IDi 20 Data Importer
Software Upgrade Application Guide
Software Version 3.0.5

597-2010-006, Revision H
5/21/08

IDi 20 Data Importer

Software Upgrade Application Guide

Software Version 3.0.5

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1. IDi 20 Software Upgrade Overview

This document discusses the necessary steps to upgrade software in the IDi 20 Software Version 3.0.5.

Before beginning the upgrade process, verify your XPi 10 Exporter (or FSi 10 HD Signal Generator) is running at least software version 2.3.3.

IDi 20 Software Version 3.0.5 uses a different data protocol than versions older than 2.0.1. You may want to verify that your current datacasting software can support UPD communication before upgrading to this version of the Importer. If you are using BEs The Radio Experience Software, you will need to be running TRE 2.5.0 or higher.

It is not necessary to upgrade your audio card drivers if you are currently running this version or newer:

AudioScience driver v3.08.03
Orban (single card) driver v2.0.1.47
Orban (dual cards) driver v2.1.1.37

Audio cards qualified for use in the IDi 20:

Audio Science 5111
Audio Science 5041
Audio Science 5044
Audio Science 6622
Orban 1100

1.1. Tools / Items Needed

☐ Software Upgrade CD (or files downloaded from the BE Website)

1.2. Estimated Time for Software Upgrade

It will take approximately 15 – 30 minutes to upgrade software in the IDi 20.

2. IMPORTANT! Obtain Activation License Key!

This step is needed only if you are upgrading from a version older than 2.0.1. If you are upgrading from 2.0.1 you can skip this step as the upgrade process will copy over your old license key from 2.0.1.

If you are upgrading from a version older than 2.0.1, you will need to obtain a new license activation key code from iBiquity prior to installing 3.0.5 of IDi Software. Please note that there is NO licensing grace period as there was with previous versions. The IDi software contains an application called **EOCLicenseMgr** which offers a **Get Request Key** to users and requires an **Activation License Key**.

Activating a License Key is done through email to iBiquity. Activation requests must be sent to importerkey@ibiquity.com. Uninstalling and reinstalling the software will require users to get a new key. New license keys are good for 1 Year. The IDi WILL NOT operate once the license has expired.

Launch the EOC License Manager from the desktop icon.

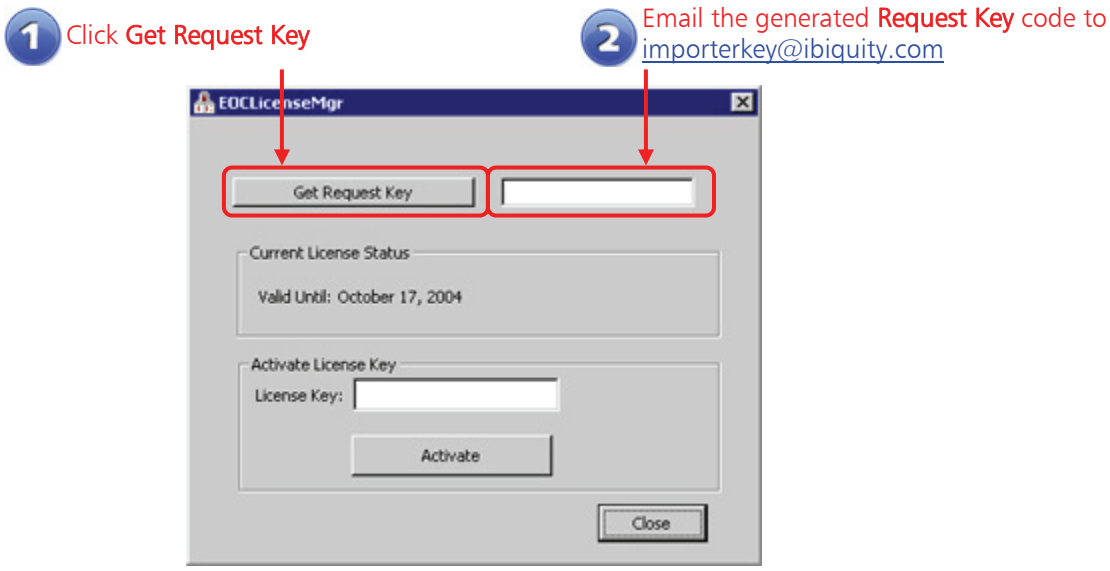

Figure 1 - EOC License Manager

3 Record BOTH the generated **Request Key** code that you send to iBiquity and the **License Key** code that you receive back. Both codes will be needed later on in the upgrade.

Request Key code: _____

License Key code: _____

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3. Performing the IDi 20 Software Upgrade

3.1. Make Note of All Current Critical Settings

Even if you have these settings written down already, please verify them before beginning the upgrade process. You'll need to know:

Importer IP Address: _____

Exporter IP Address: _____

IBOC Configuration Mode: _____

HD1 sound card assignment: _____

HD2 sound card assignment: _____

HD3 sound card assignment: _____

3.1.1. Determining the Importer IP Address

The Importer IP address is a Windows setting. The process of determining this setting is detailed in section 5 of this document.

3.1.2. Determining the Exporter IP Address

1. From the **System** option, select **Command**.

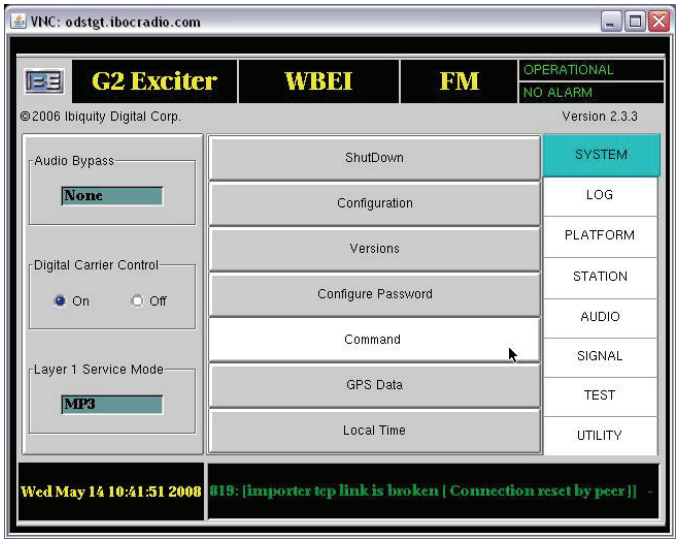

Figure 2 – FSi/XPi System Menu

2 Enter the correct password and click **OK**. The default password is **password**

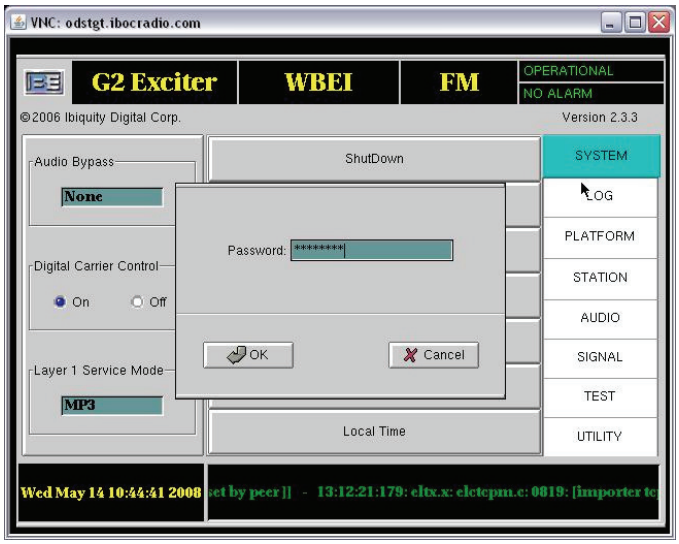

Figure 3 – Password Dialog

3 In the Common Applications group, select **ifconfig**.

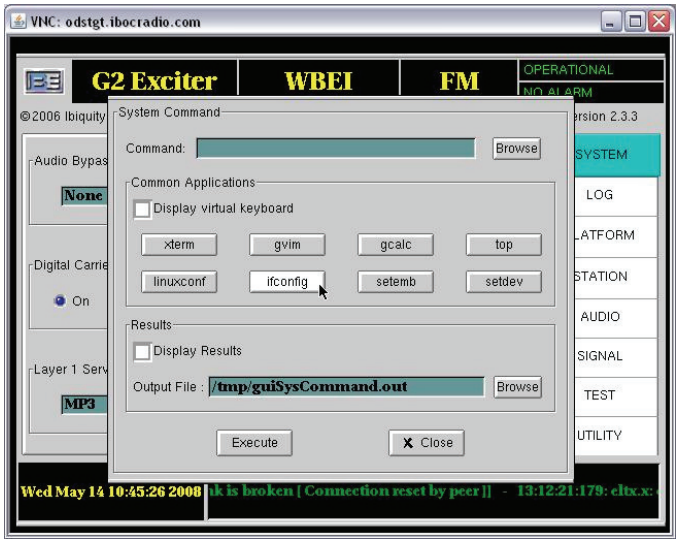

Figure 4 –System > Command Options

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4. Make note of the **inet addr** listed for the unit's Ethernet connection

