

# High-Speed Data Acquisition Unit SL1000

Acquisition Software V2.10

SL1000 is an excellent replacement for legacy pen and data recorder applications.

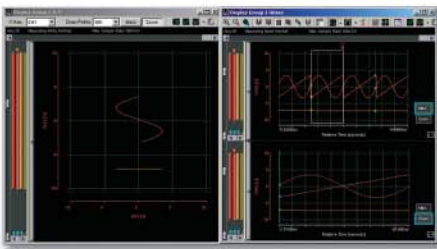
Recording is simplified by intuitive, home video like, features to START and STOP recording. In addition, you can also START/STOP based on conditions like alarms. The built-in HDD can record up to 28 days of data (8-ch @ 1KS/s) equivalent to eight pen recorder.

**Enhanced software interface,  
Easy operation,  
Longer Recording Times,  
SL1000 supports all these demands.**



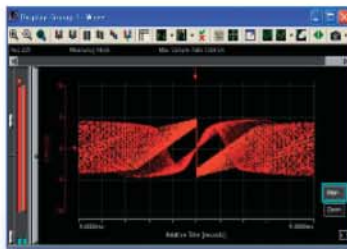
### ■ Displaying X-Y Waveforms

You can view both T-Y waveform Display and X-Y waveform Display. Using its fast update feature you can evaluate data quickly and easily.



### ■ Accumulating Waveforms

Using the accumulation feature you easily view unevenness of repetitive data.



### ■ Setting Marks

You can enter comments in the Mark area when monitoring over long periods of time (Free run mode).

Comment	Starts	Relative Time
Mark1	169069	00:00:01.89019
Mark2	169069	00:00:01.89069
Mark3	361422	00:00:03.81422
Mark4	361549	00:00:03.81549
Mark5	367031	00:00:03.87031

File utility

Cursor

X-Y Display

The main screenshot shows the software interface with several callout boxes:

- File utility**: Points to the 'Utility' menu in the top toolbar.
- Cursor**: Points to the 'Cursor' button in the top toolbar.
- X-Y Display**: Points to the X-Y waveform display area on the left side of the main window.
- Setting Marks (setting/display area)**: Points to the 'Mark' buttons in the top toolbar.
- Accumulating Waveforms and Displaying Snapshots**: Points to the 'Accumulate' and 'Snapshot' buttons in the top toolbar.
- Cursor, measure value**: Points to the 'Measure' button in the top toolbar.
- Auto Play**: Points to the 'Auto Play' control panel on the right side of the main window.
- Driving information**: Points to the 'Information' panel at the bottom of the main window.

### Display of Waveform

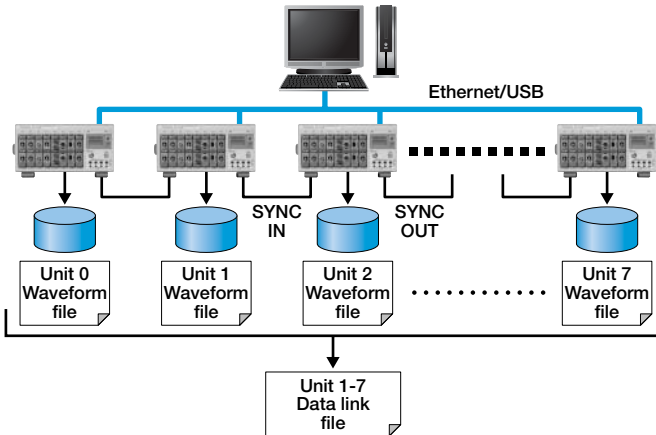
# High-Speed Data Acquisition Unit SL1000

## Ver 2.10 meets the demands of high channel count and easy data operation.

### ■ Max 128ch Synchronized (16ch x 8 units)

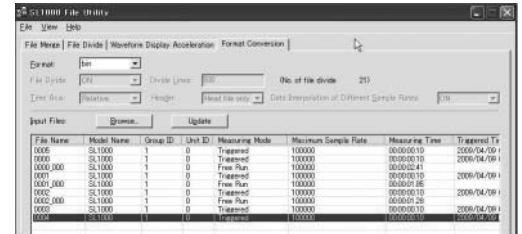
Data files recorded by multiple units, in synchronized mode, are all inked together by a common LINK file, thereby facilitating batch processing.

