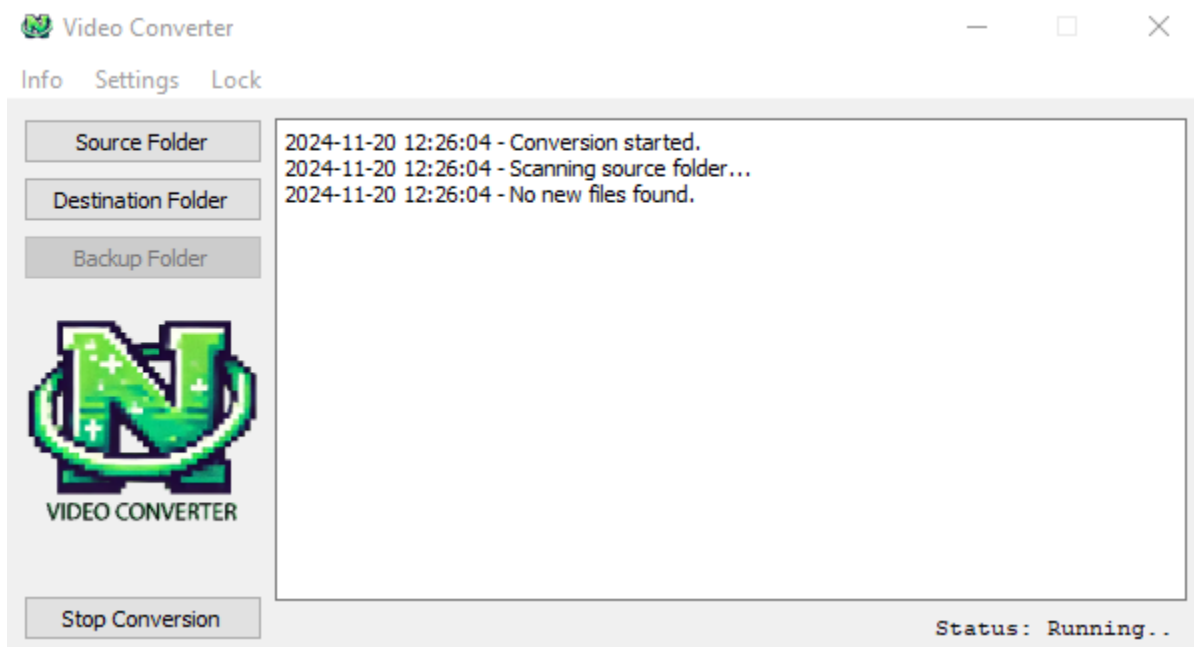


NVC 1.4 - Video Converter Documentation

Overview

NVC 1.4 is a Video Converter Application designed to monitor a specified source folder for video files. It automatically converts detected videos to a user-defined output format using FFmpeg. The application allows users to configure source, destination, and backup folders, set conversion preferences, and monitor conversion progress. Users can customize video and audio codecs, choose to delete original files after conversion, set a retention time for deletion, and leverage GPU acceleration if available.



Key Features

- **Automated Conversion:**
 - Continuously monitors the source folder for new video files and converts them to the chosen output format in the destination folder.
- **Customizable Output Formats and Codecs:**
 - Supports multiple output formats, including mp4, mov, avi, mkv, flv, webm, mpeg, mpg, 3gp, ogg, wmv, m4v.