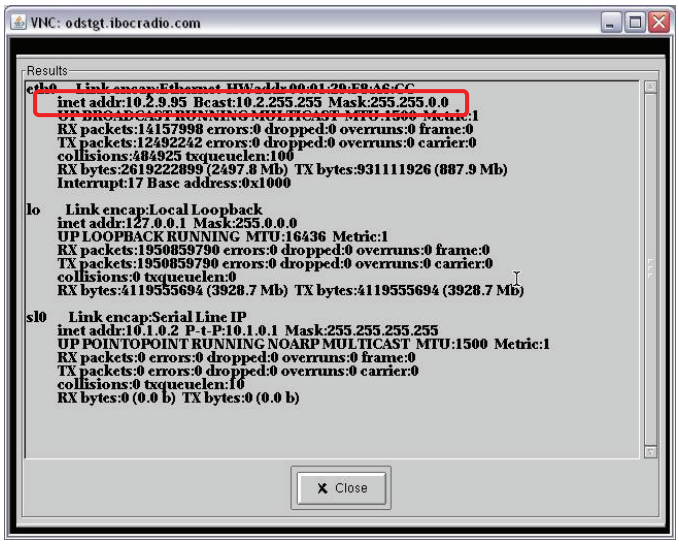

Figure 5 – IP Address Identification

3.1.3. Determining the IBOC Configuration Mode

1. Select the button on the top radio to unhide the underlying iBiquity applications

2. Next, select **Administrator** from the Windows Task Bar

Figure 6 – Administrator Task Bar Button

3. Select the **Administrator** tab. Make note of the listed mode.

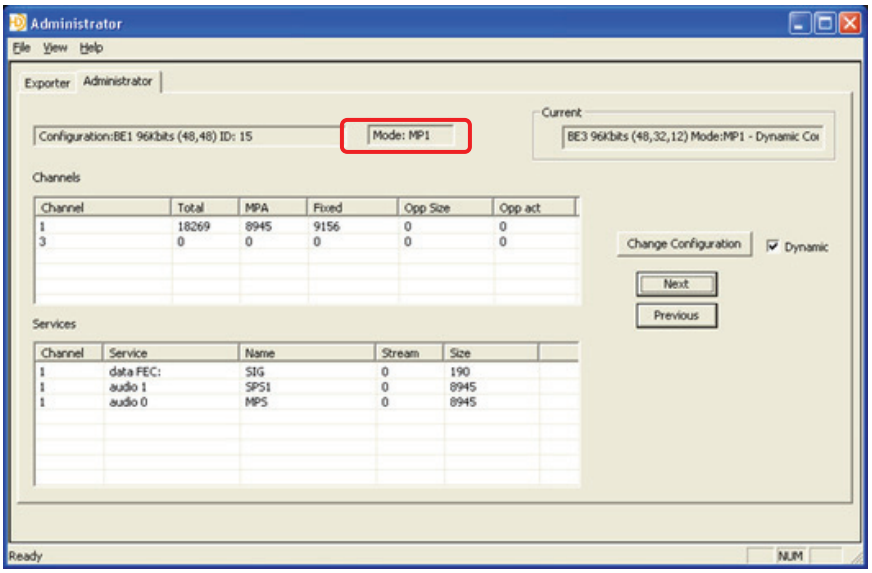

Figure 7 – IBOC Mode Identification

3.1.4. Determining the Sound Card Assignments

1. Left-click on the Admin steering wheel button and select Options

2. Make note of the sound card assignments listed

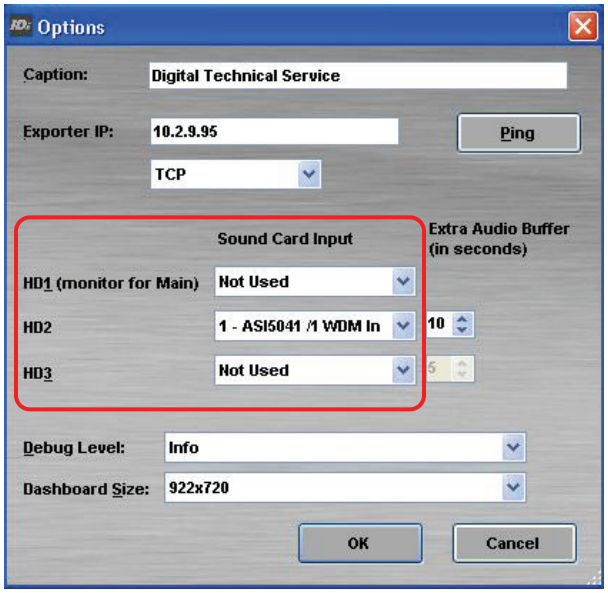

Figure 8 – Sound Card Identification

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3.2. Shut Down Dashboard

Shut down the IDi 20 Dashboard application.

3.3. Remove the currently installed software from the IDi 20

> This step is only needed if you are upgrading from older than 2.0.1. If you are upgrading from 2.0.1 it is not necessary to uninstall the current software.

Click on the Windows **Start** button and go to **Settings** > **Control Panel** > **Add/Remove Programs**. Next, select **Broadcast Electronics Importer** then **Remove**.

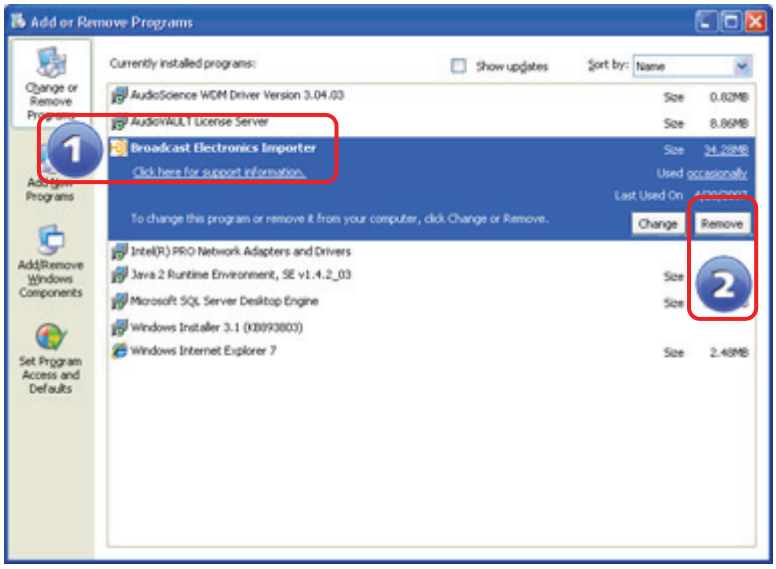

Figure 9 – Remove IDi Software from PC

> In the unlikely event that the uninstall process fails, contact Broadcast Electronics Customer Service at 217-224-4700 before proceeding.

3.4. Load the New IDi 20 Software

Once the Setup process begins, DO NOT cancel out of the Setup routine or interrupt the installation process!

1. Using Windows Explorer, navigate to the upgrade files on the Upgrade CD (or to the directory containing unzipped files downloaded from BE website) and double-click on **Setup.exe**. On the InstallShield screen, select **Install**. The installation will take approximately 15–30 minutes.

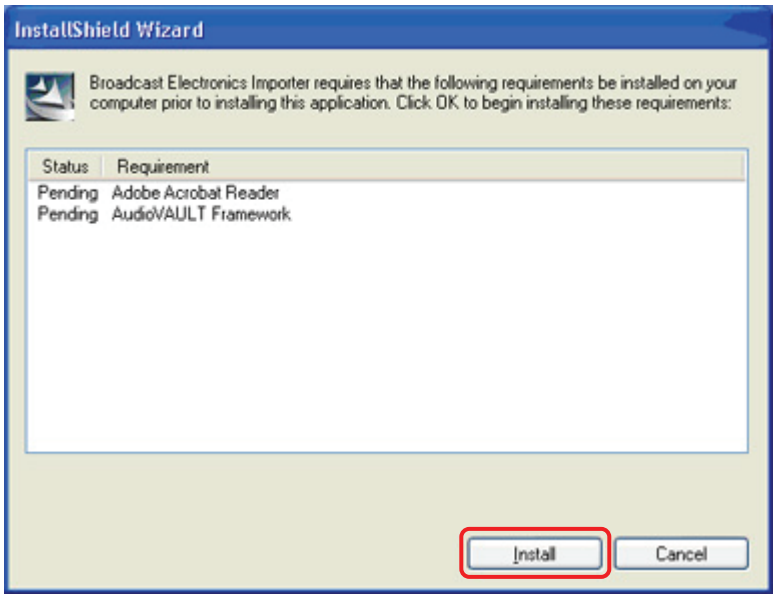

Figure 10– InstallShield Wizard

2. When the **InstallShield Wizard For AudioVault Framework** appears, select **Next**.

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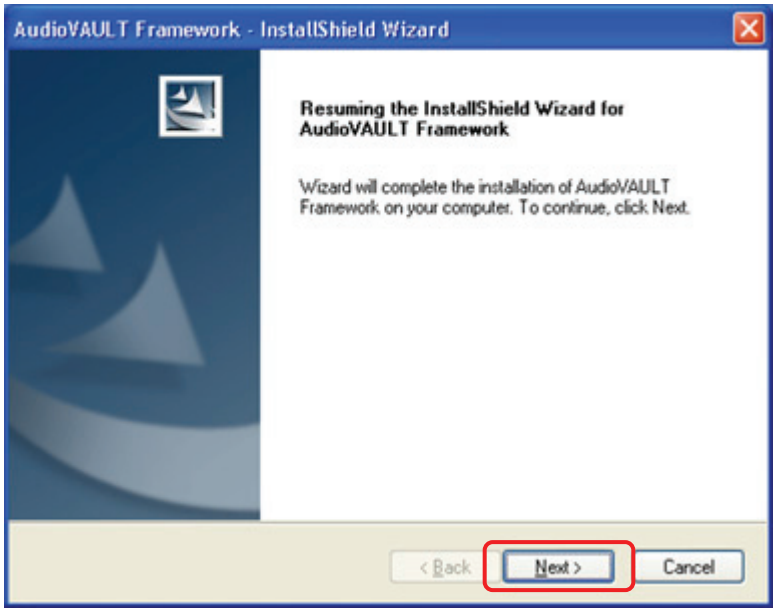

Figure 11 – Framework Wizard

3 When the **InstallShield Wizard Complete** appears, select **Finish**.

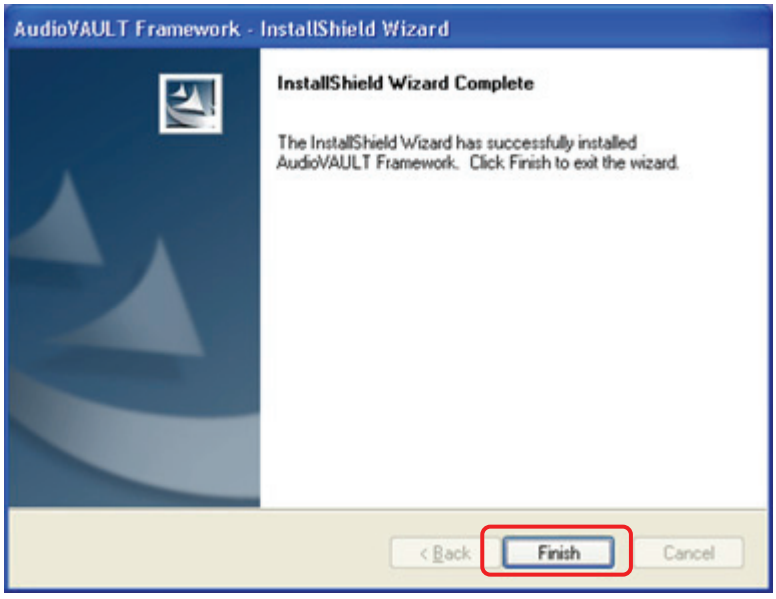

Figure 12 – Framework Wizard Complete

4 Once the AudioVAULT Framework Wizard completes, the Importer software setup wizard will launch automatically. When the **InstallShield Wizard** appears, select **Next**.