Using this LINK file, data from all units can be processed and analyzed, as one, at the same time.



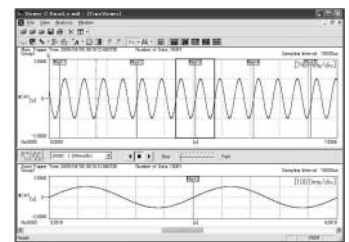
### ■ File convert

The File Utility tool allows you to save data in either ASCII or binary formats. This facilitates loading data in other analysis program, like MatLAB etc.



### ■ Xviewer (Ver.1.44)

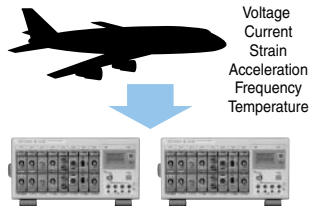
New version of Xviewer supports displaying many channels and marker display.



### ■ Application examples

#### Evaluation and Testing of commercial transportation

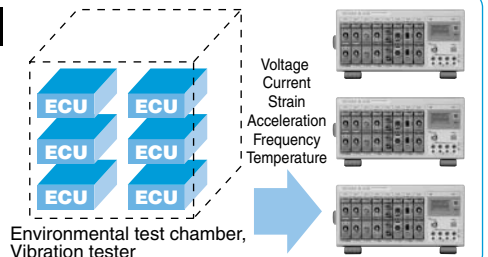
Testing commercial transportation equipment like Trains, Planes, Elevators etc. demand high reliability and accuracy from the measuring devices. The SL1000 can measure a wide variety of signals over long periods of time.



Voltage  
Current  
Strain  
Acceleration  
Frequency  
Temperature

#### Environment test of ECU

Testing of ECUs is performed under harsh environments, and demands high reliability. Using Synchronized operation mode several SL1000s can measure different ECUs at high-speeds over long periods of time.



Environmental test chamber, Vibration tester

### Specifications (Acquisition Software)

#### Display Functions

- Accumulation display: Accumulates T-Y and X-Y waveforms
- Snapshot: Waveform that is currently being displayed can be retained on the screen. As a snapshot waveform. Display color setting and snapshot waveform deletion
- X-Y Display: X-axis channel settings, selection of main or zoomed waveform (in Triggered mode), and selection of the number of data points to draw (2K, 10K, 100K)
- Mark display (Free run mode): Setting of marks (up to 128 marks, each mark can display up to 16 characters), display color setting, mark editing, deletion of marks, mark list, collectively saving mark data with the same file name as the waveform data, and loading mark data into Xviewer.
- File format: Converts waveform data files (.wdf extension) to ASCII (.csv extension) or binary (.bin extension) files

#### Recommended PC System

- OS: Windows XP (Service Pack 2 or higher), or Windows Vista
- CPU: Pentium 4, 1 GHz or better
- Memory: At least 1 GB
- Hard Disk: At least 500 MB of free space (at least 40 GB recommended when using the auto recording function)
- Communication Interface: USB2.0, Ethernet 1000BASE-T (If the /C10 option is installed in the SL1000)
- Other: CD-ROM Drive, CRT (XGA or better, Color: 65536 colors or better) and Mouse

### Specifications (Unit)

#### Synchronous Operation

- Synchronized items: Measurement and recording start and stop, internal sampling clock, external sampling clock, time, trigger, and alarm
- Maximum connections: 8 Unit (Synchronization connection cable (720901) is necessary.)
- Maximum sync cable length: 10 m or less total
- Sampling error between units:
  - Triggered mode: Max.  $\pm 10$  ns or one sampling clock, whichever is longer
  - Free run mode: Max.  $\pm 20$  ns or one sampling clock, whichever is longer

#### Accessories

Product	Model No.	Discription
Synchronized connection cable	720901-01	For SL1000(1m)
	720901-02	For SL1000(3m)
Ruck mounting kit	751541-E4	EIA
	751541-J4	JIS

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Printed in Japan, 909(KP)