nielsen

Engineering & Technology

NACAT

User Manual

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Sheet 1 of 17
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Revision	Date	Change Description
A	4-28-2004	Initial Release.
B	1-10-2008	Removed all references to the hardware key, added registered trademark for NACAT, updated the Nielsen logo, and replaced references to nielsenmedia.com with nielsen.com.
C	10-29-2009	Update EULA
D	1-12-2011	Added references to Nielsen Watermarks detection; added procedures; removed references to Facility Display Setup, which is no longer in the application. Removed references to installing from a CD.

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Overview

NACAT®—Nielsen Audio Code Analysis Tool—is software that captures audio, decodes Nielsen audio codes, and logs and displays the information to the user. The Nielsen EVS department uses the NACAT application for monitoring, assisting in troubleshooting, and verifying NAVE encoder installations.

Customer Support

Telephone:	800-537-4872
Email:	Encoders@Nielsen.com

System Requirements

For the best NACAT software performance, the PC on which it runs should have the following configuration.

- Microsoft® Windows XP® operating system or a later version

- Pentium or greater processor

- Minimum of 128 MB RAM memory

- 15 MB of hard disk space for the application

- 20 MB of hard disk space for log files (Periodic maintenance of these files may be required.)

> A typical log file requires approximately 2 MB of hard disk space/day..

- "Line" level audio input (-10dBV consumer IHF input level)

Incompatibilities & Performance Anomalies

NACAT has **not** been fully qualified on all configurations of operating software and computer hardware and you may experience anomalies with your particular configuration. Please contact the Encoder Support Group to report any NACAT abnormalities you experience.

A performance anomaly was noted when using this software on a Compaq® C610 laptop using the port replicator. When using a laptop, it is recommended that it should have a direct Line-input to the sound card instead of connecting through a port replicator.

Microphone input to the sound card as an audio source is not recommended and is not supported.

The selected audio alert WAV file is played using the WaveOut resource of the systems sound device. It has been noted that on certain PCs, the WaveOut resource is mixed with the Recording Input resource of the sound device. Depending on the characteristics of the wave file, this anomaly affects the proper decoding of the NAES II codes. If this occurs, try using the default Alarm.wav file that is included with the application.

Setting Up the NACAT Application

Follow the install instructions and then perform the setup procedure.

Installing NACAT

Use this procedure to install the NACAT application to a hard drive.

1. Do one of the following:

If…	Do this:
An existing version of NACAT is already installed	1. Uninstall the current version of **NACAT**. See page 10, "Uninstalling NACAT." 2. Go to step 2.
NACAT is not installed.	Go to step 2.

2. Double-click **NACAT.exe**.

3. Follow the prompts.

4. Start the NACAT application and do one of the following:

If…	Do this:
NACAT launches	Go to "Setting Up the Audio Input."
NACAT does not launch.	1. Click the Microsoft Windows **Start** button. 2. Browse to **Programs** > **Nielsen Media Research** > **NACAT** > **Launch VC Redistributable**. An application installs the missing, required Visual C runtime libraries. 3. Go to Setting Up the Audio Input.

Setting Up the Audio Input

Before using the NACAT application, you need to select and adjust the volume level of the input source. The Line In is the only supported recording input. Connecting to the left audio is necessary and it is not necessary to connect to the right.

> ⚠️ Do **not** use the microphone input; the frequency response of the microphone input could adversely affect the code detection performance of the NACAT application.

1. After installing the NACAT application, connect an audio line level input source to the Line In port on the sound card.

2. Start the NACAT application. When the application starts up for the first time, a configuration dialog appears.

3. Check the default values and do one of the following:

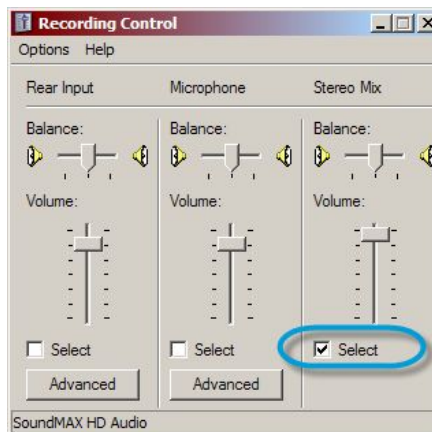| To…	Do this:
Accept the current values	Click **Cancel** and go to step 5.
Change the preferences	1. See Editing Preferences. 2. Go to step 5.

