Using a Barix Instreamer to Remotely Connect a Direction Finder via a Network Connection

A Technical Application Note from Doppler Systems

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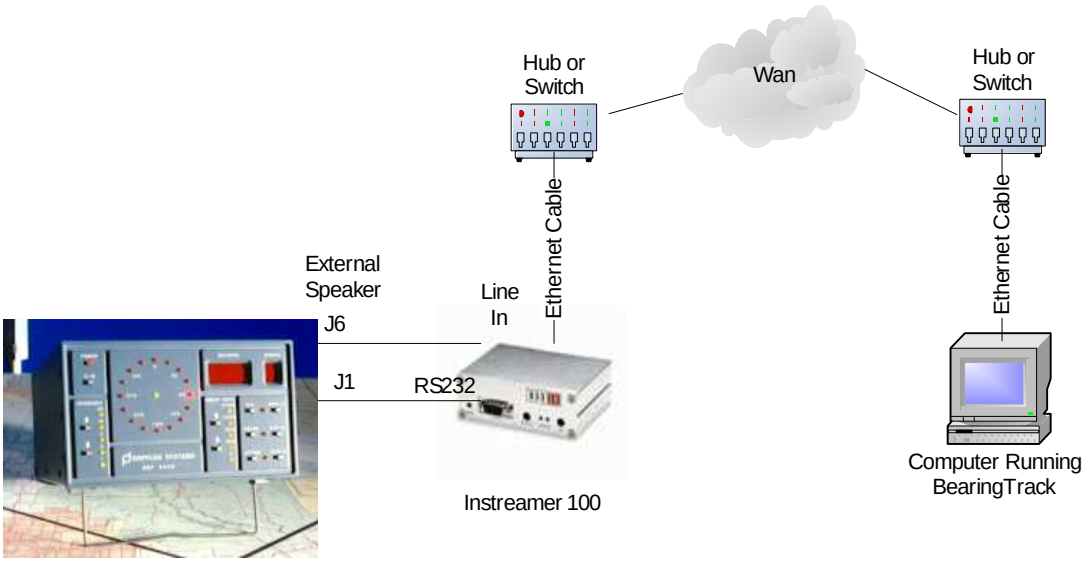
1.0 Introduction

Many customers would like to monitor audio from their remote direction finders. This application note describes how a Barix Instreamer 100 can be used to remotely connect a Doppler DDF6001 direction finder via a standard TCP/IP Ethernet connection.

2.0 Hardware Connections

Connect the Barix Instreamer RS232 connector to the direction finder using a standard serial cable. Connect the External Speaker (J6) on the direction finder to either one of the Line In connections on the Instreamer. Connect the Ethernet cable to a Ethernet hub or switch. Connect the power adapter to the Instreamer.