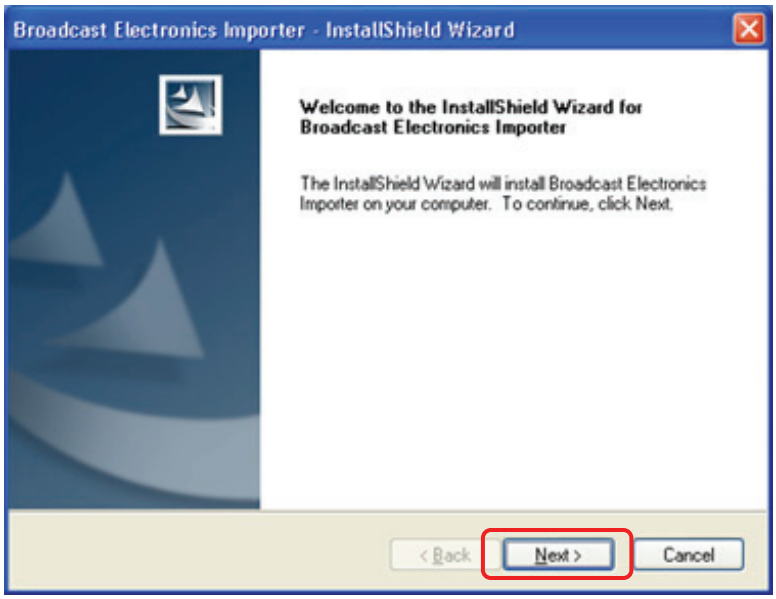

Figure 13 – Install Wizard

5 The **Windows AutoLogon Setup Menu** will now appear. Select **Yes** to continue.

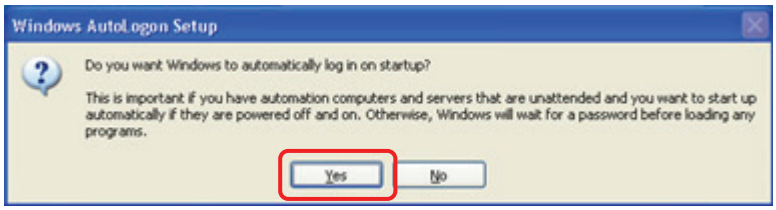

Figure 14 – Windows AutoLogon Setup Prompt

6 Enter your **Logon Name** and **Password**. The factory default logon name is **administrator**; the factory default password is **bei**.

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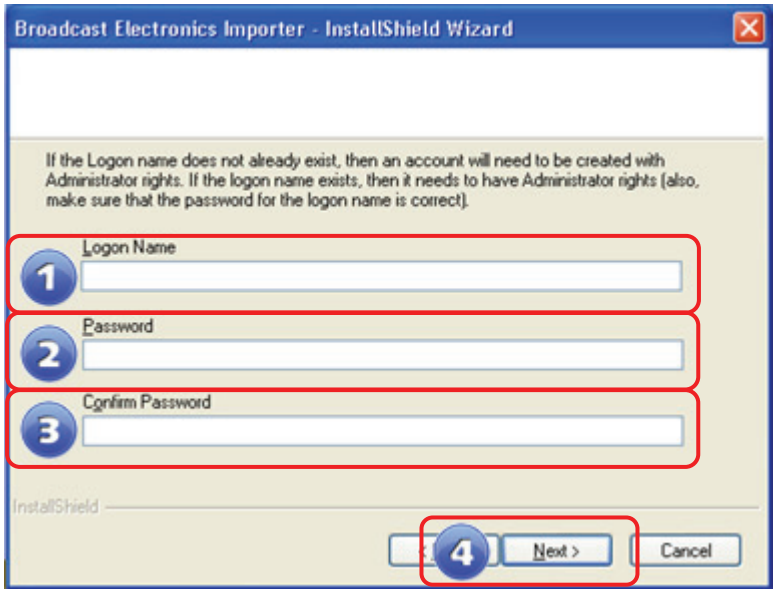

Figure 15 – Windows AutoLogon Setup Menu

7 Select Install to being the installation process.

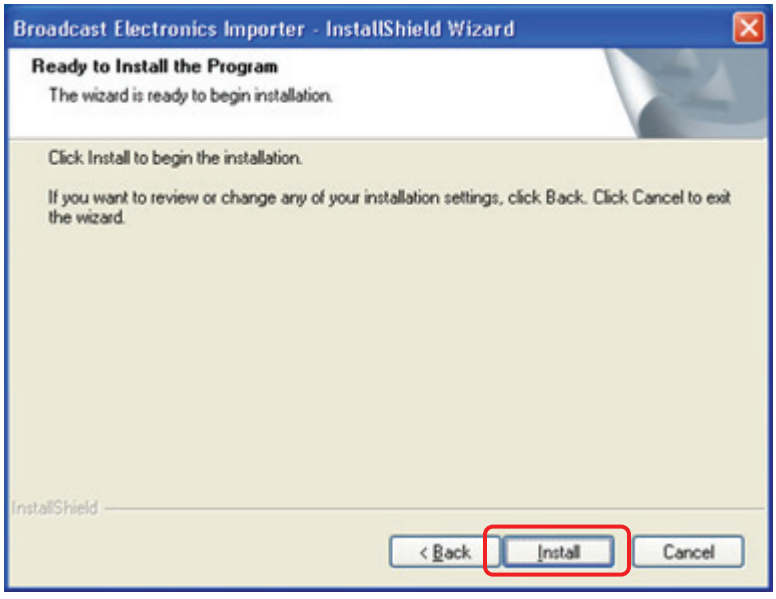

Figure 16 – Install Wizard

8 Press **any key** when prompted.

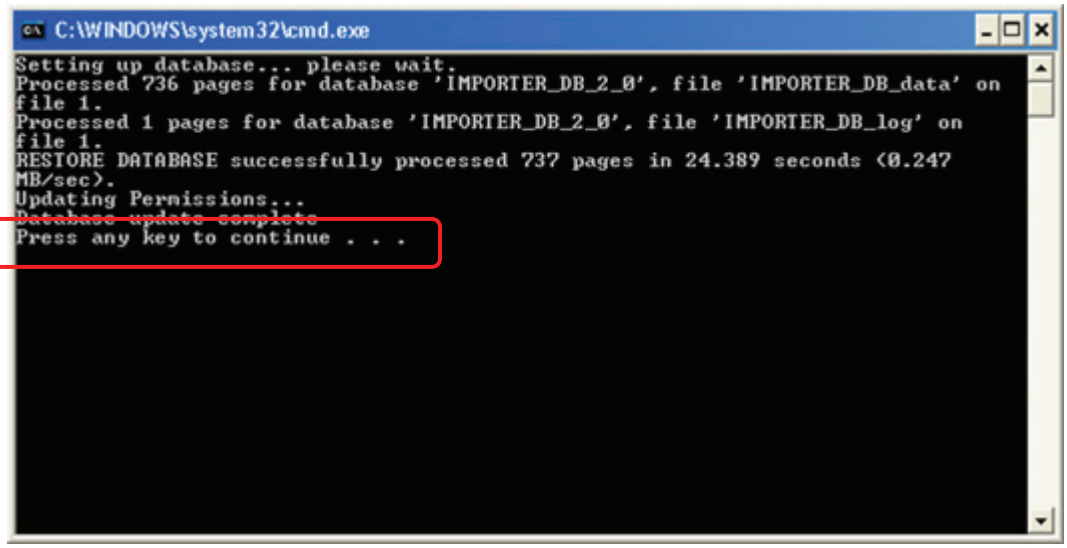

Figure 17 – Database Setup

9 Select **Finish**.

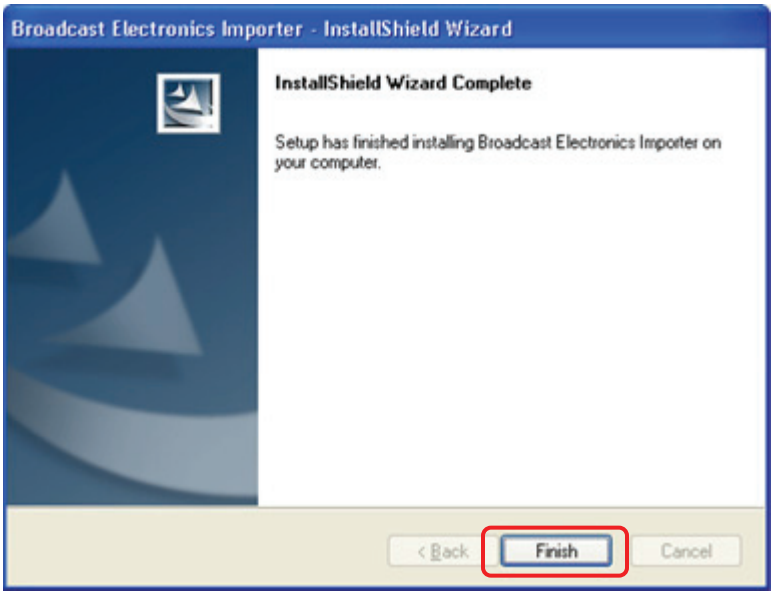

Figure 18 – InstallShield Wizard

10 After closing the InstallShield Wizard, **reboot** the computer to complete the installation.

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4. Enter Activation License Key

This step is only needed if you are upgrading from older than 2.0.1. If you are upgrading from 2.0.1 then you can skip this step as the upgrade process will copy over your old license key from 2.0.1.

Begin by launching the **EOCLicense Manager** from the desktop icon. Refer back to the **Request Key** code and the **License Key** code obtained in Section 2.

