SUMURI

AUDIO FORENSICS ON TALINO

(Revised September 2025)

Audio Forensics on TALINO

AI-Powered Voice Enhancement with Free Tools

Your TALINO Forensic Workstation is designed with powerful GPUs that make it ideal for advanced audio forensics. With the help of free tools, you can quickly clean noisy recordings and enhance human voice clarity.

This guide walks you through a simple, step-by-step process.

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1. What You Need

Hardware

- TALINO Workstation or TALINO Laptop with an NVIDIA GPU.

Software (all free):

- A media player (e.g., Windows Media Player) to play the "dirty" audio.
- Audacity to record and export the cleaned audio.
- **NVIDIA Broadcast** (for 20-series GPUs and newer) or **NVIDIA RTX Voice** (for 10-series GPUs and older).

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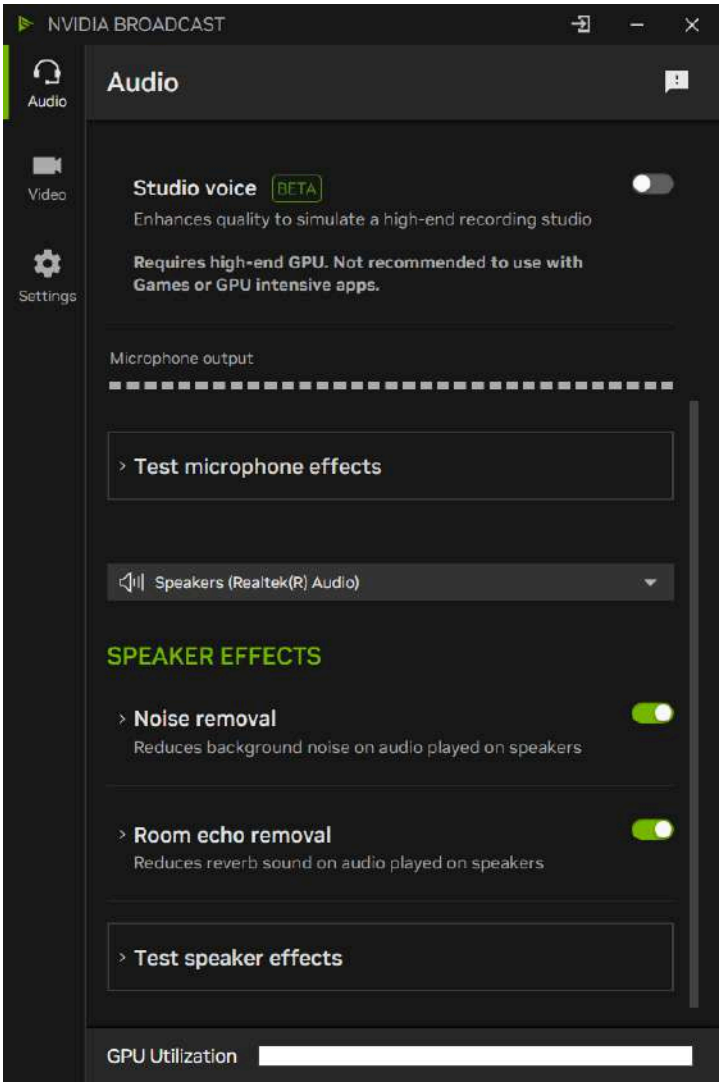
2. Step-by-Step Workflow