- Allows selection of video and audio codecs based on the chosen output format.
 - **GPU Acceleration:**
 - Detects available GPU encoders (e.g., NVIDIA NVENC, Intel QSV, AMD VCE/VCN) in the installed FFmpeg build.
 - Utilizes GPU acceleration for faster video encoding if supported.
 - **Drag-and-Drop Support:**
 - Enables users to drag video files directly into the application window for immediate conversion.
 - **Original File Management:**
 - Offers options to move original files to a backup folder, delete them after conversion, or retain them in the source folder.
 - Users can set a retention time (0-30 days) for delayed deletion of original files.
 - **FFmpeg Integration:**
 - Leverages FFmpeg for efficient video encoding and supports various codecs (e.g., H.264, HEVC, MPEG4, AAC, MP3).
 - **Auto Run on Startup:**
 - Can be configured to automatically start monitoring and converting upon launching the application.
 - **System Tray Integration:**
 - Minimizes to the system tray, allowing it to run unobtrusively in the background.
 - Provides quick access to show or quit the application via the tray icon.
 - **Settings Window:**
 - Offers a settings window to configure conversion preferences and application behavior.
 - **Logging:**
 - Implements detailed logging of conversion activities and errors, stored in a rotating log file.

C:\Users\<Username>\AppData\Roaming\VideoConverterApp\conversion_log.txt
 - **Lock/Unlock Feature:**
 - Allows users to lock the application settings to prevent accidental changes.
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How to Use the Application

1. Select Source Folder

- Click the "**Source Folder**" button to choose the folder containing video files to be converted.

2. Select Destination Folder

- Click the "**Destination Folder**" button to choose where the converted files will be saved.

3. Select Backup Folder (Optional)

- Click the "**Backup Folder**" button to choose where original files will be moved after conversion if the "**Use Backup Folder**" option is enabled.

4. Configure Settings

- Click on "**Settings**" in the menu to open the settings window.

Settings Options:

- **Auto Run on Startup:**
 - Enable this option to automatically start monitoring and converting with the previous settings upon launching.
- **Delete Files After Conversion:**
 - Enable this option to delete original files after conversion.
- **Retention Time (Days):**
 - Set the number of days to retain original files before deletion (0-30).
 - Setting to **0** deletes files immediately after conversion.
- **Use Backup Folder:**
 - Enable this option to move original files to the backup folder instead of deleting them.
 - Overrides the **Delete After Conversion** setting.
- **Output Format:**
 - Select the desired output format (e.g., mp4, mov, avi, mkv, flv, webm).
- **Video Codec:**
 - Choose the video codec for conversion.
 - Options vary based on the selected output format.
- **Audio Codec:**
 - Choose the audio codec for conversion.

5. Run/Stop Conversion

- Press the "**Start Conversion**" button to start monitoring the source folder and converting files.
- Press the button again to **stop** the process.

6. Drag-and-Drop Conversion

- Drag video files directly into the application window for immediate conversion.

7. Monitor Conversion Status

- View detailed logs and conversion status in the **console output** on the right side of the application window.
- The **progress bar** displays the conversion progress of each video file.
- The **status indicator** at the bottom shows whether the application is running or idle.

8. Lock/Unlock Settings (Optional)

- Use the "**Lock**" option in the menu to prevent changes to settings and folders.
 - Confirm the action when prompted.
 - The "**Lock**" menu item toggles to "**Unlock**" when locked.
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Important Notes

- **Supported Formats:**
 - The application supports various input formats, including .mp4, .avi, .wmv, .mkv, .flv, .webm, .mov, .mpeg, .mpg, .m4v, .3gp, .ts, .vob, .rm, .rmvb, .asf, .m2ts, .mts, .ogv, .divx, .dv, .f4v, .mxf, .nut, .ogm, .qt, .tod, .vro.
- **Output Customization:**
 - Users can customize the output format and codecs to suit their needs.
 - The application automatically suggests compatible codecs based on the selected output format.
- **GPU Acceleration:**
 - If supported, the application utilizes GPU encoders for faster conversion.
 - Requires an FFmpeg build with GPU encoder support.
- **Original File Handling:**
 - **No File Deletion by Default:** By default, the application does not delete any files from the source, destination, or backup folder.
 - **Delete After Conversion:** If enabled, original files can be deleted after conversion, with an optional retention period.
 - **Backup Option:** Enabling "**Use Backup Folder**" moves original files to the backup folder instead of deleting them.
- **Drag-and-Drop Support:**
 - Only supported video formats can be dragged into the application for conversion.
 - Unsupported files are ignored, and a warning is displayed.

