RTMS-2001 Real Time Monitoring System

Overview

Our high-performance commercially off-the-shelf RTMS-2001 is a multi-channel real-time data acquisition and analysis system with manual and event-driven triggering (on any ten accelerometer channels). Accelerometers inputs have 110dB dynamic range resolution, and the system has a sampling rate of up to 500 samples per second per channel. Additional environmental sensor specs can be added to complement the basic signal inputs. The RTMS-2001 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

The RTMS-2001 provides structural data acquisition and analysis for:

- *Response monitoring*, including earthquakes, dynamic wind effects, temperature effects, and blasts
- *Element monitoring*, including stress, temperature, relative displacement, differential foundation setting, pressure on contact, and acceleration

Digitexx RTMS-2001

Features

Standard features include 24-bit digitizer resolution, delta-sigma A/D, and filtering (pre-event, post-event, and signal filtering). Additionally, the RTMS-2001 includes:

- Distributed multi-client architecture based on a publish/subscribe interface
- Data management sub-system
- Capability to upgrade existing analog/digital multi-channel recorders to a state-of-the-art real-time system
- Real-time inter-story drift hysteresis loops, inter-story drift ratio, response and transfer function, and FFT
- On-demand and scheduled remote recording for statistical analysis

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13880 N. Northsight Blvd, Suite 109 | Scottsdale, AZ 85260 | (623) 242-1198 | www.digitexx.com
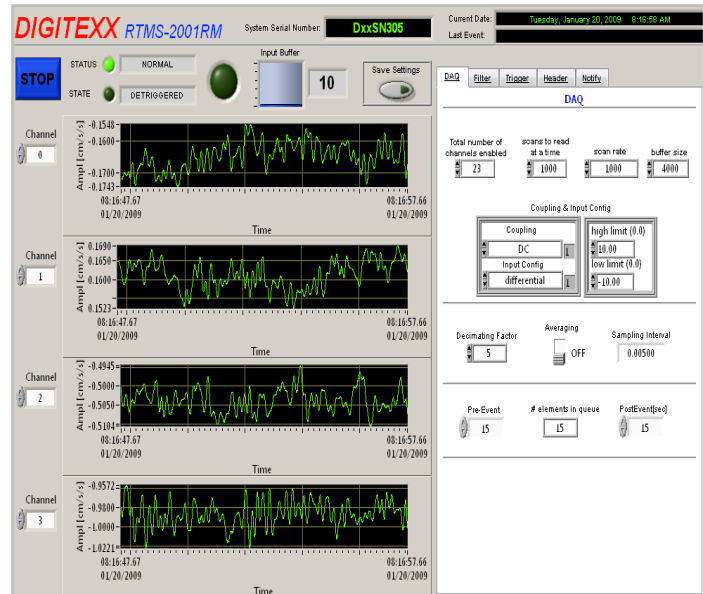
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RTMS-2001 Real Time Monitoring System

Technical Specifications

User Interface

User Interface	
PC	Intel Core 2 @ 2.13 GHz, 2 GB RAM, 300 GB HD
Operating System	Windows XP SP3
Server Software	Digitexx Server
Client Software	Digitexx Client

Software

Software	
Data Acquisition	Digitexx Server
Data Monitoring	Digitexx Client
Data Analysis	Digitexx EDA
Data Format	Digitexx or ASCII

Environmental

Environmental	
Operating Temp.	0 - 50° C
Humidity	90% non-condensing
Packaging	19" horiz. open cabinet
Dimensions	Configuration dependant
Weight	Configuration dependant

Digitexx Server Software

Digitexx Client Software

Connectors

Connectors	
Type	MIL-C-26482
Shell	12
Pin Quantity	10
Input	Differential/Single Ended

Digitizer

Digitizer	
Type	Delta-Sigma A/D
Resolution	24-bit
Dynamic Range	110dB
Sampling Rate	100 ks/s/ch
Filters	Multiple configurations

Power

Power	
AC	110 VAC /220 VAC w/ UPS
Sensors	± 12V 30 mA/channel max

Input Channels

Input Channels	
Quantity	40+ accel, 64+ env.
Type	Differential/Single Ended
Full Scale	± 10V
Input Type	Volts