Houston Radar LLC
StatsAnalyzer Software
Release Notes

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Version 10.17.0000 (October 23, 2026)

Added:

1. Added PX150 live radar stream recording from the Debug tab, with optional synchronized video on direct Ethernet connections. Recordings can be monitored and stopped from Debug or PX150 Plot.
2. Added perspective guides and adjacent-lane placement for SpeedLane Wrong Way Detection (WWD) ROI configuration in Photo Viewer, Video Viewer, and the Installation Wizard. Editing includes overlap validation and Undo/Redo support.
3. Added support for PX150 .frm firmware packages in firmware updates and Batch Operations, alongside existing. swu packages.
4. Added PX150 lane configuration review and recovery for unreadable, malformed, or duplicate lane data on compatible radars.

Changed:

1. Improved PX150 lane compatibility checking across Plot, RTMS Mapping, LRC, and SDLC, displaying valid lanes while preventing editing when incompatible lane data is detected.
2. Improved SpeedLane WWD setup with clearer Disabled, Basic WWD, and Counterflow Sentry mode selection, lane and ROI status, and unsaved-change notifications.
3. Improved SpeedLane WWD setup by adding the Auto ROI Setup workflow to user expediate the lane ROI creation process.
4. Updated SpeedLane WWD setup to retain previously enabled lane selections when temporarily switching WWD to Disabled during the current setup session.
5. Improved Photo Viewer and SpeedLane ROI Wizard layouts to better accommodate window resizing and display scaling.
6. Improved PX150 firmware upgrades with package and version validation, clearer installation progress, and improved handling of reconnects and cancellation.

Fixed:

1. Improved Range Plot cleanup when closing, disconnecting, or switching sessions, reducing retained resources, and preventing outdated updates from appearing in a new session.
2. Fixed PX150 factory-default lane placeholders being incorrectly reported as invalid lane configurations.
3. Fixed resource usage increasing after repeatedly opening and closing Connect to Radar, live video, and playback viewers.
4. Fixed video startup and shutdown issues that could cause delayed commands, unreported errors, or stuttering when reopening View Video.
5. Fixed PX150 RTMS configuration saving without the schema version field.

Version 10.16.0007 (August 11, 2026)

Changed:

1. Updated SpeedLane so that when alrtserver is empty, it defaults to the configured hrserver value when saving.

Fixed:

1. Fixed issue where unable to View Video or Take Photo when using PX150.

Version 10.16.0006 (August 7, 2026)

Added:

1. Added Wrong Way Detection (WWD) ROI configuration and Counterflow Sentry media upload support for SpeedLane. WWD ROIs can now be configured through View Video, Take Photo, and the SpeedLane Wizard.
2. Added support for the RTMS Interval Data Flush command for SpeedLane under the X3/G4 Setup tab.
3. Added a dedicated WWD tab for SpeedLane. WWD settings, including Alert Server configuration and WWD enablement by lane, are now grouped in one location.

Changed:

1. Updated PX150 lane creation so the final selected point represents the start of the lane, making lane direction easier to define.
2. Added alignment guidelines to the SpeedLane Wizard to help users align the SpeedLane parallel to the roadway.
3. Improved SpeedLane Wizard alignment steps by highlighting the measurement currently being adjusted, such as Tilt or Level.
4. Improved SpeedLane reset and reconnect handling for newer firmware versions that require additional reboot time.

Fixed:

1. Fixed PX150 zone labels becoming inverted when a lane was rotated 180 degrees.
2. Fixed an issue that could prevent a photo from being taken or retaken.
3. Fixed an issue that could cause SpeedLane firmware upgrades through Batch Manager to fail.

Version 10.16.0005 (July 29, 2026)

Added:

1. Added PX150 True Presence controls to Detection & Units and the Setup Wizard.

Changed:

1. PX150 MO setting changes no longer require a radar reset.
2. Improved PX150 Plot resizing and Zoom to Fit behavior to better preserve the physical view of configured lanes.
3. Updated PX150 Layers and Lane/Zone Properties labels and headers for improved clarity and consistency.

Version 10.16.0004 (July 20, 2026)

Added:

1. Added PX150 SDLC configuration address support, with available BIUs automatically updated based on whether the configuration uses ATC or TS2.
2. Added PX150 controls for reloading calibrations and enabling or disabling periodic calibration.
3. Added a progress indicator to the PX150 Video Viewer when enabling or disabling HD Mode.
4. Added read-only viewing support for PX150 LLVER=2 configurations

Changed:

1. Redesigned the PX150 and SpeedLane firmware update workflow with clearer package and version confirmation, improved progress information, and safer cancellation while waiting for the radar to reset.
2. Updated PX150 Network Diagnostics to support automatic polling every 15 seconds.
3. Updated PX150 LRC configuration to allow multiple lanes or zones to be assigned to the same channel.
4. Improved PX150 LL# Variables saving performance in the PX150 Plotter.
5. Improved compatibility checking for PX150 lane configuration formats to prevent unsupported configurations from being edited or written to incompatible units.
6. Improved RCFG loading and saving to prevent incompatible PX150 lane configuration formats from being written to a radar.
7. Redesigned the PX150 Plotter layout so drawing tools, properties, visibility settings, and lane/zone selection no longer obstruct the plot.
8. PX150 firmware version 1.1.81 and later no longer requires a radar restart after changing the AR setting.

Fixed:

1. Fixed an issue when exporting Helsingborg reports containing fewer than seven days of data.
2. Fixed an issue that could affect SpeedLane report generation.
3. Fixed an intermittent issue where the PX150 RTMS Mapping interface would not load correctly.
4. Fixed an issue where LRC counts could be cleared while the PX150 Setup interface was loading.
5. Fixed an issue that could affect saving certain PX150 Auto Trigger Recording settings.
6. Fixed PX150 Plotter zone center-line drawing when extending zones through long or curved lanes.
7. Fixed incorrect zone stop-bar outlines when a zone was positioned near the beginning of a lane.

Version 10.16.0003 (June 10, 2026)

Fixed:

1. Fixed PX150 RTMS Lane/Zone Mapping columns not resizing correctly.
2. Updated PX150 RTMS Lane/Zone Mapping so Lane/Zone selection drop-downs open with a single click.

Version 10.16.0002 (May 27, 2026)

Added:

5. Added RTMS lane mapping support for PX150.
6. Added support for the new PX150 option to disable static PT detection.
7. Added compatibility handling for older Sharpness Limits configuration files.

Changed:

1. Improved the Firmware Programming workflow with clearer progress and status information during firmware uploads.
2. Improved SpeedLane Wrong Way ROI editing so shared lane edges can be adjusted without unintentionally disconnecting adjacent lanes.
3. Improved PX150 Plotter behavior when the maximum lane limit has been reached. After displaying a warning, the Plotter now returns to the Select Lane tool.
4. Improved PX150 lane validation to ensure each lane contains at least one zone with statistics enabled.
5. Enabled editing of the Timeout value for Rendezvous entries in the Remote Radar list.
6. Improved PX150 Setup validation so Preroll Record Time cannot exceed Total Record Time.
7. Made PX150 Plotter tracks more transparent to improve lane drawing and editing visibility.

Fixed:

1. Fixed an issue where the PX150 Setup Wizard could save certain lane configuration values incorrectly.
2. Fixed the View Video button in the PX150 Setup Wizard as it was not previously opening.
3. Fixed incorrect Frame Persistence tooltip values in the PX150 Plotter.
4. Fixed a crash that could occur when using Create Lane Over Track.
5. Fixed a missing warning when attempting to create an inclusion or exclusion zone after reaching the maximum lane limit.

Version 10.16.0001 (May 7, 2026)

Added:

1. Added SpeedLane Wrong Way ROI configuration to the Take Photo workflow, providing the same ROI configuration capabilities available through View Video.

Changed:

1. Restored the previous Detection Zone drawing behavior.
2. Improved Wrong Way ROI drawing and editing responsiveness in the Video Viewer.
3. Increased the size of the Wrong Way ROI configuration panel so controls are no longer obstructed by scrollbars.
4. Improved the Get Debug workflow by preventing users from leaving the Debug tab while files are downloading.
5. Added the ability to cancel a Get Debug operation if it is taking too long or was started with incorrect settings.

Fixed:

1. Fixed a layout issue that could hide output trigger controls in the PD300 plot.
2. Fixed an upgrade issue that could prevent the latest ROI functionality from being included in an installed Stats Analyzer update.
3. Fixed PX150 lane outlines changing shape at different Plotter zoom levels.

