

Release Notes: SignalVu-PC Vector Signal Analysis Software

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Version 3.17.0013

Date: October 30, 2018  
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This release note summarizes new features, improvements and bug fixes contained in the above software release.

The current software for SignalVu-PC is available at [www.tektronix.com](http://www.tektronix.com)

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Note: License support has changed in this release such that it is no longer backward compatible with previous versions of SignalVu-PC. Once the upgrade to version 3.11.x, or greater, is completed, moving to a previous version of SignalVu-PC will cause licenses to be lost. If this occurs, then contact Tektronix to obtain and install new licenses.  
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Version 3.17.0013 adds the following functions.

Bug fixes and other enhancements

- 
- Fixed issues with certain PI commands not displaying

RSA7100A instruments:

- Added PI commands for time reference
- Fixed issue with time reference indicator for System time
- Fixed a connection issue with older RSA7100A units

RSA500A/600A instruments:

- Fixed issue with slower sweep speeds found on RSA503A, RSA507A, RSA603A and RSA607A instruments

Known issues.

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- When PC setting is German, EMC report is missing a few sections
  - SignalVu-PC improperly fails to recall certain scope wfm files on first attempt  
Workaround: Load the scope wfm files again
  - RSAMap export function doesn't provide JPEG, GIF, and TIFF file types in drop down menu
  - Data fetched using USERDATA\_FindData() function with IQFlow sometimes provides corrupt data
  - USB RSA devices have intermittent disconnection issues
  - Tracking generator can cause application to crash with certain PI commands
  - Playback panel sometimes shows incorrect start time with IRIG-B
  - SignalVu-PC sometimes has a running process after uninstalling and installing software  
Workaround: Kill process via task manager
  - Frequency values for LISN Gain/Loss table in EMC view cannot be decremented  
Workaround: Remove units then enter lower frequency value
  - EMC view older reports cannot be deleted via EMC view
  - RSA\_API does not fully support RSA513A and RSA518A models

## Documentation

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The instrument help files have been updated to include the new features. The PI command search feature has been updated to include commands for the new functions.

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Version 3.16.0014

Date: September 28, 2018  
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This release note summarizes new features, improvements and bug fixes contained in the above software release.

The current software for SignalVu-PC is available at [www.tektronix.com](http://www.tektronix.com)

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Note: License support has changed in this release such that it is no longer backward compatible with previous versions of SignalVu-PC. Once the upgrade to version 3.11.x, or greater, is completed, moving to a previous version of SignalVu-PC will cause licenses to be lost. If this occurs, then contact Tektronix to obtain and install new licenses.  
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Version 3.16.0014 adds the following functions.

### Bug fixes and other enhancements

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#### RSA7100A instruments:

- Added a field to link timestamp to time for IQFlow
- Added 800 MHz swept acquisition
- Added ability in Record Setup in UI to select a filename suffix to append to the output base filename
- Added Time Reference UI indicator
- Fixed issue with PPS
- Fixed issue where features were not displayed without a valid license

#### RSA500A/600A instruments:

- Added RSA513A and RSA518A to the list of instruments supported by SignalVu-PC
- Sweep speeds with RBW below 30KHz are improved by ~30% or more for RSA5XXA/6XXA USB devices

#### Known issues.

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- Due to FPGA firmware, RSA503A, RSA507A, RSA603A and RSA607A instruments will experience a 26% average decrease in sweep speed.

Workaround: The next version of SignalVu-PC, scheduled for release in Q4 2018, will resolve this issue. Customers with these

models are recommended to wait until the following release is available

- System time reference indicator shows up as invalid after choosing an invalid time source.

Workaround: Choose a valid time source before selecting System time

- When PC setting is German, EMC report is missing a few sections.

Seite: 2

- SignalVu-PC improperly fails to recall certain scope wfm files on first attempt.  
Workaround: Load the scope wfm files again
- RSAMap export function doesn't provide JPEG, GIF, and TIFF file types in drop down menu
- Data fetched using USERDATA\_FindData() function with IQFlow sometimes provides corrupt data.
- Certain pages cannot be displayed for certain PI commands
- USB RSA devices have intermittent disconnection issues
- Tracking generator can cause application to crash with certain PI commands

## Documentation

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The instrument help files have been updated to include the new features. The programmer manual has been updated to include commands for the new functions.

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Version 3.15.0003

Date: June 8, 2018  
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This release note summarizes new features, improvements and bug fixes contained in the above software release.

The current software for SignalVu-PC is only available with current 7100A controllers

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Note: License support has changed in this release such that it is no longer backward compatible with previous versions of SignalVu-PC. Once the upgrade to version 3.11.x, or greater, is completed, moving to a previous version of SignalVu-PC will cause licenses to be lost. If this occurs then contact Tektronix to obtain and install new licenses.  
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Version 3.15.0003 adds the following functions.

## Bug fixes and other enhancements

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### IQFlow:

- Added API and ethernet features
- Added new panel for IQFlow
- Added UI for LVDS. Future release will implement functionality

### Time Reference:

- Added PPS, IRIG-B AM, and IRIG-B DC.
- The default timing reference source upon launch of SignalVu-PC is system time.
- If you change the source in Timing Reference tab in the UI from default to one of the externally generated sources (GPS, PPS, IRIG-B) without a valid signal, the time will remain as system time.
- If you set the source to GPS, PPS, or IRIG-B after launch of SignalVu-PC (thus changing time from the default system time), and then disconnect from that source or otherwise lose the lock to that source, the time used will be

that of the previous externally generated source. This will remain so until you set a different source with a valid signal.

- It is suggested you update system time locally on your PC to match the time reference used.

#### Known issues

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- PPS does not correctly lock to System time if a valid GPS time was set.  
Workaround: Restart application or switch to a valid IRIG-B source before selecting PPS.
- IQFlow features API, Ethernet, and LVDS are hidden without the proper licenses installed.  
Workaround: Install appropriate licenses to see newest features.

#### Documentation

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The instrument help files have been updated to include the new features. The programmers manual has been updated to include commands for the new functions.

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Version 3.13.0087

Date: April 20, 2018  
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This release note summarizes new features, improvements and bug fixes contained in the above software release.

