

Digitex SHM Software

ACQUISITION • ANALYTICS •
REPORTING

SHM SOFTWARE

Acquire • Analyze • Publish — one toolchain!
Voyager®, Observer®, Nexus®, and Vista® align streams, run OMA, and deliver dashboards & PDFs—from edge to cloud.

Why Digitex Software

- A suite of applications that covers acquisition, management, analysis, and reporting
- Built to run at the edge and in the cloud for hybrid workflows
- Handles continuous streams and event campaigns, with resilient storage
- OMA-ready (FDD/EFDD/SSI/FSDD), spectral tools, trends, comparisons
- Automated PDFs and exports for audits, compliance, and stakeholders

Why Digitex SHM Software

- Noise-free pipeline: native digital ingest with sub-ms alignment
- Operator-friendly: point-and-click setup, presets, one-button routines
- Scalable: from handheld checks to large multi-asset deployments
- Connected: APIs, secure roles, notifications, and cloud sync
- Proven: field-validated with Digitex hardware and partner universities

SHM Software Applications

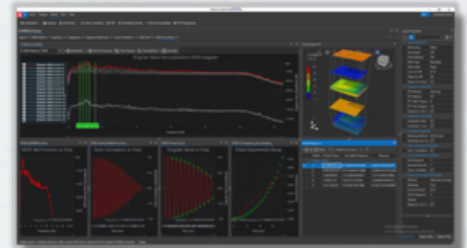
- Real-time monitoring and event recording with pre/post buffers
- Operational/Experimental Modal Analysis and response trending
- Commissioning, retrofit validation, and periodic inspections
- Regulatory compliance and audit-ready documentation
- University and R&D workflows; teaching OMA and vibration fundamentals

System Snapshot

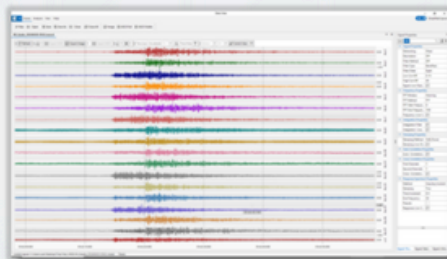
The Digitex SHM Software Suite unifies data from xDAS sensors and systems into a single, time-aligned workspace. **Voyager®** manages acquisition, configuration, triggers, and storage at the edge or in the cloud; **Observer®** performs OMA and advanced analytics with quick visual verification and automated reporting; **Nexus®** provides desktop exploration and batch tools for SeedLink/MiniSEED campaigns; **Vista®** delivers shareable dashboards and status views. Together, they enable continuous streaming or ad-hoc surveys, resilient logging with **Store&Forward®**, and **one-click PDF reports** that keep projects moving—from site setup to stakeholder decisions.



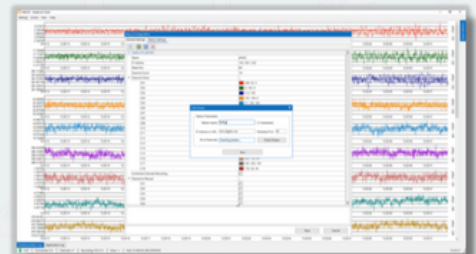
Voyager



Observer



Vista



Nexus

Outcome

- Faster, repeatable workflows from setup to report
- Defensible, audit-ready PDFs for compliance and handover
- Lower field time via presets, automation, and remote access
- Consistent datasets for trends, OMA comparisons, and lifecycle planning
- Clear communication with live dashboards and standardized outputs

Your workflow with Digitex

- **Instrument** – connect/configure channels; apply presets in Voyager®
- **Acquire** – live streaming or buffered events; resilient local + cloud logging
- **Analyze** – OMA and spectral analytics in Observer®; compare & verify
- **Act** – auto-generate PDFs, trigger alerts/notifications; share with stakeholders

