ULTRAVISION 3.8R13

UltraVision®, a complete UT and Phased Array inspection package!

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UltraVision® 3.8R13

Zetec has just released *UltraVision® Classic* 3.8R13. This product bulletin presents an overview of the new features and changes included in the latest UltraVision Classic software release.

UltraVision Classic 3.8R13 is also available in two versions:

- **UltraVision 3.8R13** for 32-bit environments
- **UltraVision 3.8R13(x64)** for 64-bit environments

To download the UltraVision 3.8R13 software, or other any UltraVision software version, and for access to our latest software documentation, please visit www.zetec.com

For any additional information about the **UltraVision Classic** 3.8R13 software or any previous UltraVision Classic releases, please contact us at Support-UTProducts@zetec.com

Purpose of UltraVision 3.8R13

UltraVision 3.8R13 is Zetec's latest upgrade for Zetec's UltraVision Classic software. This software release includes several new features and improvements. Zetec's hardware and software development process conforms to a quality system that is certified ISO 9001-2008.

With this certified software development process, Zetec guarantees that the changes between previous UltraVision Touch versions 3.5R10, 3.6R5, 3.7R21, 3.8R7 and UltraVision 3.8R13, 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 includes additions of mathematical modules used for the positioning of indications, or for geometric condition adjustments.

UltraVision New Features and Improvements

DGS

UltraVision Classic 3.8R13 incorporates DGS curves calculations for the Advanced and 3D licenses.

DGS curves can be generated for each combination of specimen geometry and probe configuration, using either phased array or conventional probes.

DGS (Distance/Gain/Size) is a sizing technique that relates the amplitude of the echo from a reflector to that of a flat bottom hold at the same depth or distance. DGS curves include the effect of beam spreading and material attenuation.

DGS curves combined with custom design Phased Array probes are an invaluable tool for the inspection of heavy forged components where beam spread and long sound path make the inspection using a traditional approach very complex or even impossible.
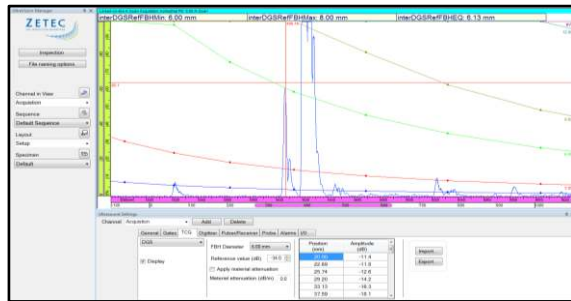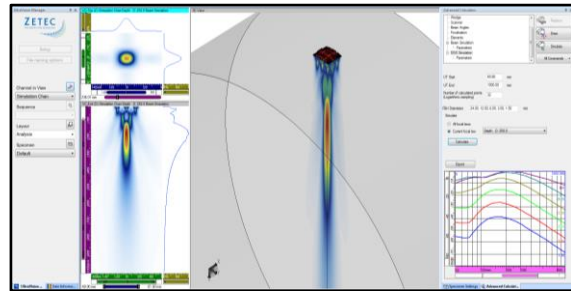

Sectorial scan view improvement
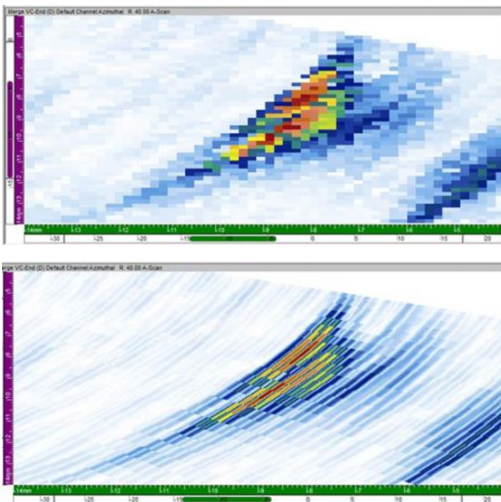
Sectorial Views have been improved. An enhanced display algorithm improves display data positioning for crispier and more detailed images.

Weld and Corrosion Propose Setup

Weld and Corrosion **Proposed Setup** tools, previously available only on UltraVision Touch, are now available through the **Specimen** menu in UltraVision.

When using a Pipe Axial Weld, Plate Butt Weld or Pipe Butt Weld specimens, the Weld **Proposed Setup** tool offers configurations adapted to the specimen thickness and for use with Zetec Weld Crawler scanner.

For Flat and Cylindrical specimens of up to 25mm (1 in) in thickness, the Corrosion **Proposed Setup** tool presents different ready-to-use configurations to be used along with Zetec's NDT Paintbrush.
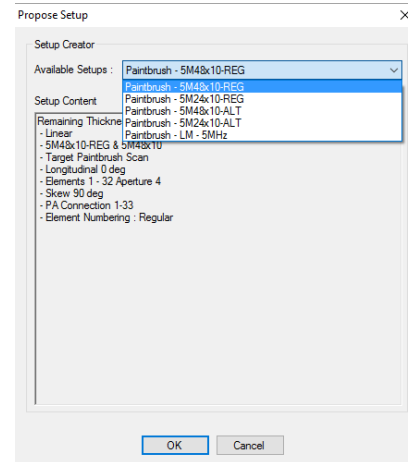
TOPAZ[16] Support

UltraVision Classic 3.8R13 can use the TOPAZ[16] as a remote data acquisition unit. Both Classic or Touch screen interfaces can be used when running UltraVision Classic.

