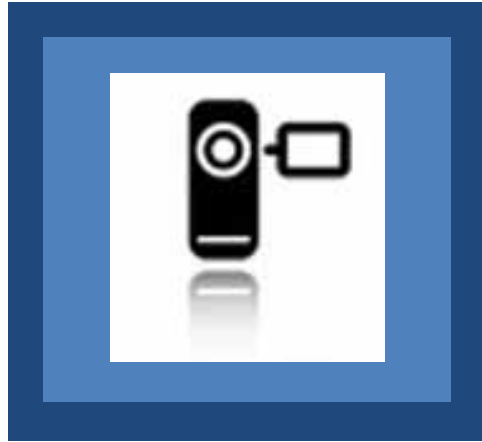# Using Digital Video

In Professional Development, Technical Assistance, and Dissemination Activities

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Resources to accompany the March 22, 2011 Webinar

# **Contents**

# Why use video?

**Evaluation and assessment**

You might: document observations; capture a child's behavior as the child participates in typical classroom or home routines, activities, and relationships; ask families to video tape the child participating in typical family routines; for an assessment that involves multiple providers, have one assessor video the child without the presence of an intimidating number of unfamiliar people – the video can then be used to gain the input of practitioners who did not attend the assessment session; post the video on an online portfolio; maintain video portfolios for children; collect video clips of child skills at multiple points in time.

**Team consultation**

Video can help families, teachers, early intervention practitioners, and other providers benefit from the expertise, perspectives, and ideas of other team members. Video allows other team members to see the child "in real time," in the context of everyday routines, activities, and relationships, so practitioners have enough information to offer input.

**Family education, collaborative planning, informational support, and joint problem solving**

Videos of children can be watched by families and practitioners together to plan intervention strategies and solve problems together. For instance, families have told us that watching videos of their children (and themselves) with their early intervention team helps them feel like an equal member of the team. Video shot at a home visit can be shown to other family members who were not able to attend the visit. Videos can be shown at IFSP and IEP meetings to review and celebrate child progress.

**Progress monitoring**

Video can be a very useful tool for collecting and organizing observational information for ongoing authentic assessment. In additional, families report that they appreciate having the video documentation of their children's progress.

**Self-reflection**

Some providers video their interactions with children and families and watch them later to better understand their strengths and areas for improvement.

**Coaching**

Video is an excellent mechanism for coaching, locally or over a distance.

**Supervision/reflective supervision**

Videos can be powerful tools that enhance reflective supervision and peer-to-peer support.

**Program Assessment/Evaluation**

Video can be used to document, monitor, and assess early care and education settings and practices.

**Enhance Communication with Families**

Strategies used at a preschool can be videotape and shared with families for consideration at home. Some early intervention practitioners are using video conferencing for "virtual home visits" to provide more frequent contact with families who live in extremely remote areas.

**Digital Storytelling**

Use video (and perhaps photos as well) to tell a story about something noteworthy that is happening in your work that has a useful message for teachers or families. Think of it as telling a personal story that can be illustrated by the video that you shoot. It can be brief, but descriptive enough. The point is not to tell a story about how you use video, but it should be a story about your work that can be illustrated by video that you've taken.

**Research**

Video is frequently used as a data collection method for both formal research protocols and more practitioner directed action research projects. Note that if video is to be used for actual research, an IRB is likely necessary.

**Video Use in Professional Development, Technical Assistance, and Dissemination Activities:**

- ❏ Illustrating practices
- ❏ Offering tutorials
- ❏ Providing orientation to web sites, meetings, jobs, processes
- ❏ Providing consultation and coaching
- ❏ Disseminating news and updates
- ❏ Marketing events
- ❏ Archiving professional development activities
- ❏ Exchanging information with others
- ❏ Conducting research and evaluation
- ❏ Collecting, analyzing, and reporting data

## Illustrations of the use of video in early care and education and early intervention:

**Results Matter Video Library**

This library includes a rich collection of clips illustrating the uses of video in early care and education and early intervention: http://www.cde.state.co.us/resultsmatter/RMVideoSeries.htm

**Desired Results *access* Project Video Initiative**
The videos on this page illustrate a variety of ways that teachers have been using digital video to enhance their practices and achieve better outcomes for young children and their families: http://www.cde.state.co.us/resultsmatter/RMVideoSeries.htm

# Assure that families understand and consent to the use of video

**ALWAYS** obtain the family's written consent before capturing video, still images, or sound.

- Always use a consent form. Assure parents that video will only be used with their consent for the specific purposes outlined in your consent form.

- Be sure that your consent form is explicit about the ways that the video may be used. For example video might be used in:

    - Service delivery (e.g. for assessment, family education, consultation, coaching, supervision);

    - Professional development materials;

    - Public awareness;

    - Project/program reporting;

    - Research (for this you will need an IRB approved consent form and process)

- In addition to a consent form, it is often useful to offer parents an information sheet that describes the "who, why, and what" of videotaping and how videos might be used.

