Sanlien Technology

SanDAS

Sanlien Data Acquisition System

DATA ACQUISITION

SIGNAL ANALYSIS

SanDAS is an innovative cross-platform application designed to elevate data acquisition and management in the fields of civil and earthquake engineering. Built to streamline the entire data lifecycle, SanDAS ensures seamless integration with Sanlien' s range of vibrating sensor products, making instrument configuration, data collection, and analysis faster and more intuitive.

With a user-friendly interface, SanDAS supports both real-time and offline data operations, empowering engineers to gather precise seismic and structural health data with ease. The system integrates advanced algorithms tailored for civil engineering applications, enabling users to not only capture raw data but also generate insightful, actionable analysis critical for seismic monitoring and structural assessments.

SanDAS excels in supporting networking across Sanlien dataloggers, with capabilities for remote communication via TCP/IP, facilitating flexible and long-distance data access. It is compatible with both current and previous versions of Sanlien dataloggers, making it a versatile tool for diverse project needs. Additionally, the platform' s cross-compatibility with Windows, MAC and Linux ensures smooth collaboration among teams, regardless of their operating environment.

Whether for preliminary seismic analysis or long-term structural health monitoring, SanDAS is designed to optimize data-driven decision-making, providing engineers and researchers with the tools they need to enhance the resilience of infrastructure.

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Cross-Platform Compatibility

Available for Windows, MAC and Linux

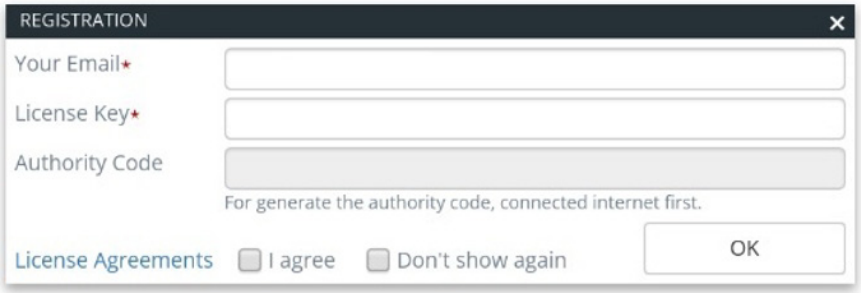
System Requirements

- **Operating System :**
  Windows: Windows 10 or later
  Mac: OS X El Capitan (10.11.6) or later
  Linux: CentOS 8 or later
- **CPU :**
  2.5 GHz or faster processor
  (Quad-core or higher recommended)
- **Memory :**
  Minimum of 8 GB RAM recommended
- **Storage :**
  10 GB SSD recommended

User-Friendly Installation

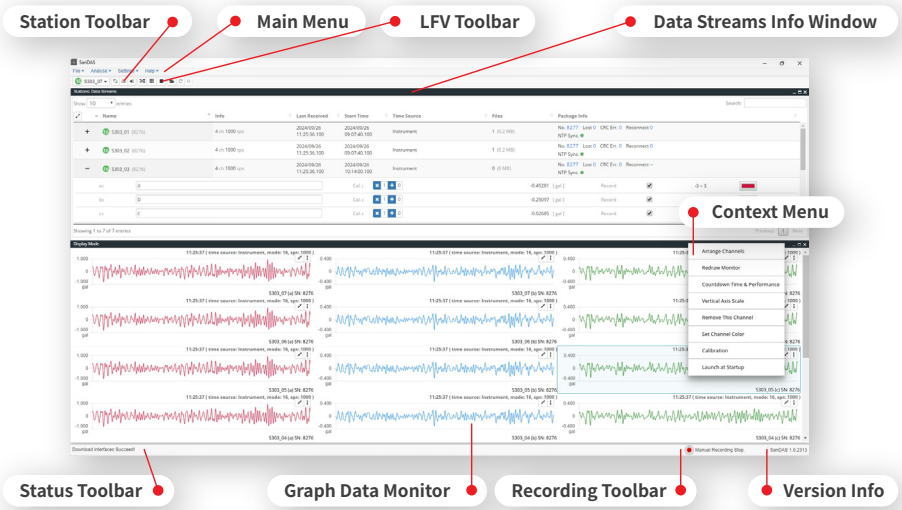
Easy setup process with a provided zip file, license key, and tutorial video upon purchase.

Our product features an intuitive installation process designed for ease of use. Users receive a comprehensive zip file containing the software and all necessary dependencies. A unique license key is provided for quick activation. Additionally, a tutorial video guides users through each installation step, from extracting the zip file to running the software.



