TrendView Standard 1.0

Complete User Manual

User guide | TrendView Standard 1.0

TrendView Standard examines existing industrial recordings so engineers can compare operating sequences, commands and feedbacks. This manual covers file handling, all three viewing modes, raw cursor interpretation, selected-plot exports and purchase activation. It does not describe live historian monitoring or plant control.



Synthetic gas-turbine disturbance: overview. Enlarged control details appear in the operating sections. All illustrations use synthetic data.

Licence scope: one active PC, usable by its Windows users, with perpetual Standard 1.x entitlement. Future major versions are separate. This guide describes TrendView Standard 1.0.
Currently in final testing - not yet available for purchase.

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System requirements and installation

Before purchasing, check that your PC meets the minimum requirements listed below.

Item	System requirement
Operating system	Windows 10 / Windows 11, 64-bit. Windows 10 packaged-runtime validation remains pending.
Installed RAM	4 GB minimum planning baseline. A physical 4 GB machine has not been validated.
Installation space	500 MB free disk space for installation. Additional space is required for recordings and exports.

Internet access is required for automatic activation. Once activated, TrendView can analyse recordings offline. Larger recordings require additional memory and processing time.

The measured complete package occupies about 191 MB extracted; its ZIP is about 78 MB. Keeping both uses about 270 MB before allocation, temporary files and application data. The 500 MB installation allowance does not include your recordings or exports.

Windows 11 owner acceptance and a limited compiled memory-budget check are recorded. These are not a Windows 10 test or proof of the lowest usable CPU, RAM or display. Use a desktop with sufficient room for readable plots and the scrollable table; no validated minimum processor or display resolution is claimed.

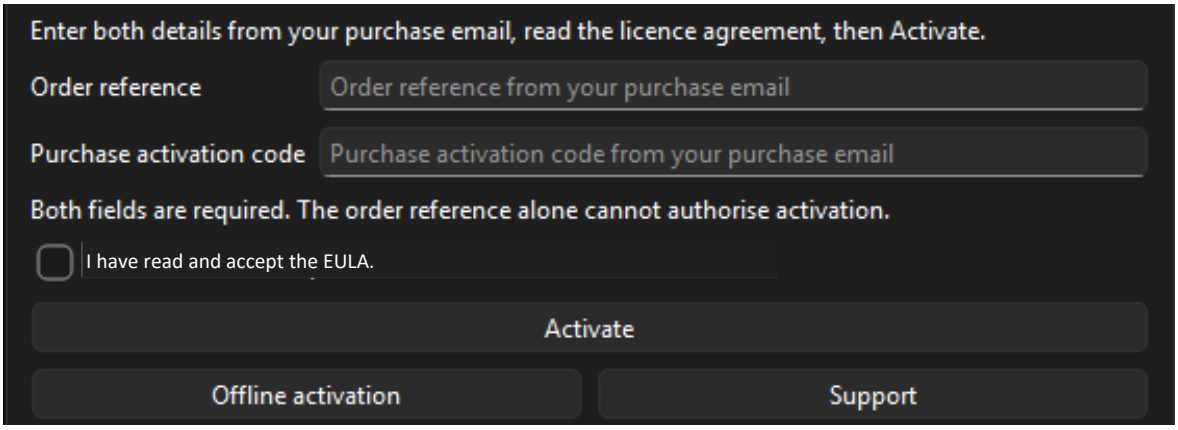
Requirements and licence terms do not remove applicable statutory or consumer rights.

Extract the complete download before launching. Keep TrendView.exe, the runtime folder, supplied notices and Examples together. The application is a Windows desktop package; all required runtime files are supplied with the package. Application-data and export folders must be writable by the intended Windows user. Close TrendView before updating from USB. Retain the complete previous application folder as rollback. Verify the replacement package against its supplied SHA-256, then extract the complete package into a separate folder; do not replace only the EXE. Preserve existing activation data in its current application-data location and use the same Windows account and launch/profile settings on the licensed PC. Launch the replacement. To roll back, close it and launch the complete previous package with the same activation-data location; do not overwrite or restore licence files automatically. Contact support if activation is not retained.

