

# PV-WAVE

by Perforce

## PV-WAVE 2023.2 UPDATE NOTICE

This file contains a list of Change Requests (CRs) that have been addressed for PV-WAVE 2023.2. For a summary of enhancements and modifications in this release, see the Release Notes.

For questions or comments, please contact [Perforce Technical Support](#).

### PV-WAVE 2023.2

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- Line breaks in CGM graphics file are now handled consistently on all platforms. (PVW-18258)
- White space padding is now consistent for small values when writing out a variable of long integer with 64-bit PV-WAVE. (PVW-18271)
- Fix logic error that prevented correct unprintable character identification. (PVW-18262)
- Refactor `read_srf.pro` in `demo/gallery3` to allow compilation with 64-bit PV-WAVE. (PVW-18231)
- PV-WAVE only installs files for the platform you selected. (PVW-18330)
- Addressed a potential resource leak in message generation. (PVW-18461)
- Fixed an issue where the LBP Device Driver crashes when opening a file. (PVW-18628)
- `SSL_connect` now uses the system OpenSSL on Linux. (PVW-18317)
- Fixed an issue where 64-bit PV-WAVE running as an RPC server or client is unable to send/receive `TYP_INT32` data type. (PVW-18627)
- Fixed an out-of-bounds array access that resulted in undefined behavior when subscribing an array. (PVW-18668)
- Fixed `wvh_askeys` return value to match documentation. (PVW-18758)
- Fixed a null pointer dereference that resulted in undefined behavior when passing an empty associative array to `wvh_askeys`. (PVW-18700)
- Restructured `interapp` examples and updated them to use the CMake build system. (PVW-18733)
- PV-WAVE is compiled on Linux with GCC instead of Oracle Solaris Studio. (PVW-18319)
- Upgraded PV-WAVE Database Connection support on Linux from Oracle 11i to 19c. (PVW-18682)
- Replaced call to deprecated `gets` function with `fgets` (PVW-18871)
- Fixed the version reported by the `socket` option. (PVW-18745)
- Added support for RHEL 8 / GCC 8. (PVW-14635)

### PV-WAVE 2023.1

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- PV-WAVE socket connections failing on Windows 10 after a few minutes (PVW-14519)
- `wave_assign_num` does not work with large arrays when the `make_copy` keyword is `TRUE` (PVW-14027)

- Fixed potential double-free when destroying Motif widgets (PVW-17866)
- HDF4 was upgraded from 4.2r0 to 4.2.15. (PVW-16988)
- Rwalib has been removed from the product. The functionality provided by Rwalib is still provided in the product, however directly calling it from C is no longer supported. (PVW-17748)
- The PV-WAVE Eclipse IDE plugin has been removed from the product. (PVW-17723)
- The Database Connection Toolkit no longer supports connecting to Sybase ASE. (PVW-17055)
- The PV-WAVE installer has been updated/replaced. (PVW-17197)
- PV-WAVE now uses a local system Open Motif library. You need to update any code using the previous statically linked Open Motif libraries. (PVW-17869)
- PV-WAVE now uses the RTLD\_DEEPBIND flag when opening dynamic libraries on Linux operating systems. (PVW-17869)
- SSL\_connect was upgraded from OpenSSL 1.1.0f to 1.1.1s (PVW-15120)

## PV-WAVE 2017.1

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- Print alignment on Linux (PVW-13486)
- PV-WAVE crash with compiled .cpr files when compiled 64 bit but run on 32 bit (PVW-13920)
- Keep window open even if license is expired (PVW-14040)
- PV-WAVE hangs on Windows 10 when launched with wavewin2 (PVW-14177)
- Operating system commands executed in wavewin2.exe cause PV-WAVE MFC application to stop working and close on Windows 10. (PVW-14189)
- CPR alignment issues on Windows when executing compiled files on 32-bit PV-WAVE created with 64-bit PV-WAVE. (PVW-13920)

## PV-WAVE 2017.0

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- PV-WAVE Home Window correctly handles mid-command returns (PVW-8411)
- STRUCTREF: handle calls with non-existent structure names (PVW-9542)
- Update the square button on Pushbutton(OptionMenu) widgets with a downward triangle (PVW-13102)
- PHOTO\_QUERY\_FILE (and PHOTO\_READ) routines: Update the Default\_filetype keyword to match the rules listed in the discussion section. (PVW-13108)
- PHOTO\_COLOR\_QUANT: Improve error checking for the Intleave keyword (PVW-13109)
- SPAWN: no longer saves result in the output parameter on Windows (PVW-13192)
- DC\_READ\_FREE: Error reading big integer values in PV-WAVE 64-bit on Windows (PVW-13193)
- DC\_READ\_\* routines: File is locked when using Nrecs keyword on Windows (PVW-13201)
- Map\_contour.pro (or mapping demo in gallery) ignores !PVWDATA when creating a tmp file (PVW-13272)
- Added support for Windows Gestures in the drawing area widget (PVW-13285)
- Demo Gallery: Update the display color mode error message to include the commands for setting the color mode. (PVW-13317)
- Add support for the latest Visualization Toolkit (VTK) 7.1.0 (PVW-13390)
- Update the interapp build scripts that build/link with gcc to also include libc\_supp.a (PVW-13466)

