



CyTime™ Event Manager

Event Management for Critical Power Applications

CYBER SCIENCES™

Why Sequence of Events Recording?

- For meaningful data analysis, devices must share a common (precise) time reference
- More data points captured during an electrical event provides a clearer picture of what happened allowing for better decisions
- Millisecond time stamped data allows easier verification of automatic transfer schemes and other control systems

Know what happened and when—to 1 msec!



Understand—Forensics tool

- Perform root-cause analysis based on reliable data.
- View current and voltage waveforms captured with each event.
- Determine if the initial source was internal or external.



Respond—Act quickly

- Evaluate control sequences, timing, and operator actions.
- Confirm protective device time-current coordination.
- Restore service quickly if an outage does occur.



Prevent—Take corrective actions

- Resolve or mitigate persistent problems.
- Provide documentation for the electric utility, legal, insurance, etc.
- Identify slow breakers before they can cause an arc flash hazard.

Sequence of Events Recording's needed where reliable power is important:



Data centers



Hospitals



Industrial facilities



Universities



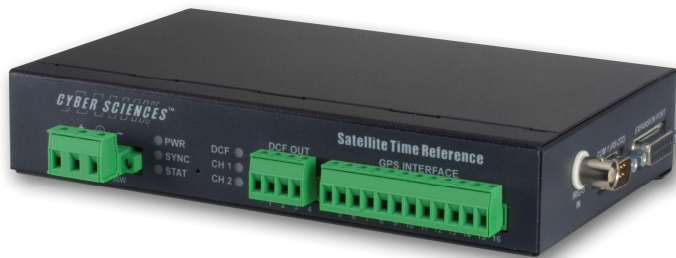
Airports



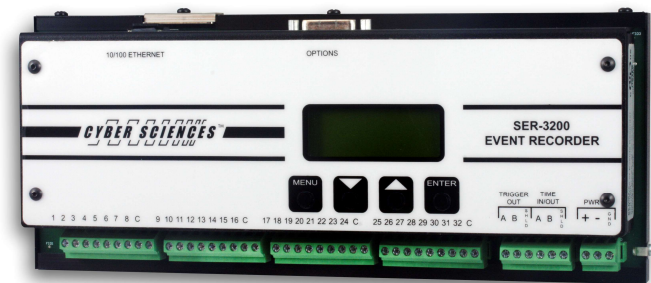
Microgrids & alternative energy

Sequence of Events Recording

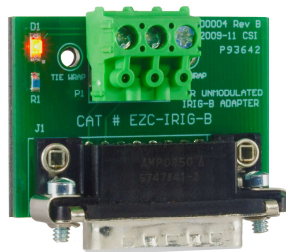
Cyber Sciences has provided sequence of events recording solutions for over 10 years!



