UltraVision 3.10R20

Classic, Touch and Analysis versions

Table of Contents
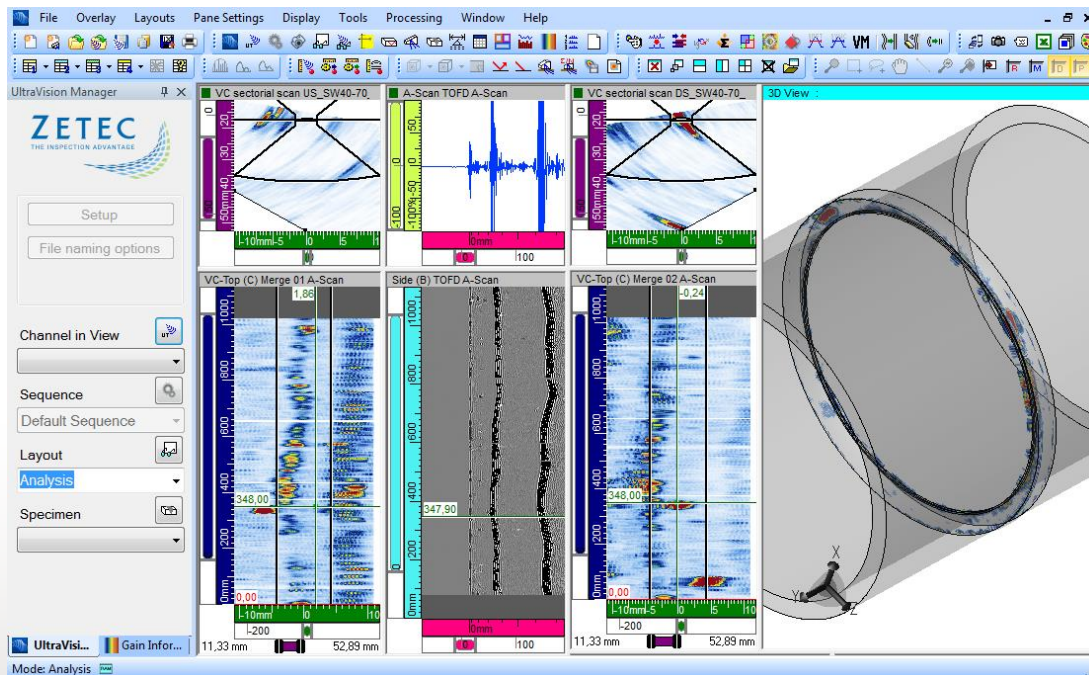
UltraVision Touch 3.10R20

Zetec has just released UltraVision Touch version 3.10R20. This software version can be used on the TOPΔZ, TOPΔZ^{16}, TOPΔZ^{32} and TOPΔZ^{64} models as well as on a PC running Windows® 10. This product bulletin presents an overview of the new features and changes that are included in the new UltraVision Touch 3.10R20 software release.

UltraVision Touch 3.10R20 is available in four embedded versions for the TOPΔZ product family:

- **Topaz 3.10R20** for TOPΔZ instruments
- **Topaz16 3.10R20** for TOPΔZ^{16} instruments
- **Topaz32 3.10R20 (x64)** for TOPΔZ^{32} instruments
- **Topaz64 3.10R20 (x64)** for TOPΔZ^{64} instruments

UltraVision Touch 3.10R20 is also available in two PC versions:

- **UltraVision Touch 3.10R20** for 32-bit version environments
- **UltraVision Touch 3.10R20(x64)** for 64-bit version environments

To download UltraVision Touch 3.10R20 or any other UltraVision version, and to obtain access to the latest software documentation, please visit www.zetec.com

Purpose of UltraVision Touch 3.10R20

UltraVision Touch 3.10R20 is the latest upgrade for Zetec's UltraVision software. This software release includes several new features and improvements. Zetec's hardware and software development process is performed according to a quality system that is certified ISO 9001-2015.

