

Sequence of Events Recording (SER) Export Events to CSV

Summary

Trystar's SER-32e Event Recorders maintain an event log with status changes of all monitored inputs, time-stamped to 1ms.

Event records can be exported as a comma separated value (CSV) file for further analysis in tools such as Microsoft Excel.

This document describes the process to export event data to allow powerful analysis of event data with ms precision for date/time values.

Introduction

Sequence of Events Recording (SER) systems are an essential part of Electrical Power Monitoring Systems (EPMS) for critical power applications, such as data centers, hospitals, and micro-grids. Trystar's SER-32e Event Recorders include an export function in which event records may be saved to a file for further analysis. This provides a quick and easy way to analyze data, complementing EPMS software or allowing stand-alone applications of SER devices.

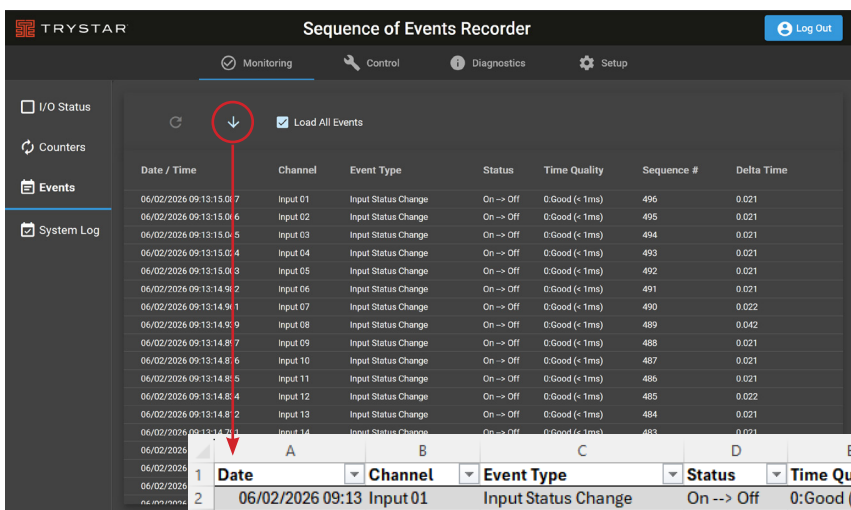
Export Procedure (Overview)

From the Monitoring - Events page,

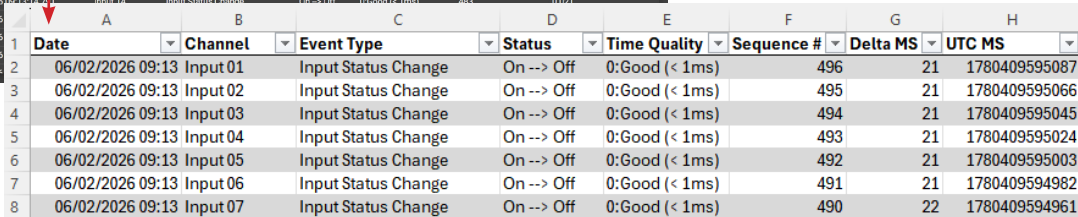
1. Click the Export button  to save the CSV file to the web browser's default download folder.
2. Open in Excel (or other software) and adjust date/time format for ms.

Event data can be combined with data from additional SER devices, sorted, filtered, and correlated with other key information, such as captured waveforms, weather occurrences, or other external conditions.

