



Structural Response Monitoring

RTMS-2001RN – Real-Time Monitoring System

This high performance COTS (Commercially Off The Shelf) system is a multi-channel (32) real-time data acquisition and analysis system, with manual and event driven (on any 10 channels) triggering. With 24-bit resolution, the system has a sampling rate of up to 500 samples per second per channel. Standard features include delta-sigma A/D, pre-event, post-event, and signal filtering. The system also offers an extensive set of remote tools for real-time monitoring, broadcasting streaming data (Internet, TCP, FTP), data retrieval, remote tele-control, and event driven notification.



APPLICATIONS:

Data Acquisition & Analysis for

Structural Response Monitoring

- Earthquakes
- Dynamic Wind Effects
- Temperature Effects
- Blasts

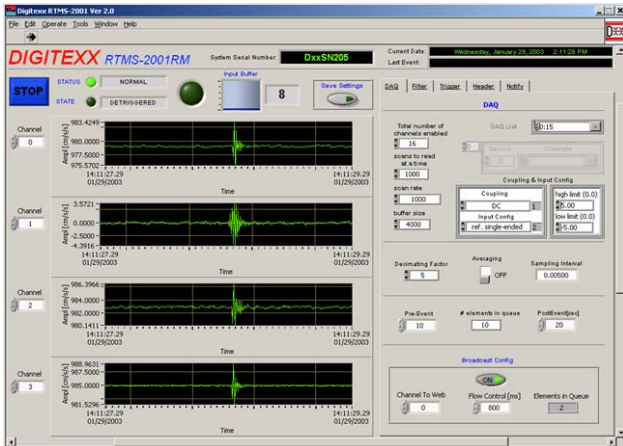
Structural Element Monitoring

- Stress
- Temperature
- Relative Displacement
- Differential Foundation Settling
- Pressure on Contact
- Acceleration

TECHNICAL SPECIFICATIONS:

INPUT CHANNELS		CONNECTORS	
No. of Channels	32	Type	SOURIAU 851 Series
Type	Differential	Shell	12
Full Scale	± 10 V	Number of Pins	10
Input Type	Volts	Input	Diff. Or SE
DIGITIZER		USER INTERFACE	
Type	Delta-Sigma A/D	PC	Industrial grade - 850 MHz (min)
Resolution	24-bit		512 Mb RAM, 40Gb HD
Dynamic Range	120dB	Operating System	Windows 2000 [®]
Sampling Rate	Up to 500 SPS (user settable)	Server Software	Digitexx Server
Filters	Multiple Configurations	Remote Software	Digitexx Client
POWER		ENVIRONMENTAL	
AC	110 VAC or 220 VAC w/UPS	Operating Temp	0-50 ° C
Sensors	± 12 V, 30 mA/Channel Max	Humidity	90% max non-condensing
ACQUISITION		Packaging	19" Horiz. Opening Cabinet
On/Off	User Trigger	Dimensions	Configuration dependable
Programmable	Trigger Threshold	Weight	Configuration dependable
Trigger Type	Channel Voting Mechanism on any 10 (user selected) channels		

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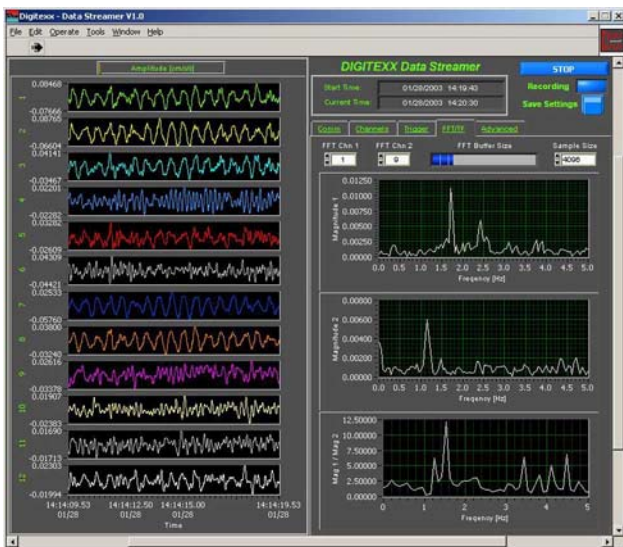
Server Software

Dxx Custom Real-Time Data Acquisition and Processing Options

- High performance scalable data acquisition software with multiple filtering and data recording and broadcasting options.

Features

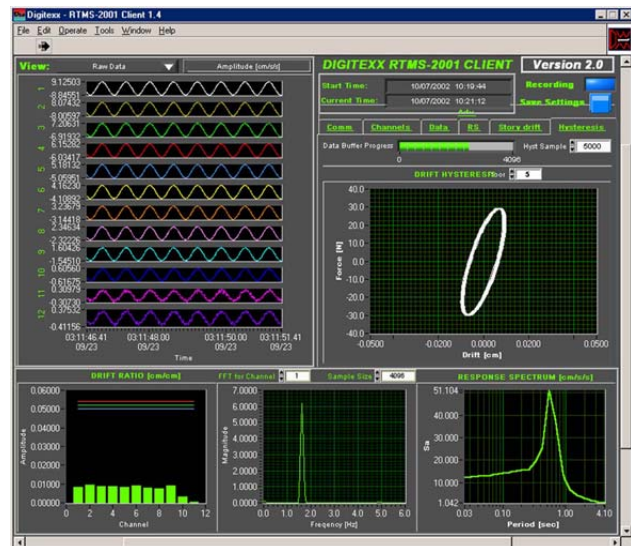
- Distributed multi-client architecture based on a publish/subscribe interface
- Data management subsystem
- Suitable for upgrading existing analog/digital multi-channel recorders to a real-time state-of-the-art system



Data Streamer Client Software

SOFTWARE

Data Acquisition	Digitexx
Data Monitoring	Digitexx
Data Analysis	Digitexx
Data Format	Dxx or ASCII



Client Software

End-User Oriented Features

- Real-time inter-story drift hysteresis loops
- Real-time Inter-story drift ratio
- Real-time response spectrum
- Real-time transfer function
- Real-time FFT
- On-demand and scheduled remote recording for statistical analysis studies
- Remote event-driven triggering mechanism