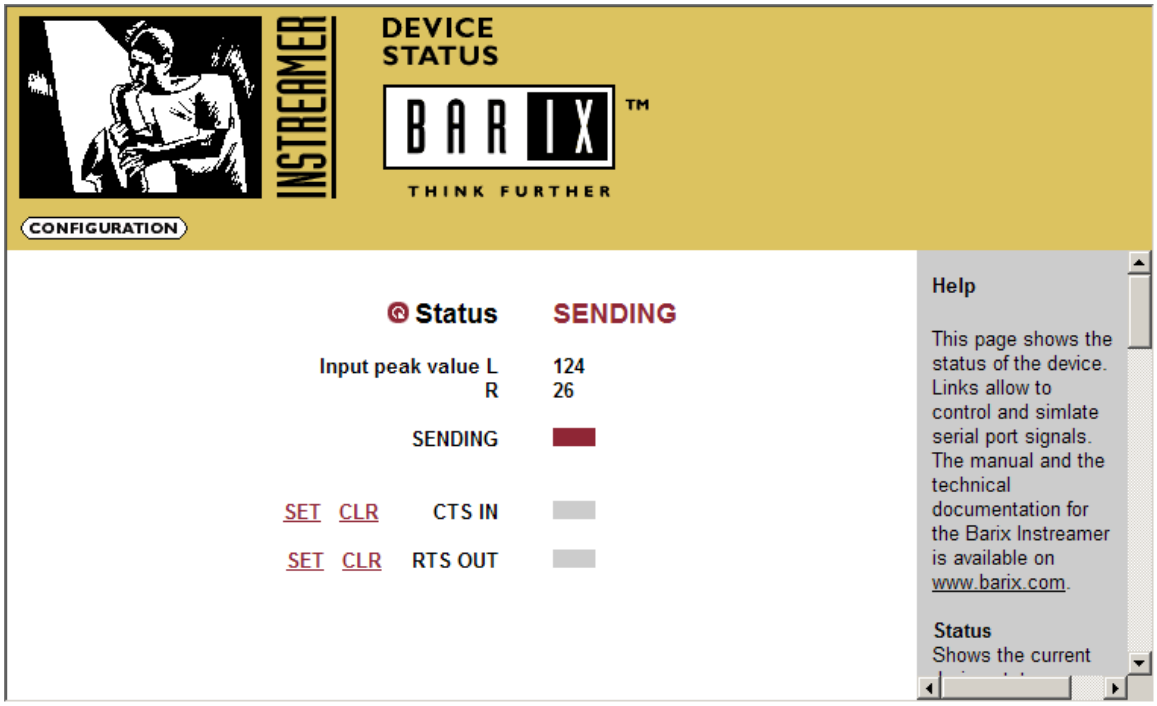
3.0 Software Setup

3.1 Obtaining the IP Address

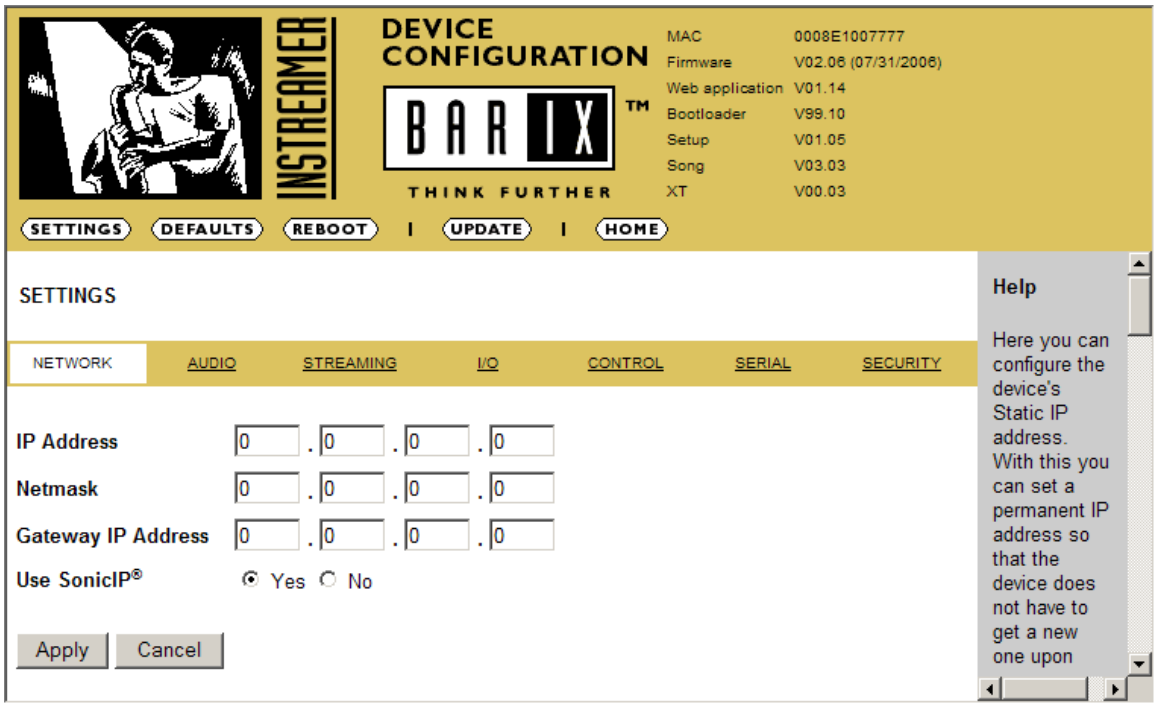
Prior to powering the Instreamer connect the network cable to a hub or switch. Plug headphones or an earphone into the headphone jack of the Instreamer. Get a pencil and paper and then power up the Instreamer. If you are on a network that has DHCP support, shortly after powering the device it will announce the IP address of the device. It there is no DHCP server the Instreamer will search the network for a free address. This could take as much as 5 minutes. If it finds an available address it will announce over the headphones. Write down the IP address. If it does not find an available address press the reset button for 5 seconds to reset the device and assign the default IP address.