- **Settings Persistence:**
 - All user settings, including folder selections and conversion preferences, are saved and reloaded when the application starts.
 - **System Tray Integration:**
 - Clicking the "X" button minimizes the application to the system tray, keeping it running in the background.
 - To properly exit the application, right-click the tray icon and select "Quit".
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FFmpeg Integration

FFmpeg is integrated into the application to handle video conversions.

- **Compiled Executable Users:**
 - If you are using the compiled executable version, FFmpeg is packaged with the application, and no additional download is necessary.
 - **Python Script Users:**
 - If you are running the Python script directly, you need to have FFmpeg installed on your system.
 - You can download the required build of FFmpeg from the following link:
 - [Download FFmpeg](#)
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Adding to Windows Startup

To configure the application to launch automatically when Windows starts:

1. **Open the Startup Folder:**
 - Press **Win + R** to open the Run dialog.
 - Type `shell:startup` and press **Enter**.
 2. **Create a Shortcut:**
 - Place a shortcut of the application's executable (.exe file) in the startup folder.
 3. **Next Startup:**
 - The next time Windows starts, the Video Converter will launch automatically.
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Source Code and Building Your Own Version

This application is written in Python. The source code is available on GitHub:

- **Video Converter Source Code:**
 - <https://github.com/ipaulbot/Video-converter>

Building the Application:

If you wish to create your own build of the application, you can use **PyInstaller**. Below is the command that compiles the script into an executable, including all necessary resources:

- `pyinstaller --onefile --windowed --icon=icon.ico --add-binary "ffmpeg.exe;." --add-binary "ffprobe.exe;." --add-data "icon.ico;." --add-data "logo.png;." --add-data "grayscale_logo.png;." --add-data "info_icon.ico;." --add-data "settings_logo.ico;." --add-data "lock.ico;." --add-data "unlock.ico;." [File name].py`
 - Ensure you include all the necessary resource files (ffmpeg.exe, ffprobe.exe, icons, and images).
 - Replace `your_script.py` with the name of your Python script.
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Troubleshooting and Support

Error Handling:

- The application includes improved error handling and logging to help diagnose issues during conversion.
- Common issues include missing resource files or FFmpeg executables.

Logging:

- Conversion logs are saved in a log file located in the application's data folder (`conversion_log.txt`).
- Logs provide detailed information about the conversion process and any errors encountered.

`C:\Users\<Username>\AppData\Roaming\VideoConverterApp\conversion_log.txt`

Support:

- For any issues or questions, please refer to the GitHub repository or contact the developer through the repository's issue tracker.
- **GitHub Repository:**
 - <https://github.com/ipaulbot/Video-converter>

Usage Tips

Automatic Codec Selection:

- When you select an output format in the settings, the application automatically suggests compatible video and audio codecs.

Retention Time:

- If you enable "**Delete Files After Conversion**" and set a retention time greater than 0, original files will be scheduled for deletion after the specified number of days.

Backup Folder Usage:

- Enabling the "**Use Backup Folder**" option overrides the delete after conversion setting, ensuring original files are moved to the backup folder instead of being deleted.

Locking the Application:

- Use the "**Lock**" feature to prevent accidental changes to settings and folder selections.
- To unlock, select "**Unlock**" from the menu and confirm the action.

Progress Monitoring:

- The **progress bar** displays real-time progress of the current video conversion.
- The **status indicator** shows if the application is **Running** or **Idle**.

Drag-and-Drop Conversion:

- You can drag multiple video files into the application window for batch conversion.
- Ensure the destination folder is set before using drag-and-drop.

GPU Acceleration:

- To utilize GPU acceleration, ensure your system's GPU is compatible and the FFmpeg build supports GPU encoders.
 - Check FFmpeg documentation for more details on GPU encoding support.
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