A limited update/rollback check confirmed activation retention and offline restart with the existing licence profile. This applies to that tested replacement, not every future update.

Purchase installation and activation

1. Complete a single-PC Standard 1.x purchase and receive the application download instructions, order reference and purchase activation code.
2. Download and extract the complete package. Keep TrendView.exe and its complete runtime together. Open the application on the PC to be licensed.
3. Enter Order reference and Purchase activation code. Read the EULA and explicitly accept it, then click Activate. Neither purchase field alone authorises a licence.
4. Wait while the asynchronous local identity and HTTPS checks finish. The signed response is checked for the current PC and entitlement before it is saved. Success opens the viewer and removes the entry form.



Illustrative activation controls. Both purchase fields are required; online activation needs no site-code copying.

Internet access is required for automatic activation. Once activated, TrendView can analyse recordings offline. The local licence is checked at startup; a valid activation opens the viewer without showing the entry form every time.

Missing or invalid activation blocks file loading and exports while Help and notices remain available. A failed connection can be retried using the same outstanding request. A different request against an already-used order requires support review; reinstalling is not a way to obtain a second PC entitlement.

Supported recordings and companion files

Family	Handling and qualifications
CSV	TrendView CSV, supported FactoryTalk CSV and generic wide/timestamp CSV. TXT/TSV CSV variants use recognised columns/delimiters; arbitrary text is not automatically a supported dataset.
MicroNet LOG	Retain the complete supplied date/time and UTC-offset filename. The separate synthetic 32-pen LOG is not the original 16-signal example.
Basler DECS text LOG	Supported text LOG parser. DECS CFG/DAT companion formats remain deferred; do not confuse them with FactoryTalk DAT.
FactoryTalk DAT	Keep Float/data and matching (Tagname).dat catalog together. No String table is required by the bundled example.

Choose File > Open. Loading is asynchronous; wait for completion and inspect the source name and loaded/selected/visible counts before analysis. A new input replaces the current session; retain original recordings unchanged.

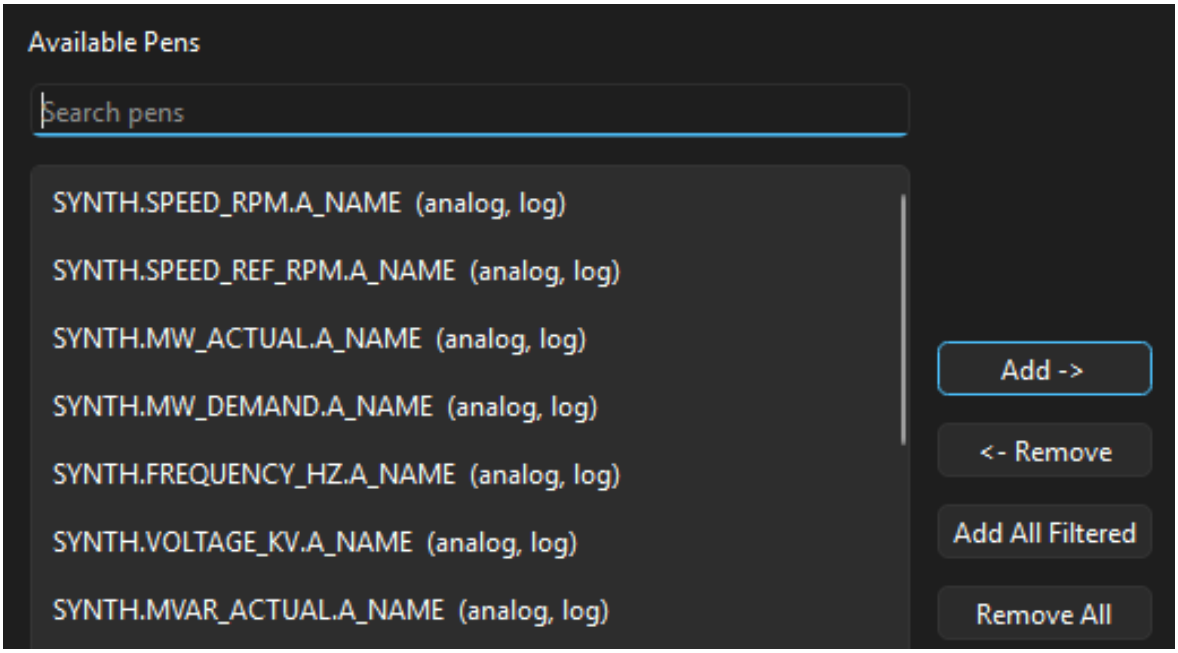
Original public examples contain 16 signals over 180 seconds. The CSV uses a non-uniform400/600ms timebase. LOG channels use their native sample rates. The 32-pen demonstration covers 1200 seconds and is in its own example folder.

