

ARTISAN®
TECHNOLOGY GROUP

Your **definitive** source for quality pre-owned equipment.

Artisan Technology Group
(217) 352-9330 | sales@artisantg.com | artisantg.com

Full-service, independent repair center
with experienced engineers and technicians on staff.

We buy your excess, underutilized, and idle equipment
along with credit for buybacks and trade-ins.

Custom engineering
so your equipment works exactly as you specify.

- Critical and expedited services
- In stock / Ready-to-ship
- Leasing / Rentals / Demos
- ITAR-certified secure asset solutions

Expert team | Trust guarantee | 100% satisfaction

All trademarks, brand names, and brands appearing herein are the property of their respective owners.

Visit our website - *Click HERE*

Quick Start Guide

ACEXTREME®
BRIDGE DEVICE

BU-6711XWX



DDC
Data Device Corporation

Installation (all modes)



Contents include:
- AceXtreme® Bridge Device
- Product DVD
- Compatible Mating Connectors/Shells

Optional Cables (included with BU-67119):
- DDC-78164-1 AC Power Adapter
- DDC-78053-1 “J1” Cable Assembly
- DDC-78055-1 “J2” Cable Assembly
- Mode Selection BNC Terminator

Note: Documentation is located on the included DVD and on the DDC website at: www.ddc-web.com/ABD

1 Connecting Cable Assemblies:



Note: Please see the AceXtreme® Bridge Device Hardware Manual for information on connecting MIL-STD-1553 and ARINC 429 data buses and J1/J2 Pinout information (for non-DDC cable connections)

After unpacking the supplied accessories and cables, please make the following connections:
- **P1** connector on the **DDC-78053-1** cable to the **J1** connector on the bridge device
- **P2** connector on the **DDC-78055-1** cable to the **J2** connector on the bridge device
- **AC Power Adapter** to the **J1** connector on the **DDC-78055-1** cable
- **AC Power Adapter** to a Wall Outlet
- **Ethernet Cable (side A)** to the **EJ1** connector on the **DDC-78053-1** cable
- **Ethernet Cable (side B)** to a PC/Laptop with Telnet/SSH & Web Browser installed
- Install the **BNC Terminator** on the **J2** connector on the **DDC-78053** cable (Enables Configuration Mode)

2 Setting IP Address Configuration:

Device:	**Ethernet Port 1 (eth0)**
Address:	**192.168.1.80**
Netmask:	**255.255.255.0**
Gateway:	**0.0.0.0**
Device:	**Ethernet Port 2 (eth1)**
Address:	**192.168.2.80**
Netmask:	**255.255.255.0**
Gateway:	**0.0.0.0**

The DDC AceXtreme Bridge (ABD) comes preconfigured with static IP addresses on both Ethernet Ports.

It is recommended that you change the IP address to meet your desired network requirements.

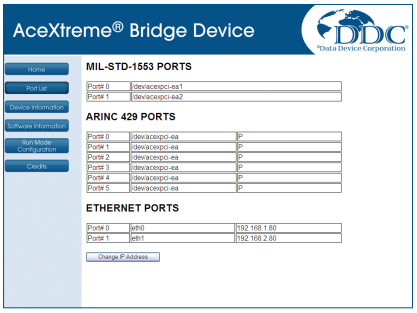
Once the IP addresses have been modified, it is acceptable to connect the device to any switch within your LAN.

With the EJ1 Ethernet Port already connected, setup a PC/laptop with a Static IP address in the 192.168.1.x subnet (Example: 192.168.1.90)

Connect to the ABD Web Interface by typing http://192.168.1.80/ in the address field of any web browser.



The AceXtreme® Bridge Device Web interface should be displayed.



Click on the Port List button on the left side of the web page. You should see a button in the lower section to Change IP Address.

From this screen, you can update the **Address**, **Netmask**, and **Gateway** for both Ethernet Interface (eth0 **(EJ1)** and eth1 **(EJ2)**).

