

Product Release Notes

Product: PONEMAH Physiology Platform
Model: P3 Plus
Version: 4.90
Build: 004866-001 (CD Build)
Date: January, 2009

Product Release Notes for PONEMAH Physiology Platform (P3 Plus) Version 4.90 indicate revisions made to the P3 Plus core application since release of P3 Plus Version 4.80-SP4. For information regarding changes to the software from previous versions, please refer to the Release Notes folder located on the Version 4.90 CD. Product Release Notes indicate only revisions to application contents that are part of CD Part #004866-001 – Build Version 4.90.

Product Release Notes for P3 Plus do not include information regarding revisions of the P3 Plus Analysis Modules. Information regarding revisions of the P3 Plus Analysis Modules is indicated in separate Product Release Notes.

Notice for organizations that must comply with FDA's Good Laboratory Practices (GLP) and 21 CFR Part 11 Electronic Records; Electronic Signatures: P3 Plus Versions may contain **Preview Features**. These **Preview Features** are listed in the Product Release Notes table under the column, "Type of Change". A **Preview Feature** indicates that enhancements have been made to P3 Plus, but have not been validated. Instead, Data Sciences International (DSI) has opted to delay complete validation until receiving comments from customers regarding use of these features. Further validation of these features will be performed in later releases of P3 Plus. There may be additional **Preview Features** that had been documented in previously released versions that are not documented here. These features are not available unless manually enabled by the user. If documentation is needed regarding these features, please contact the Technical Support Group at DSI.

Reference #	Type of Change	<p>Key: N = New Feature; E = Enhancement; F = Fix</p> <p>Description</p>
Ponemah Core-General		
N/A	E	Added a System Monitor feature to Ponemah. This feature will monitor system processes during acquisition and log information when data buffer overflow errors occur. This can be configured to log the previous two minutes of activity in five second intervals or log any processes whose CPU usage exceeds a determined threshold.
N/A	E	Added JET device ID information to the Experimental Log file. The data logged for each JET device is the JET ID, the label the user applied to the device, and the device type.
N/A	E	Added a button that allows users to export the Application log. A date range may be entered for exporting and a folder designation is determined by the user.
N/A	E	Added the ability to apply Bad Data Marks across all channels in a single group. Previously, Bad Data Marks only applied to a single channel.
N/A	E	Data Reduction has been modified to better interact with Parser Segments. This allows Intervals/Labels to be linked to Parser segments for consistency in naming.
N/A	E	<p>Added additional information to the Data Reduction output. Added the following output for each Data Reduction Interval:</p> <ul style="list-style-type: none"> • Start Time • End Time • Duration of each Data Interval
N/A	E	Data Segments have been removed and Parser Segments will stay in the Parsed Review file. This provides more consistency when processing data.
N/A	E	Added support for Microsoft Excel 2007. This provides more rows and columns to support a greater amount of derived/calculated output generated from long duration studies.

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2923	F	<p>Changing the order of the channels in the Input Setup Dialog could result in channels not being able to be modified. The issue occurred when disabled channels appeared in the dialog. When a sort was performed and an active channel was reordered to a position in the setup menu where a disabled channel was present, the current channel would not be able to be modified. For example, if the protocol contained active channels for inputs 1 and 3 (channel 2 disabled), reordering the channels so that an active channel (1 or 3) occupied the position of the previously disabled channel would result in this channel not being able to be modified until a new sort was performed and this channel occupied a previously enabled channel slot.</p> <p>Note: Existed in versions 4.70 and 4.80 but not 4.60.</p>
3177	F	<p>A more descriptive message is posted if a user to Windows (not an Administrator) logs on to Windows for the first time after the Ponemah software is installed. An Administrator is required to complete the database installation.</p>
2949	F	<p>Alarm settings were not being saved as part of the protocol. When the alarms were set and the protocol saved, exiting the protocol and reopening would result in the alarm settings not being preserved.</p>
2967	F	<p>If a default protocol is not loaded when the system is started, the message, "could not locate protocol file, upload another protocol file?" is posted. If the user selected no to this message, the "Species" designation was left blank. This now defaults to "Dog" under these circumstances.</p>
2969	F	<p>Loading a RAW file with a path greater than 120 characters in length resulted in the file not being loaded and no message posted to the user alerting them to this situation. This has been corrected and the path length extended to 260 characters.</p>
2989	F	<p>During Acquisition or Replay, changing the logging rate value to zero would result in an error message being posted, the logging method changed, and an invalid entry posted into the log file.</p> <p>For example: If the logging rate was 5 seconds, changing to 0 epochs would post an error message, change the logging rate to 5 epochs, and post an entry into the log file stating it was changed "from 17 seconds to 0 epochs".</p>