The current software for SignalVu-PC is available at [www.tektronix.com](http://www.tektronix.com)

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Note: License support has changed in this release such that it is no longer backward compatible with previous versions of SignalVu-PC. Once the upgrade to version 3.11.x, or greater, is completed, moving to a previous version of SignalVu-PC will cause licenses to be lost. If this occurs then contact Tektronix to obtain and install new licenses.  
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Version 3.13.0087 adds the following functions.

#### Bug fixes and other enhancements

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- Added RSA306B-SMA to the list of instruments supported by SignalVu-PC
- Addressed P25 CSV issues
- Fixed frequency deviation results for C4FM
- Fixed crash in Edit Accessories with different languages
- Additional P25 fixes and improvements
- Reduced spurs for some RSA500/600 instruments

#### Known issues

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##### EMCVu:

- EMC Report shows the instrument serial number but when using the MDO the serial number does not show correctly.

- Mil/Gov limit value is incorrect at the stop frequency when USB spectrum analyzers limit the range of the Mil/Gov radiated test.  
(only when limit start and stop are different)  
Workaround: Provide csv files for such tests to the field. The files might be instrument specific.
  - Save/Recall of project file doesn't work for detector choices and measurement type when EMC-EMI display is launched in SignalVu. EMCVu always works fine.  
Workaround: EMCVu is the recommended launch for EMC-EMI display work.
  - First run for DPX doesn't work when it is opened along with EMC-EMI. Can be seen when user switches between EMC-EMI and DPX.  
Seen only with single run mode. In Continuous run mode, one won't see it as it triggers the second run quickly. More common use case is to run DPX in continuous mode though.
  - Education version text in the display overlaps with Limit label in some systems
  - Dip in noise level in 25 MHz to 30 MHz Conducted emission band. This dip is however not affecting the emissions level if the reference level is set appropriately and if the emission level is 5 dB above noise level.
  - When Inspect display is opened and Restore default is pressed, Single and Continuous buttons in Inspect get disabled. Display must be closed to make them active again.  
Workaround: If the user gets into this mode, then he can close and open Inspect again.
  - There is no PI command to enable Limit 2 and Limit 3.  
Workaround: Use PI command to Load project file which is previously saved with the required limit lines enabled.
  - Close Inspect window when running in continuous mode will keep system in Acquiring-Transfer-Analysis mode. Also, as an after-effect, the main run button would still show Stop even though Inspect is closed and user is not intending to do anything.  
Workaround: Hit Stop and you can start working as usual.
- Temperature/Humidity will come in report without units sometimes if they are left to default value. However, when user enters appropriate value they always come with values and units correctly.

## Documentation

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The instrument help files have been updated to include the new features. The programmers manual has been updated to include commands for the new functions. The new programmers manual is available on [www.tektronix.com](http://www.tektronix.com).

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Version 3.13.0072

Date: February 16, 2018  
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This release note summarizes new features, improvements and bug fixes contained in the above software release.

The current software for SignalVu-PC is available at [www.tektronix.com](http://www.tektronix.com)

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Note: License support has changed in this release such that it is no longer backward compatible with previous versions of SignalVu-PC. Once the upgrade to version 3.11.x, or greater, is completed, moving to a previous version of SignalVu-PC

will cause licenses to be lost. If this occurs then contact Tektronix to obtain and install new licenses.

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Version 3.13.0072 adds the following functions.

EMCVu EMC analysis plugin that allows users to do the following:

- a) Easy Setup using a wizard that allows users to set accessory contribution and set limit lines as per standard.
- b) Easy pre-compliance ability supported by Ambient measurement for better accuracy and Spot Re-measurement capabilities for faster results.
- c) Reporting capability that lets users capture Emission results in graphical and tabular format along with settings and pictures of the setup.
- d) Troubleshooting tools such as Harmonic Markers, Inspect Suspect frequencies, Level Target, Compare Traces and Persistence.

(Note: At this time EMCVu is not available for the RSA7100A instrument)

RSA7100A instrument:

- Support for Fast Frame acquisitions.
- Midas format for IQ streaming.
- Raid longevity information display.

RSA500/600 and RSA7100A instruments:

- Trigger on absolute time.
- Start recording on timestamp.

Bug fixes and other enhancements

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- Improved Quasi Peak measurement accuracy
- Corrected operation of the trigger position control
- Corrected occasional incorrect phase rotation for QPSK General Purpose Demodulation
- Generalized support of TekVisa virtual GPIB control to allow SignalVu-PC to operate simulataneously with other Tektronix applications running on the same PC, such as VectorVu-PC.
- Fixed the handling of firewall rules to avoid false failures on install.
- Fixed operation of (amplitude) external corrections when multiple traces are enabled.
- Corrected operation of the RF Attenuation control to allow only values that are actually available.
- Corrected General Purpose demod equalizer settings to be immediately applied when set.

Known issues

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EMCVu:

- EMC Report shows the instrument serial number but when using the MDO the serial number does not show correctly.
- Mil/Gov limit value is incorrect at the stop frequency when USB spectrum analyzers limit the range of the Mil/Gov radiated test.  
(only when limit start and stop are different)

Workaround: Provide csv files for such tests to the field. The files might be instrument specific.

- Save/Recall of project file doesn't work for detector choices and measurement type when EMC-EMI display is launched in SignalVu. EMCVu always works fine.  
Workaround: EMCVu is the recommended launch for EMC-EMI display work.
  - First run for DPX doesn't work when it is opened along with EMC-EMI. Can be seen when user switches between EMC-EMI and DPX.  
Seen only with single run mode. In Continuous run mode, one won't see it as it triggers the second run quickly. More common use case is to run DPX in continuous mode though.
  - Education version text in the display overlaps with Limit label in some systems
  - Dip in noise level in 25 MHz to 30 MHz Conducted emission band. This dip is however not affecting the emissions level if the reference level is set appropriately and if the emission level is 5 dB above noise level.
  - When Inspect display is opened and Restore default is pressed, Single and Continuous buttons in Inspect get disabled. Display must be closed to make them active again.  
Workaround: If the user gets into this mode, then he can close and open Inspect again.
  - There is no PI command to enable Limit 2 and Limit 3.  
Workaround: Use PI command to Load project file which is previously saved with the required limit lines enabled.
  - Close Inspect window when running in continuous mode will keep system in Acquiring-Transfer-Analysis mode. Also, as an after-effect, the main run button would still show Stop even though Inspect is closed and user is not intending to do anything.  
Workaround: Hit Stop and you can start working as usual.
- Temperature/Humidity will come in report without units sometimes if they are left to default value. However, when user enters appropriate value they always come with values and units correctly.

