

prisaa



What's New in version 3.5.13

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2014-05-12



reddot design award
winner 2013



Prisma List of Enhancements

UT

Conventional UT specific enhancement

TOFD

TOFD specific enhancement

PA

Phased Array specific enhancement

UT

TOFD

PA

Sonatest



Prisma List of Enhancements

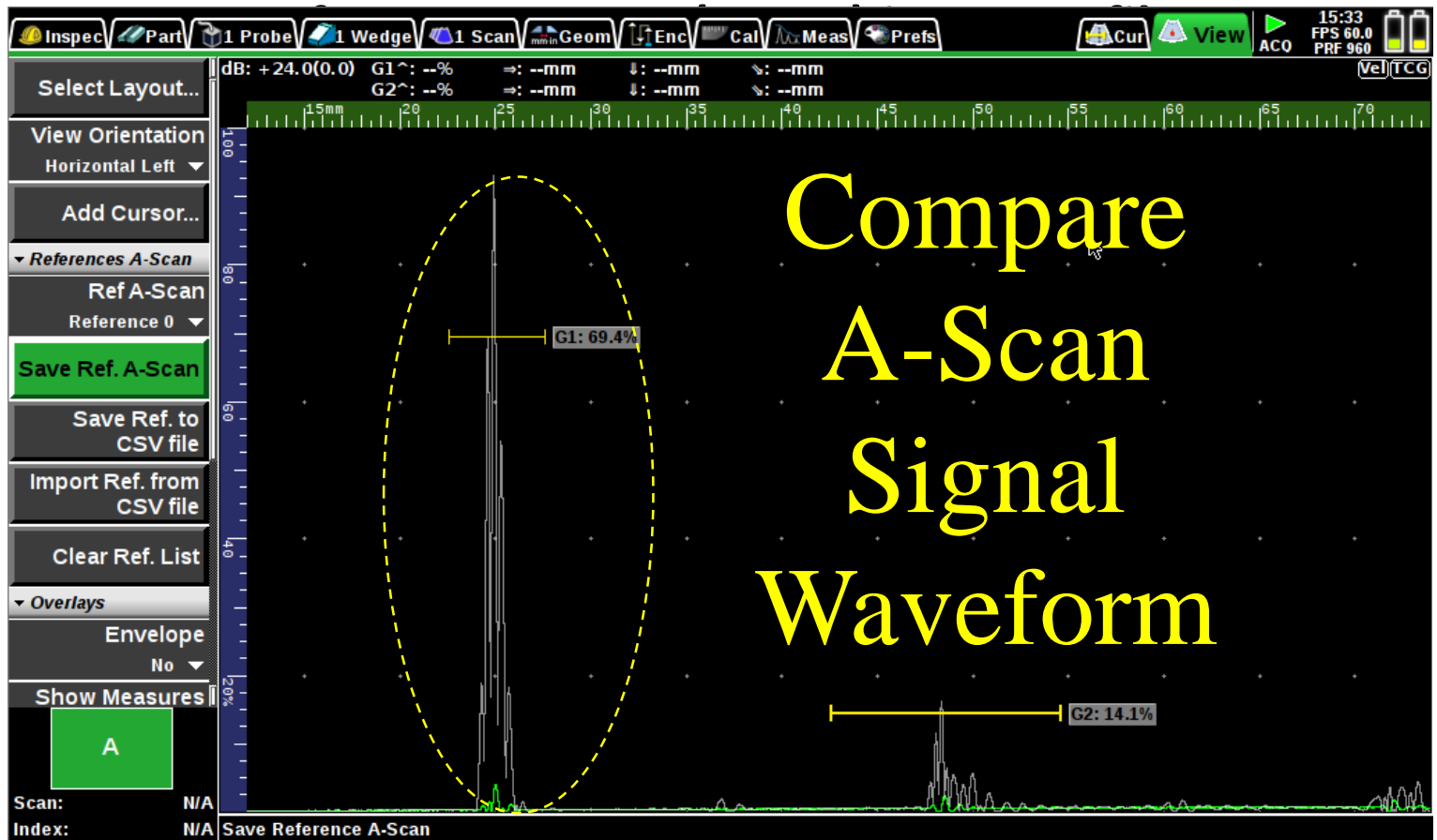
- Introduction of Zoom function into S-Scan, L-Scan
- New grid type: Dots (Graticule)
- Reference A-Scan
 - Save Reference A-Scan (A-Log) into configuration file (.UTCFCG)
 - Export Reference A-Scan (A-Log) into CSV file
- UT, B-Log Live (Live thickness logging with part profile)
- Addition of fixed depth Palette, can be extended out of min/max range.
- The B-Scan now supports 2 rendering modes (fit or scroll)
- 2D C-Scan are rendered during acquisition (Live Merged C-Scan)
- Dual Polarity Gate/Box: added as view option when scan is not rectified, controls how C-Scans, Top and End views are extracted (positive, negative or RF spectrum).
- 3D view: add stream direction.
- TOFD view: scrolling modes added.
- Time-based ruler, #4592
- Add gain at final step of Velocity and Zero wizard, #3020
- Config Summary: show errors and tips at top of window instead of bottom.
- Allow changing Probe->Pulse Width in Play mode, #4902 #5010
- "Front Wedge" can now be used as the reference system in UT, set in "Encoded Axis Reference", #5037
- Media browser: always display all available drives.
- Media browser: remember last Drive, Sorting and Filter.
- Hungarian translation.
- Acquisition files shared through FTP server.
- DGS: halve the lowest allowed ERS (equivalent reflector size), and use a more fine-grained DGS resolution, #4489
- Menus: show full-length value when value is too large to fit
- Prisma UT filters renamed to Low-Mid-High-Broad, #4589
- Various performance optimizations.

UT

TOFD

Reference A-Scan

- *Save Reference A-Scan (A-Log) into configuration file (.UTCFG) or export into a CSV file*