Version 10.16.0000 (May 1, 2026)

Added:

1. Added Undo and Redo support for SpeedLane Wrong Way ROI editing.
2. Added an option to hide the crosshair while configuring ROIs in View Video.
3. Added PX150 Ethernet Network Diagnostics.

Changed:

1. Improved PX Playback performance when converting JPG images to MP4, reducing the likelihood of memory-related errors.
2. Improved DR600 Setup usability on smaller displays by allowing setup pages to scroll when necessary.
3. Updated the PX150 Read Stats control so its availability reflects whether the connected radar supports statistics.
4. Minified the SpeedLane Wrong Way ROI JSON

Fixed:

1. Restored the Inclusive Polygon control in the PX150 Plotter and corrected toolbar resizing.
2. Improved SpeedLane connection error handling so users are notified if radar settings cannot be loaded.

Version 10.15.0000 (April 17, 2026)

Added:

1. Added Undo and Redo support to PX150 Plotter lane editing, including toolbar buttons and Ctrl+Z / Ctrl+Y keyboard shortcuts.
2. Added Create Lane From Track to the PX150 Plotter, allowing lanes to be generated from existing vehicle tracks using full- or partial-track data.

3. Added MJPEG over RTSP video support.
4. Added PX150 Lane Statistics configuration.
5. Added a read-only TA value display to the PX150 Zone Occupancy interface.

Changed:

1. Improved PX150 Plotter lane snapping performance, particularly when working with multiple or curved lanes.
2. Improved PX150 Data Visibility controls and keyboard shortcut handling.
3. Improved PX150 lane validation to ensure lanes containing zones have at least one statistics-enabled zone before saving.
4. Improved PX150 firmware upgrade workflow.
5. Improved PX150 Lane/Zone Properties and multi-selection editing dialogs with larger layouts and better handling of properties containing different values.

Fixed:

1. Fixed PX150 Trigger Recording enable/disable behavior and display issues when editing multiple selections.
2. Fixed an issue where Trigger Zone Recording could be saved to the incorrect radar setting.
3. Improved PX150 firmware reset and reconnect handling so Cancel and Disconnect remain available after certain communication errors.

Version 10.14.0001 (March 04, 2026)

Added:

1. Added PX150 Zone Occupancy support in PX150 Plotter.
2. Added Interval Mode controls for PX150 zones, allowing occupancy percentage to be enabled or disabled per zone.

Changed:

1. Improved multi-lane and multi-zone editing when selected items contain different values.

Fixed:

1. Fixed occupancy settings displaying incorrectly when occupancy was disabled.
2. Fixed several display issues when editing occupancy and other settings across multiple PX150 lanes or zones.

Version 10.14.0000 (February 25, 2026)

Added:

1. Added a dedicated Pan/Zoom tool to PX150 Plot, so users have an alternative without having to rely on using SPACEBAR for panning or CTRL hotkeys for zoom. Users can now use the mouse scroll wheel or + / - keys to zoom in/out, and mouse drag or arrow keys to pan. Holding SHIFT increases the zoom/pan step size.

2. Added a Clear Frames button to PX150 Plot (next to the Frame Persistence slider) to simplify workflow.
3. Added a new Show Zero Speed Targets visibility checkbox in PX150 Plotter. The feature is enabled when Frame Persistence is set greater than 1. These tracks remain visible until persistence is set back to 1 or the user clicks Clear.
4. Added Stop and Mov checkboxes near Frame Persistence in PX150 Plot to show/hide stopped and moving tracks. The Stop checkbox is only available when Frame Persistence is greater than 1.
5. Added View Video and Take Photo buttons to PX150 Plotter (bottom-right of the menu bar). These work the same way as the corresponding buttons in SpeedLane Plot.
6. Added Clear All Lanes to the PX150 Plot right-click context menu.

Changed:

1. Moved the PX150 Circ Capture UI outside of PXPlotControl and its setup tab. It now lives on SerialPortForm (top-right corner).
2. Separated Draw Lane and Draw Polygon Lane in PX150 Plotter into two buttons instead of a single combined button.
3. Updated PX150 Plotter so clicking a zone now automatically focuses the Zone tab.
4. Reduced transparency of PX150 Plot tracks for better visibility.
5. Increased PX150 Plot track size slightly for better visibility.
6. Changed the default PX150 Zone Travel Length from 30 to 0.
7. Adjusted PX150 track rendering to include a black outline around track circles for improved visual clarity.
8. Updated PX150 Plot lane width display to show 2 decimal places instead of 5.
9. Changed the default PX150 Zone Acceptance Angle from 15° to 30°.

Fixed:

1. Fixed a bug that allowed users to create a PX150 lane with the same start and end point (i.e., a lane with identical coordinates for both points).
2. Fixed a bug where all PX150 tracks/targets were being marked as IsValid during streaming.

Version 10.13.0000 (January 23, 2026)

Added:

1. [0000864] [PX150] PX150 Circular Picture Recording support.
2. [0000862] [PX150] PX150 SDLC support.

Changed:

1. [0000863] [PX150] Adjusted PX150 Target Heading size in metric units so Imperial and Metric target headings are now consistent.
2. [0000819] [General] "Diagnostics" tab now clears the textbox every time the controller is initialized.
3. [0000808] [Connect To Radar] Radar listing now shows Port # along with IP address. When connected, the UI also displays Port # with the IP.

Fixed:

1. [0000860] [Snapshot] Photo Control no longer accumulates image byte size; it now clears each time a snapshot is taken.
2. Memory Leak occurring due to not properly disposing the GStreamer pipeline.

Version 10.12.0002 (November 14, 2025)

Added:

1. Added Zone Acceptance Angle visual to the PX150 Plot. Visual cone is available when a lane is selected (individual or multiple).

Changed:

1. Updated PX150 Plot “Delete Lane” to be “Delete Selected Lanes…”. It can now handle deleting 1 or many selected lanes.
2. Debug Recording Stop to Debug Recording Save will now check log state before saving. This wait is up to 30 seconds before timeout.

Fixed:

1. Fixed PX150 Plot SVG saving issue if user moves lane(s) with zone(s) then clicks save.

Version 10.12.0001 (November 10, 2025)

Added:

1. PX150 schema version guard: Now reads “SCHEMAREV” tag and warns if it’s newer than the highest supported schema. Processing continues but results may be incomplete.

Version 10.12.0000 (November 10, 2025)

Added:

1. LRC support for PX150.

Changed:

1. PX150 Plotter and Setup tabs are now unit-aware; UI labels reflect the selected units and stored data converts correctly on save/load.
2. PX Plotter lane-length tooltip shows up to two decimal places.
3. PX150 SVG parsing is tolerant: a parse failure no longer blocks loading remaining lanes (best-effort parsing).
4. For Event Viewer/Playback, PX packet interval rate is read from the database when supported; otherwise falls back to the file if available.

5. For Event Viewer/Playback, Video timestamps are read from the database when supported; otherwise fall back to the file if available.
6. PX Event Viewer now uses video timestamps (DB or file) to sync frames with video.
7. PX Playback is unit-aware. If "UN" cannot be read, defaults are used: speed in MPH, distance in meters.
8. PX150 zone acceptance angle is capped at 89°.
9. PX150 zone traveling length is capped at 1000 ft.
10. PX150 zone acceptance-angle UI now displays "+/-" to indicate symmetric bounds around the travel direction.
11. Renamed "Recording" tab to "Event Recording" (PX150).
12. The PX150 "Zone Trigger Recording" checkbox is now gated by the "Event Recording" tab, "Auto Record on Trigger" checkbox (acts as a per-zone breaker).
13. Slightly reduced the size of the PX150 "Change Zone Direction" button.
14. Saving PX150 lanes via Plotter now shows a busy/spinner cursor.

Fixed:

1. PX Plotter multi-lane/zone window no longer appears when lanes are hidden and the user performs a multi-select.
2. PX Plotter packet rate is recalculated correctly after navigating away and back.
3. PX Plotter no longer glows the "Save" icon during initialization.
4. Multi-selecting lanes in PX Plotter no longer steals focus to the multi-lane/zone window.
5. PX Plotter "Save" icon no longer glows irregularly due to multiple rapid changes.
6. PX Plotter Lane Properties window correctly enables/disables the stop-bar-width control when adding or removing a stop bar.

Version 10.11.0001 (October 17, 2025)

Added:

1. Adjusted PX150 Installation Wizard to use "Cancel" button and to disable the "Help" button until we reach the PX Plot portion.
2. Adjusted PX150 Installation Wizard "Unit & Time Setup" page to look like the SpeedLane Installation Wizard.

