



## 2012-11-15 UtStudio3 Public Manifest Release 3.2.5 Release 3

### UTStudio Pack 3.2.5 Release 3

- Viewer: 3.2.5 Release 3
- Standard: 3.2.5 Release 3

#### Version Differentiation:

UTSTUDIO VERSIONS	VIEWER	STANDARD
Read and analyse UTDATA and UTCFG files	✓	✓
A/B/D/L/S-scan views	✓	✓
Top/Side/End/C-Scan projected views	✓	✓
View reports	✓	✓
TOFD views	✓	✓
Export acquisition data to a CSV format		✓
Create UTCFG files		✓
Produce reports		✓
Layout and workspace management		✓

#### Featuring:

##### UTStudio-specific changes

- Add maximize view feature by double-click titlebar or click on Maximize button.
- Config files tabs stack vertically instead of horizontally
- Allow config pane to be resized to a smaller width
- Suggest filenames when saving reports and in "Save As" dialog
- Show parameter errors in status bar
- New application icon
- Activate window when there is an existing application instance
- Better screen layout on first start after new installation
- This version allows to create and analyze files of VEO 16:64 and VEO 16:128
- Layouts for 5 & 6 scans are available (16:128 only)
- New B-Log view (in analysis)
  1. Present part end view of multiple beams in the same encoded view
  2. Extract Data from gates to show B-Scan, minimum, average, and maximum part thickness in one view
  3. Amplitude and Depth view using flank or peak as reference.
  4. Limitation: Only supports probes at 0 degree
- TOFD enhancement
  1. Edit the PCS directly with the new "Geometry" options for paired probe
  2. Calibrate your TOFD scan with 1 parameter "Ruler LW Position"
  3. Added feature: Lateral Wave Removal
- Measurement overlay enhancement for readability
- When adding new probe/scan, ability to copy existing probe/scan
- Ruler considering skip cursor (bound to weld overlay feature)
- Add X-Series probes to probe database
- HAZ in the 3D view (View option)
- Remove delay induced by wedge geometry in TOFD (to behave like Conventional)
- Combined "Top ruler", "Bottom ruler", "Left ruler" and "Right ruler" in a single "Rulers" option
- Combined "Horizontal Grid" and "Vertical Grid" in a single "Grids" option



**Fixed:**

Release 3

1. Support of new file format created VEO 3.2.5 R3

Release 2

2. (#3513) - UTStudio: Report is incorrectly drawn when view is maximized
3. UTStudio: B-Scan had wrong orientation by default

Release 1

4. (#3367) - Fix Unexpected missed frames
5. (#3311) - 3D view: size of part is proportional to scan area
6. (#2972) - TOFD BW Ruler calibration enhanced
7. (#2524) - 3D views part in the Report are not well displayed
8. (#1933) - 3D Views tag's Title are not updated when we change Display Mode in Properties
9. (#3368) - Unexpected beam exit point outside wedge error while using a 64 elements probe.
10. (#3226) - Rename "Rectangular Box" & "Square Box" to "Extraction Box"
11. (#3049) - Mono, Config issue when changing Dual Crystal to Mono Crystal.
12. (#3045) - CSV in amplitude, bad header
13. (#2686) - Wizard DAC, Nb Sub-levels not keep if return in DAC wizard
14. (#2958) - Fix some measures not refreshed when changing unit system.
15. (#2678) - Wedge type = None, Hide Identifiers and Setting categorize menu
16. (#3154) - Enhance error message labels for understandability
17. (#1624) - The measurement for each cursor are customized on a cursor type bases
18. (#3050) - S-Scan, Stop angle cannot have less than 70deg in specific scenario
19. (#2842) - Add Cartesian Cursor in Merged views init pos. at the top left corner of the views. (specific file)
20. (#2957) - Palette color scaling is not correct in C-scan Depth mode in Imperial.
21. (#2783) - Missing Ampl. Low and Ampl. High parameters in View tab for TOFD type scan
22. (#3140) add software gain in report
23. (#3196) "C1-E1 Dist Scan" measure marked as Invalid in utstudio
24. Increase maximum zoom level in encoded views
25. Wedge Reference Pos was not centered when using a PA probe without a wedge

**Known issues:**

1. Zoom not supported yet in A-Scan, S-Scan and L-Scan
2. Software gain does not affect depth top/end views (the IFT gate is triggered prior to apply the software gain)



## 2012-01-16 UtStudio3 Public Manifest Release 3.2.1 Release 1

### UTStudio Pack 3.2.1 Release 1

- Viewer: 3.2.1 Release 1
- Standard: 3.2.1 Release 1

#### Version Differentiation:

UTSTUDIO VERSIONS	VIEWER	STANDARD
Read and analyse UTDATA and UTCFG files	✓	✓
A/B/D/L/S-scan views	✓	✓
Top/Side/End/C-Scan projected views	✓	✓
View reports	✓	✓
TOFD views	✓	✓
Export acquisition data to a CSV format		✓
Create UTCFG files		✓
Produce reports		✓
Layout and workspace management		✓

