TEST & SIMULATION SOLUTIONS
MIL-STD-1553 / ARINC 429 / SYNCHRO

Test and Verification
System Integration and Simulation
Software and Hardware Development
Data Bus Analyzer and Monitor Software
• 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
• 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

LABVIEW® & LABVIEW/LABWINDOWS® REAL-TIME SUPPORT PACKAGE
Easy and Efficient Development Software
• 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

dataSIMS
Avionics Data Bus Test and Analysis Software
• 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

PROTOCOL ANALYZERS SOFTWARE

SYSTEM LEVEL SOFTWARE
### MIL-STD-1553 / ARINC 429 CARDS

<table>
<thead>
<tr>
<th>KEY FEATURES</th>
<th>BENEFITS</th>
</tr>
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<tbody>
<tr>
<td>Up to 8 Channels of MIL-STD-1553, 16 Discrete I/O...</td>
<td>Saves Slot and Cost of Another Card</td>
</tr>
<tr>
<td>Multi-IO Configuration Available...</td>
<td>Less Cost with One Card that Supports Mil-STD-1553 / ARINC 429</td>
</tr>
<tr>
<td>Up to 38 Programmable ARINC 429/717 Tx/Rx Channels, 16 Discrete I/O...</td>
<td>Easily configure each channel as transmit or receive via software control… No need to reconfigure the cables</td>
</tr>
<tr>
<td>Program in minutes with one-click ANSI 'C' source code generation...</td>
<td>Highest programmable channel count in industry reduces number of boards needed for high channel count Testing/Simulation</td>
</tr>
<tr>
<td>Rapid creation and setup of custom applications...</td>
<td>Save cost with multiple channel count options… buy the minimum channels you need.</td>
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</tbody>
</table>

**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)...** Advanced Testing for Out-of-Bounds Responses

**Variable Amplitude... Voltage Monitoring...**

**Error Injection / Parametric Features...** Customize Event Notifications Eliminating Need to Analyze Data

**Data and External Pin Triggers...** Enable Post-Analyze Anomalies in Lab

**Reconstruct traffic from monitor file...** Real-Time Decision Checking and Action

For more information: [www.ddc-web.com/test](http://www.ddc-web.com/test)

### SYNCHRO CARDS

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

For more information: [www.ddc-web.com/synchro](http://www.ddc-web.com/synchro)
DDC TEST & SIMULATION SOLUTIONS OVERVIEW

TECHNOLOGIES
- MIL-STD-1553 / 1760
- ARINC 429
- ARINC-717
- CANbus
- Synchro / Resolver
- Auxiliary I/Os
  - 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

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

For ordering assistance and technical support,
Call: 1-800-DDC-5757
E-mail: service@ddc-web.com
Visit: www.ddc-web.com

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