Paintbrush Support on ZIRCON

Starting with version 3.8R13, UltraVision Classic also supports NDT PaintBrush in ZIRCON.

Time Reversal on TOPAZ[32]

Time Reversal, previously available only on ZIRCON and QuartZ, can now be used on the TOPAZ[32] when using a TOPAZ[32] Time Reversal-enabled instrument and can also be performed using UltraVision Classic and a TOPAZ[32] as a RDAU.

Time Reversal is a real-time adaptive process, allowing for rapid and reliable phased array UT inspections on complex geometries such as CFRP (Carbon Fiber Reinforced Polymers).

This real-time adaptive UT inspection technique eliminates the effects of misalignment between the probe and the specimen. A "surface profiling" process uses the time-of-flight from individual probe elements to characterize the surface of the inspected specimen. Once this surface profile is known, a compensation delay is applied to the individual elements of the probe to achieve normal incidence of the beam on the surface.

Pause Mode

The **Pause mode,** enables users to access analysis tools in acquisition mode. When pausing an acquisition, it is now possible to:

- Change the focal law displayed
- Choose the data position displayed
- Do sizing and measurements with cursors
- Move gate selector in dynamic views

When in **Pause mode**, it is also possible to reconstruct online views from stored data for performing data validation without opening inspection data files.

Pause mode can be activated or deactivated from the **Options** menu.
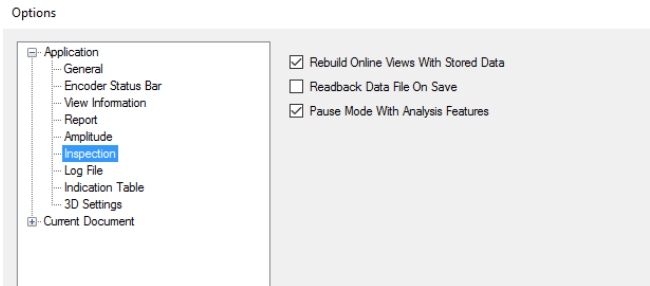
Non-Corrected C-Scan views
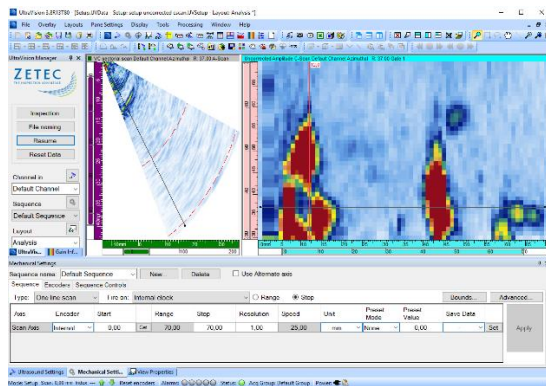
The **Non-Corrected C-Scan View** displays the amplitude readings of each focal law taken from the gate and plotting the information side by side, without correction for actual angle.

When used on a Raster Scan, the data cursor allows selecting which scan line to display in the view.

Read back mode

Read Back mode, allows reading data files automatically after they are saved.

It is no longer necessary to manually perform the "open data file" operation for doing the analysis of the recently acquired data. Simply closing the data file will automatically prepare the instrument for the next inspection cycle.

This new operating mode can be activated from the **Options** -> **Inspection** menu.
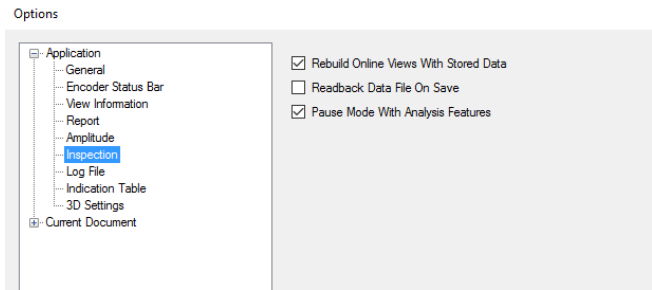
Improved Compound Scan
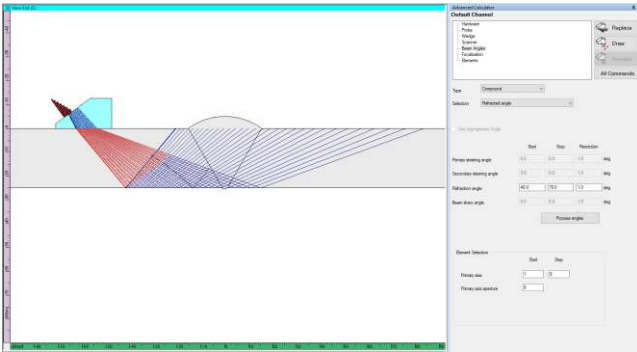
Compound Scan has been improved to include:

- The resolution for the compound scan is adjustable replacing the previous Sparse/Dense option.
- The increment in aperture element is a function of the number of focal laws and the length of the probe to cover.

Downloading and installing UltraVision Classic 3.8R13

Please download the appropriate UltraVision Classic version according to your Microsoft Windows 7 or Windows 10 operating system configuration from www.zetec.com

UltraVision Classic is available in two main versions:

- *UltraVision 3.8R13:*   Install file UltraVision Classic in 32-bit version.
- *UltraVision 3.8R13 (x64):*   Install file UltraVision Classic in 64-bit version.