

MCME V2 USER MANUAL

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Data extraction from video has always been a tedious task for transportation engineers. Manual Count Made Easy (MCME) is a powerful tool that can be used for this purpose. It is a graphical user interface which works on the principle of speech recognition. It makes data extraction simpler and easier. Classified vehicle count can be obtained more easily and with greater accuracy with the use of MCME. It is developed in the programming language C SHARP(C#). Another major advantage with this application is that it is portable.

SYSTEM REQUIREMENTS-

- Windows 7 with .NET Framework (4.0 and above).

WORKING WITH MCME-

1. Copy the MCME folder to your PC and open the MCME_V2 executable file. A window appears on the screen as shown in Figure 1.

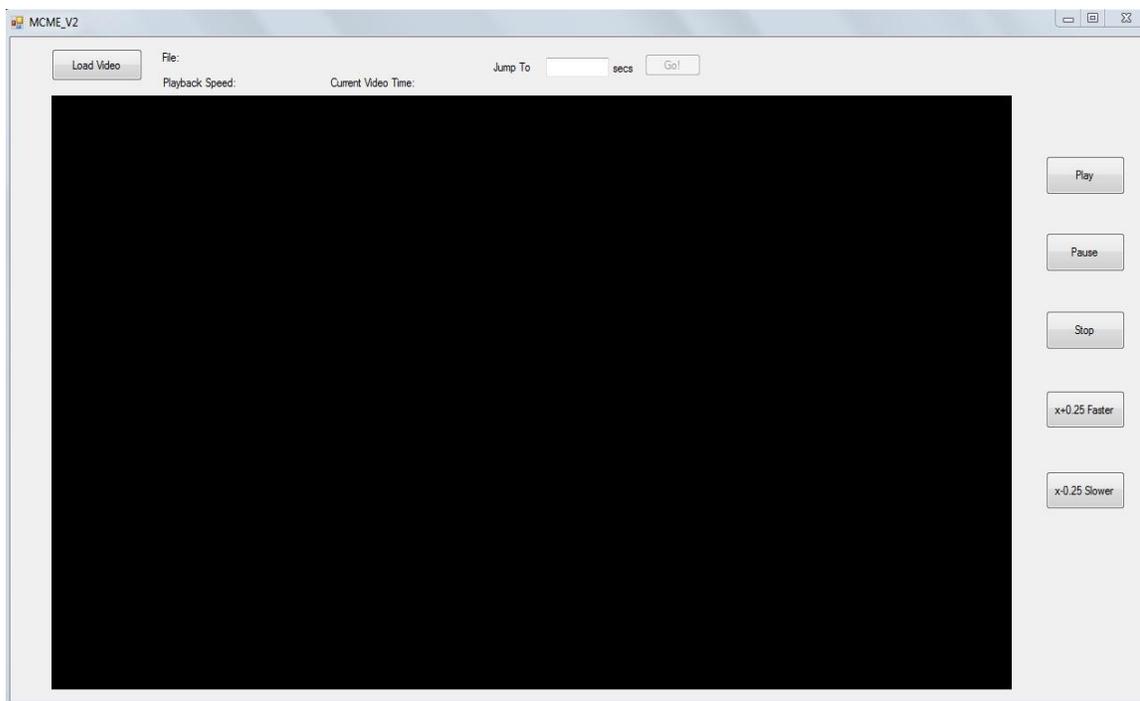
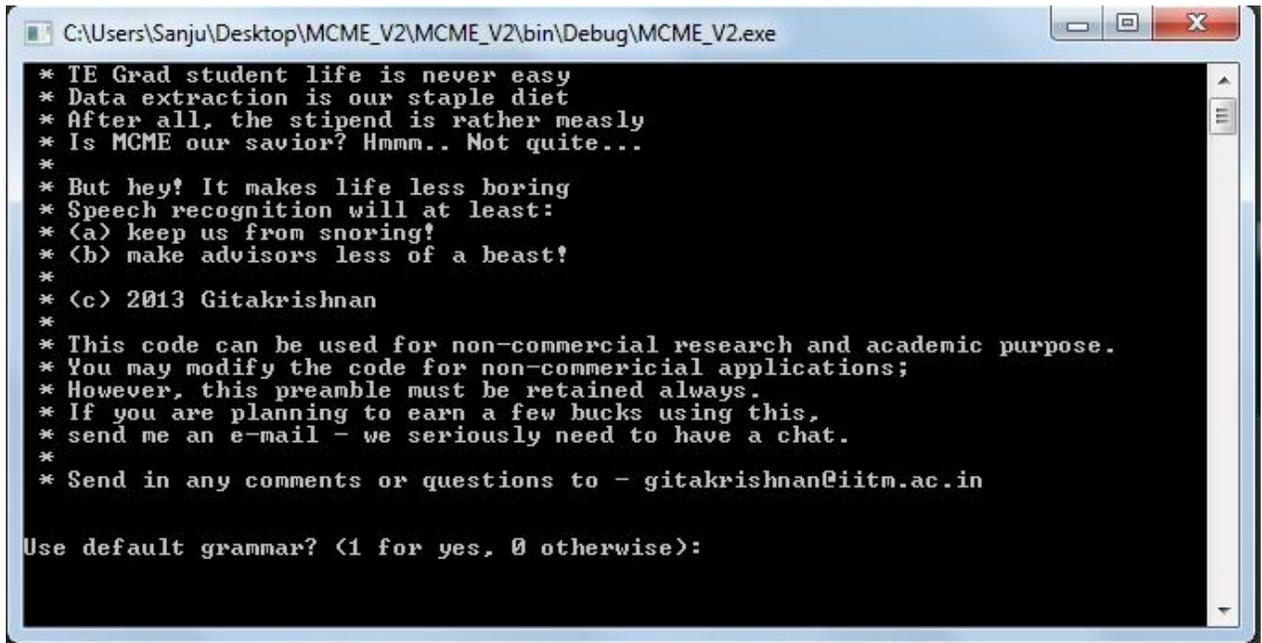