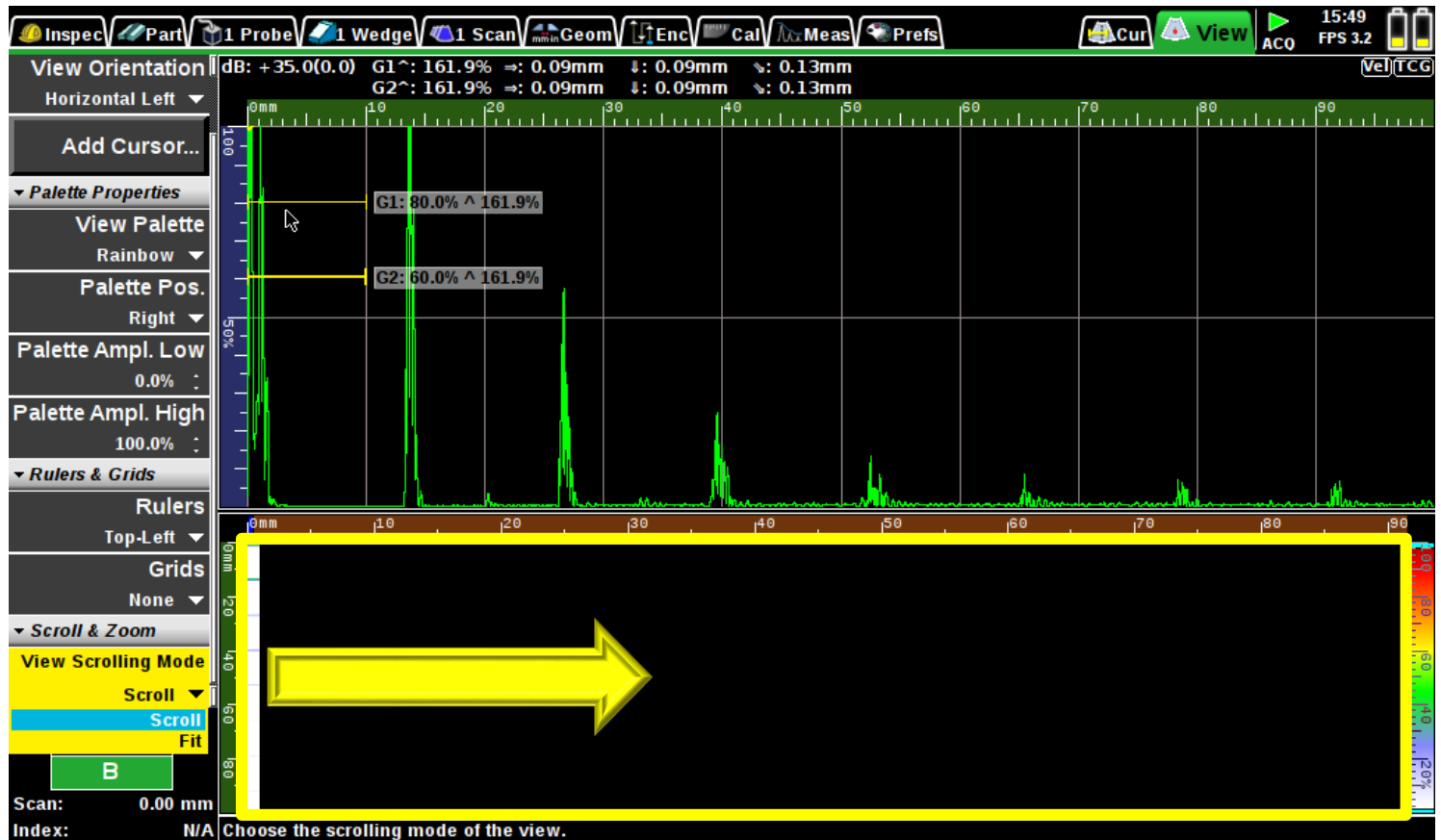
Sonatest

UT

TOFD

B-Scan and TOFD now support 2 rendering modes

- **Fit:** to see whole area in one view
- **Scroll:** smooth scrolling window moving along the scan strip to see defect and missed frame while encoding



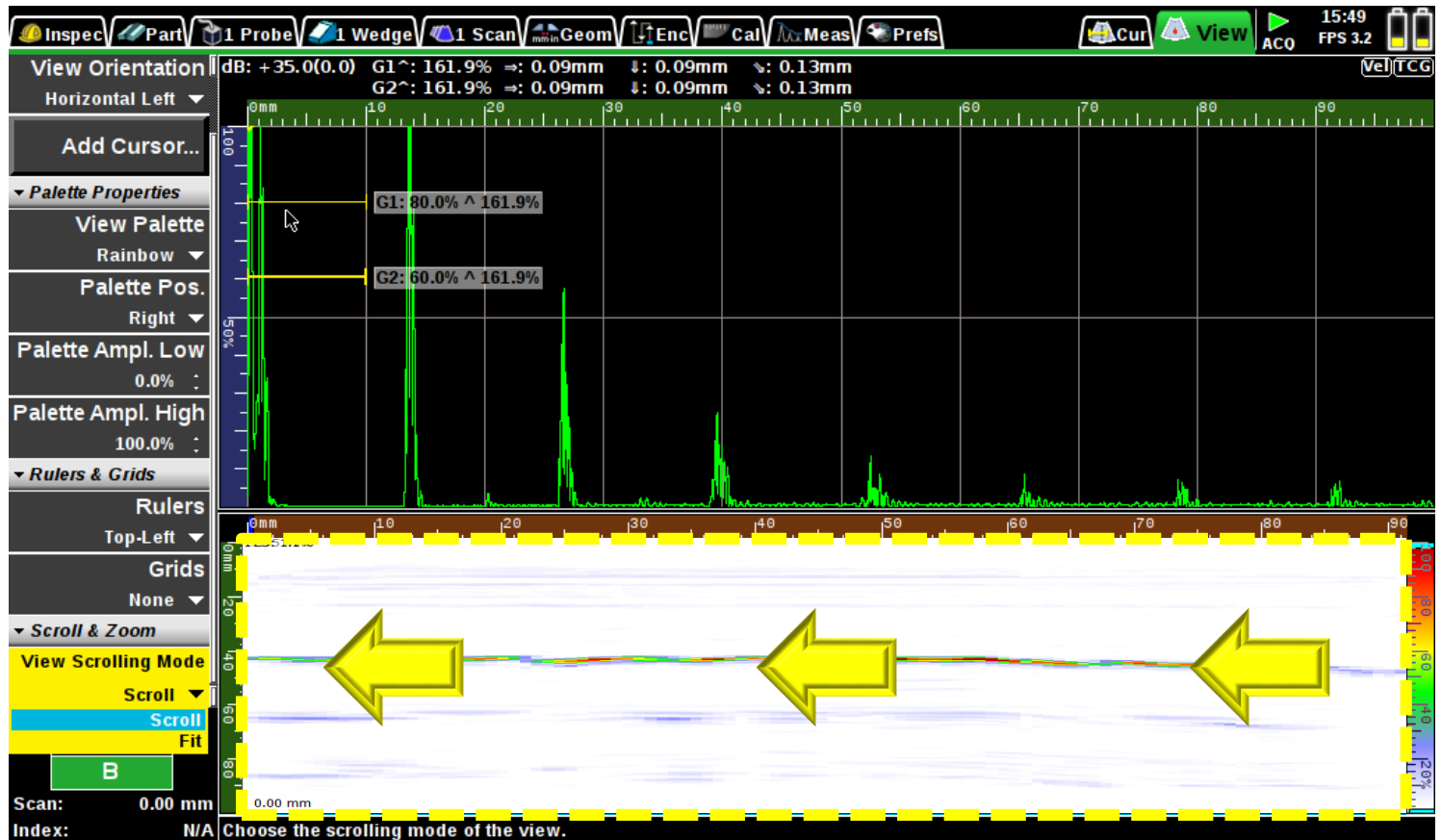
Sonatest

UT

TOFD

B-Scan and TOFD now support 2 rendering modes

- *Fit: to see whole area in one view*
- *Scroll: smooth scrolling window moving along the scan strip to see defect and missed frame while encoding*



