

# Chapter 2 ✎

## Using the Antex Demo

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## Introduction to Antex Demo

The Antex Demo is an application that allows you to record and play audio files from the hard drive of your computer. This program is intentionally limited in functionality and is therefore very easy to use.

All files recorded or played by the Demo application are in Wave File format. The .wav file format was created by Microsoft Corporation and is the industry standard format for storing audio files. In fact, all of the system sounds the PC makes are audio files stored in the .wav format.

This chapter is written under the assumption that you have not yet read Chapter 3, *Using the Antex Mixer*. During initial installation of your *StudioCard*, default settings were initiated in the Mixer. The instructions in this chapter assume that those default settings are still in effect. If you have difficulty with the information in this chapter and have modified the settings in the mixer, please refer to Chapter 3 for information on how to restore the default configuration.

### ***Why Would I Use the Antex Demo?***

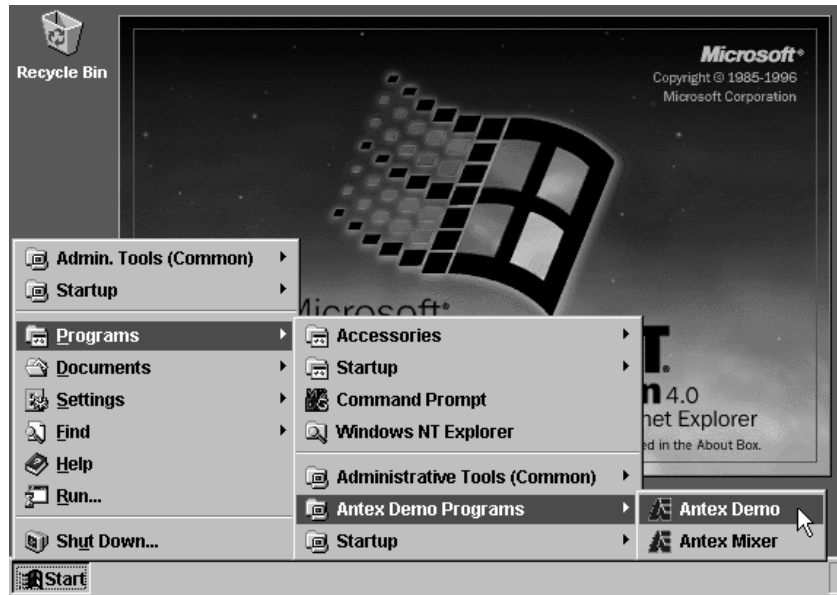
The Antex Demo is the tool that allows you to record and play digital audio files. It can be used to quickly and easily play any system sounds on your hard disk.

The Demo is also the perfect tool for verifying proper installation and functionality of your *StudioCard* by recording or playing back a simple audio file.

When you want to perform more advanced actions, such as mixing sounds from multiple sources, you will run the Demo simultaneously with the Mixer. Whereas the Demo provides record and play functionality, it is the Mixer (described in Chapter 3) that allows you to manipulate the audio. For example, using the Mixer you can change the volume of an audio file, select the audio input source or output destination, and capture audio in synchronization with video. See Chapter 3 for a full list of the Mixer's functionality.

## Starting the Antex Demo

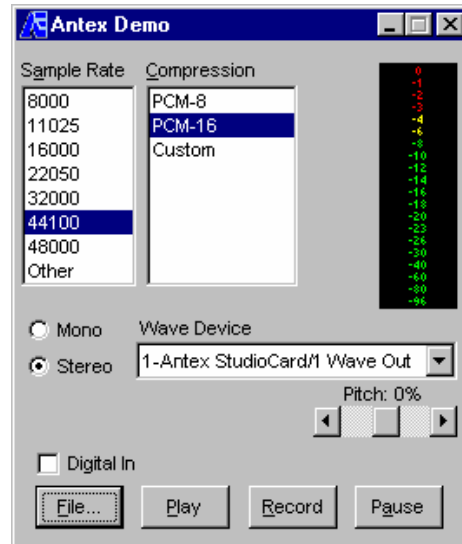
Click **Antex Demo** as shown in the figure below.



The Antex Demo main screen appears, as is shown at the top of the next page.

