# Workflow 1 - Automating OBS Recordings with Calendar Integration, Transcription, and Insight Extraction

## Introduction

This workflow combines two PowerShell scripts to create a seamless process for managing `.mkv` files generated by OBS. It renames files using Outlook Calendar event data, organizes them into folders, converts them to `.mp3`, transcribes the audio to text, and extracts actionable insights.

## Scope of the Workflow

In this module, you will:  
1. Rename OBS `.mkv` files based on timestamps and Outlook Calendar events.  
2. Organize renamed files into folders.  
3. Convert `.mkv` files to `.mp3` format using FFmpeg.  
4. Transcribe audio to text using Whisper CLI.  
5. Extract actionable insights from transcriptions using Fabric's `extract\_wisdom` pattern.  
  
This end-to-end workflow ensures that your recordings are named, structured, and processed for maximum utility.

## Prerequisites

1. \*\*Software Requirements\*\*:  
 - OBS Studio installed and configured for screen recording.  
 - FFmpeg installed and added to your system PATH.  
 - Whisper CLI installed and accessible.  
 - Fabric CLI installed and configured.  
 - PowerShell installed (default on Windows).  
 - Outlook installed and configured with access to your Calendar.

2. \*\*Environment Setup\*\*:  
 - `.mkv` files saved in a folder (e.g., `C:\Users\<YourName>\Videos`).  
 - Outlook Calendar populated with events matching your recording times.  
  
3. \*\*PowerShell Permissions\*\*:  
 - Ensure PowerShell execution policies allow scripts to run:  
 ```powershell  
 Set-ExecutionPolicy -Scope CurrentUser -ExecutionPolicy Unrestricted  
 ```

## Installation Instructions

Follow these steps to install the required software on a Windows-based workstation:  
  
1. \*\*Install OBS Studio\*\*:  
 - Visit the OBS Studio download page: [https://obsproject.com/](https://obsproject.com/).  
 - Download the Windows installer and follow the on-screen instructions.  
 - Open OBS Studio and configure your recording path under Settings > Output > Recording Path.  
  
2. \*\*Install FFmpeg\*\*:  
 - Visit the FFmpeg download page: [https://ffmpeg.org/download.html](https://ffmpeg.org/download.html).  
 - Download the Windows build and extract it to a folder (e.g., `C:\ffmpeg`).  
 - Add FFmpeg to your system PATH:  
 - Open Control Panel > System > Advanced System Settings > Environment Variables.  
 - Under System Variables, find `Path` and click Edit.  
 - Add the path to the FFmpeg `bin` folder (e.g., `C:\ffmpeg\bin`).  
  
3. \*\*Install Whisper CLI\*\*:  
 - Open PowerShell and run the following command:  
 ```powershell  
 pip install openai-whisper  
 ```  
 - Verify installation by running:  
 ```powershell  
 whisper --help  
 ```  
  
4. \*\*Install Fabric CLI\*\*:  
 - Follow installation instructions from Fabric's GitHub repository: [https://github.com/danielmiessler/fabric](https://github.com/danielmiessler/fabric).  
 - Verify installation by running:  
 ```powershell  
 fabric --help  
 ```  
  
5. \*\*Verify PowerShell Installation\*\*:  
 - PowerShell is pre-installed on Windows. Open PowerShell and check the version:  
 ```powershell  
 $PSVersionTable.PSVersion  
 ```  
 - If not installed, download PowerShell from [https://github.com/PowerShell/PowerShell](https://github.com/PowerShell/PowerShell).  
  
6. \*\*Install Microsoft Outlook\*\*:  
 - Ensure Outlook is installed as part of Microsoft Office and configured with your Calendar.

## Step-by-Step Instructions

### Step 1: Understand the OBS File Naming Pattern

OBS uses the naming format: `YYYY-MM-DD HH-MM-SS.mkv`, where:  
- `YYYY-MM-DD` is the date of the recording.  
- `HH-MM-SS` is the time of the recording.  
  