Sonatest

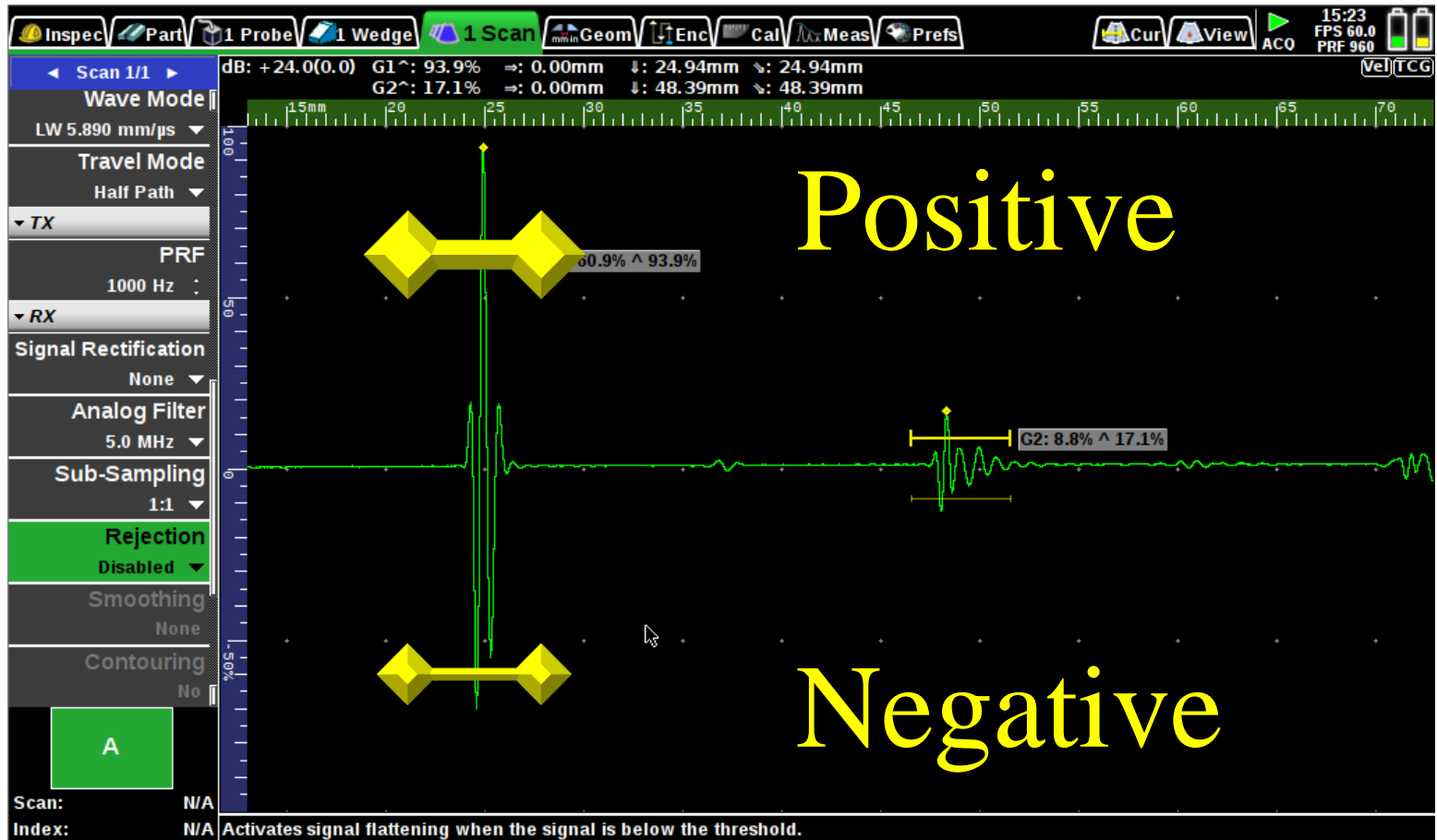
UT

TOFD

PA

Dual polarity gate

- Evaluate positive / negative or both peak polarities



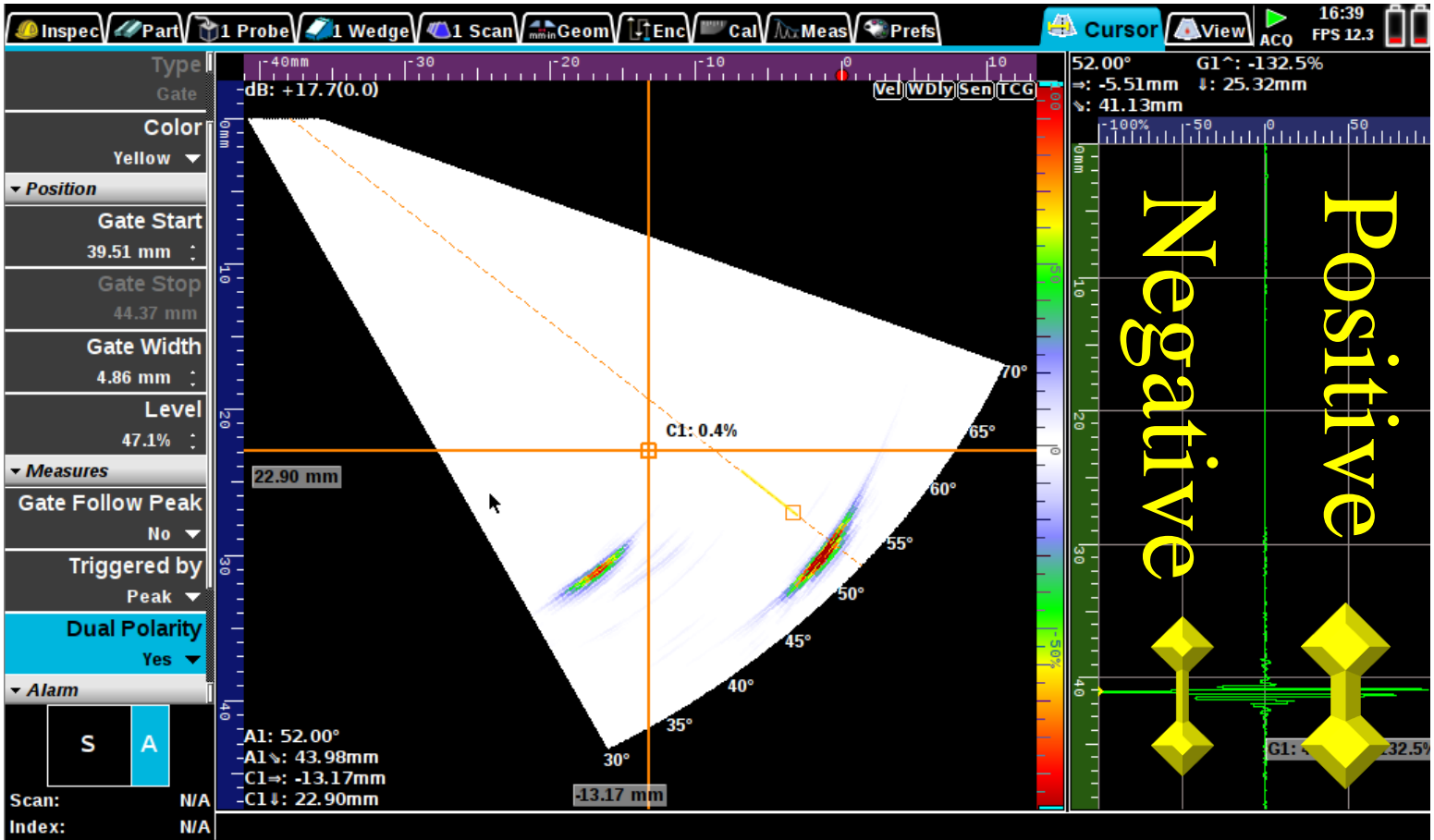


TOFD

PA

Dual polarity gate

- **Evaluate positive / negative or both peak polarities**



