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Transcribe RO - Setup Guide

Introduction

Transcribe RO is a powerful audio transcription application designed to convert speech to text with advanced features including speaker diarization (identifying different speakers). This tool leverages state-of-the-art machine learning models to provide accurate transcriptions, making it ideal for interviews, meetings, podcasts, and other audio content that requires professional-grade text conversion.

This guide will walk you through the complete installation and setup process for your operating system. Follow the instructions specific to your platform (Windows, Mac, or Linux) to get started.

Windows Setup

Step 1: Install Python

Python 3.10 or higher is required for this application.

1. Download the latest Python installer from <https://www.python.org/downloads/>
2. Run the installer
3. **Important:** Check the box labeled “**Add Python to PATH**” during installation
4. Complete the installation
5. Verify the installation by opening Command Prompt and running:

```
python --version
```

Step 2: Install Git

Git is required to clone the repository and manage updates.

1. Download Git from <https://git-scm.com/download/win>
2. Run the installer and follow the default installation options
3. Verify the installation:

```
git --version
```

Step 3: Install FFmpeg

FFmpeg is essential for audio processing. You can install it using either method:

Option A: Using winget (Recommended)

```
winget install FFmpeg
```

Option B: Manual Installation 1. Download FFmpeg from <https://ffmpeg.org/download.html>
2. Extract the downloaded archive to C:\ffmpeg 3. Add C:\ffmpeg\bin to your system PATH:
- Open System Properties → Environment Variables - Edit the “Path” variable under System variables - Add a new entry: C:\ffmpeg\bin - Click OK to save

Verify FFmpeg installation:

```
ffmpeg -version
```

Step 4: Clone the Repository

Open Command Prompt or PowerShell and run:

```
git clone https://github.com/GlobalEmancipationNetwork/transcribe_ro.git  
cd transcribe_ro
```

Step 5: Create Virtual Environment

Create an isolated Python environment for the application:

```
python -m venv .env  
.env\Scripts\activate.bat
```

You should see (.env) appear at the beginning of your command prompt, indicating the virtual environment is active.

Step 6: Install Dependencies

With the virtual environment activated, install the required Python packages:

```
pip install -r requirements.txt
```

Step 7: Fix torchcodec Incompatibility (Windows-Specific)

Due to a known compatibility issue on Windows, run these commands:

```
pip install pyannote.audio  
pip uninstall torchcodec -y  
pip install hf_xet
```

Step 8: Run the Application

Ensure your virtual environment is activated, then launch the application using either method:

Method 1: Direct Python execution

```
python transcribe_ro_gui.py
```

Method 2: Using the batch file

```
.\run_gui.bat
```

Troubleshooting

Issue: “The system cannot find the file specified” - **Cause:** FFmpeg is not installed or not in your system PATH - **Solution:** Reinstall FFmpeg following Step 3 above, ensuring it’s properly added to PATH

Issue: “torchcodec/AudioDecoder incompatibility” - **Cause:** Incompatible version of torchcodec installed - **Solution:** Run `pip uninstall torchcodec -y` and restart the application

Issue: **Speaker diarization not working** - **Cause:** Missing or invalid HuggingFace token - **Solution:** Ensure you have a valid HuggingFace token configured for accessing pyannote.audio models

Updating the Application

When updates are available, run these commands from the `transcribe_ro` directory:

```
git pull origin main
pip install -r requirements.txt --upgrade
pip uninstall torchcodec -y
```

Mac Setup

Step 1: Install Python

Python 3.10 or higher is required for this application.

Option A: Using Homebrew (Recommended)

```
brew install python
```

Option B: Direct Download 1. Download from <https://www.python.org/downloads/> 2. Run the installer and follow the instructions

Verify installation:

```
python3 --version
```

Step 2: Install Git

Option A: Using Homebrew (Recommended)

```
brew install git
```

Option B: Using Xcode Command Line Tools

```
xcode-select --install
```

Verify installation:

```
git --version
```

Step 3: Install FFmpeg

FFmpeg is essential for audio processing:

```
brew install ffmpeg
```

Verify installation:

```
ffmpeg -version
```

Step 4: Clone the Repository

Open Terminal and run:

```
git clone https://github.com/GlobalEmancipationNetwork/transcribe_ro.git
cd transcribe_ro
```

Step 5: Create Virtual Environment

Create an isolated Python environment for the application:

```
python3 -m venv .venv
source .venv/bin/activate
```

You should see (.venv) appear at the beginning of your terminal prompt, indicating the virtual environment is active.

