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IDi 40 Data Importer Software Upgrade Application Guide

Software Version 4.3.1

597-2010-006, Revision K

01/13/2011

IDI 40 Data Importer

Software Upgrade Application Guide

Software Version 4.3.1

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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 Engine 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 management 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.

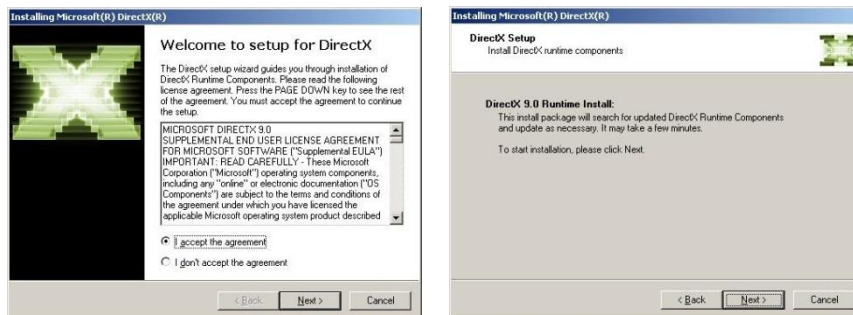
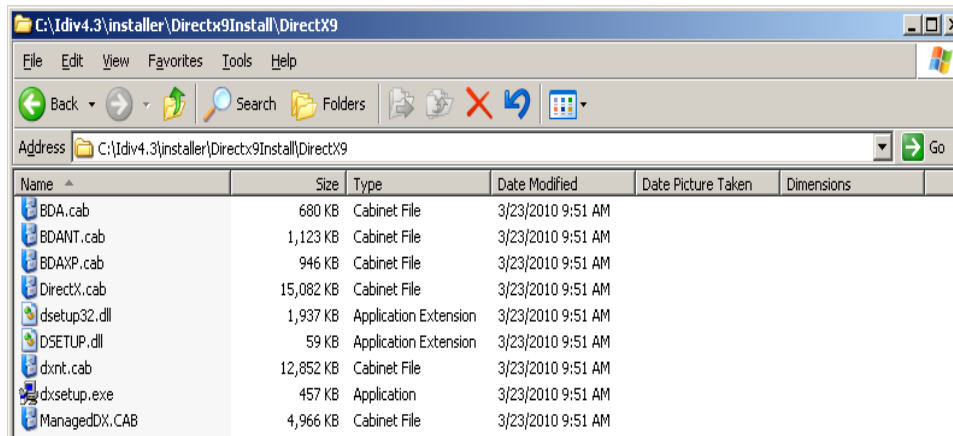


From the Control Panel window | Add/Remove Programs, on the left toolbar select “add windows components”. Then select internet Information Services (IIS). Windows may request the XP installation CD if it does not have the services core installed.

!!! Warning!!!

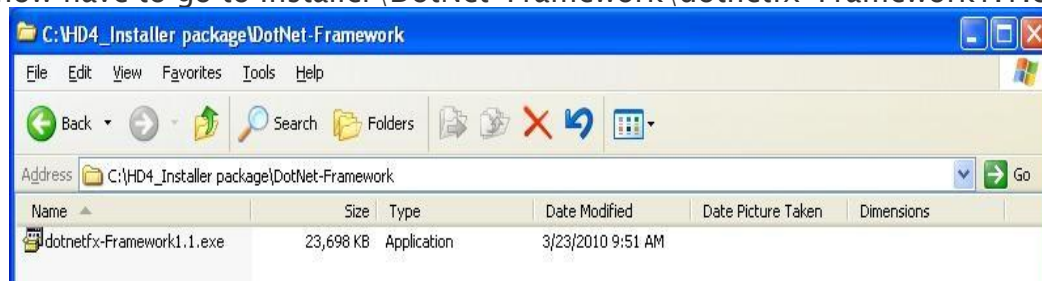
The IDi_40_software_version 4.3.1. Zip file downloaded from the BE website MUST first be unzipped before the setup.exe file is launched.

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.

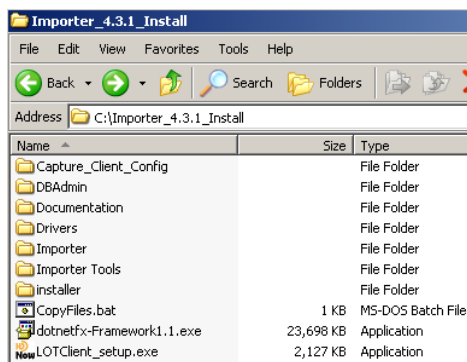


After the installation is complete , reboot the importer.

6. Install the New IDi 40 software

6.1 Extract the contents of the zipped install file on to the c:\ directory.

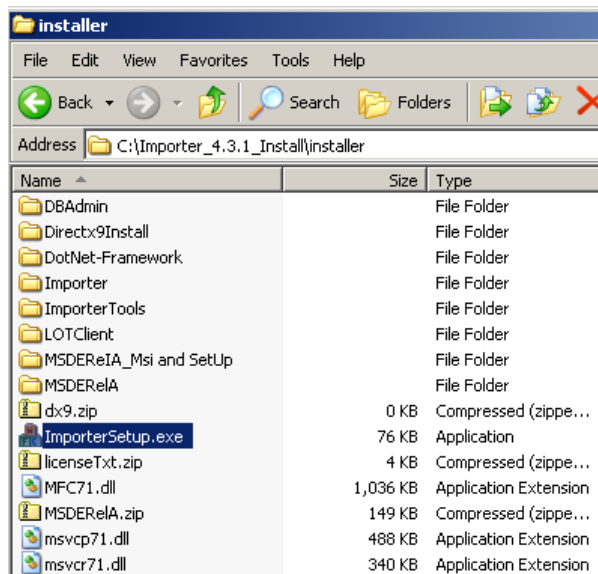
Do not run the install from within the zip folder. The folder structure of c:\Importer_4.3.1_Install must be maintained.