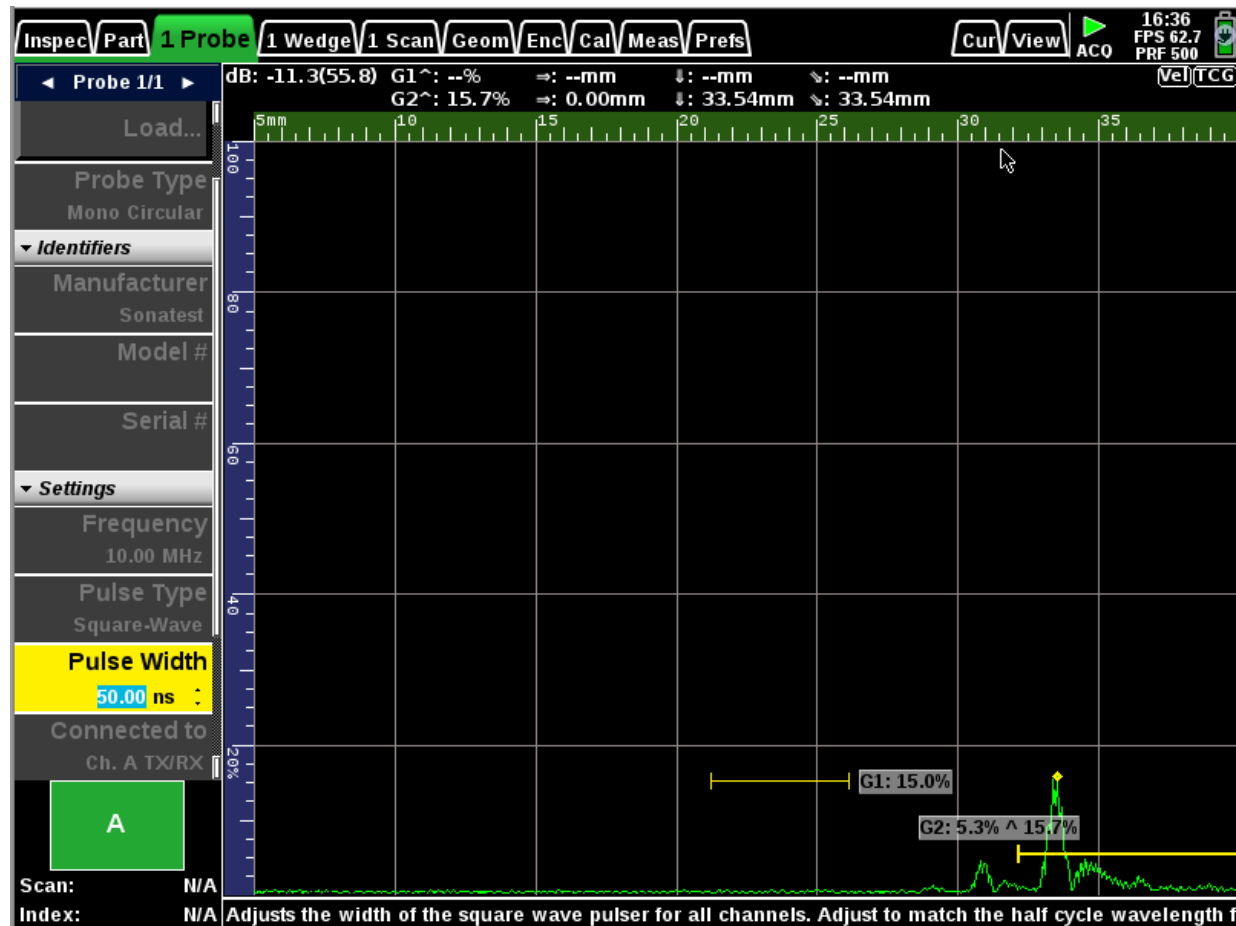
UT

TOFD

PA



Pulse width has become a live parameter



UT

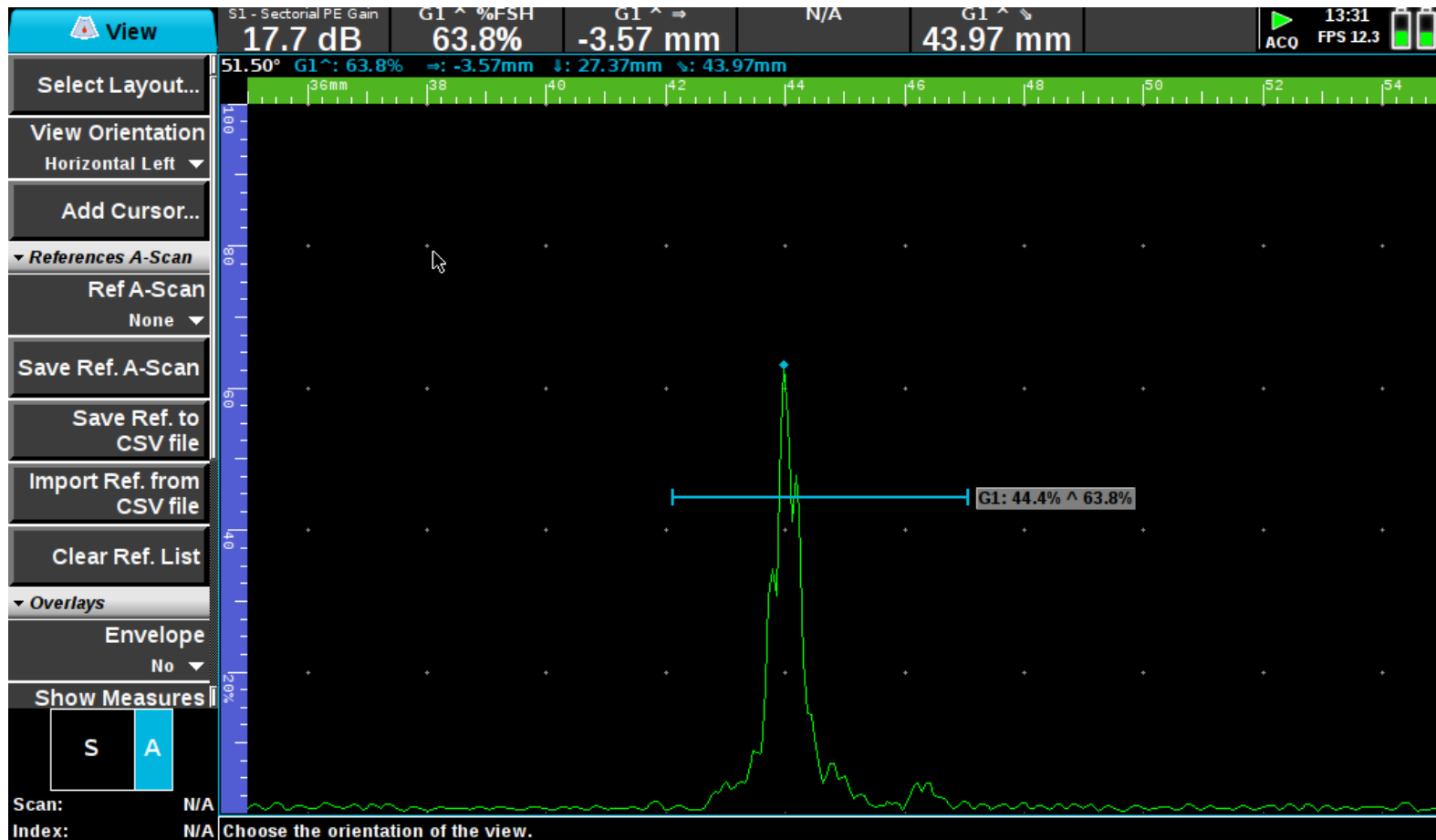
TOFD

PA



New grid type: Dots (Graticules)

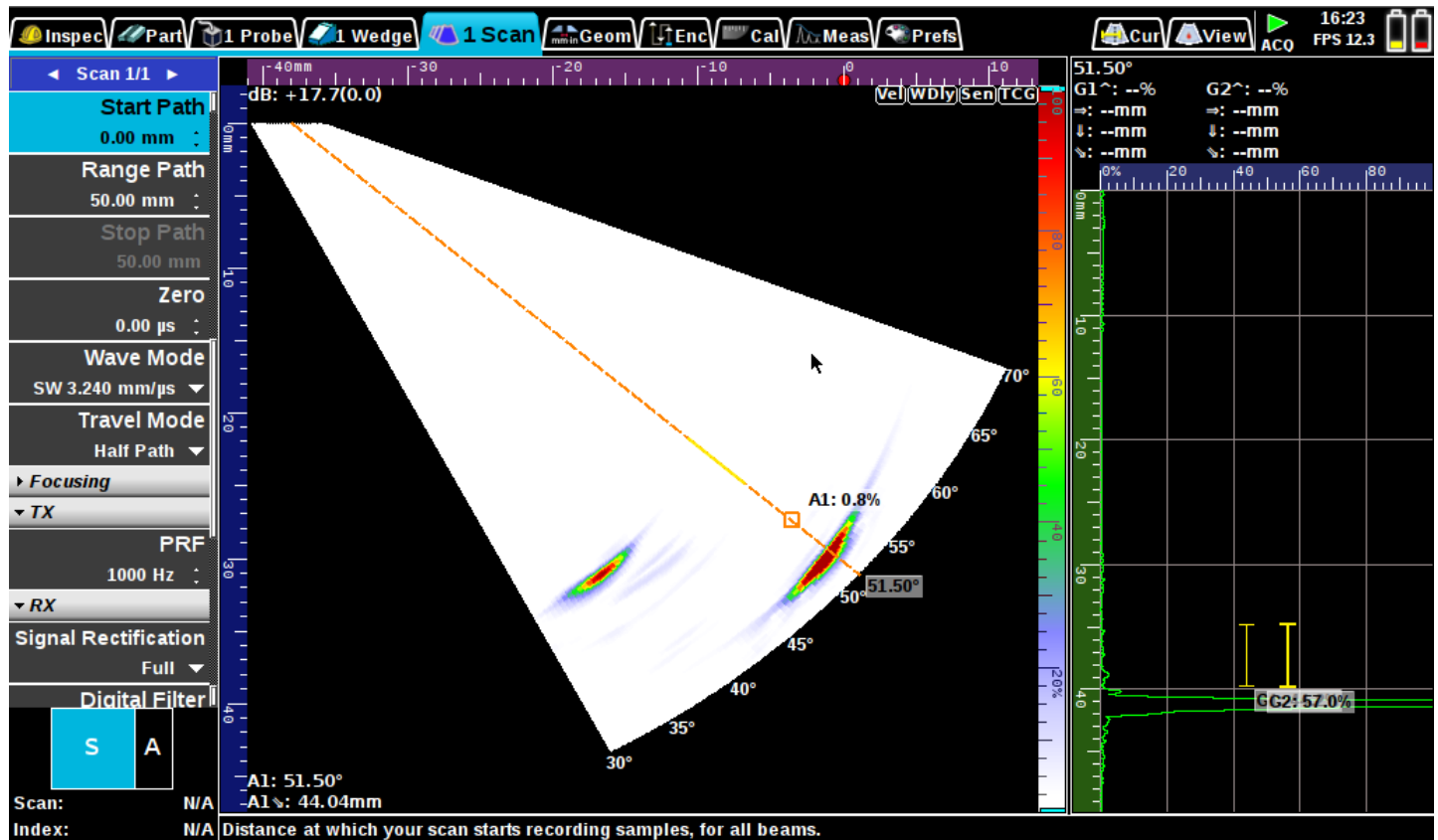
- *Light weight grid = optimized display*