Figure 1. MCME V2 Interface

2. Use the 'Load Video' button in the top left corner to select the video for which you need to do the data extraction.
3. After loading the video, file details like the path, playback speed and current video time of the loaded video are shown at the top.
4. The 'Jump To' button can be used if you want to start the video at a particular time, i.e. if you want to start the video from 5 minutes, give 300 (5 minutes converted in seconds) as the 'jump to' value.
5. After this hit the 'Play' button. MCME application starts the moment you start the video. The MCME console output window is shown in Figure 2.



```
C:\Users\Sanju\Desktop\MCME_V2\MCME_V2\bin\Debug\MCME_V2.exe
* TE Grad student life is never easy
* Data extraction is our staple diet
* After all, the stipend is rather measly
* Is MCME our savior? Hmm.. Not quite..
*
* But hey! It makes life less boring
* Speech recognition will at least:
* (a) keep us from snoring!
* (b) make advisors less of a beast!
*
* (c) 2013 Gitakrishnan
*
* This code can be used for non-commercial research and academic purpose.
* You may modify the code for non-commercial applications;
* However, this preamble must be retained always.
* If you are planning to earn a few bucks using this,
* send me an e-mail - we seriously need to have a chat.
*
* Send in any comments or questions to - gitakrishnan@iitm.ac.in

Use default grammar? (1 for yes, 0 otherwise):
```

Figure 2. MCME Console Output Window

6. It will ask you to enter a value (1 or 0). If you enter 1, it will use default words for recognition. If you want to change it, you can add your desired word in the text file named 'input_grammar.txt' and give 0.

The default words used in MCME dictionary for the recognition of vehicles are -

“**dough**” - two wheelers,

“**teen**” - three wheelers,

“**fore**” - cars,

“**mid**” - light commercial vehicles and

“**high**” - heavy motor vehicles.