## Demo Main Screen Features

Shown at right is the Antex Demo main screen. Beginning on the next page is a description of each feature.



| Demo Feature           | Description  |
|------------------------|--|
| <b>Compression</b>     | In <b>playback mode</b> , indicates the compression method of the digitized audio signal. If the compression method is one for which the <i>StudioCard</i> will function, but is not among the selections listed, "Custom" will be indicated.<br><br>In <b>record mode</b> , choose either PCM-8 or PCM-16.  |
| <b>Digital In</b>      | <b>Check</b> (☒) this box to ready the <i>StudioCard</i> for digital signal input. When checked, the input channels 1 and 2 are routed from the digital in of the <i>StudioCard</i> digital I/O cable. Digital In and analog inputs 1 and 2 cannot be used simultaneously.<br><br>Leave this checkbox <b>unchecked</b> (☐) for analog signal input.                                    |
| <b>File</b>            | Click this button to open an existing digital audio file or to create a new file.  |
| <b>Level Indicator</b> | Displays the record (or playback) levels using a meter type display. 0dB is digital clipping and should be avoided.  |
| <b>Mono/Stereo</b>     | Click <b>Mono</b> for monophonic recording / playback.<br><br>Click <b>Stereo</b> for stereophonic recording / playback.   |
| <b>Pause/Restart</b>   | Works exactly like the "pause" control on an audiocassette recorder. Indicates <b>Pause</b> when in record or playback mode; <b>Restart</b> when in pause mode. Also used to synchronize playback of multiple devices, as described on page 18 of this chapter.  |
| <b>Pitch 0%</b>        | Playback pitch adjustment. Slide to the left to reduce playback speed; to the right to increase playback speed by the percentage indicated. This feature is operational only during playback, not recording.<br><br>The available range of adjustment varies depending on the sample rate in use. Example: When playing back at 44.1 kHz, the pitch may be adjusted from -86% to +13%. |
| <b>Play/Stop</b>       | Works exactly like the "play" and "stop" controls on an audiocassette recorder. Indicates <b>Play</b> in stop or record modes; <b>Stop</b> in play mode.   |
| <b>Record/Stop</b>     | Works exactly like the "record" and "stop" controls on an audiocassette recorder. Indicates <b>Record</b> in stop or play modes; <b>Stop</b> in record mode.   |
| <b>Sample Rate</b>     | When in <b>playback mode</b> , indicates the sample rate of the digitized audio signal. Sample rate displays as "Other" when you are using a sample rate other than those listed in the Compression field and that is compatible with the <i>StudioCard</i> . When in <b>record mode</b> , choose the desired sample rate by clicking on a listed rate.                                |
| <b>Wave Device</b>     | Indicates which digital audio card is currently in use (wave device). When more than one such device is present, click the down arrow to display and choose  |

|  |                 |
|--|-----------------|
|  | another device. |
|--|-----------------|

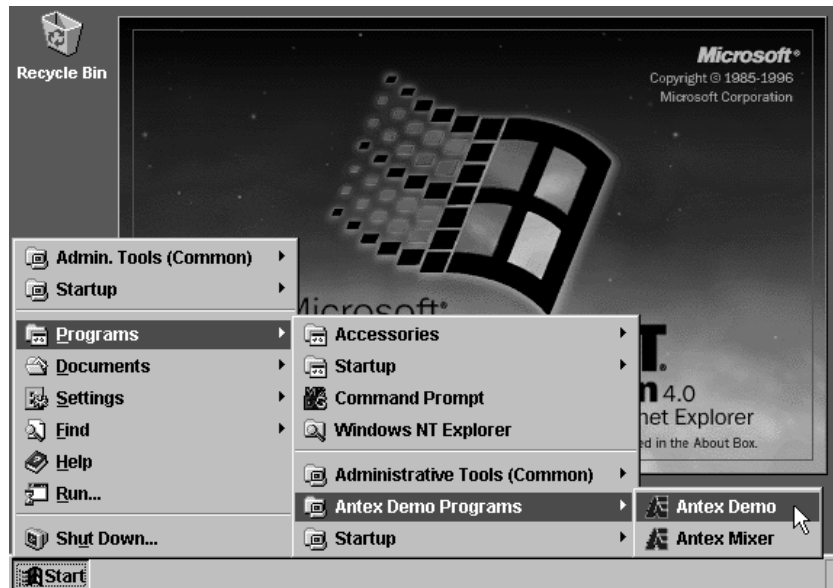
## Recording Digital Audio (\*.WAV) Files

The Antex Demo allows you to record digital audio (.WAV files) from both analog and digital audio input sources. In this section you will find instructions for both.

