

Video Conversion (VHS to Digital) Badge: Level One

Age: Grade 6-Adult

Objectives:

- To learn the basics of analog video and film VCR Converter
 - To learn an overview of the Kodak Film Scanner
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1. Dazzle VCR Converter



1a. Terms

1. **VCR** - Video Cassette Recorder, VCRs can play and record VHS tapes, some come as a VCR/DVD combination device
2. **VHS** - Video Home System, used as a slang term for video tape cassettes
3. **RCA cables** - Radio Corporation of America, the company that created the connector. RCA connectors are also known as **phono connectors** and **cinch connectors**.
4. **.mpg/.mpg4** - common file format for digital video, usually works on most smart devices and computers.

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1b. Components Required



Dazzle USB Video Capture Device)



Computer with Video Capture
Software (Pinnacle)



1c. Converting a VHS Tape to Digital

1. Turn on the VCR, and insert the VHS tape. If you want to record the entire VHS tape, make sure to rewind it first.
2. Open the Pinnacle software.

1d. VHS-C Cassette Converter

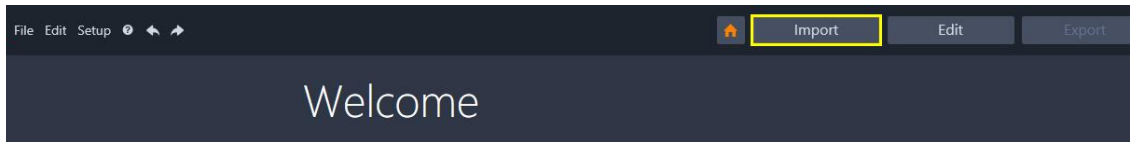
1. Push the front switch to the right to open the Cassette converter.
2. Place the Cassette face up and close the lid.
3. Once the Cassette is in, the Cassette will function as a VHS Tape.

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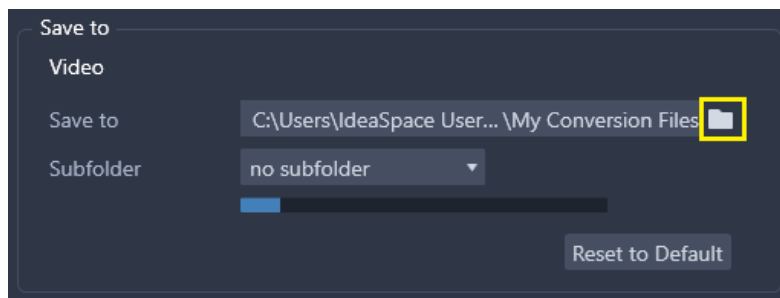
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1e. Capturing Your Video

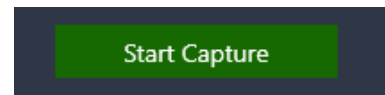
1. Click on “Import”



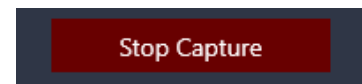
2. The Import Tab will open. If it's not already selected, choose Roxio Video Capture USB.
3. In “File Name”, name the file, and select file save location. To do this, click on the small folder icon. Choose the folder in which you want the program to place your files, and click “OK.” (Pinnacle will leave whatever file name was last used in this box, so make sure to update this for each file/VHS.)



4. Select “Start Capture” in Pinnacle, and the software will start a countdown from three. Once it gets to one, press “Play” on the VCR, and the software will begin capturing your video.



5. Let the VHS play and Pinnacle will record the information to the file location you designated. When the tape is complete, press “Stop Capture” on Pinnacle, then press “Stop” on the VCR. (You may want to rewind the tape if you plan on keeping it as a backup.)



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6. When you are done capturing, minimize Pinnacle and check that your files have been saved in the location you chose before starting the import. Once you have confirmed they have been saved, you can transfer the files to the storage location of your choice.

2. Kodak Film Scanner



2a. Terms

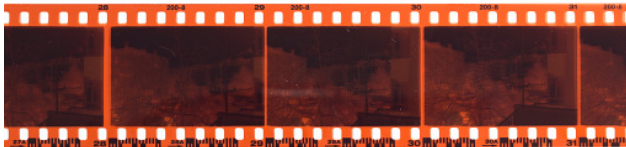
1. **JPEG/JPG** - A basic image file format that supports up to 16 million colors. JPEGs are also able to be compressed, making them ideal for online uploading.
2. **35mm Film** - The most common type of film negative. The film strip is 35mm wide, with each frame being 24x36mm
3. **Resolution** - The number of pixels in a digital image or display.
4. **Megapixel** - A megapixel is one million pixels. It is commonly used to describe the resolution of a digital camera. The higher the megapixel number, the more detail is captured.

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2b. Components Required

1. Film Negatives



2. Adapter Trays



3. SD Card



1. Function Keys
2. Power On/Off Button
3. Capture Button
4. Tilt-up LCD Screen
5. Home Button

4. Kodak Film Scanner

- 1. Function Keys:** The function is indicated by the text that will appear on the screen above the corresponding key.
- 2. Power On/Off Button:** Press and hold to turn the scanner on or off.
- 3. Capture Button:** Captures the image or brings up the capture view screen
- 4. Tilt-up LCD screen:** Displays the image to be captured and scanned as well as functions and menus.
- 5. Home Button:** Takes you to the home screen.

