

TEST & SIMULATION SOLUTIONS

MIL-STD-1553 / ARINC 429 / SYNCHRO



Test and Verification

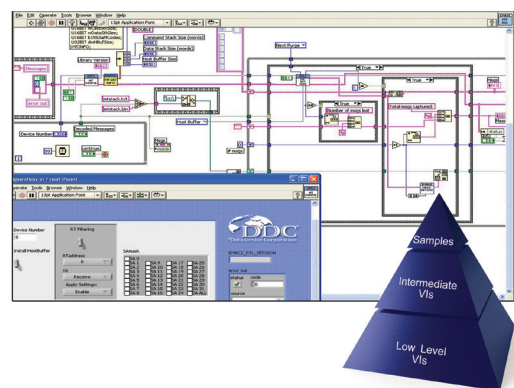
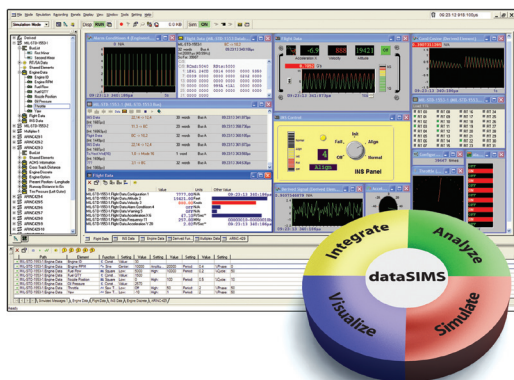
System Integration and Simulation

Software and Hardware Development





SYSTEM LEVEL SOFTWARE



dataSIMS

Avionics Data Bus Test and Analysis Software

MIL-STD-1553

ARINC 429

ETHERNET

SYNCHRO

User Defined

- Accelerates development and deployment
- Eliminates cost of learning and maintaining separate software programs
- Easy-to-use and customize
- Supports all data protocols and I/O formats

For more information: www.ddc-web.com/datasims

LABVIEW® & LABVIEW/LABWINDOWS® REAL-TIME SUPPORT PACKAGE

Easy and Efficient Development Software

MIL-STD-1553

ARINC 429

- Simple interface for quick startup and easy programming
- Access real-time 1553/429/Synchro data using LabVIEW
- Easily integrate data from different types of instruments and sensors
- Create custom user interface from scratch or by modifying samples provided

For more information: www.ddc-web.com/labview

PROTOCOL ANALYZERS SOFTWARE



BusTracer™

Data Bus Analyzer and Monitor Software

MIL-STD-1553

- Generate or monitor live MIL-STD-1553 data without writing any code
- Saves time and reduces development costs
- Program in minutes with one-click ANSI 'C' source code generation
- Rapid creation and setup of custom applications

For more information: www.ddc-web.com/bustracer



Commercial Avionics Utilities

Data Bus Analyzer and Data Loader Software

ARINC 429

- Graphical ARINC 429 data bus analysis and simulation
- Advanced filtering, message scheduling, and triggering
- Graphical ARINC 615 data loader
- Software interface to load data to and from airborne computers