With this certified software development process, Zetec guarantees that the changes between the previous UltraVision Touch versions (3.5R10, 3.6R1, 3.6R5, 3.7R1, 3.7R21, 3.8R7, 3.8R11, 3.8R13, 3.8R16, 3.8R30. 3.9R9, 3.9R20, 3.10R2 and 3.10R7) and UltraVision Touch 3.10R20 have no consequences on the sensitivity and the accuracy of the signal amplitude and flight time outputs displayed, recorded, or automatically processed by the software. This also includes additions of mathematical modules used for the positioning of indications or for geometric conditions adjustments.

UltraVision Classic 3.10R20

UltraVision Classic 3.10R20 can be used on PC running Windows® 10 and is available in two versions:

- **UltraVision 3.10R20** for 32-bit version environments
- **UltraVision 3.10R20(x64)** for 64-bit version environments

UltraVision Classic 3.10R20:

- **UltraVision Analysis 3.10R20** for 32-bit version environments
- **UltraVision Analysis 3.10R20(x64)** for 64-bit version environments

Purpose of UltraVision Classic and UltraVision Analysis 3.10R20

UltraVision 3.10R20 is the latest upgrade for Zetec's UltraVision software. This software release includes several new features and improvements. Zetec's hardware and software development process is performed according to a quality system that is certified ISO 9001-2015.

With this certified software development process, Zetec guarantees that the changes between the previous UltraVision Classic versions (3.5R10, 3.6R1, 3.6R5, 3.7R1, 3.7R21, 3.8R7, 3.8R11, 3.8R13,3.8R16, 3.8R30, 3.9R9 and 3.9R20, 3.10R7) and UltraVision Classic 3.10R20 and have no consequences on the sensitivity and the accuracy of the signal amplitude and flight time outputs displayed, recorded, or automatically processed by the software. This also includes additions of mathematical modules used for the positioning of indications or for geometric conditions adjustments.

New Features and Improvements

Auto Scrolling Views

When inspecting large components, the new Auto Scrolling Views improves the visualization of the area being inspected by allowing to display a limited area of the part while keeping the view content synchronized with the encoded position.

The new Auto Scrolling views is supported by:

- All Dynamic, Volumetric View, Top, Side, and End
- All Dynamic, Merged View, Top, Side, and End
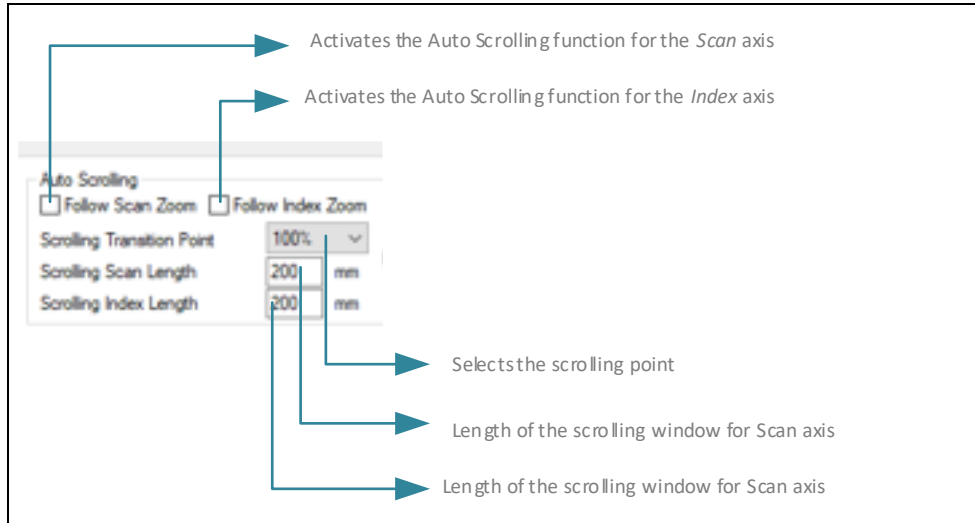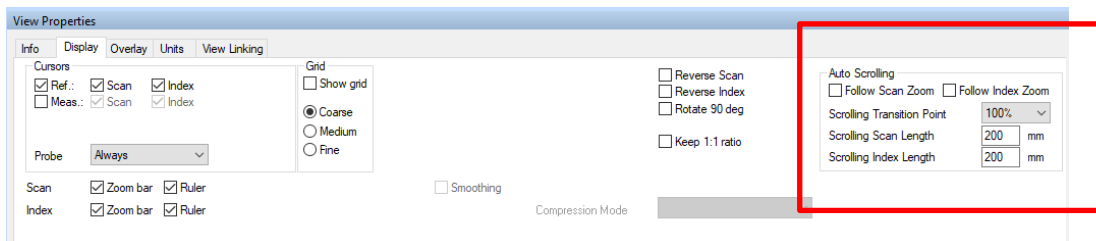- All Dynamic, C-Scan
- Strip views