When all changes are complete, click **Update** to save the changes and update the device. All changes are immediate and will be retained even after power cycle.

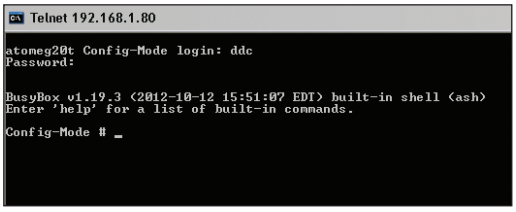
The device can now be connected to the desired network location.

Protocol Conversion Mode

1 Logging into the device

In order to configure the ABD to perform the desired protocol conversion(s), it is required to log into the device using any Telnet/SSH Client.

Note: Telnet is not enabled by default in some versions of Windows®. For more information, visit: http://windows.microsoft.com/en-US/windows-vista/Telnet-frequently-asked-questions



Please use the following Telnet Login Credentials:
Username: ddc
Password: ddc

Note: Protocol Conversion Sample Applications can be found in the following folder: /home/ddc/ABD/ABDbridging/samples

2 Setting up "Run Mode" Configurations:

The AceXtreme® Bridge Device has 2 operational states, which is enabled prior to power-up:

Configuration Mode, which is used for configuring, development, and troubleshooting of a protocol conversion application.

Run Mode, which is used for deployed and fielded devices, limited access to undesired configuration modes.

Selecting one of the two above modes is done via the supplied **BNC Terminator** being installed (or not installed) on power-up.



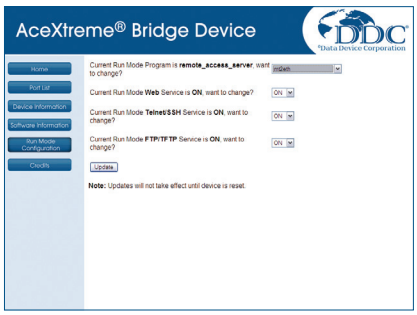
The **BNC Connector** is located on the **J2** connector of the **DDC-78053** cable assembly.

If the **BNC Terminator** is installed before power is applied, the ABD will be run in ***Configuration Mode***.
If the **BNC Terminator** is not installed before power is applied, the ABD will be in ***Run Mode***.
For non-DDC cable configurations, assert **J1 Pin 8 low** to select ***Configuration Mode***.

Run Mode configuration is modified using the AceXtreme® Bridge Device Web Interface.

Note: Run Mode configuration is only valid when the ABD is powered-up and running in ***Configuration Mode***.

Click the Run Mode Configuration button on the left side of the web page. You should then see the current Run Mode configuration options displayed.



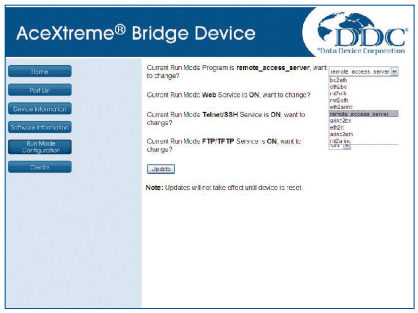
From the Run Mode Configuration screen, you can select the 'Run Mode Program', which will execute at power-up.

DDC supplies numerous Protocol Conversion samples that can be automatically started from this screen.

You can also optionally choose to disable any Network Service from being enabled, while in Run Mode.

Make sure to click Update to save your changes, then power cycle the device.

