HD Radio
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IDi 40 Data Importer
Software Upgrade Application Guide

Software Version 4.3.1

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Table of Contents

1. Purpose of this Document

The following document explains how to perform the Importer software upgrade process to iBiquity version 4.3.1. This process converts an existing IDi 20 Importer to an IDi 40 Importer.

2. Tools / Items Needed

☐ Windows XP Professional Install CD
☐ Importer v4.3.1 installation CD or downloaded zip file

3. Estimated Completion Time

Proving that you have the tools listed above, it will take approximately 2 hours to complete the upgrade procedure to iBiquity version 4.3.1.

4. IDi 40 Software Overview

This document must be read to its entirety before installing this new version. The difference between an IDi 20 and IDi 40 is the ability of how many secondary HD channels it can run. An IDi 20 can only run HD2 and HD3 when an IDi 40 can also run HD4.

Your Exporter, Exciter and Exgine card must be upgrade first to the following versions.

Exporter 4.3.2
Exciter 2.00.41
Exgine 4.0.0

A reformat and reinstall of Windows XP SP2 or SP3 is needed to be completed first before attempting to install version 4.3.1!!

What is the current version of your Exporter? _____
What is the current version of your Exciter?_____
What is the current version of your Exgine card?_____
What is the current Importer Configuration?_____

Note: If you are using B.E.'s The Radio Experience Software for PAD data, you will need to be running TRE 2.9.0. Build 18 or higher. The HD RADIO mode in TRE must be set to Version 4.

4.1 Preparation:

1. Gather Importer and Exporter IP Address settings
2. Reformat the C drive and install fresh copy of Windows XP Professional.
3. All hardware installations needed should be completed prior to Importer software install. (soundcards and network adapters)
4. The available importer sound devices are listed below.
   a. Audio Science: http://www.audioscience.com
      i. 5041 - 4 channels PCI only AES
      ii. 5044 – 4 channels PCI Analog/AES
      iii. 5111 – 1 channel PCI Analog/AES
      iv. 6622 - 2 channels PCI-e only AES
      v. 5641 – 4 channels PCI-e only AES
   b. Orban: http://www.orban.com/
      i. 1100 – PCI Analog / AES data shift issue (obsolete)
      ii. 1101(PCI) and 1101e(PCIe) Analog/AES data shift fixed
5. The latest audio drivers are available in the software suite and should be verified.
6. All Windows updates or patches should be completed prior to install.
7. Copy the software zip to the local C: drive and extract the files locally.
8. Verify the Importer and Exporter hardware has the latest available software. (see step 10 for versions)
9. Upgrade in the following order:
   a. Exporter 4.3.2
   b. Exciter 2.00.41
   c. Exgine 4.0.0
   d. Importer 4.3.1

For additional information on preparation including drivers and hardware reference document STS-05-0002_Importer_v4.3.1_FAQ.pdf, or contact Technical Services at 217-224-4700 or service@bdcast.com

5. IDi 40 Software Installation Prerequisites

The Importer 4.3.1 software includes all installation files, audio drivers, and documentation needed to install and operate the Importer.

The Importer can only be installed on a computer running at least Windows XP Professional Service Pack 2, Internet Explorer version 6.0 or above and these should be installed prior to installation of the importer software.

5.1

The Importer Web Admin is going to be used as a managenment tool in replacment of the Broadcast Electronics Dashboard.

To use the "Web Admin" client for synchronization, then IIS must be installed. This must be done before the .NET Framework 1.1 is installed.

From the Control Panel window | Add/Remove Programs, on the left toolbar select "add windows components". Then select internet Information Services (IIS). Windows may request the XP installation CD if it does not have the services core installed.

!!! Warning!!!

The IDi_40_software_version 4.3.1. Zip file downloaded from the BE website MUST first be unzipped before the setup.exe file is launched.

5.2 First install DirectX9 and .NET Framework by running the setup wizards
found in: Installer\DirectX9Install\DirectX9\dxsetup.exe
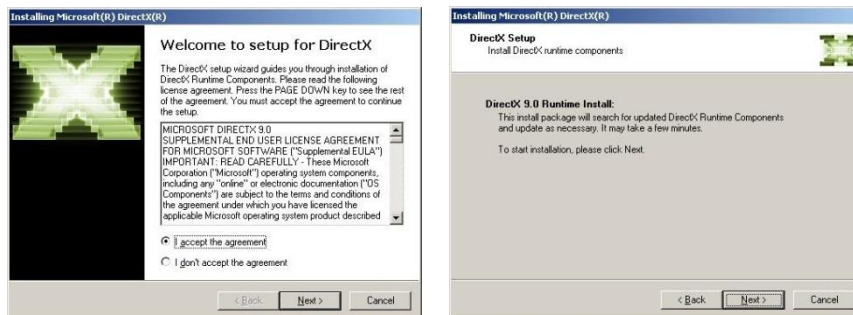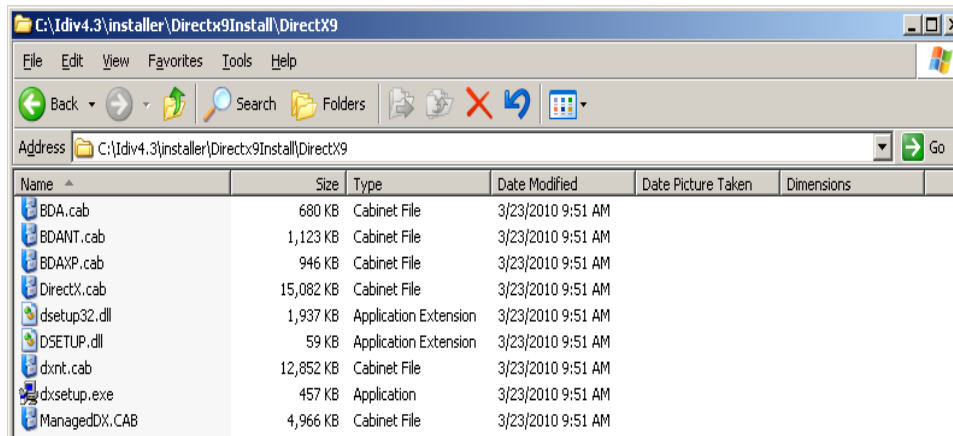
Accept licensing and select "Next" to continue through the installation of DirectX9