Figure 1: Auto Scrolling view configuration

Supporting licences: All UltraVision Classic and UltraVision Touch versions.

Frequency Filter Tool

The Frequency Filter Tool performs off-line filtering in the frequency domain of UT and PA UT signals recorded in UVData files. With this feature, the user can select the target RF datagroup(s) and define customizable filter settings. The outcome of the filtering process appears as new datagroup(s) in the list of channels that contain RF or rectified signals, after applying the filtering algorithms, and can be stored in the UVExtension file accompanying the UVData file.

This tool filters out a certain interval of the frequency spectrum of the recorded ultrasonic signal in the analysis mode.

Based on the parameters of the defined filter, certain intervals of the frequency spectrum of the selected datagroup(s) are filtered out. The available filter types include:

- **Low Pass (LP)** using a rectangular window function type
- **High Pass (HP)** using a rectangular window function type
- **Band Pass (BP)** using either a rectangular or a Gaussian window function type

The Frequency Filter Tool is accessible for all users of UltraVision Classic and UltraVision Analysis licenses.
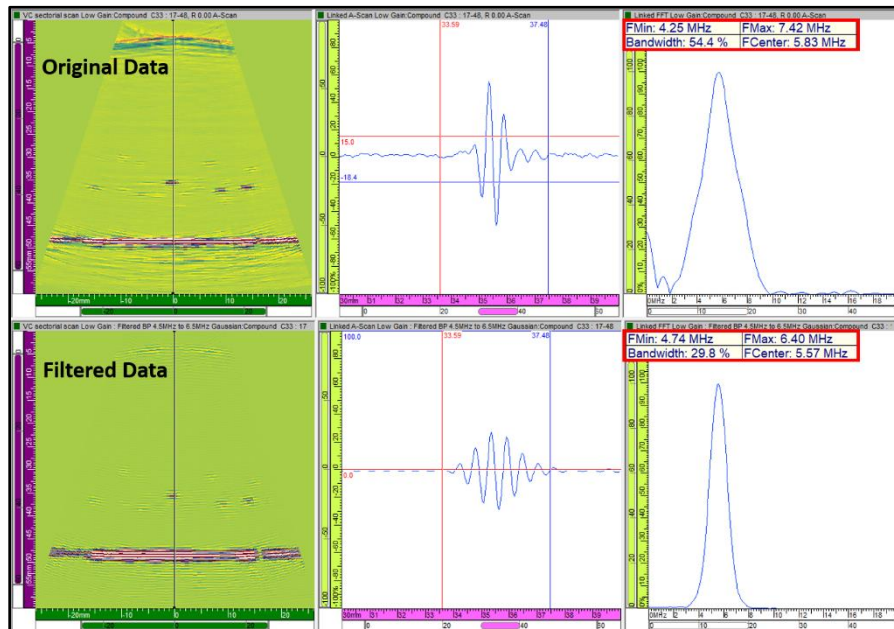

Figure 2 Example of Gaussian BP filtering from 4.5 MHz to 6.5

Please refer to *How To Guide – Frequency Filter Tool* for details about using this feature.

Supporting licences: All UltraVision Classic and UltraVision Analysis versions.

QUARTZ alarm management

Starting with UltraVision 3.10R20, QUARTZ adds support for a third alarm output. When used in a standalone configuration, QUARTZ can now handle up to three alarm outputs as the Pace Out output can be used as an alarm.