Comprehensive Guide to Our Real-Time Monitoring Screen Tool

Explore our powerful monitoring screen tool, designed to provide a clear and organized real-time view of essential data. The main window serves as your centralized hub, featuring intuitive components and key functionalities that enhance your overall monitoring experience.

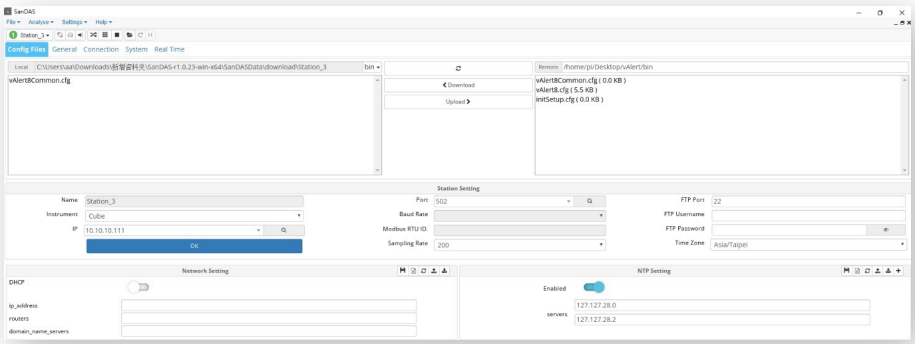


Instrument Configuration

Effortlessly configure instruments through the intuitive interface, allowing for real-time adjustments and settings management.

One of the standout features of our monitoring tool is its Instrument Configuration capability, providing users with exceptional control and flexibility. The intuitive interface simplifies the setup process, allowing for quick adjustments to sensitivity levels and data acquisition rates. Real-time adjustments ensure changes are instantly reflected in the monitoring data, enhancing decision-making.

To assist users, we offer a comprehensive YouTube tutorial that guides you through the configuration process, providing tips for optimizing settings. This resource makes the tool accessible for both beginners and experienced professionals.



Real-Time Data Streaming

Two modes of data streaming — Display Mode for an overview of multiple channels and Data Streaming for detailed analysis of up to five channels.

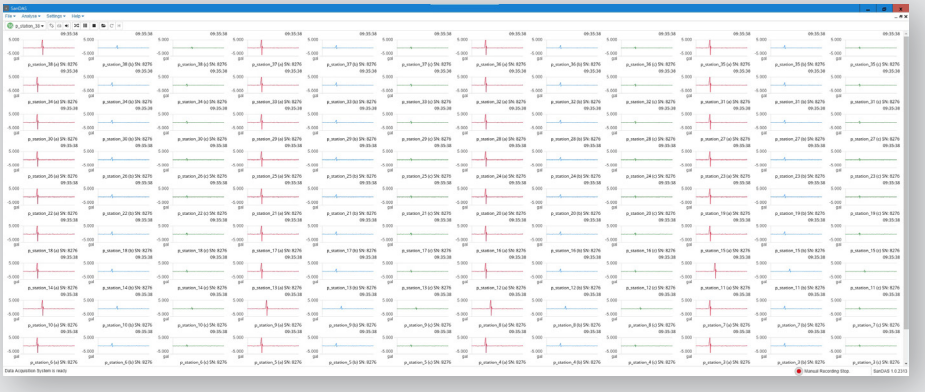
Our monitoring tool offers powerful Real-Time Data Streaming with two modes to fit your needs:

- **Display Mode** provides an overview of multiple channels for quick assessments, making it easy to monitor trends and spot anomalies at a glance.
- **Data Streaming Mode** allows in-depth analysis of up to five channels, offering detailed insights for thorough evaluations and informed decision-making.

Additionally, SanDAS continuously monitors instrument status, ensuring optimal performance and alerting users to any changes. This combination of real-time streaming and instrument oversight ensures accuracy and reliability in all monitoring activities.