3.2 Configuring the Instreamer

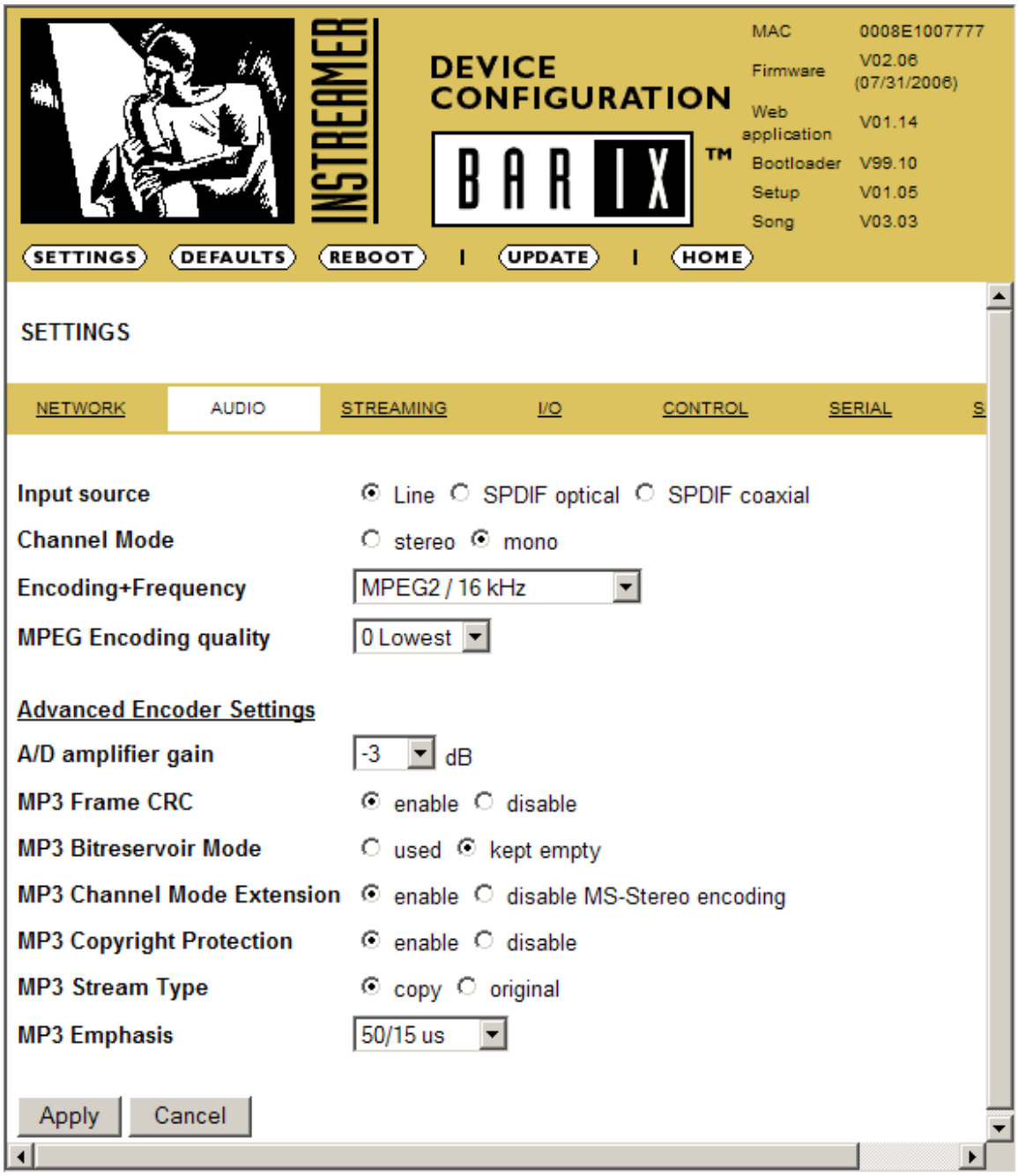
Connect a computer to the network. Launch your internet browser and type in the IP address obtained above (e.g. 192.168.0.12). The webpage shown below should be displayed.