4. Play an audio file while doing the steps that follow.
5. On the **Tool** menu, select **Recording Control**.
6. On the **Options** menu in the **Recording Control** window, select **Properties**.
7. Ensure the **Stereo Mix** check box is selected.
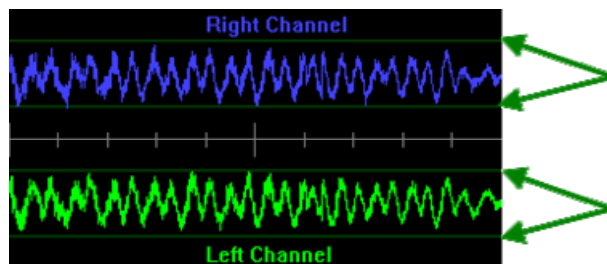
Figure 1 – Audio Properties Window

8. Click **OK**.
9. On the **Recording Control** window, ensure the **Stereo Mix** check box is the only box that is checked.

Figure 2 – Recording Control Window

10. Adjust the volume level for **Stereo Mix** so, on the main NACAT window, each waveform in **Right Channel** and **Left Channel** is within its green lines, as shown below. See Figure 3.

Figure 3 - Waveforms Showing Correct Audio Adjustment

11. Close the **Recording Control** panel.

Using NACAT

This procedure is based on the assumption that you have connected the device running the audio signal to the Line In port of the PC running the NACAT application.

There is a log file for each session and type of code found during the session: NAES II and Nielsen Watermarks.

1. Open the **NACAT** application.

2. On the NACAT main window, click **Start**. The NACAT main window displays the following. For an example and more details, see NACAT Window Description.

   o **Audio wave section**—waveforms for the left and right channels.

   o **Session information section**—time stamp and type of code detected.

   o **History section**—running log of details for the detected audio codes.

3. To transfer the NAES II and Nielsen Watermarks logs files, do the following:

   a. Connect to the FTP server by typing the following command in the Windows Explorer address bar:

      ftp://mediasynca:6syn4Abc@rgp.nmrcf.com/MediaSync

   b. Enter the following:

Parameter	Entry
Host name	rgp.nmrcf.com
User ID	mediasynca
Password	6syn4Abc
Directory	MediaSync

   c. Copy the NACAT log files that you want to transfer.

   You can use any FTP application to transfer the files.

Editing Preferences

Changing the values in the Setup window is optional.

1. On the **Tool** menu, select **Setup**.

2. On the **Setup** window, do any of the following as needed or keep the defaults.

To change the…	Do this:
Location where the log files are created and stored	3. Click the **Log file folder** field. 4. Click the ellipsis (3 dots). 5. Browse to a new location for the log files and select it. 6. Click **OK**.
Color in which the Program Content code details appear in the Session Information and the History sections on the main window	1. Click the PC (Program Content) text color field. 2. Click the ellipsis. 3. Select a color and click **OK**.
Color in which the Final Distributor code details appear in the Session Information and the History sections on the main window	1. Click the FD (Final Distributor) text color field. 2. Click the ellipsis. 3. Select a color and click **OK**.
Maximum amount of time that can pass without any codes detected before an alert is issued	1. Click the No code warning delay (secs) field. 2. Select one of the periods in the drop-down menu.
Whether an audio alert sounds or not when Final Distributor codes are missing	Click the **No FD code audio alert** field and do one of the following: ▪ Select **Yes** to trigger an audio alert when the No code warning delay period is exceeded. The alarm stops when the NACAT detects a FD code in the audio or when the user clicks Stop. ▪ Select **No** to not sound an alert when the No code warning delay period is exceeded.
Maximum amount of time that can pass without Final Distributor codes detected before an alert is issued	1. Click the No FD code warning delay (minutes) field. 2. Select one of the periods in the drop-down menu.
Sound of the audio alert (see the note below)	1. Click the No FD code audio file (WAV) field. 2. Click the ellipsis (3 dots). 3. Browse to a file in the WAV format on the PC hard drive. 4. Click **Open**.

