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PRODUCT RELEASE NOTES

DSI™
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Harvard Bioscience, Inc.

Product: Ponemah™ Physiology Platform
Model: Ponemah Client
Version: 5.90
Build: 40911.2
Date: September 2026

Product Release Notes for Ponemah Physiology Platform Client version 5.90 summarizes revisions made to the Ponemah core client application, analysis modules, and add-on modules since version 5.8x. For details on changes introduced in earlier versions, please refer to the Release Notes folder located on the installation key.

Compatibility

Ponemah v5.90 is compatible with the 64-bit version Windows 11. It is also compatible with the 64-bit version of Microsoft Office 2007 or greater.

Note:

- Microsoft .NET framework 4.7.2 is required and is part of the installation.
- Installation must occur from a Windows® Administrator account.
- Installation into the Program Files folder in Windows® is not supported.
- Windows 11 Home Edition is not supported. See Compatibility Note for details.

New features, enhancements, and fixes

Ponemah Core

Reference #	Release Version	Description	Disposition
54554	5.90	The Ponemah Client has been modernized from its legacy channel-based setup to a subject-centric model, aligning more closely with how users conceptualize and organize their studies. Instead of manually grouping channels, configurations are now defined per subject, streamlining setup and better reflecting lab workflows. This subject-based redesign impacts several areas of the software, with the following key updates: **Ponemah Idle Mode:** • Removed redundant menu options: ○ *Setup | Auto Configure Protocol* ○ *Hardware | Channel Configuration* ○ *Hardware | Select Implant* **Setup | P3 Setup:** • *Groups* and *Channel Input Setup* dialogs have been removed and their settings integrated into the new **Subject Setup** dialog. • *Events*, *Digital Displays*, and *Alarm Setups* are now configured within **Subject Setup** • Updated the following dialogs to align with the new subject-based design: *Template Setup, Experimental Protocol Header, Printer Raw Data Setup, Data Reduction Setup, Data Parser Setup,* and *Graph Setup*. • *HRV Setup* has been removed from this section.	Enhancement

Reference #	Release Version	Description	Disposition
54554 (Cont.)	5.90	**Subject Setup** • Acquisition Interfaces (SoHo, MX2, CLC, JET, and APR) now automatically create subjects and assign devices, replacing the need for *Auto Configure Protocol*. • Integration of *ACQ-7700* and *Signal Interface i*nput assignments, now accessible via the **Signal interface** button within **Subject Setup**. **Acquisition** • Updated all relevant tables and dialogs: *Status, Events, Alarms, Messages, Digital Displays, Derived Results*, and *Data Reduction*. • Excel output during Acquisition has been updated to reflect subject-based structuring. **Analysis Modules** • Dialogs now reflect *Subjects* instead of *Groups*. • Updated calibration dialog (Acquisition & Review) for the GLU module. **Ponemah Review** • Updated the *Load Review* dialog to reflect Subjects. • Updated all relevant tables and dialogs: *Events, Alarms, Messages, Derived Results*, and *Data Reduction,* Effects and Scope of Changes, and Get Audit Reason. • Graph count was increased from 8 to 16. • Updated all Review standard features dialogs: *Custom Derived Parameter, HRV, Data Cleaning, Merge Bad Data Marks, Bad Data Distribution,* and *ASCII Output*. • Updated all Review premium features dialogs: *Template Analysis, Batch Template Analysis,* and *Data Insights*. • Excel output from Review has been updated to reflect subject-based structuring.	Enhancement

Reference #	Release Version	Description	Disposition
54554 (Cont.)	5.90	**Study** • In the *Run Study* dialog | *Hardware* dropdown: ○ *Subject Setup* is now accessible. ○ *Select Implant* option has been removed. **Data Security** • *Subject Setup* is now a controlled dialog under security settings. • *Channel* and *Group* names updated to reflect the subject-based structure. **Data Import** • Backward compatibility maintained: Protocol files, Study Backup files, and Raw/Review files from previous Ponemah versions remain importable and usable.	Enhancement
57514	5.90	Resolved an issue that prevented users from adding or modifying Notes and Precision after reanalyzing data with the ECGRO Analysis Module.	Fix
61758	5.90	Added the following new species as selectable options in Subject Setup: • Swine • Minipig • Sheep • Ferret • Rabbit • Guinea Pig • Hamster The original species (Monkey, Dog, Rat, and Mouse) remain available. Default analysis settings for new species are as follows: • Hamster: uses Mouse defaults • Guinea Pig, Rabbit, Ferret: use Rat defaults • Sheep, Swine, Minipig: use Dog defaults These default values can be permanently updated via Options menu | Application Configuration | Attribute Defaults.	Enhancement