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1. Preparing to Scan

Before using the film scanner, make sure there is an SD card inserted in the scanner. If there is no SD card, the scanner will not turn on.

1. Hold down the power button on the scanner for a few seconds until the Kodak logo is displayed. Release the power button.
2. The scanner will display the currently selected film type, adapter, and insert information for 5 seconds before bringing up the capture mode screen.
3. If the displayed settings do not match the type of film you are using, you can navigate to the settings screen and change them.
4. From the home screen, select settings. Use the left and right keys to scroll to “film type”. Select this setting menu, and use the right key to choose which film type you are using.

Slides	35mm	110	110	126	127
Mount	2"x2"	2"x2"	1"x1"	2"x2"	2"x2"
Film Size	24x36mm	13x17mm	13x17mm	28x28mm	40x40mm



5. Once you have selected the film type, you can use the soft keys to choose film size. Once film type and size have been selected, a confirmation screen will appear with scanning directions.

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2. Scanning Your Film

Before loading your film, make sure you are using the correct film tray.

FILM TYPE	FILM TYPE	ADAPTER NEEDED	INSERT NEEDED
Negative	Color Negative 135	No. 2	None
	Color Negative 126	No. 1	None
	Color Negative 110	No. 2	No. 5
Slide	Slide Positive 135	No. 1*	None
	Slide Positive 126KPK	No. 1*	None
	Slide Positive 110	No. 1*	No. 6
	Slide Positive Super 8	None	No. 4
	Slide Positive 8MM	None	No. 4
Black & White	Black & White 135	No. 2	None
	Black & White 126KPK	No. 1	None
	Black & White 110	No. 2	No. 5

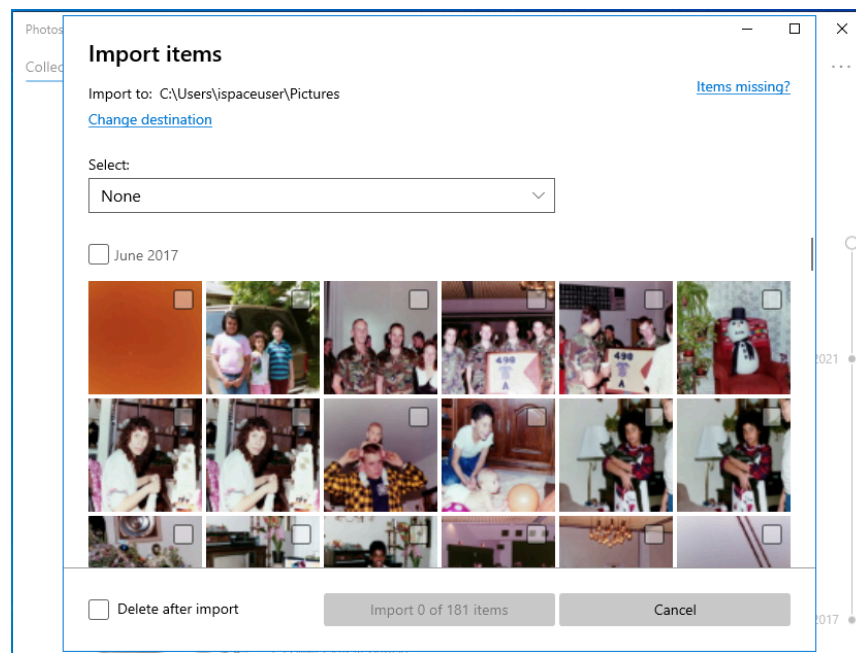
***Note:** Use adapter # 3 for slides with a thicker casing (plastic).
Use adapter # 1 for slides with a thin cardboard casing.

1. From the home screen, press the Capture icon, then press the soft function key under “select.”
2. Flip up the top cover of the adapter. Load your film or slide so that only one image is in the capture window. If an insert is needed, place your slide or film into the insert with the image face-up, then place it in the adapter.
3. Load it with the arrow pointing towards the scanner, and push until the tray clicks into place.
4. Press the capture button to capture and save the image. The screen will display “saving.”
5. Continue pressing the capture button until all of your images have been saved.

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5. Saving Your Scan



1. From the capture screen, press the home button.
2. Press the soft function key under “Settings” and navigate to “USB Upload.”
3. The scanner will display “connecting to computer.” Once it has connected, it will display “connected to computer” and a photo import dialog box will open on the computer.
4. The default import location is to Photos, but you can change that by selecting “change destination.” Once you have selected the location you want the pictures to be imported to, select the photos you want imported. Then, select import photos.
5. When the import is complete, a dialog box will appear saying the photos were successfully imported. You can now navigate to the photos in your selected location.

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For Further Information:

About VCRs: <https://electronics.howstuffworks.com/vcr.htm>

Free video capture software: <http://virtualdub.sourceforge.net/>, 2020 updated software
<https://sourceforge.net/projects/vdfiltermod/>

How to convert VHS videotape to 60p digital video (NTSC) by The Oldskool PC:
https://youtu.be/sn_TDa9zY1c

Guide to Negative Film and Camera Formats:

<https://nostalgicmedia.com/pages/old-film-and-camera-formats>

Definitions of Technical Terms:

<https://techterms.com/>