- Eclipse fails at opening .pro file in the PV-WAVE editor (PVW-13487)
- DC\_READ\_FREE: Improperly skipping the correct number of records when Nskip is used while ignoring \$BLANK\_LINES and/or \$TEXT\_IN\_NUMERIC (PVW-13543)
- Docs: Update the Eclipse\_PV-WAVE\_Plug-in\_Tutorial.pdf (PVW-13592)
- DC\_READ\_FREE: Incorrectly counts the number of records read and corrupts the output when text is found in a numeric field. (PVW-13624)
- DC\_READ\_FREE: Row-oriented reads with the Nskip keyword and \$TEXT\_IN\_NUMERIC skips the entire line and doesn't count the valid record on that line. (PVW-13627)
- Segmentation Violation when defining an array with an undefined variable in 64-bit PV-WAVE (PVW-13647)

## PV-WAVE 2016.1

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- Update the documentation for linking an application to PV-WAVE using quick.mk (PVW-10551)
- Add support for '32-bit Grayscale DirectClass' GeoTIFF files as part of the PHOTO\_READ function (PVW-10965)
- Support for Mac OS X version 10.10 (PVW-11903)
- As a PV-WAVE user I want to read a series of DICOM files rapidly using the new PHOTO\_\* functionality (PVW-12588)
- As a PV-WAVE user I want to extract a ROI from an image file using the new PHOTO\_\* functionality (PVW-12589)
- As a PV-WAVE user add support for larger image pixel sizes - 32-bit pixels (PVW-12620)
- As a PV-WAVE user, I want a tag added to the !version structure so I can determine the name of product release I'm using (PVW-12729)
- Interapplication communication (Interapp) demo README files need to be updated for new compilers, etc. (PVW-12730)
- Retire HPGL and PCL as supported PV-WAVE graphics device drivers (PVW-12732)
- Change the Mac OS X compiler to use the provided Clang compiler - 7.0.2 (PVW-12865)
- linux.mkcfg: libncurses depends on libtinfo (add -ltinfo to the make config file) (PVW-12871)
- Linux 32-bit: address cwavefor and LINKNLOAD FORTRAN example failures (PVW-12893)
- Linux 32-bit: address wavevars C LINKNLOAD example failure (PVW-12894)
- JWAVE: connection errors using Java 8 (PVW-12898)
- JWAVE: fixes for session startup timeouts and alarming exception message (PVW-12917)
- LFP0INT\_LUN no longer works in 64-bit PV-WAVE on Linux (PVW-12943)
- Update the Motif license agreement in the PV-WAVE distribution files (PVW-13059)
- PHOTO\_READ allows multiple image files to be read in a single command (Series keyword) (PVW-13066)
- Docs: Type keyword for the ERRCHECK Procedure needs to reflect the code when type=-1 (PVW-13115)
- IMAGE\_READ: Improve error checking for results of file system interactions (PVW-13221)

## PV-WAVE 12.0

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- Uninstall program fails with: "Installer User Interface Mode Not Supported" (PVW-10326)
- Windows Surface and High Res monitor: Fluid particle tracking demo

- buttons disappear (PVW-11741)
- Adjust layout of several demos to accommodate high resolution display (PVW-11742)
  - Windows Surface: Improve performance of some demos (PVW-11743)
  - PV-WAVE Product Installation: "Graphical Installers are not supported" error on Linux platforms. (PVW-11745)
  - Promote user library routine SIZEOF to standard library (PVW-11835)
  - MEDIAN: incorrect results due to rounding errors (PVW-11983)
  - Resolve image library conflicts on Linux RHEL 7.1 32-bit (PVW-11993)
  - Linux 64-bit RHEL 7.1: statically link with libXm.so.2.3.3 to avoid conflicts with system libpng (PVW-11994)
  - Update WacTextSize to default to use larger size.cx/size.cy for drawing rectangles (PVW-12027)
  - flashing occurs with repeated updates of WwList widget on Linux and Mac OSX (PVW-12039)
  - RESTORE cannot restore strings longer than 32,767 characters (PVW-12086)
  - PLOT does not ignore data value if first data element is 1.#QNAN or 1.#IND0 (PVW-12145)
  - Update user lib routines riff\_read/riff\_write.pro for 64-bit (PVW-12187)
  - POLYFILL, PLOTS, CONTOURFILL: Pattern keyword works on UNIX only (PVW-12427)
  - JWAVE make\_config setting wrong IP address (JWAVE-154)
  - Update JWAVE version number to 3.6. JWAVE directory changed to jwave-3\_6. (JWAVE-184)