



2014-07-17 Prisma 3.7.1

**Sub-Configuration**

SOFTWARE	VERSION
OS (Yocto)	SHA1: e454df67704
Application (eg3)	SHA1: d094cae7329
HARDWARE	VERSION
REV C	FW: 5.1.0 (33e8c9587)
HTT	Rev 3

**Important Application Notice:**

- A Prisma can be upgraded but it cannot be downgraded.

**Prisma Featuring:**

- Encoder: Create new "Trigger at PRF" parameter for single encoder mono-element scans.
  - New encoding mode where elements pulse at the PRF speed instead of pulsing at each encoder resolution step.
  - The envelope of all pulses between 2 encoder grid steps is recorded.
  - It requires specific settings to enable this feature: only one UT mono channel (no multi-scan), no averaging selected and full UT signal rectification applied.
  - Be aware that this mode consumes more battery power.
- Encoder: "Previous Index" button added when using Manual index encoding
- Config: Added warning if the encoder precision is too sensitive for fast encoding speeds.
- View: Weld overlay now has a different color than view grids.
- View: Added ability to save envelope as a Reference A-Scan.
- Scan: Gain range specification modified, now [0dB, 100dB].
- UI: Gate key pad function now reselect previous gate, fixes #6466

**Fixed:**

- Part: Allow changing weld parameters in Live and Analysis, fixes #5730
- S-Scan/L-Scan: Improve zoom restore, fixes #5923
- S-Scan/L-Scan: Extractor sometimes disappeared at specific zoom factor
- Pitch and Catch: Probe Center Spacing (PCS) sometimes was reduced in half, fixes #6464
- UI: Show "please wait" dialog when changing voltage
- UI: Only show "Stream Direction" on pipe part
- UI: Show English help files when language is Hungarian
- UI: Disable tooltips in menu, fixes #6582
- UI: Prevent crash when pressing SAVE while editing a parameter, fixes #6575
- Manual Index Encoder: don't allow calibration if encoder set to Manual.
- Manual Index Encoder: hide "Invert Dir" parameter when index encoder is Manual, fixes #3994
- DGS: Sub-level curve ERS doesn't work well, fixes #6471
- DGS: Reorder step items so that Test Block velocity is in same step as Probe Eff. Diameter
- DGS: Increase Near Field Length parameter precision
- Velocity wizard: avoid "Gate 2 Range" error, fixes #4167
- Velocity wizard: fix gate drawing locked in S-Scan/L-Scan, fix #3717
- Sensitivity wizard: fix issues calibrating first focal law, fixes #6317, #6595
- Encoder wizard: Ignore Reset position inside wizard, fixes #6609
- Media Browser: ensure last selected file is visible, fix #4143



**Known issues:**

- Conventional UT: Using Split DAC/Split DGS causes spike in signal at beginning of each gain step. #5246
- Using IFT in combination with TCG at "Constant dB" can cause amplified signal as beginning of beam, we instead suggest using an "Automated" or "Manual" TCG when using IFT.
- Phased-Array: TCG has no effect above 43 dB.



2014-04-24 Prisma 3.5.13 (replaces 3.5.9)

### Sub-Configuration

SOFTWARE	VERSION
OS (Yocto)	SHA1: 2c3c527d3aa (3.5.13) SHA1: 8417c93 (3.5.9)
Application (eg3)	SHA1: dba92067ccd (3.5.13) SHA1: 486f9c1 (3.5.9)
HARDWARE	VERSION
REV C	3.11.0
HTT	Rev 3

### Important Application Notice:

- A Prisma can be upgraded but it cannot be downgraded.
- Replacement version for 2014-02-17 Prisma 3.5.9.