## Documentation

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The instrument help files have been updated to include the new features. The programmers manual has been updated to include commands for the new functions. The new programmers manual is available on [www.tektronix.com](http://www.tektronix.com).

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Version 3.11.0047

Date: September 8, 2017

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This release note summarizes new features, improvements and bug fixes contained in the above software release.

The current software for SignalVu-PC is available at [www.tektronix.com](http://www.tektronix.com)

Version 3.11.0047 adds the following functions.

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Note: License support has changed in this release such that it is no longer backward compatible with previous versions of SignalVu-PC. Once the upgrade to version 3.11.x is completed, moving to a previous version of SignalVu-PC will cause licenses to be lost. If this occurs then contact Tektronix to obtain and install new licenses.

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#### RSA306/500/600:

Significant improvements in sweep speed for Spectrum (RSA306/500/600) and Tracking Generator displays (RSA500/600).  
SignalVu-PC licenses can now be loaded into the instrument for RSA306/500/600.  
Midas 2.0 IF file output formats for recording for RSA306/500/600.  
Reduced Minimum Signal Duration for 100% probability of intercept for RSA306/500/600.

#### RSA7100A:

Extended the 800MHz acquisition bandwidth range down to 3.2 GHz Center Frequency for RSA7100A.  
DPXogram for RSA7100A.  
DPX Density trigger for RSA7100A.  
GPS control, data and timestamping for RSA7100A.  
GPS Location and Altitude saved in acquisition recordings for RSA7100A.  
Reduced Minimum Signal Duration for 100% probability of intercept for RSA7100A.  
External reference now locks on references from 5 MHz to 100 MHz selectable in 1 MHz increments.

#### All Models:

CISPR Quasi-Peak, Average and Peak detection in Spectrum and Spurious displays. (Opt SVQP - EMI CISPR detectors)  
Bluetooth V5 measurements. (Opt SV31 - Bluetooth 5 measurements, requires Opt SV27)  
External gain/loss (amplitude) corrections for all displays.  
LTE RS Power measurement in the LTE Constellation display.  
Multiple traces in the Spurious display.  
Measurement support for 1024 QAM 802.11AC signals.  
TekVisa software updated - Various corrections and full support for Windows 10.  
Increased display range of CCDF display.

#### Bug fixes and other enhancements

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##### Pulse measurements

- IPR display can now be properly rescaled
- Pulse Analysis Table - Pulse number column now remains displayed when scrolling the table.
- Pulse-Ogram now correctly displays the first frame even without a found pulse.
- Multiple pulses in a frame now correctly supported in Pulse-Ogram display.
- Restore Defaults is now functional in Pulse Cumulative Statistics display.

##### Mask Search

- Mask Search now properly stops on violation and shows the violation on screen.
- Mask Search now operates on replayed data.
- Output folder can now be specifically set for Mask Search actions.
- Mask Search now operates properly for swept spectrum acquisitions.

##### File interactions, saving and formats

- Time column and frequency row added to spectrogram/DPXogram .csv export.
- Save as dialog now persists the last file type / extension.
- Frequency column now included in .csv results export for spectrum displays.
- Corrected sample rate and # samples indicators when recalling large .wfm/.isf files.

##### Spectrum measurements



- Restored display of Spectrum Display trace legend and parameter readouts.
- Added Vertical units control and vertical scale readouts to Spectrum displays.
- User can now set VBW > RBW.
- Added Center Frequency indicator for Spectrum display.

#### Spurious measurements

- Spurious analysis now operates for 150kHz - 500kHz per the Japanese VCCI measurement.
- Spurious measurement now operates with Time Zero Reference set to Trigger.

#### 802.11AD:

- Control Phy now reports the correct length in the summary display.
- Swap IQ capability is now supported.
- Long packet analysis now supported.
- Summary results are now correctly saved using 'Results export(CSV) (\*.csv).

#### LTE measurements:

- Added auto detection of Channel Bandwidth, TDD Uplink-Downlink and Special Subframe configurations.
- Antenna Port configuration is now supported.

#### Other fixes and enhancements

- Improved low symbol rate functionality for modulation measurements (now settable to 1 Hz, usable to 100 Hz).
- Corrected IF frequency shift which occurred during playback (.r3f) with DPX display open on RSA500/600.
- Acquisition data recordings now contain the trigger event on RSA7100A.
- Corrected the saving of markers when recording on RSA7100A, fixed missed markers and time gaps.
- Display a user warning when recording is stopped due to a hardware settings change on RSA7100A.
- Tracking Generator output level now settable to 0 dBm. (RSA500/600)
- Clarified the error message shown when attempting to save data from a swept acquisition.
- Corrected RSAMap compatibility with other Tektronix and Keithley products.
- Triggering on R3F playback now supported.
- Corrected display of the Frequency field (leading digits no longer truncated).
- Corrected the control of spurious detector type in the expanded range/limit tab.
- Ogram line is now updated when a DPXogram marker is moved during replay.
- Installer (Win7) now verifies the required Windows 7 SP1 is installed.
- Corrected R3A file data to not include the USB frame footer when streaming using the "Raw" data structure.

#### Known issues

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- Occasionally the SignalVu-PC installer may report 'Error 1722' during installation, or SignalVu-PC may fail to launch after upgrading to this version.  
Workaround: In many cases this can be resolved using the .Net Framework Repair Tool.  
Run the repair tool here: <http://www.microsoft.com/en-us/download/details.aspx?id=30135>  
Then rerun the SignalVu-PC install, or restart SignalVu-PC.  
(Make sure the system has Internet connectivity while running the repair tool.)

- Some equalizer settings in GP Digital Modulation displays are not applied immediately upon selection.

Applies to Mode, Convergence and Enable EQ Export settings.