STR-100/ STR-100-IRIG-B



SER-3200/2408



EZC- IRIG-B/DCF-77



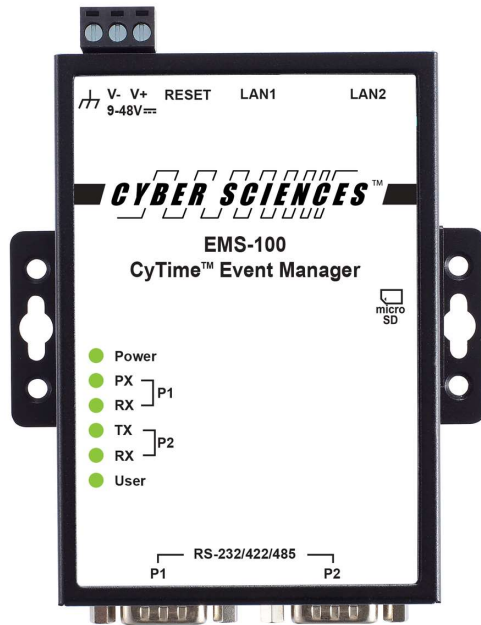
PLX-5V/24V



STR-IDM

INTRODUCING THE CYTIME EVENT MANAGER

The CyTime™ Event Manager



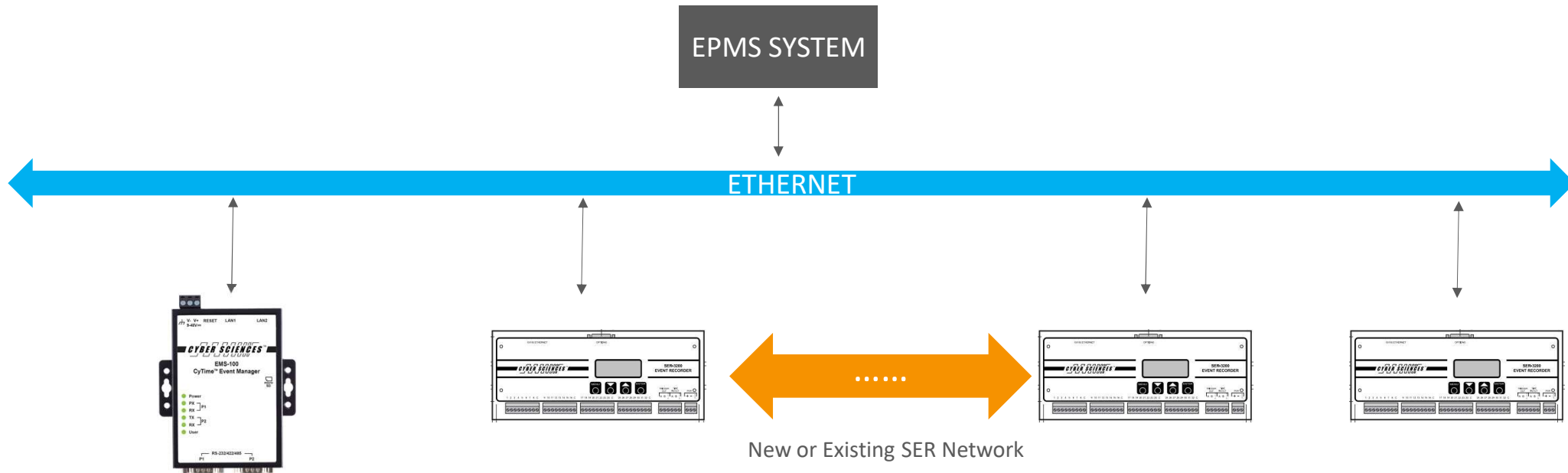
The CyTime™ Event Manager provides the ability to view and monitor input/output (I/O) status from multiple Sequence of Event Recorders (SERs) in one easy to read web interface.

This intuitive, simple to use tool lets users take better advantage of precision time recordings of status changes in electrical equipment. Where critical power applications are concerned, the Event Manager helps easily identify I/O status and speed up troubleshooting efforts when an event has occurred.

The Event Manager is valuable in identifying power loss events quicker, saving time and money for power restoration in critical power applications.