3 Run Mode Application Selection:



In order to remotely access the device, you need to activate the Remote Access Server on the AceXtreme Bridge Device Web Interface:

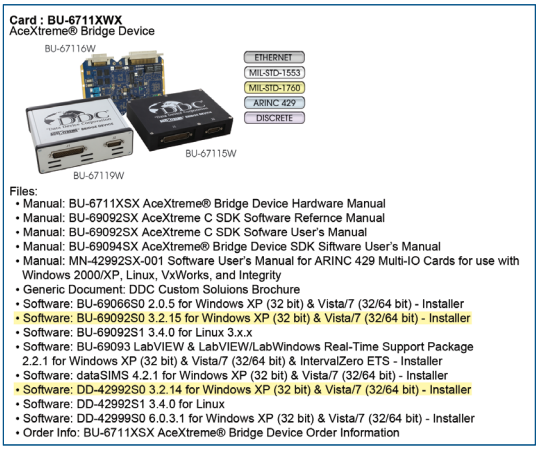
- Load the AceXtreme Bridge Device Web Interface and click the Run Mode configuration button on the left side of the page.
- Select **remote_access_server** and click the **Update** button to save your changes.
- Cycle the power on the hardware.

Remote Access Mode

1 Software Installation:

The Software Development Kits (SDK) are included on the supplied Software CD. Insert the disc and select your product from the product list.

Windows®:

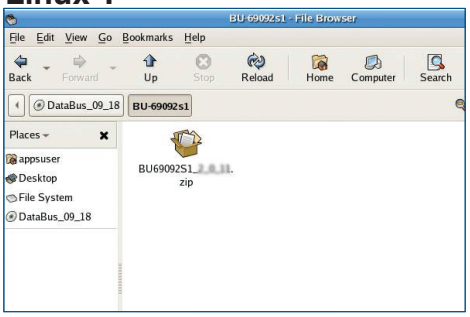


For **MIL-STD-1553**, select BU-69092S0 from the software list, and follow the prompts to complete the installation of the SDK.

For **ARINC 429,** select DD-42992S0 from the software list, and follow the prompts to complete the installation of the SDK.

The latest version of the SDK can be downloaded from the DDC website at: www.ddc-web.com/ABD

Linux®:

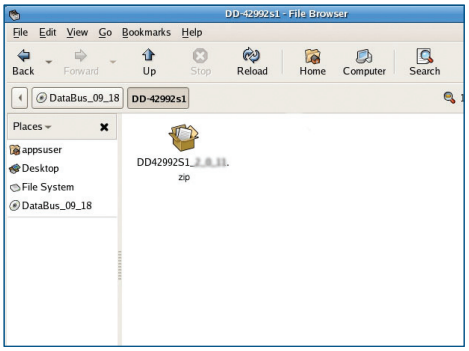


For **MIL-STD-1553**, unzip the file: **BU69092S1_X_Y_Z.zip**.

note: X_Y_Z = revision number

For installation from CD: Navigate to the BU-69092S1 folder.

For installation from web:
Ensure the zip file above is downloaded.



For **ARINC 429,** unzip the file: **DD42992S1_X_Y_Z.zip**.

note: X_Y_Z = revision number

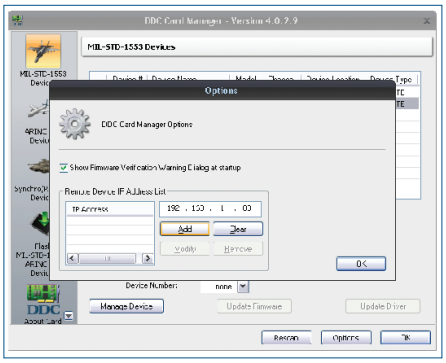
For installation from CD: Navigate to the DD-42992S1 folder.

For installation from web:
Ensure the zip file above is downloaded.

Remote Access Mode

2 Detecting Remote Bridge Devices:

The AceXtreme Bridge Device can be remotely accessed from any Windows computer by referencing its IP Address.