Workaround: Select another control to apply new settings. Such as, 'Reset Equalization'.

## Documentation

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### Corrections:

Alaris antenna set-up instructions now included in the user documentation.

Corrected RSA306B specification inconsistencies in the Technical Reference Manual.

Added some PI commands that were previously missing in the Programmer Manual.

Corrected performance verification instructions related to Noise Marker activation.

Correct measurement bandwidth specifications for ACPR and channel power measurements.

The instrument help files have been updated to include the new features. The programmers manual has been updated to include commands for the new functions. The new programmers manual is available on [www.tektronix.com](http://www.tektronix.com).

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Version 3.10.0030

Date: December 6, 2016  
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This release note summarizes new features, improvements and bug fixes contained in the above software release.

The current software for SignalVu-PC is available at [www.tektronix.com](http://www.tektronix.com)

Version 3.10.0030 adds the following functions.

Support for instrument model RSA7100A.

### Bug fixes and other enhancements

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- Improved "lossless" (skip = 0) playback of .r3f files to prevent occasional missed data.
- Added explicit acquisition start time (wall time and timestamp of initial IF sample) to .r3f and .r3h header blocks.\*\*
- RSA306, RSA500/600 maximum acquisition length increased to 2 seconds.
- .tiq files from MDO3k/4k now recall correctly.
- Corrected recall of .tiq files when using non-US region/language formats for decimal symbol.
- Corrected support for manually entering the IP address (for connect/search) under Windows 8.
- Corrected the pull-down control for setting the file type in Mask/Search, 'Save acquisition data'.
- In return loss display, corrected the Cal status readout to always reflect the current cal in use.

\*\* R3F/R3H header acquisition start time items added in file version 1.2.0:

(Note: In file versions before 1.2.0 all these item values are set to 0.)

Offset (bytes)	Size( bytes)	Content	Description
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2180	4 (int32)	RefTime Source	Reference Time source, values: 0=Unknown, 1=System(PC), 2=GNSS, 3=User
2184	8 (uint64)	Start Timestamp	Counter timestamp of first sample stored in file
2192	7*4 (int32)	Start Waltime	Walltime of first sample stored in file: 7 values, each int32: Year,Month,Day,Hour,Minute,Second,NanoSeconds

#### Known Issues

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- RSA7100A marker files recorded using power level triggers have >17mS time gaps.  
Workaround: Use Frequency Mask Trigger to record correct marker files.
- Calculated magnetic declination values are not applied to 'Map It' measurements when using the smart antenna.  
Workaround: Enter a manual declination value in the antenna control panel.
- In Pulsed RF displays, after selecting a measurement via the 'Result' control, changing the selected measurement via the mouse wheel changes the measurement setting in the Result control but does not change the displayed measurement result.  
Workaround: Use the result pulldown list to select the desired measurement result.
- R3A file data (raw data) is recorded \*with\* the embedded 28-byte USB frame footer. This occurs when using the "Raw" Data Structure type - the format that creates separate R3H (header) and R3A (raw data) output file pairs. In SignalVu-PC: Record Setup/Data structure = Raw  
Workaround: Use SignalVu-PC release 3.9.0029 if R3A files need to be captured.  
Contact Tektronix for access to the 3.9.0029 release.

#### Documentation

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The instrument help files have been updated to include the new features. The programmers manual has been updated to include commands for the new functions. The new programmers manual is available on [www.tektronix.com](http://www.tektronix.com).

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Version 3.9.0033

Date: November 16, 2016  
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This release note summarizes new features, improvements and bug fixes contained in the above software release.

The current software for SignalVu-PC is available at [www.tektronix.com](http://www.tektronix.com)

Version 3.9.0033 adds the following functions.

Maintenance release, no new functions.

#### Bug fixes and other enhancements

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Improved spurious response performance for RSA500/600.

#### Known Issues

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#### Documentation

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The instrument help files have been updated to include the new features. The programmers manual has been updated to include commands for the new functions. The new programmers manual is available on [www.tektronix.com](http://www.tektronix.com).

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Version 3.9.0029

Date: September 30, 2016  
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This release note summarizes new features, improvements and bug fixes contained in the above software release.

The current software for SignalVu-PC is available at [www.tektronix.com](http://www.tektronix.com)

Version 3.9.0029 adds the following functions.

New displays added to Pulse Measurements (SVP): Cumulative Statistics, Cumulative Histogram, Pulse-Ogram

- Cumulative displays support analysis of an unlimited number of pulses.
- Cumulative statistics display provides Average, Standard Deviation, Peak to Peak, Max/Min value.
- Pulse-Ogram™ provides stacked representation of pulses captured in Fastframe acquisition in time and frequency domains.

New measurements added to Pulse Measurements (SVP):

- Absolute Frequency.
- Pulse-Ref Phase Difference.
- Pulse-Ref Frequency Difference.
- Pulse-Pulse Phase Difference.
- Pulse-Pulse Frequency Difference.
- Standard Deviation, Peak to Peak and pulse indices for Max and Min added to Pulse Statistics display.
- Marker support added to Pulse Statistics display. The Pulse indicator in Time Overview display is linked to the marker when Pulse Statistics display is in Time Trend operation.
- Pulse Indicator added to Time Overview display. The currently selected pulse is shown in the Time Overview display.

Analysis of up to 200,000 pulses in saved acquisition files (.tiq) created using fast frame acquisition with fast save operation on RSA5100B or RSA6100B instruments.

Cable and antenna measurements (SV60)

- Return loss, distance to fault, cable loss measurements for the RSA500A/RSA600A (requires Option 04, Tracking Generator)
- IEEE 802.11ad SC wideband waveform analysis (SV30)
  - Analysis of saved 802.11ad signal data files (.tiq)
- GNSS reference lock
  - Enables training of the internal frequency reference of the RSA500A/RSA600A using the internal GNSS receiver included in these units.

Reference frequency accuracy can be improved from 1 PPM to 0.025 PPM with this technique.
- Maximum number of samples analyzed in the SVM application (general purpose modulation analysis) is increased from 81,500 to 163,000.
- Noise correction for ACPR and MCPR displays on RSA500A/RSA600A - improves performance by up to 10dB.
- Search for programmatic commands and queries - See Help/PI Command Search.