5.3 We now have to go to Installer\DotNet-Framework\dotnetfx-Framework1.1.exe.
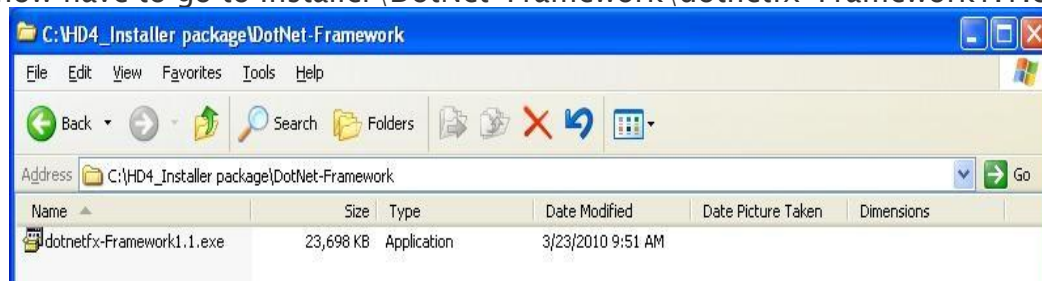
Double click on the executable for installation. This may be already installed through
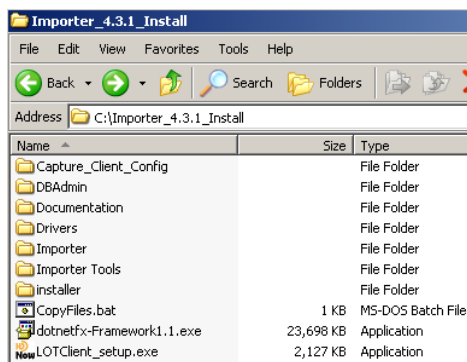windows updates. You can verify by looking in Control Panel / Add Remove
programs.

After the installation is complete , reboot the importer.

6. Install the New IDi 40 software

6.1 Extract the contents of the zipped install file on to the c:\ directory.
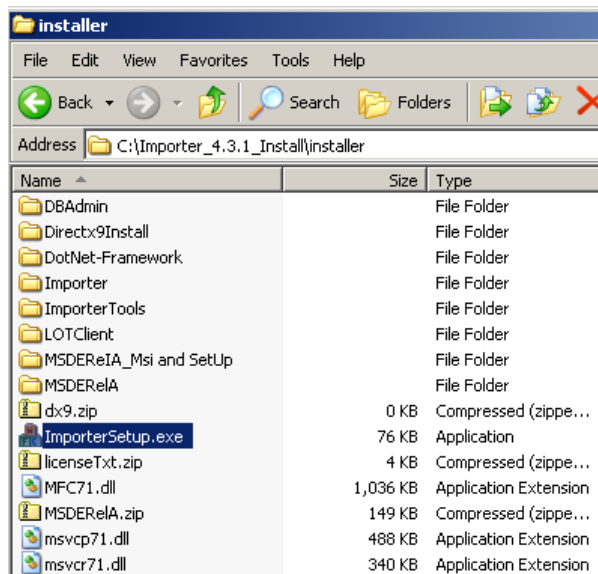Do not run the install from within the zip folder. The folder structure of
c:\Importer_4.3.1_Install must be maintained.

6.2   Importer Setup Install
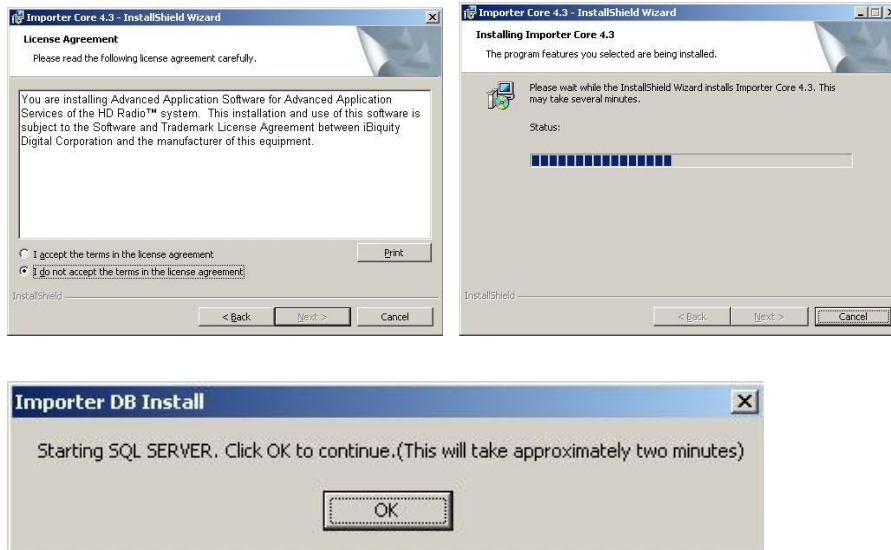6.2.1 Run the ImporterSetup installation
(c:\Importer_4.3.1_Install\Installer\ImporterSetup.exe)

6.2.2 Double click on the executable and select "Ok" to continue install.

6.2.3 Follow the onscreen instructions and select "Next" to accepting licensing. This will automatically install the Sql database.
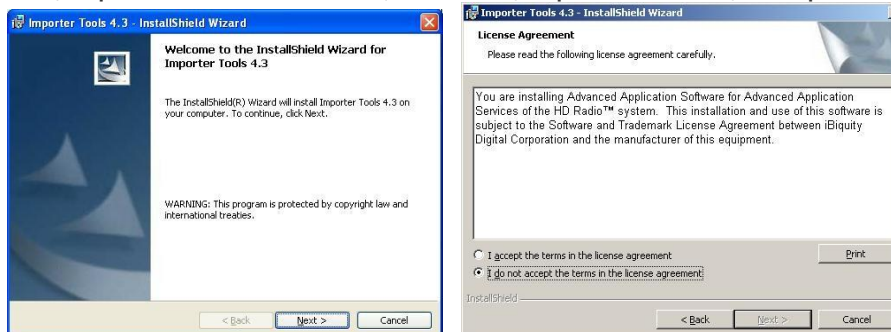