#### Featuring:

- Add Merged C-Scan view (only available in analysis) with 2D Encoded files for Conventional A-Scan:
  1. Merged C-Scan view (Zoom only in scan axis)
  2. Amplitude Top View / C-Scan will be drawn using peak as reference.
  3. Time of Flight (Depth) C-Scan are drawn using peak or flank as reference (user selectable).
  4. Options are available in view tab (when C-Scan view is selected), data can be filtered using reference gate (optional) and data gate. (G1/, G1^,...)
- Add Export To CSV for Merged C-Scan, C-Scan and Top views (Ampl. and Depth)

#### Fixed:

1. (#2783) -Fix parameters "Palette Ampl. Low/High" not shown in TOFD view
2. (#2983) -Fixed incorrect ruler in merged views.
3. (#2957) - Fix depth palette values were not converted to inches in c-scan palette ruler,
4. Fix software lockup when loading Utdata after Utcfg under some specific circumstances
5. Always show dB Ref measurement for gates, even when there's no DAC/DGS/TCG curve
6. Depth measurement correction millimeters/inches in CSV files
7. Correct 3D drawing of a probe inset
8. Encoder Stop now aligned to the last valid encoder position, considering distance and step.
9. Fix issue where the wedge menu items would not reload correctly.

#### Known issues:

3. Zoom not supported yet in A-Scan, S-Scan and L-Scan
4. Software gain does not affect depth top/end views (the IFT gate is triggered prior to apply the software gain)



## 2011-10-12 UtStudio3 Public Manifest Release 3.2.0 Release 3

### UTStudio Pack 3.2.0 Release 1

- Viewer: 3.2.0 Release 1
- Standard: 3.2.0 Release 1

#### Version Differentiation:

UTSTUDIO VERSIONS	VIEWER	STANDARD
Read and analyse UTDATA and UTCFG files	✓	✓
A/B/D/L/S-scan views	✓	✓
Top/Side/End/C-Scan projected views	✓	✓
View reports	✓	✓
TOFD views	✓	✓
Export acquisition data to a CSV format		✓
Create UTCFG files		✓
Produce reports		✓
Layout and workspace management		✓

#### Featuring:

- Improvements to "Save as CSV" (right click in C-Scan, C-Scan Merged and Top view select extract to CSV)

View/Type measures	Amplitude	Depth
C-Scan View	Yes	Yes
C-Merged View	Yes	Yes
TOP View	Yes	Yes
Top Merged View	No	No

- Ask to save session on close
- Measurement list can be re-ordered
- Moved replay frame rate setting to Preferences
- Add a C-Scan view type (available in acquisition and in analysis):
  - C-Scan are allowed with L-Scan type primary scan
  - C-Scan are created for dataset defined by gates
  - New options are available in View properties tab (when gate is selected), data can be filtered using reference gate and measurement gate. (none, Gi, G1/, G1^,...)
- Add Merged Top and Merged C-Scan view (only available in analysis) with 2D Encoded files
  - Merged TOP view (No Zoom)
  - Merged C-Scan view (No Zoom)
  - Amplitude Top View / C-Scan will be drawn using peak as reference.
  - TOF or Depth Top View / C-Scan will be drawn using peak or flank as reference (user selectable).
- Enhanced menu structure (for harmonization with future products and better user efficiency)
  - Menus are simplified and user customizable with collapsible Menus
  - Probe tab is simplified, optional features are in "advanced settings"
  - Add and remove probe/wedge is now achieved within probe tab (user can select the probe to delete).
  - Add and remove scan is now achieved within scan tab (user can select the scan to delete).



- Many other refinements
- Palettes:
  - All palettes can be changed independently or as a group: depth palette, amplitude palette
  - Inverted palettes created
  - New color palettes: Cubic Law and Fire&Ice
- Gates:
  - The gate are drawn with a gate trigger indicator (flank or peak).
  - Display gate position in S-scan or L-scan (onto extractor)
- Draw extractors on beam center
- Add Freehand cursor info in reports

**Fixed:**

- (#2569) Skip measure or "True Depth Measurement" are wrong in inches
- (#2572) Creating report with setup Dual Crystal may crash software

**Known issues:**

5. Zoom not supported yet in A-Scan, S-Scan and L-Scan
6. Software gain does not affect depth top/end views (the IFT gate is triggered prior to apply the software gain)