Fixed:

1. Fixed UI issues in the PX150 Advance Tab due to Control modifier property not being set correctly in the child UserControl.
2. Fixed bug where in the SpeedLane Wizard, the "View Video" for the RangePlotControl for the BGC and Lane setup was not working.
3. Fixed bug where the Login prompt was not showing for the PX150 when User Login is enabled.

Version 10.11.0000 (October 13, 2025)

Added:

1. Select multiple lanes by click-and-drag or Ctrl+Click. (Selection icon polish in progress.)
2. Warning appears if you try to move multi-lanes while Lane Lock is enabled.
3. New PX150 tabs: “Detection & Units”, “Vehicle Class”, “Advanced”, “User Login”, “X3/G4”, “Data Scaling”, and “Diagnostics” (matches SpeedLane layout for familiarity).

Changed:

1. Multi Lane/Zone dialog now opens automatically when you multi-select; the UI updates as you select/deselect.
2. PX Plot Direction arrows and zone fill colors are lighter for better visibility.
3. Trigger speed range in PX150 Zone Trigger UI is now capped at 120 MPH.
4. Lane list in the Multi Lane/Zone dialog shows “L#” (shorter, clearer).
5. Multi Lane/Zone dialog no longer unselects zones you already selected.
6. Multi Lane/Zone dialog window can be moved outside the PX150 Plot area.
7. Multi-select is now done via Ctrl+Click and click-and-drag (the toolbar button was removed).
8. Smoother lane measurement when hovering over lanes/zones.
9. Lane Lock automatically turns off when no lanes remain (including inclusion/exclusion zones).
10. PX150 Plot context menu hides the “Edit” section when lane editing isn’t allowed.
11. PX150 Event Viewer no longer shows duplicate entries for the same event; loading is more efficient.
12. SpeedLane — Wrong Way Detection: The UI now includes “False Positive Rate (ppm)” (WR) and “Alert Server” (alrtserver). These appear under the Advanced and Network tabs when supported and are hidden otherwise. On the Range Plot, the “WWD” tag now reads “Wrong Way Detection Enabled” next to the lane number and its start/stop distance.

Fixed:

1. Tilt and Level now display correctly for both PX150 and SpeedLane in the Video and Photo viewers.
2. PX150 Lane pop-up panel reopens if closed and you click the lane again.
3. Selecting an inclusion/exclusion zone no longer shows control points unless you enter edit mode (double-click).
4. Zone measurements (gap, length, distance) no longer show when zone visibility is turned off.
5. PX150 Lane/Zone floating panel hides correctly when plotting begins.
6. PX150 Event Viewer opens the correct video viewer component and cleans up properly, avoiding related errors.

Version 10.10.0000 (September 16, 2025)

Added:

1. Support for multi-lane Right-click lane/zone editing in the PX Plot.

2. Quick lane edits and zone setup from a lane's right-click menu; the same menu appears right after you finish drawing a lane.
3. Lane snapping in the PX Plot for cleaner alignment.
4. Warning when user tries to move or edit a lane while Lane Lock is enabled.
5. Azimuth readout in the bottom-left status bar (next to X/Y).
6. Sensible zoom and pan limits in the PX Plot so user does not lose the focused area.

Changed:

1. Range Plot will now use the direction of the target summary to update travel direction of vehicle.
2. When a lane is selected on the PX Plot, tracks are shown in a single color to make drawing over track history easier.
3. Lane Lock now turns on at startup only if lanes exist.
4. Copying a lane from the right-click menu also copies its lane and zone settings.
5. Creating an adjacent lane from the right-click menu also copies lane and zone settings.
6. Cleaner lane outlines, especially at sharp angles.
7. While drawing, measuring, or hovering on a lane, hovering over a zone now shows the gap to neighboring zones.

Fixed:

1. Resolved a rare freeze when pressing **Esc** during external sync.
2. Measurement tool now updates frame count and speed correctly.
3. No more exceptions when deleting lanes with Wrong Way Detection enabled in the SpeedLane plot.
4. Right-clicking a lane no longer accidentally selects an underlying track outside of Debug mode.
5. Photo Viewer snapshot sequencing bug over RS485 where reading tilt/level occurred during image download; now we read tilt/level first, then take the snapshot.
6. Eliminated a crash in PX Plot that could occur when switching to **Select Lane** after hovering a lane.

Version 10.09.0003 (August 22, 2025)

Added:

1. [0000818] [PX150] Added support to toggle visibility for Lanes and Zones for the PX Plot.

Version 10.09.0002 (August 18, 2025)

Added:

1. Added Range Profile Chart in Heat Map Form.

Changed:

1. [0000816] [Reports] SpeedLane ReportForm filters now include Free Floating, Min Vehicles, and Large Vehicles. Filters apply to all charts.
2. PX150 zone length is more consistent and accurate by using arc length along the lane.
3. PX150 playback timing is more accurate: FPS now comes from the VLC library.
4. SpeedLane ReportForm operations can be canceled when you change filters, so you don't have to wait for a long-running report to finish.
5. Reliability improvements to PX150 stream for Debug Recordings.
6. Update Heat map UI: clearer labels (meters, mph), live cursor readout; improved scaling.

Fixed:

1. PX150 Zones now appear while creating them when lane lock is checked.
2. SpeedLane projects now include the last vehicle record.
3. Checking or unchecking lanes in SpeedLane ReportForm correctly respects filters.
4. PX150 NetworkConfiguration tab now saves settings properly.

Version 10.09.0001 (June 30, 2025)

Changed:

1. Removed hatched patten in PX Plot when user hits a zone via cursor.
2. Adjusted overlapping lane outline to be lighter in color.
3. Adjusted lane/zone highlighting on cursor hit for PX Plot to only occur if lane editing/moving is allowed.

Fixed:

1. Pausing/Playing PX Plot Stream will keep the same streaming options prior to pausing rather than reverting to only valid targets.

Version 10.09.0000 (June 23, 2025)

Changed:

1. Improved internal system design to support future updates and maintain long-term stability.
2. Enhanced lane zone visuals to make it easier to distinguish when a lane is being actively selected versus when a zone trigger is activated. Cursor selections now display a diagonal black line and a thicker black border, while active zone triggers remain highlighted in green.
3. Improved the performance of radar data saving for faster and more efficient file handling.
4. Improved target tracking accuracy for live radar streams by refining how target types are identified and classified.

Version 10.08.0004 (June 11, 2025)

Changed:

1. Track visuals on the PX Plot reverted to the size used in version 10.07.0000.
2. Updated PX Target Property View to round up to 2 decimal places the Calculate Direction value.
3. Changed Track Color on PX Plot from pastel/pink to gray/blue for improved visibility.
4. Enhanced PX Debug raw data recording to allow user to configure the # of frames to buffer before writing to file to mitigate dropped frames.

Fixed:

1. Restored missing line segment when drawing a new lane on the PX Plot
2. Fixed issue where selecting only the "Finished" track prevented it from displaying.
3. Corrected transparency behavior for selected lanes that wasn't applied to all track types.
4. Handle case where unhandled null reference exception being thrown during recording of raw data stream.

Version 10.08.0003 (June 9, 2025)

Changed:

1. Enhanced PX Debug recording to create a folder with the "rec_<date>" name under "My Radar Stats" for better organization.
2. Enhanced internal message processing for PX150 to improve support and backward compatibility.
3. Moved "Packet Rate" label in PX Plot to the bottom-right side.

Version 10.08.0002 (June 6, 2025)

Changed:

1. Enhanced PX Debug Recording to show bitrate (kbps) , Total # of Frames, and # of dropped frames during stream recording.

Version 10.08.0001 (June 4, 2025)

Fixed:

1. Fix bug with PX Lane Presence not correctly showing Lane/Zone combination being hit.

Version 10.08.0000 (June 2, 2025)

Added:

1. StatsAnalyzer now supports opening `.db` files for the PX150 Playback

2. Added support and streamlined the ability to collect raw radar data stream and download debug files using the new "Raw Data Stream" option. Can be found under "PX150 Setup tab → Debug tab".