7. After this MCME is ready to use and the video interface will look like the figure below (Figure 3).
8. You can start your data extraction by just speaking the above mentioned keywords for different vehicle classes using a headphone with a mic in a less noisy environment.
9. Some other buttons are also provided in the video interface like pause, 'x+0.25 Faster', 'x-0.25 Slower' which serves their usual purpose of increasing and decreasing the video playback speed. The playback speed can be seen at the top left corner of the video screen. To use this facility of changing the playback speed, the video that you are using must be in any of the following formats - .avi, .mp4, .flv, .wmv.
10. When you want to end the detection, speak "stop" and the program will terminate.

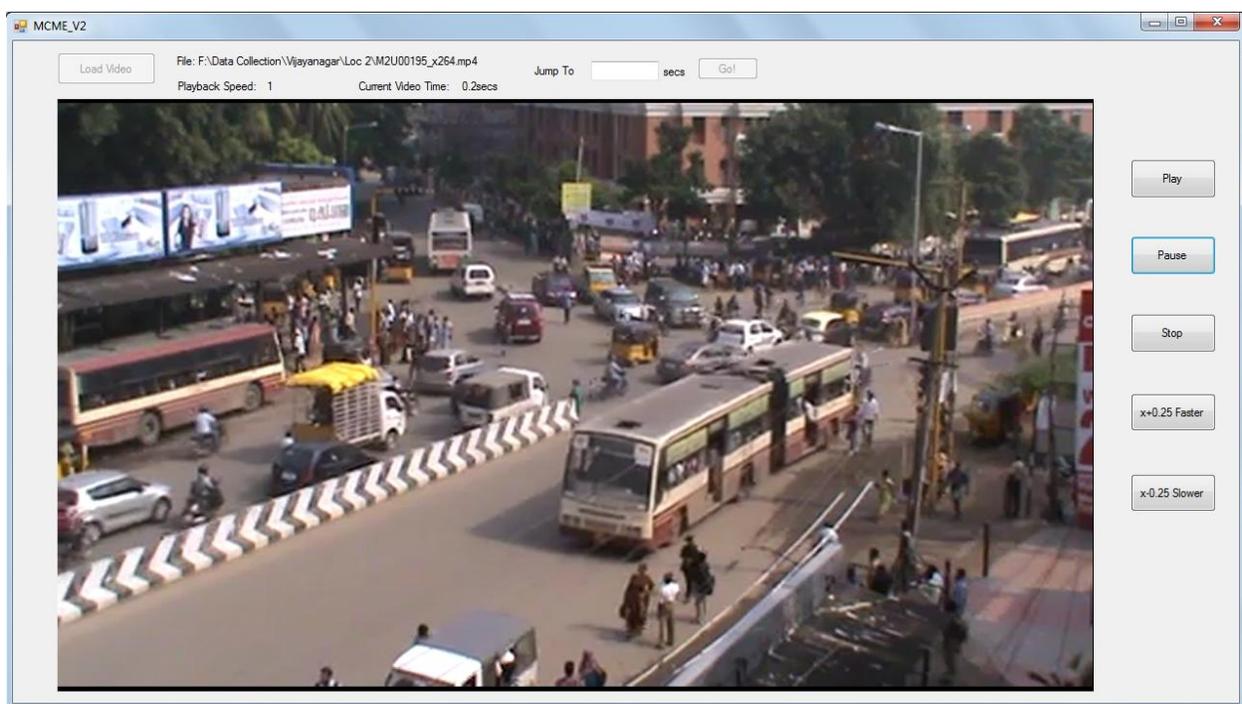


Fig 3 MCME V2 Running

After detection is over, the key words we spoke as well as the time of detection are stored in a text file named 'vehCount.txt'. It can be then easily transferred to Excel or other suitable

software for further analysis. Thus MCME is a simple yet powerful tool for data extraction which can be used without much difficulty. So do use it and make your life easier.