Step 1: Configure NVIDIA Broadcast

1. Launch **NVIDIA Broadcast**.
2. Go to the **Audio** tab.

3. Under **Speaker Effects**, select your TALINO's main speakers (e.g., *Speakers (Realtek(R) Audio)*).

4. Turn on **Noise Removal**. Optionally, enable **Room Echo Removal** for extra clarity.

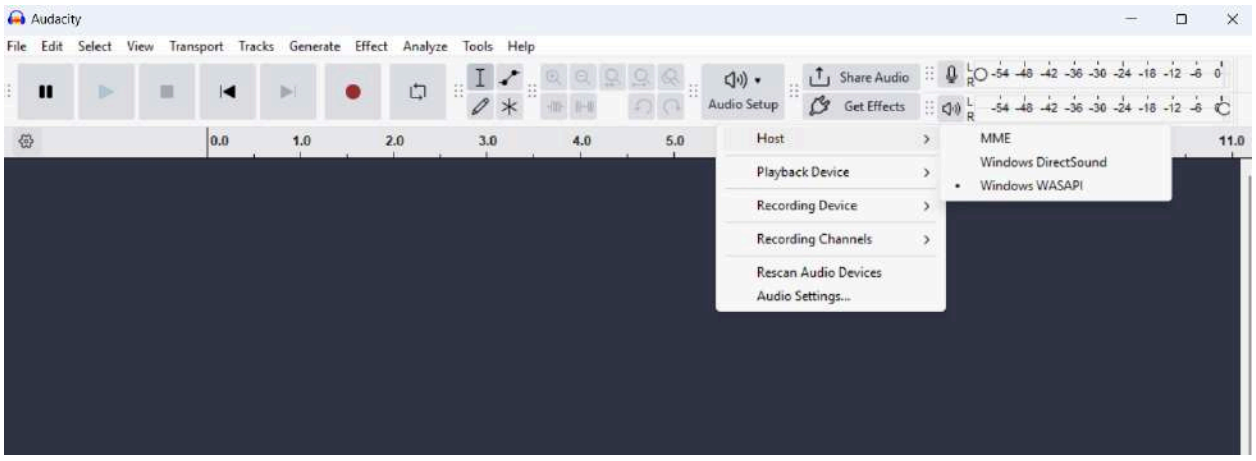


Step 2: Route Your Audio Through Broadcast

1. In Windows, click the **speaker icon** in the taskbar.
2. Change your playback device to **Speakers (NVIDIA Broadcast)**.
    - Now all audio you play will be filtered by Broadcast before reaching your speakers.

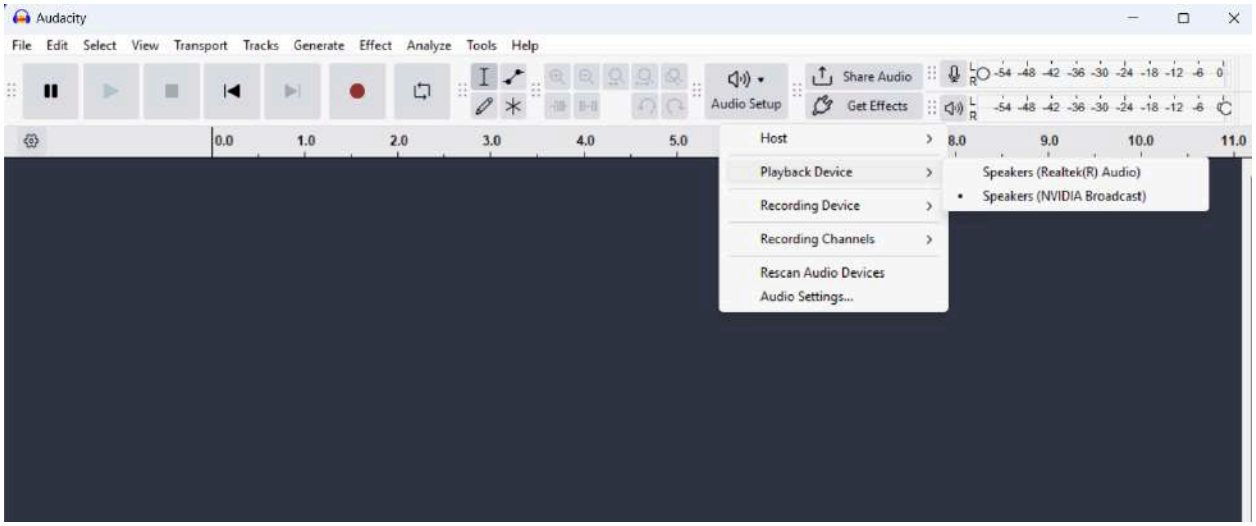
Step 3: Set Up Audacity for Recording

1. Open **Audacity** and start a new project.
2. At the top toolbar, click **Audio Setup** and configure:
    - **Host:** Select *Windows WASAPI*.
    - **Playback Device:** Your TALINO's speakers (e.g., *Speakers (Realtek(R) Audio)*).
    - **Recording Device:** Choose the **loopback option** that matches your speakers (e.g., *Speakers (NVIDIA Broadcast) (loopback)*).
    - This tells Audacity to capture exactly what you hear through Broadcast.



Step 4: Record the Cleaned Audio

1. Load your “dirty” audio file in your media player.
2. In Audacity, click the **Record** button.
3. Immediately switch to your media player and **play the file**.
4. When playback finishes, press **Stop** in Audacity.



Step 5: Save the Clean Track

1. In Audacity, go to **File > Export > MP3** (or WAV/other formats).
2. Enter a filename and choose a save location.
3. (Optional) Add metadata such as case info or notes.
4. Click **OK** to finish.

Congratulations! You now have a clean, enhanced audio file created with the power of your TALINO workstation.

Tips & Notes

- Results depend on the quality of the original audio — AI tools work best at reducing steady background noise (hums, fans, chatter).
- Always preserve the original file as evidence and clearly document any processing steps.
- Audacity is open-source software released under the GNU General Public License (GPL).
- NVIDIA Broadcast and NVIDIA RTX Voice are free applications provided by NVIDIA.

Acknowledgments

- **TALINO Workstations** – Developed by SUMURI LLC for digital forensic professionals.
- **Audacity®** – Open-source audio editor © The Audacity Team. Licensed under the GNU General Public License (GPL).
- **NVIDIA Broadcast/RTX Voice** – © NVIDIA Corporation. Used here under fair use for educational and forensic guidance.