CyTime™ Event Manager

Providing *System* capability for Sequence of Events Recording



CyTime Event Manager

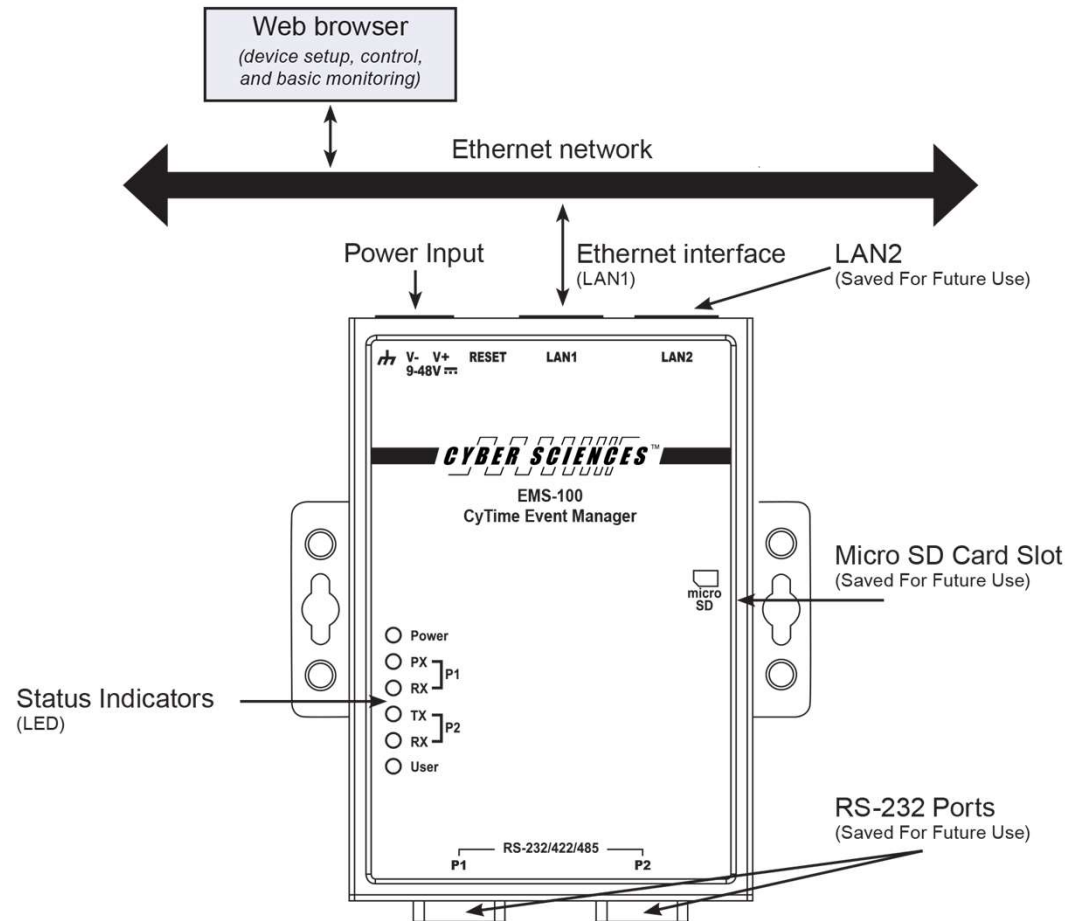
- Connects to all downstream SERs
- Presents unified view of SER system data
- Quickly view SER Network System Health
- View all input status changes from all SERs in sequence for a single event

CyTime™ Event Manager: Features & Benefits

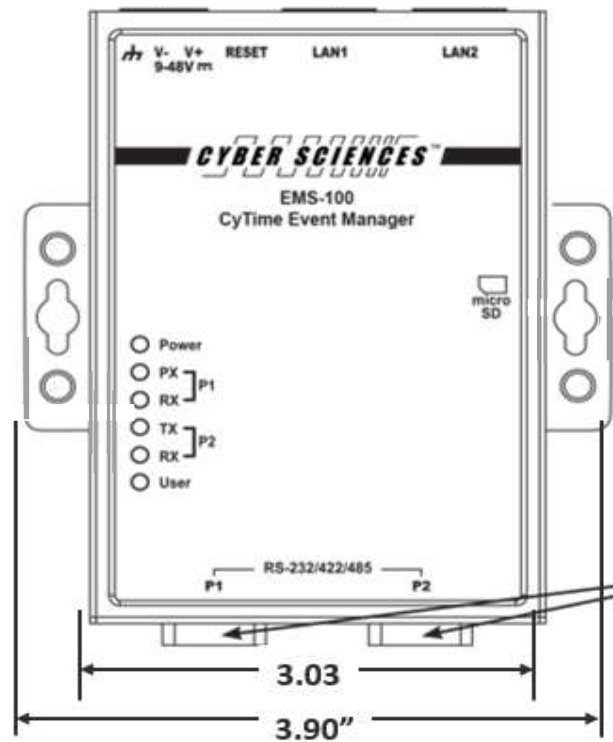
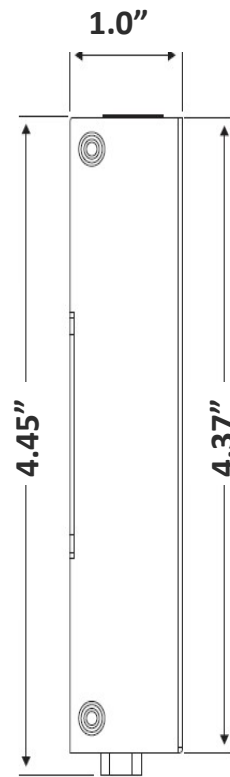