### Prisma Featuring:

- Introduction of Zoom function into S-Scan, L-Scan
- Probe: Allow changing Probe->Pulse Width in Play mode, #4902 #5010
- Scan: Prisma UT filters renamed to Low-Mid-High-Broad, #4589
- Wizards: Add gain at final step of Velocity and Zero wizard, #3020
- Wizards: DGS: halve the lowest allowed ERS (equivalent reflector size), and use a more fine-grained DGS resolution, #4489
- Wizards: Wedge Delay: added an A-Scan gate in the first wizard step #2786.
- View: New grid type: Dots (Graticule)
- View: Reference A-Scan
  - Save Reference A-Scan (A-Log) into configuration file (.UTCFG)
  - Export Reference A-Scan (A-Log) into CSV file
- View: Added control for Gate Alarm 2 LED.
- View: UT, B-Log Live (Live thickness logging with part profile)
- View: Addition of fixed depth Palette, can be extended out of min/max range.
- View: The B-Scan now supports 2 rendering modes (fit or scroll)
- View: 2D C-Scan are rendered during acquisition (Live Merged C-Scan)
- 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).
- View: TOFD view, scrolling modes added.
- View: Time-based ruler, #4592
- 3D view: add stream direction.
- Prefs: Prisma, added Brightness control.
- Network: Acquisition files shared through FTP server.
- Media browser: clearer display of all available drives.
- Media browser: remember last Drive, Sorting and Filter.
- Config Summary: show errors and tips at top of window instead of bottom.
- Config Summary: Added warning: "Constantly using voltage > 200V may cause premature probe wear, especially for high freq. probes."
- UI: Show "Saving..." message during save operations are too long. #5653
- UI: Menus: show full-length value when value is too large to fit
- UI: Hungarian translation.



- Various performance optimizations.
- Scan: Digital filters were adjusted to provide better results.
- UI: Pressing MENU key now collapses or expands menu items.
- TCG: Improve "Add TCG at Gate" behavior in Manual TCG wizard, allow adjusting signal inside tolerance.
- View: Rulers now have a smaller granularity.
- Added "Integrators Package" software enabled option (export CSV)

**Fixed:**

- Sensitivity Wizard: sometimes had no effect on first focal law, fixes #6317
- Scan: Gain table adjustments for UT and PA.
- View: A-Scan: Improve Grid alignment, fixes #6081
- View: TOFD/B-Scan: Cursors were misplaced when using scrolling mode in live mode #6198
- View: C-Scan: improve behavior when using with IFT. #6171
- View: grids sometimes were not redrawn when resizing views.
- VNC: remember VNC server status across sessions, fixes #6101
- General: repair some example utprobe and utwedge files.
- General: #4607 Prisma, Pressing Stop can take up to 15 seconds
- General: Pause acquisition when saving.
- General: Saving an existing utdata should not append date/encoderpos to filename.
- General: Saving an existing utdata should reload the file under the new name, fixes #4627
- New Inspection Wizard: Suggested values sometimes were wrongly estimated in Imperial system.
- New Inspection Wizard: #5070 Prisma, set default Start Path to 0mm (not 15mm)
- Inspection: Prisma Default Mono Pulse Damping at 50 ohms.
- Probe: Prisma Use Spike Mode by default in PA, #5211
- Scan: TOFD: increase precision of Lateral Wave params to 3 units after point, fixes #4937
- Scan: #5063 #5064 #5447 Change the rule for the automatic analog filter selection
- Scan: #4692 #5115 IFT gate initial position not properly loaded.
- Scan: #4933 Prisma AcquisitionFreqSelect only replicated in scan 1 when loading old multi-scan file.
- Encoder: Reset All Pos: Sometimes left a frame behind, needed to reset twice #3304
- Encoder: #4002 #4004 Default values not used when loading a file with encoders, then loading a new file without encoders.
- Wizards: #4583 Crash when entering Element Activation Wizard without PA option installed.
- Wizards: Wrong units in DGS attenuation factor (should be dB/mm, not dB/m).
- Wizards: DGS: "Gate 1 ^ ERS" measure didn't appear in list when no peak detected in gate, fixes #5372
- Wizards: DGS: fix curve creation when using start path > 0 mm #5725.
- Wizards: #5069 Prisma DAC/DGS: disable Ref Correct by default.
- Wizards: DAC/DGS: drawing loops back to zero when points too high (with Ref Correct) #6074
- Wizards: Split DAC/DGS: Consider hw gain limits when adding splits
- Wizards: TCG: Consider hw gain limits when adding TCG points
- Wizards: #2248 TCG aligned on IFT was not triggered when the interface was not saturated enough or when IFT gate was high.
- Wizards: Encoder calibration: Could not calibrate encoders when language was not English, fix #5794.
- View: Don't refresh merged views twice for each change.
- View: Angular cursor label should not fall outside view, fixes #5072
- View: Angular Cursor: remember FL/Angle when changing scan angles, fixes #1190
- View: #4705 Top and Merged Top views only considered positive spectrum in RF mode.
- View: "No data" color (missed frame) used in more views.
- View: Angular Cursor: remember FL/Angle when changing scan angles, fixes #1190
- View: Merged Top sometimes did not refresh when moving box.
- View: Thickness B-Scan (B-LOG): Depth/Amplitude mode were inverted #5996
- View: Thickness B-Scan (B-LOG): The reference gate was not considered, fix #5850, #5955
- View: C-Scan: improve behavior when using with IFT.