6.2.4 When Installation is complete, it will show completion and you can select Finish.
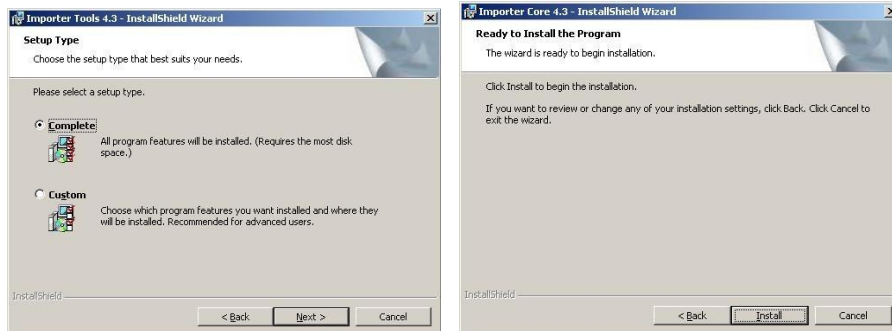
6.3 Importer Tools Install

The Importer Clients include the Web Admin, SPS Capture Client, Generic Data Client, and the Streaming Client. These client applications are how we use the Importer API.

6.3.1 Run the ImporterTools setup

C:\Importer_4.3.1_Install\installer\ImporterTools\ setup.exe

a. Accept licensing and Select"Next" to continue installation

b. We want to do a "Complete" install and then select "Next" to continue

c. Set the WebAdmin configuration button with IP set to 127.0.0.1
d. Please select "Finish" to exit

6.3.2 The Importer setup will create desktop shortcuts for the Importer Control Panel, WebAdmin, CaptureClient, StreamingClient and DataClient. When choosing a Complete Install.


7. Creating Capture Clients

To utilize the additional channels available to you with this upgrade, you will need to create the capture clients for each channel.

For your convenience we have created a batch file, which will create these shortcuts for you. At this time you can delete the default installed captureclient shortcut.

7.1 Run the c:\Importer_4.3.1_Install\Copyfiles.bat

7.1.1 Double click on that file.
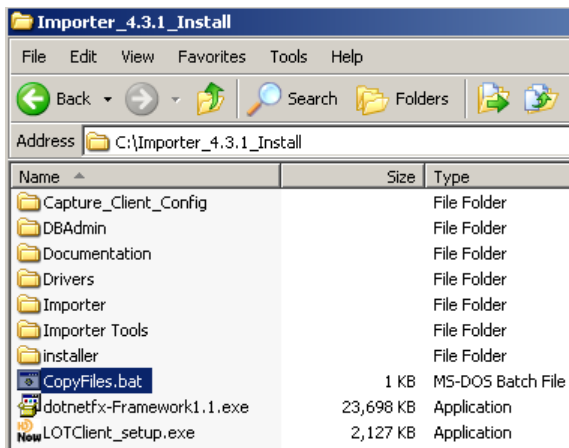
7.2 You will see the Command Prompt window appear and run the script.
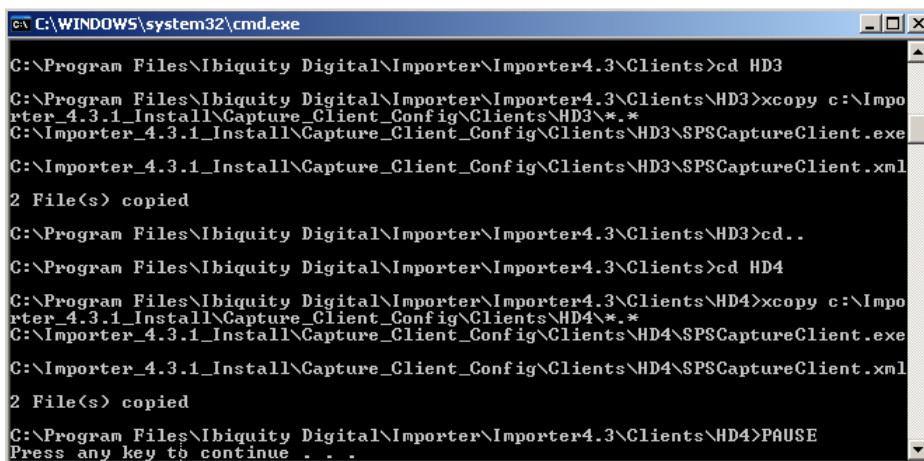
7.3 "Press any key to continue…"

7.4 Three HD Capture Client shortcuts will appear on the Desktop

7.4.1 HD2, HD3 and HD4 Capture Client
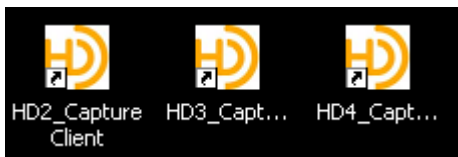
8. Licensing

To obtain a new License Key. Start the License Manager, this can be done from the start menu.

8.1 Start>iBiquityDigital>Importer>LicenseManager

8.2 Press "Get Request Key" and a 48 character key is displayed as shown below. **Do not close this window until you receive the License Key.**

8.3 Email this key to importerkey@ibiquity.com. A 48 character key will be emailed back. Enter this key in the License Key data entry area and select "Activate License"

8.4 The current license status, valid until date and tier, will be updated upon acceptance of a valid key.

8.5 Press close to complete the process.
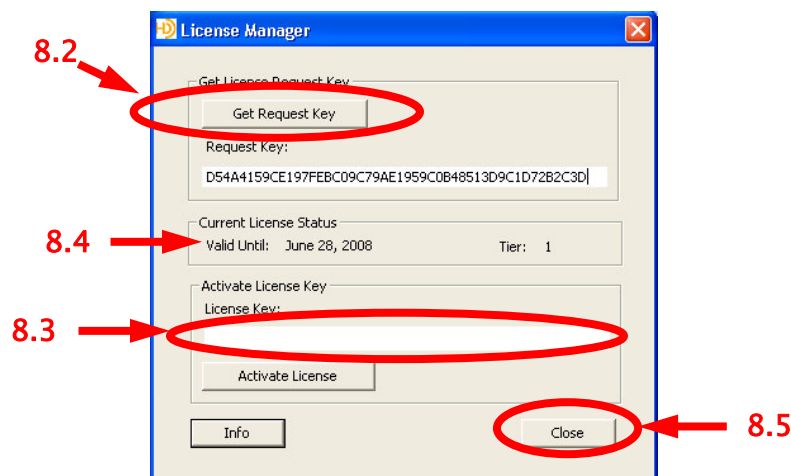
9. Set the IP Address for the IDi 40

9.1 If this is an update from a recent software version, you should not need to change the ip address. But if needed the information is provided here.