### Recording Analog Input

Follow the instructions below to record a digital audio file from an analog input source. The audio source may be from any source with the correct levels, such as an amplified MIC, a DAT player, a VTR, etc.

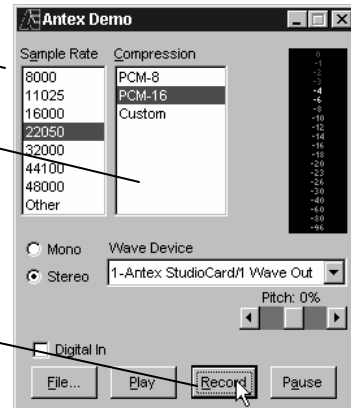
### Step 1 Start Antex Demo.



**Step 2**

Select the desired **S**ample Rate and **C**ompression method.

Then click the **R**ecord button.



The Open dialogue box appears.

**Step 3**

In the **F**ile **n**ame: field, type a name for the digital audio file you will record.

If you wish to re-record (overwrite) an existing audio file, select it from the list displayed on screen.

**Step 4**

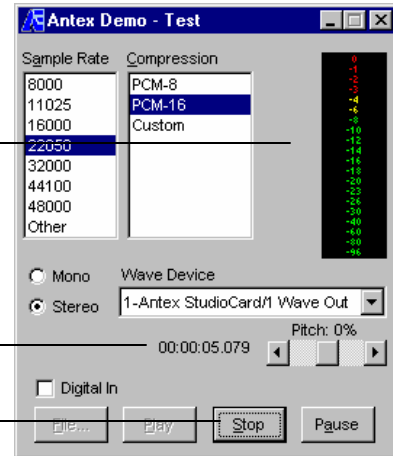
Click the **O**pen button to begin recording and return to the Demo main screen.



If you chose to re-record an existing file, the Demo asks whether you truly want to overwrite the existing file. Choose **Yes** to overwrite the file; **No** to cancel and return to the **Open** window.

Recording is evidenced by the following changes on the Demo main screen.

- ✎ The name of your audio file appears in the title bar.
- ✎ The recording level indicator fluctuates with the level of the incoming audio source.
- ✎ An elapsed time counter appears to the left of the **Pitch %** field.
- ✎ The **Record** button changes to **Stop**.



Click the **Stop** button to end the recording. You can play it back simply by clicking the **Play** button.

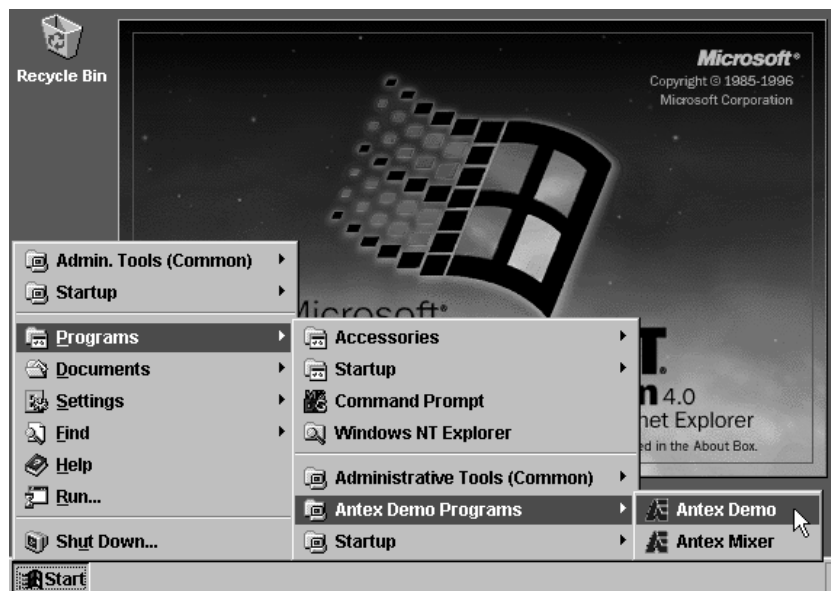
- ✎ Click the **Pause** button to pause the recording. Then click the **Restart** button to continue recording.
- ✎ The **Pitch** slider cannot be adjusted while recording, only during playback.