Full 32-pen filename: SYNTHETIC_DEMO 2026-01-01 12.00.00 (UTC+0) PartLoad_FullLoad_Disturbance.log. Do not rename away the timestamp or offset. For DAT, keep TrendView_Example_DAT.dat and TrendView_Example_DAT (Tagname).dat beside each other.

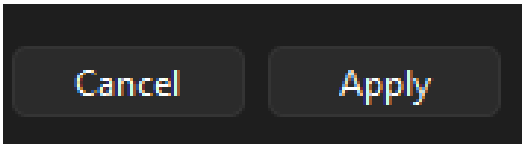
If opening fails, retain the exact error and source filename, check the supported family and companions, and contact support. Do not edit raw data merely to hide a parser error or guess a timestamp timezone.

Pen selection visibility and table controls

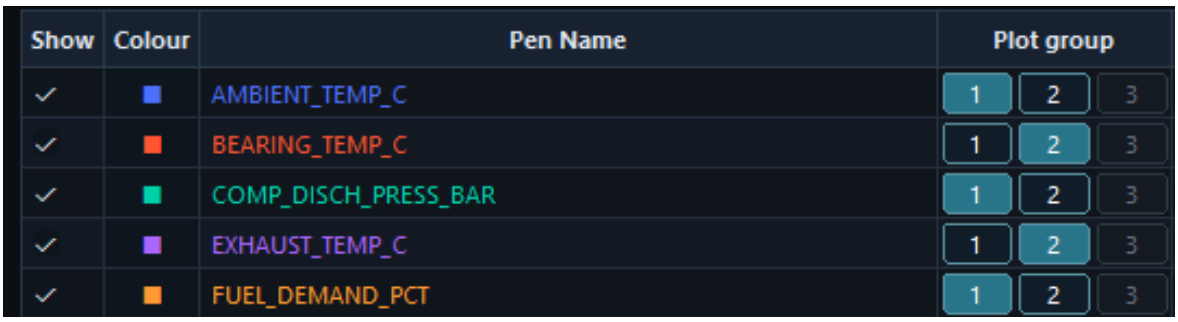
5. In the pen selector, search available signals, add the required tags to Selected Pens and Apply. Cancel discards pending selector changes.
6. Show checkboxes control graph visibility only. Hide All preserves membership/scales/data; Show All restores selected pens.
7. Use the table search to filter rows. Filtering does not itself erase samples or change plotted pen membership. Clear removes the search and performs Show All, restoring visibility of every selected pen, including rows outside the filter.
8. The table remains scrollable. Min/Max are full-pen extrema; Samples is that pen's native count. Scale Low/High are editable. A/B, Delta and Current are numerical readouts.



Enlarged search, available signals and Add/Remove controls. The Selected Pens list is to their right in the full dialog.



Apply commits the selected working set; Cancel keeps the previous selection.