- Teams that are part of health systems will need to be sure that their consent form is compliant with the Health Insurance Portability and Accountability Act (HIPAA) regulations. For more information visit: http://www.hhs.gov/ocr/hipaa/

- Be sure to have your consent form approved by your program's administration and, if applicable, legal department.

- Provide information early on, while building your relationship with the family, to help families understand the uses and benefits of video; don't wait until a visit in which you will want to video. It is recommended that you have personal conversations with families about the uses of video rather than sending a form home with children to be signed. During a conversation you can better explain the benefits of video and answer questions that families might have.

- Share with families the many potential benefits of using video:

- A way to get perspectives and ideas from all team members.

- A strategy to equalize the roles of family members and practitioners as they both become collaborative "watchers" and assessors. Video allows the entire team (including the family) to look at the child together and encourages collaboration in developing individualized plans and solving problem. Video shot at a home visit can be shown to other family members who did not attend the visit.

- Documentation of their child's development and progress (a copy of all videos should be offered to the family).

- Tools for professional development and supervision to help develop highly skilled providers.

**Note**: In addition to obtaining families' written consent for their children, obtain written consent for all others everyone who will appear in your videos, including parents, staff members, etc.

# Sample consent form

Consent forms need to be customized for each organization and for the various purposes for using video. Below is sample wording form a relatively formal form that was used for the purpose of capturing video to be used for public awareness, professional development, and/or project reporting.

## Video/Audio/Photo Consent

I hereby voluntarily grant my permission to the [name of organization], their agents, employees, licensees, and assigns to photograph or video tape myself and/or the child named below.

I understand that the interests of the early childhood care and education field will be advanced by the use of the video, audio, and/or photos covered by this consent.

I understand that all rights, title, and interest in these video and photographic images belong exclusively to the [name of organization] and that this group reserves the right to edit the images. I understand that these materials may be used by this organization in printed or electronic form for public awareness, professional development, and/or project reporting. In the event consideration is paid or received for use of the images, I shall in no way be entitled to any part of such consideration.

I acknowledge that I am fully aware of the contents of this consent and am under no disability, duress, or undue influence at the time of my execution of this instrument.

**<u>For a child:</u>**

Child's Name in Full (Please Print): _____

Name of parent or legal guardian (Please Print): _____

Address: _____

City, State, Zip: _____

Phone: _____

Parent/Guardian Signature: _____Date: _____

**<u>For an adult:</u>**

Name (Please Print): _____

Address: _____

City, State, Zip: _____

Phone: _____

Signature: _____Date:_____

# Basic tips for videotaping

You don't need to worry about producing broadcast quality documentaries. But a little quality will make your videos more useful. Here are some general guidelines.

❐ **Learn how to operate the camera**

Learn how to operate the basic functions of the camcorder, including turning the camera on and off, zooming, charging and changing the batteries, using the viewer, etc. Also learn how to connect the camcorder to a TV monitor and use it in VCR mode.

❐ **Avoid jerky motion**

When you will be videotaping just the child and the family, you might handhold the camera. Practice pointing and shooting the camera in ways that avoid jerkiness and excessive camera movement by stabilizing your arms against your body or a piece of furniture.

**Bonus Tip: Use a tripod - try one of the Gorilla flexible tripods:**
http://joby.com/gorillapod

❐ **Frame the shot**

Be sure to capture the action that you and other viewers will need to see. Avoid "cutting off people's heads" or shooting their backs rather than fronts. With young children it is sometimes helpful to shoot from a position on the floor.

❐ **Be aware of lighting**

You will get better results by being aware of the natural lighting and using it to your advantage, e.g. avoiding shooting into a window or direct sunlight.

❐ **Be still – use a tripod**

When possible, use a tripod. This will be important if you video yourself interacting with children and families. Place the camcorder strategically so that it will capture all the action and you can just let it run.

❐ **Capture adequate quality sound**

For many purposes it is important to capture good sound, e.g. children's language development, parent-child interactions, etc. Place cameras strategically, e.g. avoid videotaping right next to a blaring stereo.

❐ **Keep it authentic**

Try to capture the child in context of typical routines, activities, relationships, and places. Most often, you will capture the child participating in activities with others. Only try to capture the child participating in a routine or activity alone, if that is what typically happens.

❐ **Keep the end in mind**

Always keep in mind your purpose for videoing in the first place. Plan the shot and make your decisions based on achieving your goals.

❐ **Practice**

Take some practice video and watch it with colleagues and get feedback on the technical merits of your work. Ask your colleagues what they might need to see in order to provide consultation on children. Practice enough so that you will be well at ease operating the camcorder.

