - ANALYSIS_AGGREGATE_LIST
 - ANALYSIS_AGGREGATE_ZERO_BASIS

[Getting password handling exception using Jazz monitor \(3.0 bundle version\) \(197965\)](#)

- **ISSUE:** Passwords with length divisible by 8 were incorrectly handled as if it were encrypted