1



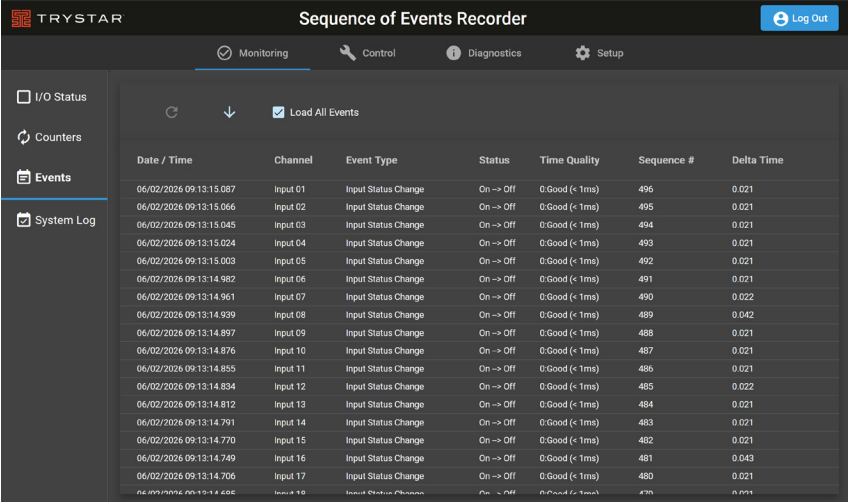
2



	A	B	C	D	E	F	G	H
	Date	Channel	Event Type	Status	Time Quality	Sequence #	Delta MS	UTC MS
1	06/02/2026 09:13:15.077	Input 01	Input Status Change	On -> Off	0:Good (< 1ms)	496	21	1780409595087
2	06/02/2026 09:13:15.077	Input 02	Input Status Change	On -> Off	0:Good (< 1ms)	495	21	1780409595066
3	06/02/2026 09:13:15.077	Input 03	Input Status Change	On -> Off	0:Good (< 1ms)	494	21	1780409595045
4	06/02/2026 09:13:15.077	Input 04	Input Status Change	On -> Off	0:Good (< 1ms)	493	21	1780409595024
5	06/02/2026 09:13:15.077	Input 05	Input Status Change	On -> Off	0:Good (< 1ms)	492	21	1780409595003
6	06/02/2026 09:13:15.077	Input 06	Input Status Change	On -> Off	0:Good (< 1ms)	491	21	1780409594982
7	06/02/2026 09:13:15.077	Input 07	Input Status Change	On -> Off	0:Good (< 1ms)	490	22	1780409594961

EXPORT EVENTS FEATURE

From the Monitoring page, click the Events tab to bring up the web page:



Date / Time	Channel	Event Type	Status	Time Quality	Sequence #	Delta Time
06/02/2026 09:13:15.087	Input 01	Input Status Change	On → Off	0:Good (< 1ms)	496	0.021
06/02/2026 09:13:15.066	Input 02	Input Status Change	On → Off	0:Good (< 1ms)	495	0.021
06/02/2026 09:13:15.045	Input 03	Input Status Change	On → Off	0:Good (< 1ms)	494	0.021
06/02/2026 09:13:15.024	Input 04	Input Status Change	On → Off	0:Good (< 1ms)	493	0.021
06/02/2026 09:13:15.003	Input 05	Input Status Change	On → Off	0:Good (< 1ms)	492	0.021
06/02/2026 09:13:14.982	Input 06	Input Status Change	On → Off	0:Good (< 1ms)	491	0.021
06/02/2026 09:13:14.961	Input 07	Input Status Change	On → Off	0:Good (< 1ms)	490	0.022
06/02/2026 09:13:14.939	Input 08	Input Status Change	On → Off	0:Good (< 1ms)	489	0.042
06/02/2026 09:13:14.897	Input 09	Input Status Change	On → Off	0:Good (< 1ms)	488	0.021
06/02/2026 09:13:14.876	Input 10	Input Status Change	On → Off	0:Good (< 1ms)	487	0.021
06/02/2026 09:13:14.855	Input 11	Input Status Change	On → Off	0:Good (< 1ms)	486	0.021
06/02/2026 09:13:14.834	Input 12	Input Status Change	On → Off	0:Good (< 1ms)	485	0.022
06/02/2026 09:13:14.812	Input 13	Input Status Change	On → Off	0:Good (< 1ms)	484	0.021
06/02/2026 09:13:14.791	Input 14	Input Status Change	On → Off	0:Good (< 1ms)	483	0.021
06/02/2026 09:13:14.770	Input 15	Input Status Change	On → Off	0:Good (< 1ms)	482	0.021
06/02/2026 09:13:14.749	Input 16	Input Status Change	On → Off	0:Good (< 1ms)	481	0.043
06/02/2026 09:13:14.705	Input 17	Input Status Change	On → Off	0:Good (< 1ms)	480	0.021
06/02/2026 09:13:14.685	Input 18	Input Status Change	On → Off	0:Good (< 1ms)	479	0.021