Reference #	Release Version	Description	Disposition
68394	5.90	Enhanced the Signal Interface setup dialog to streamline usability, allowing users to more easily apply input sources and settings across multiple subjects.	Enhancement
69524	5.90	Ponemah Replay and Measure features have been removed.	Enhancement
69534	5.90	Removed the P3Admin application, as all its functions are now integrated into the Ponemah Server.	Enhancement
70403	5.90	In previous Ponemah versions, the .RVW file was generated only at the end of acquisition, meaning an unexpected shutdown during acquisition resulted in no available .RVW file until a Replay was performed. With Replay now removed, the process has been updated to generate the .RVW file at the start of acquisition, ensuring its availability in the event of an unexpected interruption. Additionally, the File menu now includes an option to create a .RVW file from .PRO and .RAW files. If the .RAW file becomes corrupt, Ponemah will now notify the user and prompt to repair the file.	Enhancement
70434	5.90	Enabled access to the APR diagnostics page when using the PhysioTel MX2, PhysioTel Digital, or JET acquisition interfaces.	Enhancement
70827	5.90	Resolved an issue where the APR was not recognized or available in the Channel Input Setup when 32 groups were configured.	Fix
71113	5.90	Resolved an issue where a .RAW file split by file size caused the first .RVW file to lack analysis validation marks throughout the dataset.	Fix
71160	5.90	Resolved an issue where multiple failed login attempts with an incorrect password, followed by a successful login with the correct password, caused all subsequent actions to be incorrectly attributed to the LSS_P3_Administrator account in the Application and Experimental logs, rather than to the authenticated P3 user.	Fix
72634	5.90	Resolved a display issue impacting Trend graphs when using Advanced View where added events were shown on incorrect subject channels during acquisition.	Fix
74419	5.90	Removed Mail Reader feature.	Enhancement

Reference #	Release Version	Description	Disposition
74605	5.90	Removed the Ponemah Viewer feature.	Enhancement
77129	5.90	Updated the Secure Login dialog to sort the user list alphabetically by username and support text filtering for easier user selection.	Enhancement
77197	5.90	Added the ability for Remote Connection to send specific events (a – j) to all Subjects or to specific Subjects.	Enhancement
78389	5.90	Added a user-configurable setting in P3 Setup – Settings to enable or disable inclusion of Channel Labels in Derived List View headers. Excel exports will also reflect the same header formatting as displayed in the list view.	Enhancement
78555	5.90	Resolved a permissions issue that allowed users with "No Access" privileges to load or save XML files from the Advanced section of the Application Configuration. The Load XML File and Save XML File options are now properly restricted based on user permissions	Fix
78567	5.90	Resolved an issue in Data Manager where .SIG files were not properly removed from the source directory following a successful Move operation.	Fix
78723	5.90	Resolved an issue where an Unexpected Error message would be displayed to the user when launching the Data Storage Scheduler dialog between 11pm-12am.	Fix
78754	5.90	Resolved an issue where the Barometric Channel could not be enabled for APR selection when using the Jacketed External Telemetry (JET) acquisition interface.	Fix
79058	5.90	Updated the Excel output Log tab as follows: • Added Channel Number in “Field 2” in rows where "Subject:___, Input:___" were reported in "Field1." • Removed “Event Group” rows, as they are no longer used within the Ponemah User Interface.	Enhancement
79632	5.90	Updated default system settings to improve the out-of-box user experience, including setting the default Time Format to Elapsed, enabling Subject Mode in Data Parser Global Settings, configuring the ACQ-7700 Demo acquisition interface to a 100 Hz primary sample rate, and removing the default Subject.	Fix