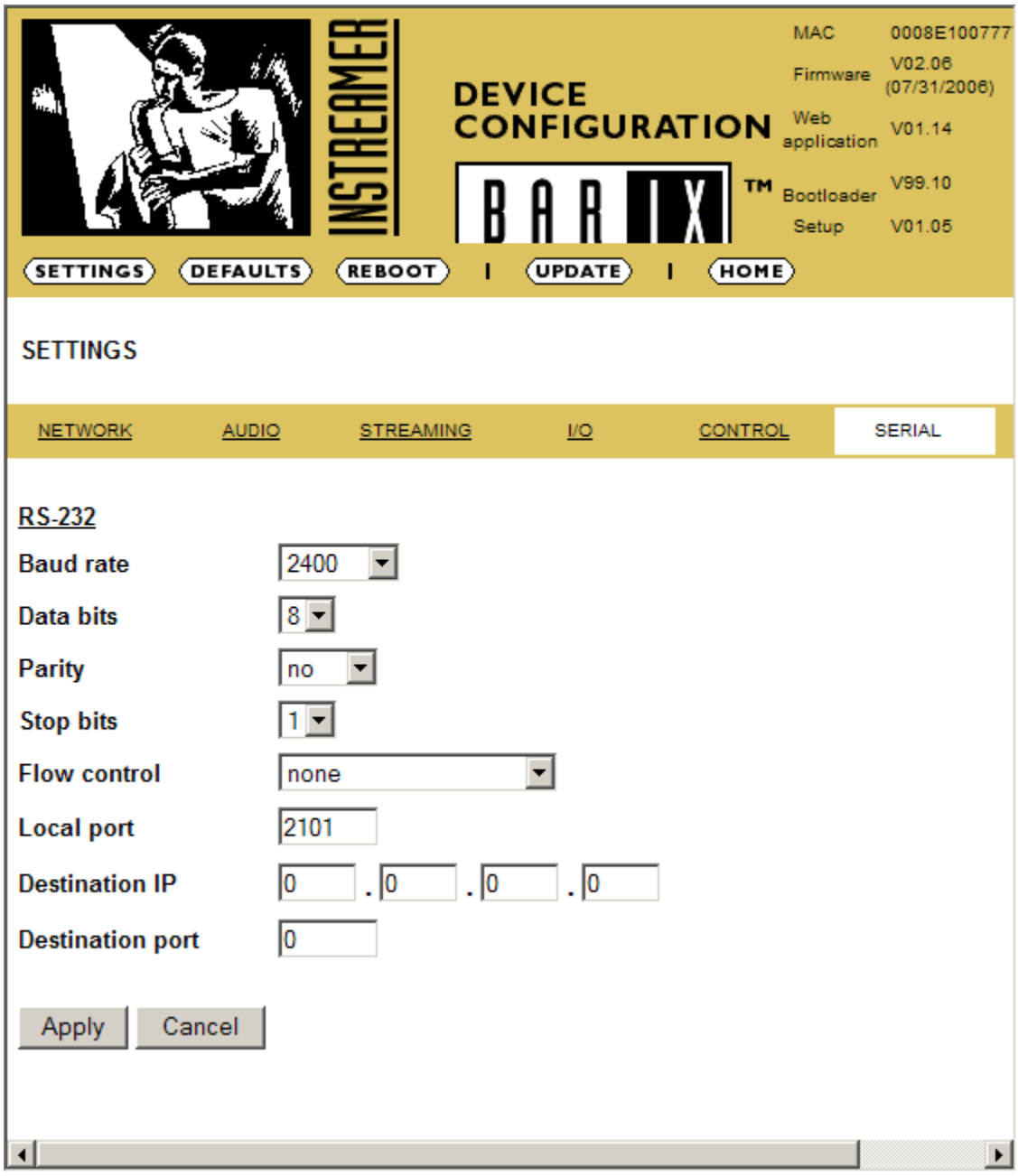
Press the Configuration Button to display the following page