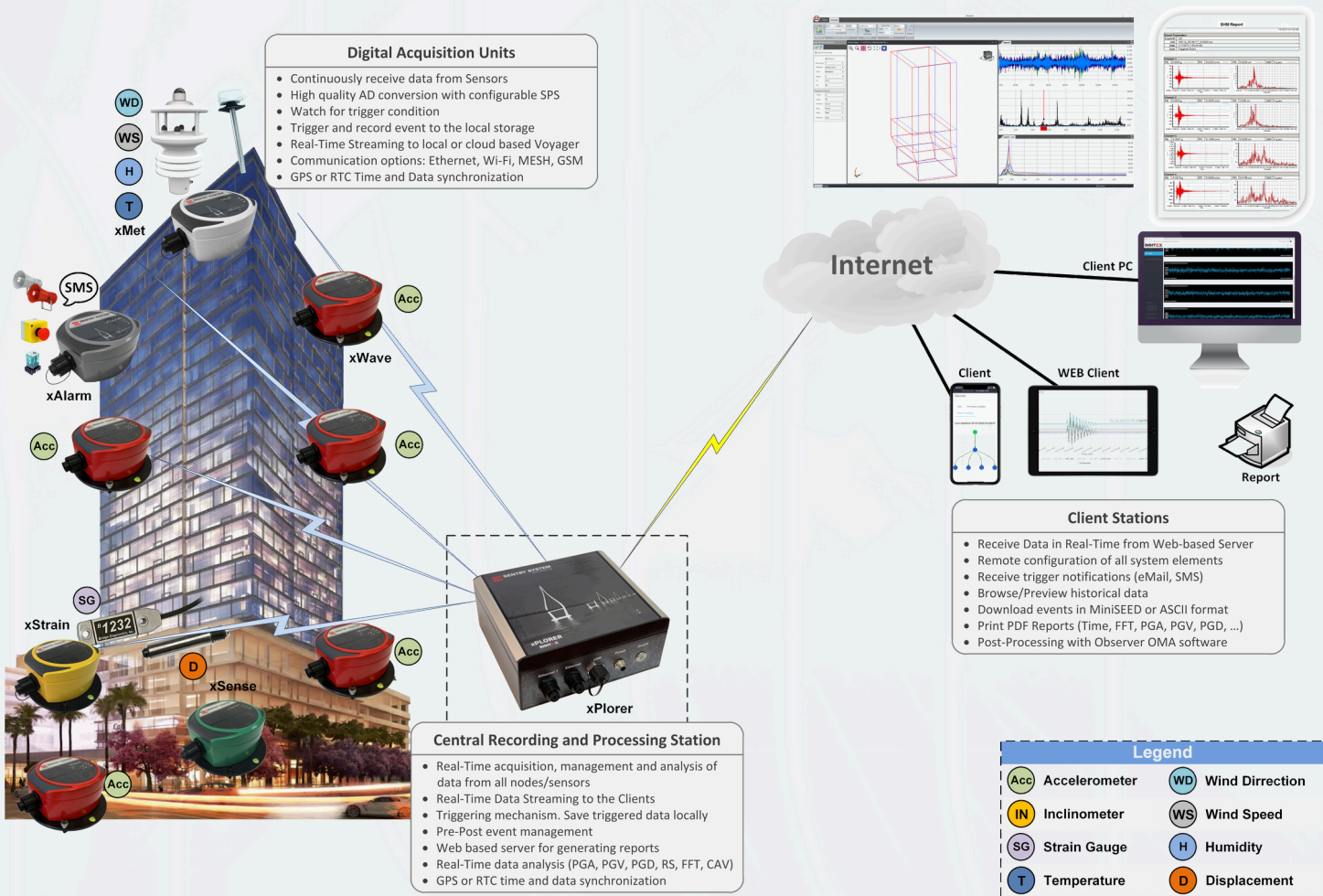
SHM SOFTWARE OVERVIEW

Digitex software is the intelligence layer of the Sentry System—turning raw sensor streams into reliable engineering insight. Built specifically for Structural Health Monitoring (SHM) and earthquake engineering, the suite covers the full lifecycle of a project: acquisition in the field, continuous storage and alerting, professional visualization, advanced analytics, and publishing of audit-ready reports.

Digitex SHM Software is a cohesive suite that acquires, manages, analyzes, and communicates structural data—from live streams to publishable results. Voyager serves as the central, web-based hub for configuration, time alignment, recording, alarms, and reporting. Nexus supervises real-time feeds on operator PCs, providing local recording and quick sanity checks. Vista opens measurement files for fast visualization, statistics, and conversions. Observer delivers advanced signal processing and Operational Modal Analysis with geometry-based 3D mode-shape visualization. Together, they turn raw measurements into synchronized, defensible insight with automated outputs for stakeholders.

SHM SOFTWARE MEMBERS

The SHM Software family consists of the following applications, which can be used individually or as part of a complete Digitex deployment: **Voyager** – server software for acquisition, device management, triggering, streaming, and automated reports; **Nexus** – SeedLink client for supervising live stations with local MiniSEED recording; **Vista** – data viewer and converter for plotting, statistics, filtering, FFT/PSD, and CSV/PNG export; **Observer** – analysis and OMA suite for FDD/EFDD/FSDD/SSI/PLSCF methods with 3D geometry and reporting.



Sentry System Real-time Monitoring

ABOUT DIGITEX

Digitex is a company specialized in design and development of real structural health monitoring systems for a variety of industries and applications including: bridges, tall buildings, campuses, windmills, oil rigs and more. Digitex's innovative solution for ambient vibration measurements and quick health assessment of structures is jointly developed and validated with our partners and advisors from the Universities. When properly configured, the Digitex system is capable of measuring and responding to both natural and man-made events such as: earthquakes, wind, explosions and accidental heavy impacts.