Row-level group assignment uses the exact pen row. The Show checkbox has a separate purpose.

Overlay and Grouped viewing

Overlay is the default on a normal new launch. Opening another input during an existing session is not an instruction to change modes: check the Plot mode selector before proceeding.

Overlay draws all visible pens in one plot. Each pen retains its engineering range; visually similar heights do not imply equal units or values. Active Scale chooses the visible pen whose engineering range labels the selected plot's Y axis.

Grouped provides two or three plots. Set Grouped plots to 2 or 3 and assign each row with the 1 / 2 / 3 controls. New pens default to Group 1. Each pen belongs to exactly one group. Assigning a hidden pen must not show it. Hide/show and mode switches retain membership.



Actual two-group application view with all 16 pens visible, same recording and 0–180 s interval as the other modes.

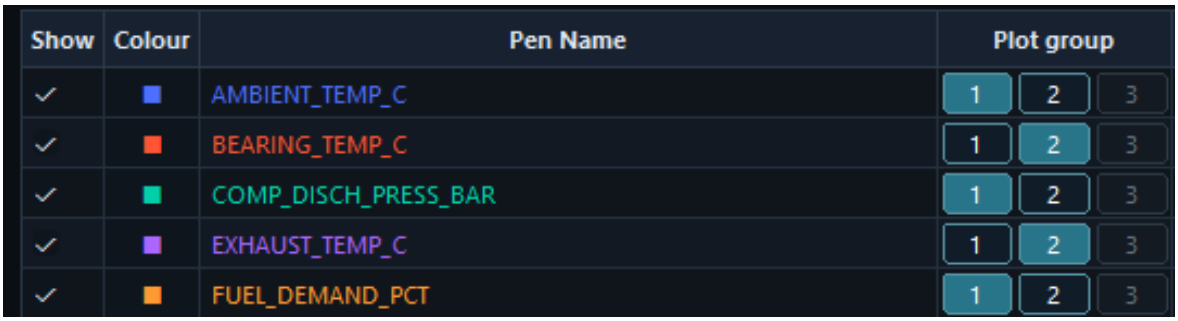
Click a plot to choose its active context and export target. Active Scale applies within that group. Groups keep independent Y scales while X navigation and cursor times remain linked. Hover updates Current but never chooses another export target.

Reducing 3 groups to 2 requires confirmation: Group 3 members, including hidden pens, move to Group 2. Cancel preserves the three-group arrangement. No samples or visibility settings are discarded.

Grouped controls in detail



Enlarged mode/count controls. Choose Grouped, then two or three plots.



Enlarged row controls. Assignment belongs to this exact pen; it is independent of its Show checkbox.

9. Start with all new pens in Group 1. Move related pens into Group 2 using their own row buttons. Use Group 3 only after increasing the count to three.
10. Show two or three groups at once and click the plot you want to inspect. Its visible members determine the Active Scale choices and export scope.
11. Hide and re-show a pen to declutter; do not reassign it merely to hide it. Filtering the table does not itself change the plotted scope.
12. If reducing to two groups, read the confirmation. Group 3 members move to Group 2 only after you confirm; Cancel retains the three-group arrangement.

Stacked viewing and plot targets

Stacked shows one separate plot for each visible pen, in its existing order. It is not limited to three plots. Scroll to other signals; plots share the current X range and A/B times. Scrolling away and back retains each pen's identity, samples, engineering scale and cursor readings.



Actual Stacked application window: three complete plots are visible and all 16 pens remain available in the scrollable stack.

Hide All shows No pens visible without gaps. Re-showing three non-adjacent pens creates three consecutive plots. Hiding the selected export target clears it; exports stay disabled until you explicitly select another eligible plot. They must not silently change to a different pen.

Clicking or right-clicking a plot selects it; a cyan outline identifies the target. File-menu PNG/CSV uses the last explicit selection. Mode changes retain the target where meaningful, otherwise a visible eligible plot is selected. Inspect its title and outline before exporting.

