RESEARCH 2: HOW TO EXTRACT IMAGES FROM A VIDEO

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PROG102

PAPERS

FACE DETECTION AND TRACKING IN VIDEO USING DYNAMIC PROGRAMMING

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The Design and Implementation of Effective Face Detection and Recognition System

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Distributed Embedded Deep Learning based Real-time Video Processing

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PAPERS

DE GRUYTER J. Intell. Syst. 2017; aop

Kumaraperumal Shanmugapriya* and RajaMani Suja Mani Malar

An Effective Technique to Track Objects with the Aid of Rough Set Theory and Evolutionary Programming

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Input: Video frames Fr_f

Output: segmented shots S

Steps

- Segregate the video frames into equal size of blocks bl with dimension $p \times q$
- Apply DCT transformation on the blocks bl
- Compute Euclidean distance $dist$ between the blocks of adjacent frames
- If $dist \leq thresh$ then
  Frame belongs to same shot
  Else
  Frame belongs to different shot
  End if

EXTRACT FRAMES FROM A VIDEO

I want to extract frames from a Video and save the frames

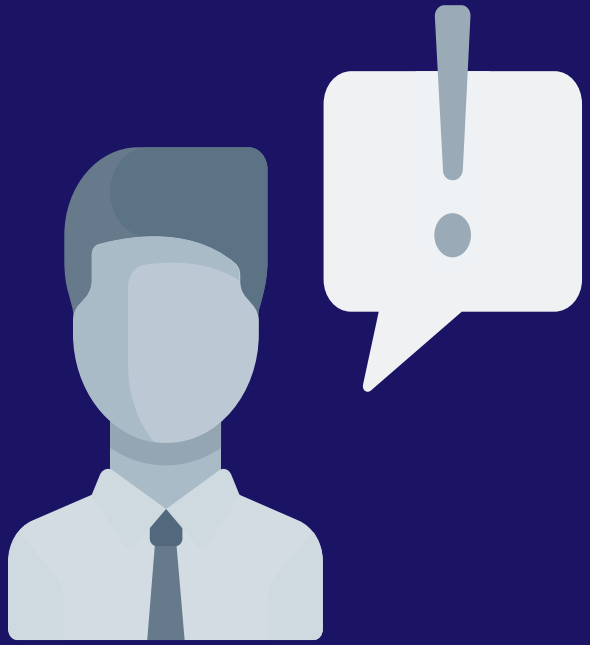
```
var express = require("express"),

 var video = "./s/video.mp4";
 var storeOutput = "./store"
 function getVideoFrames(){
        // get frames
 }
```

node.js

stackoverflow

EXTRACT FRAMES FROM A VIDEO



Generally, when it comes to work with video, *ffmpeg* is a great tool to use. There is a [ffmpeg-extract-frames] package on the npm repository, based on *fluent-ffmpeg*, that perform exactly that.

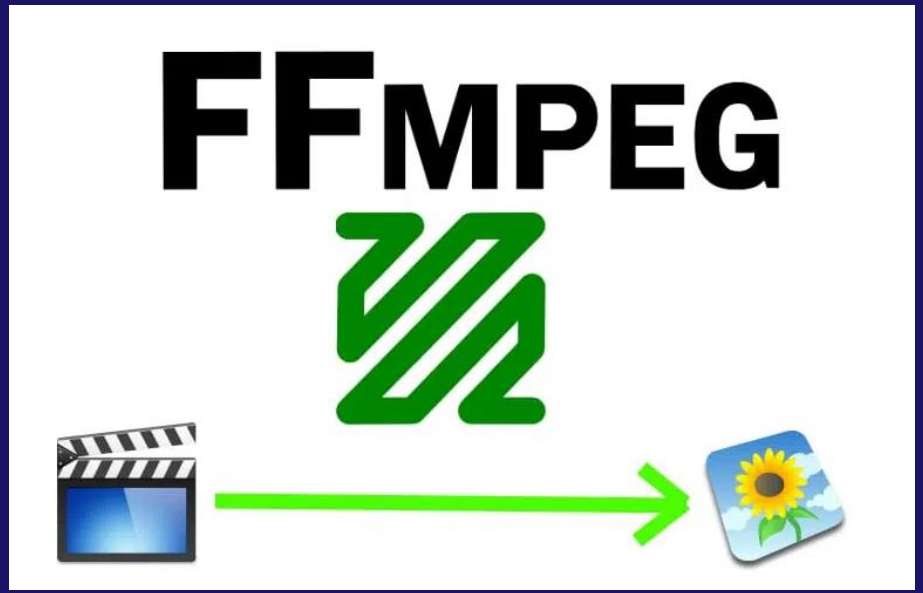
```
const extractFrames = require('ffmpeg-extract-frames')

extractFrames({
  input: 's/video.mp4',
  output: './store/frame-%d.jpg'
})
```

If you need, you can pass an array of time, in milliseconds, to the `offsets` option to extract only specific frames.