### Bug fixes and other enhancements

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- Tracking Generator vertical scaling is now based on the more traditional top-of-screen reference.
- Markers in the Tracking Generator display can now be placed on any selected trace.
- 2X to >100X speedup of general purpose modulation analysis (SVM). Specific speedup varies by analysis length and modulation type.
- MCPR display now supports measuring up to 999 channels.
- Timestamp values now support nsec resolution.
- Corrected the placement of Ext and IF Power trigger indicators in streamed data (.r3f).
- Corrected the alignment of External trigger timestamps when the system is aligned to internal GNSS time.
- Center Frequency control in the basic toolbar now works correctly in the Tracking Generator display.
- 'Select Displays' dialog now also shows displays that are currently unavailable but can be purchased.
- Added user control to enable/disable display of the "Data from warm-up period" message shown during instrument warm-up.
- Corrected IF VGA diagnostics limits to prevent occasional false failures on RSA500/600.
- Programmatic commands added for LTE ACLR display (SV28).
- Adaptive equalizer added for 802.11ad analysis (SV30).
- Corrected the handling of late multipath for 802.11ad analysis (SV30).

### Known Issues

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- In Return Loss and Cable Loss displays the horizontal scale control changes the measurement setup (frequency start/stop).
  - Autoscale in Return Loss and Cable Loss displays resets the db/div setting.
  - In the Distance to Fault display the marker x-domain defaults to frequency. It should default to distance.
- Workaround: Select distance in the Marker toolbar to enable knob or direct entry control of the DTF marker position.
- Return Loss and Distance to Fault displays programmatic control: INIT command does not work properly after recalling a .setup file while in Single acquisition operation.
- Workaround: Recall the .setup file while in Continuous acquisition operation, then switch to Single.

- After changing the selected display with Return Loss, Cable Loss or Distance to Fault displays active and in Single acquisition operation, selecting Run may not initiate a measurement.  
Workaround: After selecting a new active display select Run twice to obtain an updated trace.
- Mask Search 'Stop' action sometimes stops one acquisition after the event.  
Workaround: Use Replay 'Previous' to back up one acquisition and see the event.
- Triggering does not function correctly for .r3f file playback.
- Additional measurements may be added to the Pulse Table upon recalling a .setup or .tiq file that was saved prior to this release.  
Workaround: Perform a main preset prior to recall. Re-save the file using this current release.
- The order in which selected measurements appear in the pulse table may not be consistent upon recall of a .tiq or .setup file - the order presented may change depending on which measurements are selected prior to the recall.
- There is no limit to the number of pulses that can be analyzed by the pulse cumulative displays (SVP). However, Pulse Trace, Pulse Table, and Pulse Statistics Displays provide a control for 'Max number of pulses' which, if selected, will limit the number of pulses analyzed in the current acquisition.
- The Traces toolbar may show with controls missing or stacked upon each other.  
Workaround: Expand SignalVu-PC display to full screen, or restart the application.

## Documentation

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The instrument help files have been updated to include the new features. The programmers manual has been updated to include commands for the new functions. The new programmers manual is available on [www.tektronix.com](http://www.tektronix.com).

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Version 3.7.0567

Date: May 27, 2016  
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This release note summarizes new features, improvements and bug fixes contained in the above software release.

The current software for SignalVu-PC is available at [www.tektronix.com](http://www.tektronix.com)

Version 3.7.0567 adds the following functions.

Maintenance release - no new functions.

## Bug fixes and other enhancements

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- Corrected occasional discontinuities in data recording on RSA500 with battery installed.
- Corrected activation of the MAP option.
- Restored access to the MCPR display.
- Removed occasional phase noise transients on RSA500/RSA600.
- Improved reliability of RSA500/RSA600 alignment and product manufacturability.

## Known Issues

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Version 3.7.0561

Date: March 22, 2016  
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This release note summarizes new features, improvements and bug fixes contained in the above software release.

The current software for SignalVu-PC is available at [www.tektronix.com](http://www.tektronix.com)

Version 3.7.0561 adds the following functions.

Support for models RSA503A, RSA507A, RSA603A, RSA607A, and RSA306B

## Bug fixes and other enhancements

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- Corrected occasional clearing of DPX Spectrum/Spectrogram display.
- File 'Save As...' now retains the previously selected save as type.
- Added negative delta marker entry and marker up/down arrow keys to numeric keypad.
- Restored display of acquisition record boundaries in the Spectrogram display.
- Improved update rate of spectrum displays with small span settings.
- Corrected saving of DPXogram traces with no enabled SignalVu-PC options.
- Improved connection support for MDO4KC scopes.

## Known Issues

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- MCPR display is not available for most option configurations.

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Version 3.7.0114

Date: December 11, 2015  
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This release note summarizes new features, improvements and bug fixes contained in the above software release.

The current software for SignalVu-PC is available at [www.tektronix.com](http://www.tektronix.com)

Version 3.7.0114 adds the following functions.

Signal Classification application (SV54):

- Define regions of interest.
- Identify and classify signals.

Standards-defined channel tuning tables for frequency selection.

Support for GNSS positioning systems.

Support for Alaris smart antenna for azimuth information with compass display.

Seite: 15

#### Map enhancements:

- Support for open street map format.
- Map It function for collecting measurement results with Azimuth data and import to RSA Map.

#### Usability enhancements:

- Larger menu items and icons for easier touch access.
- Customizable favorites toolbar (add/remove icons, hide/show bar).
- One-touch access to favorite setups, via User Presets, with optional user notes/instructions.
- Added Channel Navigation, Replay, Signal Survey, and Map It toolbars.
- Improved popup numeric keypad.

Floating and node-locked licenses for optional applications.

Signal Strength measurement now available in the base software (formerly required the Mapping application).

