

Multimedia Transcoder Using JavaFX 2.1



Under Prof.D.B. Phatak

Department Of Computer Science & Engineering
Indian Institute of Technology, Bombay
Mumbai

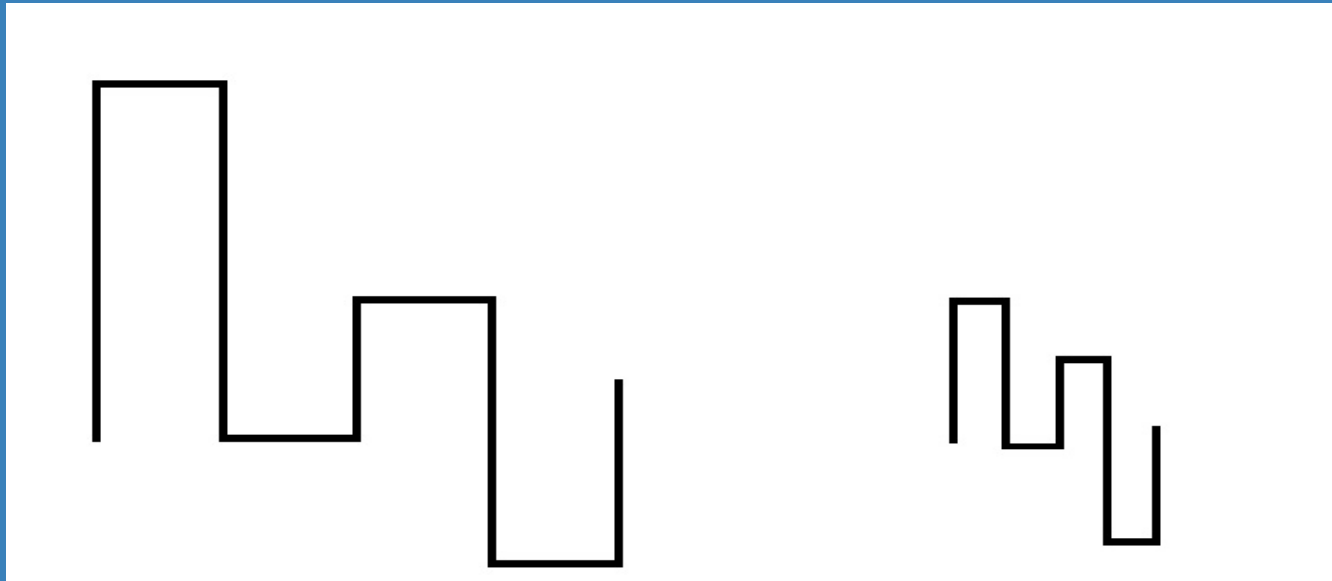
By
Tejwinder Singh
Komal Choudhary
Shanal Jauhari

Introduction

- > Multimedia is ubiquitous
- > Era of Desktops, Laptops , Smartphones and Tablets having various operating systems.
- > Device's whim or limitation
- > We need to 'Transcode'

What is Transcoding

- > Naively converting a video file
- > Changing attributes of a video



Multimedia Transcoder

- > Converts videos
- > Also Targets
 - Aakash Platform(Android 2.2/2.3)
 - HTML5
- > Extracts audio from a video file
- > Split videos

Under The Hood

> FFMPEG

Command Line Tools

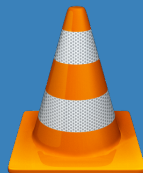
Video Codecs

Audio Codecs

A Player



Used By-



Front End

- > JavaFX 2.1

- > CSS

Working

```
drivingConvertThread    //having low priority
{
    while (listnotEmpty())
    {
        transcode(); //spawn a thread 't' having higher priority
        while(isAlive(t))
        { // wait }
        update variables;
    }
}
```

```
drivingSplitThread    //having low priority
{
    while (listnotEmpty())
    {
        split(); //spawn a thread 't2' having higher priority
        while(isAlive(t2))
        { // wait }
        update variables;
    }
}
```

Convert window



Split window

Split Video

Split Vid

Video Formats:

☐ Default ☐ avi

☒ Mp4 ☐ mpeg

☐ WebM ☐ wmv

☐ Ogv ☐ mp4(H264)

Audio Formats:

☐ Mp3

Enter file name Start Time:

End Time:

Enter file name Start Time:

End Time:

Enter file name Start Time:

End Time:

Destination

Aspect-Ratio:

Frame-Rate:

Video Bit-Rate:

Resolution:















Audio Bit-Rate:

Audio Sample-Rate:

Audio Channels:

Split

GANTT Chart

	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8
ORIENTATION								
XUGGLE API								
FFMPEG CLI								
JAVAFX 2.1 (INTRODUCTION)								
BACK END								
CONVERT								
SPLIT								
GUI								
DOCUMENTATION								

Thank You