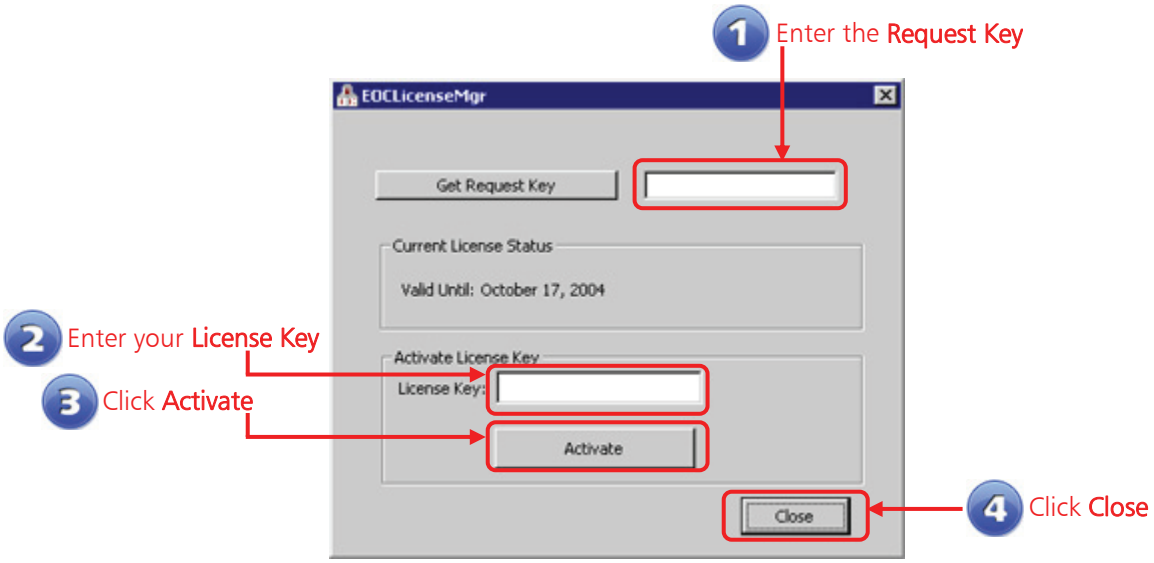

Figure 19 - EOC License Manager

5. Set the IP Address of the IDi 20

The upgrade process will not change the Windows IP Address settings of the IDi. The process to verify the address is included here for future reference. To work properly, the IDi must be able to communicate with both the Exporter/HD Signal Generator and with the system providing PAD data.

1. From the Windows Start menu, go to **Settings** > **Network Connections**. Next, right click on the "Connected" Local Area Connection, and select **Properties**.

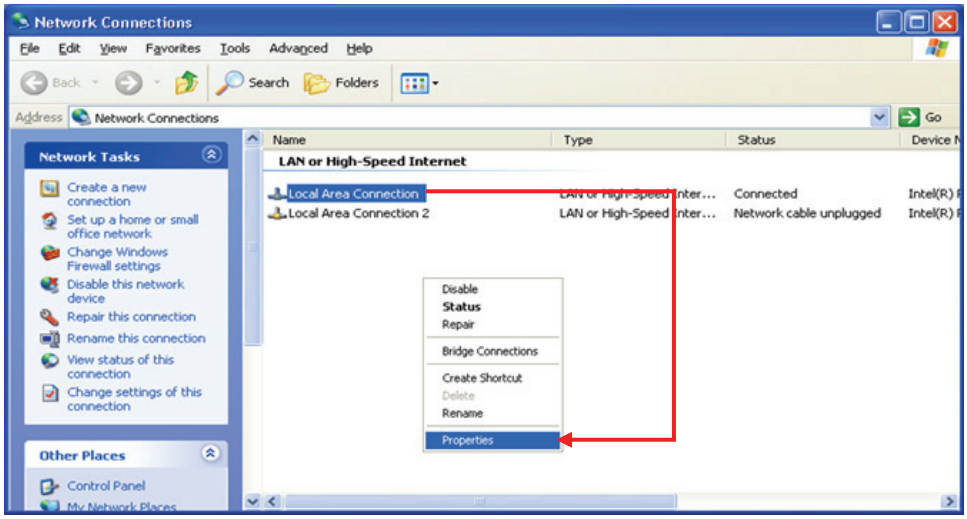

Figure 20 - Network Connection

2. Select the **Internet Protocol (TCP/IP)** connection, then click **Properties**.

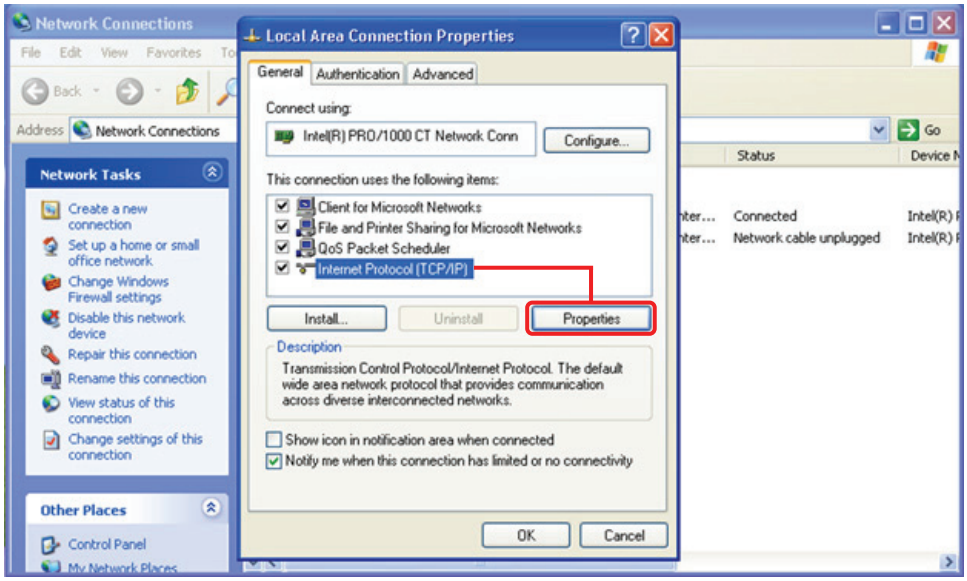

Figure 21 - Local Area Network Properties

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3 Select **Use the following IP Address** and enter the **IP address** and **Subnet mask** of the **IDi Data Importer**. The Subnet mask **MUST** be the same as the FSi 10 HD Signal Generator or XPi 10 Exporter and the system providing PAD for the different components to communiate.

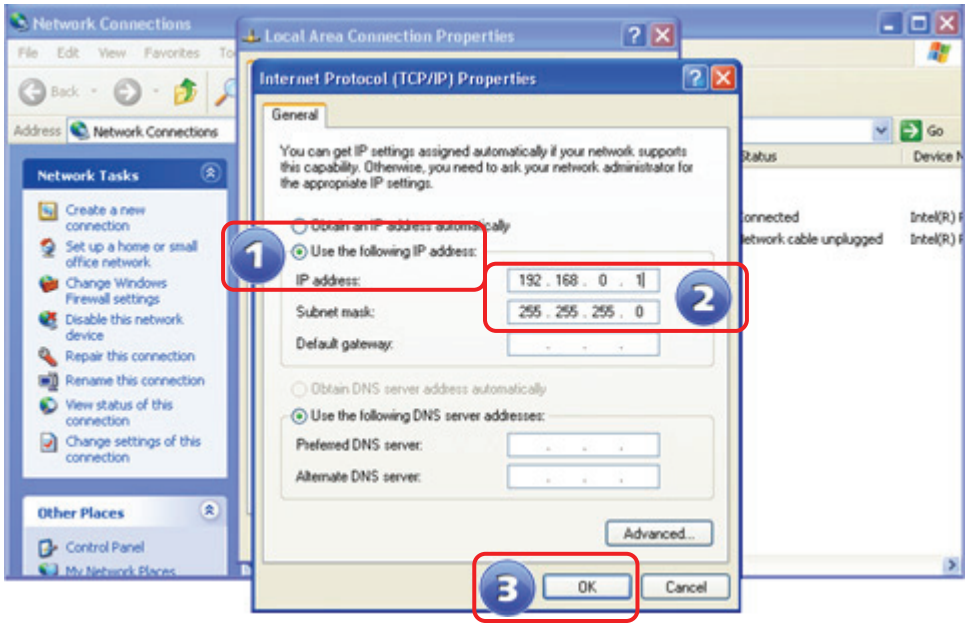

Figure 22 – Internet Protocol TCP/IP Properties

6. Configure the IDi Software

1. Launch the IDi Dashboard by clicking the icon on the desktop. The Options Menu will appear the first time you launch the program
2. Enter a Caption if desired
3. Enter the IP Address of the XPi 10 (or FSi 10) and the communication protocol your system is using (TCP or UDP)
4. Select the Sound Cards for the HD Channels
5. Set the Audio Buffers as desired (default setting is 5 seconds)
6. Set the Debug Level to **Info** and select the Dashboard Size (do not choose a size larger than the resolution capability of your monitor!)
7. Select Ping to ensure that the IDi can communicate with the XPi 10 (or FSi 10)
8. Select OK

Figure 23 – Options Menu

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9 If this menu pops up, select **OK**. In the event of a bandwidth mismatch, the XPi will be restarted and the Exciter Link Config information will need to be re-entered (see Section 9).

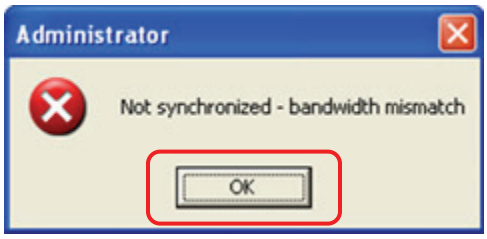

Figure 24 – Bandwidth Mismatch Menu

7. Important Notes on Switching Configurations via the IDi 20

7.1. If you have an XPi 10 in Your System

For systems running version 3.0.5 of IDi and version 2.3.3 of XPi software please note that upon switching configurations via the IDi 20, the XPi 10 may be re-booted and loose its Exciter Link address information! Prior to switching configurations from the IDi, it is recommended that you record the **Exciter Link Config** settings of the XPi 10 (see Section 7.3 below). If the XPi is re-booted after switching configurations via the IDi, you will have to re-enter the **Exciter Link Config** settings back into the XPi 10 (see Section 9). Please note that HD operation will be off of the air during this process. Proceed to Section 8 to change configurations via the IDi in an XPi System.

7.2. If you have an FSi 10 in Your System

For systems running version 3.0.5 of IDi and version 2.3.3 of FSi software please note that upon switching configurations via the IDi 20, the FSi 10 may be rebooted. As a result, HD Operation will be off of the air during this process. Proceed to Section 8 to change configurations via the IDi in an FSi System.