Next press the Audio settings text button and duplicate the settings shown below. Press Apply.



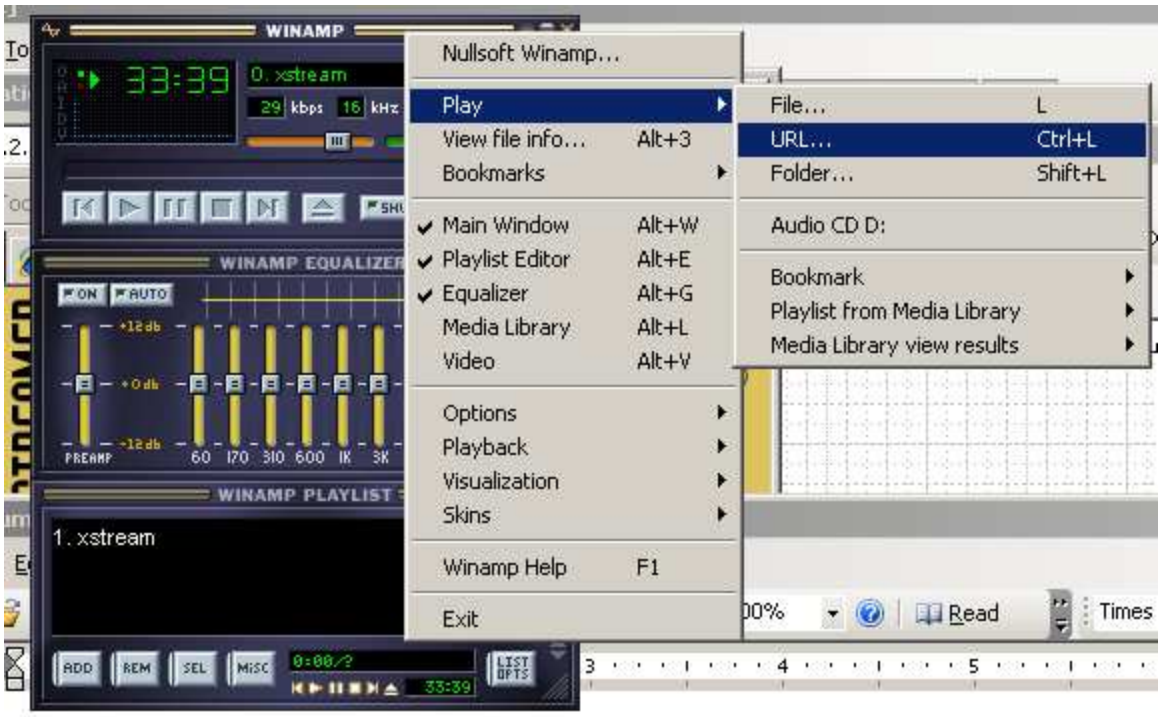
Next press the Serial settings text button and duplicate the settings shown below. The local port is the IP port that you will connect to. You can make this any valid IP port on the network 1-32767. Write down the IP port that you are going to use and press apply.



