

UltraVision 3.9R20 Classic and Touch versions

Product Bulletin

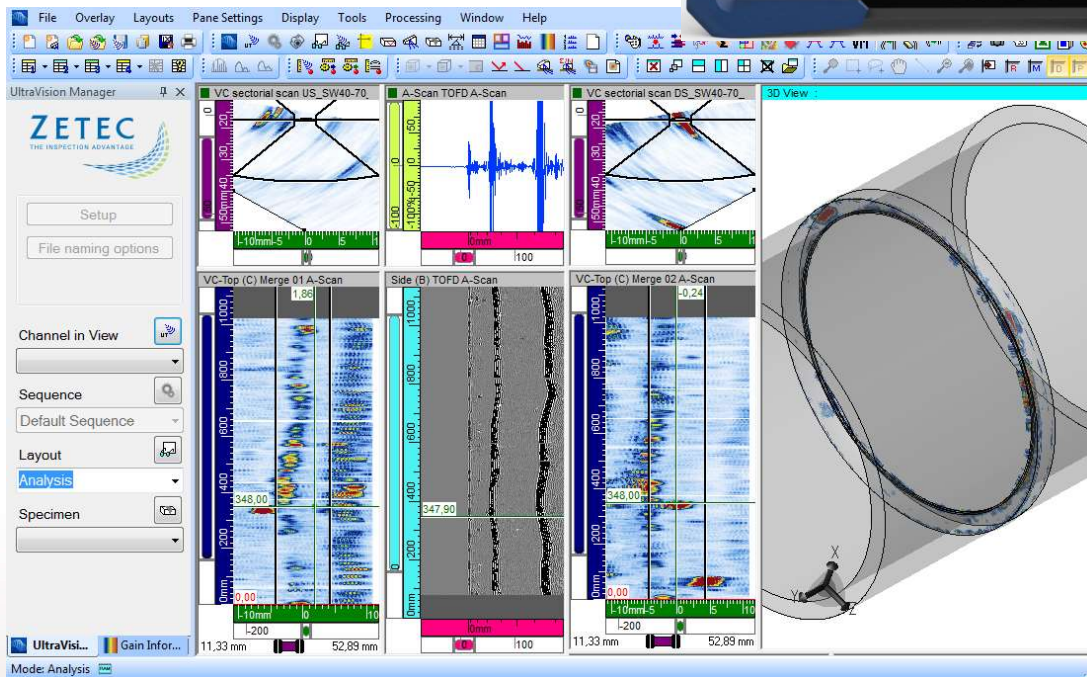


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UltraVision Touch 3.9R20

Zetec has just released UltraVision Touch version 3.9R20. This software version can be used on the TOP Δ Z, TOP Δ Z¹⁶, TOP Δ Z³² and TOP Δ Z⁶⁴ models as well as on a PC running Windows[®] 10 or Windows 7.

This product bulletin presents an overview of the new features and changes that are included in the new UltraVision Touch 3.9R20 software release.

UltraVision Touch 3.9R20 is available in three embedded versions for the TOP Δ Z product family:

- **Topaz 3.9R20** for TOP Δ Z instruments
- **Topaz16 3.9R20** for TOP Δ Z¹⁶ instruments
- **Topaz32 3.9R20 (x64)** for TOP Δ Z³² instruments
- **Topaz64 3.9R20 (x64)** for TOP Δ Z⁶⁴ instruments

As well, UltraVision Touch 3.9R20 is available in two PC versions:

- **UltraVision Touch 3.9R20** for 32-bit version environments
- **UltraVision Touch 3.9R20(x64)** for 64-bit version environments

To download UltraVision Touch 3.9R20 or any other UltraVision version, and to obtain access to the latest software documentation, please visit www.zetec.com

Purpose of UltraVision Touch 3.9R20

UltraVision Touch 3.9R20 is Zetec's 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 9001-2008.

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 and 3.9R9) to UltraVision Touch 3.9R20 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 3.9R20

UltraVision Classic 3.9R20 can be used on PC running Windows® 10 (or Windows 7) and is available in two versions:

- **UltraVision 3.9R20** for 32-bit version
- **UltraVision 3.9R20(x64)** for 64-bit version

Purpose of UltraVision Classic 3.9R20

UltraVision 3.9R20 is Zetec's 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 9001-2008.

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 and 3.9R9) to UltraVision Classic 3.9R20 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 Touch New Features and Improvements

Full Matrix Capture (FMC) Raw Data Saving Capability (TOPAZ64)

With UltraVision Touch 3.9R20, the new raw data saving capability is now fully functional. This feature will work with the TFM configuration and offer the user the possibility to save the elementary A-Scans of the Full Matrix Capture.

This new capability is available in two modes: Snapshots only and Full data.

The snapshots only mode gives the user the possibility to save the elementary A-Scans at one specific location or point in time. Only one set of A-scans will be saved at a time, thus multiple snapshots can be taken during the same inspection.

The full data mode gives the user the possibility to save all the elementary A-scans following an encoder or the internal clock. This means that the user can have encoded TFM data with the corresponding FMC elementary A-scans saved in a file.

To access the Raw Data Saving, user needs to create a TFM channels first. Then in the Channels/FMC menu; user can select what type of FMC data he wants to save:



In the Inspection/Data menu; user will be able to perform snapshots by clicking on the FMC snapshot button:



To use the FMC elementary A-Scan in UltraVision classic to do post-processing, please refer to the UltraVision Classic user manual.

Improved Configuration Speed (TOPAZ64)

With the new UltraVision Touch 3.9R20, improvements to the processing time of the TFM calculation has been made. With modified calculation process; user will see a considerable reduction in the time it takes to calculate a TFM configuration, up to 3 times faster and to an STF configuration, up to 2 times faster.