7.3. Record Exciter Link Config Information in the XPi 10

1. From the XPi 10 Main Menu, click **Platform**
2. Click **Exciter Link Config**
3. Record the **Exciter Link Protocol** → ☐ Uni-directional ☐ Bi-directional
4. Record the **Exciter Link IP Address** → . . .
5. Record the **MAC Address** → . . . . .
6. Click **OK** to close the dialog

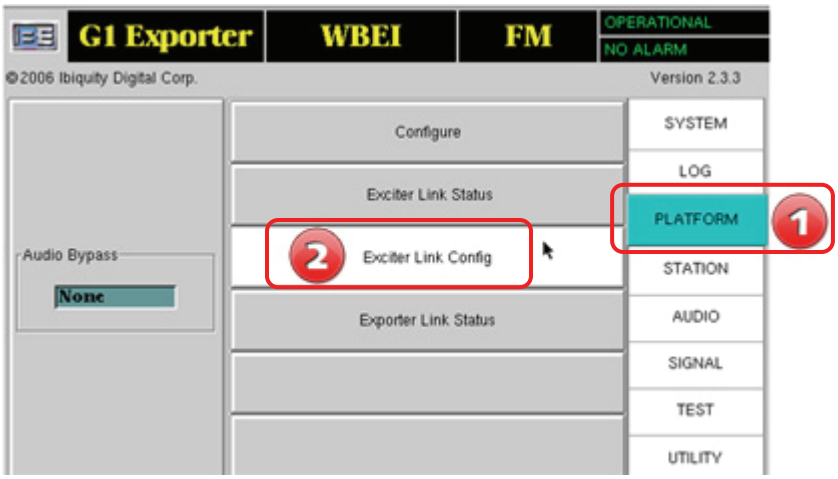

Figure 25 – XPi 10 Main GUI Menu

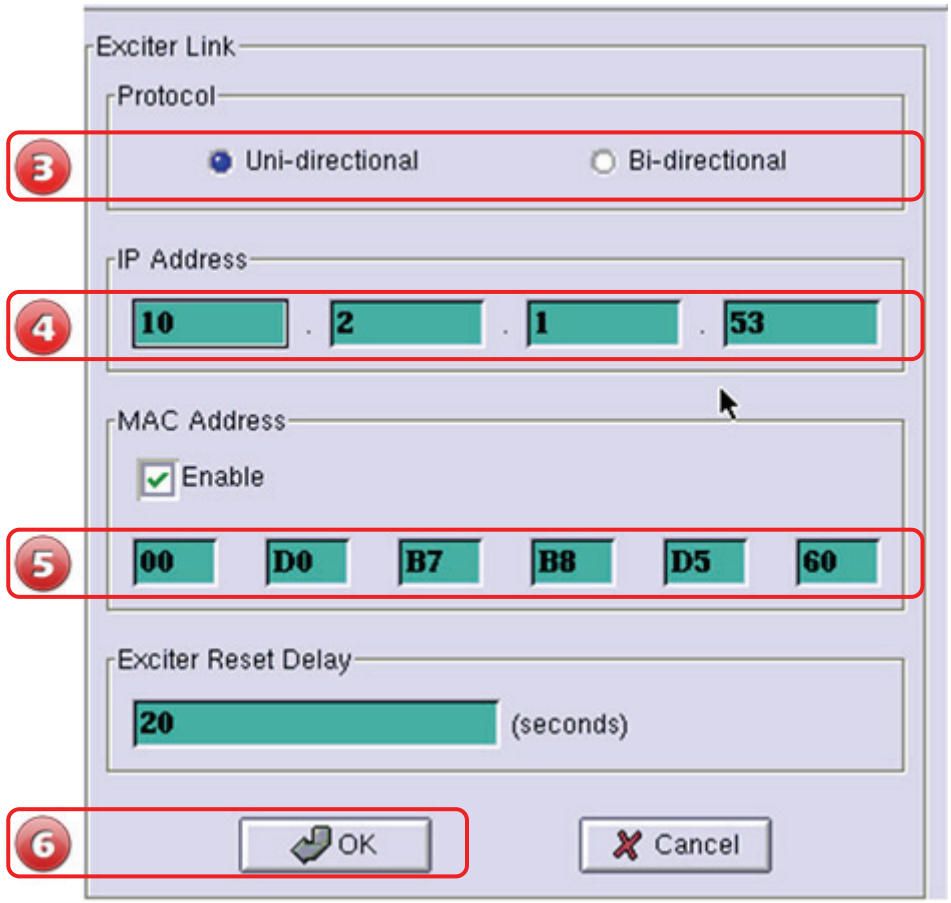

Figure 26 – XPi 10 Main GUI Menu

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8. Switching Configurations via the IDi 20

1. Select the button on the top radio to unhide the underlying iBiquity applications
2. Next, select **Administrator**

Figure 27 – Administrator Menu

3. Select the **Administrator** tab
4. Use the **Next/Previous** buttons to toggle through the preset configurations
5. Once you have toggled to the desired configuration, select **Change Configuration**
6. Click **OK** to enable the new configuration

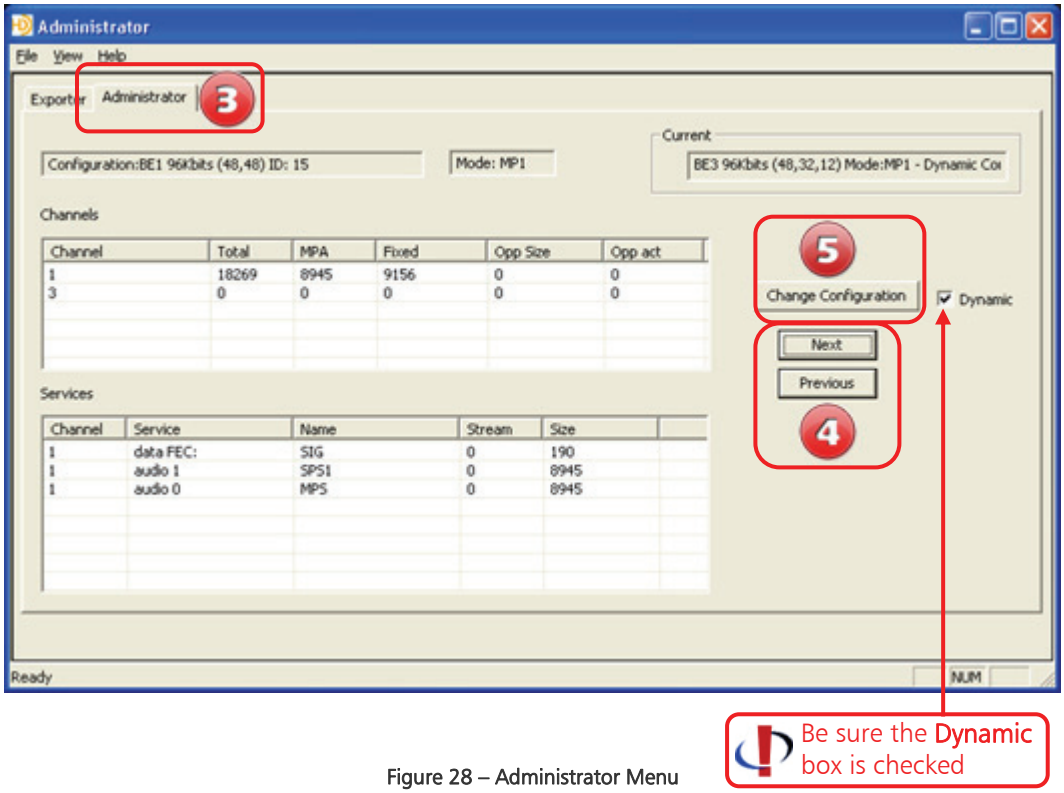

Figure 28 – Administrator Menu

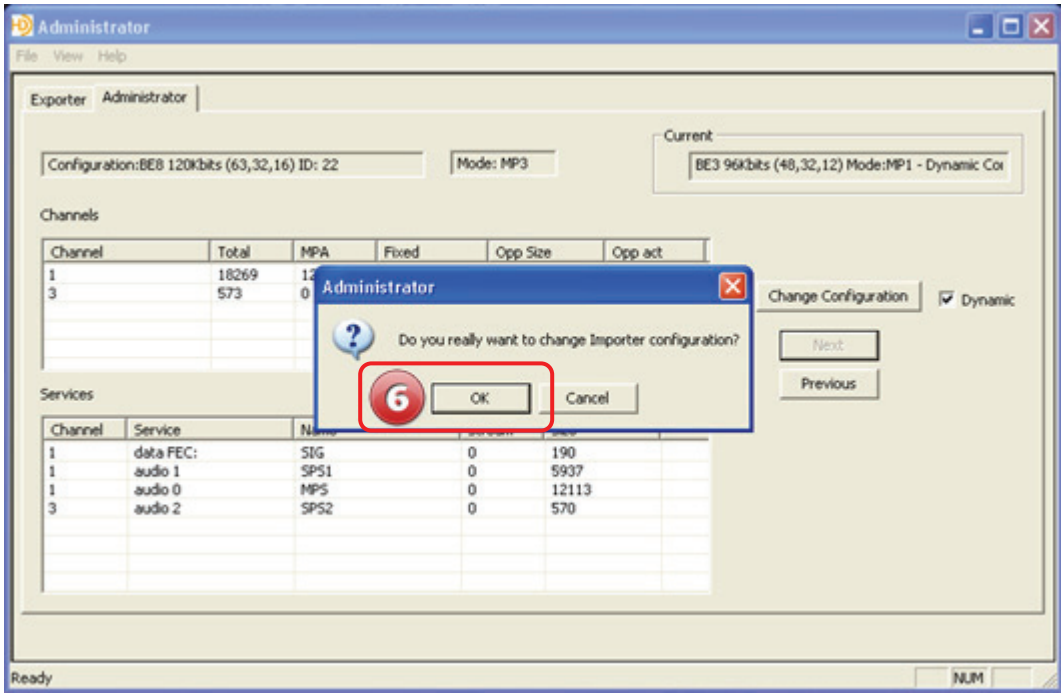

Figure 29 – Administrator Menu

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See Section 12 of this document for additional information regarding Pre-set Configurations.

7 If this menu appears, the XPi will be restarted and the Exciter Link Config information will need to be re-entered (see Section 9). Click OK to close the dialog and restart the XPi.