#### Bug fixes and other enhancements

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- Variable Dot Persistence value in DPX Bitmap display settings is now saved and recalled with setups.
- Corrected the reporting of multiple RSA306 units in the Connect/Connect to Instrument list.
- Corrected operation of the record start/stop programmatic commands.
- Centered the location of displayed channel power values in the ACPR and MCPR displays.
- Changed the default bitmap scale maximum to 8%, the minimum at remains at 0%.
- Corrected operation of the Mask Search action 'Save acquisition data (.tiq file)'.
- Corrected the trigger location for >500mS acquisition records saved using trigger action 'Save acquisition data (.tiq file)'.
- Improved the sound of the FM audio demod.
- Corrected playback of .r3f files recorded from the low frequency path in the RSA306.
- Changed the default horizontal scale in the Spectrum display to show start/stop frequency.
- Corrected the Reset Scale (vertical) functionality in all measurement displays.
- APCO P25 Measurement Application:
  - a. Fixed the issue of Pilot symbols being missed in case of sharp rising edges in HCPM.
  - b. Fixed the error of mismatch in symbol positions (between symbol table and frequency deviation)
  - c. Fixed burst detection issue of bursts less than -30 dBm level.

#### Known Issues

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- Numeric Keypad interaction with markers:
  - a. Keypad is activated on marker movement actions (right, level, up, down, to center).
  - b. Marker numeric entry boxes require 2-clicks to access the numeric keypad.
  - c. Marker up/down movement controls are not available in the numeric keypad.
- Marker frequency control in the marker toolbar may not show most significant digits.

#### Documentation

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The instrument help files have been updated to include the new features. The programmers manual has been updated to include commands for the new functions. The new programmers manual is available on [www.tektronix.com](http://www.tektronix.com).



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Version 3.6.0239

Date: July 31, 2015  
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This release note summarizes new features, improvements and bug fixes contained in the above software release.

The current software for SignalVu-PC is available at [www.tektronix.com](http://www.tektronix.com)

Version 3.6.0239 adds the following functions.

- LTE™ analysis supporting 3GPP TS V12.5.0 (2014-09), FDD and TDD (Option 28)

#### Bug fixes and other enhancements

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- APCO Project 25 (Option 26):
  - a. C4FM Modulation Fidelity calculated based on standard recommended reference deviation.
  - b. Symbol Rate accuracy made granular.
  - c. Measurement BW (Meas BW) option linked correctly to the analysis module. For HCPM, though the Meas BW is always kept as Auto.
  - d. Marker correlation between frequency deviation vs time and Symbol table fixed.
- Bluetooth (Option 27) now Supports Bluetooth SIG v4.2 (Low Energy payload length -255 octets)

#### Known Issues

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- LTE:
  - a. Cell ID detection might not be correct for over the air captures if the channel is not good.
  - b. Multiple Cell ID detection not supported.
  - c. The equalization provided in Constellation is based on PSS and can occasionally show a shifted SSS constellation when the signal exhibits time varying behavior.
  - d. When LTE Constellation or LTE Channel Spectrum is open already and LTE ACLR display is added from LTE Analysis Measurements, it could change the frame structure and bandwidth setting of LTE Constellation and LTE Channel Spectrum.  
Workaround - It is recommended that LTE ACLR display be invoked only from Standard Presets. This also helps set the many options in the Channels tab and the Offset & Limits tab appropriately.
- APCO P25:
  - a. HCPM demodulation algorithm shows failures when the frequency error is more than +/-650 Hz.  
Workaround - The Center frequency has to be adjusted for correct demodulation in such cases.

#### Documentation

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The instrument help files have been updated to include the new features. The programmers manual has been updated to include commands for the new functions. The new programmers manual is available on [www.tektronix.com](http://www.tektronix.com).

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Version 3.6.0043

Date: May 15, 2015  
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This release note summarizes new features, improvements and bug fixes contained in the above software release.

The current software for SignalVu-PC is available at [www.tektronix.com](http://www.tektronix.com)

Version 3.6.0043 adds the following functions.

USB Auto-connect to RSA306.

Space-saving toolbars on SignalVu-PC (basic controls, traces, markers).

Playback of recorded files with SignalVu-PC (Opt SV56).

#### Bug fixes and other enhancements

-----

- Mask Test action 'Save acquisition data' now works properly when searching DPX traces.
- Fixed occasional slow startup of RSA306 Audio Demod.
- Increased the priority of ADC Overrange and Digital Gain Overflow status reporting so that it won't be hidden by lower priority messages.
- Fixed lockup condition that can occur in real-time SEM measurement.
- Changed the DPX default trace to Trace 1 (was Bitmap). Now 'Add Marker' function defaults to DPX trace 1.
- Added delta indication for marker readouts in DPXogram display.
- RSA306 USB driver is now always installed (removed optional selection). Windows Security may prompt – if so then allow the driver installation.
- RSA Map now supports NMEA format GPS messaging.

#### Known Issues

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- RSA306 Record controls become inoperable when control changes are made during active recording.

Workaround: Stop recording before making changes to Record controls.

- DPXogram: After recalling a .dpt file into the ogram line the ogram line cannot be cleared or switched back to live.

Workaround: Use Preset to clear the saved ogram line.

- Playback does not properly report the RSA306 calibration state at the time of recording (always reports as calibrated).

Workaround: Ensure that the RSA306 used for recording is calibrated.

- Playback behavior is indeterminate if playback length is less than SignalVu-PC acquisition length.

Workaround: Ensure that the playback length is greater than the acquisition length.

- Dot Persistence control value not recalled with saved setups.

- Playback Begin/End point settings not recalled with saved setups.

Seite: 18

## Documentation

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The instrument help files and other documentation has been updated to include the new features. The new programmers manual and other documents are available on [www.tektronix.com](http://www.tektronix.com).

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Version 3.5.0134

Date: March 4, 2015  
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This release note summarizes new features, improvements and bug fixes contained in the above software release.

The current software for SignalVu-PC is available at [www.tektronix.com](http://www.tektronix.com)

Version 3.5.0134 adds the following functions.

Maintenance release and bug fixes only, see below.

## Bug fixes and other enhancements

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### Bluetooth 4.1 analysis (Opt SV27):

- Standard Presets when selected from the Bluetooth Summary settings control panel (on the left side of the control panel) now sets the Reference filter and Analysis Time correctly.
  - De-whitening is now done for header and payload regions in Low Energy non-test pattern signals.
  - The ratio of  $\Delta f_{2avg} / \Delta f_{1avg}$  is now correctly computed in Frequency deviation vs time.
  - Basic Rate Control pattern now supported
  - Corrected default limit values for Preamble Offset limit and Max frequency offset
  - Symbol Table display now correctly supports Windows font size settings.
- Corrected the operation of settings controls in RSAMap.