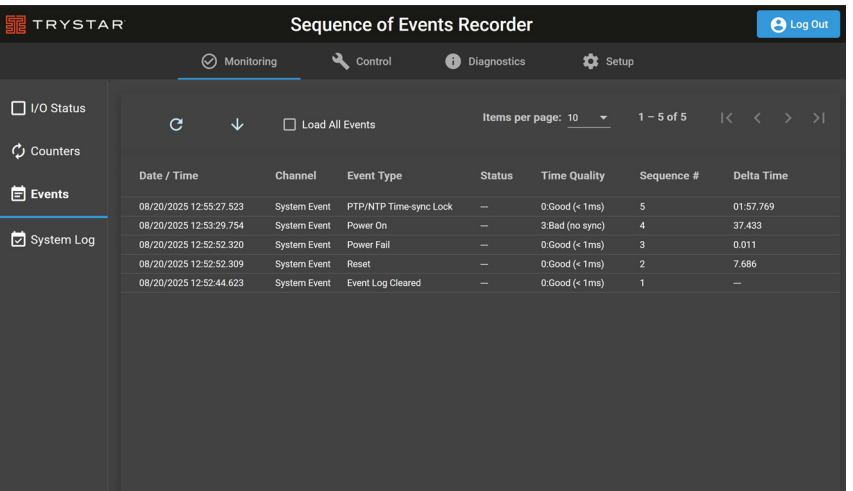
The Export feature only exports the events currently loaded by the web page typically the latest 10 events. To export ALL events, click the Load All Events checkbox, then click Export .

EXPORT EVENTS (SAVE TO CSV FILE)

Click the Export button to export the desired event records. The CSV file is automatically saved to the web browser's default download folder.

The default file name uses the string "SER_Events_" followed by the current timestamp of the computer's operating system, with a .csv extension. For example: SER_Events_[seconds in Unix epoch format].[milliseconds].csv (i.e., SER_Events_1780409845.293.csv).

Note: By default, the Unix epoch is January 1, 1970, at 00:00:00.



Date / Time	Channel	Event Type	Status	Time Quality	Sequence #	Delta Time
08/20/2025 12:55:27.523	System Event	PTP/NTP Time-sync Lock	—	0:Good (< 1ms)	5	01:57.769
08/20/2025 12:53:29.754	System Event	Power On	—	3:Bad (no sync)	4	37.433
08/20/2025 12:52:52.320	System Event	Power Fail	—	0:Good (< 1ms)	3	0.011
08/20/2025 12:52:52.309	System Event	Reset	—	0:Good (< 1ms)	2	7.686
08/20/2025 12:52:44.623	System Event	Event Log Cleared	—	0:Good (< 1ms)	1	—

EXPORTED DATA (CSV)

Open the CSV file in Excel (or other spreadsheet software).

The header row contains: Date, Channel, Event Type, Status, Time Quality, Sequence #, Delta MS, UTC MS.

The Date/Time in browser is named Date in CSV header row. The column called UTC MS shows time in milliseconds from the Unix epoch (January 1, 1970, at 00:00:00).