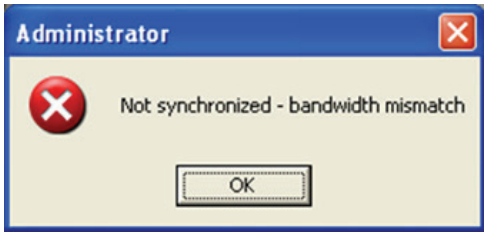

Figure 30 – Not Synchronized Menu

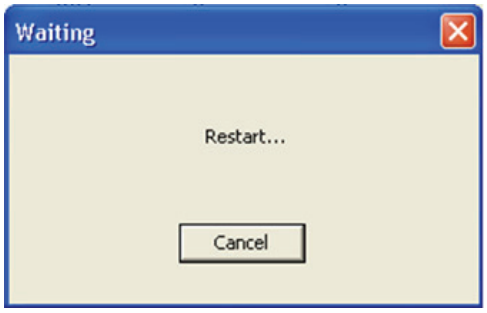

Figure 31 – Restarting the XPi

9. Re-configuring the Exciter Link of the XPi 10

1. From the XPi 10 Main Menu, click **Platform**
2. Click **Exciter Link Config**
3. Set the **Exciter Link Protocol** to **Uni-directional**
4. Enter the **Exciter Link IP Address**
5. Enable the MAC Address and enterthe **MAC Address** setting
6. Click **OK** to close the dialog

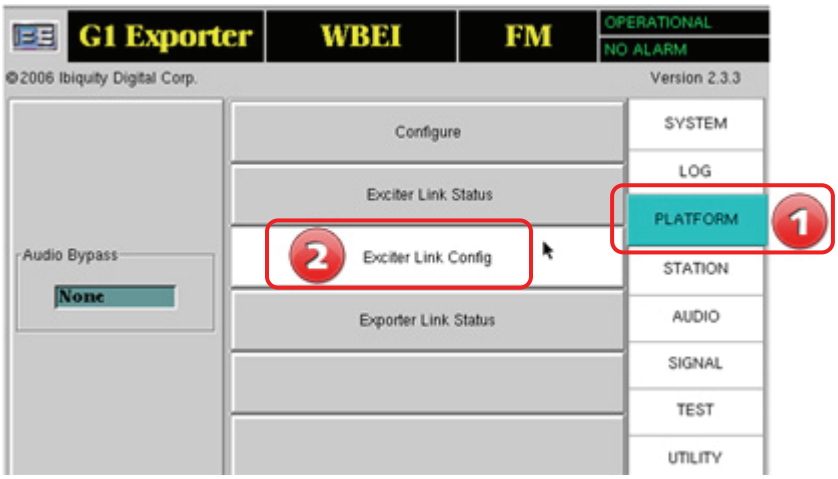

Figure 32 – XPi 10 Main GUI Menu

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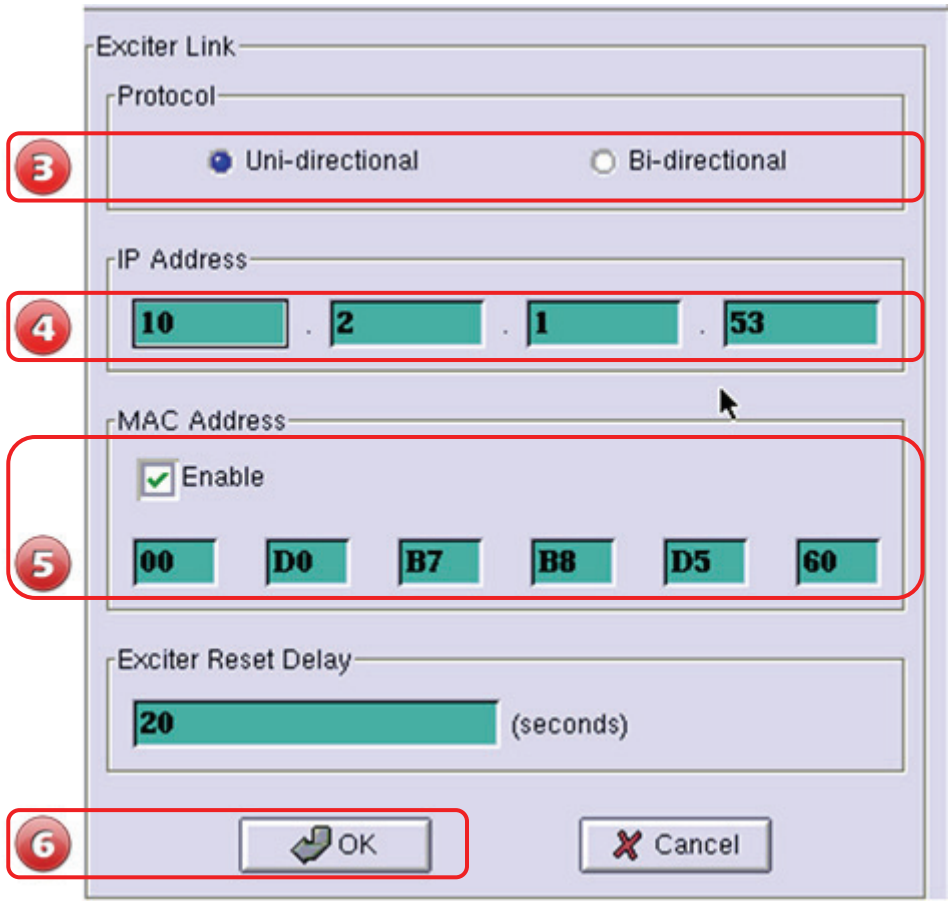

Figure 33 – XPi 10 Main GUI Menu

10. Re-Start the IDi Dashboard

Shut the IDi Dashboard down and then restart it.

11. Re-Start PAD Generation Software

Restart the software providing PAD data to the system.

12. IDi 20 Preset Broadcast Configurations

With Software Version 2.0.1, there are (8) preset configurations to choose from (BE1 thru BE8). These preset configurations allow users to change configurations easily on the fly. The preset configurations select the Service Mode (MP1, MP2, or MP3) and allocate bandwidth to the appropriate channels (MPS, SPS 1, and SPS 2).

Preset Configurations					
Configuration Number	Service Mode	Bit Rate Allocation (Kb)			Total Bit Rate (Kb)
		HD1 (MPS)	HD2 (SPS 1)	HD3 (SPS 2)	
BE1	MP1	48	48	n/a	96
BE2	MP1	64	32	n/a	96
BE3	MP1	48	32	16	96
BE4	MP1	64	16	16	96
BE5	MP2	48	48	12	108
BE6	MP2	64	32	12	108
BE7	MP3	48	48	24	120
BE8	MP3	64	32	24	120

Figure 34 – BE Preset Configurations

If you would like to change the bandwidth allocations, please contact Broadcast Electronics Customer Service or refer to DCS-02-2005 IDi-20 Notes.pdf available on the BE Service Website at www.bdcast.com/support.

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13. Synchronize the IDi 20 with the Exporter

From the Administrator -> Exporter menu, select Synchronize to ensure that the IDi 20 is properly synchronized with the Exporter.

1. Select the button on the top radio to unhide the underlying iBiquity applications

2. Next, select **Administrator**

Figure 35 – Administrator Menu

3. Select the **Exporter** tab

4. Click **Synchronize** to ensure that the IDi 20 is properly synchronized with the Exporter

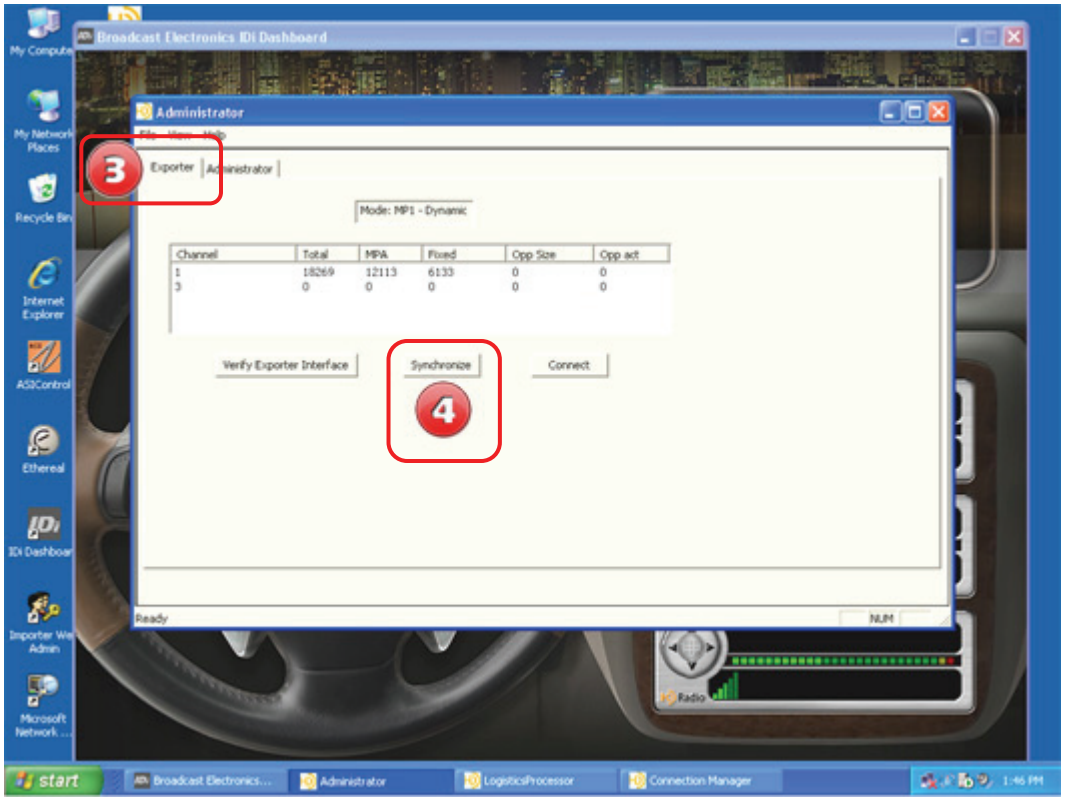

Figure 36 – Synchronization

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14. HD1, HD2, and HD3 BE Dashboard Displays

There are three displays on the BE Dashboard (HD1, HD2, and HD3) representing the data being passed through the entire HD Radio Broadcast System.

Figure 37 – BE Dashboard

14.1. HD1 Display

This display shows HD1 (MPS) Pad Data which is sent to the IDi 20 via Ethernet port 4442. The software providing HD1 (MPS) Pad Data must be configured with both the IP address of the IDi 20 and the XPi 10 (or FSi 10).

Please note that HD1 (MPS) Pad Data and Audio are routed to the IDi 20 ONLY to provide PAD Data for scrolling and for the Audio Level meter to operate on the HD1 display. See the Typical HD Radio System Connection Diagram located at the end of this document.