6.2 Importer Setup Install

6.2.1 Run the ImporterSetup installation

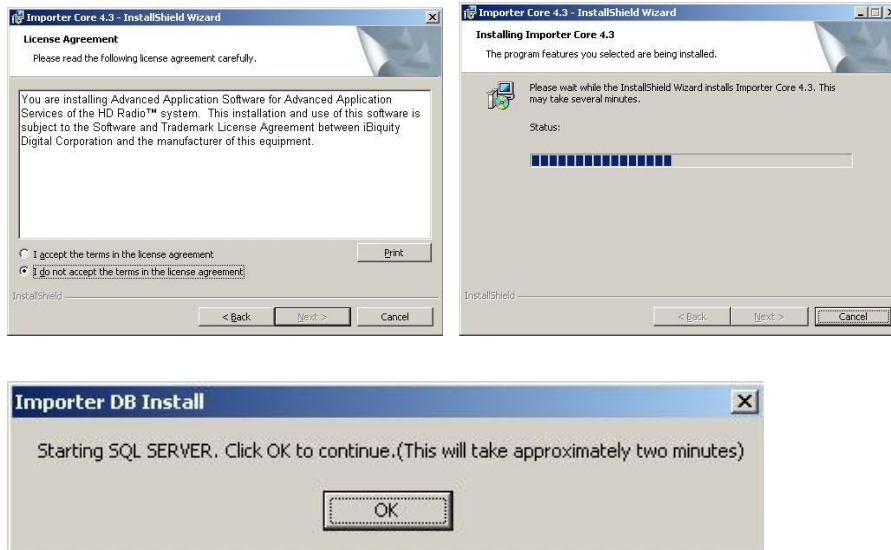
(c:\Importer_4.3.1_Install\Installer\ImporterSetup.exe)



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.



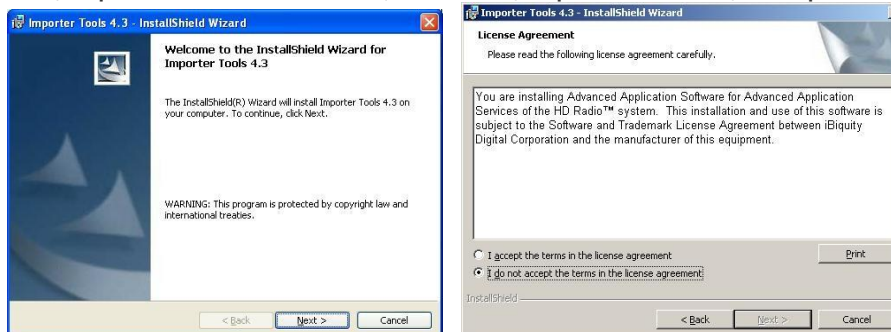
6.2.4 When Installation is complete, it will show completion and you can select Finish.

6.3 Importer Tools Install

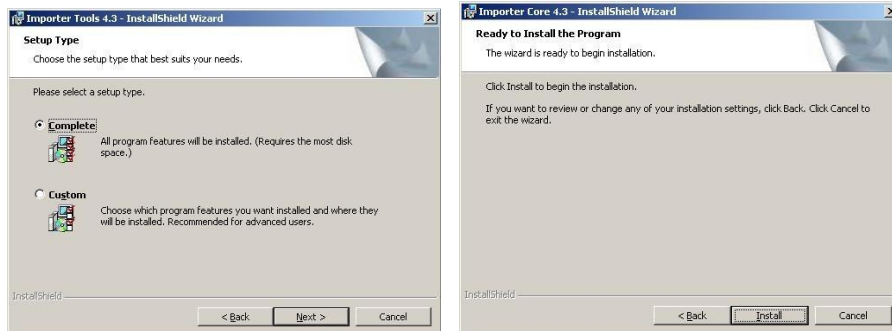
The Importer Clients include the Web Admin, SPS Capture Client, Generic Data Client, and the Streaming Client. These client applications are how we use the Importer API.

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.



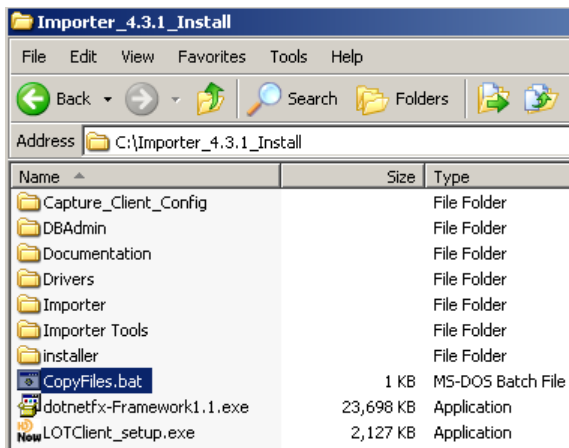
7. Creating Capture Clients

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

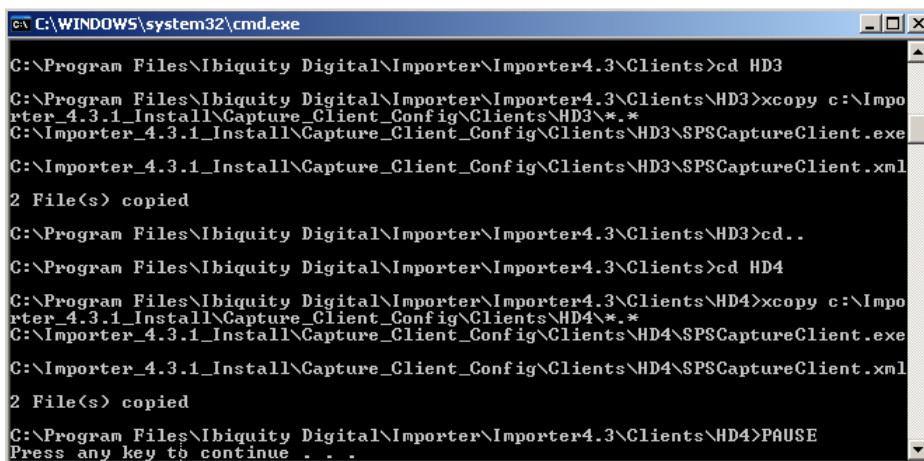
For your convenience we have created a batch file, which will create these shortcuts for you. At this time you can delete the default installed captureclient shortcut.