Engineering scales zoom and pan

Control	Behaviour
Active Scale	Chooses the visible pen whose engineering bounds label the selected plot. Grouped scopes this choice to that plot; Stacked has one pen per plot.
Scale Low and High	Edit per-pen bounds in the table. Negative values are valid; Low must remain below High after each edit.
Full	Restores the full source X extent. It does not reset manual engineering scale edits.
Zoom In and Out	Changes the horizontal viewport around the current view.
Pan Left and Right	Moves the horizontal viewport; linked across plots.
Zoom Between Cursors	Frames the chronological A/B interval. Distinct cursor positions are required.

Min	Max	Scale Low	Scale High
22.00	22.88	21.96	22.92
25.00	57.00	23.40	58.60
1.00	9.68	0.57	10.11

Enlarged Min, Max and editable Scale Low/High columns. Bounds are per pen, not a conversion between engineering units.

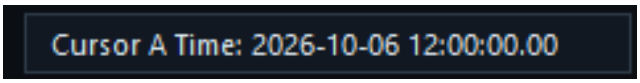
When editing both ends of a range, change the end that keeps Low below High first. A rejected intermediate value does not establish the requested final scale. Recheck the displayed bounds and the selected plot's engineering axis.

Plot appearance is for comparison, not a unit conversion. Preserve engineering units and original timestamps when reporting findings. Display reduction for large recordings changes drawing efficiency, not the raw samples used for readouts and CSV.

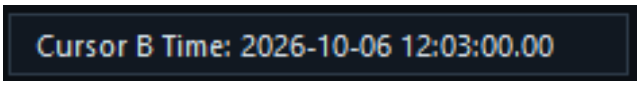
Loading another recording resets session-dependent state. This version does not provide a saved-layout/project workflow; document your group assignments or repeat them when necessary. Do not assume a CSV export restores a whole workspace.

Cursors Current and raw sample interpretation

13. Drag A or B in any plot. A/B times and markers stay shared across plots. The table reads each pen independently at its nearest raw sample.
14. Select a cursor before keyboard adjustment. Left/Right moves it 1 second; Shift+Left/Right0.1 seconds; Ctrl+Left/Right10 seconds. Positions clamp to the recording bounds.
15. Move the pointer over a plot for temporary Current readings. Moving away clears hover; it does not move A/B or choose another export target.



Enlarged Cursor A label. Read its absolute date and time; the B label and elapsed interval are beside it.



Enlarged Cursor B label from the same application screenshot.

Nearest-sample selection is not interpolation. At an exactly equidistant tie under the stored numeric comparison, the earlier sample wins. Outside a pen's native range, the endpoint sample is used. Slower channels can therefore retain the same readout while a cursor moves between samples.

Cursor A	Cursor B	Delta	
22.00	22.88	0.88	
25.00	25.00	0.00	
1.00	1.00	0.00	

Enlarged A/B and Delta columns, from the actual table.

Current	Samples
-	361
-	361
-	361

Current and Samples. Current can be blank when there is no hover point.

Table values are normally displayed to two decimal places. That rounding is distinct from stored floating-point values and CSV text precision. Delta compares cursor values; elapsed time compares A/B times. Cursors can be outside the current zoom while retaining their positions.

PNG plot image export

16. Explicitly select the required plot. In Overlay this covers all visible pens; Grouped covers visible pens of that group; Stacked covers its selected visible pen.
17. Set the desired viewport and Y scale. For the A/B viewport first use Zoom Between Cursors.
18. Choose File > Save Plot Image, or right-click the plot and choose the same action. Check mode/scope and visible-pen count in the native Save dialog.
19. Choose a unique filename. The default is Documents/Turbine-iQ/TrendView/Exports; choose another destination for this export if needed. Cancel saves nothing.



Actual compact PNG report, distinct from an application screenshot.

