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# ·ascent<sup>®</sup> 2011

## Ascent<sup>®</sup> 2011 Software Release Notes

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September 16<sup>th</sup>, 2011

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vb<sup>™</sup>, vb1000v<sup>™</sup>, vb1000<sup>™</sup>, vb2000<sup>™</sup>, vb3000<sup>™</sup>, vbX<sup>™</sup>, vb5<sup>™</sup>, vb6<sup>™</sup>, vb7<sup>™</sup>, vb8<sup>™</sup>, vbBalancer<sup>™</sup>, vbBalancer+<sup>™</sup>, 6Pack<sup>™</sup>, vbXManager<sup>™</sup>, vbRemote<sup>™</sup> and PROFLASH<sup>™</sup> are trademarks of Commtest Instruments Ltd.

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## General Notes

The 2011 release of Ascent software incorporates a number of enhancements that significantly improve performance.

This document encompasses the following products:

- Ascent (11.2.6)
- OnlineManager (11.2.6)
- AscentWatcher (11.2.6)
- Ascent OPC (11.2.6)
- vbX firmware (11.2.6)
- vbOnline firmware (5.87.17)

## Compatibility Issues

### Microsoft® Windows® 2000 Support

Microsoft Windows 2000 does not fully support the Ascent 2011 release. This legacy operating system is no longer supported by Commtest Instruments, and users of this software are advised to upgrade to Windows XP, Microsoft Vista, Windows Server 2003/2008 or Windows 7.

Windows 2000 users unable to upgrade their operating system should continue using Ascent 2009 (9.10.164).

### vbClassic Instrument Compatibility

The Ascent 2011 software includes a number of significant changes to its management of machine speeds. The database changes required for these structural differences are not compatible with Commtest's legacy vb1000, vb2000 and vb3000 instrument models. Owners of these instruments are advised not to upgrade their installed Ascent software instances and to continue using Ascent 2010 or earlier.

### Network Firebird Installations

During the Ascent 2011 software upgrade process, any existing local Firebird database server instances will be automatically updated to version 2.1.3. However, customers using a network installation of the Ascent software (that is, those accessing their Ascent database from a second computer over a local network) are advised that this Firebird 2.1.3 upgrade process is **not** carried out automatically on servers hosting only the Ascent database. In these cases the Firebird instance installed on the database host computer must be updated manually. Firebird 2.1.3 is available as a standalone installation from the Commtest website at <http://commtest.com/downloads/>. **Firebird version 2.1.3 is required on both client PCs using the Ascent 2011 software and any server hosting an Ascent 2011 database.**

### AscentView™ Support

The Ascent 2011 software release uses a database structure that is incompatible with the AscentView tool. If you wish to continue using AscentView, you must not upgrade your database using Ascent 2011. Simply continue using your existing Ascent 2007+ R2 software installation.

### Hungarian Language Support

Hungarian language support is not included in the Ascent 2011 release. Customers requiring a Hungarian interface are advised not to upgrade from the previous Ascent 2010 release.

### vbX Operating System

vbX operating system version 3.5.6 is mandatory for all vbX portable instruments upgrading to the newest firmware release (other than Chinese-language models, for which operating system version 3.5.7 is mandatory).

vb5™, vb6™, vb7™, vb8™, vbBalancer™ and vbBalancer+™ instruments that have previously been Proflashed to firmware version 3.4.28 -- included with the Ascent 2010 software release -- will not require an operating system upgrade and should be upgraded to firmware 11.2.6 immediately. Instruments using a firmware version older than 3.4.28 must be upgraded to version 3.4.28 **before** upgrading to the 11.2.6 version included with Ascent 2011.

**IMPORTANT: Firmware version 11.2.6 or later (included with Ascent) must be installed on vbX instruments following an upgrade to the Ascent 2011 software.**

A separate firmware upgrade file for Chinese-language instruments is available for download from the Commtest Instruments website.