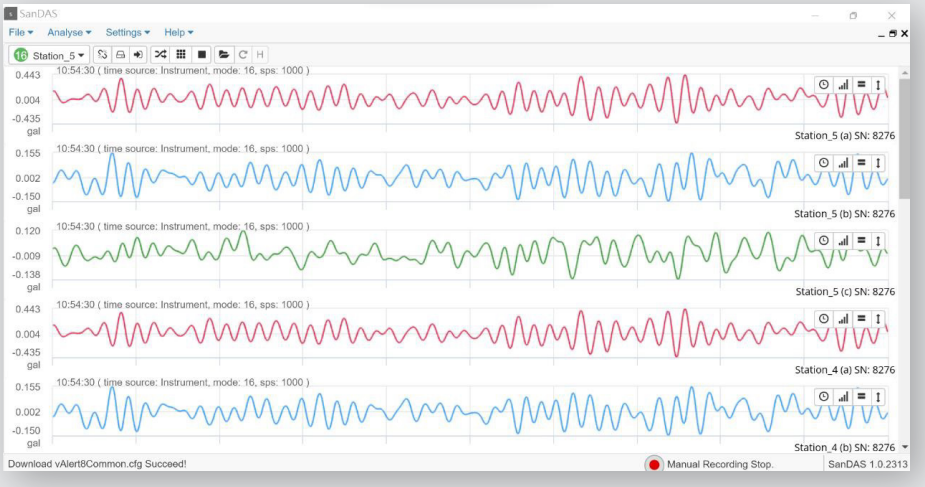
▪ Display Mode:

Provides an overview of the streaming status for all channels, capable of displaying up to 108 channel graphs simultaneously.



▪ Data Streaming Mode:

Displays full graphs for up to 5 channels at once. Users can adjust the vertical axis to auto-range and control the displayed data domain.



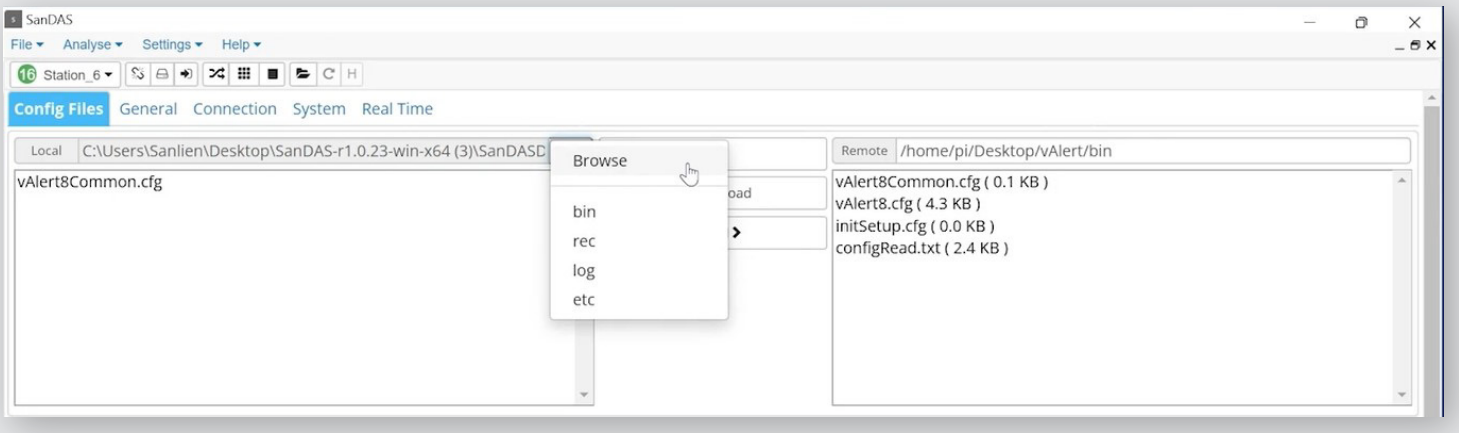
Download of Event Files

Efficient Event File Management for Enhanced Data Access and Analysis

Our monitoring tool's Event File Download feature allows users to efficiently save and manage critical event data. With a simple interface, users can quickly download event-specific files for analysis, reporting, or record-keeping, ensuring easy access to vital information when needed.

This feature enhances data accessibility, supports compliance, and simplifies troubleshooting by creating a comprehensive archive of event logs. It streamlines workflows and ensures critical data is preserved for future reference, improving overall monitoring practices and response times.

- **Browse: Change Local Storage Path**
  Allows users to specify and modify the local storage directory where all downloaded files will be saved.
- **Bin: List the Files Downloaded from the Bin Folder**
  Displays a comprehensive list of files that have been downloaded from the designated Bin folder.
- **Rec: List the Files Downloaded from the Rec Folder**
  Provides a detailed listing of files that have been downloaded from the Rec (Recording) folder.
- **Log: List the Files Downloaded from the Log Folder**
  Shows a list of files that have been downloaded from the Log folder, which contains logs of system activities and events.
- **Etc: List the Files Downloaded from the Etc Folder**
  Displays a compilation of files that have been downloaded from the Etc folder, which may contain additional configuration files, and miscellaneous data relevant to the monitoring tool.