The selected audio alert WAV file plays through the WaveOut resource of the system sound device. On certain PCs, the WaveOut resource is mixed with the recording input resource of the sound device. Depending on the characteristics of the wave file, this anomaly affects the proper decoding of the NAES II codes. If this occurs, use the Alarm.wav file included with the application.
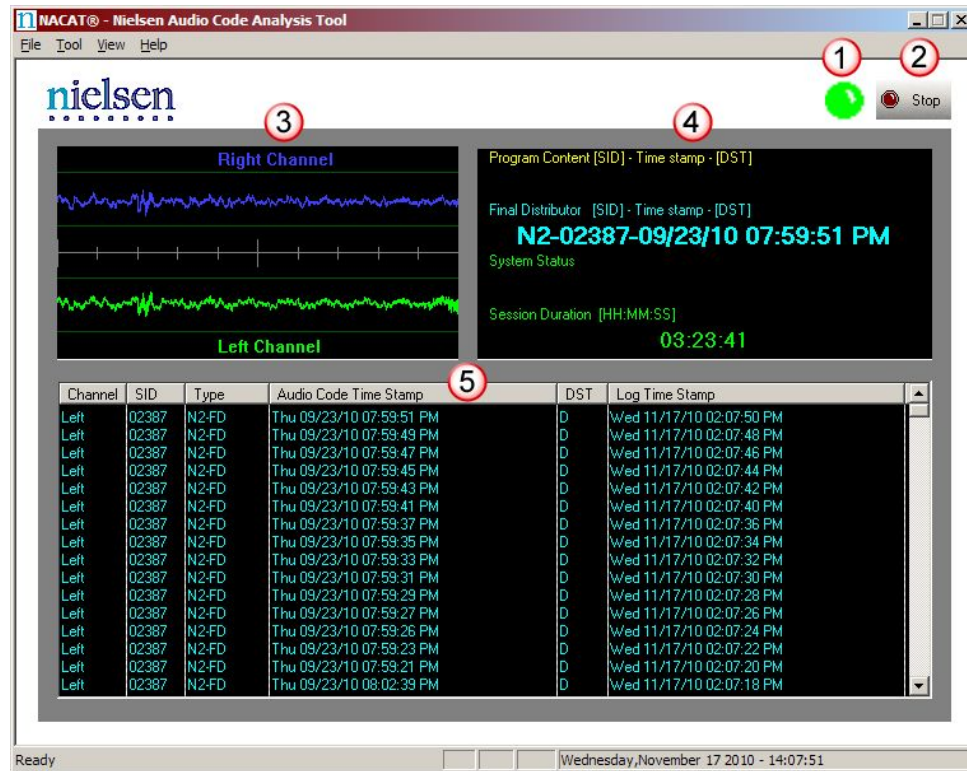
Uninstalling NACAT

Use the **Add/Remove** command in Microsoft Windows **Control Panel** to uninstall the NACAT application.

A message may appear indicating that one or more of the OLE objects did not properly uninstall. This message is harmless and requires no action.

NACAT Window Description

When the NACAT application is started, the main window appears.

Figure 4 - NACAT Main Window Sections

The main window includes the following components. Refer to the numbers, 1 through 5, in Figure 4.

1. **LED display**—flashes to indicate that a Source Identification (SID) code has been received.

2. **Start/stop button**—starts the NACAT monitoring session and stops it.

3. **Audio wave display**—displays the right and left channels of the incoming audio.

4. **Session information**—displays the following information found in the signal:

   o **Program Content SID**—displays the SID, date, time, and Daylight Saving Time (DST) status for the program content.

     • **N2**—indicates the code is NAES II code.

     • **NW**—indicates the code is Nielsen Watermarks code.

   o **Final Distributor SID**—displays the SID, Date, Time, and the DST status for the Final Distributor for NAES II and Nielsen Watermarks codes.

   o **System Status**—displays messages and warnings during an active monitoring session.

   o **Session Duration**—displays the monitoring period for this session.

5. History—displays a running log of the audio codes that have been received. This information is stored in a log file. When a new session begins, a new log file is automatically generated. For information on where the log file is stored or changing its location, see Editing Preferences.

   o **SID**—specifies the Source Identification number assigned to the programmer by Nielsen.

   o **Type**—specifies the audio code type. For information on changing the color, see Editing Preferences.

     - Program Content (PC) is indicated by a user-defined color.

     - Final Distributor (FD) is indicated by a user-defined color.

   o **Audio Code Time Stamp**—specifies the date and time stamp for the corresponding SID.

   o **DST**—specifies whether DST is in effect or not.

     - **S** indicates that the time stamp is set for Standard Time.

     - **D** indicates that the time stamp is set for DST.

   o **Log Time Stamp**—specifies the date and time the code was monitored.

Troubleshooting Tips

If…	Try this:
Audio level is too low.	On the Tool menu, select Recording Control and adjust the audio level of the Line input, so that the audio signal is within the green lines.
No audio on either channel.	▪ Ensure that the physical connection is connected into the Line input jack. ▪ On the Tool menu, select Recording Control and ensure that the Line input is selected.
Audio on one channel only.	▪ Ensure that you have audio input for the left channel. ▪ Ensure that the RCA plugs are properly plugged into both the audio source and the PC running NACAT.
No Nielsen Codes detected.	▪ Ensure that the station being monitored is NAES encoded. ▪ Ensure the audio signal is between the green lines. ▪ Ensure the Stop button appears in the upper right corner of the main window. If the Start button appears, click it to start monitoring. ▪ Ensure that the left channel is receiving an audio signal.
NACAT application does not launch.	▪ Ensure that your system meets the minimum system requirements. ▪ NACAT system files may be corrupted. Uninstall and reinstall the NACAT application.
Not receiving a "No FD code audio alert".	On the Tool menu, select Setup and ensure the following: ▪ That you have not been receiving an FD code longer than the setting in the "No FD code warning delay (minutes)" field. ▪ That a working WAV audio file is selected in the "No FD code audio file (WAV)" field.