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

7.1.1 Double click on that file.



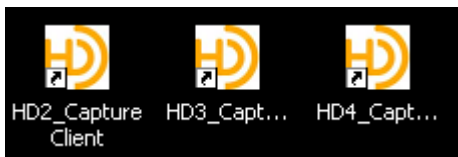
7.2 You will see the Command Prompt window appear and run the script.



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.

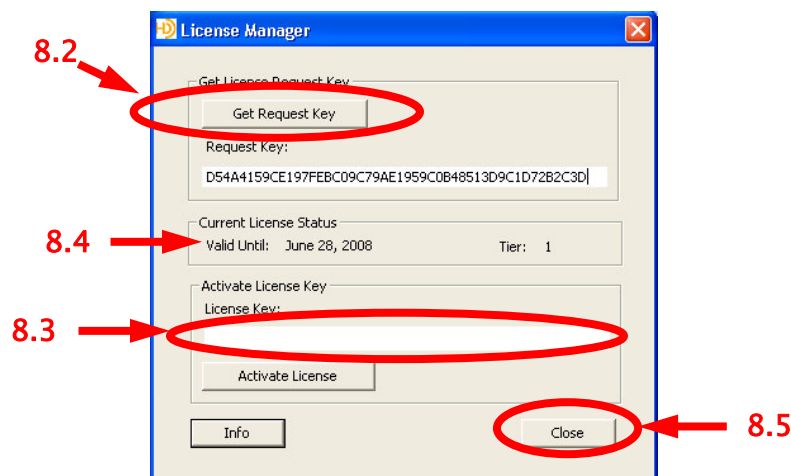
8.1 Start>iBiquityDigital>Importer>LicenseManager

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.

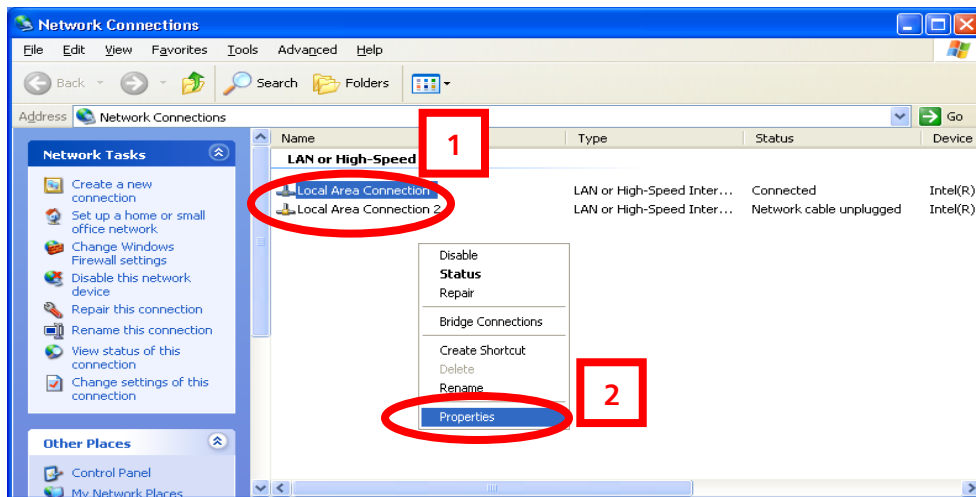
8.5 Press close to complete the process.



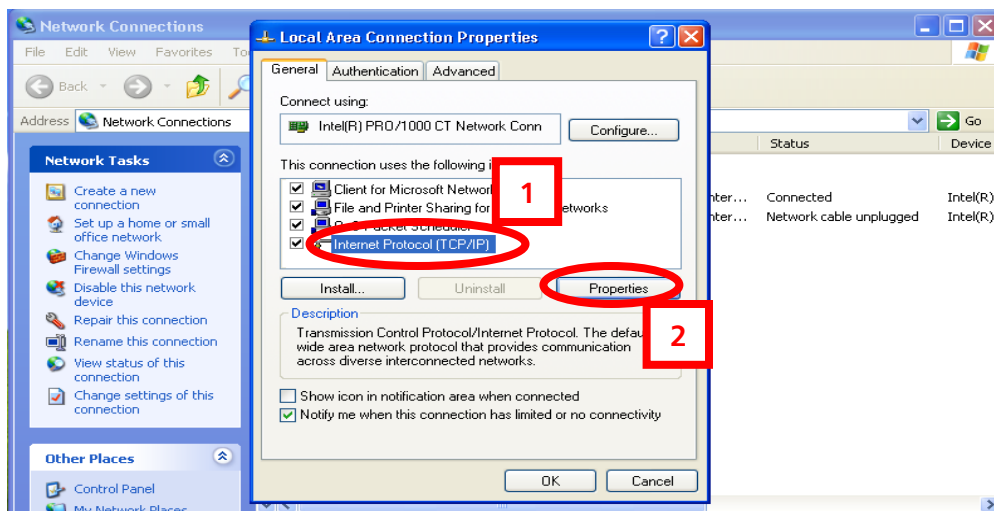
9. Set the IP Address for the IDi 40

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.