- 3D view: Gates in 3d view now show flank position when in flank mode #5171
- 3D view: #5071 Prisma, Geometry tab: change default parameter, Skip = 2 (not 1)
- 3D view: #4690 HAZ cannot be hidden when using U/J welds.
- 3D view: Refresh legend and measures when changing Unit System.
- 3D view: Refresh when toggling part visibility.
- Report: #4904 Correct filename in report.
- Report: #4904 Save screen capture when saving report.
- Report: Add info for freehand cursor, fixes #2566
- Report: #4689 Could not generate a report using only "3D View Info".
- Network: #5198 VNC: validate passwords length, between 1 and 8 chars
- Media browser: #4595 loading files should select last device automatically instead of always selecting Internal.
- Media browser: #5153 don't allow renaming partition.
- Media Browser: #5801 improve performance of file copy.
- Media Browser: various usability fixes, #5525 #5822.
- UI: #3719 Don't lose frozen frame in A-Scan when saving a screenshot in Pause mode.
- UI: #4140 Prisma Adjust battery widget to match colored LED thresholds.
- UI: Prisma Fix wheel direction in text editors.
- UI: Show clearer error message when recording device is too full for record, fixes #6051
- Multiple stability fixes.

**Known issues:**

- Conventional UT: Using Split DAC/Split DGS causes spike in signal at beginning of each gain step. #5246
- Phased-Array: TCG has no effect above 39.3 dB.



2013-04-25 Prisma 3.4.3 Release 1

Sub-Configuration

SOFTWARE	VERSION
OS (Yocto)	SHA1: 857664e3 (3.4.3)
Application (eg3)	SHA1: 24f973a7 (3.4.3)
HARDWARE	VERSION
REV C	SHA1: 2521a65 (3.10.0)
HTT	Rev 2 and higher

Important Application Notice:

- Unit with a serial ID above I008441, gain reference has changed. This modification has been done:
  - To reduce sensitivity (8dB) for forging application
  - Enhance SNR
- For standard compliancy purpose in conventional UT and TOFD, the "wedge delay" is manually controlled with the parameter "Scan/Acquisition area/Zero". A "Start path" at 0 starts within the wedge.
- A Prisma can be upgraded but it cannot be downgraded

Production Notice:

- HTT v1 is no more supported. Channel selection was erratic, the driver has been redesigned for V2 only.

Prisma Featuring:

- User Guide Release, stored on Prisma SSD (Solid State Drive) & on DVD
- Add a UT Hi-PRF mode
  - A-Scan redraw enhancement, combination of multiple ultrasonic beam at high PRF (>60Hz) using a keep maximum algorithm.
  - Fast detect capability
- Signal Enhancement
  - Jitter reduction on amplitude at low and hi PRF (at high voltage)
  - Equal distribution of PRF (enhance signal stability)
  - Increase SNR
- Curved parts support in UT :
  - New type of part added : "Inside Pipe (ID)" and "Outside Pipe (OD)"
  - Defect positioning on 3D curved part
  - Curve Part Measurement (Depth and Surface Distance considering curvature)
- Spike mode support, a new parameter has been added in probe menu: "Pulse Type"
- DGS enhancement
  - Add "material attenuation" to DGS wizard
  - Enhance curve drawing; continue calculating points in the entire listening window.
  - Add "Split DGS" enhancements
  - Add a "DGS Options" section into Scan to ease control without entering wizard
  - Add "Curve Ref Correct" into "DGS Options" section to allow/disallow curve displacement when changing gain
- DAC enhancement
  - Add "Split DAC" enhancements
  - Add a "DAC Options" section into Scan to ease control without entering wizard
  - Add "Curve Ref Correct" into "DAC Options" section to allow/disallow curve displacement when changing gain



- 3D View
  - Phased Array: Graphical representation of RX delay in 3D views
  - UT: Curve part Rendering
- TOFD
  - Curved Part Support
- Display FPS (Frame per Second) and PRF (Pulse Repetition Frequency) in top right corner of user interface
- Display battery on Welcome screen and improve handling of long file names