The output includes branding, source/type, mode/group/pen identification, current range/span, A/B/delta, axes and a compact legend. Up to 8 legend entries are shown, with +N more for the remainder. It exports one selected plot, not the application/table or an entire stack/all groups. It excludes temporary hover and selection outlines and preserves live state.

CSV export scope and precision

Mode	CSV pens
Overlay	All and only visible pens in the single plot.
Grouped	Only visible members of the explicitly selected group.
Stacked	Only the explicitly selected visible pen.

File and plot-context menus provide only Export CSV > Full Trend and Between Cursor A/B. Full Trend uses the source extent for the selected target. Between Cursor A/B includes native sample times within the chronological endpoints, including endpoints. Viewport zoom is independent of this choice. Target, tags and bounds are snapshotted when export starts.

The CSV writer uses original native samples, without resampling or display-envelope rows. Pen order follows the existing source/session ordering, not a guessed screen order. No empty target falls back to all pens or another group. Verify scope in the Save dialog; cancellation creates no output and does not alter the view.

Field	Text / meaning
timestamp	YYYY-MM-DD HH:MM:SS.mmm; milliseconds, no Z or UTC offset. Sub-millisecond fractions are truncated after datetime calculation.
seconds_from_start	Six decimal places, rounded as text.
value	Up to 12 significant digits; raw floating-point storage can carry more.
Other columns	tag_name, quality, channel_type and source_type retain the established long-format rows.

The quality column is written as GOOD by the CSV exporter. It must not be interpreted as a faithful export of every producer's original acquisition-quality flags. Keep the source recording and review its import diagnostics.

If the loaded time has an offset, export keeps its clock fields but removes the offset; it does not first convert to UTC. Retain the original filename/offset and source. Reopening an export is not a universal lossless round trip: timestamp text, relative seconds and formatted values have finite precision, and exported CSV is not a saved layout. The recognised absolute timestamp takes precedence over seconds_from_start when the timestamp is usable; do not discard either column to manufacture different semantics.

Worked synthetic example

20. Open Examples/TrendView_Example_CSV.csv. Load/select/show all 16 signals and confirm the 180-second extent.
21. In Overlay, compare the start, load and disturbance. Switch to Grouped with two plots and assign related pens using the row selectors; keep the same full X range.
22. Switch to Stacked and scroll. Hide/re-show several pens and confirm they occupy consecutive plots. Select a newly visible pen before exporting it.
23. Return to Full. Place A at 60 seconds and B at 120 seconds, using selected-cursor keyboard steps where exact positions are required. Check the displayed absolute times against the original 12:00:00 start.
24. Choose the required plot, save its PNG and export CSV Between Cursor A/B. Check pen names, native samples and timestamps against the original CSV; do not assume graph pixel position proves exact cursor bounds.

Worked 32 pen LOG example

25. Open the supplied 32-pen synthetic LOG without shortening its timestamp/UTC-offset filename. Confirm 32 loaded pens and the 0–1200 second extent.
26. Select the signals you need and use Overlay to locate part load, full load and the disturbance around the later part of the record. Start with Full, then zoom into the event.
27. Use Grouped for related commands and feedbacks in separate plots, or Stacked for independent per-signal axes. Keep the same X viewport when comparing modes.
28. Place A before the disturbance and B after recovery. Read the exact displayed cursor times, then select the group or pen needed for the report.
29. For a PNG, use the current viewport or Zoom Between Cursors first. For CSV, explicitly choose Full Trend or Between Cursor A/B; record the chosen pens and interval. Review the saved file rather than assuming it matches the zoom.

The companion walkthrough provides investigation context for this synthetic recording. For current controls, group assignment and selected-plot export scope, follow this manual.

Time handling missing data and import checks

The horizontal axis is elapsed seconds from the loaded trend start. Absolute labels depend on the recording's available time information. A MicroNet filename can carry the start time and offset; preserve it exactly. Do not assume a filename date resolves an ambiguous numeric date inside another producer's CSV.