With this new software version, a increase of the maximum acquisition rate can also be observed for TFM and STF configurations, with a potential increase of up to 50% on the configurations using the maximum resolution of 256k pixels (512 x 512 with aperture 64 elements).

Splitter Support for TOPAZ16/64

UltraVision Touch 3.9R20 software version now supports the splitter module for the TOPAZ16/64 model. User working with the TOPAZ16/64 will now be able to connect two probes to the instrument using the splitter module and create configuration with up to 2x 32 elements phased-array probes.

Splitter Support for TOPAZ64/64

UltraVision Touch 3.9R20 software version now supports the splitter module for the TOPAZ64/64 model. User working with the TOPAZ64/64 will now be able to connect two probes to the instrument using the splitter module and create configuration with up to 2x 32 elements phased-array probes.

Law Cursor move button

It is now possible to move the Law cursor using Left and Right move button in the Layout/Cursor menu as it was previously available for the Reference and Measure cursors.



UltraVision Classic New Features and Improvements

Offline Setup Creation

It is now possible to create setups without being connected to an instrument. By connecting to an instrument Simulator, UltraVision can create a setup reproducing the same conditions of being connected to a real instrument.

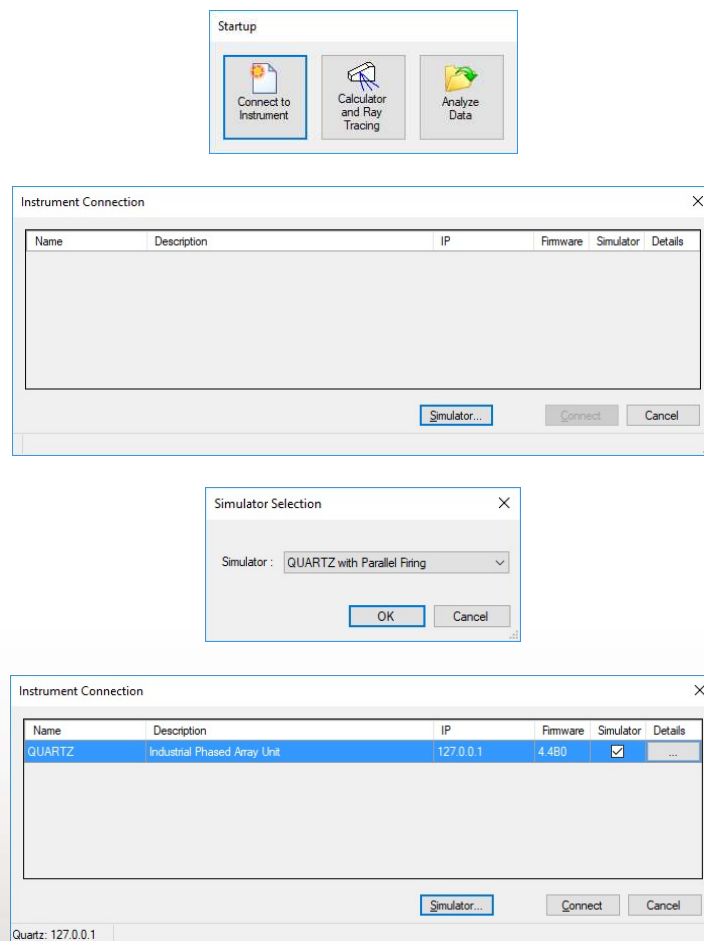
To connect to a Simulator instead of an instrument:

1. When UltraVision is started or a new document is created, select the Connect to Instrument button.
2. In the Instrument connection popup window, select the Simulator... button.
3. Select the proper instrument/firmware configuration and the Simulator will appear in the Instrument Connection window.

It is now possible to create or modify a setup file in the same way as working with a real instrument.

Note: signals are simulated and cannot be use as reference.

To connect to a real instrument, UltraVision has to be closed and the connection process repeated again.



New QUARTZ DDF function

Since 3.9R20, QUARTZ allows using DDF (Dynamic Depth Focussing) function. This function is available in all QUARTZ instruments and does not require any special activation license.

To use the DDF function on QUARTZ, it is necessary to upload the DDF firmware on the instrument by doing the following steps:

1. Go to Tools -> Instruments -> Firmware
2. In the firmware option list select the DDF firmware

Up to three firmware options can be available for QUARTZ as summarized in the following table:

Firmware	Parallel Firing	DDF	Time Reversal	Available Gates	Notes
Parallel Firing	Yes	No	No	2	TCG not available in channels using Parallel firing mode
DDF	No	Yes	No	4	
Time Reversal	No	No	Yes	4	Requires TR license

Downloading and installing UltraVision Touch 3.9R20 for TOPAZ

To upgrade the TOPAZ product family software to the new 3.9R20 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 3.9R20*: Install file of UltraVision Touch for PC in 32-bit version.
- *UltraVisionTouch 3.9R20 (x64)*: Install file of UltraVision Touch for PC in 64-bit version.
- *Topaz 3.9R20*: Install file of UltraVision Touch for TOPAZ.
- *Topaz16 3.9R20*: Install file of UltraVision Touch for TOPAZ¹⁶.
- *Topaz32 3.9R20 (x64)*: Install file of UltraVision Touch for TOPAZ³².
- *Topaz64 3.9R20 (x64)*: Install file of UltraVision Touch for TOPAZ⁶⁴.

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 3.9R20 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 3.9R20 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 9001:2008 and ISO/IEC 17025:2005.



Toll free: 800.643.1771 (USA)

info@zetec.com

www.ZETEC.com