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3007	F	<p>When configuring Data Reduction, if a space existed between characters in the Label text field (for example, "Test 1"), the characters after the space would be dropped during Review and the label not properly restored after saving the protocol. A check has been added to notify the user if spaces exist and force the user to remove any spaces.</p> <p>Note: No issues exist during acquisition.</p>
3057	F	<p>During Acquisition or Replay (not an issue in Review), if the same event was used to trigger both the Control and the T0 mark, the Derived Line that contained this event would be averaged in both the Control segment and the first Reduced segment.</p> <p>The recent addition of displaying the Start and End times creates confusion with this method of segmenting. Therefore, a change has been implemented to not include the derived line of data containing the event in the Control value calculation.</p>
2898	F	<p>If the Units column in the Channel Input Setup configuration contained an apostrophe, an error message appeared stating "ODBC Database error: Syntax error (missing operator) in query expression 'g's', '(null)', '(null)', '(null)'" when attempting to collect data. This has been corrected to allow apostrophes in the Units column to ODBC outputted files (Excel and Access).</p>
3062	F	<p>If the logged on user was not an Administrator and the application failed to connect to the SQL Database, the user was not asked to try again. Instead, a message box was posted asking the user to log on as an administrator. This has been corrected to allow a Window's user to try and reconnect to the database.</p>
3074	F	<p>The Copy Selection menu item (in both Acquisition and Review) was enabled and disabled incorrectly under certain circumstances. The following scenarios were incorrect:</p> <ul style="list-style-type: none"> • Select an item in the Data Reduction window, select a different status window (DRx for example), reselect the Data Reduction window - a row was selected but the selection was disabled. • Select an item in any window, then ctrl-select the same line, thus deselecting the row so no rows were highlighted; the selection was enabled.
2945	F	<p>Removed support for the Data Reduction Report feature. This has been removed from the dialog.</p>

Reference #	Type of Change	<p>Key: N = New Feature; E = Enhancement; F = Fix</p> <p>Description</p>
3120	F	<p>Ponemah currently supports two sample rates. The remote possibility existed where an acquisition could be performed with three sample rates under the following conditions:</p> <ol style="list-style-type: none"> 1. Load P3 with hardware from many channels (Ex: ABDC32) and set every channel to be acquired 2. Set every other channel to have a secondary rate at a specific value (Ex: primary rate 1000Hz, secondary rate 500Hz) 3. Save the protocol 4. Change the hardware to have less channels (Ex: ACQ-DEMO with a Bridge) 5. Start Ponemah and load the previous protocol 6. Change the secondary rate to something else (Ex: 250) 7. Save the protocol 8. Change the hardware back to the larger channel count 9. Start P3 and load the protocol 10. DO NOT open P3 Setup or the sample rate dialog 11. Immediately start the acquisition - 3 sample rates would be acquired. <p>This has been corrected to only allow 2 sample rates to be collected.</p>
3147	F	<p>If <Alt><O> was performed, everything functioned as expected. However, if subsequent <Alt><O> functions were performed during the same acquisition, the Data Reduction would not stop at the defined time or lines specified and would only stop when manually stopped by the user.</p>
3159	F	<p>Data Parser information and some systems Settings (Setup, P3 Setup menu) were not listed in the Print Protocol feature. The following has been added:</p> <ul style="list-style-type: none"> • Data Parser Information • RAW Data On • Link Video Saving • Record Video On • Data Separator • Time Format • Ignore Zeros in Data Reduction
Jacketed External Telemetry (JET)		
N/A	E	<p>JET BP (Blood Pressure) allows signals collected from the non-invasive JET telemetry system to be synchronized with a minimally invasive blood pressure implant.</p>