14.2. HD2 Display

This display shows the HD2 (SPS 1) Pad Data which is sent to the IDi 20 via Ethernet port 4444. The software providing HD2 (SPS 1) Pad Data must be configured with the I.P. address of the IDi 20. HD2 (SPS 1) audio is routed from the studio source to the IDi 20. The IDi encodes the HD2 (SPS 1) Audio and multiplexes it with the HD2 (SPS 1) Pad Data. The resulting bitstream is then delivered to the XPi 10 Exporter (or FSi 10). See the Typical HD Radio System Connection Diagram located at the end of this document.

14.3. HD3 Display

This display shows the HD3 (SPS 2) Pad Data which is sent to the IDi 20 via Ethernet port 4446. The software providing HD3 (SPS 2) Pad Data must be configured with the I.P. address of the IDi 20. HD3 (SPS 2) audio is routed from the studio source to the IDi 20. The IDi encodes the HD3 (SPS 2) Audio and multiplexes it with the HD3 (SPS 2) Pad Data. The resulting bitstream is then delivered to the XPi 10 Exporter (or FSi 10). See the Typical HD Radio System Connection Diagram located at the end of this document.

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15. Viewing System Information

Click the **Info** steering wheel switch to display system information such as software revision levels and license expiration date. Select **OK** to close the information screen.

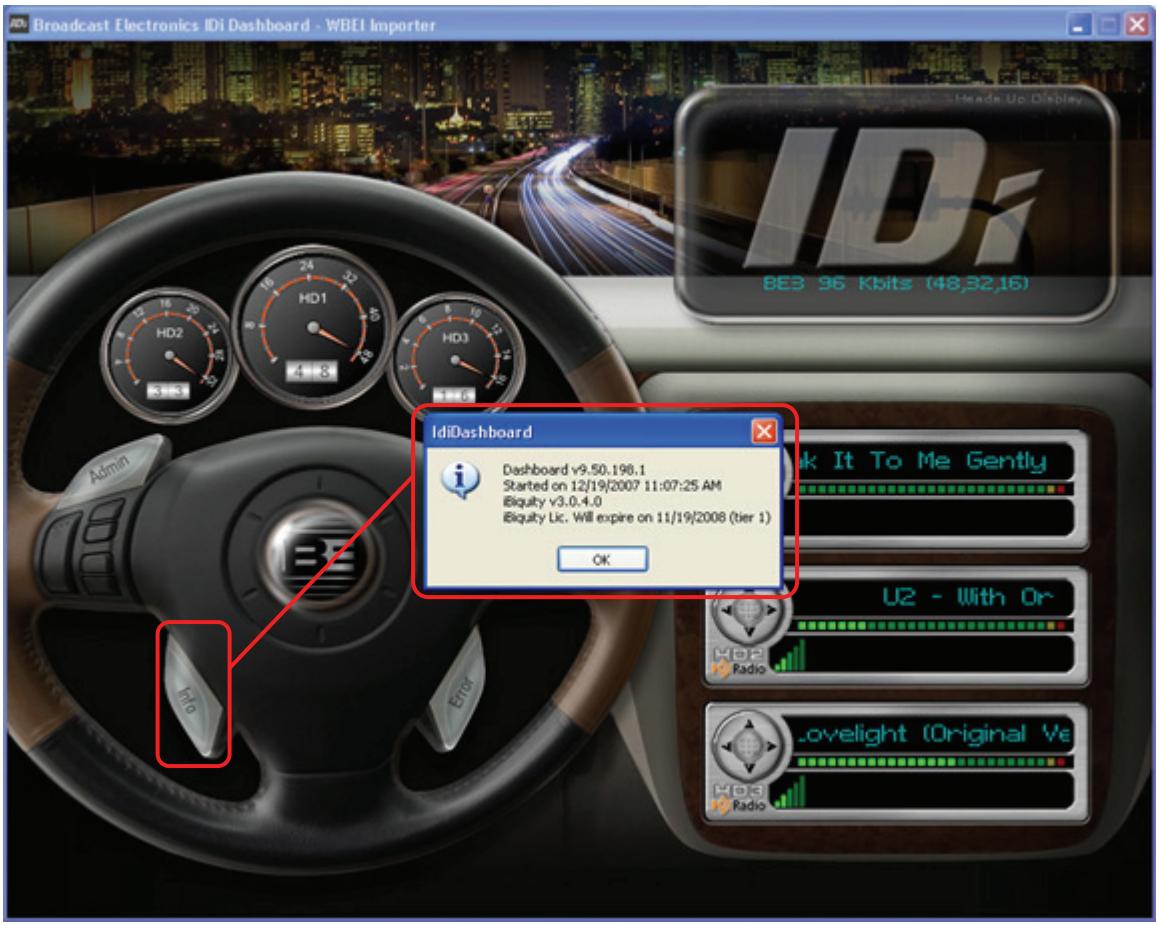

Figure 38 – Viewing System Information

16. Changing the Dashboard Logo

1. Right click anywhere in the Logo area and select **Logo Properties**.

Figure 39 – Changing the Dashboard Logo

2. Click here to navigate to your logo file.

3. Use these options to configure the logo as desired.

4. Select **OK** to replace the logo and close the dialog. Practically any type of graphics file may be used.

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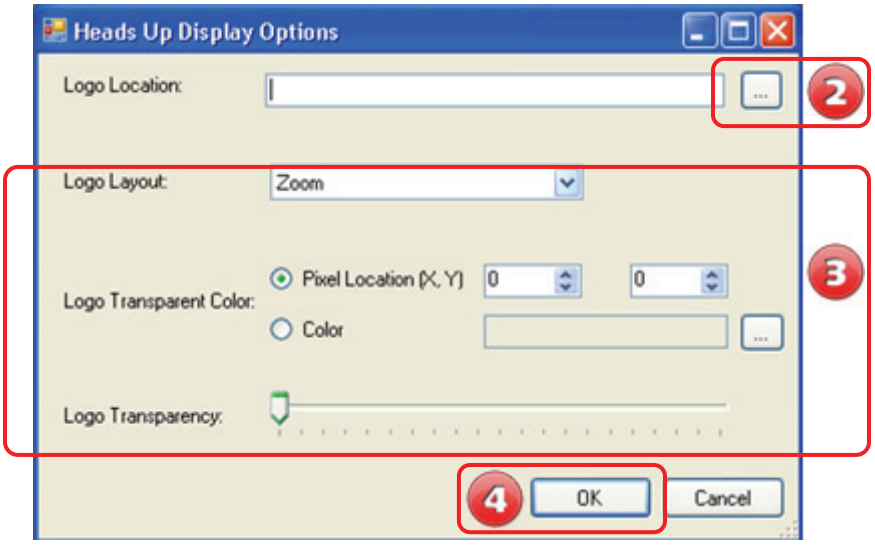

Figure 40 – Changing the Dashboard Logo

17. System Configuration Backup

After the IDi has been set up, it is recommended that a backup copy of the configuration be created.

1. Click the Admin steering wheel switch on the Dashboard and select **Backup Database**.

Figure 41 – Admin Menu

The DBAdmin tool included in version 3.0.5 allows users to save their user configuration settings to an XML file and later restore it back into the database. To restore saved settings, the Dashboard application must be closed. The DBAdmin tool can be launched independently from:
C:\Program Files\Broadcast Electronics\Importer\Servers\DBAdmin.exe

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2 Select the **BackUp Complete Database** option, and click **Start** to begin the backup.