**2011-06-30 UtStudio3 Public Manifest Release 3.1.40 Release 1**

**Pack 3.1.40**

- Viewer: 3.1.40 Release 1
- Standard: 3.1.40 Release 1

**Version Differentiation:**

UTSTUDIO VERSIONS	VIEWER	STANDARD
Read and analyse UTDATA and UTCFG files	✓	✓
A/B/D/L/S-scan views	✓	✓
Top/Side/End/C-Scan projected views	✓	✓
View reports	✓	✓
TOFD views	✓	✓
Export acquisition data to a CSV format		✓
Create UTCFG files		✓
Produce reports		✓
Layout and workspace management		✓

**Featuring:**

- Add "Freehand" cursors to S/B/TOP/END-Views, measures on a plan the length of defect
- Allow linking "frame extractor" across scans of a same utdata
- Recall "Acquisition Layout"
- Capability of saving and recalling layouts
- UTStudio can now "Export Data..." in CSV format
- Extend UTStudio license to 1 year (without internet connection)

**Fixed:**

- Various instability

**Known issues:**

- "Measurement tab" and "Measurement view": Gate measurements are red when no peak is detected.
- Software gain does not affect depth top/end views (the IFT gate is triggered prior to apply the software gain)



## 2011-02-03 UtStudio3 Public Manifest Release 3.1.34 Release 1

### Pack 3.1.34

- Viewer: r5396
- Standard: r5402

### Version Differentiation:

UTSTUDIO VERSIONS	VIEWER	STANDARD
Read and analyse UTDATA and UTCFG files	✓	✓
A/B/D/L/S-scan views	✓	✓
Top/Side/End projected views	✓	✓
View reports	✓	✓
Create UTCFG files		✓
Produce report		✓
Layout and workspace management		✓

### Featuring:

- Add Amplitude and Depth measurements in Top and End views with Cartesian Cursor
- "Color Map Compression"
  - with mouse in color palette ruler
  - with "Palette Depth" or "Palette Amplitude" boundaries in view menu
- Add G1/ - I/ measurement
- Support of 2D encoders (the view can only display on axis)
- In Analysis mode, cursors are linked as per "Sonatest Application group" requirements. Add a new type of extractor "Frame Extractor"
- Depth Rulers in A-Scan (as a view option, in view tab)
- Measure reference, user selectable
  - Measure Referenced to Part Datum or Wedge
  - Change the computation and representation of Ruler and Measures (gates, measurement bar)
- Report: Cursor reporting layout reviewed
- 3D Views integrated to report
- Customer custom logo in report (Inspection : Report options)
- IFT gate can be moved in Analysis mode
- Save UTCFG from an existing UTDATA
- Save UTDATA once layout, cursors and gate have been modified
- Multiple Interface Triggering measurements improvements
- Multiple Interface Triggering fixes when using wizards
- Added TOFD Straightening feature, in "Properties/Analysis" tab
- Make the summary window available as a View in UTStudio
- Add new tips to the configuration summary
- Add special colors for No-data, No-trigger and Filtered-data in palette files
- Add "Unit Serial ID" in report



**Fixed:**

- TOFD and A-Scan are now linked by the "Frame Extractor" cursor

**Known issues:**

- "Measurement tab" and "Measurement view": Gate measurements are red when no peak are detected.





## 2010-11-10 UtStudio3 Public Manifest Release 3\_1\_32 Release

### Pack 3.1.32

- r4865 (Release)

#### Featuring:

UTSTUDIO VERSIONS	VIEWER	STANDARD
Read and analyse UTDATA and UTCFG files	✓	✓
A/B/D/L/S-scan views	✓	✓
Top/Side/End projected views	✓	✓
View reports	✓	✓
Create UTCFG files		✓
Produce report		✓
Layout and workspace management		✓

- Licensed version (with 30 days evaluation)
- Add "Frame Extractor" cursor linked in all views
- Manual "link cursor" functionality using mouse
  - Cartesian with "angular extractor"
  - "Frame Extractor" with "angular extractor"
  - Cartesian with cartesian
  - Box with gate
  - Hyperbolic with cartesian
- Zoom functionality extended with the zoom bar in views.
- Zoom function achievable with mouse wheel
- Add "My UTStudio Files" directory to "My Document", containing examples and probe and wedge database
- UTDATA, UTCFG, UTSESSION file associations in windows file explorer
- Reorganize menus, tab bars and toolbars for usability
- New palettes (same as RapidScan)
- Angular ruler added to view options
- View properties tab: added "depth path mode" to enable Depth or Sound Path ruler
- IFT: Interface Gate added and Gate minus interface measurement added
- Added Layouts
- 3d View shows Near Field
- 4 Phased Array Scans capability
  - When Mono and Phased array are combined, maximum 3 scans
  - Mono (conventional only), maximum 3 scans
  - Phased array only, maximum 4 scans
- Skip cursor (part thickness) shown in A-Scan
- Changing material updates velocity
- Each sheet can have a maximum of 10 views.