 9.1.1 Step1- Go to **Start->Settings->Network Connections**. Next right click on the "connected" **Local Area Connection**, and select **Properties**.
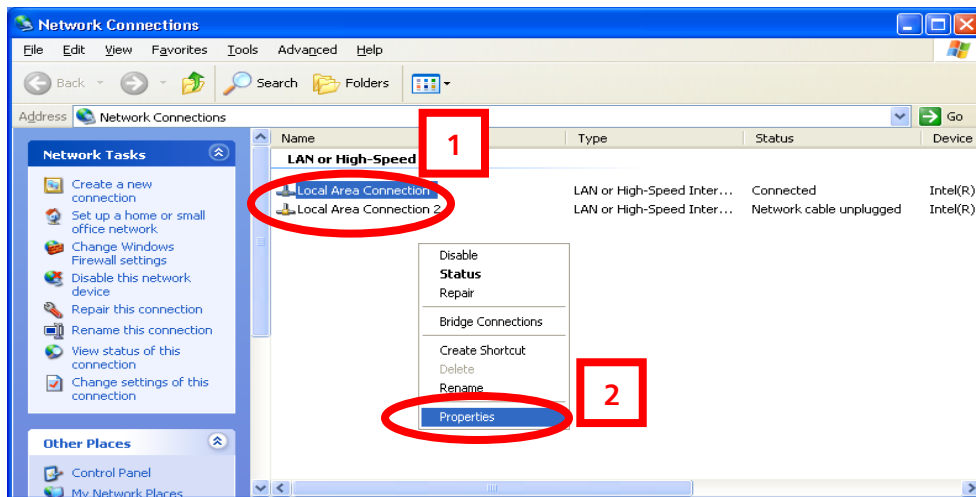
 9.1.2 Step2- Select the **Internet Protocol (TCP\IP)** connection, then click **Properties**.
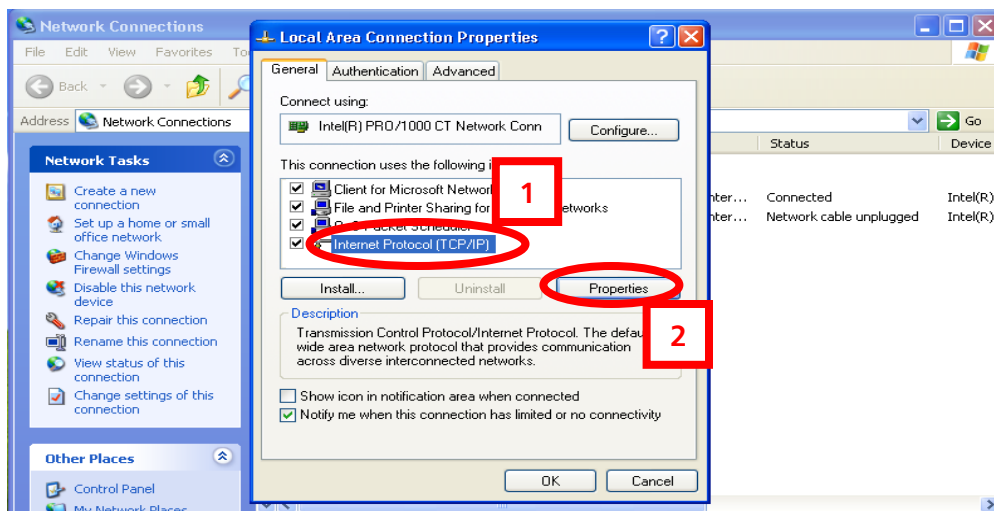
9.1.3 Step 3– Select **Use the following IP Address**, then enter the **IP Address** and the **Subnet mask** of the **IDi Importer**. The Subnet mask MUST be the same as the FSi 10 and XPi 10.
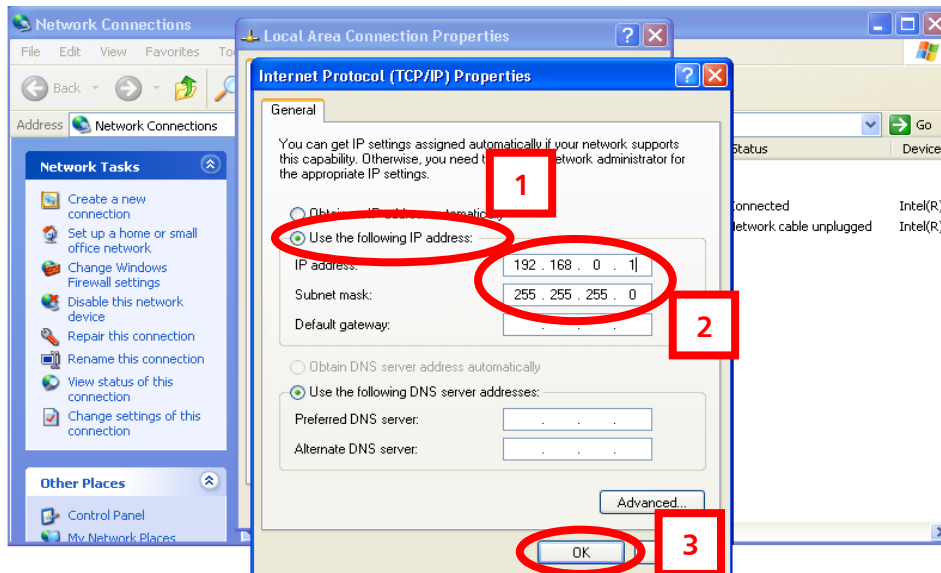
10. Importer Control Panel and Client Configuration Tools

10.1 Next we have to configure the Importer Control Panel. To begin double click the provided shortcut for access to the Importer Control panel.