[Operating system upgrade instructions](#) are available from the Commtest Instruments website for those customers upgrading to firmware 3.4.28 before completing an upgrade to version 11.2.6.

### Before You Proceed

If you are upgrading to Ascent 2011 from a previous Ascent version, please take a moment to read the notes below about this new software release and your recommended upgrade approach.

### Back Up!

We recommend backing up your databases using your existing copy of Ascent before uninstalling your current Ascent software version and installing the new 2011 release. We also recommend that you receive all data from your vbX instrument before Proflashing to new firmware. Upgrading the instrument firmware will delete all folders and data stored in flash memory.

## New in Ascent 2011 Software (11.2.6)

Ascent 2011 software is a 'feature release' with a number of new features in addition to performance and compatibility improvements. New Ascent features include improved support for RPM and linear speed machines, machine assessment report updates, automated importing and exporting of vbz3 files into and from Ascent, a new Cumulative Pulse Count schedule entry type, the display of additional process variables on vibration charts, and a Portuguese language interface.

This document is intended as an overview only. To learn how to use any of the new software functions, please refer to the Help files within Ascent (available from the **Help** menu). Alternatively, download the latest *Ascent Software Reference Guide* from our website: <http://www.commtest.com>.

### RPM and Linear Speed Support

The Ascent software suite is now more intuitive when configuring RPM-based and linear speed machines. Machine speed configuration has been moved from the schedule entry/parameter set panel to the Machine Editor in the navigator list and Point multipliers are now automatically applied by vbX instruments.

### Machine Assessment Report Update

The associations between Machine Assessment Report databases and Ascent databases have been streamlined, resulting in tighter integration between the two. Several key Machine Assessment Report database fields are now stored within the primary Ascent database, binding each Machine Assessment Report database with an Ascent database companion. This process ensures that only appropriate Machine Assessment Reports may be displayed for each Ascent database, and that users cannot inadvertently edit reports created for other clients. The Ascent software's backup and restore systems now also include Machine Assessment Report databases.

In addition, XML/HTML reports generated from the Machine Assessment Report tool can now be configured to include company logos.

**NOTE:** The Machine Assessment Report system is included only in Ascent Level 2 and Ascent Level 3. It is not included in Ascent Level 1.

### Automated Importing to and Exporting From Ascent

It is now possible to export a .vbz3 file from an Ascent database, and import a .vbz3 file into an Ascent database, using a standard DOS command line. These simple commands instruct the Ascent software to perform a data export or import using a standard set of instructions, thereby eliminating the need to manually open the Ascent software or interact with the software's user interface.

This ability is particularly useful for customers with large online systems, allowing them to maintain a small and efficient 'active' database together with a separate larger 'archive' database containing all historical measurements. Using the automated export and import system, data can be copied from the active database and imported into the archive database. Once transferred, these measurements can be removed from the active database using data thinning tools. This process ensures that all data is retained while preventing system slowdowns that may result from overly large databases.

When these commands are saved as a conventional Windows batch file (.bat format) these operations can be scheduled to occur at regular intervals using the Windows scheduling system.

### **Cumulative Pulse Count Schedule Entry**

The Ascent software is now able to store 'pulse counts' from oil particle sensors as an ongoing 24 hour monitoring task. The new Cumulative Pulse Count schedule entry type stores cumulative values; that is, the cumulative number of 'pulses' detected over a user-specified period, rather than the 'rate' of pulses detected (per minute/hour/day etc.).

### **Process Variables**

Numeric schedule entries can be useful tools for recording machinery process variables -- the state of various processes and components within a mechanical system as a whole -- such as wind turbine power output and speed, drive temperatures, process flow rates or any number of other measurements. When process variable measurements and vibration measurements taken at approximately the same time are compared to one another, these snapshot recordings can frequently provide valuable insight into the underlying conditions that may have resulted in a particular vibration measurement, or vice versa.

