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STREAMING MEDIA: BASICS, MEDIA CAPTURE, AND SCREEN RECORDING

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SUMMARY

The videos and audios that you view or listen to in a Web browser arrive in your computer in three ways: streaming without files, sequential file chunks, and single file downloads.

You can use various software programs to save these media items for future viewing or listening.

TOPICS

- Path of Streaming Video or Audio
- Two Ways to Save Video or Audio Streams for Future Viewing or Listening:
 - ❖ Method 1: Media Capture
 - ❖ Method 2: Screen Capture
- Software Naming Weirdness

PATH OF STREAMING MEDIA

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

Web server

to

your computer's network adapter

to

network stack (drivers and software)

to

Web browser (Chrome, Firefox, Edge)

to

"Graphics Device Interface" ("GDI")

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" uses "Method 1"

Web server

to

your computer's network adapter

to

MEDIA CAPTURE

network stack (drivers and software)

to

Web browser (Chrome, Firefox, Edge)

to

"Graphics Device Interface" ("GDI")

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 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

Web browser (Chrome, Firefox, Edge)

to

SCREEN RECORDING

"Graphics Device Interface" ("GDI")

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 causes by the many formatting complexities 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" (but not with "Method 1"):
Netflix
Hulu
Amazon "Prime Video"
CBS All Access ("Elementary", etc.)

Web server

to

your computer's network adapter

to **METHOD 1="MEDIA CAPTURE"**

network stack (drivers and software)

to

Web browser (Chrome, Firefox, Edge)

to **METHOD 2="SCREEN RECORDING"**

"Graphics Device Interface" ("GDI")

to

Web browser as video or audio

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. 19