Example: `2024-12-22 21-49-13.mkv`

### Step 2: Download and Execute the First PowerShell Script (Renaming Files)

Purpose: Rename `.mkv` files by appending Outlook Calendar event details to their names.  
  
1. \*\*Download the Script\*\*:  
- Access the renaming script from the GitHub repository: [Rename Script](<https://github.com/script-repo/EDC-GenAI/tree/main/workflows>).

<https://github.com/script-repo/EDC-GenAI/blob/main/workflows/FileRenameToCalendarEntry.ps1>

2. \*\*Edit the Script\*\*:  
- Update the `$videoFolderPath` variable to match your `.mkv` file directory:  
```powershell  
$videoFolderPath = "C:\Users\<YourName>\Videos"  
```  
  
3. \*\*Run the Script\*\*:  
- Open PowerShell as Administrator.  
- Navigate to the script's location and execute:  
```powershell  
.\ FileRenameToCalendarEntry.ps1  
```  
  
4. \*\*Expected Output\*\*:  
- Files renamed to include calendar event details:  
```  
2024-12-22 21-49-13 - Team Meeting.mkv  
```

### Step 3: Download and Execute the Second PowerShell Script (Post-Processing)

Purpose: Process renamed `.mkv` files by organizing them, converting them to `.mp3`, transcribing audio, and extracting insights.  
  
1. \*\*Download the Script\*\*:  
- Access the post-processing script from the GitHub repository: [Post-Processing Script](<https://github.com/script-repo/EDC-GenAI/tree/main/workflows>).

<https://github.com/script-repo/EDC-GenAI/blob/main/workflows/TranscribeAndExtractWisdom.ps1>

2. \*\*Edit the Script\*\*:  
- Update the `$InputDirectory` variable to the directory where renamed files are stored:  
```powershell  
[string]$InputDirectory = "C:\Users\<YourName>\Videos"  
```  
  
3. \*\*Run the Script\*\*:  
- Execute the script:  
```powershell  
.\ TranscribeAndExtractWisdom.ps1  
```  
  
4. \*\*Script Workflow\*\*:  
- \*\*Step 1\*\*: Creates folders named after the renamed `.mkv` files.  
- \*\*Step 2\*\*: Moves `.mkv` files into these folders.  
- \*\*Step 3\*\*: Converts `.mkv` files to `.mp3` format using FFmpeg.  
- \*\*Step 4\*\*: Transcribes `.mp3` files into `.txt` using Whisper CLI.  
- \*\*Step 5\*\*: Extracts actionable insights from transcriptions using Fabric's `extract\_wisdom` pattern.

## Combined Workflow Diagram

1. \*\*OBS Recording\*\*: Save `.mkv` files in default naming format.  
2. \*\*Rename Script\*\*:  
 - Match file timestamps with Outlook Calendar events.  
 - Rename files to include event details.  
3. \*\*Post-Processing Script\*\*:  
 - Organize renamed files into folders.  
 - Convert `.mkv` to `.mp3` for audio processing.  
 - Transcribe audio to text using Whisper.  
 - Extract insights using Fabric.

## Expected Output

1. Renamed `.mkv` files (e.g., `2024-12-22 21-49-13 - Team Meeting.mkv`).  
2. Organized folders containing:  
- The original `.mkv` file.  
- The `.mp3` audio file.  
- The transcription `.txt` file.  
- The summarized insights in `wisdom.txt`.  
  
Example Folder Structure:  
```  
C:\Users\<YourName>\Videos\2024-12-22 21-49-13 - Team Meeting\  
 ├── 2024-12-22 21-49-13 - Team Meeting.mkv  
 ├── 2024-12-22 21-49-13 - Team Meeting.mp3  
 ├── 2024-12-22 21-49-13 - Team Meeting.txt  
 └── 2024-12-22 21-49-13 - Team Meeting-wisdom.txt  
```

## Final Notes

- Ensure Outlook is running and configured before executing the scripts.  
- Test the workflow with a small set of files to confirm proper configuration.  
- Customize Fabric’s `extract\_wisdom` pattern for your specific use case to extract relevant insights.