Zoom (L/S-Scan)

PA

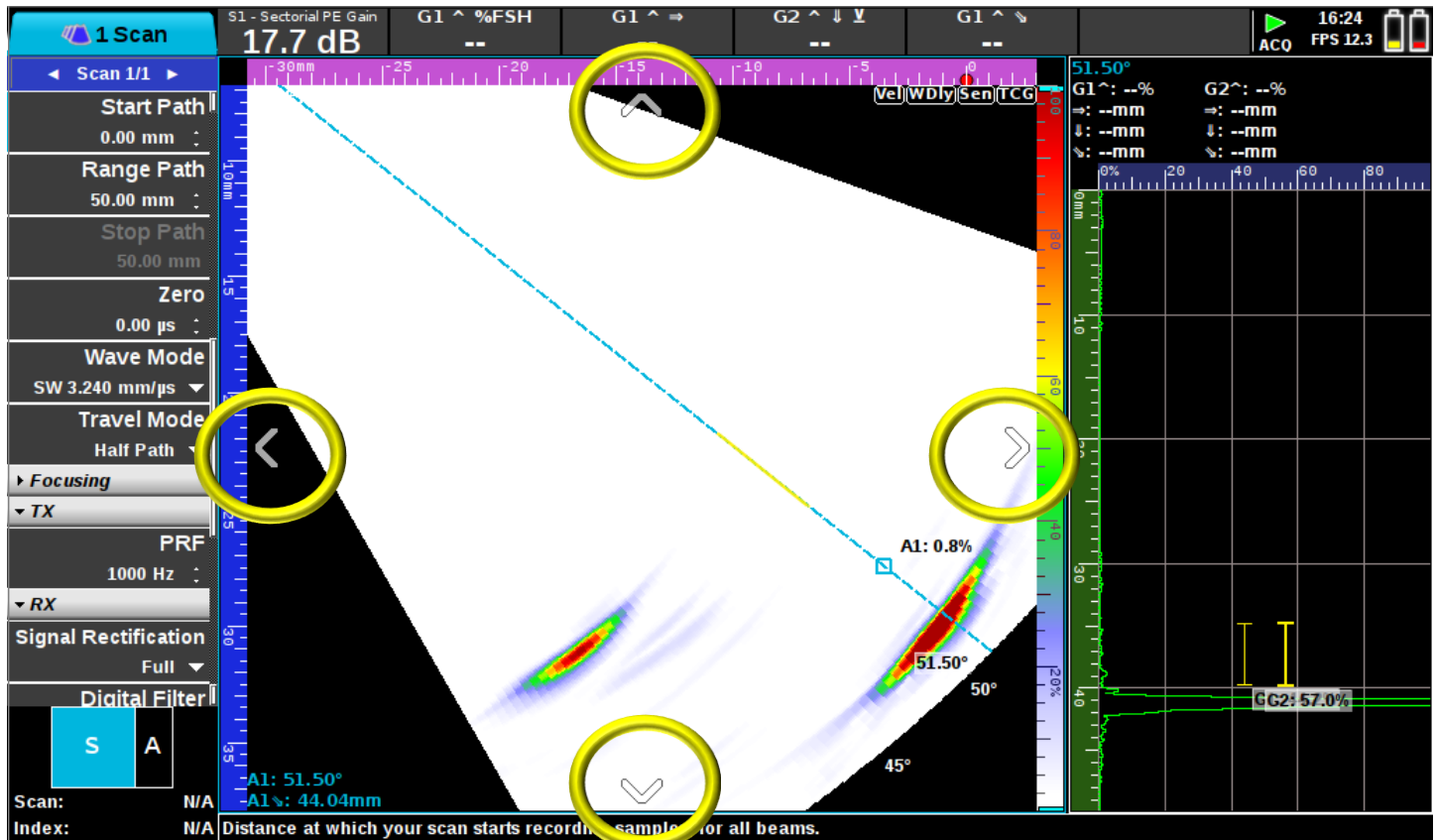
- Enhance resolution into “Region of Interest” (ROI)



Zoom (L/S-Scan)

PA

- Enhance resolution into “Region of Interest” (ROI)



Zoom (L/S-Scan)

PA

- Enhance resolution into “Region of Interest” (ROI)



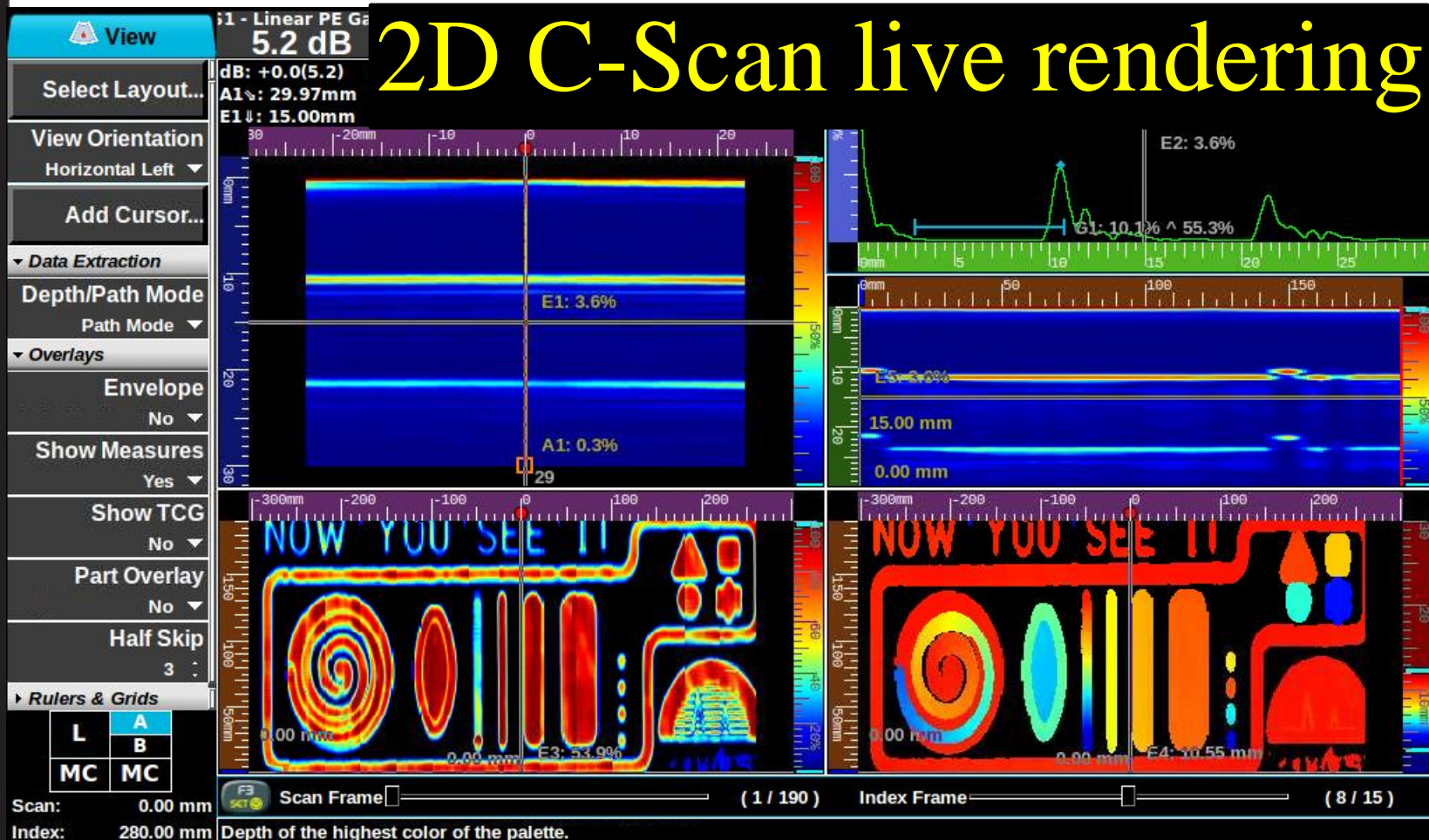
2D C-Scan are rendered during acquisition (Live Merged C-Scan)