**Fixed:**

- Grids did not immediately appear/disappear in A-Scan analysis, fix #2778, fix #4061
- B-log: adjust view to consider IFT
- Draw grids under A-Scan signal, fixes #4606
- Change analog filter strings according to bug #4589
- Show English help files when no translation is available, fixes #4247
- TCG constant dB, converting to DAC should result in a curved slope, fixes #3488
- DGS curve shape distorted when changing ERS
- Fix unwanted spike at 2us or 20 mm in steel (particular batch of IC are slower on power on Rev C boards)
- Fix instability when DGS sub-curve was in ERS mode
- DAC: Calibration should not be affected by part thickness changes (#4160)
- Correct slow saving on external USB Memory (or incomplete file)
- TCG indicator status is not saved in the file
- Fix support package generation
- Fix rotation in 3D view
- Fix ADC sync lost (focusing at infinity)
- Fix sporadic glitches in phased array
- Fix UT jitter at 200MHz which occur sporadically on some Prisma devices
- Encoded B-Scan: fixed missed frame when moving too fast for the view
- Media Browser: new progress dialog when copying/moving multiple files
- Media Browser: fix some focusing issues

**Known issues:**

- Zoom button not supported yet in A-Scan, S-Scan and L-Scan
- Limited TCG range in Phased Array (shall be fixed on next release)
- Occasionally a transition between "acquisition mode" to "stop mode" may require up to 10 seconds



**2013-03-14 Prisma 3.3.5 Release 1**

**Sub-Configuration**

<b>SOFTWARE</b>	<b>VERSION</b>
OS (Yocto)	SHA1: fef65ade (3.3.5)
Application (eg3)	SHA1: 0f7efcd8 (3.3.5)
<b>HARDWARE</b>	<b>VERSION</b>
REV B	3.9.0
REV C	3.9.0
HTT	Rev 2 and higher

**Important Application Notice:**

- HTT v1 are no more supported. Channel selection was erratic, the driver have been redesigned for V2 only.
- For standard compliancy purpose in conventional UT and TOFD, the "wedge delay" is manually controlled with the parameter "scan/acquisition area/zero". A "start path" at 0 start within the wedge.

**Featuring:**

- Update Quick Start Guide
- Enhance auto-gain reliability
- Russian Translation enhancement (display icons when there are no string available)
- Enhance stability
- Add screen layouts
- Add Chinese translation
- Add Italian translation
- Fix mux selection in HW test

**Fixed:**

- Fix unwanted spike at 2us or 20 mm in steel (particular batch of IC are slower on power on Rev C boards)
- Fix support package generation
- Fix rotation in 3D view
- FIX ADC sync lost (focusing at infinity)
- Fix sporadic glitches in phased array
- Fix UT jitter at 200MHz which occur sporadically on some Prisma devices

**Known issues:**

- Zoom button not supported yet in A-Scan, S-Scan and L-Scan
- Curved parts should have been disabled, lead to wrong measures (available in next version).





**2013-02-07 Prisma 3.3.4 Release 1**

**Sub-Configuration**

SOFTWARE	VERSION
Yocto SHA1	3d0c8915fd826a0c713a4da1a595c339359af621 (3.3.4)
Dev SHA1	6d943e2b695d92a3155caa41e6c418196dc787e6 (3.3.4)
HARDWARE	VERSION
REV B	3.8.0
REV C	3.8.0

**Important Application Notice:**

- For standard compliancy purpose in conventional UT and TOFD, the "wedge delay" is manually controlled with the parameter "scan/acquisition area/delay". A "start path" at 0 start within the wedge.

**Featuring:**

- Initial Release

**Fixed:**

- Initial Release

**Known issues:**

- Zoom button not supported yet in A-Scan, S-Scan and L-Scan
- Probe rotation is inverted in 3D view. (especially apparent when using Probe Follow)
- Curved parts should have been disabled, lead to wrong measures.
- #4224: Warning icon displays as broken icon in Help pages.
- #3939: Auto-gain algorithm needs improvement.
- #4126: Some measures disappear in View Measures bar.
- #4217: Crash when loading missing PDF file.
- #3957: Repair Support log package (tar.gz) functionality.
- Tab bar should display icons in Russian.
- ADC sync lost (focusing at infinity)
- Glitches in phased array
- Ut jitter at 200MHz which occur sporadically on some prisma devices
- Power on glitches seen on Rev. C