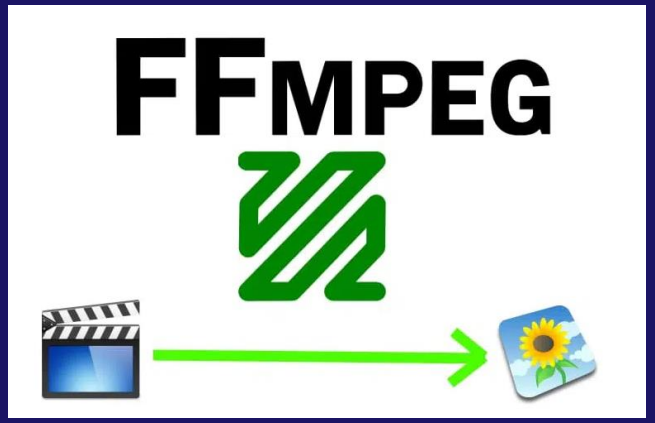
```
extractFrames({
  input: 's/video.mp4',
  output: './store/screenshot-%i.jpg',
  offsets: [
    1000,
    2000,
    3000
  ]
})
```

WHAT IS FFmpeg ?



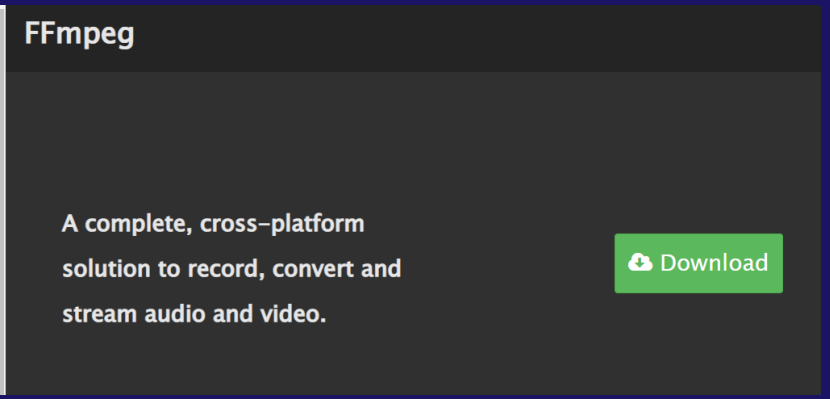
FFMPEG

- ES UNA HERRAMIENTA DE LINEAS DE COMANDO
- PERMITE CONVERTIR ENTRE FORMATOS DE VIDEO, ROTAR, REDUCIR TAMAÑO, CALIDAD O RESOLUCIÓN, ETC.
- ES MULTIPLATAFORMA.

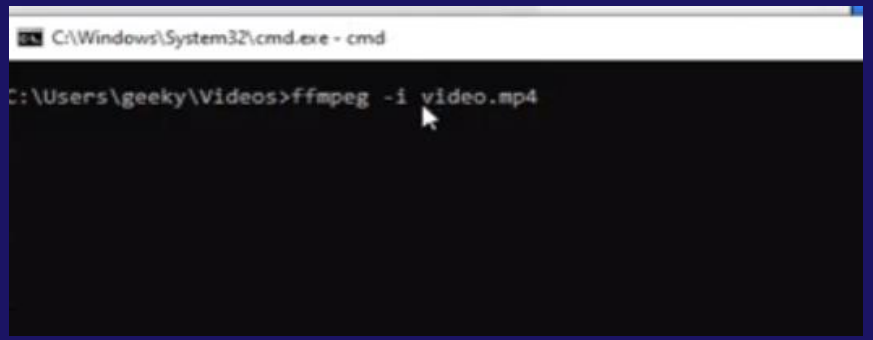


COMO UTILIZAR FFMPEG

INSTALAR FFMPEG



PUEDO EJECUTARLO DESDE CONSOLA



ESCRIBIR LA LINEA DE CODIGOS:

```
ffmpeg -i carpeta_que_contenga_el_video/video.mp4
```

```
input: 'media/1.mp4',
output: './frame-%d.png'
```

COMO UTILIZAR FFMPEG

REFERENCIAS

- https://stackoverflow.com/questions/40088222/ffmpeg-convert-video-to-images
- https://web.archive.org/web/20210621172103/https://trac.ffmpeg.org/wiki/Create%20a%20thumbnail%20image%20every%20X%20seconds%20of%20the%20video