**Recording Digital Input** The **Antex Demo** allows you to record digital audio from any standard digital source. This section assumes you have connected a digital signal source such as a DAT player to the Female XLR on the Digital I/O cable as described in Appendix B. The input device should be put in pause or play, if it is in record mode, it will not output valid digital data.



*The StudioCard accepts digital input in two forms: AES/EBU Professional format and S/PDIF Consumer format. AES/EBU Professional is the default setting established during installation of Antex Demo and Mixer. Refer to Chapter 3 for instructions on changing the format to S/PDIF Consumer.*

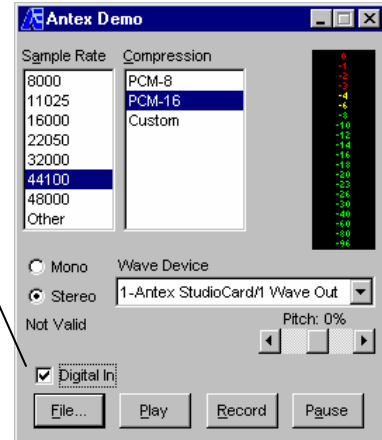
## Step 1 Start Antex Demo.



**Step 2**

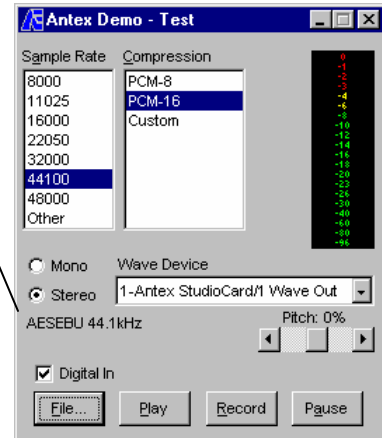
Check the **Digital In** box. This routes data from the digital I/O cable, replacing analog inputs 1 and 2.

If the *StudioCard* detects no digital input signal, the “**Not Valid**” message appears above the **Digital In** checkbox, as shown at right.



If the *StudioCard* detects the digital input signal, the format is displayed above the **Digital In** checkbox.

The format is embedded in the digital data stream by the device sending the data and is displayed by type and sample rate, for example, “AESEBU 44.1kHz”



The **Sample Rate** and **Compression** is automatically detected and set by the Antex Demo application.

**Step 3** Click the **Record** button and the **Open** dialogue box appears.



**Step 4** Click the **Open** button to begin recording and return to the Demo main screen.



*If you chose to re-record an existing file, the Demo asks whether you truly want to overwrite the existing file. Choose Yes to overwrite the file; No to cancel and return to the Open window.*

Recording is evidenced by the following changes on the Demo main screen.

- ✎ The name of your audio file appears in the title bar.
- ✎ The recording level indicator fluctuates with the level of the incoming audio source.
- ✎ An elapsed time counter appears to the left of the **Pitch %** field.
- ✎ The **Record** button changes to **Stop**.

Click the **Stop** button to end the recording. You can play it back simply by clicking the **Play** button.

- ✎ Click the **Pause** button to pause the recording. Then click the **Restart** button to continue recording.
- ✎ The **Pitch** slider cannot be adjusted while recording, only during playback.



*If you attempt to record without a valid digital input signal, the digital input is automatically turned off and recording proceeds utilizing analog inputs 1 and 2. As the digital clock source is not present, the recording will sound distorted. The **Antex Mixer** must be opened and the clock source returned to its desired source, DSP, Internal, External, or Hsync. The **Mixer** is described in the next chapter.*

## Playing \*.WAV Files

Follow the steps below to play an existing \*.WAV file.

### Step 1

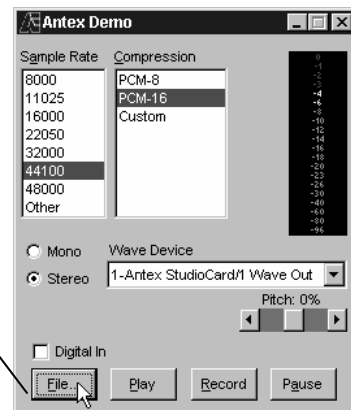
Connect Analog Outputs 1 and 2 to a preamplifier or mixing console, power amp, and speakers. Turn down the volume to a low level to avoid speaker damage.