The Ascent software is now able to automatically display Average Value, Keypad, SDI (Serial Data Input) and OPC import measurements on spectrum and waveform vibration charts in just such a way, together with an indication of the time differential between the acquisition of the vibration measurement and the process variable measurement.

### **Portuguese Language Support**

The Ascent 2011 software interface now supports the Portuguese (BR) language, together with English, Chinese, Russian and Spanish. All components of the Ascent software suite (Ascent, OnlineManager, AscentOPC and AscentWatcher) include interface translations.

Hungarian language support is not included in the Ascent 2011 release. Customers requiring a Hungarian interface are advised not to upgrade from the previous Ascent 2010 release.

### **Miscellaneous Updates**

In addition to the previously discussed improvements, the following general changes have also been made in the Ascent 2011 software release.

#### **vbOnline Setup Report**

The Ascent software now includes a vbOnline setup report that will display setup details of all vbOnline devices configured within a datafolder. Information included in this report includes device serial numbers, IP addresses, the machines that vbOnline devices have been assigned to and types of sensors configured on each instrument.

#### **vbX Memory State**

When sending to, or receiving from, a vbX instrument the Ascent software now displays the instrument's memory state (amount of internal flash memory used) on the Send and Receive panels. Once the instrument's memory reaches 80% of its maximum capacity, an alert will also be displayed advising that memory use should be reduced (by receiving data into the Ascent software, or emptying the recycle bin, for example).

### **New Demod Bandwidths and Recommendations**

To help users choose an appropriate bandwidth to use on their vbX (and vbOnline) instruments, new 'recommended' options have been added to the vbX instruments and the Ascent software. The five available recommendations (from below 100 RPM to above 3000 RPM) are based upon the configured machine speed and the instrument type being used.

### **Waveform Crest Factor and True Peak to Peak**

The Ascent software now displays averaged Crest Factor values (indicating levels of impacting within a bearing) and 'true' peak-to-peak amplitude levels (the difference between the highest and lowest peaks on a waveform) together with the recording's overall power level on waveform charts.

### **General Usability and Stability Enhancements**

Various software bugs and compatibility issues identified in previous releases of the Ascent software have been resolved.

## New in vbX Firmware (11.2.6)

The latest firmware release for Commtest's vbX portable instruments is a 'performance improvement and feature release' offering a number of new features in addition to numerous refinements to existing instrument functionality.

**This firmware upgrade is *required* for all vbX users upgrading to Ascent 2011 as it ensures compatibility with Ascent's new machine speed capabilities.**

**NOTE:** Operating system version 3.5 must be running on your instrument before it can be upgraded to firmware version 11.2.6. If your instrument has previously been upgraded to firmware version 3.4.28 (included with the Ascent 2010 release) then no operating system changes will be required and you may update to firmware 11.2.6 immediately. If you are upgrading from a firmware version older than 3.4.28 then you must upgrade to version 3.4.28 before upgrading to 11.2.6. [Operating system upgrade instructions](#) are available for download from the Commtest Instruments website.

**NOTE:** This firmware release does not include the ability to print balance reports using PCL-enabled network printers. If you require this feature, do not upgrade your current firmware.

**NOTE:** This firmware upgrade is not compatible with Chinese-language instruments. A separate firmware update file for Chinese-language instruments is available for download from the Commtest Instruments website.

This document is intended as an overview only. To learn how to use any of the new instrument functionality, please refer to the Help files within Ascent (available from the **Help** menu). Alternatively, download the latest vbSeries/vbBalancer Instrument Reference Guide from our website at <http://www.commtest.com>.

### Band Alarms Display

Alarm Bands configured in the Ascent software can now be compared to measurements taken during route collection in real time. Alerts are displayed on the instrument if these alarm thresholds are exceeded.

Alarm warnings can be displayed either via an onscreen message stating the alert condition, or using the instrument's 'Danger', 'Alert' and 'OK' front panel LEDs.

### Order Tracking

If Machine speed varies significantly while a recording is being taken, the resulting spectral peaks may appear as smeared bumps instead of sharp peaks. Subtle spectral features like early bearing defects may not be clear in the spectrum.