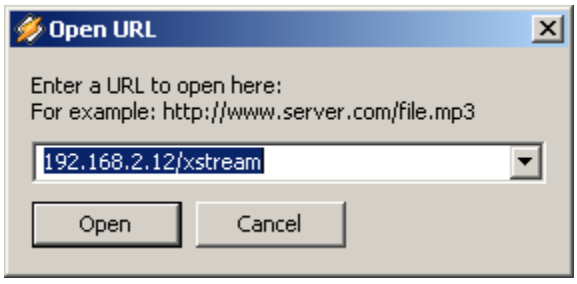
Close the browser. The Instreamer is now ready to operate.

3.3 Listening to the Audio

Listening to the audio on the computer requires an audio player capable of receiving and playing an audio stream. We suggest WinAmp (www.winamp.com). It is a free player and works very well. After you install WinAmp launch it and right click in the title bar as shown below and select Play ->URL.



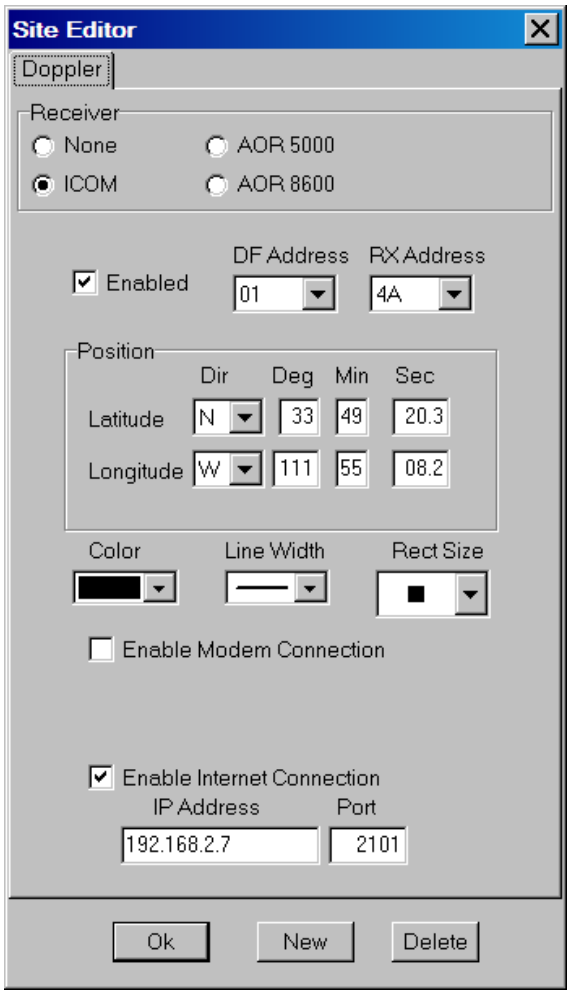
Type in the IP address you noted earlier followed by /xstream as shown below.



Click Open and WinAmp will buffer the audio for a short period of time and begin playing the audio from the receiver connected to the direction finder.

3.4 Configuring BearingTrack

The Instreamer looks just like a network server to BearingTrack so simply set up the site as you would any Ethernet network connected device. A sample Site Editor setup window is shown below.


Site Editor
Doppler
Receiver
None
AOR 5000
ICOM
AOR 8600
Enabled
DF Address
01
RX Address
4A
Position
Dir
Deg
Min
Sec
Latitude
N
33
49
20.3
Longitude
W
111
55
08.2
Color
Line Width
Rect Size
Enable Modem Connection
Enable Internet Connection
IP Address
Port
192.168.2.7
2101
Ok
New
Delete