For supported CSV layouts with separate Date and Time columns, TrendView combines the recorded fields, including when milliseconds are absent. Recorded dates are retained through midnight and multi-day sequences; today's date is not substituted. No timezone is invented. After loading, inspect File > Trend Properties and compare the source's first/last dates, sample counts and warnings.

If a numeric date is ambiguous, Choose CSV date order shows the actual source date and its DMY (day/month/year) and MDY (month/day/year) interpretations. Choose the convention confirmed by the recording producer. Do not infer it from a filename or your PC's region. The choice applies consistently to this import, not as a permanent preference. Cancel or Escape abandons this import and leaves the existing recording and plots unchanged.

Worked date example: open Examples/CSV_Date_Order_Example.csv. For source date 01/02/2020, DMY means 1 February 2020 and MDY means 2 January 2020. With DMY, the two rows run from 1 February 23:59:59 to 2 February 00:00:00 (1 second). MDY gives a different, multi-day interval. Choose deliberately, then check the displayed dates. Reopen and Cancel to retain the current session. Duplicate headings remain separate pens labelled with their source-column numbers; they are not merged.

A blank or non-numeric CSV value can be skipped with diagnostics. Invalid timestamps can also cause skipped rows in supported legacy paths. A pen may therefore have fewer samples or a different native rate than another pen. Review warnings and counts; do not treat missing samples as measured zero.

The current viewer joins its retained points for display; a line crossing a gap is not proof of measurements in that gap. Cursors choose native samples independently for each pen, and a slower channel can keep the same reading between sample boundaries. Preserve quality and missing-data context from the original producer.

Offset-bearing input and exported clock fields require care when comparing systems. The CSV timestamp format does not restore a timezone. This guide makes no universal exact round-trip claim and no compatibility promise based only on a file extension.

Troubleshoot a recording or export

Observation	Check before retrying
No visible curves	Check selected/visible counts, Show checkboxes, search/filter state and plot mode. In Stacked, Hide All intentionally shows No pens visible.
A signal looks flat or misleading	Check engineering bounds, Active Scale and units; overlay height is not a common physical unit. Inspect raw A/B values.
A pen is missing from a group export	Check row membership and Show. Click the intended plot; hover does not select it. An empty target must not silently fall back.
CSV interval differs from the screen	Full Trend and A/B are time scopes; neither automatically means current viewport. Record the export choice and exact bounds.
Wrong dates or unexpected multi-day span	Compare source timestamps and date convention; preserve the original. Do not edit a filename or infer locale to force an interpretation.
Load rejected or samples skipped	Retain the exact message and Trend Properties diagnostics. Check companions, layout and numeric/time fields. Do not repeatedly launch a large import.
Save failed	Choose a writable destination and a unique name; check available disk space. Keep original outputs until you have verified replacements.

Close normally when finished. If an operation is still running, allow the bounded operation to finish or follow the reported error. Do not terminate unrelated processes, change application files or disable Windows protection as a routine workaround.

Validation and performance

These retained observations describe specific evaluations, not guaranteed capacity or hardware minima. Compiled application measurements and earlier evaluation measurements are distinguished below. Public examples use synthetic data. Detailed validation evidence is retained separately; controlled recordings are not included in downloads.

Retained case	What was actually checked
Earlier compiled application	Windows 11 owner acceptance of automatic activation, restart, public examples, navigation and export. A separate already-loaded 16-pen mode-switch check under a 512 MiB process commit cap remained responsive; peak commit 228,569,088 bytes (about 218 MiB). This was not a physical 4 GB or Windows 10 test.
Earlier evaluation, 32 pens	Public synthetic LOG, 732,492 bytes and 32 pens. 5 November 2026 native Windows, 1280 x 760 window, DPR 1.0. File-open call 0.167 s; first-paint measurement 0.185 s. Final working set 212.2 MiB; final private commit 254.4 MiB. Four recreation/mode repeats and last-pen export checks passed.
Earlier evaluation, 312 pens	Controlled LOG 6,648,962 bytes, 312 loaded/selected/visible pens. Same window/DPI. File-open call 0.290 s; paint measurement 0.307 s. Initial Overlay paint 1.406 s; a 1.047 s GUI heartbeat gap was observed. End working set 255.0 MiB; peak working set 274.7 MiB; end private commit 298.8 MiB.