Step 6: Install Dependencies

With the virtual environment activated, install the required Python packages:

```
pip install -r requirements.txt
```

Step 7: Run the Application

Ensure your virtual environment is activated, then launch the application:

```
python transcribe_ro_gui.py
```

Troubleshooting

Issue: Speaker diarization not working - Cause: Missing or invalid HuggingFace token - **Solution:** Ensure you have a valid HuggingFace token configured for accessing pyannote.audio models

Issue: FFmpeg not found - Cause: FFmpeg not properly installed - **Solution:** Reinstall using `brew install ffmpeg`

Issue: Permission denied errors - Cause: Insufficient permissions - **Solution:** Ensure you have proper read/write permissions in the installation directory

Updating the Application

When updates are available, run these commands from the transcribe_ro directory:

```
git pull origin main
pip install -r requirements.txt --upgrade
```

Linux Setup

Step 1: Install Python

Python 3.10 or higher is required for this application.

For Ubuntu/Debian-based distributions:

```
sudo apt update
sudo apt install python3 python3-pip python3-venv
```

For Fedora/RHEL-based distributions:

```
sudo dnf install python3 python3-pip
```

For Arch Linux:

```
sudo pacman -S python python-pip
```

Verify installation:

```
python3 --version
```

Step 2: Install Git

For Ubuntu/Debian-based distributions:

```
sudo apt install git
```

For Fedora/RHEL-based distributions:

```
sudo dnf install git
```

For Arch Linux:

```
sudo pacman -S git
```

Verify installation:

```
git --version
```

Step 3: Install FFmpeg

FFmpeg is essential for audio processing.

For Ubuntu/Debian-based distributions:

```
sudo apt install ffmpeg
```

For Fedora/RHEL-based distributions:

```
sudo dnf install ffmpeg
```

For Arch Linux:

```
sudo pacman -S ffmpeg
```

Verify installation:

```
ffmpeg -version
```

Step 4: Clone the Repository

Open your terminal and run:

```
git clone https://github.com/GlobalEmancipationNetwork/transcribe_ro.git
cd transcribe_ro
```

Step 5: Create Virtual Environment

Create an isolated Python environment for the application:

```
python3 -m venv .venv
source .venv/bin/activate
```

You should see `(.venv)` appear at the beginning of your terminal prompt, indicating the virtual environment is active.

Step 6: Install Dependencies

With the virtual environment activated, install the required Python packages:

```
pip install -r requirements.txt
```

Step 7: Run the Application

Ensure your virtual environment is activated, then launch the application:

```
python transcribe_ro_gui.py
```

Troubleshooting

Issue: Speaker diarization not working - Cause: Missing or invalid HuggingFace token -

Solution: Ensure you have a valid HuggingFace token configured for accessing pyannote.audio models

Issue: FFmpeg not found - Cause: FFmpeg not properly installed - **Solution:** Reinstall FFmpeg using your package manager as shown in Step 3

Issue: Permission denied errors - **Cause:** Insufficient permissions - **Solution:** Ensure you have proper read/write permissions in the installation directory. You may need to adjust ownership: `sudo chown -R $USER:$USER ~/transcribe_ro`

Issue: Missing system dependencies - **Cause:** Some Python packages require system libraries - **Solution:** Install development tools: - Ubuntu/Debian: `sudo apt install build-essential python3-dev` - Fedora/RHEL: `sudo dnf groupinstall "Development Tools"` - Arch: `sudo pacman -S base-devel`

Updating the Application

When updates are available, run these commands from the `transcribe_ro` directory:

```
git pull origin main
pip install -r requirements.txt --upgrade
```

Additional Notes

- Always ensure your virtual environment is activated before running the application or installing packages
- For optimal performance, use a computer with a dedicated GPU for faster transcription processing
- Keep your HuggingFace token secure and do not share it publicly
- If you encounter any issues not covered in the troubleshooting sections, please check the project's GitHub issues page or create a new issue with details about your problem

Need Help? Visit the project repository at https://github.com/GlobalEmancipationNetwork/transcribe_ro for additional documentation and community support.