For more information: www.ddc-web.com/arincsw



MIL-STD-1553 / ARINC 429 CARDS

PCI Express



cPCI/PXI



Express Card



PMC



USB



PCI

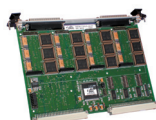


KEY FEATURES	BENEFITS
Up to 8 Channels of MIL-STD-1553, 16 Discrete I/O...	Saves Slot and Cost of Another Card
Multi-IO Configuration Available...	Less Cost with One Card that Supports Mil-STD-1553 / ARINC 429
Up to 38 Programmable ARINC 429/717 Tx/Rx Channels, 16 Discrete I/O...	Easily configure each channel as transmit or receive via software control... No need to reconfigure the cables
	Highest programmable channel count in industry reduces number of boards needed for high channel count Testing/Simulation
	Save cost with multiple channel count options... buy the minimum channels you need.
Programmable Bus Coupling / Termination...	Allows Flexibility Connecting to DUTs
ARINC-429 Variable Speed Output	Compatible with other ARINC-xxx specifications and custom applications
IRIG-106 Chapter 10 Monitor...	Hardware Formatting Offloads CPU
48-Bit / 100ns Time Tag...	Less Frequent Timetag Rollovers
DMA Engine...	Reduced CPU Utilization
Common API for Components/Embedded/Test...	Allows SW Reuse & Prototyping
Intuitive Graphical Interface...	Create Test Environment In Minutes
Portable Form Factors available	Allows plug-n-play connection to any laptop/desktop
Low Intermessage Gap / Response Time (3.5µs)...	
Variable Amplitude... Voltage Monitoring...	Advanced Testing for Out-of-Bounds Responses
Error Injection / Parametric Features...	
Data and External Pin Triggers ...	Customize Event Notifications Eliminating Need to Analyze Data
Reconstruct traffic from monitor file...	Enable Post-Analyze Anomalies in Lab
Intermessage Routines...	Real-Time Decision Checking and Action

For more information: www.ddc-web.com/test

SYNCHRO CARDS

VME



PCI/PCIe



PMC



cPCI



USB



FEATURES	BENEFITS
Input/Output/Combo Cards...	Less Cost with Test Multi -Function on One Card
1 Minute Accuracy with 1 LSB Repeatability...	Tight Positioning
Programmable Resolution 10,12, 14, 16 bit...	Programability of Dynamics for Smooth Motion without Jitter

For more information: www.ddc-web.com/synchro

DDC TEST & SIMULATION SOLUTIONS OVERVIEW

TECHNOLOGIES

- MIL-STD-1553 / 1760
- ARINC 429
- ARINC-717
- CANBus
- Synchro / Resolver
- Auxiliary I/O's
 - Serial 232/422/485
 - Digital Discrete I/O (TTL)
 - Avionics Discrete I/O (28V)
 - IRIG-B Time Code Support
 - IRIG-106 Chapter 10
- Multi-I/O Variants (1553/429)

APPLICATIONS

- Box Level Troubleshooting
- Simulation
- Portable Test Equipment
- Flight Line and Diagnostic Testing
- Software / Hardware Development
- Automatic Test Applications (ATP)
- Flight Instrumentation / Recording
- Development Lab Testing
- Production / Manufacturing Testing
- System Integration

SOFTWARE SUPPORT

- Operating Systems
 - Windows®
 - Linux®
 - VxWorks®
- Graphical User Interfaces (GUIs)
- C Software Development Kits (SDKs)
- LabVIEW®
- LabVIEW Real-Time
- LabWindows®/CVI
- LabWindows® Real-Time

Software Features		<i>dataSIMS</i>	BusTrACer™	Commercial Avionics	LabVIEW®
Supported Protocols		1553 / 429	MIL-STD-1553	ARINC 429	MIL-STD-1553/429
MIL-STD-1553 Monitoring and Generation		■	■		■
ARINC 429 Transmit and Receive		■		■	■
Integrate	Synchro/Digital/Ethernet Protocol Support	■			■
	ICD Database Import Capability	■			
	Code Generation		■		
	Open Plug-in Based Architecture (add other I/O, Functions, Displays)	■			
Analyze	Engineering Unit Conversion	■		■	
	Data Triggering	■	■	■	■
	Data Filtering	■	■	■	■
Visualize	Real-Time Data Display	■		■	■
	Report Generation	■			
	Drag and Drop Dashboard Creation (Graphs, Knobs, LEDs)	■			
Simulate	MIL-STD-1553 Reconstruction	■	■		■
	ARINC 429 Reconstruction	■		■	■
	ARINC 615 Data Loader			■	
	Error Injection	■	■		

Free 60-Day Trial! → www.ddc-web.com/software

Software Development Kits (SDK) for MIL-STD-1553 and ARINC 429 and Synchro are provided at no charge (Windows®, Linux® and VxWorks®).



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