- **Monitor numerous SERs from one browser:** View SERs on a system level with an easy to view and understand User Interface
- **Quick analysis of SERs:** Quick overview of SER status with easy to identify colored status indicators
- **Event Log Screen:** View at once, the event log from all connected devices on the network. The event log contains items: Date / Time, Device Name, IP Address, Channel, Event Type, Status, Time Quality, Sequence of Events, Delta Time
- **I/O Status Screen:** Instantly view all I/O status ON/OFF indicators down to each circuit per each SER located on the system
- **Diagnostic Screen:** Quickly ascertain diagnostics on each individual system device. The Diagnostic screen shows: Device Name, IP, Catalog Number (SKU), HW, FW, Time Source Setup, Time Source Actual, Time Quality, PTP State, PTP Key
- **DIN Rail Mounted:** Easy to install DIN rail mounted device, with simple connection to the system network via ethernet cable
- **Easy installation and setup:** Setup is simple and straightforward. With access from a standard web browser and simple to use set up tools, you'll be up and running quickly

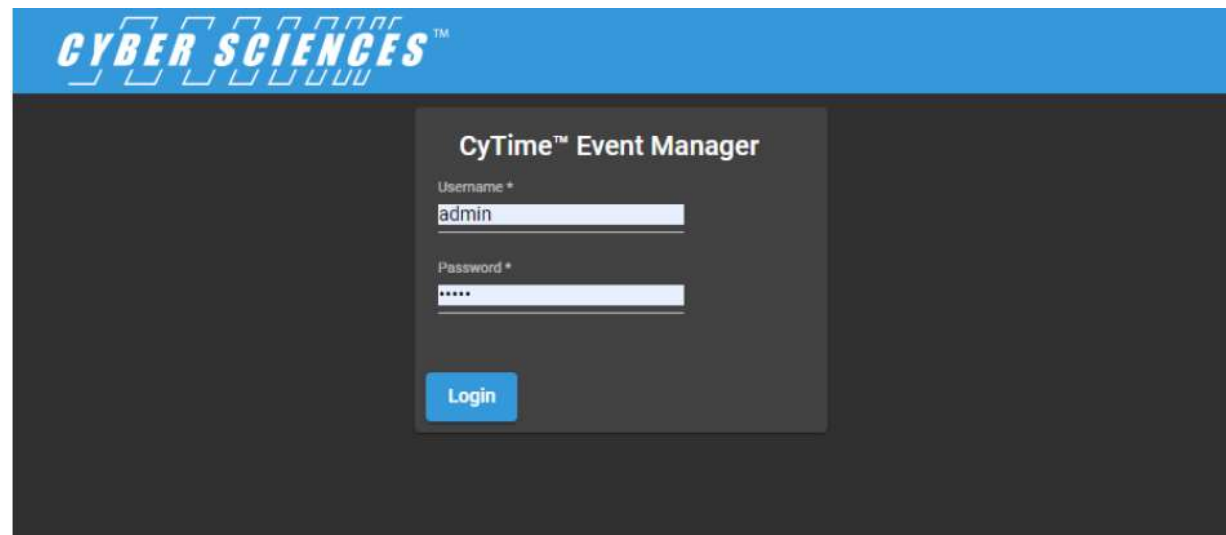
CyTime™ Event Manager Connections



CyTime™ Event Manager Dimensions



Setup and monitor using a
standard web browser



The screenshot shows the login interface for the CyTime Event Manager. At the top, there is a blue header with the "CYBER SCIENCES™" logo. Below the header, the main content area is dark gray. In the center, there is a white box containing the title "CyTime™ Event Manager". Below the title, there are two input fields: "Username *" with the text "admin" and "Password *" with masked characters "*****". A blue "Login" button is positioned below the password field.

CYBER SCIENCES™

CyTime™ Event Manager

Username *
admin

Password *

Login

Setup :Network

Setup the Event Manager via the embedded web page

CYBER SCIENCES™ CyTime™ Event Manager Log Out

[System](#) [Events](#) [I/O Status](#) [Diagnostics](#) **[Setup](#)**

Network

Time

Auto Discover

Devices

Message Log

Admin

MAC Address: 00:90:e8:72:b7:55

☐ DHCP Enabled

IPv4 Settings

192 · 168 · 1 · 50

IP Address

255 · 255 · 255 · 0

Subnet Mask

192 · 168 · 1 · 1

Default Gateway

IPv4 DNS Settings

192 · 168 · 1 · 1

DNS1 Address

0 · 0 · 0 · 0

DNS2 Address

[Defaults](#) [Apply](#)