10.2 Go to Setup and select Importer.
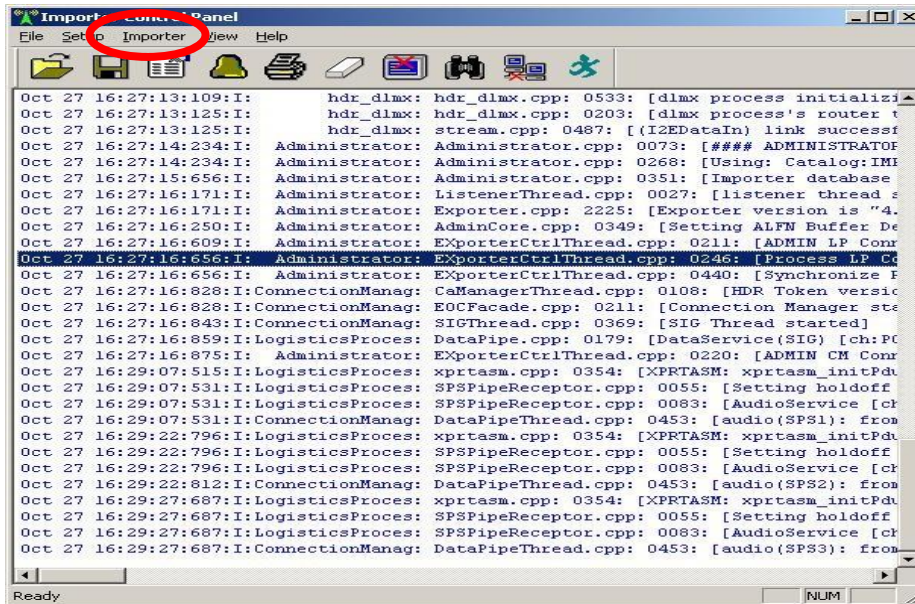
10.3 Enter the Exporter IP Address, and then click Ok. The ports shown are default and should not need to be changed.
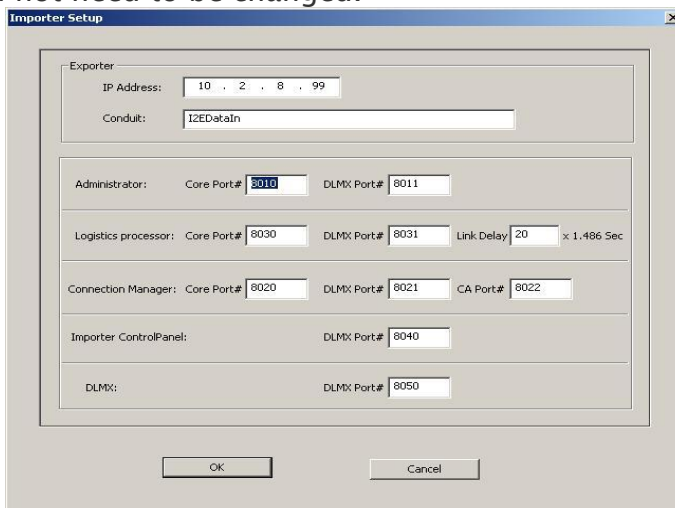
10.4 Now Select Setup and go to Preferences.
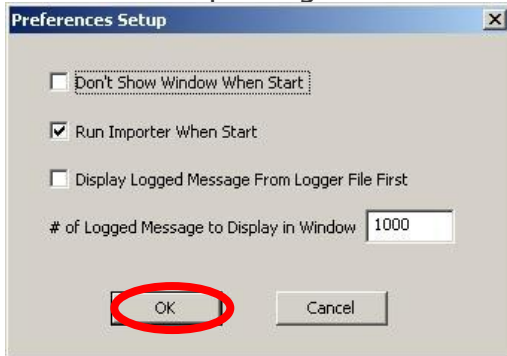
10.4.1 Here we Select option 2 "Run Importer When Start", this starts the application with windows. The notification below will appear.

10.5 Now select Importer and then select Start, or press the Green Guy.
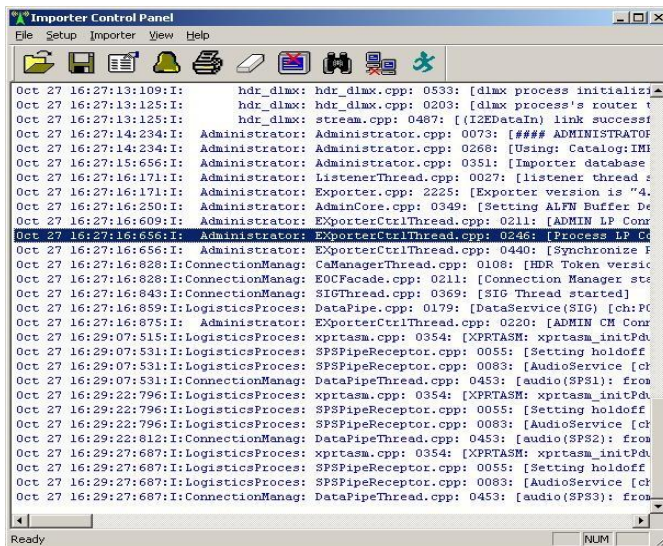
10.6 The Green guy running is "Start"; this will change to a "Stop" sign while running.

11. Web Admin and Channel Configurations

11.1 We now have to configure your bandwidth allocation by selectinig and activating your configuration through the WebAdmin.

11.2 Launch the WebAdmin shortcut on the Desktop
User ID: "admin" and Password: "admin" to log into the WebAdmin client.

11.3 The Idi-40 can be configured for three modes of operation:

    11.3.1 MP1 – has a bandwidth of 96kbps.

    11.3.2 MP2 – has a bandwidth of 108kbps

    11.3.3 MP3– has a bandwidth of 120kbps

11.4 The Web Admin interface has 5 different tabs:

    11.4.1 **Exporte**r tab shows current Exporter status.

    11.4.2 **Importer** tab shows the Importer's status and will be used to change configurations.

    8.4.3 **Monito**r tab is for a future feature.

    8.4.4 **Administration** tab is where our services are configured and edited.

    8.4.5 **Client Configuration** tab is where the password is changed and the license information is located.

11.5 iBiquity HD Naming Relationships

    11.5.1 MPS = HD1

    11.5.2 SPS1 = HD2

    11.5.3 SPS2 = HD3

    11.5.4 SPS3 = HD4

11.6 Exporter Configuration Tab

11.7 Importer Tab

11.7.1 Here we select our channel configuration by selecting Next, Previous or Jump To ID.

11.7.2 Click the Set button once a configuration is chosen.

11.7.3 Once we have set the appropriate bandwidth configuraiton it will return to the **Exporter** tab to **Synchronize** the Exporter.