Changed:

1. Updated PX Plot Points visuals to the following:
    - Static Points → Gray
    - Moving (Single Point) → Green
    - Moving (Double Point) → Red
2. Updated PX Plot Tracks visuals to the following:
    - Confirmed Targets → `+`
    - MH/Reflector Targes → `X`
    - Valid Targets → filled `O`
    - Finished Targets → hollow `O`
3. Points highlighted by "Toggle Associated Points" will now highlight correctly on mouse hit. Previously, there would be no visual indication that the object was hit if they were highlighted via "Toggle Associated Points".
4. Improved Track Group Highlighting when selecting a “Finished Target”, the system now highlights “all related tracks” that share the same Reflector ID and Unit ID.
5. Improved Track Group Highlighting when selecting a “MH/Reflector Target” to highlight associated points if the Point's reflector id is set to -1. Previously, points with reflector id -1 would not be grouped/highlighted for the association.

Fixed:

1. Fixed an error that happened when loading PX Events due to a missing "Confidence" data field.
2. Fixed an issue restarting the video player would result in unhandled exception.
3. Fixed a problem where video playback would stutter in the first few seconds. Video now waits to start until it's properly synced with radar data (video frame > 1).
4. Fixed an issue where clicking a selected track would not highlight its associated points on the plot.

Version 10.07.0000 (May 12, 2025)

Added:

1. Added support for creating Exclusion Zones and Free-Form Polygon Lanes.
2. Introduced Multipath Rejection options under the Advanced section of the PX150 Setup tab.

Changed:

1. Moved the Frame Persistence Control to the far right of the PX Plot Control Drawing Toolbar and redesigned it for improved usability.
2. Enhanced lane interaction in the PX Plot Control for smoother user experience.
3. Pressing ESC now clears any copied Lane object in the PX Plot.
4. Updated several Drawing Toolbar icons to include color (replacing the previous black-and-white versions).

5. Changed the "unsaved changes" glow color in the PX Plot Control to a lighter green for better visual clarity.
6. Detection Zone Creation now displays the length of the zone as it is being drawn.
7. Reorganized lane creation tools: “Draw Lane” and “Draw Polygon Lane” are now accessible via the “Create Lane as…” button, which replaces the previous “Create Lane” option.
8. Updated the Delete Lane icon in PX Plot to include an arrow indicating the pointer location.

Fixed:

1. Fixed crash when disconnecting from radar while the Video Viewer window was being disposed.
2. Fixed issue where Lane Properties View did not correctly update the selected lane/zone in some scenarios.
3. Fixed a bug that allowed lane movement via multi-selection, even when "Prevent Lane Movement" was enabled.
4. Ensured default hotkeys are restored if user settings fail to load properly.
5. Fixed hotkey conflicts caused by multiple event subscriptions.
6. Resolved multiple event handler subscriptions for MouseLeave, MouseMove, MouseEnter, MouseDown, and KeyUp events in PX Plot.
7. Fixed issue where static points could not be interacted with unless "move points" was also enabled.
8. Corrected behavior where selecting a detection zone didn’t update the Lane Properties View on first open.
9. Fixed issue where PX150 Setup failed to save blob variables to radar.
10. Implemented proper reinitialization of the PX150 Setup tab UI.
11. Fixed null reference error when RCFG contained either a string or blob variable but not both.
12. Fixed logic error preventing "Enable Auto Record Trigger" from being set correctly.
13. Resolved visual flickering when using the Measuring Tool after placing the first point.

Version 10.06.0000 (April 11, 2025)

Added:

1. [0000770] [SpeedLane] Added click functionality to the Percentile Speed Chart for the SpeedLane Analysis Report.
2. [0000797] [SpeedLane] Added SpeedLane Wrong Way Support.

Changed:

1. Updated PX Plot Lane intersecting color to be SlateGray rather than Magenta.
2. Updated Frame Persistence slider to user DevExpress TrackbarControl rather than System.Windows.Forms.Trackbar.
3. Updated Frame Persistence to use logarithmic scaling rather than linear when it comes to using the trackbar/slider.
4. Updated Frame Persistence to no longer allow 0. The new minimum is now 1.
5. Updated Lane/Detection Zone Property View by increasing the height so that all the detection zone panel can be visible without scrolling.
6. Updated PX Plot Control to adjust the Height of the Lane/Zone Floating Panel when window resizes.

7. Updated SpeedLane Setup and Wizard to now erase radar data flash if the "UN" variable gets changed. A prompt will appear warning the user that the operation can take up to 20 seconds.

Fixed:

1. Fix performance issue with Range Plot due to resubscribing to the same event anytime we connect to a radar and enter the Range Plot tab. This would increase the time it takes to save lane variables back to the radar.

Version 10.05.0005 (May 07, 2025)

Fixed:

1. [0000802] [General] Fix issue occurring when updating from a specific version range to latest version due to mismatch System.ValueTuple.dll file.

Version 10.05.0004 (April 07, 2025)

Added:

3. [0000787] [Range Plot] Support detection zone selection when a lane is selected in the PX Plot.
4. [0000788] [Range Plot] Show overlapping lanes using dashed outlines in the PX Plot.

Changed:

8. [0000789] [Range Plot] Updated Lane Measurement to include unit label to lane width measurement in the PX Plot.
9. [0000790] [Range Plot] Show Lane dimension during lane creation in the PX Plot.

Fixed:

1. [0000794] [Range Plot] Incorrect Lane preview prioritization on hover in the PX Plot.
2. [0000793] [Range Plot] Null reference exception when switching from zoned to non-zoned lanes in the PX Plot.
3. [0000792] [Range Plot] Lane labels not rendering in the PX Plot.
4. [0000791] [Range Plot] Selected Lane not cleared from the plot after deletion until user moves mouse in the PX Plot.
5. [0000795] [Connect To Radar] Unable to connect properly to a radar when the data bit is set to 7 on first attempt.
6. [0000796] [Connect To Radar] Radar not resetting after disconnect with 7-bit data setting.

Version 10.05.0003 (March 31, 2025)

Added:

1. Added button to Lock PX150 Plot Lane moving to the Drawing Toolbar, located to the far left. Always starts off locked.

Fixed:

1. [0000783] [Connect To Radar] Improve the workflow of HRDiscover in the case we fail to filter out NICs that do not support broadcast.
2. [0000784] [Analyze] Fixed issue with opening empty project due to null reference exception.
3. [0000785] [Connect To Radar] Fixed issue with reading configuration from radar as some string values were being incorrectly read.

Version 10.05.0002 (March 17, 2025)

Added:

1. [0000780] [PX150] Added "Network" tab to PX150 Setup Tab Page. This control is also now a user control, which is also shared with the SpeedLane Setup Tab Page.
2. [0000767] [Firmware] Add RPM Package Upgrade support for PX150.

Changed:

1. [PX150] Prevent user from interacting with Tracks on the PX150 Plot.
2. [PX150] PX Zone UI will now scroll back to the top when the window reopens.
3. [PX150] PX Lane Arrows are now drawn above Zone arrows.
4. [PX150] PX Plot is now using RNGMAX to help determine the height of the radar POV.
5. [General] Connection Radar Information will now display the Major, Minor, and Build of the Firmware if the Radar firmware happens to be of the following format 0.0.X. Previously, only having build # would result in only showing the Build # rather than also showing Major and Minor #'s.

Fixed:

1. [PX150] Hotkeys for toggling PX Plot options that pertain to Advanced/Debug mode only should now only be able to be toggled via hotkey if in that mode.

Version 10.05.0001 (March 05, 2025)

Changed:

1. [0000775] [Range Plot] Updated PX Plot Frame Persistence control to a track bar.
2. [0000773] [General] Update Rendezvous Relay Service to allow user to select video port.
3. [0000761] "Connect To Radar" and "Photo Viewer" Forms will now show the connected radar descriptive name as part of the title.
4. UX tweaks for PX Plot Control and PX150 Setup Tabs.

Version 10.05.0000 (March 03, 2025)

Added:

1. [PX150] Added support for PX150 Radar
2. [0000760] [Debug Mode] Easier retrieval of recorded debug SPI data.
3. [0000160] [Import] Add more functionality to the drag-and-drop for .dat file to open projects or new projects.

Changed:

1. [0000764] [Analyze] Apply Filter does not update "Lane Reports" or "Summary" tabs for SpeedLane.
2. [0000606] [SpeedLane] Break out the Level, Tilt, and Rotate steps in the SLP Installation Wizard into their own pages/steps.
3. [0000755] [Connect To Radar] Update tooltip for refresh button.
4. [0000691] [Range Plot] Show Lane width in Range Plot.

Fixed:

1. [0000258] [Reports] Correct the format type for XLS and XLSX cell values to "Number."
2. [0000740] [SS400] "Disable Countup on Startup" checkbox under "Data Output" is not being enabled if supported.
3. [0000757] [Reports] Incorrect report (XLS/XLSX format) is generated when Vin and Ambient Temperature are selected.