	A	B	C	D	E	F	G	H
1	Date	Channel	Event Type	Status	Time Quality	Sequence #	Delta MS	UTC MS
2	06/02/2026 09:13	Input 01	Input Status Change	On -> Off	0:Good (< 1ms)	496	21	1780409595087
3	06/02/2026 09:13	Input 02	Input Status Change	On -> Off	0:Good (< 1ms)	495	21	1780409595066
4	06/02/2026 09:13	Input 03	Input Status Change	On -> Off	0:Good (< 1ms)	494	21	1780409595045
5	06/02/2026 09:13	Input 04	Input Status Change	On -> Off	0:Good (< 1ms)	493	21	1780409595024
6	06/02/2026 09:13	Input 05	Input Status Change	On -> Off	0:Good (< 1ms)	492	21	1780409595003
7	06/02/2026 09:13	Input 06	Input Status Change	On -> Off	0:Good (< 1ms)	491	21	1780409594982
8	06/02/2026 09:13	Input 07	Input Status Change	On -> Off	0:Good (< 1ms)	490	22	1780409594961
9	06/02/2026 09:13	Input 08	Input Status Change	On -> Off	0:Good (< 1ms)	489	42	1780409594939
10	06/02/2026 09:13	Input 09	Input Status Change	On -> Off	0:Good (< 1ms)	488	21	1780409594897
11	06/02/2026 09:13	Input 10	Input Status Change	On -> Off	0:Good (< 1ms)	487	21	1780409594876
12	06/02/2026 09:13	Input 11	Input Status Change	On -> Off	0:Good (< 1ms)	486	21	1780409594855
13	06/02/2026 09:13	Input 12	Input Status Change	On -> Off	0:Good (< 1ms)	485	22	1780409594834
14	06/02/2026 09:13	Input 13	Input Status Change	On -> Off	0:Good (< 1ms)	484	21	1780409594812
15	06/02/2026 09:13	Input 14	Input Status Change	On -> Off	0:Good (< 1ms)	483	21	1780409594791
16	06/02/2026 09:13	Input 15	Input Status Change	On -> Off	0:Good (< 1ms)	482	21	1780409594770
17	06/02/2026 09:13	Input 16	Input Status Change	On -> Off	0:Good (< 1ms)	481	43	1780409594749
18	06/02/2026 09:13	Input 17	Input Status Change	On -> Off	0:Good (< 1ms)	480	21	1780409594706
19	06/02/2026 09:13	Input 18	Input Status Change	On -> Off	0:Good (< 1ms)	479	21	1780409594685
20	06/02/2026 09:13	Input 19	Input Status Change	On -> Off	0:Good (< 1ms)	478	21	1780409594664
21	06/02/2026 09:13	Input 20	Input Status Change	On -> Off	0:Good (< 1ms)	477	21	1780409594643
22	06/02/2026 09:13	Input 21	Input Status Change	On -> Off	0:Good (< 1ms)	476	21	1780409594622
23	06/02/2026 09:13	Input 22	Input Status Change	On -> Off	0:Good (< 1ms)	475	21	1780409594601
24	06/02/2026 09:13	Input 23	Input Status Change	On -> Off	0:Good (< 1ms)	474	22	1780409594580
25	06/02/2026 09:13	Input 24	Input Status Change	On -> Off	0:Good (< 1ms)	473	42	1780409594558
26	06/02/2026 09:13	Input 25	Input Status Change	On -> Off	0:Good (< 1ms)	472	42	1780409594516
27	06/02/2026 09:13	Input 27	Input Status Change	On -> Off	0:Good (< 1ms)	471		1780409594474
28	06/02/2026 09:13	Input 26	Input Status Change	On -> Off	0:Good (< 1ms)	470	21	1780409594474
29	06/02/2026 09:13	Input 28	Input Status Change	On -> Off	0:Good (< 1ms)	469	22	1780409594453
30	06/02/2026 09:13	Input 29	Input Status Change	On -> Off	0:Good (< 1ms)	468	21	1780409594431
31	06/02/2026 09:13	Input 31	Input Status Change	On -> Off	0:Good (< 1ms)	467	21	1780409594410
32	06/02/2026 09:13	Input 30	Input Status Change	On -> Off	0:Good (< 1ms)	466	21	1780409594389
33	06/02/2026 09:13	Input 32	Input Status Change	On -> Off	0:Good (< 1ms)	465	43	1780409594368
34	06/02/2026 09:13	Input 33	Input Status Change	On -> Off	0:Good (< 1ms)	464	21	1780409594325
35	06/02/2026 09:13	Input 34	Input Status Change	On -> Off	0:Good (< 1ms)	463	21	1780409594304
36	06/02/2026 09:13	Input 35	Input Status Change	On -> Off	0:Good (< 1ms)	462	21	1780409594283
37	06/02/2026 09:13	Input 36	Input Status Change	On -> Off	0:Good (< 1ms)	461	21	1780409594262
38	06/02/2026 09:13	Input 37	Input Status Change	On -> Off	0:Good (< 1ms)	460	22	1780409594241
39	06/02/2026 09:13	Input 38	Input Status Change	On -> Off	0:Good (< 1ms)	459	22	1780409594219

The data for channel names and on/off descriptive text reflect any customization by the user. Because CSV does not store data formatting, the correct date/time format must be applied to the time stamp values for proper display.

FORMAT DATE/TIME FOR MS

Click the top of the Date column to highlight all cells. The column width can be increased, depending on your default font type and size.

