

PRISMA Public Manifest Release 3.8.2

2015-01-21 PRISMA Release 3.8.2

Internal versions

| | | |
|-----------------|-------------------|--------------|
| Software | OS (Yocto) | 49877b324e9c |
| | Application (eg3) | 1d9a0ae7457a |
| Firmware | | 2.7.0 |
| Hardware | | Rev. C and D |

Important Application Notice

- Use the "Prefs -> System Update" option to start the installation of the **prisma_update_3.8.2.img** update file.
- PRISMA units using version 3.8.2 cannot be downgraded to a version below 3.8.1.
- When upgrading to 3.8.2 for the first time, the time zone preference will be lost and needs to be set again.
 - In the **Prefs** tab, go to the **System** section.
 - Select **System Date/Time** and press **OK**.
 - Choose the correct time zone.

Fixed Issues

- #7183 In conventional UT mode, the frame rate is now correctly adjusted based on the PRF.
- #7187 Performance improvements.
- #7175 Attenuator now properly switches at the expected threshold of 45.0 dB.
- #7056 The "Integration Tools" software option was renamed to "CSV Export" to better reflect what it does.
- #7107 Fixed possible crash when encoding around the end of the scan distance.
- #6729, #6982, #7068 Fixed several UI problems when using "Auto-Hide Menus" setting. Also, the "Menu" button is now available when editing a value in a spinbox.

Known Issues

- #7202 When using the Sensitivity Wizard, pressing the Maximize button will cause the device to crash. The Maximize button is not useful in this context, so the workaround is to avoid pressing it.

2014-11-26 PRISMA Release 3.8.1

Internal versions

| | | |
|-----------------|-------------------|--------------|
| Software | OS (Yocto) | 16d4f9628583 |
| | Application (eg3) | 9cd1dd105b60 |
| Firmware | | 2.7.0 |
| Hardware | | Rev. C and D |

Important Application Notice

- Use the "Prefs -> System Update" option to start the installation of the **prisma_update_3.8.1.img** update file.
- **IMPORTANT** - PRISMA units using version 3.8.1 cannot be downgraded to a version below 3.8.1.

New features

- Support the new generation of Service Centers calibration equipment
- Provide full compatibility and example configurations for new WheelProbe features
- GPIO connector: Implemented ability to configure Outputs behavior (PRF-synchronized signals available)
- S-Scan/L-Scan: Add view option for Stretching aspect ratio to take all available space.
- UI: Show buffer size warning when buffer almost full

Fixed Issues

- Fix performance issues after recording multiple files in the same session, fixes #6650
- Pressing "Reset Scan Pos" button should not lose already encoded data, fixes #6238
- utprobe/utwedge/utcfg: Make various adjustments to example files #3713 #6993 #7002
- utprobe files: Do not save connector id in probe definition, #3147
- Wedge: Change step of X-Offset to 0.1mm, #3615
- Scan: Contouring default value now 2%, don't reset when toggling on/off, #5354 #6128
- Scan: Default smoothing value now "High", #6958
- Scan Prisma Filters: Prioritize Mid filter for [2.0 MHz, 9.1 MHz] mono probes, #5063
- IFT: fix negative IFT in RF, and handling of Top and End views when IFT not triggered. #6629
- TOFD: Straightening parameter was not restored properly on file load, #4501
- Prefs: Deprecate A-Scan Range, #5157
- S-Scan/L-Scan: avoid Circular ruler overlapping the scan when view is small
- S-Scan/L-Scan: fix zoom issues when switching layout or when changing parameters, #6791 #6877
- New Inspection Wizard: Default to LW in TOFD, #6573
- Sensitivity wizard: Default Amplitude Tolerance now 5% FSH, #6786
- Prisma Rev D support
- UI: Update French, Russian and Chinese translations
- UI: Update Spanish Quick start guide
- Various stability and performance fixes

2014-07-17 PRISMA Release 3.7.1

Internal versions

| | | |
|----------|-------------------|-------------------|
| Software | OS (Yocto) | e454df67704 |
| | Application (eg3) | d094cae7329 |
| Firmware | | 5.1.0 (33e8c9587) |
| Hardware | | Rev. C only |

Important Application Notice

- The PRISMA software image can be upgraded but it cannot be downgraded.

New Features

- 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 issues

- 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

| SOFTWARE | VERSION |
|-------------------|------------------------|
| OS (Yocto) | SHA1: fef65ade (3.3.5) |
| Application (eg3) | SHA1: 0f7efcd8 (3.3.5) |
| HARDWARE | VERSION |
| 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