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N/A	E	A time lag existed between the time the acquisition was started and when JET devices were found and started. This has been modified to use the start time for an acquisition based off of the time the Continue button is clicked.
N/A	E	Added JET synchronization tolerances (Application Configuration, Acquisition Interfaces dialog) to specify the level of synchronization between devices. <ul style="list-style-type: none"> Jacketed External Telemetry (default is +/-6000ms) JET-OpenART (default is +/-100ms)
N/A	E	Added the ability to synchronize OpenART telemetry signals with JET telemetry signals. To enable this feature, the JET-OpenART acquisition interface must be selected in the Acquisition Interface dialog (Application Configuration menu).
3181	F	Previously, the BT Receiver Optimizer only allowed 8 receivers to be optimized. This was corrected to allow 16 receivers to be optimized.
N/A	E	Added support for JET Receiver firmware version 3.2.
3174	F	Activity would occasionally display zeros when using a sample rate scheme of 1000Hz for the primary sample rate and 50Hz for the secondary rate. This has been corrected.
Study Protocol Option		
N/A	E	Added a button that allows users to export the Study Log and Data log. A date range may be entered for exporting and a folder designation is determined by the user.
N/A	E	When a Sync is performed, the software will attempt to synchronize the Report Runs. If only one Report Run exists for a time point, this report run will be set across all workstations (default is overridden). If multiple Report Runs exist, the user will be alerted to a conflict.
N/A	E	When a Sync is performed, the software will attempt to synchronize the Notes. If only one Note exists for a Run (i.e. one note for the entire study), this Note will be set across all workstations (empty Notes are ignored). If multiple Notes exist, the user will be alerted to a conflict.
N/A	E	Added functionality to allow a user to attach a RAW file to a study. This allows a RAW file that was not collected under Study to be added and used under the Study context. This will allow a user to generate data from a Replay or Review and have this data added to the Study output.

DSI Corporate Headquarters

119 14th Street NW
St. Paul, MN 55112
P: +1 (651) 481.7400 • F: +1 (651) 481.7404
www.datasci.com

Ponemah Operations

5525 Cloverleaf Parkway
Valley View, OH 44125
P: +1 (216) 328.7000 • F: +1 (216) 328.7400
www.ponemah.com

Reference #	Type of Change	<p>Key: N = New Feature; E = Enhancement; F = Fix</p> <p>Description</p>
N/A	E	<p>Added functionality to allow a user to attach a Review file to a study. This allows a Review file that was not collected under Study to be added and used under the Study context. This will allow a user to generate data from a Review and have this data added to the Study output. The Study will compare the Review Protocol and the Study Protocol to ensure that they match. If they do not match, the user will be warned.</p>
2897	F	<p>If a Network Study was configured for all the PCs to share a network data directory, and multiple workstations attempted to do a review within the same study (regardless of whether the Runs were the same or not), the WorkingRvw file of the first Reviewer would be overwritten by the WorkingRvw file of the second Reviewer.</p> <p>Corrected this issue by creating different run names for saved marks sections if the same review file is opened on two different workstations.</p>
3182	F	<p>If SQL Server 2000 and SQL 2005 exist on the network, Ponemah may not be able to see valid Ponemah workstations. If a Find Workstation fails, a message will be posted asking the user if they would like to add the workstation. The user may then add this workstation to the current Study.</p>
2846	F	<p>When configuring a Tox study, it is assumed that only one Group will be set up in the protocol file. A Tox study is intended to collect signals from one animal at a time with all signals in a single group. However, the software did not warn the user if multiple groups existed and could result in Ponemah closing under certain circumstances. A message has been added to warn users that multiple Groups exist in the protocol.</p>
2997	F	<p>Notes entered into Study along with Summary/Report Setup information was not synchronized. This has been corrected. This has been corrected to allow this information to be synchronized with other workstations. See Sync enhancements listed above.</p>
2940	F	<p>If saving a parsed run was performed from the Data Parser pull-down menu, the ODBC generated file (Excel or Access) would be saved outside of the study folder. If using the Data Security Option, an error may be posted stating that the file and the signature file could not be created.</p>