Right-click to open a context-sensitive menu and click Format Cells to open the dialog box. Then click Date for the Category and select a date/time format with both date and time fields.

Click the Category called Custom to further refine the date/time format. Specify fields for hours, minutes, seconds and ms.

Leading zeros for months and days, and 4-digit years can be specified if desired. Finally, click OK to apply the format.

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3	06/02/2026 09:13	Input 02	Input Status Change	On --> Off	0:Good (< 1ms)	495	21	1780409595066
4	06/02/2026 09:13	Input 03	Input Status Change	On --> Off	0:Good (< 1ms)	494	21	1780409595045
5	06/02/2026 09:13	Input 04	Input Status Change	On --> Off	0:Good (< 1ms)	493	21	1780409595024
6	06/02/2026 09:13	Input 05	Input Status Change	On --> Off	0:Good (< 1ms)	492	21	1780409595003
7	06/02/2026 09:13	Input 06	Input Status Change	On --> Off	0:Good (< 1ms)	491	21	1780409594982
8	06/02/2026 09:13	Input 07	Input Status Change	On --> Off	0:Good (< 1ms)	490	22	1780409594961
9	06/02/2026 09:13	Input 08	Input Status Change	On --> Off	0:Good (< 1ms)	489	42	1780409594939
10	06/02/2026 09:13	Input 09	Input Status Change	On --> Off	0:Good (< 1ms)	488	21	1780409594897
11	06/02/2026 09:13	Input 10	Input Status Change	On --> Off	0:Good (< 1ms)	487	21	1780409594876
12	06/02/2026 09:13	Input 11	Input Status Change	On --> Off	0:Good (< 1ms)	486	21	1780409594855
13	06/02/2026 09:13	Input 12	Input Status Change	On --> Off	0:Good (< 1ms)	485	22	1780409594834
14	06/02/2026 09:13	Input 13	Input Status Change	On --> Off	0:Good (< 1ms)	484	21	1780409594812
15	06/02/2026 09:13	Input 14	Input Status Change	On --> Off	0:Good (< 1ms)	483	21	1780409594791
16	06/02/2026 09:13	Input 15	Input Status Change	On --> Off	0:Good (< 1ms)	482	21	1780409594770
17	06/02/2026 09:13	Input 16	Input Status Change	On --> Off	0:Good (< 1ms)	481	43	1780409594749
18	06/02/2026 09:13	Input 17	Input Status Change	On --> Off	0:Good (< 1ms)	480	21	1780409594706
19	06/02/2026 09:13	Input 18	Input Status Change	On --> Off	0:Good (< 1ms)	479	21	1780409594685
20	06/02/2026 09:13	Input 19	Input Status Change	On --> Off	0:Good (< 1ms)	478	21	1780409594664
21	06/02/2026 09:13	Input 20	Input Status Change	On --> Off	0:Good (< 1ms)	477	21	1780409594643
22	06/02/2026 09:13	Input 21	Input Status Change	On --> Off	0:Good (< 1ms)	476	21	1780409594622
23	06/02/2026 09:13	Input 22	Input Status Change	On --> Off	0:Good (< 1ms)	475	21	1780409594601
24	06/02/2026 09:13	Input 23	Input Status Change	On --> Off	0:Good (< 1ms)	474	22	1780409594580
25	06/02/2026 09:13	Input 24	Input Status Change	On --> Off	0:Good (< 1ms)	473	42	1780409594558
26	06/02/2026 09:13	Input 25	Input Status Change	On --> Off	0:Good (< 1ms)	472	42	1780409594516
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28	06/02/2026 09:13	Input 26	Input Status Change	On --> Off	0:Good (< 1ms)	470	21	1780409594474
29	06/02/2026 09:13	Input 28	Input Status Change	On --> Off	0:Good (< 1ms)	469	22	1780409594453
30	06/02/2026 09:13	Input 29	Input Status Change	On --> Off	0:Good (< 1ms)	468	21	1780409594431

FORMATTED DATA IN EXCEL

Note: Refer to SER-32e Instruction Manual for additional information on display screen and web client.

The final data is ready for analysis. A column can be added to calculate the elapsed time between events, sort by channel name, filter system events, etc.

Columns can be added as desired, allowing files from multiple units to be combined and compared.

