

## Product Release Notes

**Product:** PONEMAH Physiology Platform  
**Model:** P3 Plus  
**Version:** 4.80-SP2 (Service Pack 2 for version 4.80)  
**Build:** J03263 (CD Build)  
**Date:** October, 2008

Product Release Notes for PONEMAH Physiology Platform (P3 Plus) Version 4.80-SP2 indicate revisions made to the P3 Plus core application since release of P3 Plus Version 4.80. For information regarding changes to the software from previous versions, please refer to the Release Notes folder located on the Version 4.80 CD. Product Release Notes indicate only revisions to application contents that are part of CD Part #J02910 – Build Version 4.80.

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><b>Key: N = New Feature; E = Enhancement; F = Fix</b></p> <p><b>Description</b></p>
<b>Data Security Option</b>		
3010	F	<p>When using the Data Security Option, the ability to view log files within the Study Protocol Option was controlled by the "Delete Study" security bit. If a user did not have this bit enabled, the user would not be able to access the log information located within the Manage Studies dialog. This feature has been removed from this bit and is accessible to users that have access to the Study Protocol Option.</p>
2926	F	<p>An infrequent error was found when performing long acquisitions (typically greater than 15 hours) which resulted in the software not being able to be properly shut down. When a data security card was inserted into the reader after 15 hours, an error may have posted stating that the access card was not initialized and the user could not gain access to the secured system. This forced the user to terminate the program through Task Manager resulting in an unsigned RAW file. This was due to a leak in the third party middleware used to communicate with the card reader.</p>
<b>Data Review</b>		
3002	F	<p>Collecting large amounts of data during acquisition caused Ponemah to close when post processing data in Review. File sizes of 8GB and greater were tested. When analyzing the data in Review, the graph portion of the analysis window typically would not display data. Attempting to perform another analysis typically resulted in the Ponemah program closing. This issue has been corrected to properly allocate memory to perform the desired analysis. However, it is currently recommended to keep data collection below this file size limit when using Review for post processing. If acquisitions span multiple days of contiguous data collection, it is recommended to stop collection after 24 hours and restart the collection under a separate file name in order to optimize Review functionality.</p> <p><b>Work-around (if not installing the Service Pack):</b> The number of channels and number of cycles within the channels are the key factors in creating this issue. Opening a single animal at a time for review limits the channels and cycles and therefore reduces or eliminates this issue.</p>
3056	F	<p>Saving a Marks section in Review will increase the size of the Review file due to additional information being saved with each Marks section. If large RAW files are being reviewed, the information saved for each Marks section could become large and possibly exceed a 2GB limit. If the Review file (not the RAW file) exceeded the 2GB limit, Ponemah would post the message, "Error Reading Review File" and the file would not be able to be processed in Review. This size limitation has been increased and is restricted only by hard disk space.</p>
2988	F	<p>Error message "Unexpected Request Range" may have been posted when working with large data files. This error was a result of loading large amounts of data in conjunction with a primary sample rate of 750Hz and a secondary sample rate of 50Hz. This combination of sample rates caused an issue when caching data.</p>

Reference #	Type of Change	Key: N = New Feature; E = Enhancement; F = Fix
		Description
2947	F	The Delete Bad Data Marks-Range feature did not use the correct time when deleting bad data marks from a graph page other than page 1. If deleting marks from an axis on a graph page, other than page 1, the software would use the time at the cursor on graph page 1 to determine the time to search for and remove the bad data marks.
3082	F	Performance issues were linked to the Change Notes feature. To increase speed, Change Notes have been removed. The option to add a Freeform Note is still available.
3044	F	The ability to scroll through data in the graph page was slowed markedly after reanalyzing very large files. This is tied with Tracker 3045 and relates to how Ponemah handled Change Notes.
3045	F	Attempting to save a marks section (using DSO) after making many changes to the marks placement would greatly affect system performance. The system would appear to be nonresponsive upon saving. However, the system would require an unusually long time to handle the Change Notes added to each mark. As a result, Change Notes have been removed (see 3082).
2928	F	Review files created from RAW files using three sample rates would post the error message "DataParser, Size Mismatch" when loaded. This is due to Ponemah not properly up-sampling the slowest channel. A message is now posted warning the user that the file cannot be used in Review. This would only be an issue for data collected using the DT3000 series internal A/D cards. Support for these cards were discontinued with version 3.4 of the Ponemah software.
3063	F	Updated the formula used to calculate EDPVR. The previous version was dependent on V0 and did not tolerate negative V0. If a negative V0 was encountered. The EDPVR was not calculated.  The current formula is $P = C * e^{(\text{Beta} * V)}$
<b>DSI OpenART with 7700 Sync</b>		
2958	F	Calibration values were not properly saved when using the 7700 sync feature in conjunction with OpenART telemetry. If calibrations were performed in the 7700 dialog prior to opening the calibration menu for the telemetry hardware, values previously saved in the 7700 dialog would revert back to default values for the specific 7700 signal conditioner(s).  <b>Work-around (if not installing the Service Pack):</b> if calibrations are performed on the telemetry hardware prior to the 7700 hardware, no issues exist. This issue only exists if the telemetry dialog is accessed after calibrating the 7700 signal conditioners.
<b>ECG Pro</b>		
3061	F	Analyzing data using Batch Mode (ECG Pro) caused the system to freeze if the user's Data Security access card was removed. The system would appear to freeze when switching analysis to the next ECG channel after a card was removed.
3066	F	When using ECG Pro, an option to remove marks from all unmatched cycles is available. The operation would take an unusually long period of time when there were a number of mark differences or notes.

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<b>JET (Jacketed External Telemetry)</b>		
3042	F	The recent WRAP firmware, version 3.2, was not compatible with the Optimizer functionality contained in Ponemah version 4.80. The JET Optimizer has been updated to allow the JET Optimizer to be utilized with the new WRAP firmware.
3016	F	If a signal was inputted that was greater than the defined span for a JET RIP channel (defaulted to +/-10mV), the signal would invert and display incorrect values. This has been corrected to properly display the channel as being clipped when exceeding the defined span values.
2995	F	Amplitudes for the Activity signals collected by JET varied with different primary sample rates. This has been corrected to properly display the appropriate amplitude regardless of the primary sample rate chosen.
2984	F	If a signal collected by JET exceeded the span value set in the 7700 Amplifier Setup dialog, the signal values that exceed the defined span range wrapped to the bottom of the axis on the graph page. This has been corrected to clip signals that exceed the defined span values.
2933	F	<p>After a reconnection of a JET device was established (device was previously disconnected or went out of range), all channels set to a secondary sample rate were removed if the primary sample rate was set to 1000Hz. Additionally, these signals could not be restored without stopping the current acquisition and restarting.</p> <p><b>Work-around (if not installing the Service Pack):</b> Use any other sample rate, other than 1000Hz, as your primary sample rate.</p>
<b>7700 Series Signal Conditioners</b>		
2998	F	Incorrect information in the Value column of the 7700 calibration dialog would be posted if the software channel count exceeded the channel count of the available signal conditioners. This would also result in the inability to perform a valid calibration and the data in the Value column may appear to be frozen. For example, two Universal signal conditioners would provide a total of 6 inputs. If the number of channels from the Channel Input Setup dialog exceeded 6 channels, the issue described above would occur.
2960	F	<p>Performing a Measure for a channel in the 7700 Amplifier Setup dialog would infrequently cause Ponemah to close.</p> <p><b>Work-around (if not installing the Service Pack):</b> The issue is only seen if active channels are disabled in the Channel Input Setup menu and a calibration is performed. If all previously enabled channels are active, this issue is not encountered.</p>