Setup :Time

Configure the time settings for the Event Manager including time zone, clock source and DST

The screenshot shows the 'Setup' page for the 'CyTime Event Manager' by 'CYBER SCIENCES'. The left sidebar contains navigation links: Network, Time (selected), Auto Discover, Devices, Message Log, and System. The main content area is titled 'Server Time: 06/07/2019 09:27:12 (-0600) (DST)'. It includes three sections: 'Select time zone and date format' with dropdowns for 'UTC-06:00' and 'MM/DD/YYYY'; 'Select time sync option' with radio buttons for 'NTP Time' (selected) and 'Manual', and fields for NTP servers ('www.nist.gov' and 'time-b.nist.gov'), update interval ('1 hour'), and a 'Sync with PC Clock' checkbox; and 'Select Daylight Savings Time' with a checked 'DST Enabled' checkbox and dropdowns for start/stop dates and times. At the bottom are 'Defaults' and 'Apply' buttons.

CYBER SCIENCES™ CyTime™ Event Manager Log Out

System Events I/O Status Diagnostics **Setup**

Network
Time
Auto Discover
Devices
Message Log
System

Server Time: **06/07/2019 09:27:12 (-0600) (DST)**

Select time zone and date format

UTC-06:00 MM/DD/YYYY
Select Time Zone Select Date Format

Select time sync option

☒ NTP Time

www.nist.gov time-b.nist.gov
Primary NTP Server Secondary NTP Server

1 hour
Select NTP update interval Last updated time

☐ Manual

05/31/2019 12:44:20 PM ☐ Sync with PC Clock

Select Daylight Savings Time

☒ DST Enabled Start: Mar 2nd Sun 02:00
Stop: Nov 1st Sun 01:00

Defaults Apply

Setup : Auto Discover

The screenshot shows the 'Device Auto Discovery Setup' page in the Cyber Sciences CyTime Event Manager. The interface includes a top navigation bar with 'System', 'Events', 'I/O Status', 'Diagnostics', and 'Setup' (selected). A left sidebar contains 'Network', 'Time', 'Auto Discover' (selected), 'Devices', 'Message Log', and 'System'. The main content area has a 'Device Auto Discovery Setup' section with input fields for 'Enter Start Route *' (192 · 168 · 2 · 1) and 'Enter Stop Route *' (192 · 168 · 2 · 255), each with a 'Start IP Address' and 'Stop IP Address' label. An 'Add Route To List' button is present. Below is an 'Auto Discover Routes' table with columns 'Start IP', 'Stop IP', and 'Status'.

Start IP	Stop IP	Status
----------	---------	--------

Add downstream SERs by auto discovering them via a range of IP addresses

Setup : Devices

The screenshot shows the 'CyTime™ Event Manager' interface. The top navigation bar includes 'System', 'Events', 'I/O Status', 'Diagnostics', and 'Setup' (which is highlighted). A 'Log Out' button is in the top right. The left sidebar contains links for 'Network', 'Time', 'Auto Discover', 'Devices' (highlighted), 'Message Log', and 'System'. The main content area is titled 'Device Setup' and contains four buttons: '+ Add Device', '- Delete Device', 'Refresh List', and 'Import'. Below these buttons, it states 'Selected devices: 0, Total devices: 1'. A 'Device List' section shows a single entry: a checkbox followed by '192.168.1.99 (CyTime Event Recorder)'.

CYBER SCIENCES™ CyTime™ Event Manager Log Out

System Events I/O Status Diagnostics **Setup**

Network Time Auto Discover **Devices** Message Log System

Device Setup

+ Add Device - Delete Device Refresh List Import

Selected devices: 0, Total devices: 1

Device List

☐ 192.168.1.99 (CyTime Event Recorder)

Add downstream SERs by manually entering them or uploading a csv file

Setup : Message Log

The screenshot shows the 'Setup : Message Log' page in the CyTime Event Manager. The interface has a blue header with the 'CYBER SCIENCES' logo and 'CyTime™ Event Manager' text. A navigation bar below the header includes links for System, Events, I/O Status, Diagnostics, and Setup (which is highlighted). A left sidebar contains icons for Network, Time, Auto Discover, Devices, Message Log (highlighted), and System. The main content area displays a table of log entries. At the top of the table area, there are icons for menu, refresh, and sort, along with 'Items per page: 100' and '1 - 100 of 212'. The table has columns for ID, Date / Time, Source, Category, and Message. The visible entries are as follows:

ID	Date / Time	Source	Category	Message
212	06/07/2019 09:26:28	Event Data	I	Retrieved 1 event(s) for device (CyTime SER)(CyTime Event Recorder)(192.168.1.99)(1), last sequence=662.
211	06/07/2019 09:01:38	Discovery	I	Added 0 new devices.
210	06/07/2019 08:26:29	Event Data	I	Retrieved 1 event(s) for device (CyTime SER)(CyTime Event Recorder)(192.168.1.99)(1), last sequence=661.
209	06/07/2019 07:26:28	Event Data	I	Retrieved 1 event(s) for device (CyTime SER)(CyTime Event Recorder)(192.168.1.99)(1), last sequence=660.
208	06/07/2019 06:26:29	Event Data	I	Retrieved 1 event(s) for device (CyTime SER)(CyTime Event Recorder)(192.168.1.99)(1), last sequence=659.

View or export the Event Manager's log of task performed.

Setup :Admin

Access Event Manager system information, change authentication, upgrade license or export information through the Admin Page

The screenshot displays the 'CyTime™ Event Manager' web interface. The top navigation bar includes a 'Log Out' button. Below it, a secondary navigation bar shows 'System', 'Events', 'I/O Status', 'Diagnostics', and 'Setup' (which is currently selected). A left sidebar contains icons for 'Network', 'Time', 'Auto Discover', 'Devices', 'Message Log', and 'Admin' (which is highlighted). The main content area is divided into several sections: 'System Information' with 'Storage' and 'Version' buttons; 'Authentication' with a form for 'admin' (including fields for 'Enter New User Name' and 'Enter New Password') and 'Defaults'/'Apply' buttons; 'Licensing' showing 'Device Limit: Unlimited' and a form for 'Enter key' (with a 'Product License Key' label) and an 'Apply' button; 'Export Actions' with buttons for 'Export Events', 'Export Logs', 'Export System Setup', and 'Export Database'; and 'System Actions' with buttons for 'Reboot', 'Upgrade', and 'Restore Factory Settings'.

CYBER SCIENCES™ CyTime™ Event Manager Log Out

System Events I/O Status Diagnostics **Setup**

Network
Time
Auto Discover
Devices
Message Log
Admin

System Information:

Storage Version

Authentication:

admin
Enter New User Name Enter New Password

Defaults Apply

Licensing:

Device Limit: Unlimited

Enter key Product License Key Apply

Export Actions:

Export Events Export Logs Export System Setup Export Database

System Actions:

Reboot Upgrade Restore Factory Settings

System Status

CYBER SCIENCES™ CyTime™ Event Manager

Log Out

System

Events

I/O Status

Diagnostics

Setup

System Status: ✓ System Normal

↻ ☐ Auto Refresh

CyTime Event Recorder@41
192.168.2.41

CyTime Event Recorder
192.168.2.43

CyTime Event Recorder
192.168.2.43

Spam Events
192.168.2.47

Cowboy Bill
192.168.2.48

Event Gen
192.168.2.49

Error

Warning

Normal

Event Today

Event Hour

See all downstream SERs in a single view!

System Status

The screenshot shows a dashboard with a top navigation bar containing icons for System, Events, I/O Status, Diagnostics, and Setup. Below the navigation bar, the 'System Status' section displays a green checkmark and the text 'System Normal', along with an 'Auto Refresh' toggle. A row of six device cards follows, each showing a device name and IP address. A callout box points to the first card, 'CyTime Event Recorder@41 192.168.2.41', and provides a detailed view of its components with labels: 'Device Name' points to the device name, 'Device IP Address' points to the IP address, 'Last Comms' points to a clock icon, 'Last Event' points to a calendar icon, 'I/O Status' points to a square icon, and 'Device Diagnostics' points to a gear icon. Below the device cards, a row of status buttons is visible: Error (red), Warning (yellow), Normal (green), Event Today (green), and Event Hour (green).