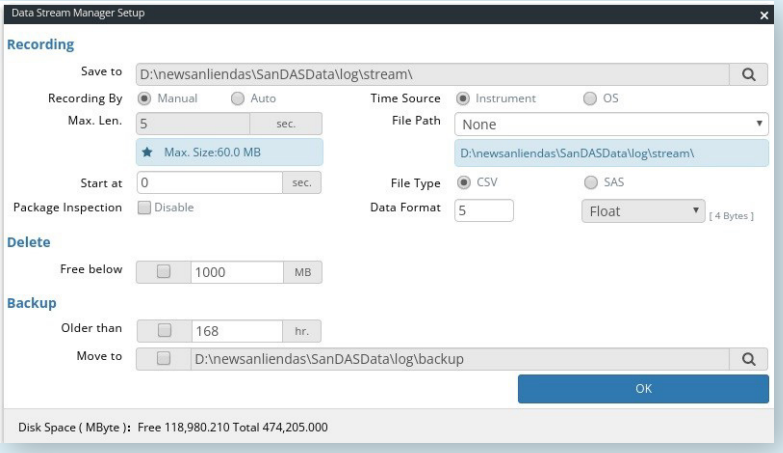
Data Recording Capabilities

Supports manual and automatic recording of data streams in CSV and SAS file formats, with customizable settings for file management.

Our monitoring tool features reliable Data Recording Capabilities, enabling both manual and automatic recording of data streams. This flexibility allows you to capture essential data on demand or through automated processes for continuous monitoring.

The tool supports well-known formats like CSV (Comma-Separated Values) and SAS (Statistical Analysis System), ensuring easy integration with other data analysis systems. CSV is ideal for simple outputs, while SAS caters to advanced statistical analysis needs.

To enhance user experience, customizable file management settings allow you to specify storage locations and recording intervals, ensuring efficient organization for seamless retrieval and analysis.



Advanced Data Analysis

Access sophisticated algorithms for data analysis, specifically tailored for civil engineering applications, with a valid license key.

Our monitoring tool features Advanced Data Analysis, offering sophisticated algorithms tailored for civil engineering. This capability enables engineers and researchers to gain deeper insights, enhancing decision-making and project outcomes.

With a valid license key, users can access powerful tools designed for complex datasets, facilitating analyses such as structural integrity assessments and signal analysis techniques. These techniques include time-domain methods (baseline correction, damping, integration, vector sum, CAV, differential, etc.) and frequency-domain methods (bandpass filter, high-pass filter, FFT phase, power spectra, low-pass filter, FFT amplitude, etc.).

Additionally, our tool aligns with country-specific standards, including Germany's DIN 4150-3, Japan's JMA, Switzerland's SN 640 312a, and seismic design guidelines in the United States (ASCE 41-17) and Mexico (MDOC 2015), etc. By integrating these features into your workflow, you can transform raw data into actionable insights, streamlining project execution.

This feature equips you with pioneering tools to tackle complex engineering challenges confidently, improving accuracy and reliability in your projects.

Data Analysis

Fast Fourier Transform

The Fast Fourier Transform (FFT) is an efficient algorithm for converting a signal from the time domain to the frequency domain, allowing rapid analysis of the frequency components within the signal. It is widely used in fields such as signal processing, image analysis, and scientific computation.

Vibration Criteria (VC) Curve

The Vibration Criteria (VC) Curve sets acceptable vibration limits at various frequencies to protect sensitive equipment in precision environments.

ISO 2631

ISO 2631 sets guidelines for evaluating human exposure to whole-body vibration, helping to assess and limit health and comfort impacts in environments like vehicles and workplaces.

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Official site

Discover more in the video

About Sanlien Technology

Sanlien Technology, a family-founded company based in Taiwan, has been a leader in manufacturing geotechnical, structural, and vibration monitoring instruments since 1967. Established by J.C. Lin, Sanlien has grown over the decades and was publicly listed on the Taiwan Stock Exchange in 2001. With a global presence supported by a network of partners, the Sanlien Group now employs over 350 professionals.

With more than 50 years of experience in the monitoring industry, Sanlien is committed to delivering accurate, high-quality environmental data, playing a vital role in ensuring the safety of society and supporting sustainable civil development worldwide.

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