

RELEASE NOTE

UltraVision software version 3.12R22

This document describes the main enhancements of UltraVision version 3.12R22 released in December 2023.

Compatibility

All applications and data files generated in UltraVision 3.2 and above are fully compatible with UltraVision 3.12R22; files generated in UltraVision 3.1 and below remain compatible for data visualization.

Equivalency statement

UltraVision 3.12R22 is the latest upgrade for the UltraVision software both for the Touch and Classic versions. This software release includes several new features and improvements. Eddyfi Technologies' hardware and software development process is performed according to a quality system that is certified ISO 9001-2015.

With this certified software development process, Eddyfi Technologies guarantees that the changes between the previous UltraVision 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, 3.10R7, 3.10R20, 3.11R4 and 3.12R18) to UltraVision 3.12R22 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.

List of new features

Functions and improvements listed hereafter are available for UV Classic versions unless stated otherwise. Nevertheless, TFM functions are only compatible with TOPAZ64 and Emerald units.

TFM enhancements

- Live Phase Coherence Imaging (PCI) (*Classic & Touch*)

Analysis tools

- Improved rule-based automated analysis
- Gates with homing-end function
- New noise reduction algorithm

Generic & ergonomic features

- New probes & wedges database with filtering function (*Classic & Touch*)
- Angle Corrected Sensitivity (ACS) calibration (*Classic & Touch*)
- Multi-screen mode
- Compatibility with Capture & Acquire data file format
**Capture/Acquire files from versions 2.3.x and later are supported in UltraVision*
- Single Plane view for the end view of pipe welds in Calculator Layout

Modifications of existing features

- N/A

Fixed issues

- Issue #5906 - Volumetric Merge: Sectorial interpolation gives wrong results when skewed beams are present
- Issue #17493 - TOFD: Wrong initialization of the 2nd Channel in the calculator
- Issue #30121 Rollback to previous version when installing the 3.12R18 version on the TOPAZ device
- Issue #30995 Cutting planes cutting through the attached ray in 3D Ray Tracing
- Issue #31144 Definition of J-Welds with multi-fill layers for Plate and Pipe butt welds
- Issue #23739 - Reports: Specimen does not give thickness for pipes in the report
- Issue #15646 - Error message in case of Compound to TFM setup

Limitations and remaining anomalies

- Issue #31291 - Difficulty using splitter with TOPAZ16 64/64 and TOPAZ64 64/64 configurations
- Issue #30602 - Incorrect signal when first element of sweeping (linear) TFM is not 1
- Issue #31737 - Minor compatibility issues with setup created in UV 3.12R22 and loaded in previous UltraVision versions
- Issue #5978 - QUARTZ - Incorrect TCG in Parallel firing mode

- Issue #31253 - New J-Weld mode is not available for pipes with axial J-Weld
- Issue #30148 - For FMC data recording in setups with more than one TFM or PWI channel, only Snapshot mode is available.
- Issue #31318 - Remove any license key from the PC when installing new version of UltraVision.
- Issue #30815 - ACS Calibration results are not present in the reports.
- Issue #31058 - When using Multi Monitor mode, set display parameters for all layouts on the main window of UltraVision.
- Issue #30771 - For PWI configuration with 4 focal laws (or lower), manually reduce the Recurrence to Auto to avoid slowing down the acquisition.
- Issue #30415 - Saturated signals with Offline TFM data reconstruction from live PCI channel
- Issue #31170 - Generate Specimen Surface and Thickness feature not working

When loading Capture/Acquire files in UltraVision:

- Issue #30300 Nozzle specimens are imported as close as possible. Fillet Weld and CAD specimens are not Imported. Nozzle overlays and DXF overlays are not Imported.
- Issue #30798 The location of specimen will switch to the default location specimen in UltraVision for the imported specimen type.
- Issue #30295 Inspections which are encoded in 3-axis is not supported.
- Issue #30811 for Capture/Acquire data file acquired using a 2-axis mechanical sequence (e.g., Bidirectional), the mechanical index resolution used during the acquisition is replaced by the acquisition index resolution in the Mechanical Settings menu and reports. This does not cause any issue to the data.
- Issue #30372 Open Previous/Next File button not supported with Acquire/Capture data files.
- In very specific situations, the USound position of indications may show a difference of a couple of samples between Capture and UltraVision (ZUL-800 and ZUL-803)

Installing UltraVision on TOPAZ

To install the downloaded version on your TOPAZ:

- Save the file and unzip it on a USB drive.
- Connect the USB drive to your TOPAZ.
- Go to TOOLS > SYSTEM and click on System Update.
- In the dialog, you should already see the TOPAZ 3.12R22 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 3.12R22 installer.
- Click Install.

Note: TOPAZ (1st generation) does not support 3.12R22. Last supported version is 3.10R20.

Important: When installing the new versions of UltraVision (3.12R22) on the TOPAZ family for the first time, the installation process will take up to **10-15 minutes** since the installer file will also update specific driver versions on the TOPAZ device. Please make sure that the TOPAZ device is plugged in (connected to its charger) while the version updates, and please do not manually shut down the device during the 10-15 minutes period.

Note: When installing the new version of UltraVision on PC, make sure that no license key is connected to the PC.

System requirements

The following PC specifications are recommended for running UltraVision software:

- Windows 10 Pro (64-bit edition)
- Quad-core i7 3.6 GHz processor (Intel processor mandatory)
- Minimum of 16 Gb 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

For any questions, remarks, or support needs, please contact us at support@eddyfi.com