

201:

# MacOS SCREEN RECORDING AND MEDIA CAPTURE

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# SUMMARY

"aTube Catcher for Mac" is a great free app for capturing video and audio streams at the network stack of a MacOS computer. If it does not work because of "Digital Rights Management" blocking (such as at the Netflix, Hulu, and Amazon Prime Web sites), you can use the screen recording function in MacOS to record at the graphics interface of MacOS.

# PATH OF STREAMING MEDIA

- An online video or audio travels from a Web server to your computer over the following path:



Web server in the Internet "cloud"

to

your MacOS computer's network  
adapter

to

network stack (drivers and software)

to

MacOS' Carbon and Cocoa APIs

to

Web browser as video or audio

# TWO WAYS TO RECORD STREAMING MEDIA (continued)

- Method 1:

**MEDIA CAPTURE**

- Method 2:

**SCREEN RECORDING**

# TWO WAYS TO RECORD STREAMING MEDIA

- Method 1 = **MEDIA CAPTURE**:  
Use a software program to capture the media stream at the network stack
- Method 2 = **SCREEN RECORDING**:  
Use a software program to capture the media stream at the Graphics Device Interface (GDI)

# "METHOD 1" DETAILS:

- Method 1 = "MEDIA CAPTURE" consists of using a software program to capture the media stream at the network stack:
- Applian's "Replay Media Catcher" usually uses "Method 1"





Web server

to

your computer's network adapter

to

network stack (drivers and software)

**MEDIA CAPTURE**

to

MacOS' Carbon and Cocoa APIs

to

Web browser as video or audio

# "METHOD 1" DETAILS

(continued):

- Method 1 is more difficult for a software developer to implement because streaming videos and audio can arrive at your computer as endless data streams with no file start and end indicators, single file downloads, and various kinds of file chunks

# "METHOD 1" DETAILS

(continued):

- Web sites that display videos that work with "Method 1" (= "media capture"):

YouTube.com

Vimeo.com

<https://www.cnn.com/videos>

# "METHOD 2" DETAILS:

- Method 2 consists of using a software program to capture the media stream at the "Graphics Device Interface" (GDI)  
The "Graphics Device Interface" is the part of the Windows.. operating system that generate the monitor screen and the print jobs



Web server

to

your computer's network adapter

to

network stack (drivers and software)

to

MacOS' Carbon and Cocoa APIs

**SCREEN RECORDING**

to

Web browser as video or audio

# "METHOD 2" DETAILS

(continued):

- Method 2 is simpler for a software developer to implement because a "screen recording" program does not have to deal with the complexity caused by the many formats that streaming media can have

# "METHOD 2" DETAILS

(continued):

- Method 2 is sometimes called "screen capture" or "screen recording"
- Applian's "Replay Video Capture" uses "Method 2"

# "METHOD 2" DETAILS (continued):

- Web sites that work with  
"Method 2 ="Screen Recording":  
Netflix  
Hulu  
Amazon "Prime Video"  
CBS All Access



TWO METHODS TO  
"BORROW" A COPY OF  
STREAMING MEDIA  
FOR "TIME SHIFTING",  
"FAIR USE", OR  
"EDUCATIONAL USE":

Web server

to

your computer's network adapter

to

network stack (drivers and software)

**METHOD 1="MEDIA CAPTURE"**

to

MacOS' Carbon and Cocoa APIs

**METHOD 2="SCREEN RECORDING"**

to

Web browser as video or audio<sup>18</sup>

Web server

to

your computer's network adapter

to

network stack (drivers and software)

**METHOD 1="MEDIA CAPTURE"**

**via the not-free Replay Media Grabber**

**or free "aTube Catcher for Mac" app**

to MacOS' Carbon and Cocoa APIs

to Web browser as video or audio

DESKTOP APPS FOR  
"SCREEN RECORDING"  
AT THE  
"GRAPHICS DEVICE  
INTERFACE":

Web server

to your computer's network adapter

to

network stack (drivers and software)

to

MacOS' Carbon and Cocoa APIs

**METHOD 2="SCREEN RECORDING"**

**via the not-free Replay Media Grabber**

**or the bundled Screen Recording**

**capability in MacOS**

to Web browser as video or audio

# IF YOU ARE NEW TO COMPUTERS..

- If you are new to computers or just want to get started with borrowing streaming media without dealing with too much complexity, use the bundled Screen Record capability for all video or audio streaming media.

Then gradually learn to do "media capture" with "aTube Catcher for Mac"

# SOFTWARE NAMING WIERDNESS

- The naming of this type of software is imprecise:

The terms "capture", "catcher", "grab", "grabber", "recording", "screen recording" and "downloading" are all being used to refer to "media capture" and "screen recording" by software developers and retailers. 23

# "aTUBE CATCHER FOR MAC"

- See

<http://www.atubecatcher.com/>

and

<https://www.techradar.com/reviews/p-c-mac/software/atube-catcher-review-1323672/review>



# MacOS' SCREEN RECORDING CAPABILITY

- See <https://support.apple.com/en-us/HT208721>  
and <https://support.apple.com/guide/quicktime-player/record-your-screen-qtp97b08e666/mac>