

DATA RECORDING SOLUTIONS

JAZZSTORE



Flexible Storage Solutions with Real-time FAT32 File System Support

I/O INTERFACES

FIBRE CHANNEL
-JBOD/RAID WITH FAT32,
-POINT TO POINT
-1.062 AND 2.125 GBPS

SERIAL FPDP (ANSI/VITA 17.1)
-1.0 AND 2.125 GBPS

GIGABIT ETHERNET

TAXI, HOTLINK

FPDP

PARALLEL ECL, PECL, EIA-485, LVDS

CHANNEL LINK

Custom I/O Interfaces are Available

JazzStore is a family of data recording products built using Tekmicro's off-the-shelf PowerRACE carrier cards, tekX system-level software, and a wide range of turnkey PMC-based I/O modules from both Tekmicro and others. JazzStore systems are custom configured based on the requirements of each program.

The JazzStore architecture supports a wide range of data recording and playback solutions, from a single channel of Channel Link imagery to dozens of channels of 250 MB/s fiber optic input streams. Because JazzStore is based on off-the-shelf hardware and software, it is inherently modular in design, providing flexibility and scalability to accommodate future growth.

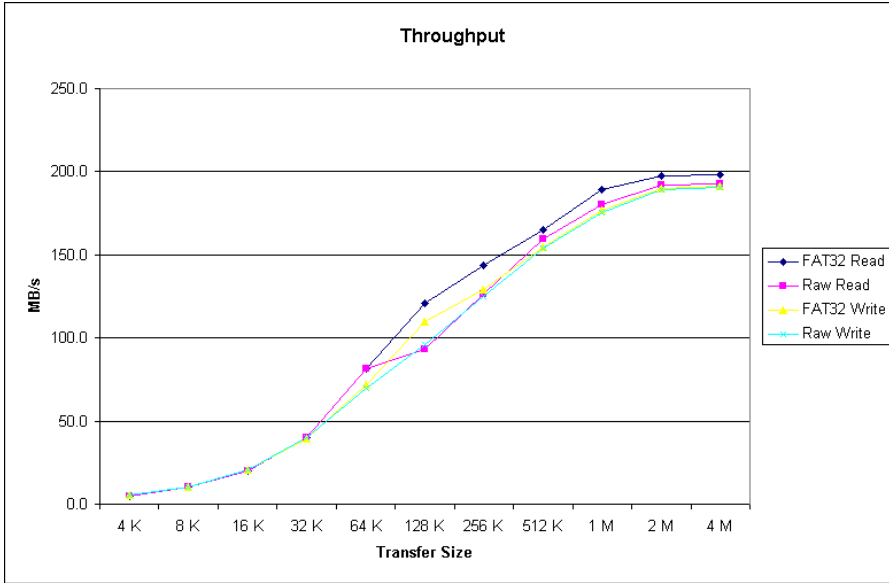
Unlike other data recording solutions, JazzStore is based on a modular network-centric view of data recording, using switched fabric interconnect to build a scalable solution without requiring software development. Record and playback sessions are controlled through a simple command line interface or through Ethernet, direct from a user application or through the provided Graphical User Interface (GUI). Windows, Linux and Solaris GUI sample programs are provided, allowing any client to configure, control and monitor the JazzStore system.

Flexible data storage is another key feature of the JazzStore architecture, supporting a range of SAN-based storage solutions from single drives to JBODs to RAIDs. Real-time FAT32 file system support is included, along with automatic file sectioning to manage sessions greater than 4 GB, allowing a JazzStore disk to be directly attached to a Windows or Linux workstation with absolutely no host software needed. Files are accessed through familiar Windows Explorer tools, eliminating a source of development effort and risk.

Current JazzStore solutions are based on RACE++ fabric with Fibre Channel storage devices. Future Features VXS cards and VITA 42 XMC I/O modules with scalability up to 2.5 GB/s per 6U slot.

JazzStore solutions are available as single card controllers for integration into user VME or RACE++ systems, as rack-mounted 1U, 2U, or 4U chassis solutions, and as rugged ATR enclosures up to 12 slots and 3 GB/s of storage.

JAZZSTORE BENCHMARK PERFORMANCE



SPECIFICATIONS

System Level Solutions	1-2 card systems 533 MB/s per slot using dual port RACE++ Wide range of pre-integrated I/O options including: FPDP, Serial FPDP, Fibre Channel, Gigabit Ethernet, HOTLink, TAXI, Channel Link, Parallel ECL/PECL/485/LVDS, A/D, D/A, others Customizable I/O with FPGA options for formatting, compression, filtering Turnkey solution with EIA-232, EIA-485, or Ethernet control/status User interface available for Windows, Linux, Solaris platforms Rugged options with ATR enclosure available
Board Level Solutions	ANSI/VITA 5.1-1999 Dual RACEway compatible Mercury TC-RWI-FS-1 (11/08/00) RACE++ compatible Transfers performed at 533 MB/s burst throughput per slot tekX support available for VxWorks 5.4 & 5.5 clients Drop-in solution for Mercury or non-Mercury RACE++ systems
Processor (each I/O node)	8240, 8245, or 440GX PowerPC 62-256 MB memory, distributed architecture 4-8 MB FLASH 10/100 or Gigabit Ethernet
FPGA (2)	Xilinx Virtex Pro VP7 with one 405 PPC Xilinx Virtex Pro VP30 with two 405 PPC's
Buffer Memory (4)	126 MB DDR, 240 MB/s sustained throughput for VP7 256 MB DDR, 240 MB/s sustained throughput for VP30 Customizable FPGA core for application-specific functions
Modular I/O	IEEE 1386.1-2001 PMC slots 64-bit, 33-50 MHz, 3.3V or 5.0V signaling level 250+ MB/s sustained throughput per PMC slot
Storage Needs	Dual channel QLogic-based Fibre Channel interface 1 or 2 Gbps auto-sensing 201+ MB/s interface per channel 245 MB/s multiplexed across two channels
Storage Options	Supports single drives, JBOD and RAID arrays Capacity up to 2.2 TB per RAID Single controller up to 190 MB/s writes, 197 MB/s reads Real-time FAT32 file system support

Features

Real Time FAT32 File System

Tekmicro's implementation of industry standard file systems - optimized for real time deterministic performance - supports wire-speed record and playback without any loss of performance.

No Host Software Required

Support for FAT32 allows direct connection of a RAID unit to a Windows or Linux workstation without software installation or non-standard software tools

Wide Range of Control Options

Serial or TCP/UDP messaging, Windows or Linux GUI, VxWorks API or shell, MCOE "DX" style API - choose whichever API fits your application best

Off-the-Shelf Modular Design

Easily support addition of more channels and faster interfaces without changing system or architecture

Customizable I/O Interfaces

Tekmicro's PMC-based I/O modules include customizable FPGA options for cost-effective tailoring to meet your exact interface requirements without custom hardware

System-Wide Timing and Synchronization

Many I/O modules support system-wide timing and synchronization with alignment to IRIG time for sub-microsecond timestamp accuracy and playback alignment across channels

Tekmicro Support

Unmatched technical and applications support from the company that delivered the first RACE++ product, first PowerPC-based PMC carrier and first bundled client-server I/O solutions for RACE++



TEK Microsystems Inc
 2 Elizabeth Drive
 Chelmsford MA 01824
 V: 978.244.9200
 F: 978.244.1078
 sales@tekmicro.com
 support@tekmicro.com
www.tekmicro.com