## Known Issues

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## Documentation

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The instrument help files have been updated to include the new features. The programmers manual has been updated to include commands for the new functions. The new programmers manual is available on [www.tektronix.com](http://www.tektronix.com).

This release note summarizes new features, improvements and bug fixes contained in the above software release.

The current software for SignalVu-PC is available at [www.tektronix.com](http://www.tektronix.com)

Version 3.5.0119 adds the following functions.

Bluetooth 4.1 analysis for Low Energy, Basic Rate and Enhanced Data Rate (opt SV27)

#### Bug fixes and other enhancements

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- Improved audio output performance for RSA306 to better reject signals at CF+/-8MHz.
- Fixed occasional analysis failure in Spectrum display when using large Span/RBW ratios.
- Fixed horizontal and vertical scaling inconsistencies for the 'Spur Search Multi Zone 9k-1GHz' Application Preset.
- RSA306 calibration data version information is now shown in the Hardware Information section in Help/About.

#### Known Issues

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##### Bluetooth 4.1 analysis (Opt SV27):

- Standard Presets when selected from the Bluetooth Summary settings control panel (on the left side of the control panel)

does not set the Reference filter and Analysis Time correctly. Only Standard gets set correctly.

Workaround: Use Presets/Standards from Main Menu to correctly set all parameters.

- Basic Rate patterns with only preamble and Access Address are not supported.
- De-whitening is not done for header and payload regions in Low Energy non-test pattern signals.

- For Basic Rate, the analysis module will report the packet type and other header information appropriately. The Packet type

in summary is listed if the signal that is being analyzed is DH1/3/5, DM1/3/5 or EDR signals 2-DH1/3/5 or 3-DH1/3/5.

Although the Type field (4 bits) under Packet Header will show the correct 4 bit code, any other packet type apart from the ones

listed above will be shown as OTHERS.

- The ratio of  $\Delta f_{2avg} / \Delta f_{1avg}$  is incorrectly computed in Frequency deviation vs time even after Clear is pressed in Summary.

The previous packet results should be cleared on selecting Clear from Summary and when the next packet is analyzed only the result

corresponding to chosen test pattern should be calculated and therefore the ratio should not be computed.

Workaround: Repeat selection of the measurement from Standard Presets.

- The calculations shown in the display for Frequency Deviation vs time are white in color and do not show up properly in Blizzard View.

Workaround – Use the 'Classic' color scheme for Frequency Deviation vs time.

## Documentation

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The instrument help files have been updated to include the new features. The programmers manual has been updated to include commands for the new functions. The new programmers manual is available on [www.tektronix.com](http://www.tektronix.com).

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Version 3.4.0253

Date: October 29, 2014  
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This release note summarizes new features, improvements and bug fixes contained in the above software release.

The current software for SignalVu-PC is available at [www.tektronix.com](http://www.tektronix.com)

Version 3.4.0253 adds the following functions.

Live Link connection for RSA306 - DPX Spectrum/Spectrogram for SignalVu-PC (RSA306-only)  
SignalVu-PC-SVE Option SVE is now standard in the software and does not require a key.  
Numeric keypad entry control - Enable in View/Numeric Keypad.

## Bug fixes and other enhancements

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- Moved Analysis/Spectrum Offset and Length controls to the bottom of Navigator View for easier access.
- RSA306 Record to disk (Acquire/Record) 'Record on trigger' function now properly waits for trigger events.
- Corrected occasional loss of RSA306 trace updates after multiple Live Link connect/disconnect cycles.
- RSA Map no longer fails when setting the Repeat Measurement time and distance and Measurement Azimuth controls.

## Known Issues

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## Documentation

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The instrument help files have been updated to include the new features. The programmers manual has been updated to include commands for the new functions. The new programmers manual is available on [www.tektronix.com](http://www.tektronix.com).

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Version 3.3.0200

Date: August 8, 2014  
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This release note summarizes new features, improvements and bug fixes contained in the above software release.

The current software for SignalVu-PC is available at [www.tektronix.com](http://www.tektronix.com)

Version 3.3.0200 adds the following functions.

APCO P25 measurement application (Opt 26)  
Mapping and Signal Strength measurement (Opt MAP)  
Mask compare/act (show violation, save data, save trace, save picture, alert)  
Navigator view for Time Overview  
Undo/Redo operations for setup controls  
Spectrum marker functions for integrated power, power spectral density and dB/Hz

#### Bug fixes and other enhancements

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- Improved layout and usability for Analysis and Spectrum time controls in Time Overview display.
- Vertical axis labels added to Spectrum, DPX Spectrum, Amplitude vs Time, and Time Overview displays.
- 'Top of screen' scale control removed from Spectrum, DPX Spectrum and Amplitude vs Time displays.
- Improved visibility of marker locations and readouts. Changed marker behavior such that reference marker readout is always displayed in upper left and selected marker readout is always displayed in upper right of screen.
- Corrected Eye Diagram trace for APSK modulation analysis.

#### Known Issues

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- Vertical axis labels may all show 0.0 for some scales in linear units due to insufficient readout resolution.
- P25: Symbol table display may not show results values.  
Workaround: Change display dimensions, maximize/minimize display, add/remove other displays.
- P25: Summary display/Frequency Deviation results do not employ an FM Demodulator BW between 3 and 15 kHz as specified in the standard.  
Workaround: Measure frequency deviation using the Analog Modulation/FM measurement display with the Measurement BW set appropriately.
- P25: The Transient Frequency behavior measurement in P25 Freq Dev vs Time display will show mean frequency deviation > 12.5 kHz as failure in t1 and t3 regions. The standard specifies this comparison for Pass/Fail to be done only when the output power rating is more than 6 Watts.  
Workaround: Ignore the pass/fail results for this measurement if the radio output power rating is < 6 Watts.
- P25: Programmatic commands for Pass/Fail results in the P25 Summary display are not available.
- Mask Test: No control available for setting basename for saved files.

Workaround: Save a trace, picture, or acquisition data file to set the file basename prior to enabling Mask Test.