The Order Tracking system prevents this 'smearing' by automatically adjusting the data sampling rate to obtain a constant number of samples per revolution of the Machine. To provide the precise timing information required, a tachometer sensor must be used.

Order tracking can only be applied to Spectrum, Waveform, Coast-down/Run-up and Orbit Plot measurements on vb6, vb7 and vb8 instruments.

## Memory State and Alerts

Instruments now display the percentage of instrument memory currently being utilized (**[0] Options** from the main menu. The percentage of memory in use will be displayed beside **[4] Memory & System**. The instrument's memory usage is also detailed when pressing **[4] Memory & System**). If memory use is allowed to exceed **80%** of the device's 1 GB memory capacity, a flashing warning will be displayed on the main menu advising operators to clear system memory.

## Portuguese Language Support

The vbX instrument interface now includes support for the Portuguese (BR) language for instruments configured for the 'Americas' and 'Europe' regions (**[0] Options>[7] Language**).

## Miscellaneous Improvements

In addition to the previously discussed improvements, the following general changes have been made in the latest vbSeries instrument firmware release:

### Date Format

Time can now be displayed on the instrument in either 12 or 24-hour formats (**[0] Options>[0] Date/Time>[9] Time Format**).

### Long Time Waveform Time

When recording or charting long time waveforms, instruments have previously displayed only the number of 'blocks' recorded during the measurement (either above the measurement during recording or across the x axis when charted). They will now display the actual elapsed time of the measurement in conventional HH:MM:SS format.

### Short Pause to Review New Route Recordings

During route collection users can now pause between recordings in order to briefly view the measurement. The new 'Auto+Delay' option is selected from the Route screen by toggling between recording save modes (**[6] Route** from the main instrument menu then select a route. In the Route Collection screen press **[0] Recording Save Mode** repeatedly until 'Auto+Delay' is displayed). A 5 second delay will be added after each recording on the route before returning to the route screen.

### Manually Emptying the Recycle Bin

When a folder is deleted, a backup copy is generated automatically and stored in the vbX instrument recycle bin. Users are now able to manually empty the recycle bin of these folder copies by selecting **[4] Folders>[8] Empty Recycle Bin**. Manually clearing this data may improve general instrument operating speeds under some circumstances.

### Instrument Region Now Displayed

The regional settings of instruments are now displayed in the Memory & System screen (**[0] Options>[4] Memory & System**). This setting determines the languages that are supported by the instrument.

### New Demod Bandwidths for Low Speed Machines

vbX instruments now support Dmin values of 250 Hz to 10 kHz and 500 Hz to 10 kHz for conventional demodulation recordings, removing the need to reduce Dmax settings below 10 kHz.

### Percentage of Route Completed

When viewing folders (**[4] Folders** from the main menu) the percentage of routes completed is now displayed in the right-hand window.

### General Usability and Stability Enhancements

Various software bugs and compatibility issues identified in previous instrument firmware releases have been resolved.

## New in vbOnline Firmware (5.87.17)

This release does not add any new features to the vbOnline device. It contains several fixes to issues identified since the previous (Ascent 2009) release. vbOnline device owners are encouraged to upgrade firmware in order to improve general product stability.

### Resolved Software and Firmware Issues

The following software and firmware issues have been resolved, and new features added, since the previous Ascent (2010 9.45.7) software and firmware releases.

#### Improvements Since 9.45.7 Release

(9653) Clash between Waveform and Time unit families

(12693) Ascent is assigning the latest OPC to a Vibration recording instead of nearest value

(12620) Fmin can now be set below 1Hz, but if units are CPM, gets rounded to 60 cpm instead

(12921) SD Card Full - Unable to get Data off unit. (want USB export to still work)

(12810) Cumulative Pulse Count compensation for vibration measurement time can cause cumulative value to decrease

(12384) ISC Errors with upgraded databases

(12790) New alarms not applied to historical recordings

(12776) Certain Order Tracked recordings with low RPM cause the vbOnline16 to reset

(12761) Support running multiple instances of Ascent

(12621) Paramset editor recording time estimates are quite wrong for Order Tracked recordings.