System Status: ✓ System Normal Auto Refresh

Device Name: CyTime Event Recorder@41
Device IP Address: 192.168.2.41

Last Comms
Last Event
I/O Status
Device Diagnostics

Error Warning Normal Event Today Event Hour

Get Summary Status Information for each SER

Events

Sort Events by
Column Header

Export Data in
Current View

Filter Events to
Customize View

Set Items Per Page

Easily Navigate
through pages

Manually Refresh
Page

The screenshot displays the 'CyTime™ Event Manager' web interface. At the top, there's a navigation bar with tabs for 'System', 'Events', 'I/O Status', 'Diagnostics', and 'Setup'. The 'Events' tab is active. Below the navigation bar, there's a toolbar with icons for filtering, refreshing, and exporting. The main area shows a table of events. Annotations with arrows point to specific features: 'Sort Events by Column Header' points to the 'Date / Time' column header; 'Export Data in Current View' points to the export icon; 'Filter Events to Customize View' points to the filter icon; 'Set Items Per Page' points to the 'Items per page' dropdown; 'Easily Navigate through pages' points to the pagination controls; and 'Manually Refresh Page' points to the refresh icon.

Date / Time ↓	Device Name	IP Address	Channel	Event Type	Status	Time Quality	Sequence #	Delta Time
06/05/2019 10:25:07.000	CyTime Event Recorder	192.168.1.99	System Event	DST Start/End Change	—	3:Bad (no sync)	612	0.000
06/05/2019 10:25:04.716	CyTime Event Recorder	192.168.1.99	System Event	Setup Changed	—	3:Bad (no sync)	608	2.254
06/05/2019 09:06:02.089	CyTime Event Recorder	192.168.1.99	System Event	Setup Changed	—	3:Bad (no sync)	606	0.000
06/05/2019 09:06:01.000	CyTime Event Recorder	192.168.1.99	System Event	Manual Time Set	—	3:Bad (no sync)	605	46.929

Events –Customizable View

Filter the Events Page by:

- Date Range
- Device
- Event Type
- Event Status
- Time Quality

The screenshot displays the 'Events Manager' interface. A dark overlay titled 'Events Filter Settings:' is positioned on the left, allowing users to filter events by date range, device, event type, status, and time quality. The main panel shows a table of events with columns for Address, Channel, Event Type, Status, Time Quality, Sequence #, and Delta Time. The table lists several 'System Event' entries, including 'DST Start/End Change', 'Setup Changed', and 'Hourly Test Event', all with a status of '—' and a time quality of '3:Bad (no sync)'.

Events Filter Settings:
Choose a begin date
Choose an end date
Select Device ☐ By IP
Select Event Type
Select Status
Select Time Quality
Defaults Apply

Events Manager Log Out

Events I/O Status Diagnostics Setup

Items per page: 100 1 - 100 of 1852

Address	Channel	Event Type	Status	Time Quality	Sequence #	Delta Time
199	System Event	DST Start/End Change	—	3:Bad (no sync)	612	0.000
199	System Event	Setup Changed	—	3:Bad (no sync)	608	2.254
199	System Event	Setup Changed	—	3:Bad (no sync)	608	0.000
199	System Event	Hourly Test Event	—	3:Bad (no sync)	607	25:04.861
199	System Event	Hourly Test Event	—	3:Bad (no sync)	607	0.000
199	System Event	Setup Changed	—	3:Bad (no sync)	606	53:17.795
199	System Event	Setup Changed	—	3:Bad (no sync)	606	0.000
199	System Event	Setup Changed	—	3:Bad (no sync)	606	0.000
199	System Event	Manual Time Set	—	3:Bad (no sync)	605	46.929

I/O Status

CYBER SCIENCES™ CyTime™ Event Manager

Log Out

System Events I/O Status Diagnostics Setup

Items per page: 100 1 - 1 of 1

☐ = Off ☒ = On ☒ = Inverted ☒ = Forced

Device Name	IP	Model	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25 :R1:	26 :R2:	27 :R3:	28 :R4:	29 :R5:	30 :R6:	31 :R7:	32 :R8:
Cy Time Event Recorder	192.68.1.99	3200	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Cy Time Event Recorder	192.68.1.98	3200	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Cy Time Event Recorder	192.68.1.97	2408	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