Version 9.02.0002 (October 18, 2024)

Fixed:

1. [0000750] [Range Plot] Validation Tool is not logging last lane # vehicle counts.

Version 9.02.0001 (October 04, 2024)

Changed:

1. [0000737] [SpeedLane] Adjust LRC Debug panel to include auto scroll.

Fixed:

1. [0000749] [SpeedLane] Check "UP" and "RP" variable before read/write in SpeedLane.

Version 9.02.0000 (August 28, 2024)

Added:

1. [0000706] [SpeedLane] Add User Interface for configuring RTMS G4 Push.

Changed:

1. [0000723] [Connect To Radar] Update error handling for the WMI failures. Will now revert to the old WMI Query in the case we fail with the latest query.
2. [0000690] [Range Plot] Expand Range Plot vertically to utilize unused space.
3. [0000719] [Connect To Radar] Resize "Show Radar Information" button to smaller and not automatically resize when window changes size.
4. [0000718] [Radar Configuration] Fetch info from Radar each time user clicks on "Show Radar Information" rather than pulling info only at the time of connection.
5. [0000729] [SpeedLane] Improved the LRC interface by adding detailed information about the LRC Card and its count, along with new diagnostic tools to enhance the user experience and make troubleshooting easier.
6. [0000720] [Connect To Radar] Provide additional information on why Serial Number shows "Not Available".

Fixed:

1. [0000711] [SS400] Fixed issue where PNL10 SS400 Tab is not clearing when connecting to a SS400 that did not have the Rotary Switch Enabled.
2. [0000727] [DR600] Fixed issue where user was unable to set Operation Mode unless the DR600 has Ground Speed Supported.
3. [0000732] [GStreamer] Fix SpeedLane Video Stutter.

Version 9.01.0001 (May 22, 2024)

Changed:

1. [0000713] [SpeedLane] Adjust User Defined Port Number List to Allow 23, 10000, and 10001

Version 9.01.0000 (May 06, 2024)

Added:

1. [0000685] [SpeedLane] Add AutoLane feature to StatsAnalyzer for automatic lane detection in SpeedLane.

Changed:

1. [0000697] [Analyze] Updated Analysis Report to allow a Speed Limit up to 199.

Fixed:

1. [0000700 [Connect To Radar] Activity Monitor does not function properly when user closes SerialPortForm and reopens.
2. [0000699] [Connect To Radar] Activity Monitor Reset Activity Timer is not properly working when timeout warning appears.
3. [0000701] [Connect To Radar] Update Activity Monitor to pause when pulling debug from radar.

Version 9.00.0118 (April 03, 2024)

Added:

2. [0000595] [SpeedLane] Option in "Advance Menu" to check for new radar firmware.
3. [0000124] [Import] Show GPS coordinates in Import Window for SpeedLane DAT file import.
4. [0000609] [SpeedLane] GUI support for "MT Modem Hold Time" variable.
5. [0000571] [Tetryon Rendezvous] Maintain radar communication when connected via Rendezvous if there is user activity. Otherwise, disconnect after 1 minute and 45 seconds of inactivity.
6. [0000549] [Range Plot] Added right-click option to 'Zoom to Fit Lanes' in Range Plot.
7. [0000618] [SpeedLane] SpeedLane Analyze reports will now include the option for Vin/Ambient Temperature Chart, if supported.
8. [0000506] [Connect To Radar] Allow users to copy SID and SN to the clipboard on the 'Connect to Radar' page.
9. [0000663] [Connect To Radar] Support LRC Bootloader upgrade.

Changed:

2. [0000607] [SpeedLane] Update final page of SpeedLane Wizard to clarify that "Finish" button must be clicked.
3. [0000648] [Connect To Radar] Update SID to Serial Lookup API call to use version 1.1.
4. [0000646] [DR600] Update DR600 Operation Mode UI logic to always show and add items based on support.
5. [0000544] [Settings] Configuration window title now matches ribbon button.
6. [0000566] [Connect To Radar] Show “Device Name” in “Connect to Radar” dropdown box for Bluetooth connected devices.
7. [0000545] [Export Interval] Show warning when export time resolution exceeds collected data time resolution.
8. [0000614] [Analyze] Users can toggle series visibility in the Vin/Ambient Temperature Chart when analyzing project data.

Fixed:

4. [0000669] [Firmware] Fixed bootloader programming issue in "Connection" tab for Tracker.
5. [0000636] [General] Corrected "Background Clutter Compensation" spelling.
6. [0000548] [Connect To Radar] Fix issue with “Connect to Radar” button being disabled after rebooting and unable to find/connect to the radar.
7. [0000345] [Range Plot] Range plot shot histogram Avg Speed/Count functionality reworked.
8. [0000623] [Radar Configuration] Config restore does not set values for lanes 10, 11, and 12.

9. [0000624] [Firmware] Incorrect downgrade warning when programming firmware on radar without firmware.
10. [0000629] [Reports] Fix missing Hour 23 data point in the "Run Analysis" Average Weekly Charts.
11. [0000616] [Camera] Tilt/Level Readings were reversed in Photo Viewer.
12. [0000627] [Range Plot] Scroll vehicles defined outside of lane boundaries per direction in summary packet.

Version 9.00.0117 (January 10, 2024)

Added:

1. [0000592] [Batch Operations] Add Batch Operations Manager tool.

Changed:

2. [0000491] [Raw Export] Update SpeedLane Raw CSV Data Export column “Range” to “Units”.

Version 9.00.0116 (December 08, 2023)

Added:

1. [0000581] [Connect To Radar] Add button to show detailed "Radar System Information".
2. [0000575] [Camera] Add tilt level measurement to Photo Viewer window.
3. [0000594] [Armadillo Tracker] Add "Verizon" to the Tracker Modem Carrier Selection

Changed:

4. [0000593] [Connect To Radar] Updated "Connect To Radar On" drop down box by including search by typing.

Fixed:

1. [0000574] [Analyze] Raw Data view should now be properly updated after applying filters.
2. [0000599] [SpeedLane] Gap for SpeedLane on import should no longer reset to 0 from time to time when it should not.
3. [0000598] [SpeedLane] Gap for SpeedLane on import should no longer be improperly calculated if unit was set to “Meter”.

Version 9.00.0115 (November 13, 2023)

Added:

1. [0000587] [DR600] Add DR600 Ground Speed Option

Fixed:

1. [0000588] [SS400] Fix bug in SS400 where "Speed Measurement with Ground Speed Correction" is always available.

Version 9.00.0114 (October 23, 2023)

Changed:

1. [0000579] [SpeedLane] Adjust the Count Validation Tool CSV output to also include the "Total Counts" and "Average Speed"

Version 9.00.0113 (October 16, 2023)

Added:

1. [0000577] [SpeedLane] Add SpeedLane Count/Logging Tool
2. [0000578] [General] Add support for radar type LRC224E and LRC222

Version 9.00.0112 (September 15, 2023)

Added:

3. [0000568] [SpeedLane] Add "Verizon" option to the SpeedLane Carrier Selection.
4. [0000552] [SpeedLane] Add RS422 and Bluetooth option for Loop Card comm interface for SpeedLane Loop Card.
5. [0000560] [SpeedLane] Add feature to allow users to configure ethernet speed option to 10 Mbps or 100 Mbps.

Changed:

1. [0000569] [SpeedLane] Update Alignment Example Picture to use crosshairs in the SpeedLane Wizard example.

Version 9.00.0111 (August 4, 2023)

Changed:

1. [0000531] [UI] Revert text of "Run Analysis" checkbox back to "Analysis Report"
2. [0000535] [Connect To Radar] Updated "Show Serial Number on Connect" to be enabled by default

Fixed:

1. [0000533] [Connect To Radar] Fix SID to Serial lookup for DC310 radar type to not always assume type "Armadillo Tracker"

2. [0000532] [SpeedLane] Fix SpeedLane Loop Card UI not considering the Measurement Unit of the device.
3. [0000534] [SpeedLane] Fix bug where multiple callbacks for the Measurement Unit changing is occurring.

Version 9.00.0110 (July 28, 2023)

Added:

1. [0000524] [Radar Configuration] Updated Radar Configuration (.rcfg) to support new zipconfig domain type.
2. [0000523] [SpeedLane] Add SpeedLane Loop Card support.
3. [0000518] [Analyze] Allow customer to change export header from "<30" to "0 to 30".
4. [0000522] [SpeedLane] Display the kind of video support is available on the SpeedLane on connect.
5. [0000497] [Connect To Radar] Add new Get Serial Number for given SID when connecting to radar

Changed:

1. [0000504] [UI] Change text of "Analysis Report" action button to "Run Analysis".