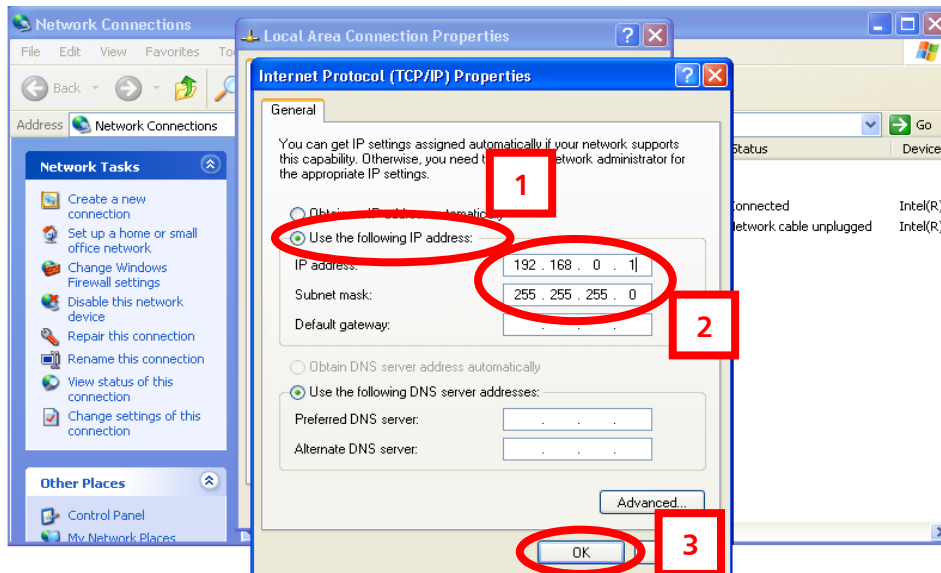
9.1.1 Step1 – Go to **Start->Settings->Network Connections**. Next right click on the “connected” **Local Area Connection**, and select **Properties**.



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.

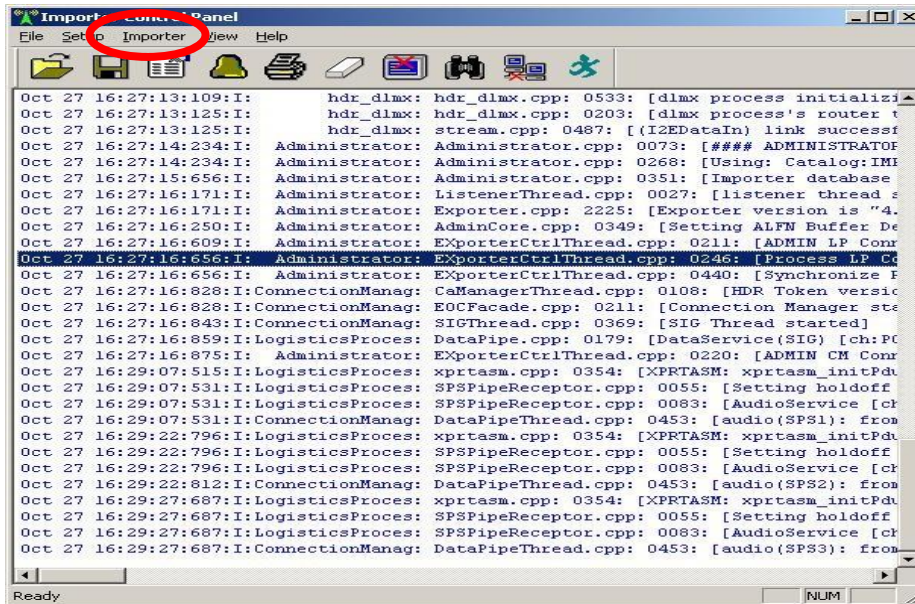


10. Importer Control Panel and Client Configuration Tools

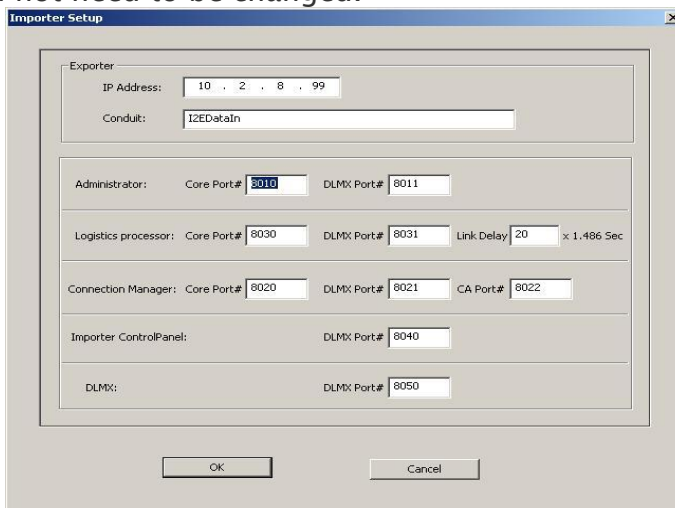
10.1 Next we have to configure the Importer Control Panel. To begin double click the provided shortcut for access to the Importer Control panel.



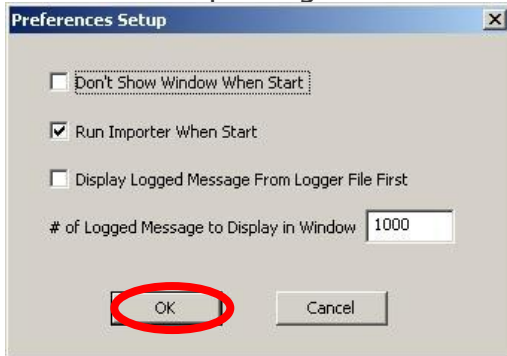
10.2 Go to Setup and select Importer.