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2981	F	<p>If a Study Acquisition was performed with 10 channels (for example), then reviewed on a system with a License file Option only allowing 8 channels, the review file would open with only 8 channels and also post a warning message. When saving a marks section from that review file, the data would not be entered into the database (the database was expecting all channels to be saved).</p> <p>This has been corrected to account for insufficient channel configurations. Any channel not displayed as a result of insufficient channel count will have “x’s” placed into the database for all derived/calculated parameters.</p>
3058	F	<p>A data set name with a single quote in the file name resulted in an error message when data was logged to the database and inconsistency with the logged data. This has been corrected to allow single quotes to be used in file names. This has been corrected to allow apostrophes in the Units column to ODBC outputted files (Excel and Access).</p>
3143	F	<p>If a workstation was set to automatically adjust for daylight savings, the displayed Date and Day (from the Modify Study dialog) would be off by one day if the study started prior to the daylight saving adjustment and ended after the adjustment.</p>
Data Review		
N/A	E	<p>Added the ability to access attributes from presentation signals. Previously, attributes could only be accessed through the primary waveform input.</p>
N/A	E	<p>Added the ability to turn Mark Difference calculations on and off. This feature has been added to improve performance when analyzing large datasets. This feature will only calculate and display mark differences if the feature is enabled.</p>
N/A	E	<p>Added the ability to turn Bad Data Marks on and off in the graph page. A toolbar button has been added to the graph page that allows the user to toggle this functionality.</p>
3072	F	<p>Selecting the print option from a PV Loop graph page will display a dialog confirming that you want to print the graph page. If this function was canceled, the dialog box would remain visible and the graph page would become nonresponsive.</p>

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2797	F	Ponemah would close unexpectedly when opening a very large review file with insufficient memory available on the workstation. This has been corrected to post a message prompting the user to select a reduced number of channels. After clicking OK for this message, Ponemah will exit and allow the user to modify the number of channels brought into review.
3172	F	Configuring templates in a template graph page would only allow the user to scroll back and forth in the template page based on the amount of data present in the window. However, if parser segments existed and the user switched to Parser View Mode, the user could scroll well beyond any data in the template page where no data existed.
3176	F	Analyzing data in Parser View Mode could cause Ponemah to close. This was a result of how cycles were handled when there were partial cycles included in a Parser Segment.
3102	F	Selecting the print function from a graph page and then canceling the print function from the dialog box would result in the software becoming unresponsive if Notes were present in the graph page.
3107	F	A Free Form note was not able to be added to a Page View graph presentation. This has been updated to support Free Form notes.
3085	F	If a review file was opened on a system that did not have the analysis module used to originally collect the data, the review file would close if a cycle was manually inserted. This was a result of the software setting the first channel to RAW analysis and opening the file. This has been corrected to disable the channel prior to opening the review file and post a message alerting the user that the analysis module is not present.
2946	F	When printing a Page View graph, the time range for the entire graph was printed for each pane. For example, if the graph page was set to display a total of five minutes with 5 panes enabled, each pane should have displayed 1 minutes worth of data when printed. However, each pane contained the same 5 minutes of data when printed.
3071	F	Updated the print feature to print template graphs and their associated information. This is done through the Print RAW Data feature in Ponemah.
3131	F	The Data Reduction window would occasionally display 99% completion for the calculations when opening a large data set. Calculations were completed but the percent indicator did not properly update to 100%. This has been corrected to appropriately remove the percentage complete indicator when finished.