PA

Sonatest



2D C-Scan live rendering



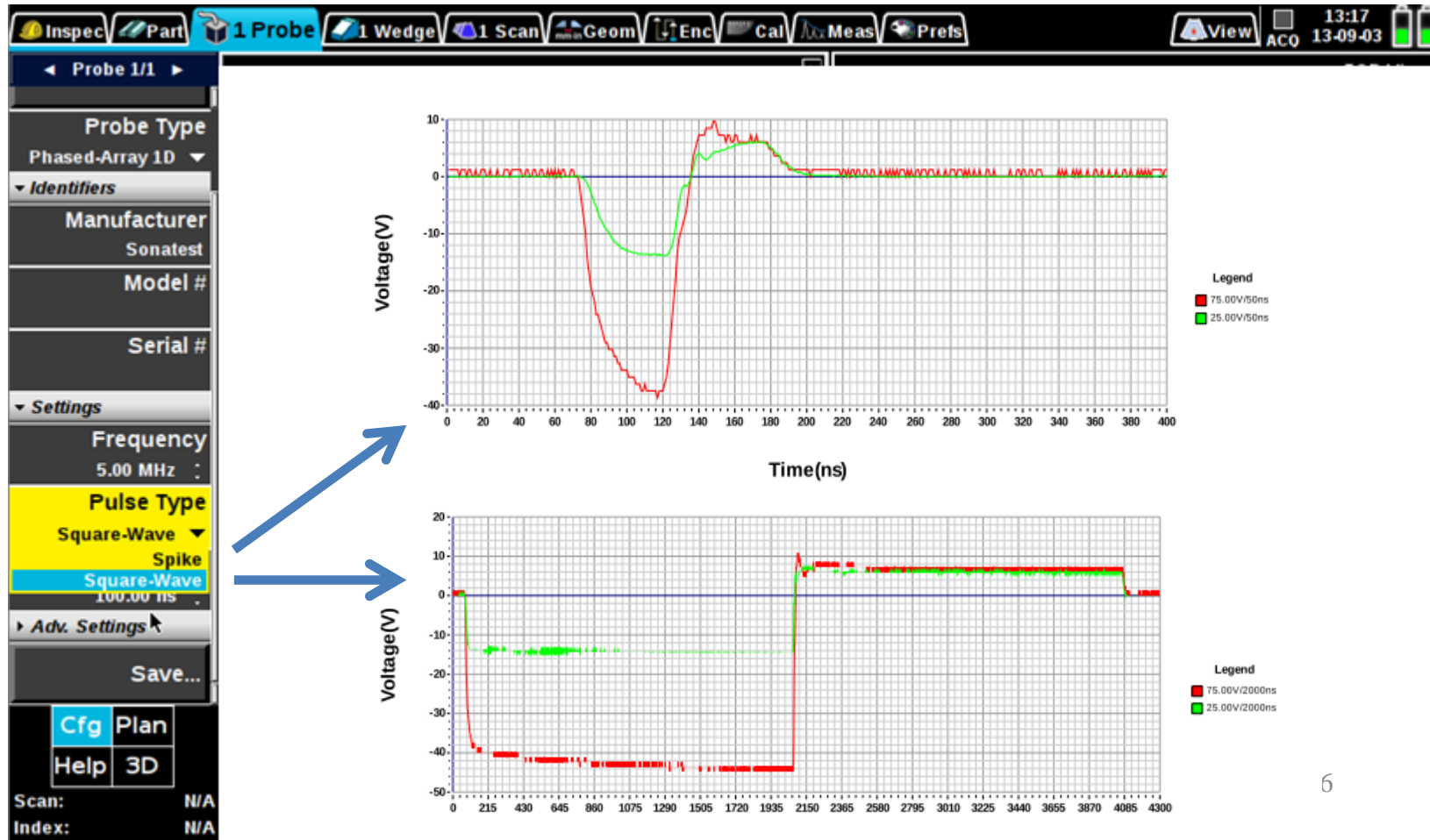
UT

TOFD

PA

Spike Pulse mode

- Parameter available from probe menu: “Pulse Type”
- It reduces overall sensitivity and increases Signal/Noise Ratio (SNR)



UT

TOFD

PA

Sonatest

Improved media browser

- *Optimize workflow after acquisition*
- *Saving and loading files is now much easier*

Browser Press **MENU** or **VIEW** to change the focus. 15:40
ACQ 13-09-03

Sort By
Date modified ▾

Load

Collapse/Expand

Exit

Drive (LOAD/F5):

Internal	sdb1	Templates
5.31 GB free	9.77 GB free	Read-Only

File Name	Date Modified
Today	
edumono.utcfg	2013-09-03 14:43
XXC.utcfg	2013-09-03 13:01

File Name
L XXC.utcfg

Inspection
L 50.88 KB per frame

Part
L Velocity (LW: 5.890 mm/μs, SW: 3.240 mm/μs)

Probe / Wedge
L Probe 1 (1D, 32 Elements, 5.00 MHz)
L Wedge 1 (Angular, Planar, Cut Angle 35.00°)

Scan
L Scan 1 (Sectorial PE, Constant Depth 42.00 mm)
L Angle (Start 30.00°, Stop 70.00°, Resolution 0.50°)
L Elements Used (TX 1-16, RX 1-16)
L Path (Start 35.00 mm, Range 20.00 mm, Auto: 1:4)
L Digital Filter (Auto: 5.0 MHz)
L Pulse Damping Filter (Automatic)

Starts the update process...

UT

TOFD

PA






Media Browser: More files and filters are now supported

Browser Press **MENU** or **VIEW** to change the focus. ACQ 16:39 13-09-11

Filter

- All files ▾
- utcfg ▲
- utdata
- Report
- All Probe
- UT Probe
- PA Probe
- Wedge
- Screenshot
- Image files
- Ref. A-Scan ▾

Drive (LOAD/F5):  **Internal** 5.40 GB free  **sdd** 7.34 GB free

File Name	Date Modified
<ul style="list-style-type: none"> utcfg <ul style="list-style-type: none">  Example_SHM4-10.utcfg 	2013-09-10 14:51

File Name
 ↳ Example_SHM4-10.utcfg
 Inspection
 ↳ 3.59 KB per frame
 Part
 ↳ Velocity (LW: 5.890 mm/μs, SW: 3.240 mm/μs)
 Probe / Wedge
 ↳ Probe 1 (Mono Circular, 4.00 MHz)
 ↳ Model (SHM4-10)
 ↳ No Wedge
 Scan
 ↳ Scan 1 (Mono PE)
 ↳ Path (Start 0.00 mm, Range 100.00 mm, 1:2)
 ↳ Digital Filter (5.0 MHz)
 ↳ Analog Filter (Wide (2.1-9.1 MHz))

Only display files of the specified type.

UT

TOFD

PA

Sonatest



Warning & Error messages displayed at the top of summary window

Inspection Summary Window

View | ACO | 11:46 | 13-09-11 | PROBE View | Units:mm

! Scan 1: TX probe must either be connected to "Ch. A TX/RX" or "Ch. B TX/RX".
! Scan 1: scan's acquisition frequency (50 MHz) is not-optimal.