- Mask Test: Programmatic commands to save/load masks work for only the new .msk file format
- the older .csv format is not supported.

Workaround: Convert .csv mask files to .msk format.

## Documentation

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The instrument help files have been updated to include the new features. The programmers manual has been updated to include commands for the new functions. The new programmers manual is available on [www.tektronix.com](http://www.tektronix.com).

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Version 3.2.0107

Date: November 19, 2013  
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This release note summarizes new features, improvements and bug fixes contained in the above software release.

The current software for SignalVu-PC is available at [www.tektronix.com](http://www.tektronix.com)

Version 3.2.0107 adds the following functions:

WLAN 802.11 transmitter measurements:

WLAN 802.11 a/b/g/j/p Tx measurements (SignalVu-PC SV23)

WLAN 802.11 n Tx measurements (SignalVu-PC SV24)

WLAN 802.11 ac Tx measurements (SignalVu-PC SV25)

Live connection to MDO4000B series oscilloscopes:

Live Link (Opt CON)

## Bug fixes and other enhancements

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- Access to Presets control has been consolidated into the Presets menu and removed from the File, Tools and Setup menus.
- Support for recall of .wfm and .isf file types has been improved.
- The displays selected by built-in presets are now shown in the Presets dialog.
- Automatic installation of TekVisa (instrument remote communication software) is now provided.

## Known Issues

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- Marker automatic movement functions (peak, next right/left, next higher/lower) do not function for WLAN displays

WLAN Spectral Flatness, WLAN EVM, WLAN Mag Error and WLAN Phase Error.

Seite: 23

Workaround: Markers may be positioned with usual methods - click and drag, direct entry of position value.

- The WLAN Spectral Flatness Marker table value always shows the value of the Points trace.
- The WLAN preset parameter settings (standard and bandwidth) are not persistent. These settings are reset to default values

each time the application starts up.

Workaround: Use Preset action 'Show list' to verify the preset parameter selections.

- The Guard Interval selection should be allowed only for 802.11n and 802.11ac WLAN standards.

Workaround: None needed. Analysis for standards that don't have guard intervals is correct regardless of the

Guard Interval setting.

- Export Results (.CSV) values are not filtered by the selected WLAN standard. Results pertaining to other WLAN standards can be included in the exported results.

- The WLAN Symbol Table data display is incorrect when the subcarrier index is changed with the Data range set to Single subcarrier.

Workaround: Use a Data range setting other than Single

- WLAN Phase Error, Mag Error, and EVM markers are not properly correlated with Spectrum markers

- The trace display and trace freeze checkbox labels may be missing in the WLAN Constellation display settings panel.

Workaround: Use Windows 7 personalization setting.

- 802.11b WLAN EVM, Mag Error and Phase Error displays can use incorrect scaling values when the Displayed Results are set for Header only.

Workaround: Use Autoscale to correct the scale setting.

- In the WLAN Phase Error display the marker units display shows percent instead of degrees.

Workaround: None. The marker value and units are in degrees, only the units display is incorrect.

- On re-install of SignalVu-PC check the 'Install TekVisa' and the 'Enable control of SignalVu-PC through the programmatic interface'

checkboxes to retain the ability to use the programmatic interface.

- Programming query 'calc:wlan:cons:mark<x>:val|' always returns the marker value in decimal units, does not obey the radix setting.

## Documentation

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The SignalVu-PC programmers manual is available on [www.tektronix.com](http://www.tektronix.com)

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Version 2.7.1076

Date: November 19, 2012  
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This release note summarizes new features, improvements and bug fixes contained in the above software release.

The current software for SignalVu-PC is available at [www.tektronix.com](http://www.tektronix.com)

Version 2.7.1076 adds the following functions.

- Maintenance release, no new functions.

Seite: 24



## Bug fixes and other enhancements

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- Corrected license management to maintain valid licenses across Daylight Savings Time (DST) and standard Time (ST).
- Improved data logging for diagnosing license activation failures.

## Known Issues

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- .tiq files saved using MDO (Mixed Domain Oscilloscope) software version 2.52 and earlier do not contain full settings information.  
Workaround:
  - \* Preset SignalVu-PC. Manually set the center frequency, span and bandwidth for the analysis.
  - \* Open the .tiq file.
  - \* Save as a .tiq file to preserve the settings.
- Sampling rate display in the Acquisition panel is not updated when opening a DPX Spectrogram .tiq file.
- The status message "data from {0}" may appear with some recalled files. This indicates that the acquisition data originated from an uncalibrated scope.
- The RF Attenuation setting used during data acquisition is not displayed in SignalVu-PC.
- No example user presets are shipped with this version of SignalVu-PC. However, user presets are supported as described in the user manual.  
Workaround: Use the Windows Explorer to create a new folder: C:\SignalVu-PC Files\User Presets for storing user preset files.

## Documentation

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The SignalVu-PC programmers manual is available on [www.tektronix.com](http://www.tektronix.com)

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Version 2.7.1047

Date: August 7, 2012  
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This release note summarizes new features, improvements and bug fixes contained in the above software release.

The current software for SignalVu-PC is available at [www.tektronix.com](http://www.tektronix.com)

Version 2.7.1047 adds the following functions.

- Initial release of SignalVu-PC.

## Known Issues

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- .tiq files saved using MDO (Mixed Domain Oscilloscope) software version 2.52 and earlier do not contain full settings information.

Workaround:

\* Preset SignalVu-PC. Manually set the center frequency, span and bandwidth for the analysis.

\* Open the .tiq file.

\* Save as a .tiq file to preserve the settings.

- Sampling rate display in the Acquisition panel is not updated when opening a DPX Spectrogram .tiq file.

- The status message "data from {0}" may appear with some recalled files. This indicates that the acquisition data

originated from an uncalibrated scope.

- The RF Attenuation setting used during data acquisition is not displayed in SignalVu-PC.

- No example user presets are shipped with this version of SignalVu-PC. However, user presets are supported

as described in the user manual.

Workaround: Use the Windows Explorer to create a new folder: C:\SignalVu-PC Files\User

Presets for storing

user preset files.

## Documentation

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The SignalVu-PC programmers manual is available on [www.tektronix.com](http://www.tektronix.com)