Fixed:

1. [0000519] [Analyze] Export button not working for SpeedLane and Tracker projects due to DateTime based on localization.
2. [0000498] [Reports] Fix Report Page Break for Summary Hourly Pages in SpeedLane Reports

Version 9.00.0109 (April 26, 2023)

Added:

1. [0000477] [SpeedLane] Add new CAT M1 Modem Support for SpeedLane.
2. [0000483] [Reports] Add 50th Percentile Speed to SpeedLane Reports.
3. [0000472] [Raw Export] Add feature to toggle header from the reports via Settings under the “Advanced” tab.

Changed:

1. [0000489] [Connect To Radar] Update radar version label on connect to clarify whether it is the Bootloader Version or Radar Software Version
2. [0000490] [Database] Improve performance when loading up projects.
3. [0000476] [Reports] Adjust Summary Page Report Date/Time Format to be in the format of the OS rather than only 12-Hour format.
4. [0000060] [Reports] Improve DevExpress report printing options.
5. [0000488] [Reports] Update XLSX and XLS DevExpress exports of the reports to focus on the first tab rather than on the last tab sheet.
6. [0000485] [Connect To Radar] Change "Serial ID" to "Silicon ID".

7. [0000470] [Analyze] Make "Summary" tab the default tab instead of the "Monthly" tab.
8. [0000486] [Settings] Remove unused "Include Raw Data in Excel Export" feature from Settings.
9. [0000484] [Modem] Update Tracker Modem UI by having an "Apply All" button rather than individual button per section.

Fixed:

1. [0000469] [Debug Mode] Fix typo in the Tracker/Bluetooth Enable Overwritten of Oldest BT Pairings feature.
2. [0000493] [SpeedLane] Fix issue with the SpeedLane AM Peak not reporting correctly if the peak was found at 12:00:00 AM.

Version 9.00.0108 (January 27, 2023)

Changed:

1. [0000468] [Debug Mode] Update "Delete all existing Bluetooth pairing" feature to display a message informing user that BT pairings have been deleted.
2. [0000467] [Debug Mode] Update “Automatically remove oldest pairing when max paired limit” feature to be compatible with older Bluetooth hardware.
3. [0000466] [Debug Mode] Update “Automatically remove oldest pairing when max paired limit” feature to consider the BlueSoleil USB adapter.

Version 9.00.0107 (January 13, 2023)

Added:

1. [0000331] [SpeedLane] Add validation to the IP, Netmask, Gateway, and DNS Address under "Network" for SpeedLane.
2. [0000394] [Debug Mode] Add "Delete All Existing Bluetooth Pairs" button for Armadillo Tracker and Crossfire under the "Debug" Tab.
3. [0000395] [Debug Mode] Add "Automatically remove oldest pairing when max paired limit" button for Armadillo Tracker and Crossfire under the "Debug" Tab.
4. [0000430] [SpeedLane] Add controllers to allow user to choose between "Quick" and "Fine" picture quality when on Step 2 of the SpeedLane Wizard.
5. [0000418] [SpeedLane] Add SpeedLane NTCIP Support.
6. [0000389] [Reports] Add Report Name to the header (except for the Tally Report) of each of the pages in the export reports.
7. [0000450] [Analyze] Add Average Speed to the "Speeder" section of the Summary/Analysis report.
8. [0000391] [Reports] Add Average Speed in the Summary Report for the "Speed" and "Hourly" section of the DevExpress Report.
9. [0000443] [Modem] Add 4G Cat M1 Worldwide Modem Support.
10. [0000462] [Project Filter] Add to "Filter and Sort" section a way to sort by Station ID (Ascending and Descending).

Changed:

1. [0000424] [SpeedLane] Update text "hrserver" to "Tetryon" in the "Network" tab for SpeedLane.
2. [0000413] [Reports] Update the "total" row for Weekly and Monthly tables to calculate average instead of total speed.
3. [0000423] [SpeedLane] Adjust "User Defined Port Number" section under "Network" tab for SpeedLane.
4. [0000421] [SpeedLane] Remove Hide Detection Sensitivity feature in "Detection and Units" tab from SpeedLane UI.
5. [0000433] [Armadillo Tracker] Updated "Callout Server IP" to "Tetryon Cloud Server IP" in the Armadillo Tracker UI.
6. [0000429] [SpeedLane] Update "Level should be within +- 2 degrees" text by adding "to road" at the end in SpeedLane Wizard.
7. [0000428] [SpeedLane] Capitalize "speedlane" text in the "X3/G4" tab in the SpeedLane UI.
8. [0000425] [SpeedLane] Update "Server" section controller text in the "Network" tab to "Tetryon Cloud Server" in the Network tab.
9. [0000426] [SpeedLane] Update "Customer ID" to "Tetryon Customer ID" in the "Network" Tab of the SpeedLane UI.
10. [0000427] [SpeedLane] Update "Minutes" text to be lowercase in the "Network" tab in SpeedLane UI.
11. [0000422] [SpeedLane] Update "Vehicle Bins" tab text to "Vehicle Class".
12. [0000390] [Reports] Rotate chart images to landscape rather than portrait for the export report.
13. [0000406] [Settings] Improve browse folder dialog when selecting new database and data folder location.
14. [0000403] [Raw Export] Enhance "Extend Raw Data" option by clarifying language.
15. [0000435] [SpeedLane] Update SpeedLane's "Diagnostic" page to include a list of prefill options that the user can ping to.
16. [0000447] [Connect To Radar] Update “Radar Found Message” to correctly display the correct baud rate when bootloader is found.
17. [0000445] [Range Plot] Update "No lanes setup message" on range plot to last more than 5 seconds.
18. [0000451] [Reports] Make the Analysis Report tab in SA and the Summary tab in export have the same name.
19. [0000449] [Analyze] Update "Analysis Report" to include "Histogram" and "Summary of Violators" reports in the "Analysis" form.
20. [0000458] [Armadillo Tracker] When bootloader is found on a Tracker, user will now be prompted to download latest compatible firmware and update to fix corrupt firmware.

Fixed:

1. [0000432] [SpeedLane] "Next" button in the Wizard is not enabled after finishing setting up for the 1st time.
2. [0000419] [Modem] Provide an alternative to send AT commands when "Start Configuration Modem" tab fails to get modem configuration.
3. [0000439] [Radar Configuration] Prevent "BN" in "Data Logging" from being set to 0.
4. [0000440] [Analyze] Binned Data that is selected through "Managed Imported Data" to analyze is not including last record.

5. [0000393] [Reports] "E-Mail As..." export functionality not working as intended when exporting to XLSX or XLS report.
6. [0000436] [Analyze] Analysis Report "By Hour" and "By Day" sections some records are being counted multiple times.
7. [0000420] [Armadillo Tracker] Armadillo Trackers with erase radar data feature disabled should not be able to Erase Radar Flash.
8. [0000434] [SpeedLane] Prevent Background Clutter Compensation to be set to 0 minutes and 0 seconds.
9. [0000431] [SpeedLane] Prevent the user from continuing Step 3 of the SpeedLane Wizard unless all checkboxes are checked.
10. [0000398] [Reports] Right-Click Export To PDF with a long filepath result in an exception for Tracker.
11. [0000397] [Radar Configuration] Loading radar configuration does not update locally stored variables.
12. [0000392] [SpeedLane] Prevent user from turning on Advanced Multipath rejection options in SpeedLane Setup Wizard if no lanes have been created.
13. [0000396] [Settings] Disabling "Enable Speed Rebinning For Excel Exports" for Green Tile Projects result in an unhandled exception.
14. [0000291] [Radar Configuration] Saving radar configuration can result in an InvalidOperationException.
15. [0000407] [Radar Configuration] Radar configuration filename is not outputting the correct SID of the radar.
16. [0000417] [Connect To Radar] Tracker "Speed Detection Limits" controller does not re-enable once it is disabled.
17. [0000399] [UI] At 175% Font Scale and 1920x108 resolution, the Export button for Tracker project becomes hidden.
18. [0000459] [Reports] 85th Pct Speed is outputting 1 in the 24-hour summary when there are no vehicles in Tracker Histogram Report.
19. [0000437] [Reports] TX DOT Form 1882 (Tally Report) crashes program without any notification when value for <=30 or >=80 is above 65535.
20. [0000448] [Export Interval] Armadillo Tracker Histogram Interval Setting is incorrectly calculating average speed for non-60-minute intervals.
21. [0000461] [Connect To Radar] Unable to download DAT file from Tracker due to string to in conversion.
22. [0000464] [Analyze] SpeedLane Histogram Reports page height is not correctly calculated.
23. [0000460] [Reports] SpeedLane "Analysis Report" tab page is not displaying all the lanes and/or group if there are more than 8 lanes.