10.3 Enter the Exporter IP Address, and then click Ok. The ports shown are default and should not need to be changed.



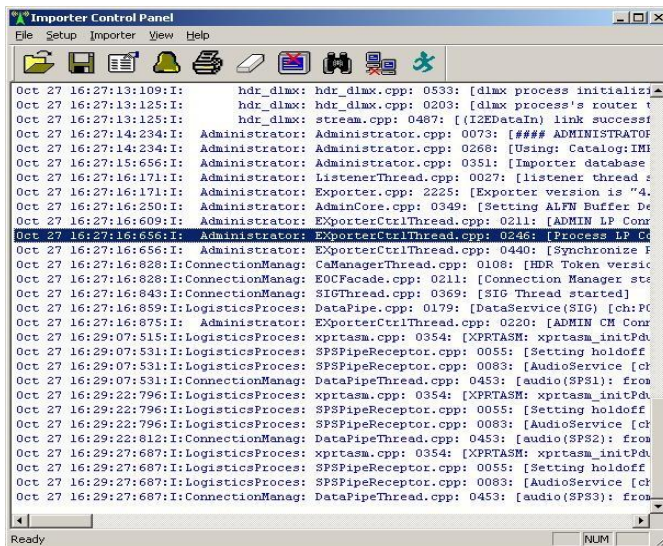
10.4 Now Select Setup and go to Preferences.



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 **Exporter** 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 **Monitor** 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

The screenshot shows the 'Exporter Configuration' window. At the top, there's a blue header with the 'HD Radio' logo and the tagline 'Pure Digital. Clear Radio.' Below this is a navigation bar with tabs: 'Main Menu', 'Exporter' (selected), 'Importer', 'Monitor', 'Administration', and 'Client Configuration'. The main content area is titled 'Exporter Configuration' and contains the following text:

Current Exporter Mode: Unknown

Current Exporter Channel Configuration

Channel	Total Size*	Fixed Size*	MPA Size*
*Size Units: Bytes/PDU			

Messages/Warnings:

At the bottom of the configuration window is a 'Synchronize' button.

At the very bottom of the window, there is a copyright notice: '© 2009 iBiquity Digital Corp. (Importer Version 4.3.1) All rights reserved.' and a small 'About' link.

11.7 Importer Tab

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

The screenshot shows the 'Importer Configuration' window. At the top, there's a blue header with the 'HD Radio' logo and the tagline 'Pure Digital. Clear Radio.' Below this is a navigation bar with tabs: 'Main Menu', 'Exporter', 'Importer' (selected), 'Monitor', 'Administration', and 'Client Configuration'. The main content area is titled 'Importer Configuration' and contains the following information:

Channel configuration (Bytes/PDU)

Channel	Total Size	Fixed Size	MPA Size
P1	18269	9110	8977
P3	573	571	0

Services (Bits/Sec mouseover for Bytes/PDU)

Channel	Service Name	BW	Stream
P1	audio	MP5	48328Core
P1	audio	SPS1	32134Core
P1	audio	SPS2	15940Core
P1	data	SLG	775 Standard-Packet
P3	audio	SPS3	24559Core

Active Status: CUSTOM_MP3_SPS3_(48,32,16,24) ID:21 Dynamic

Active Exporter Mode: MP3
Display Exporter Mode: MP3

Display Importer Config: CUSTOM_MP3_SPS3_(48,32,16,24) ID:21

Next

Previous

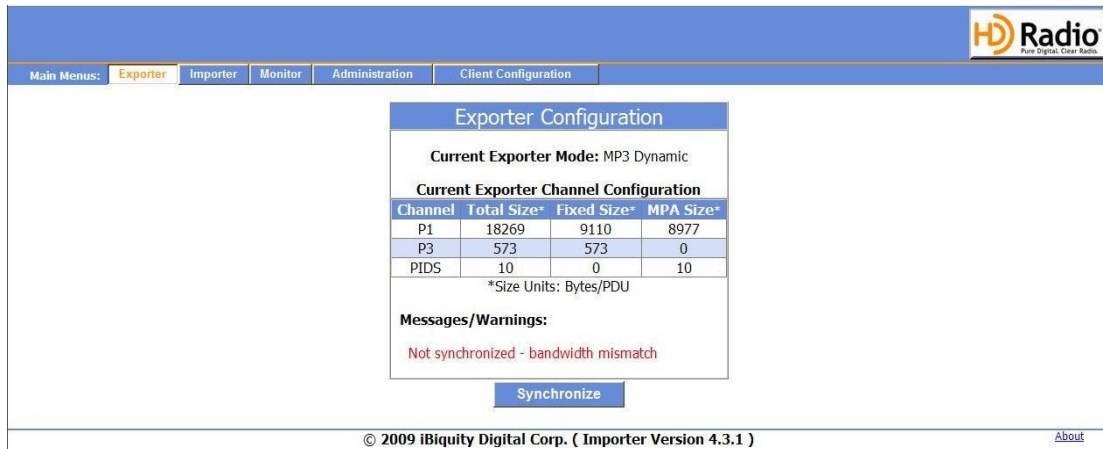
Jump To ID:

☒ Dynamic

At the bottom of the window, there is a copyright notice: '© 2009 iBiquity Digital Corp. (Importer Version 4.3.1) All rights reserved.' and a small 'About' link.

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.



The screenshot shows the HD Radio WebAdmin interface. The top navigation bar includes 'Main Menu', 'Exporter', 'Importer', 'Monitor', 'Administration', and 'Client Configuration'. The 'Exporter' tab is selected. The main content area is titled 'Exporter Configuration'. It displays the 'Current Exporter Mode' as 'MP3 Dynamic'. Below this is the 'Current Exporter Channel Configuration' table:

Channel	Total Size*	Fixed Size*	MPA Size*
P1	18269	9110	8977
P3	573	573	0
PDS	10	0	10

*Size Units: Bytes/PDU

Below the table, a 'Messages/Warnings' section shows a red message: 'Not synchronized - bandwidth mismatch'. A 'Synchronize' button is located at the bottom of the configuration area.