11.7.4 Select Synchronize

If this is not the case please review your settings and the previous configuration pages. You may also refer to (STS-02-2059) the Importer v.4.3.1 WebAdmin document for help with adding or editing your current configuration. This and other informational documents can be found in the Importer_4.3.1_Install directory under documents. More information is also available from BE Technical Services at 217-224-4700 or by emailing service@bdcast.com.

12. Capture Client Configuration

HD2 Capture Client defaults to sound card input 1

HD3 Capture Client defaults to sound card input 2

HD4 Capture Client defaults to sound card input 3
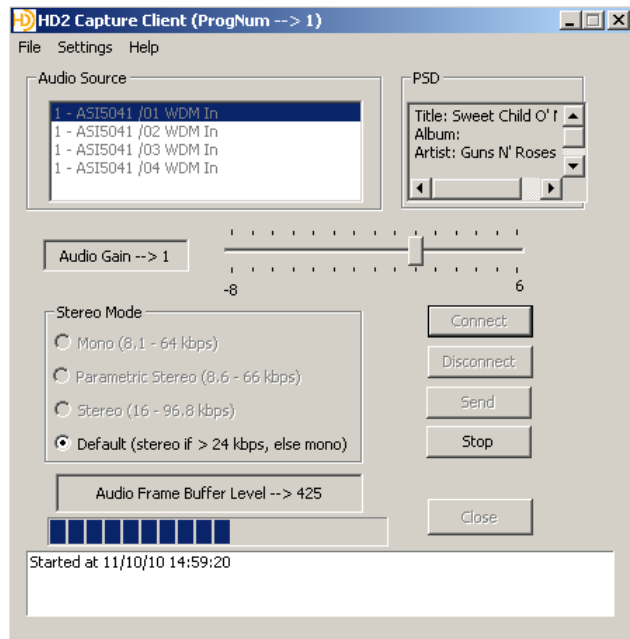
12.1 Launch your HDx Capture Client shortcut

12.2 Choose File | Settings

   9.2.1 These settings are not to be changed.

12.3 Choose Settings | SPS Settings

   12.3.1 PAD port

        12.3.1.1 HD2 PAD port 4444

        12.3.1.1 HD3 PAD port 4446

        12.3.1.1 HD4 PAD port 4448

   12.3.2 Extra Buffering Default is 10

12.4 If the proper sound card channel is not selected Choose Disconnect and
   then Reconnect.

12.5 Click Send to start capturing audio and PAD data.

12.6 If having audio problems, launch the ASI Control desktop shortcut
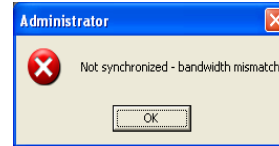
12.61 Verify audio levels by selecting the appropriate Recorder. For additional information go to www.audioscience.com
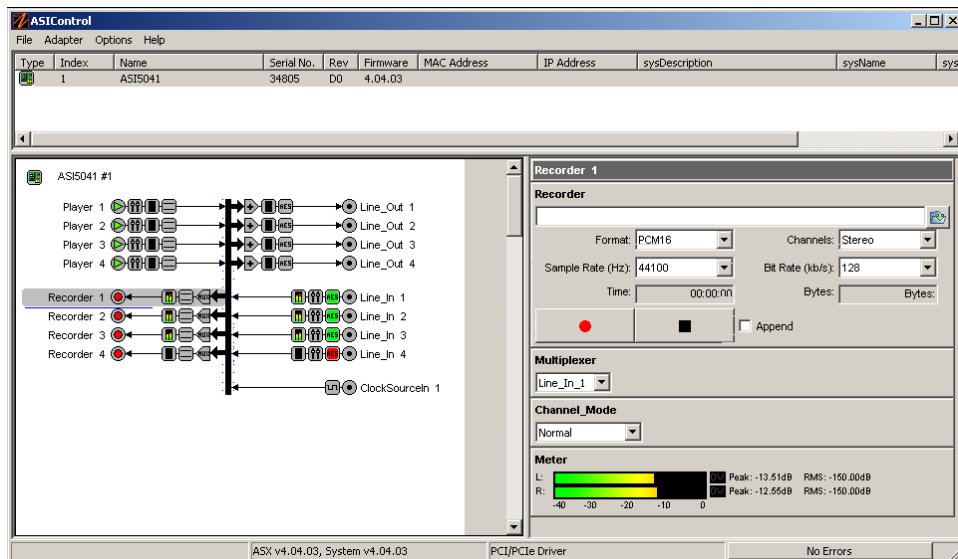
13. Notes on Switching Configurations via the IDi 40

13.1 If you have an XPi 10 in Your System

> For systems running version 4.3.1of IDi and version 4.3.2 of XPi software please note that upon switching configurations via the IDi 40, the XPi 10 may be re-booted and loose its Exciter Link address information!

13.1.1 Prior to switching configurations from the IDi, it is recommended that you record the Exciter Link Config settings of the XPi 10

13.1.2 If the XPi 10 is re-booted after switching configurations via the IDi 40, you will have to re-enter the Exciter Link Config settings back into the XPi 10.

> Please note that HD operation will be off of the air during this process. .

13.1.3 If it is unable to synchronize, you will need to login to the Importer WebAdmin to configure.

13.2 If you have an FSi 10 in Your System

13.2.1 For systems running version 4.3.1 of IDi and version 4.3.2 of FSi software please note that upon switching configurations via the IDi 40, the FSi 10 may be rebooted. As a result, HD Operation will be off of the air during this process.
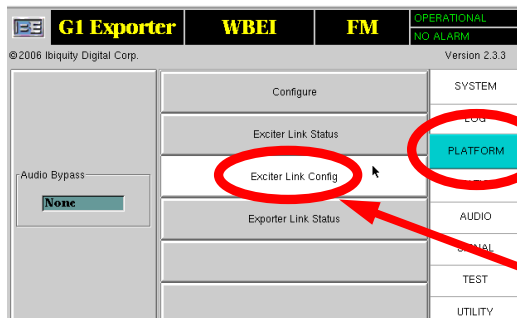
Step 1 – Select PLATFORM

Step 2 – Select Exciter Link Config

Step 3 – Record the Exciter Link

Step 4 – Record the Exciter Link I.P. Address

Step 5 – Record the MAC Address

Step 6 – Click the **Enable**

Protocol
_____

IP Address
_____

14. Switching the Configurations in the IDi 40

14.1 Log on to the WebAdmin and select Administrator for available configurations

14.2 Select the Importer tab

14.3 Use the available Next and Previous buttons, to toggle through the Presets and your Custom configurations.

14.4 If know the Configuration ID, this can be typed in where you see "Jump To ID". Once you have found your desired configuration. Select "Set" as shown below.