**Before playing a wave file for the first time, turn down the volume on your audio equipment. The *StudioCard* default output level is quite loud.**

### Step 2

Start **Antex Demo**, then click the **File** button in the bottom left hand corner of the Antex Demo.



The **Open** dialogue box shown at right appears.

This is where you select the .wav file you wish to play.



This file can be a previously recorded file or a system sound already on your computer. Use the file navigation line at the top of the display to find the wave file you wish to play.

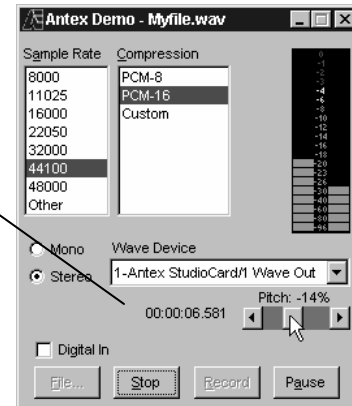
You can use the **Find** command under the Windows **Start** menu to search for \*.wav files. System sounds are typically located in the path **c:\winnt\media**.

### Step 3

From the **Open** dialogue box, select the file you want to play, then click **Open**.

You return to the **Antex Demo** main screen. Notice the following changes to the main screen.

- ✎ An elapsed time counter appears to the left of the **Pitch %** field.
- ✎ The **Play** button changes to the **Stop** button.
- ✎ The **Pause** button is now active.



During playback, Antex Demo indicates the current Sample Rate, Compression method, Playback level, and elapsed time. These parameters are stored in the .wav audio file and therefore cannot be changed during playback.

- ✂ Click the **Pause** button to pause the playback. Then click the **Restart** button to continue playback.
- ✂ Click the **Stop** button to stop playback.
- ✂ Slide the **Pitch %** slider to the right to increase the playback speed, or to the left to decrease playback speed.

The audio that is output from analog outputs 1 and 2 is simultaneously available at the digital output connector. The default output format is AES/EBU Professional. If necessary, you can change it to S/PDIF Consumer using the **Antex Mixer**. See Chapter 3 for more information.



*The meter display in Antex Demo displays levels from outputs 1 and 2 only. If a file is played on outputs 3 and 4, the file will play but the meters will not show levels.*

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## Synchronizing Playback of Multiple Devices

The *StudioCard* provides a simple and convenient way to synchronize the start of playback of multiple devices.

- Step 1** Start one instance of the **Antex Demo** application for each device you wish to synchronize. (You should have one Antex Demo window running for each device you wish to synchronize.)
- Step 2** Select **Pause** on each device/window (**Pause** changes to **Paused**).
- Step 3** Select **Play** on each device/window (**Play** changes to **Restart**).
- Step 4** Select **Restart**. on each device/window.

When “Restart” is selected on the last device/window, all devices will start together. The meters will be active and the counters will count. The meters in each instance of the **Antex Demo** display the levels of outputs 1 and 2 only.

## Digital Feedthrough Mode

It is occasionally useful to determine and set the levels of an audio source without writing to a file. The **Antex Demo** application allows you to do this by digitizing an analog input, and playing it back directly to an output. This mode of operation is referred to as Digital Feedthrough Mode (DFM) as the signal is actually passing from the A/D to D/A converters on the input and output. This is analogous to separate record and play heads on a tape machine for true monitoring of the recorded material. The sound output is an exact representation of the data available for recording to the hard drive, whereas analog Feedthrough is not.

By default, the data from each record device is digitally fed to its playback device so you may monitor the material recorded. Disabling DFM is described in Chapter 3, Running in Simultaneous Record-Play Mode.

To enter DFM, follow the instructions below.

- Step 1** Start **Antex Demo**.
- Step 2** Click **File**, then type a name for a temporary file.
- Step 3** Click **Pause**.
- Step 4** Click **Record**.

Digital Feedthrough Mode is now enabled. The meters will be active but the counter to the left of the **Pitch %** control will not count; no data is actually being written to the disk.

Levels can be set using the Antex Mixer described Chapter 3. This includes external volume controls on the input source.

- Step 5** To exit Digital Feedthrough Mode, click **Stop**.