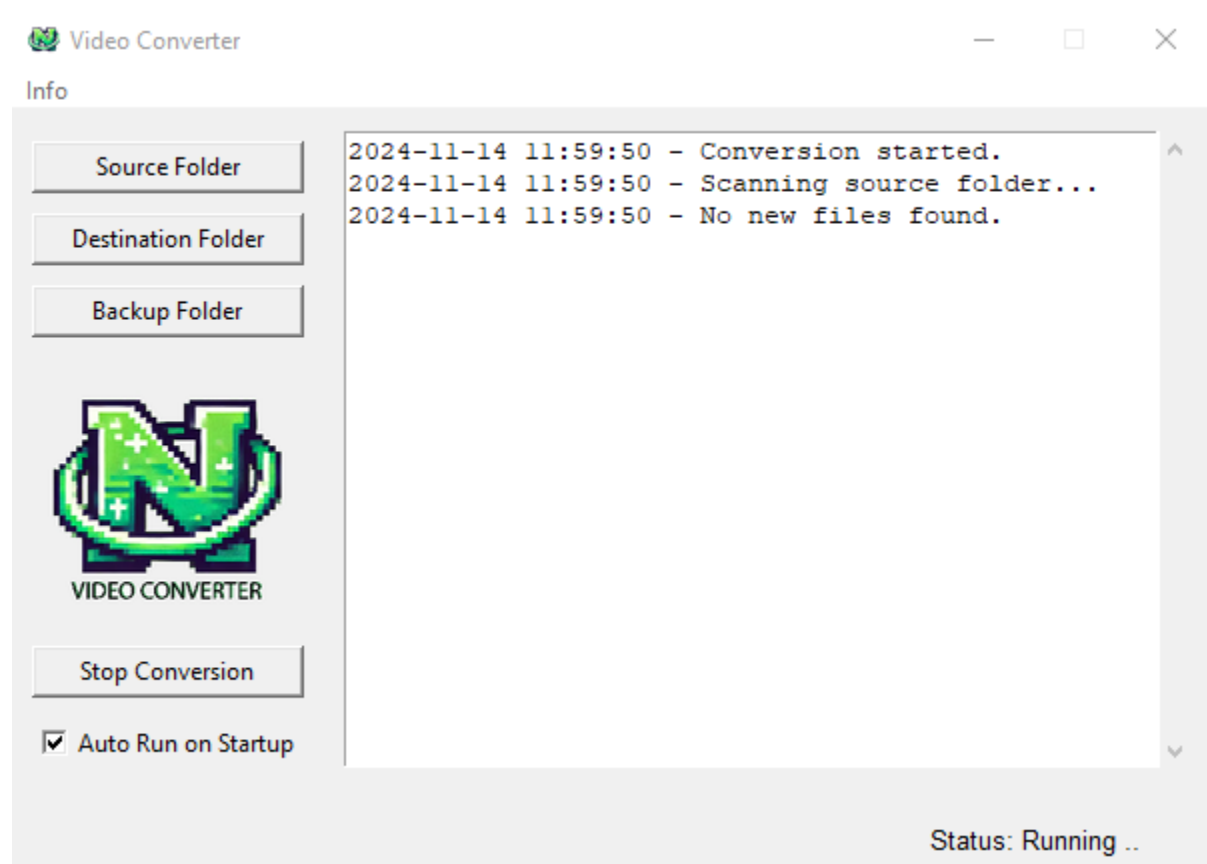# NVC 1.2 - Video Converter Documentation

Overview

The Video Converter application is a tool designed to monitor a source folder for .mp4 video files, automatically convert them to .mov format, and then move the original .mp4 files to a backup folder. It uses FFMPEG to handle video conversions and provides a user-friendly interface to set source, destination, and backup folders, start/stop the conversion process, and monitor the conversion status. The conversion uses the H.264 codec for video and AAC for audio.

Key Features

- **Automated Conversion**: Continuously monitors the source folder for new .mp4 files and converts them to .mov in the destination folder, while moving the original files to a specified backup folder.
- **FFMPEG Integration**: Uses FFMPEG to ensure efficient video encoding with codecs (H.264 for video, AAC for audio).

- **Threaded Operation**: Runs in a separate thread to keep the interface responsive while converting videos.
- **Auto Run on Startup**: The application can be set to automatically start monitoring and converting upon launching.
- **System Tray Integration**: The application minimizes to the system tray, allowing it to run unobtrusively in the background.

How to Use the Application

1. **Select Source Folder**: Click on the "Source Folder" button to choose the folder containing .mp4 files to be converted.
2. **Select Destination Folder**: Click on the "Destination Folder" button to choose where the converted .mov files will be saved.
3. **Select Backup Folder**: Click on the "Backup Folder" button to choose where the original .mp4 files will be moved after conversion.
4. **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.
5. **Auto Run on Startup**: Check the "Auto Run on Startup" checkbox if you want the application to start automatically with the same settings the next time you run it.

Important Notes

- **Continuous Monitoring**: Once started, the application will continuously check for new .mp4 files in the source folder until it is stopped.
- **No File Deletion**: The application does not delete any files from either the source, destination, or backup folder.
- **Settings Persistence**: The selected source, destination, and backup folders, along with the auto-run setting, are saved, so they remain the same the next time you run the application.
- **System Tray Integration**: Clicking the "X" button minimizes the application to the system tray, keeping it running in the background. To properly exit, right-click the tray icon and select "Quit".

FFMPEG Integration
FFMPEG is packaged with the executable version of this application, so no additional download is necessary if you are using the compiled .exe. If you are running the Python script, you will need to have FFMPEG installed. You can download the required build of FFMPEG from the following link:
Download FFMPEG

Adding to Windows Startup
To add the application so it automatically starts when Windows starts:

1. Press **Win + R** to open the Run dialog.
2. Type `shell:startup` and press Enter. This will open the Windows startup folder.
3. Create a shortcut of the executable (`.exe`) file for the Video Converter and place it in this folder.
4. The next time Windows starts, the Video Converter will launch automatically.

Source Code and Building Your Own Version

This application was written in Python with the assistance of ChatGPT. The source code for the application can be found at the following GitHub repository:
[Video Converter Source Code](#)

If you wish to create your own build of the application, we used PyInstaller. Below is the command that worked best for compiling the script into an executable:

```
pyinstaller --onefile --windowed --icon=icon.ico --add-binary "ffmpeg.exe;." --add-data "icon.ico;." --add-data "logo.png;." [filename].py
```

This command ensures that all necessary resources, including the icon and FFMPEG executable, are included in the build.