Ponemah Review

Reference #	Release Version	Description	Disposition
54560	5.90	Introduced Time Domain HRV analysis and streamlined the user interface by consolidating HRV functionality into a single, more user-friendly dialog.	Enhancement
54583	5.90	Enhanced Frequency Domain HRV to improve tolerance for Bad Data Marks and allow users to report frequency domain analysis exclusively within Parser Segments.	Enhancement
68600	5.90	Resolved an issue where Ponemah unexpectedly shut down when adding variables to a Custom Derived Parameter formula for subjects with periods in their names (e.g., Rat.01).	Fix
68601	5.90	Resolved an issue where the Custom Derived Parameter dialog would load Group/Subjects that were not selected in the Load Review dialog.	Fix
68654	5.90	Resolved an issue in the Custom Derived Parameter dialog where a blank algorithm label appeared in the Parent Algorithm dropdown list.	Fix
69136	5.90	Resolved an issue in Ponemah Review where user-defined messages in Freeform Notes were not displayed when hovering over the associated note envelope icon.	Fix
71619	5.90	Resolved an issue where changing the logging rate did not trigger a recalculation of the Data Line type for Data Reduction.	Fix
72161	5.90	Resolved an issue where Glucose Calibrations were not applied to the dataset when loading data into Review, previously requiring users to open and close the Glucose Calibration dialog for them to take effect.	Fix
76820	5.90	Ponemah Client now automatically calculates one-minute means for derived parameters, independent of the configured logging rate. These averages are recalculated whenever derived parameters are recalculated in Review and are uploaded to Ponemah Server during Study acquisition and on selecting Save Marks Section/Save Run.	Enhancement

Reference #	Release Version	Description	Disposition
77600	5.90	Added a user warning message when attempting to save a Marks section before derived data calculations have completed.	Enhancement

Analysis Modules

Reference #	Release Version	Description	Disposition
75179	5.90	Updated the default derived parameters enabled for all analysis modules based on Raw Electrical Mean (RAW) to Non-pulsatile Mean (NPMN) only.	Enhancement
76184	5.90	Resolved PCRP cycle alignment with PCR cycles, ensuring derived parameter values are calculated and reported correctly.	Fix
76113	5.90	Resolved an issue where PAF/PCR attribute setting changes in protocols saved with previous versions did not persist when loading into Ponemah version 5.6x and 5.7x, causing the settings to revert to default values.	Fix
77229	5.90	Added support for the URPM analysis module as a standalone module separate from the URP analysis module. When loading Ponemah files created in previous versions of Ponemah, users will need to update the existing Protocol (.PRO) file with the URPM analysis module appropriately assigned to the URPM channel, save, and create new Review (.RVW) file from the File menu.	Enhancement
77466	5.90	Resolved an issue where PhysioTel Digital Accelerometer channels were incorrectly configured to use RAW analysis by default instead of the correct ACCEL analysis modules.	Fix
80905	5.90	Resolved a signal caching issue when no filters are used in the following analysis modules BPR, CBF, CVOL, CYS, DEMG, EEG, EMG, LVP, MAP, PAF, PCR, PCRP, PT, PVO, SBF. The difference was caused by an interaction between filtering and signal caching and was determined to be very small, up to 0.3% per physiological cycle.	Fix

Reference #	Release Version	Description	Disposition
80908	5.90	Resolved a rare application exception during acquisition when using the PCR analysis module that could cause Ponemah to shut down unexpectedly.	Fix

Study Protocol

Reference #	Release Version	Description	Disposition
69307	5.90	Resolved an issue in Tox Study file naming where the incorrect Subject ID and Workup were referenced. This was limited to the file name, with all Study data and SEND outputs remaining accurate.	Fix
70429	5.90	While using Ponemah Study, users can now enable or disable Derived Parameters and Custom Derived Parameters at any point during the study.	Enhancement
70482	5.90	When using Ponemah Study, 1-minute mean values of the derived data are now generated automatically, regardless of the user-defined logging rate. These values are made available for upload to the Ponemah Server once the acquisition is complete or when a new Review Marks Section is saved.	Enhancement
70784	5.90	Resolved an issue in the Study Log where data synchronized from PC2 to PC1 was recorded with the sync time instead of the original time and date of the actions on PC2.	Fix
71050	5.90	Resolved an issue where viewing the Study Logs as a Ponemah User caused an error and led to inaccurate information being displayed on the Data Log tab.	Fix
75890	5.90	Resolved an intermittent issue that could cause users to be prompted to enter a dataset name when starting a Study acquisition. As part of this issue, the Selected Run field could incorrectly display -1 instead of None when no acquisitions had been performed.	Fix
77421	5.90	Resolved an issue where saving a Ponemah Study Run did not properly clean up temporary SQLite files (.results-shm and .results-wal) because the Ponemah User was not correctly impersonating the Administrator account.	Fix