Version 9.00.0106 (May 02, 2022)

Added:

1. [0000383] [SS400] Add Select Ground Mode to the Detection & Units tab.

Changed:

1. [0000382] [SpeedLane Vehicle Class Bins] Update Vehicle Class 8 for SpeedLane to read as "greater than or equal to".
2. [0000379] [Connect To Radar] Improve UI/UX for Tracker when firmware upgrade is available.

3. [0000387] [Radar Project] Prevent user from being able to set Vehicle Class #8 for SpeedLane Projects.

Fixed:

1. [0000385] [SpeedLane] Installation Mode Minimum Setback UI becomes disabled for SpeedLane after connecting and disconnecting from a SpeedLane Pro.
2. [0000261] [Bootloader] Incorrect radar type displayed when connecting to bootloader.
3. [0000386] [SS400] Operation Mode UI becomes disabled for SS400 after connecting and disconnecting from a SS400 that does not support the feature.

Version 9.00.0105 (April 13, 2022)

Added:

1. [0000119] [Reports] Add average speed for Histogram Incoming/Outgoing report.

Changed:

1. [0000377] [Reports] Truncate excessive decimal points from the AADT being displayed in the Analysis Report for SpeedLane.

Fixed:

1. [0000175] [Import] Remove "Correct Timestamp" feature for non-SpeedLane .dat import files with incorrect timestamps.
2. [0000376] [Reports] SpeedLane Report sometimes only shows 7 class bins instead of 8.
3. [0000369] [Reports] 50th Percentile Speed in the Exported Report is incorrectly displayed in Tracker Report.
4. [0000378] [Radar Project] Correct "Date/Time Start" column text from Managed Imported Data.

Version 9.00.0104 (February 16, 2022)

Added:

1. [0000355] [Range Plot] Zoom out to extent if you delete all lanes.
2. [0000344] [Connect To Radar] Add ability to refresh radar list via a refresh button.
3. [0000365] [DR600] Add TGL Speed Input/Output Support to DR600 and SS400 UI

Changed:

1. [0000361] [Range Plot] Delay Estimation Plot is unable to zoom and scroll without the program throwing an exception.
2. [0000362] [Language Support] Use correct translation of "Proche" and "Fermer" for French Translations.
3. [0000364] [Range Plot] Delay Estimation Plot Y-Axis label to show 2 significant digits.

4. [0000360] [Range Plot] Adjust plot peak data pen/point size to resemble closer to previous version.
5. [0000354] [Reports] 50th Percentile and Pace Interval missing from Export Report for Tracker Projects.

Fixed:

1. [0000359] [Analyze] Speeder count is over counting in the Monthly Counts/Speed Avgs tab in Tracker Projects.
2. [0000363] [Project Filter] Exception not being handled when "View Raw Data" option is enabled and user attempts to filter SpeedLane or CrossFire product.
3. [0000353] [Range Plot] Range Plot does not refresh after you delete all the lanes.
4. [0000367] [DR600] Rotary option should only be available for DR600 if PNL18 option is enabled.
5. [0000368] [Connect To Radar] Refreshing radar list results in Access Violation Exception when Bonjour is available.

Version 9.00.0103 (December 14, 2021)

Added:

1. [0000342] [GStreamer] Add GStreamer support for SpeedLane Camera.
2. [0000344] [Connect To Radar] Add ability to refresh radar list via a refresh button.

Changed:

1. [0000063] [Range Plot] Improve performance of the range plot.
2. [0000328] [Radar Project] Update "Manage Imported Data" table to allow user to edit each data to allow comments.
3. [0000337] [MS2 TCDS Export] Improve undefined Lane Direction of Travel message when exporting to MS2 Format.
4. [0000341] [SpeedLane] Set minimum value of TA to 2 seconds for the SpeedLane.

Fixed:

1. [0000118] [Screen Resolution] Improve Report Viewer UI to better adjust controls so that they do not go missing due to display settings.
2. [0000133] [Reports] Percentage in pace is incorrectly calculating in the histogram data.
3. [0000315] [SpeedLane] Prevent user from setting a TA value outside of minimum and maximum range for SpeedLane.
4. [0000343] [Connect To Radar] Unable to save "Read Traffic Stats From Radar" at root directory.
5. [0000336] [Analyze] Over counting in the Volume By Speed Histogram.
6. [0000312] [Tetryon Rendezvous] Bad Tetryon URL string results in unhandled exception.
7. [0000332] [SpeedLane] Diagnostics Textbox does not always get OOB ASCII data from SpeedLane.
8. [0000351] [SS400] Supply Voltage and Ambient Temperature Read for SS400 Crashes Program.

Version 9.00.0102 (September 09, 2021)

Added:

1. [0000319] [Analyze] Reintroduce the context menu export the “Analysis Report” tab via right-click. User can now export to PDF and XLSX formats.
2. [0000325] [Settings] Add option to toggle between “Cumulative Speed Total” and “Speed Total” for the Tally Report Form 1882.

Changed:

1. [0000320] [Settings] Clarify the “Export Interval” feature options.

Fixed:

1. [0000321] [Analyze] Add missing Percent Over Limit row to the Analysis Report for Green Tile Projects.

Version 9.00.0101 (August 10, 2021)

Added:

1. [0000180] [Debug Mode] Add busy wait cursor after user clicks on Get Debug.
2. [0000181] [Radar Configuration] Add programmatic support to add/del username/pass in SLP.
3. [0000304] [SpeedLane] Add UI Support for the Port Number (PR) variable
4. [0000067] [General] Add Release Notes link section in the main form of StatsAnalyzer.
5. [0000311] [DR600] Add DR600 LED Disable Option under “Hardware & IO Config” tab.
6. [0000311] [DR600] Add PNL18 Enable/Disable Strobe Flash Option under “Hardware & IO Config” tab.
7. [0000311] [DR600] Add PNL18 Calibrate LED Driver under “Hardware & IO Config” tab.

Changed:

1. [0000269] [Database] Update Default DB File to include projects such as SpeedLane, Tracker (Bi-Directional) and Crossfire.
2. [0000307] [Radar Configuration] Change "Strict Rain Filter" text for DR600 under the "Data Logging" tab.
3. [0000306] [Radar Configuration] Clarify wording on "Disable Low Power" mode checkbox in SS400 radar.
4. [0000297] [Reports] Allow user to setup min and max speed in Histogram for Binned Data.
5. [0000300] [MS2 TCDS Export] Remap Lanes from SpeedLane to MS2LaneNumber.
6. [0000299] [MS2 TCDS Export] Change Time in Metadata StartDateTime to "00:00:00.000" and EndDateTime to "23:59:59.999".

7. [0000293] [Analyze] Reword "Analyze" button to "Analysis Report" and "Analyze All" checkbox to "Analyze All Data in Project".
8. [0000282] [Connect To Radar] Update Radar COM Port ComboBox controller to be user friendly when listing is large.
9. [0000256] [Reports] Update Tally Report Form 1882 (TXDOT) to the latest revision.
10. [0000248] [Radar Configuration] Reintroduce the 'SetTime' method back to IRadarCommClassThd class.
11. [0000276] [Reports] Adjust Tick for Volume by Speed Bin Bar Chart Speed Bin.
12. [0000310] [General] Log more info from the Summary Report about the report creation.
13. [0000311] [DR600] Rename the “PNL18 Connector Option” section to “PNL18 One’s Digit Option” under “Hardware & IO Config” tab.
14. [0000311] [DR600] External Light Sensor Type section, under “Hardware & IO Config” tab, now enabled for PNL18 only.
15. [0000316] [Raw Export] Add "Open File?" at the end of the Successful Raw Export File Open prompt to make it clearer.
16. [0000317] [Debug Mode] Update SpeedLane Debug Log to use the File Open Dialog instead of the Folder Browser Dialog.