Probe 1/1
Mono Circular
Identifiers
Manufacturer: Sonatest
Model #: SLM10-10_UT_Test_setup.utcfg
Serial #: 2.09 KB per frame
Settings
Frequency: 10.00 MHz
Pulse Type: Square-Wave
Pulse Width: 50.00 ns
Connected to: Ch. A RX
Adv. Settings
Elmt Diameter: 10.00 mm
Cfg 3D
Help

Inspection
Part
Velocity (LW: 5.890 mm/ps, SW: 3.240 mm/ps)
Probe / Wedge
Probe 1 (Mono Circular, 10.00 MHz)
No Wedge
Scan
Scan 1 (Mono PE)
Path (Start 0.00 mm, Range 55.00 mm, Auto: 1:1)
Digital Filter (Auto: 10.0 MHz)

10.00

10.00

Pulse Width

The pulse width calculation is based on the probe frequency. The pulse width is the duration of the pulse on transmission.

The equation to calculate the pulse width is:

$$\frac{1000}{2f} = \text{TX pulse width}$$

where
f is the probe frequency in MHz

square wave pulser for all channels. Adjust to match the half cycle wavelength for the probe being used.

Scan: N/A
Index: N/A

UT

TOFD

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Sonatest

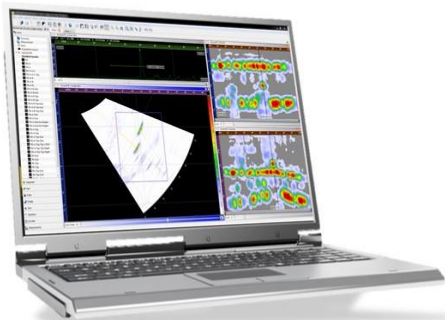
Collapse / Expand menu function for easy navigation in main menus





UTStudio

optimizes your workflow!



Steps on UTStudio

Steps on instrument



Setup

1

Reporting

4

Post Analysis

5

Setup

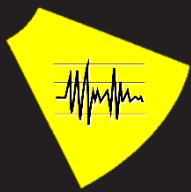
2

3

Calibration Inspection

Reporting

Post Analysis



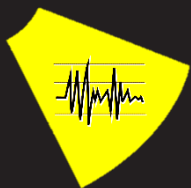
UTStudio 3.5.x

List of Enhancements

- New Palette Editor feature.
- Annotations can now be created in S-Scan, L-Scan, B-Scan and Merged views in addition to previous views.
- CSV Export:
 - Added options to extract individual scans, frames and/or focal laws (#4863)
 - Can export a single S-Scan, L-Scan or A-Scan directly from the right-click menu.
 - Can now be exported in Amplitude (%FSH) format.
 - Can export from a B-Scan view (#5058)
 - Can export from a B-Log view (#5170)
- Add “Open Recent File” action in toolbar.
- Introduction of Zoom function into S-Scan, L-Scan
- View: Reference A-Scan
 - Save Reference A-Scan (A-Log) into configuration file (.UTCFG)
 - Export Reference A-Scan (A-Log) into CSV file
- View: Addition of fixed depth Palette, can be extended out of min/max range.
- View : New grid type: Dots (Graticule)
- View: Dual Polarity Gate/Box: added as view option when scan is not rectified, controls how C-Scans, Top and End
- Views are extracted (positive, negative or RF spectrum).
- 3D view: add stream direction.
- Measurements: Allow multiple selections in Measurements tab (Using CTRL or SHIFT-click).
- Config Summary: show errors and tips at top of window instead of bottom.
- Scan: Prisma UT filters renamed to Low-Mid-High-Broad

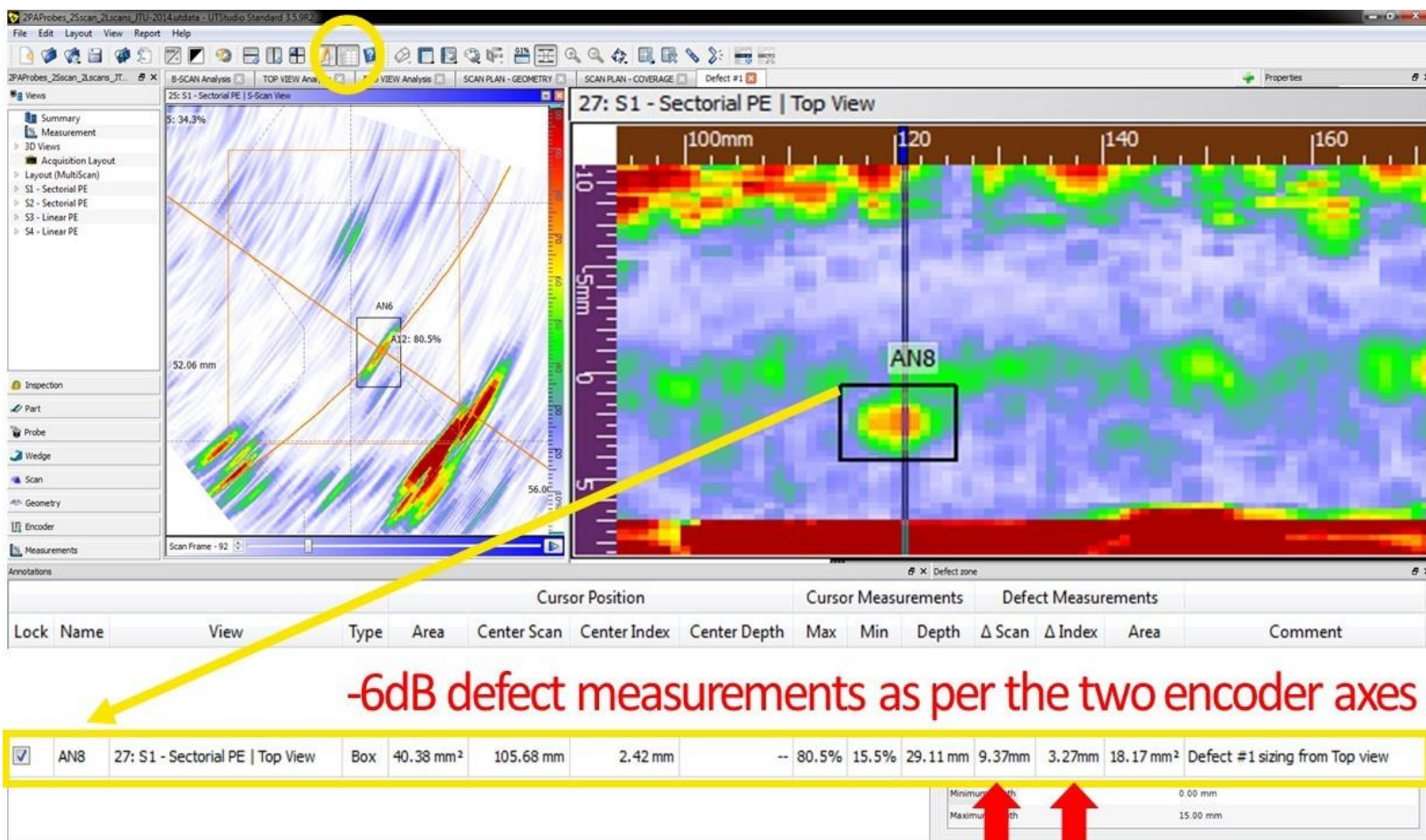
Sonatest



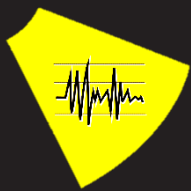


Annotation Table

- Annotations can now be created in S-Scan, L-Scan, B-Scan and Merged views in addition to previous views