Please refer to *Quick Setup Manual – Alarm Outputs* for details about using this feature.

Supporting licences: All UltraVision Classic and UltraVision Touch versions.

Calibration without confirmation

Starting with UltraVision 3.10R20, it is possible to Accept a calibration without a previous Confirmation.

It is now possible to configure the Calibration process to require Confirmation.

- **Touch:** From Options/Calibration tab
- **Classic:** From the Option/Application/General page

Calibration confirmation is configured to Yes (requires Confirmation) as default option.
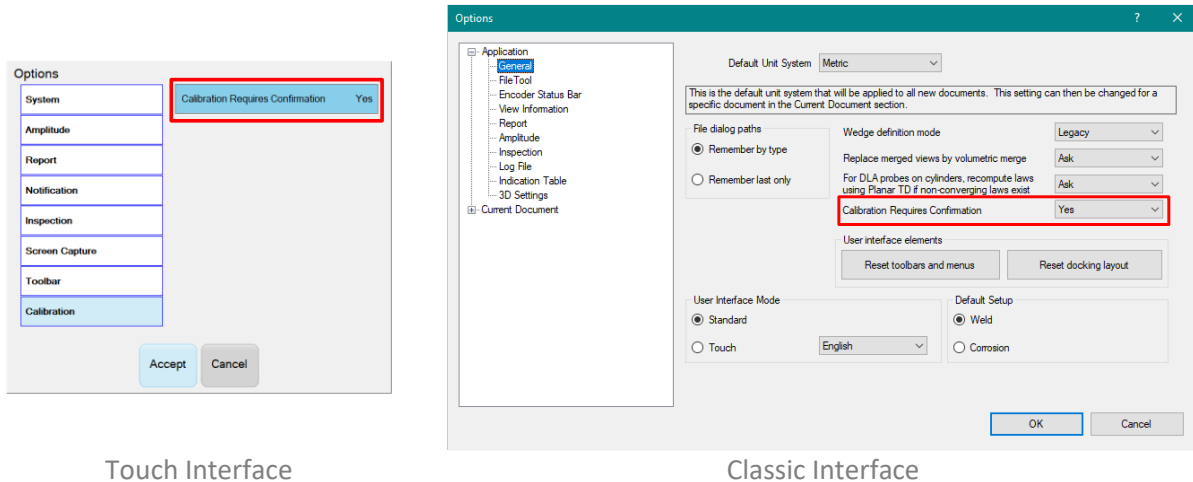

Touch Interface   Classic Interface

Figure 3: Calibration confirmation configuration

When the *Calibration Requires Confirmation* option is set to **No:**

- The *Confirm* and *Confirm Sector* buttons will not appear in the calibration tool.
- In TCG, after computing a TCG point, it will not be needed to press *Confirm* to *Accept* and validate the point.

- Pressing *Accept*, in any calibration tool, will accept the calibration as if the *Confirm* was also pressed, and all values are within tolerance.
- If some calibration LEDs are already set to Green, switching the *Calibration Requires Confirmation* option is set to **Yes** will reset these green LEDs.

Notes:
- **TFM TGC Calibration** behavior is not modified.
- For *Sensitivity* Calibration, *Reset* action will set values back to before entering the calibration.
- For all other calibration, *Reset* will set the calibration to the default values.

Supporting licences: All UltraVision Classic and UltraVision Analysis versions.

Floating toolbar auto show

It is now possible to control the automatic display of the floating toolbars when touching one the views in UltraVision Touch. If any of the floating toolbars is not required, it is possible to deactivate its visualization when touching on a view content to improve the visibility of the data.