Reference #	Release Version	Description	Disposition
77592	5.90	Added validation to prevent Subjects from being assigned to multiple Study groups within the same Study Day. Subjects may only be reused on the same day through Workups.	Enhancement
77596	5.90	Resolved an issue where applying a previously used protocol file in the Ponemah Study Configuration dialog caused protocol subjects to not be listed.	Fix
77599	5.90	Standardized subject deletion prompts to ensure a consistent user experience regardless of study type, acquisition interface, dosing status, or acquisition state.	Fix
79386	5.90	Resolved an issue where Protocol files could be deleted from previously acquired Study Groups on subsequent, non-acquired study days. Resolved an issue that allowed the same Protocol file to be assigned to multiple Study Groups on the same Study day. Resolved an issue where adding a new Study day and assigning a Protocol file to a Study Group with previously acquired Subject data could cause dose associations to be removed from acquired study days.	Fix
79577	5.90	Resolved an issue where replacing a Study Workup on a later study day could cause incorrect Workups to appear in the protocol list.	Fix
80034	5.90	Resolved an intermittent issue where the Manage Study dialog did not refresh the Last Sync timestamp after Study synchronization with Ponemah Server.	Fix
80937	5.90	Resolved an issue that prevented users from being able to remove a Protocol (.PRO) file from an unacquired Study Day.	Fix

Licensing

Reference #	Release Version	Description	Disposition
69978	5.90	Ponemah Client licensing has been updated to support centralized licensing through the Ponemah Server, allowing clients to utilize available server-based licenses.	Enhancement

Reference #	Release Version	Description	Disposition
69985	5.90	Ponemah Clients must connect with the Ponemah Server to operate in Secure mode. This is necessary to retrieve the client license and the list of permitted users from the server.	Enhancement
72363	5.90	Fixed an issue where a Review only license would permit users the ability to configure hardware.	Fix
72393	5.90	Resolved an issue where Ponemah displayed an incorrect error message when launching a client with an expired perpetual license.	Fix
75178	5.90	The Ponemah Client installation no longer includes the Sentinel Drivers for the HASP USB Security dongle and no longer supports dongle-based licensing. Licensing is now managed exclusively through the HBio Licensing Server using a 25-character license key.	Enhancement
77162	5.90	Added support for deactivating Ponemah Client Licenses to improve license portability across workstations. A 24-hour cooldown period is enforced before a deactivated license can be reused.	Enhancement
77211	5.90	Added support for Ponemah Clients to release or deactivate their current license, enabling activation on another client. Released or deactivated licenses are placed into a 24-hour cooldown period prior to becoming eligible for activation on another client.	Enhancement

Known Issues

Reference #	Description
46259	When trying to concatenate multiple RAW files created by achieving RAW file limit to cause file incrementation, data break lines may be seen at the rollover point. Additionally, a time overlap error may be displayed.
49264	The RVW file name in the report header for Data Insights does not update correctly when choosing the “Save Review Protocol As” option when entering a different file name.
59386	An intermittent issue exists where Ponemah is unable to reanalyze a review file, causing the Reanalyzing Data dialog to become stuck at 99% completion.

Reference #	Description
59726	The user-defined Noldus video file size limit configured under Application Configuration > Advanced does not function as expected: • < 50 MB: Files do not split close to the specified limit. • ≥ 50 MB: Files split within approximately 1 MB of the specified limit. The default video file size limit is 500 MB.
64275	The subject position is not cleared in the Actimetry graph when synchronizing from the primary graph to a time that is outside the Actimetry graph's available time range.
80423	When using Ponemah Study, changes made to Custom Derived Parameters (CDPs) during Review cannot be saved back to the study protocol for use in future acquisitions. As a result, the changes must be manually recreated during subsequent data reviews.
80631	A one-day discrepancy may occur between the expiration date displayed in the Ponemah client and the expiration date reported by the HBio License Server. This should not affect Software Enhancement Agreement or subscription license terms as they are generally provisioned with a 1–2 month extension from the creation date.