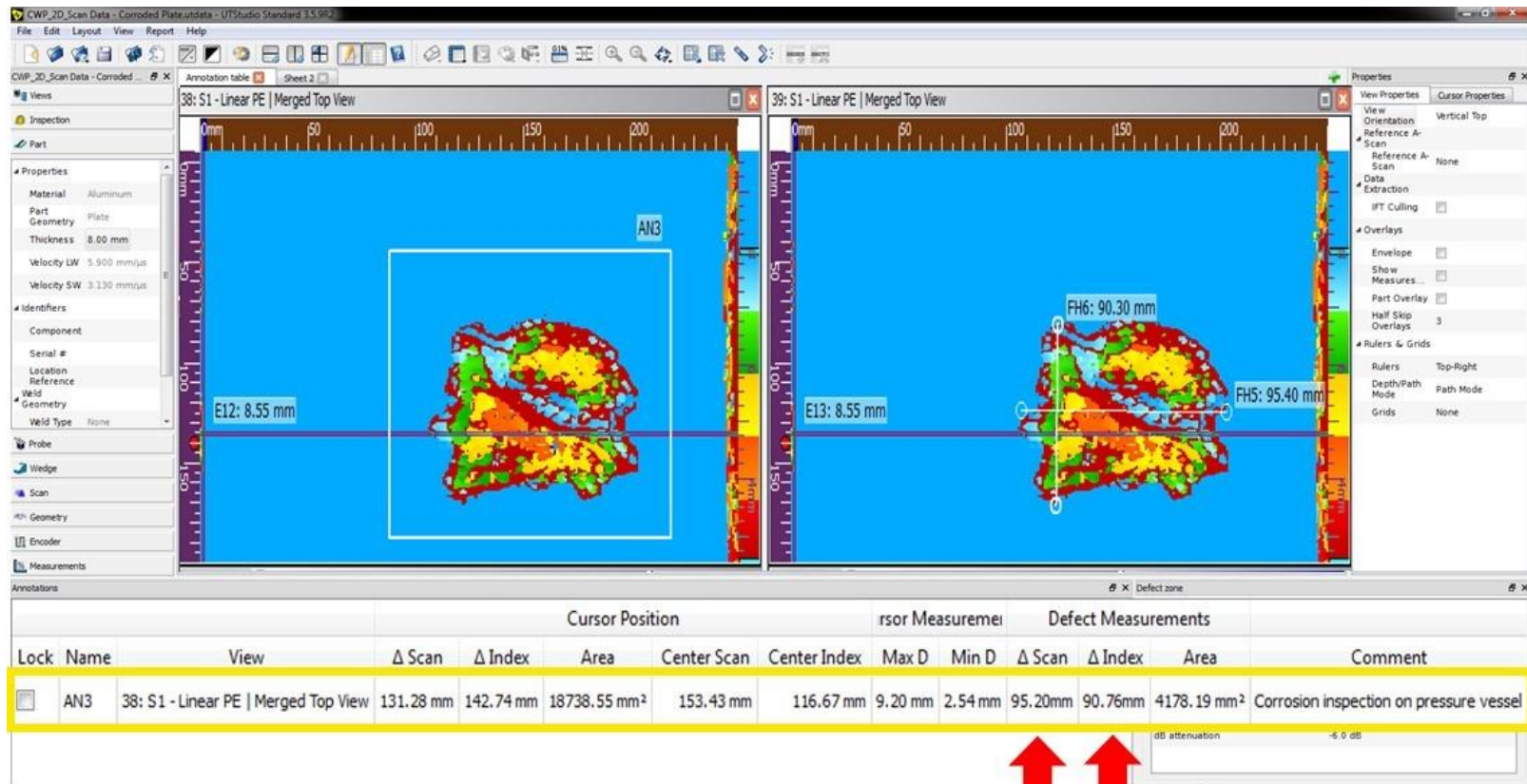


-6dB defect measurements as per the two encoder axes



Annotation Table

- Annotations can now be created in S-Scan, L-Scan, B-Scan and Merged views in addition to previous views



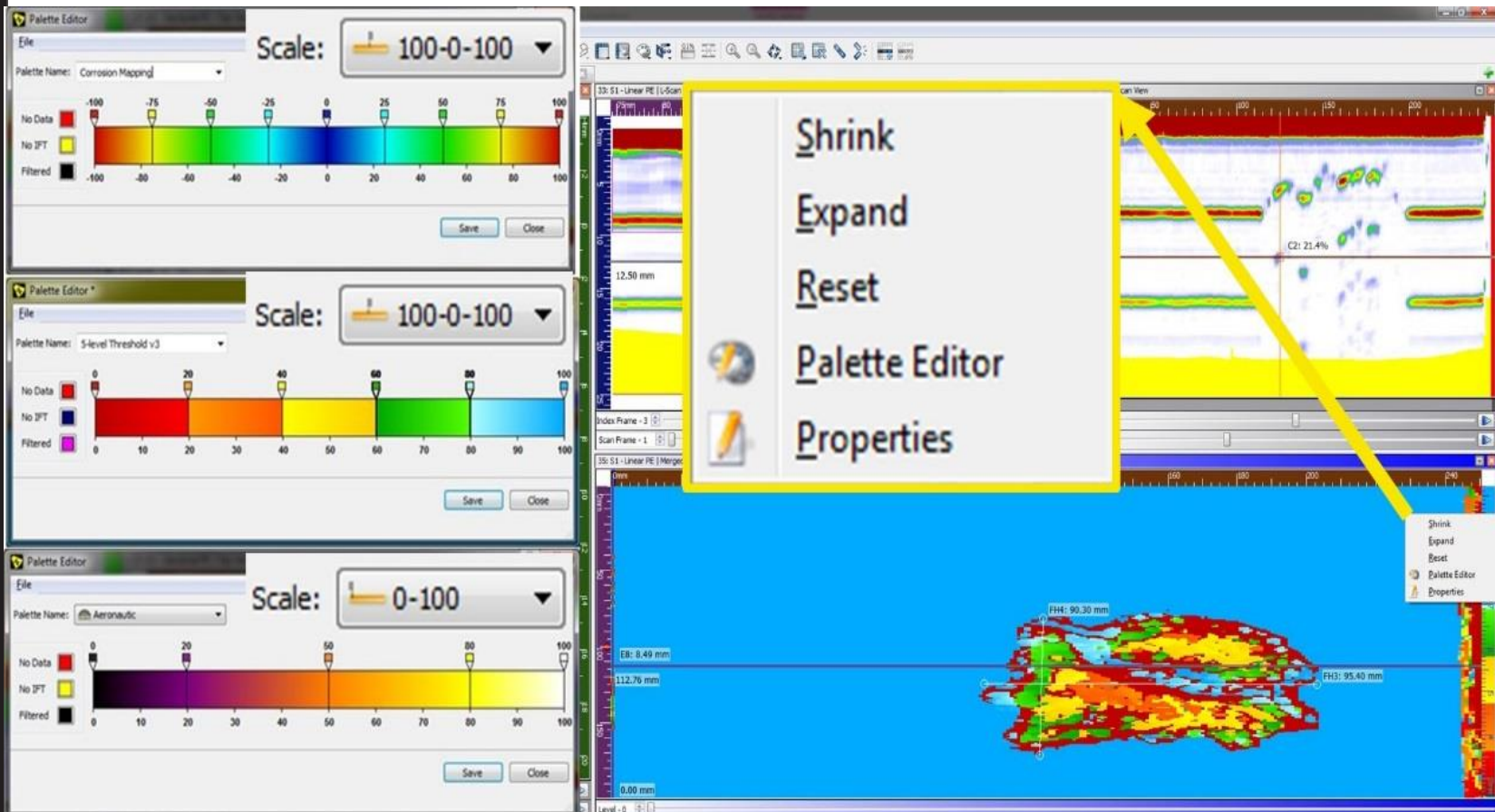
Corroded zone measurements as per the two encoder axes

Sonatest



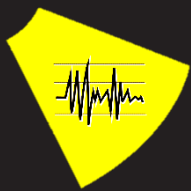
Color Palette Editor

- Colors can be set over a range 0% to 100% or from -100% to 100%. Colors can change following a constant gradient until next color or with fixed % values.



Sonatest





Raw Data CVS Export

- New functions are:
 - Options to extract individual scans, frames and/or focal laws.
 - Can export a single S-Scan, L-Scan or A-Scan directly from the right-click menu.
 - Data can now be exported in Amplitude (%FSH) format.
 - Data can now be exported from a B-Scan or a B-Log views.