The activation/deactivation of the automatic floating toolbars display is controlled from the menu **Tool -> Options -> Toolbars**. The control is independent for the three type of available floating toolbars:

- Action Toolbar
- Palette Toolbar
- Soft Gates Toolbar
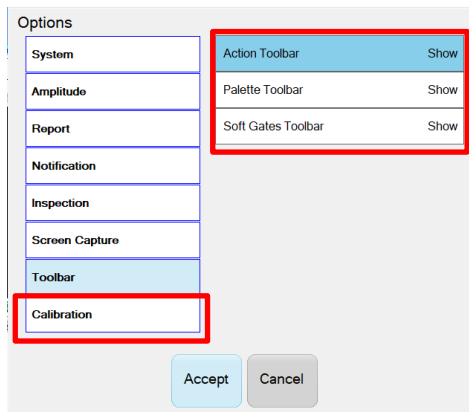
All the operations allowed through the floating toolbars remain however available through the *Layout* Tab.

Supporting licences: UltraVision Touch.

HASP Keys Driver

Windows 10 update #2004 may be causing a conflict with Sentinel driver used for HASP licenses dongles. This issue has been corrected Sentinel driver 8.10 or later. This issue may produce a blue screen.

The issue is present in the following builds of Windows 10, version 2004: 19041.388, 19041.331, 19041.329, 19041.264. The issue will not occur if you upgrade your Windows 10 to version 2004 after August 20, 2020 by using online update or by downloading the latest Windows 10 build.

Make sure that the build number of Windows 10, version 2004 is equal to or later than 19041.423 if you downloaded Windows 10 build earlier.

Up to date HASP drivers:
https://supportportal.gemalto.com/csm?sys_kb_id=61fb0ee1dbd2e78cfe0aff3dbf9619ab&id=kb_article_view&sysparm_rank=2&sysparm_tsqueryId=6f1c52d61bb0a450f12064606e4bcb9e&sysparm_article=KB0018320

Windows 10 bug description on version 2004:
https://supportportal.gemalto.com/csm?id=kb_article_view&sys_kb_id=39f264ea1b981854f12064606e4bcb2f&sysparm_article=KB0021742

DYNARAY minimum pulse length and voltage

For DYNARAY and DYNARAY Lite, the software limitation for minimum pulse amplitude at 50V and minimum pulse length and 30 ns is eliminated.

Supporting licences: All UltraVision Classic and UltraVision Touch versions.

Downloading and installing UltraVision Touch 3.10R20 for TOPAZ

To upgrade the TOPAZ product family software to the new 3.10R7 version, please download the appropriate UltraVision Touch version according to your instrument model from our website: www.zetec.com

UltraVision Touch is available in two main versions (embedded or PC-based) and there are several install files available according to the software version and platform:

- *UltraVisionTouch 3.10R20:* Install file of UltraVision Touch for PC in 32-bit version.
- *UltraVisionTouch 3.10R20 (x64):* Install file of UltraVision Touch for PC in 64-bit version.
- *Topaz 3.10R20*: Install file of UltraVision Touch for TOPAZ.
- *Topaz16 3.10R20:* Install file of UltraVision Touch for TOPAZ[16].
- *Topaz32 3.10R20 (x64):* Install file of UltraVision Touch for TOPAZ[32].
- *Topaz64 3.10R20 (x64):* Install file of UltraVision Touch for TOPAZ[64].

To install the downloaded version on your TOPAZ:

1. Save the file and unzip it on a USB drive.
2. Connect the USB drive to your TOPAZ.
3. Go to **TOOLS > SYSTEM** and click on **System Update.**
4. In the dialog, you should already see the TOPAZ 3.10R20 installer from your USB drive, but if not, click on the arrow at the top-right corner of the dialog until you see your USB, and select the TOPAZ 3.10R20 installer.
5. Click **Install.**

UltraVision PC recommended requirements

The following PC specifications are recommended for running UltraVision software:

- Windows 10 Pro (64 bits edition)
- Microsoft Office Professional 2016
- Quad-core i7 3.6 GHz processor
- Minimum of 16 GBytes RAM
- High-speed (1 Gb/s) Ethernet link
- High performance graphics card (Nvidia® Quadro® M2000M w/4GB GDDR5)
- High performance SSD (Solid State Drive) 256 GB or bigger

Quality

All work is performed in accordance with ZETEC Quality standards program, which complies with 10CFR50 Appendix B, ISO 9001:2015 and ISO/IEC 17025:2017.

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