At the bottom of the page, the copyright notice reads: '© 2009 iBiquity Digital Corp. (Importer Version 4.3.1)'. An 'About' link is also present in the bottom right corner.

11.7.4 Select Synchronize

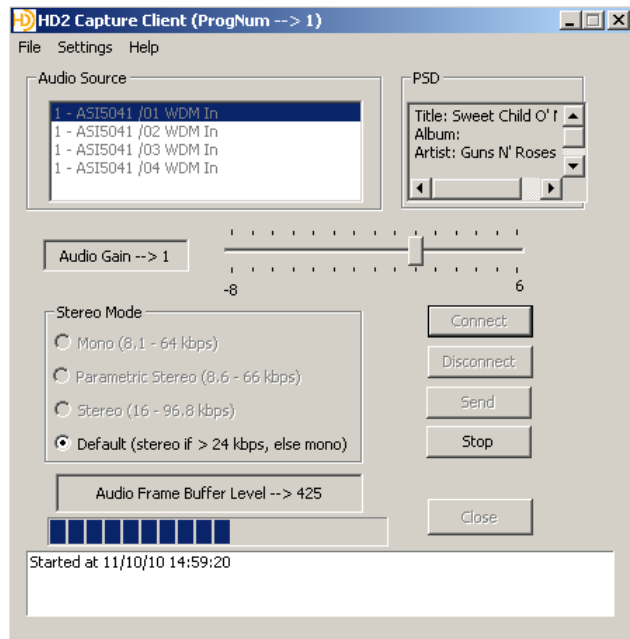
If this is not the case please review your settings and the previous configuration pages. You may also refer to (STS-02-2059) the Importer v.4.3.1 WebAdmin document for help with adding or editing your current configuration. This and other informational documents can be found in the Importer_4.3.1_Install 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

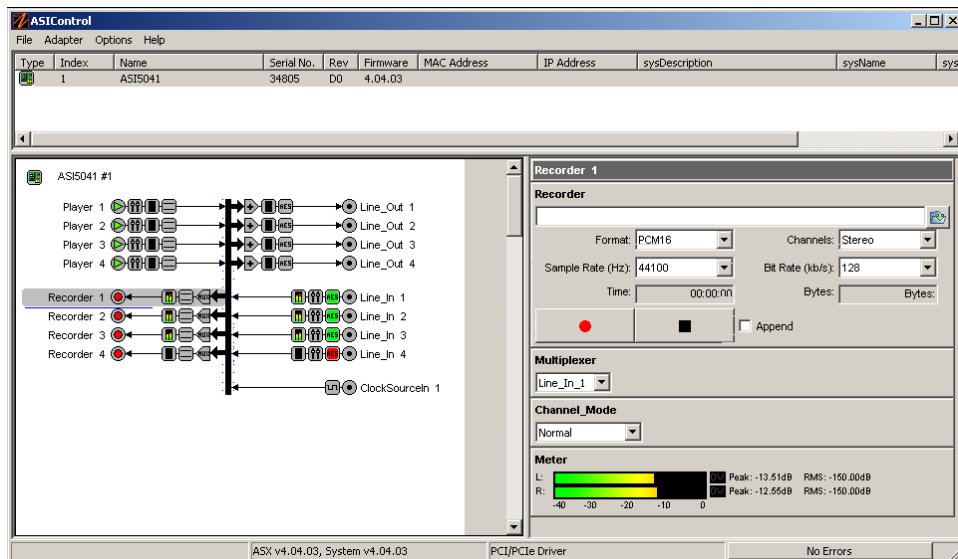
12.4 If the proper sound card channel is not selected Choose Disconnect and then Reconnect.

12.5 Click Send to start capturing audio and PAD data.

12.6 If having audio problems, launch the ASI Control desktop shortcut

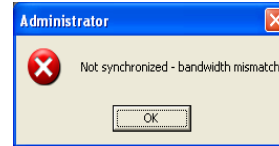
12.61 Verify audio levels by selecting the appropriate Recorder.

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 4.3.1 of 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

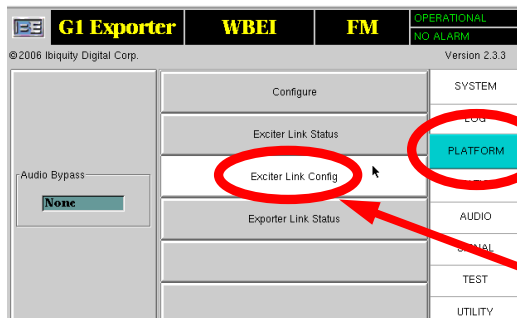
13.1.2 If the XPi 10 is re-booted after switching configurations via the IDi 40, you will have to re-enter the Exciter Link Config settings back into the XPi 10.

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

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All rights reserved.

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

14.4 If you 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.

The screenshot shows the 'Importer Configuration' window. At the top, there's a navigation bar with 'Main Menu', 'Exporter', 'Importer' (selected), 'Monitor', 'Administration', and 'Client Configuration'. The window title is 'Importer Configuration'. It contains several sections: 'Channel configuration (Bytes/PDU)' with a table showing P1 and P3 channels; 'Active Status: CUSTOM_MP3_SPS3_(48,32,16,24) ID:21 Dynamic'; 'Services (Bits/Sec; mouseover for Bytes/PDU)' with a table showing P1 audio and P1 data services; 'Display Importer Config: FM_HYBRID_MP2_SPS2_B ID:8'; and a 'Jump To ID:' field. At the bottom, there are 'Next' and 'Previous' buttons, and a 'Set' button which is circled in red. A checkbox for 'Dynamic' is also visible.

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.

The screenshot shows the 'Exporter Configuration' window. At the top, there's a navigation bar with 'Main Menu', 'Exporter' (selected), 'Importer', 'Monitor', 'Administration', and 'Client Configuration'. The window title is 'Exporter Configuration'. It contains several sections: 'Current Exporter Mode: MP3 Dynamic'; 'Current Exporter Channel Configuration' with a table showing P1, P3, and PIDS channels; '*Size Units: Bytes/PDU'; and a 'Messages/Warnings:' section with a red message: 'Not synchronized - bandwidth mismatch'. At the bottom, there is a 'Synchronize' button.