14.5 Select "Set", you will see a notification of the impending change.

14.6 Select Change if you wish to continue, Cancel if not.

14.7 Select "Synchronize" to complete this action.
    11.7.1 Your channel bandwidth is now set.

14.8 You may be prompted to restart the Importer or other hardware.

Note: Once your configuration is set and synchronized, you will need to restart the Importer Control Panel and Connect and Resend your Capture Client channels.
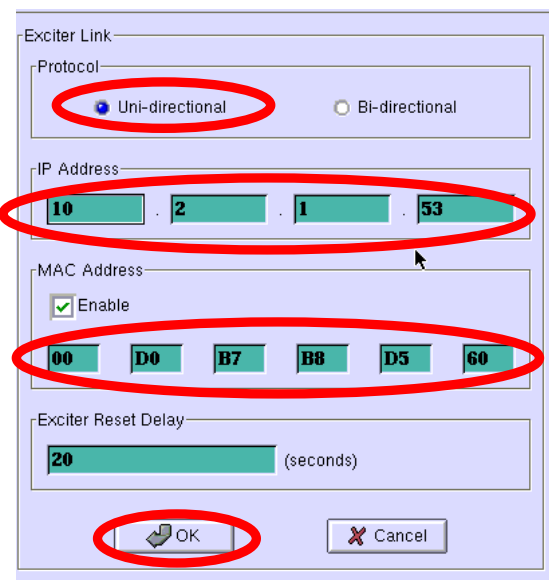
15. Re-configure the Exciter Link of the XPi 10

Step 1 – Select **PLATFORM**

Step 2 – Select **Exciter Link Config**

Step 3 – Set the Communication protocol

Step 4 – Enter the Exciter Link I.P. Address of the Exciter

Step 5 – Click the **Enable**

Step 6 – Enter the MAC

Step 7 – Click OK
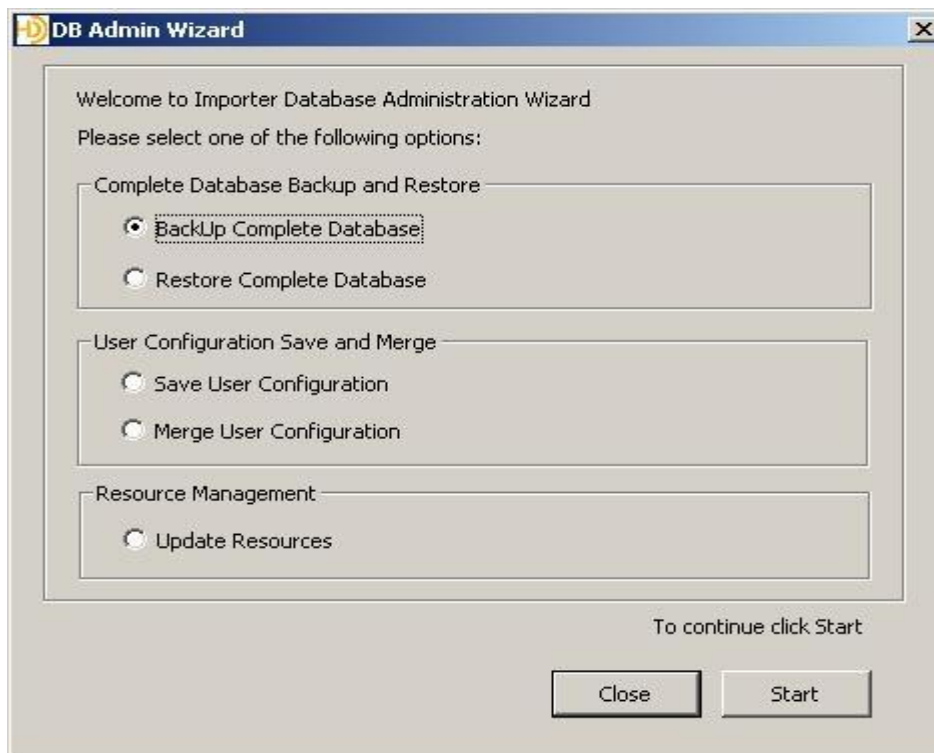
16. Database Backup

16.1 The 4.3.1 DB Admin tool allows users to save their user configuration settings to an xml file and then merge it back into the database. This is recommended after the IDi has been setup.

16.2 Launch DBAdmin from:
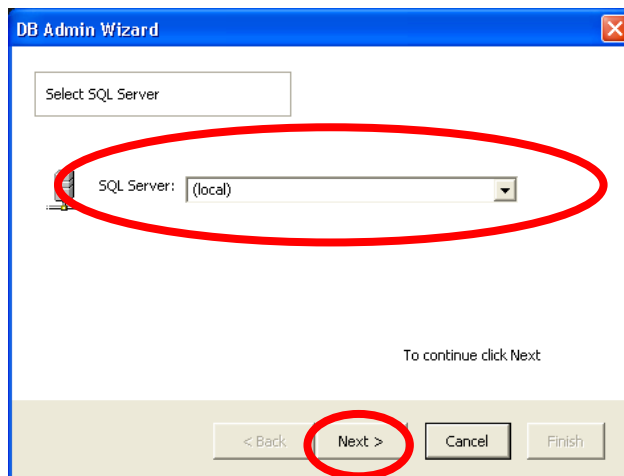   Start > All Programs > IBiquity Digital > Importer > DBAdmin
16.3 Select Backup Complete Database
16.4 Select Start

NOTE: If you need to backup or restore the Database, the Importer control Panel MUST be shutdown.