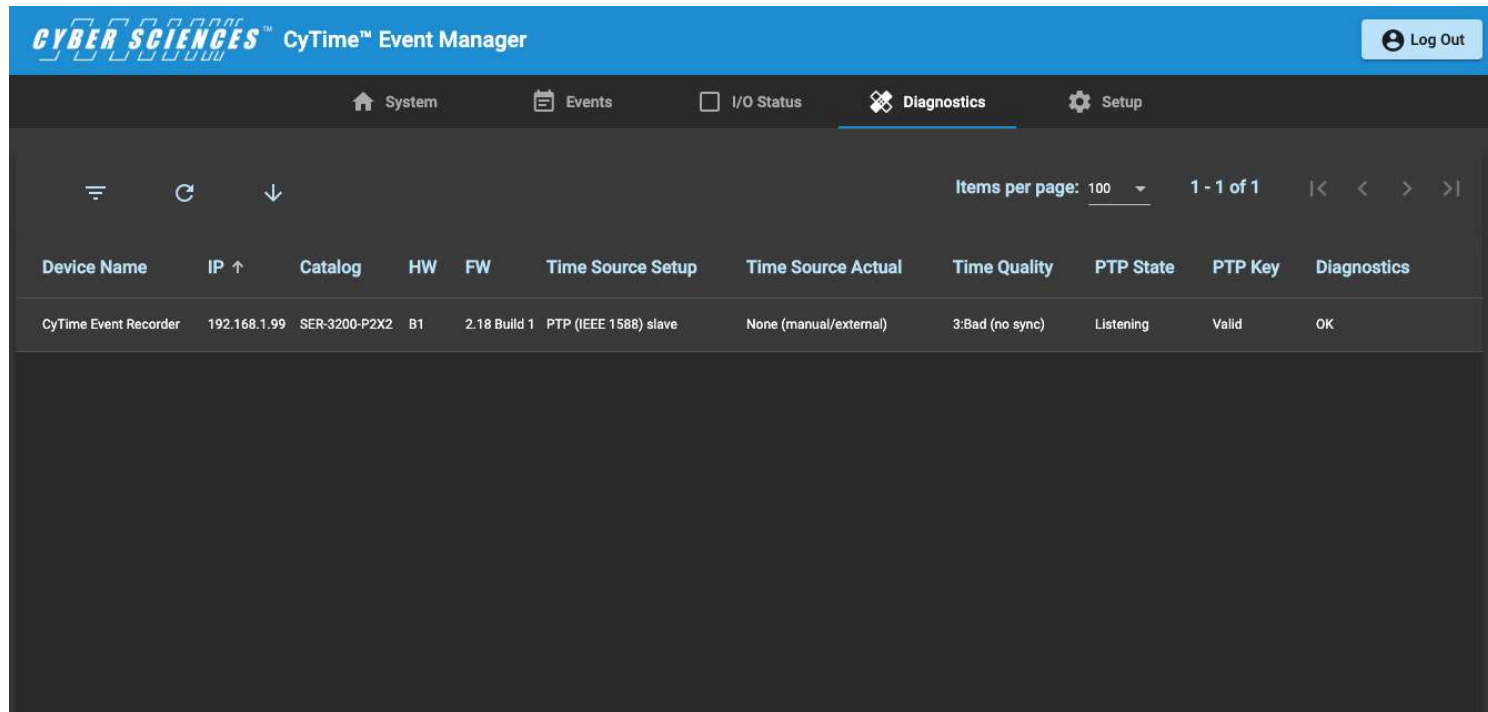
Filter I/O page to customize view

Export I/O status to csv file

Determine the status of each I/O per SER

SER-2408 ONLY:
Output relays are distinguished by a dotted outline

Diagnostics



CYBER SCIENCES™ CyTime™ Event Manager Log Out

System Events I/O Status **Diagnostics** Setup

Items per page: 100 1 - 1 of 1

Device Name	IP ↑	Catalog	HW	FW	Time Source Setup	Time Source Actual	Time Quality	PTP State	PTP Key	Diagnostics
CyTime Event Recorder	192.168.1.99	SER-3200-P2X2	B1	2.18 Build 1	PTP (IEEE 1588) slave	None (manual/external)	3:Bad (no sync)	Listening	Valid	OK

View the Diagnostics information from all downstream SERs or create a customized view using the filtering tool.

Precision Timing for Reliable Power. Simplified

CYBER SCIENCES™