#### Fixed:

- AWS Indication Rating (iRating) now calculated properly
- Repair arrow icons in measurement list
- Add report date to report
- Time based UTDATA can be analyzed (if file have been acquired with 3.1.31 and higher)



**Known issues:**

- Gate measurements: dB is not working
- "Measurement tab" and "Measurement view": Gate measurements are red when no peak are detected.
- When loading heavy "utsession" file may encounter instability
- Link cursor in TOFD (between a-scan and tofd view) will be manual as a workaround in this version
- Change view orientation may not be sync zoom widget
- Measure view is not saved in "utsession".



- 2010-09-14 UtStudio3 Public Manifest Release 3\_1\_22 Beta2

**Pack 3.1.22**

- r4180 (beta)

**Featuring:**

UTSTUDIO VERSIONS	VIEWER	STANDARD
Read and analyse UTDATA and UTCFG files	✓	✓
A/B/D/L/S-scan views	✓	✓
Top/Side/End projected views	✓	✓
View reports	✓	✓
Create UTCFG files		✓
Produce report		✓
Layout and workspace management		✓

- Capability to save session
- Extend trial version up to December 31st, 2010
- Added "view option tab"
- Added "cursor option tab"
- Allow to display palette to any view
- Added software gain
- Added ability to zoom encoded

**Fixed:**

- TBD

**Known issues:**

- No "Viewer and Standard" version differentiation (workaround: license expire on October 1st 2010)
- The "Frame Cursor" does not show up in TOP/END/B Views
- Link between cursors are correct if origin from a predefined layout, if not link are not adequate
- 3D Views do not render in report
- Gate red indicator is inverted
- There is a possible crash of the software when creating complex layout (more than 8 views), it is a known issue.
- The near field implementation is under test (so do not rely on it for now).



**2010-08-17 UtStudio3 Public Manifest Release 3\_1\_21 Beta**

**Pack 3.1.21b**

- G3 TRUNK Software: 3.1.21 (beta)

**Featuring:**

UTSTUDIO VERSIONS	VIEWER	STANDARD
Read and analyse UTDATA and UTCFG files	✓	✓
A/B/D/L/S-scan views	✓	✓
Top/Side/End projected views	✓	✓
View reports	✓	✓
Create UTCFG files		✓
Produce report		✓
Layout and workspace management		✓

- Wall to Wall 16 bits architecture
- Part/Probe/Wedge/Part/Encoder view is a mimic of Veo R1
- Load G3 file for analysis (one file at a time)
- Gate Cursor and Measurements is a mimic of Veo R1
- Weld Overlay is a mimic of Veo R1
- Report is a mimic of Veo R1 (not in viewer version, only lite)
- Multiple file opening
- Standard Version license security expire October 1st 2010
- Measurement View
- General User Interface Review
- Windows XP/Vista/7 32&64-Bit support
- Probe Menu/Wedge Database View and Edit= Veo R1
- New Cursor and View property pane
- (PARTIAL IMPLEMENTATION)Link Cursor
- (PARTIAL IMPLEMENTATION) Workspace / Layout management
- (POST PONED R3.1.4)Side Views
- (POST PONED R3.1.3) Zoom in encoded views
- (POST PONED R3.1.4)RPC Connection
- (POST PONED R3.1.4) Defect Table (See 9.2.1 of Old UtStudio Product Definition)
- (POST PONED R3.1.4) Soft gain
- (POST PONED R3.1.4) Indication Quantitative / Qualitative (Defect Table)
- (POST PONED R3.1.4) Wizard / Code management
- (POST PONED R3.1.4) 6 dB drop box analysis
- (POST PONED R3.1.4) TOFD: Straightening (Data flattening, hyperbolic cursors are irrelevant without)
- 

**Fixed:**

- Fixed: Crash with Multi-file report
- Fixed: Cursor does not support mouse (workaround: select the view with the mouse, press “c” to select the appropriate cursor, use the arrows to move it.
- Rename D-Scan to B-Scan
- Fix Delete Cursor auto-refresh
- Remove % of Cartesian cursor



- Box size has a default possible position
- Box cannot be removed if extraction are present in layout
- ruler not properly refresh corrected
- Box threshold now available in "Cursor property" pane
- cursor measure now part of report
- Now easier to drop down combo box
- All property moved to property pane

**Known issues:**

- No "Viewr and Standard" version differentiation (workaround: license expire on October 1st 2010)
- TOFD utdata file prior to file format 3.1.2 cannot be analysed
- Recommend the use of file format 3.1.2, before veo 3.1.2 release it is recommended to use "utdata" file provided in utStudio working directory
- The "Frame Cursor" does not show up in TOP/END/B Views
- Link between cursors are correct if origin from a predefined layout, if not link are not adequate
- 3D Views do not render in report
- Gate red indicator is inverted