The earlier evaluation measurements predate the compiled version 1.0.0 CSV update described in this guide. They are not timing benchmarks for that package. Window size and display scaling were recorded, but a complete contemporaneous processor/RAM inventory was not; the figures cannot establish a minimum specification or a machine-independent speed comparison.

High channel counts have produced noticeable pauses: the 312-pen evaluation recorded a 1.047-second response gap. Earlier evaluations also exposed Stacked scrolling and mode-switch delays; subsequent checks covered a full 312-pen traversal, linked time/cursors and last-pen exports. These observations do not establish unlimited capacity or clean-machine compatibility.

Functional acceptance of the compiled application and performance measurements answer different questions. Windows 10 and a physical 4 GB configuration have not been runtime-tested. Minimum processor/display specifications and final clean-machine compatibility remain unverified; do not treat the figures above as a performance guarantee.

Practical guidance for larger recordings

Keep the original recording on a reliable local drive and allow additional space for imports, temporary data and exports. Close other memory-heavy programs before opening a large file. Wait for completion and check counts/diagnostics before selecting a broad working set.

Choose the signals relevant to the question. Use Grouped to compare related systems and Stacked when independent axes help. Stacked shows only visible pens. Scrolling does not reduce the memory needed for the underlying recording.

Start at Full to locate the event, then narrow the viewport. Drawing reduction improves responsiveness but does not reduce the raw data used for cursor readouts and CSV. Large channel counts can still cause noticeable mode-switch, zoom or pan delays, especially in Overlay.

Export only the group, pen and interval needed. A full raw CSV can be much larger than a PNG and can take time or memory to open in a spreadsheet. Check row limits and timestamp formatting in the receiving tool. Keep exact scope and original source context with engineering conclusions.

Support recovery and safe closure

Situation	Action
Valid licence	Help > Licence / activation / third-party notices opens compact Activated status with the verified order reference.
Purchase/help question	Help > Licence Support provides support@turbineiq.co.uk, Copy email address, verified order reference/Copy order reference when available and a draft link. Opening a draft does not send email.
No network for activation	Use the separate Offline activation route and contact support. Do not copy another PC's licence or generate repeated fresh requests against a used order.
Incorrect purchase details / used order	Check both supplied details. An assigned order accepts only an exact original-request retry automatically; a different request needs recovery/transfer review.
Hardware change / reinstall / transfer	Contact support for licence recovery, hardware replacement or transfer assistance. Stop previous-PC use when an approved transfer is made.
Damaged/missing local licence	Preserve the state and error. TIQ-assisted recovery exists separately; backup/restore/import tools are not normal customer-menu actions.
Load or export error	Retain the exact message, filename and scope. Check companions, visibility, selected plot and writable destination; do not alter application files or original recordings.

Close TrendView normally using its X. A valid saved licence survives restart and offline use on that PC. Sharing a signed response does not authorise a different physical PC. Keep original recordings and unique export names; treat CSV precision/timezone qualifications as part of an engineering record.

EULA, Privacy and Third-party notices remain accessible from Help/licence status. Third-party library replacement rights are not removed by the proprietary activation mechanism. Product requirements and licence wording do not remove applicable statutory rights. Final legal/redistribution approval is a separate release decision.

Unsupported recordings. If TrendView cannot open your recording, contact support@turbineiq.co.uk with the file type, producing software/version and error message. Where authorised, include a small original recording and any required companion files. We can assess the format for a patch or future revision. Support for every format cannot be guaranteed. Remove sensitive information before sending.