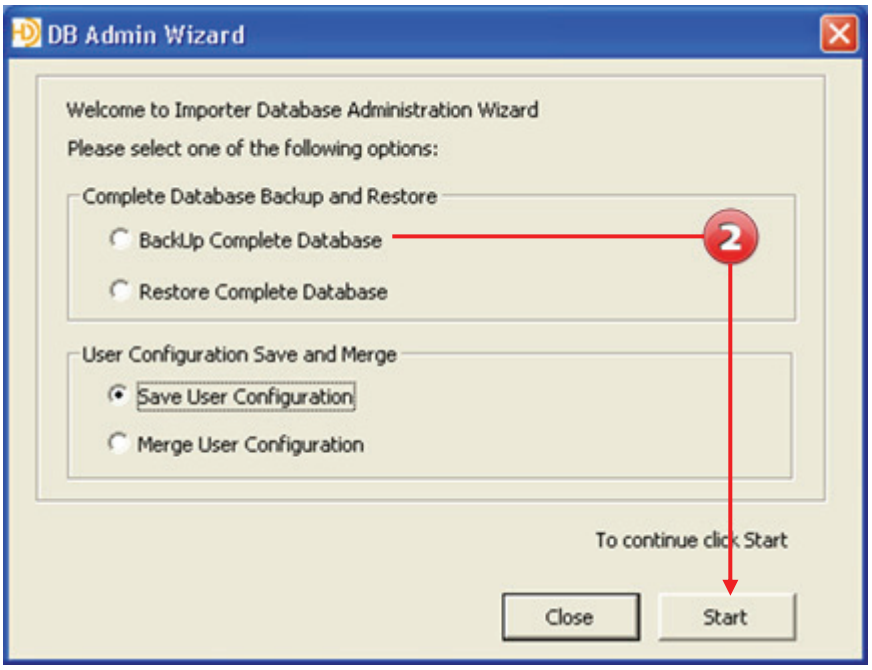

Figure 42 – DB Admin Wizard

3 Select the **SQL Server location** (typically local), then select **Next**.

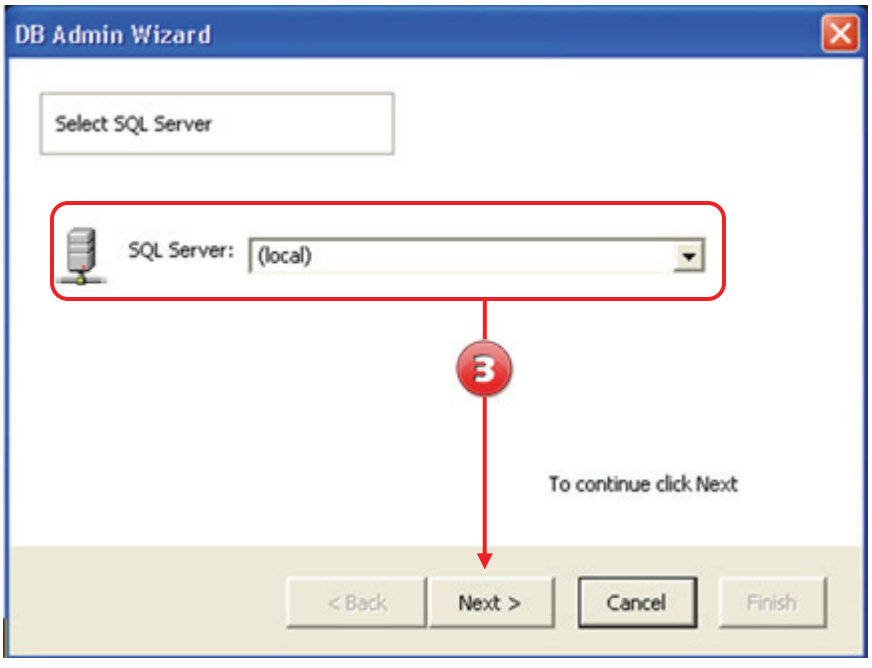

Figure 43 – DB Admin Wizard

4 Enter the BackUp file name and its location, then click **Next** to continue.

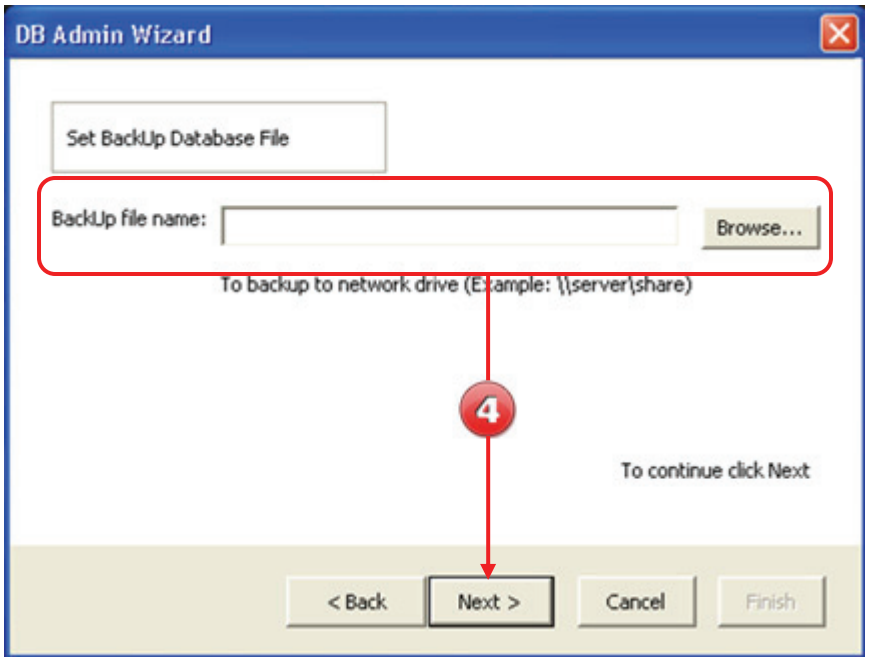

Figure 44 – DB Admin Wizard

5 Verify your settings, then select **BackUp Now** to begin the backup.

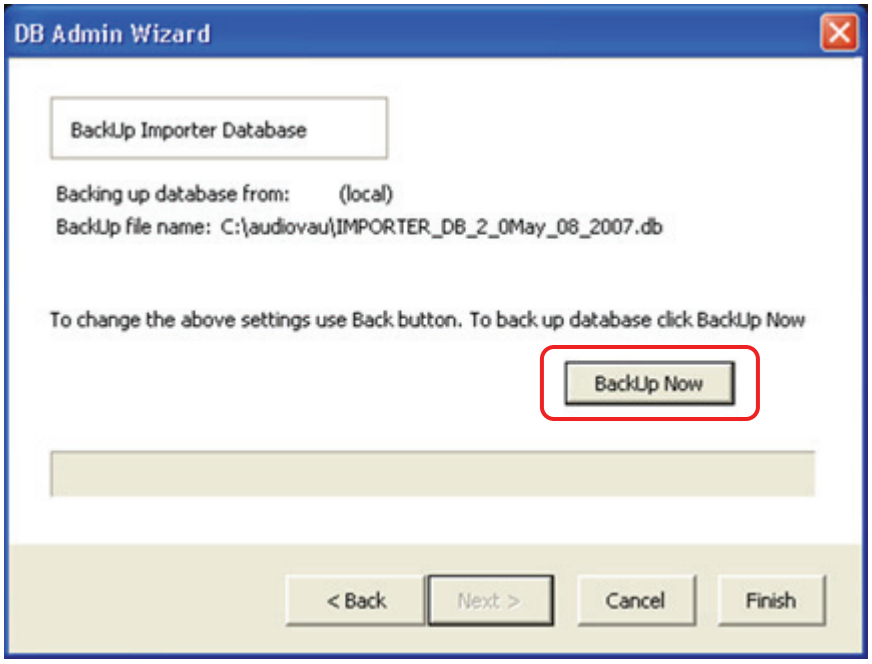

Figure 45 – DB Admin Wizard

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6 Select **OK**.

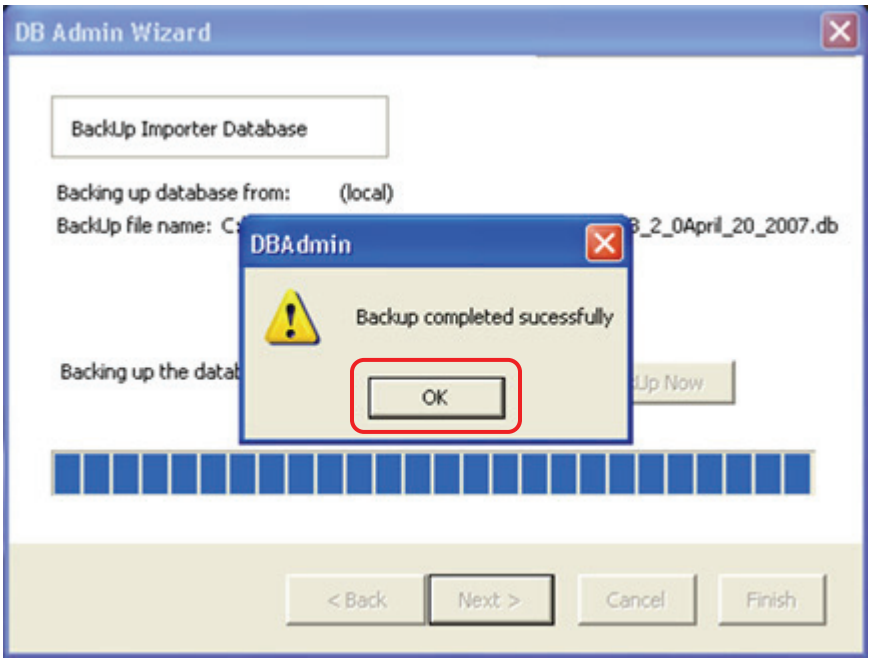

Figure 46 – DB Admin Wizard

7 Select **OK**

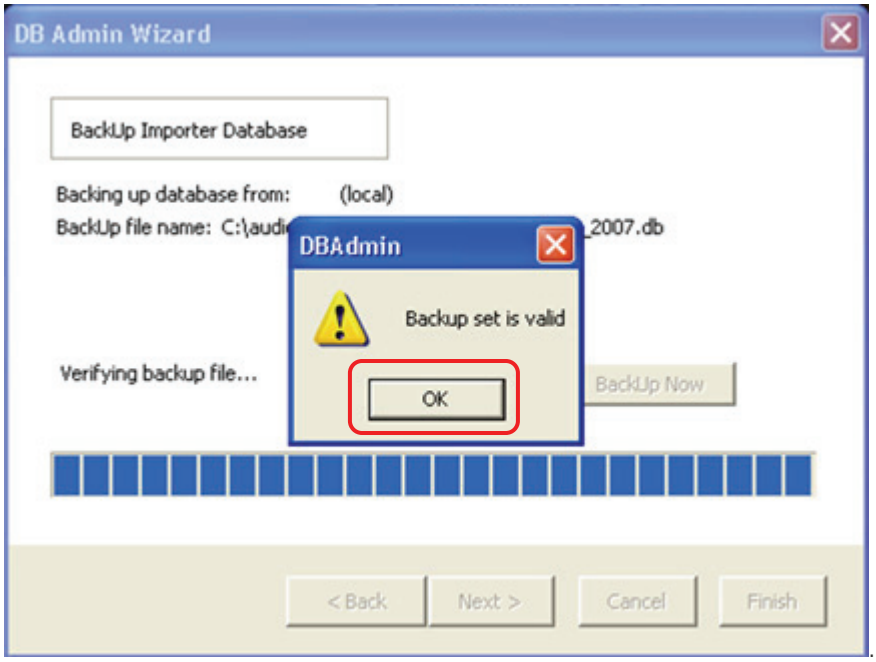

Figure 47 – DB Admin Wizard

8 Select **Finish**.

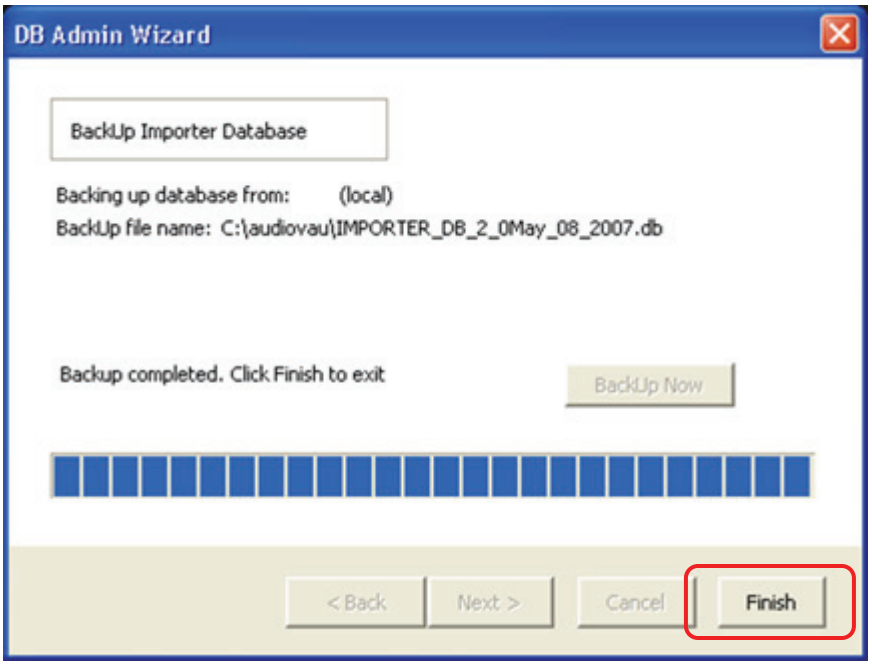

Figure 48 – DB Admin Wizard

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18. Digital Customer Service Contact Information

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