(12454) Very high RPM returns an incorrect FMax

(8133) Set Linear Speed units missing 'meters per minute'

(12684) Machine summary report takes too long to execute

(10043) Navigator and chart displaying different dates

(10072) Selecting Default View for a Schedule Entry does not display chart immediately

- (7727) The Cancel button on Reports & Charts doesn't work & can cause access violations
- (9803) Selected measurement lost on setting RPM
- (9528) Selection lost when returning from Set 1x RPM Form
- (9309) Chart not automatically displaying recording just taken with online
- (10549) Date range on Trend Chart doesn't work
- (12644) Process variables: Allow tagged Schedule Entries' values to show on relevant charts
- (12514) Instrument IP address partially concealed when adding online device
- (12902) Ascent/vbX: Add an indication of vbX memory usage onto the Ascent Send & Receive screens
- (12791) Notes are not sequenced properly within the Notes Report
- (12729) Duplicate Schedule Entries after receive from vbX
- (12733) User Defined Units cause Engineering Unit not found error in Online Manager
- (12717) Wrong association for Linear Speed schedule entry
- (12748) Cumulative Pulse Count - New Schedule Entry
- (12612) Ascent throws an exception when trying to open an already open modal window
- (12741) Request to display a variable number of decimals places depending on value being displayed
- (12724) Paramset editor - need warning that Tach Type is required for Order Tracked
- (12702) Refinements to the Demod bandwidth recommendations

### **Instrument Related**

#### **vbX**

- (6186) Request to change LTWfm indicators from seconds & #blocks to HH:MM:SS
- (6798) Navigator - deleting all recordings should automatically move cursor to SE level
- (6086) Request to step backlight down from High to Low, then next step to Off
- (6677) Request to support 12 hr am/pm clock option as well as current 24hr
- (7060) Request for cross-hair cursor, to indicate spectrum amplitude at cursor position
- (7112) Request to improve indication of Harmonics & Sideband cursors state
- (12292) Request for a new route mode which pauses for a few secs after each recording
- (12466) After a certain amount of instrument use, prompt user to reformat the data memory

(12255) Add instrument region to Memory and System page

(12664) Request to add lower Demod Dmin options to suit low speed machines

(12588) vbX waveform chart Auto scaling modes (pk-pk) and (incl 0) not working as expected

(12594) vbX: Route Percentages on Folder Page

(9758) Instrument not always using correct Fmax for orders based recording

## Appendix

### Changing vbX USB Communications Mode

The vbX instrument supports two modes of USB communications. In 11.2.6 firmware, the default mode is USB Plug 'n' Play. However, some legacy operating system users will not be able to use this mode as the drivers are not supported.

In this case it will be necessary to change to the older "TCP/IP (or Ethernet) over USB" mode. This can be achieved through the following steps.

1. From the vbX main menu, select the **Options** screen by pressing button **[0]**
2. From the vbX Options screen, select the **Comms Setup** screen by pressing button **[3]**  
*If your instrument is currently using USB Plug'n'Play mode then this will be shown on the screen next to button [2]*
3. You can change **USB** mode by pressing button **[2]**. This will allow you to select either "Plug'n'Play" or "Ethernet over USB" by pressing the **[Tick/Check]** or **[Alt]** buttons respectively.
4. To change to "Ethernet over USB" mode press **[Alt]**, you will then be prompted to enter the IP address details for this adapter. We suggest accepting the defaults as Ascent is configured to use them automatically.
5. After changing the mode, it is necessary to reset the instrument by pressing **[Alt]+[5]** before the new settings take effect.
6. The procedure for changing back to "Plug'n'Play" mode is the same except that at step 4 you should press the **[Tick/Check]** button. Again, a reset is required after changing modes.