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.

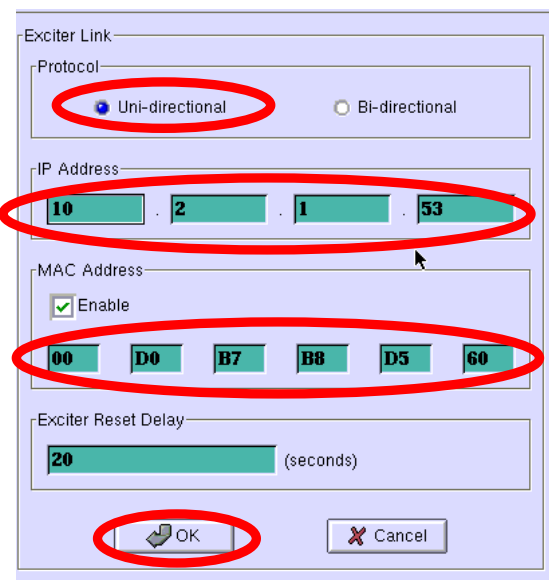
15. Re-configure the Exciter Link of the XPi 10



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

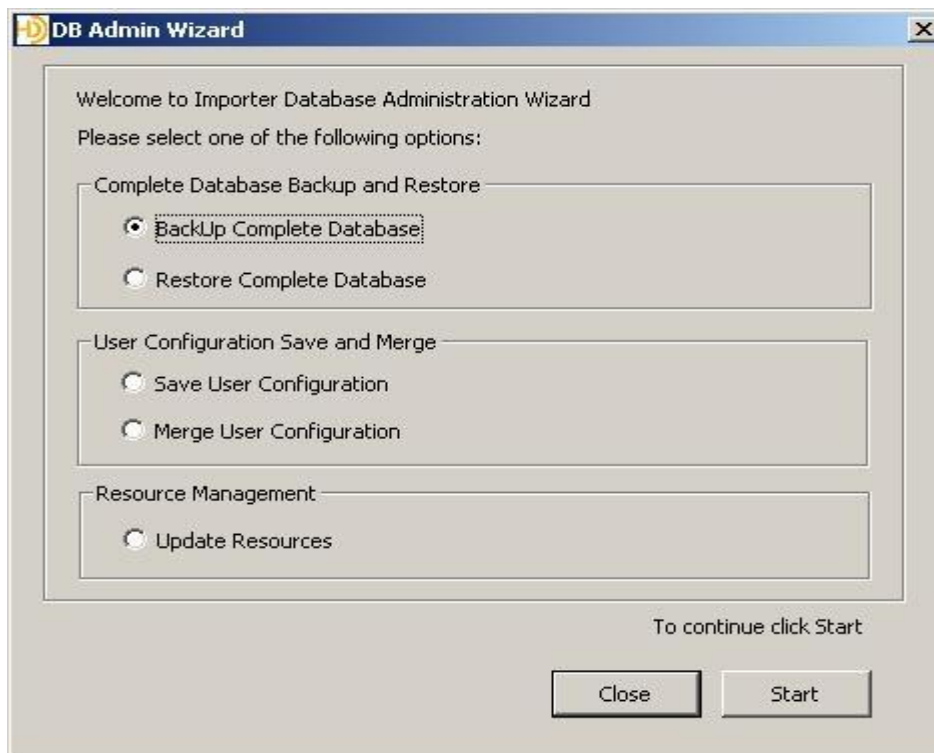
16.1 The 4.3.1 DB Admin tool allows users to save their user configuration settings to an xml file and then merge it back into the database. This is recommended after the IDi has been setup.

16.2 Launch DBAdmin from:

Start > All Programs > IBiquity Digital > Importer > DBAdmin

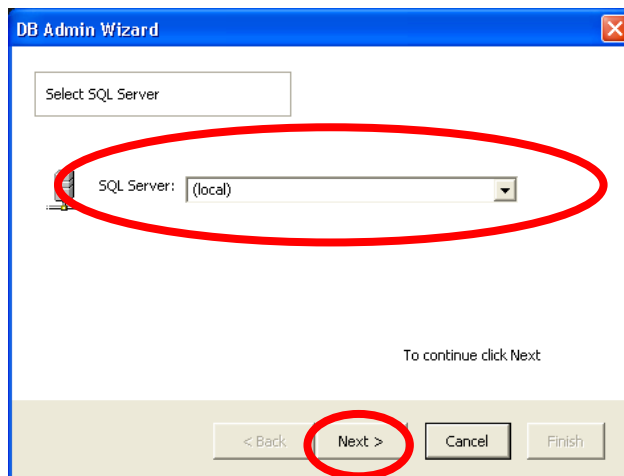
16.3 Select Backup Complete Database

16.4 Select Start

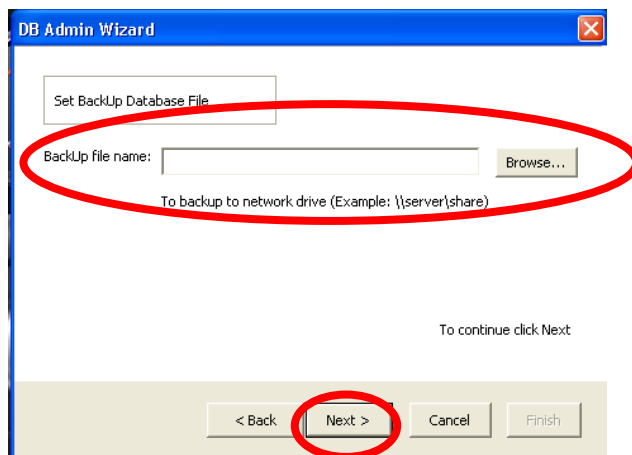


NOTE: If you need to backup or restore the Database, the Importer control Panel **MUST** be shutdown.