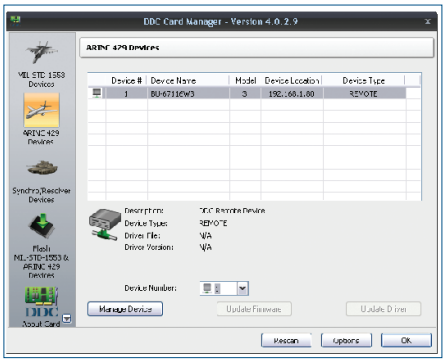
Load the DDC Card Manager, located in the Control Panel and click on the Options button on the lower right.

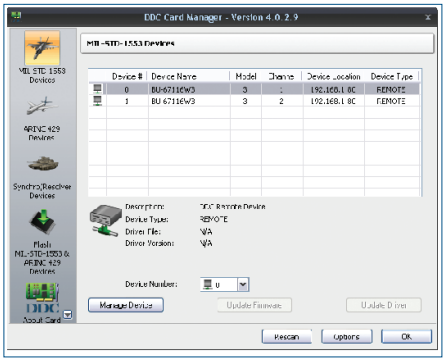
Type in the IP Address (previously configured) of the AceXtreme Bridge Device and click the **Add** button.

You should now see on or more devices listed under the Millstone and/or ARINC 429 tabs of the DDC Card Manager.

---

3 Logical Device Number Assignment:





Assign a Logical Device number to each channel on the AceXtreme Bridge Device using the DDC Card Manager, located in the Control Panel.

You are now ready to use the AceXtreme Bridge Device with your installed SDK. For expanded software capabilities, see the Optional Software Section of this document.

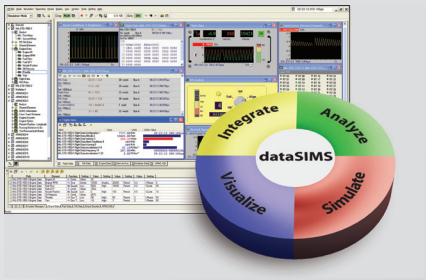
Optional Software

The following Windows® software packages provide expanded capabilities for your PCI device:

dataSIMS

Avionics Data Bus Test and Analysis Software

Free 60-Day Trial!



MIL-STD 1553 ARINC 429

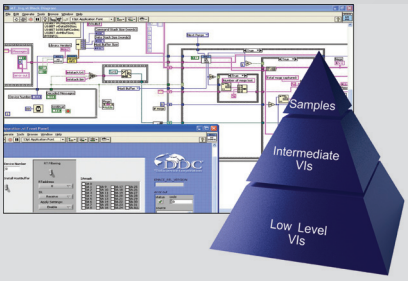
- Accelerates development and deployment
- Eliminates cost of learning and maintaining separate software programs
- Easy-to-use and customize
- Supports all data protocols and I/O formats

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

LabVIEW® Support Package

Easy and Efficient LabVIEW Development Software

Free 60-Day Trial!



MIL-STD 1553 ARINC 429

- Simple interface for quick startup and easy programming
- Access real-time 1553/429 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, visit: www.ddc-web.com/labview

BusTrACEr™

Data Bus Analyzer and Monitor Software

Free 60-Day Trial!



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, visit: www.ddc-web.com/bustracer

Commercial Avionics Utility Suite

Data Bus Analyzer and Data Loader Software

Free 60-Day Trial!



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, visit: www.ddc-web.com/arincsw

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

Artisan Technology Group is an independent supplier of quality pre-owned equipment

Gold-standard solutions

Extend the life of your critical industrial, commercial, and military systems with our superior service and support.

We buy equipment

Planning to upgrade your current equipment? Have surplus equipment taking up shelf space? We'll give it a new home.

Learn more!

Visit us at **artisantg.com** for more info on price quotes, drivers, technical specifications, manuals, and documentation.

Artisan Scientific Corporation dba Artisan Technology Group is not an affiliate, representative, or authorized distributor for any manufacturer listed herein.

We're here to make your life easier. How can we help you today?

(217) 352-9330 | sales@artisantg.com | artisantg.com

ARTISAN® TECHNOLOGY GROUP