16.5 When you select Start from the window to begin the backup the window below appears.
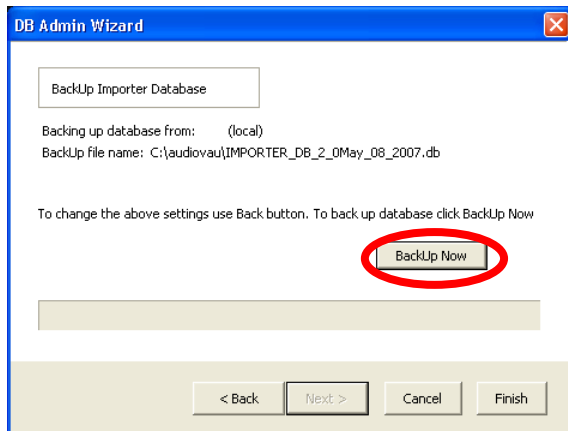

16.6 Here you will need to select the location to save your backup to. You can select a local location or browse to a network location. **Select Next when finished.**
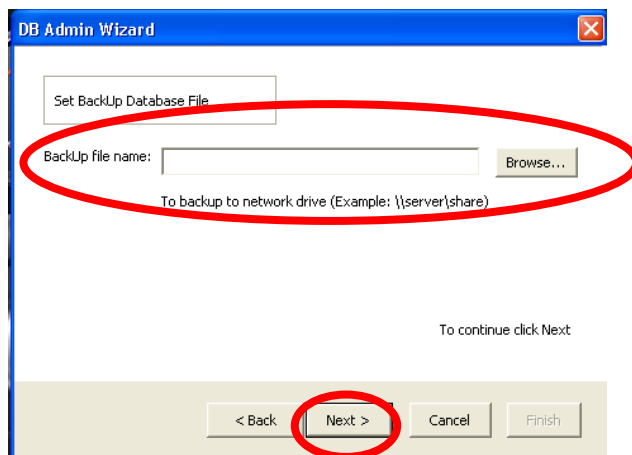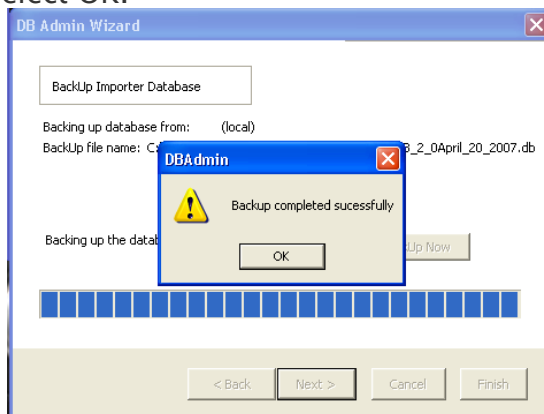

16.7 We now enter the backup name and its location on the network if applicable, and select Next.
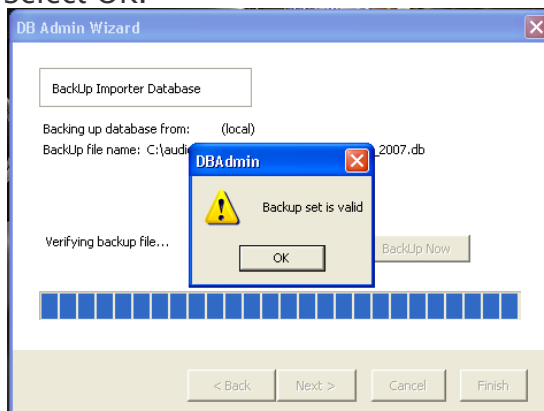
16.8 A verification of the location will now show in the window.
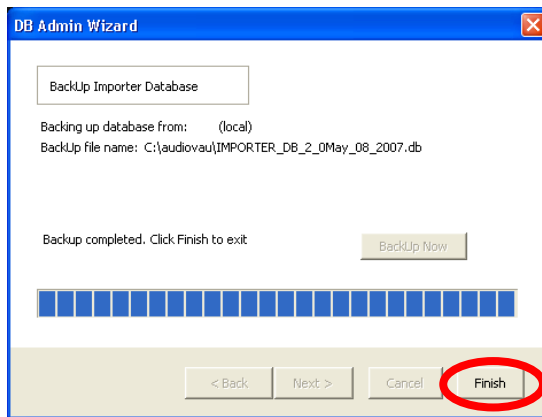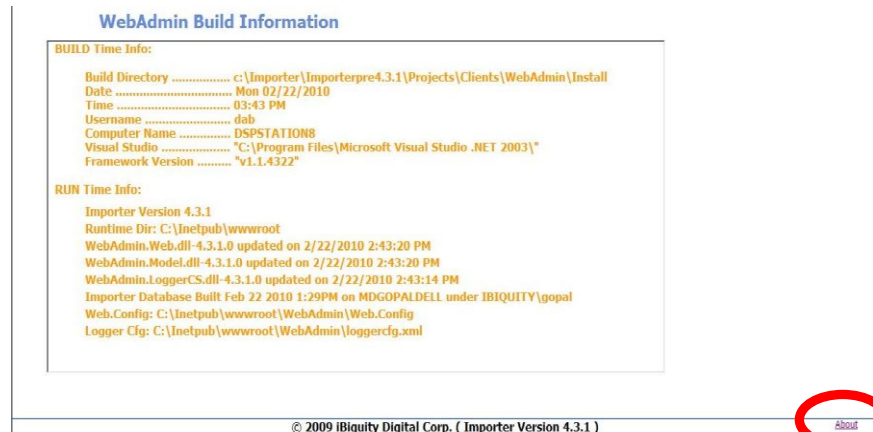**If correct, select BackUp Now.**

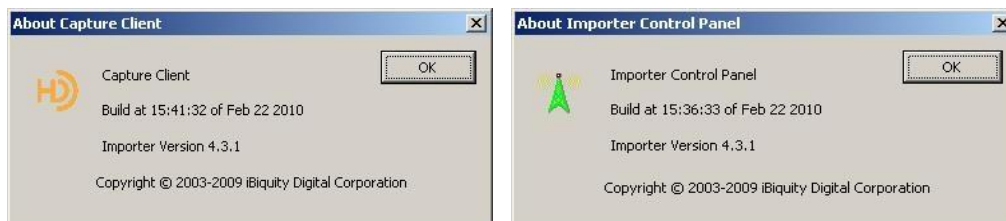

16.9 Select OK.

16.10 Select OK.

16.11 When the operation is complete, we select Finish.

17. Help

17.1 Help is available in all applications, just go to "Help' and "About" within the application.

18. Technical Service Contact Information

Telephone: (217) 224-4700

E-Mail: service@bdcast.com

Fax: (217) 224-6258