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2892	F	Adding an event in Review and then moving the event was not correctly captured in the log file. The entry appeared to be duplicated instead of logging the appropriate text that the event was “added” and then “moved”.
2876	F	The drawing of Difference Marks was greatly slowed if multiple data breaks existed in the file. This can be addressed by utilizing the new ability to enable/disable Difference Marks.
3005	F	When parser rules were applied or when a parsed review file was saved, the parser segment may have been aligned to the slow channel rate even if no slow channel rate was enabled. This may have resulted in desired data not being included in the resulting parsed RAW file as well as the event not being included.
3009	F	Occasionally, measurable spikes would appear in the data when in Parser View Mode. Expanding or compressing the graph could result in an increase, in a decrease, or disappearance of these spikes. The error was a result of two adjacent parser segments counting the same data point twice.
3055	F	Clicking on a Data Parser segment in the graph page will highlight the data contained in that segment in the DRx and MXx files. The data highlighted in the Data Reduction window was not always correct. However, this was strictly an issue with highlighting and did not affect calculated/derived values.
3074	F	The Copy Selection menu item (in both Acquisition and Review) was enabled and disabled incorrectly under certain circumstances. The following scenarios were incorrect: <ul style="list-style-type: none"> • Select an item in the Data Reduction window, select a different status window (DRx for example), reselect the Data Reduction window - a row was selected but the selection was disabled. • Select an item in any window, then ctrl-select the same line, thus deselecting the row so no rows were highlighted; the selection was enabled.
3075	F	The Undo Graph Time Change feature did not function properly under the following circumstances: <ul style="list-style-type: none"> • Scatter graph: right click option did not function • PV Loop: right click option did not function
3150	F	If an analysis was done in the PV Loop graph page and a Marks section was saved, the derived/calculated data was not placed in the ODBC generated file (Microsoft Excel or Access).

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3160	F	The Template graph page did not display a match percentage for parsed data when in Parser View Mode. The match percentage displayed in the window was calculated over the entire data set. This has been updated to appropriately display the match percentage for just the parser segments when in Parser View Mode.
3169	F	The samples per pixel setting were not properly calculated when using the Page View graph. The samples per pixel were dependent on the number of axes selected. This has been corrected to display the appropriate samples per pixel.
7700 Signal Conditioners		
N/A	E	Added support for the BIO12 amplifier (model 13-7770-BIO12) and the Digital Communication Module (DCOM, model 13-7715-70). This device can be used to satisfy a wide variety of applications where bio-potentials are collected.
2472	F	Performing a channel reset changed the probe setting to Iso/Defib (Universal signal conditioner, model 13-7715-58) only if the probe setting was not previously modified. If the setting was modified and a reset was performed, the Iso/Defib setting was not modified from its previous setting. Corrected the inconsistency so that the Iso/Defib setting is not modified upon a channel reset regardless of the previous state.
3049	F	The Low Pass filter settings were not properly saved. The filter applied to the data was 100Hz regardless of the value set for this filter.
2937	F	The Product Information dialog would display “NA” for the firmware version for the 13-7715-35 Carrier Signal Conditioner. This was only found to occur randomly and only in slot A of the 7700 chassis. This was a result of asynchronous polling of information when using the USB slot zero module (USB communication to the PC). This has been corrected to make sure all signal conditioner information is provided when requested.
Video Option		
3090	F	If the protocol Group that a Video Camera was associated with did not have a name (the Name field is blank), then the camera would not start and a message would be posted stating that the camera failed. This has been corrected to start the camera even if no name is specified.

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3142	F	If multiple cameras failed to start, Ponemah would close unexpectedly. If a camera failed to start, a message would post asking the user if they would like to stop acquisition. If the user chose to stop acquisition and a second camera failed to start (and the user selects the option to stop the acquisition after the acquisition has stopped), Ponemah would close.
Data Security Option (DSO)		
3031	F	When configuring DSO cards, it was possible to leave the Administrator Name and User Name blank. This has been changed to force the user to enter values for both the Administrator and User Names.
2899	F	The Browse dialog used to search for files to manually sign (located in the Sign Files dialog, Tools menu) defaulted to the LSS directory. This has been updated to begin searching in the derived data path specified in the Application Configuration dialog (Data Paths).
DSI OpenART		
2970	F	If the span for a transmitter was set too small (where the signal value was greater than the designated span), the signal would wrap on the graph page when collecting data and result in the appearance of multiple peaks. This has been corrected to rail the signal when the value goes out of range and not wrap onto the bottom of the graph axis.