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

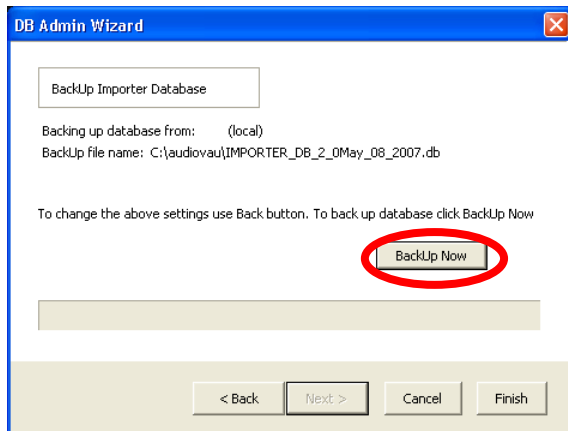


16.6 Here you will need to select the location to save your backup to. You can select a local location or browse to a network location. **Select Next when finished.**

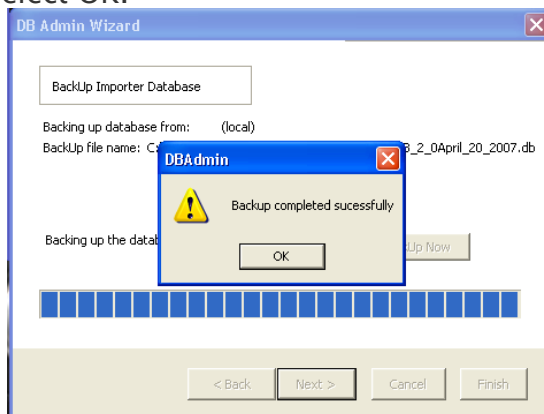


16.7 We now enter the backup name and its location on the network if applicable, and select Next.

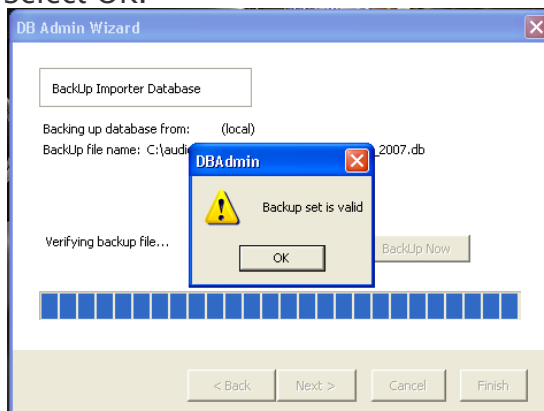
16.8 A verification of the location will now show in the window.
If correct, select **BackUp Now**.



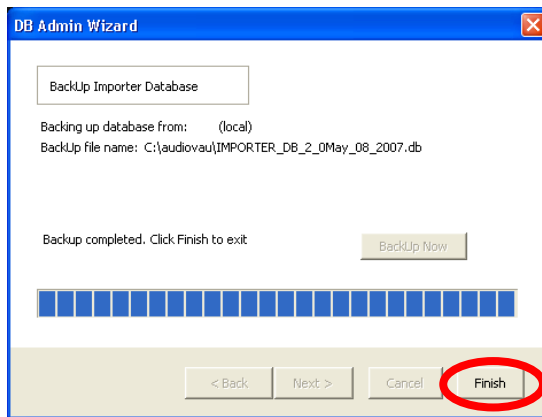
16.9 Select OK.



16.10 Select OK.

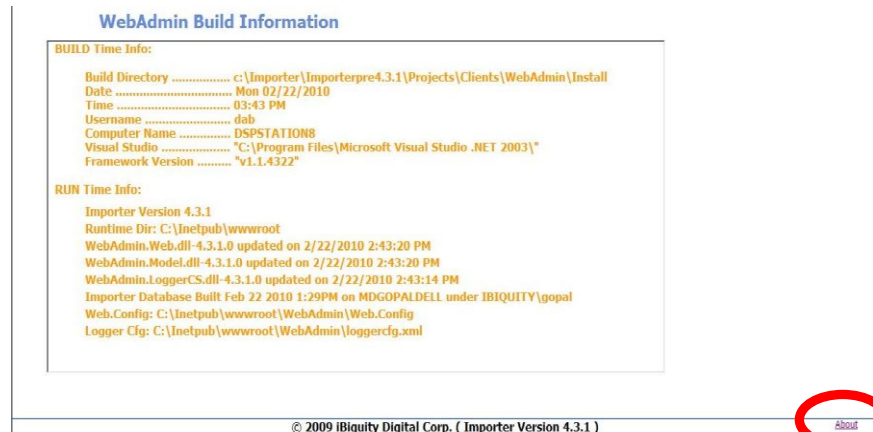
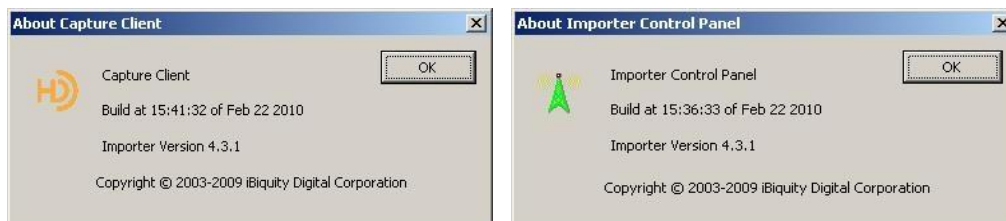


16.11 When the operation is complete, we select Finish.



17. Help

17.1 Help is available in all applications, just go to “Help’ and “About” within the application.



18. Technical Service Contact Information

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