Fixed:

1. [0000263] [SpeedLane] Range plot streaming packet interval rate becomes incorrect when switching between Installation Wizard and range plot.
2. [0000309] [Analyze] Error being thrown when closing the Analyze form before "Analysis Report" tab is finish creating document for Tracker Projects.
3. [0000305] [Modem] 'Show SIM IP Address' AT Command Displaying Incorrect Message.
4. [0000271] [Connect To Radar] Stats Analyzer reports incorrect baud rate under certain conditions described below.
5. [0000303] [Modem] OOB Data is not being processed correctly in the Tracker Modem output when using Bluetooth.
6. [0000295] [Analyze] Date/time not fitting in "Timestamp" column in current width of the column.
7. [0000212] [Connect To Radar] Unable to populate Connect To Radar List due to WMI issues.
8. [0000290] [Tetryon Rendezvous] Delete key not properly deleting rows from the Rendezvous Tetryon List.
9. [0000246] [Radar Configuration] Loading radar configuration is not properly working at times due to UInt16 to Int16 conversions.
10. [0000308] [Modem] Tracker Modem Deactivation Context Not Working Correctly Before Setting APN.
11. [0000244] [Reports] Export Interval below 60 minutes interval is not creating histogram properly for Tracker projects.
12. [0000241] [SS400U] Changing baud rate is not triggering a reset for SS400/SS400U.

Version 9.00.0100 (March 2, 2021)

Added:

1. [0000233] [Language Support] Add French Language Support.
2. [0000220] [Radar Configuration] Add support for the PNL18.
3. [0000225] [General] Add import/export functionality for the Remote Radar list.
4. [0000228] [SpeedLane] Add SpeedLane NTP Server support.
5. [0000207] [Reports] 24 Hour Total Average Report.

Changed:

1. [0000237] [UI] Adjust UI in CrossFire, Tracker and SpeedLane Analyze Report Form to dock and anchor correctly.
2. [0000224] [Radar Configuration] Update value of variable in Radar Configuration file to be UInt16 instead of Int16.
3. [0000226] [Database] Handle exception when unable to find Database File Location at startup of StatsAnalyzer.
4. [0000170] [Radar Configuration] Add ability to set Radar Clock to UTC Time or an offset from current local time.

Fixes:

1. [0000238] [Settings] Divide by Zero Exception when Excel Speed Bin is set to 0.
2. [0000236] [Analyze] Analyze reports are incorrectly calculating values due to multi-threading.
3. [0000235] [Reports] Alignment issue in the Histogram Tab of the Export Report when Project Notes are available.
4. [0000229] [Language Support] Language Selection is not correctly switching the 1st time.
5. [0000027] [Reports] "Analysis Report" tab not refreshing.
6. [0000227] [Reports] Crossfire Report are missing the Export Button via Analysis Report.
7. [0000115] [SpeedLane Vehicle Class Bins] Adjust SpeedLane Vehicle Class Bins Setup to prevent user from incorrectly setting up bin.
8. [0000147] [Reports] Missing hourly intervals in Histogram Report.

Version 9.00.0099 (December 17, 2020)

Added:

1. [0000068] [Tetryon Rendezvous] Add rendezvous functionality to StatsAnalyzer.
2. [0000208] [Radar Configuration] Save/Restore SpeedLane String Variables.
3. [0000168] [Language Support] Add Russian Language Support to StatsAnalyzer.
4. [0000216] [Modem] Add 4G Modem Support to the Tracker and SpeedLane .

Changed:

1. [0000214] [Modem] Increase Modem mode change wait time from 30 seconds to 40 seconds.
2. [0000213] [Connect To Radar] Catch and display error message related to WMI when opening "Connect To Radar".
3. [0000211] [Custom Reports] Update Helsinborg Custom Report.
4. [0000210] [Analyze] Improve report analyzing performance.
5. [0000112] [Reports] Add missing Total and Percentage of Total to Show Speeder Count for Tracker projects.
6. [0000159] [Radar Configuration] Save string variables, if available, to the radar configuration file.

Fixes:

1. [0000209] [SpeedLane SQL Query] SpeedLane Config Query was unable to get config var due to datetime issues.
2. [0000217] [Radar Configuration] SpeedLane was not resetting after restoring radar configuration.

Version 9.00.0098 (October 21, 2020)

Changed:

1. [0000199] [Check For Updates] Added bit error logging to the BSER list.
2. [0000196] [Language Support] Move language options to its own tab in StatsAnalyzer settings menu.

Fixes:

1. [0000198] [Analyze] Analyzing a Speedlane project with exactly 1 vehicle classification would cause an index out of range exception.
2. [0000061] [Range Plot] Undefined lanes display on the bottom-left of the plot.

Version 9.00.0097 (September 18, 2020)

Fixed

1. [0000023] [Reports] Crossfire Report Lanes' page including blank pages and/or extra rows.
2. [0000146] [Reports] Tracker Analysis Report's Total Vehicle Count Is Off By A Few Vehicle Counts.
3. [0000178] [Bootloader] Prevent radar from resetting after failing to program bootloader.

4. [0000176] [Radar Project] Opening an existing (old) Tracker project results in crash.
5. [0000162] [Import] Silent “Out of Range Exception" when fixing the DateTime of the records from the dat file.
6. [0000141] [Custom Reports] Fix misspelling of "Helsinborg" in the Custom Export Selection options in Settings.
7. [0000179] [Radar Configuration] Saving Tracker configuration while connected via modem throws an error.

Version 9.00.0096 (April 16, 2020)

Changed

1. [0000074] [MS2 TCDS Export] Don't allow export if Lane Direction is not defined in Lane Configuration.
2. [0000072] [CSV Export] Update "Raw Export" button to CSV for Tracker format to be the same as "View Raw Data" export.

Fixed

1. [0000073] [Snapshot] Unable to take photo from CrossFire.
2. [0000071] [MS2 TCDS Export] MS2 TCDS Tracker export is displaying incorrect units.
3. [0000070] [MS2 TCDS Export] MS2 TCDS SpeedLane export is displaying incorrect units.

Version 9.00.0095 (April 09, 2020)

Added

1. [0000033] Added support for XML format to SpeedLane and Tracker on a per vehicle record.
2. [0000036] Added support for PRN format to Crossfire on a volume by lane per interval.
3. [0000066] Added High Speed Mode for SS400U under “Detection & Units” tab.

Changed

1. [0000029] Removed “Max Speed” from the SpeedLane “AnalysisReport” tab.
2. [0000026] Updated Average Speeds of Speeder on Summary Page to display “0.0” instead of “NaN” when there are no speeders.
3. [0000037] Updated Tracker CSV Export to export per-vehicle details instead of speed histogram.

Fixed

1. [0000041] Fixed issue with raw export not being able to write to file that was not properly created.

2. [0000065] Fixed typo found in the “Correct Time Stamp” message after importing data with messed up timestamps.
3. [0000059] Fixed issue where “Show SpeedLane Query Window” option would not display when viewing the plotter.
4. [0000039] Fixed issue with “Export Data to CSV” when unable to successfully create a file.

Version 9.00.0094 (Feb 21, 2020)

Added

1. [0000018] Added release notes for our customers.

Changed

1. [0000014] Updated reports to now display date based on localization.

Fixed

1. [0000017] Fixed bug with firmware upgrade tooltip not showing up correctly.
2. [0000004] Fixed bugs with SpeedLane "Analysis Report" tab generating data for a long time after applying filter with “Stop After” option is disabled.
3. [0000003] Fixed bug with SpeedLane export button not working correctly after enabling filter option with “Stop After” option is disabled.
4. [0000007] Fixed bug with Filter Data By Custom Setting for SpeedLane “Lane” tab, in the report, not displaying values when “Stop After” option is disabled.
5. [0000010] [0000021] Fixed bug where users were unable to import some Tracker .dat files due to error during import.
6. [0000011] Fixed bug where projects from old Stats Analyzer would not be able to merge data with newer imports due to the unit's casing being different.
7. [0000012] Fixed bug where program would fail to properly import Tracker .dat files to older projects that were added before version 9.00.0062.
8. [0000016] Fixed bug where Geocounts Crossfire export not correctly displaying vehicle count.
9. [0000019] Fixed bug where report pages would disappear after exporting reports to PDF.
10. [0000001] Fixed bug where SpeedLane Histogram was not correctly calculating the number of days our data span over.
11. [0000008] Fixed typo in range plot for zoom to fit view message.
12. [0000013] Fixed bug where opened projects would not update if they were not selected after importing data to the project.
13. [0000020] Fixed bug where SpeedLane “Avg Speeder” row on the export summary page was being incorrectly calculated.
14. [0000006] Fixed bug with SpeedLane Monthly/Weekly grid.