❐ **Be prepared**

Be sure that you keep blank tapes, charged batteries, a power cord, a charger, and consent forms on hand. For home-based providers, it might be useful to purchase a battery charger that can be plugged into a car so that batteries can be charged while traveling from visit to visit.

❐ **Avoid making a big production out of shooting**

If you are practiced and prepared, videotaping should be a natural and comfortable process.

❑ **Good Resource!**

Vimeo Video School is a fun place for anyone to learn how to make better videos. Start by browsing the Vimeo Lessons, or find specific video tutorials created by other Vimeo members:

http://vimeo.com/videoschool?utm_source=newsletter&utm_medium=email&utm_campaign=Dec2010

# What kind of camcorder should you purchase?

## It depends

Camcorder models change all the time and each model has its unique strengths and limitations, so it's impossible to make flat out recommendations. The best camcorder for you to purchase depends on how you answer a host of questions. Here are just a few examples of the questions you need to ask:

- What is your price range?

- How do you plan to use the video?

- Do you want SD or HD?

- Do you want to record to tape, removable media (e.g. SD cards), built-in media, etc.?

- Do you need an input for an external microphone (recommended for capturing video to be used for professional development where the audio is essential)?

- What computer platform do you use and is the video format compatible with it?

- What editing system do you use and is the video format compatible with it?

Here are two web sites that can help guide your purchasing decisions:

http://reviews.cnet.com/camcorder-buying-guide/

http://www.videomaker.com/grid/camcorders/


## FREE RESOURCE:

## Comparison and Recommendations for Low-cost Camcorders

How do you decide which low-cost digital video recorder is best for your use in professional development, technical assistance, dissemination, and service delivery activities? There are many good choices and new brands and models appear very frequently and current models are updated or discontinued all the time. The model that will be best for you depends on your purposes for using video and the features that you need or want. This document may help you get an idea of which features are most important to you, reports on a comparison of six popular models, and offers some recommendations. I update this document periodically, so please send me any late-breaking news or experiences that you have.
http://exploringtech.wordpress.com/lo-cost-digital-camcorders-for-ei-and-ece/

# Organizing:
# Labeling, organizing, and storing your files

Assuming that you will be amassing a good number of digital video files it is crucial that you:

1. create a system for naming your files;

2. develop a system of folders for organizing and storing the files;

3. develop the capacity to store them.

## 1. Labeling Digital Video Files

- Develop a consistent system for naming your video files.

- Be sure that each file name ends with the correct suffix for the kind of file produced by your camcorder (e.g., .mp4 for the Flip Ultra and Sanyo Xacti CG10)

- Do not use slashes (/) to separate the sections of the file name. Use periods, dashes, or underscores.

- Below is a sample scheme for naming files that one program recently developed. A significant advantage to this scheme is that it creates very readable file names that line up nicely in folders for easy referencing.

| What should be included in the file name? | | | |
|---|---|---|---|
| **Date the clip was shot** | **Child's name or initials** | **Content** | **File type suffix** |
| Month, day, and year, each in two digits, separated by periods, with no extra spaces, followed by a space, and then a hyphen or underscore, and then a space. *Example* = 01.02.11 – (January 3, 2011) | First name, followed by a space, then the first letter of the last name, followed by a space, and then a hyphen or underscore, and then a space. *Example* = John S – (John, Smith) | Brief description of what is on the clip that makes it useful (e.g., behaviors, activity, assessment item, IFSP/IEP outcome, domain, etc.). Use words with a space between each, no caps, with no space afterwards *Example* = ate lunch with friends | (e.g., .mp4, .mpeg4, .mov, .avi, etc.) The file format the <u>identical</u> way that the file was named when imported from the camcorder (e.g., .mp4 for the Flip Ultra and Sanyo Xacti CG10) be sure that the file format is always preceded by a period with no spaces afterwards. *Example* = .mp4 |
| **Final Example:** 01.03.11 – John S – ate lunch with friends.mp4 | | | |

Alternatives: There are many alternatives, including: last name, first initial; no spaces between sections; and underscores, commas, or periods rather than hyphens. Below are two examples used by other programs and providers:

01.03.11-Smith, J.AteLunchWithFriends.mp4

01.03.11_Smith, J_AteLunchWithFriends.mp4


2. **Developing a system for using folders to store your video files:**

   Be sure to develop a system for organizing your clips into folders. Create an intuitive and useful system that will organize the clips in ways that you will be able to find clips easily in the future. Folders might be organized in a variety of ways: by children, items on an assessment instrument, etc. Some teachers are exploring the use of tagging their video files for easy access. There are different solutions for PCs and Macs. Try searching in your browser for a question such as "How can I tag video files?"

3. **Storage:**

   I recommend buying an external hard drive to store all of your clips. Back up your important clips as hard drives eventually break down. Storage is very affordable; start with a 500 GB external hard drive. Models change all the time so it's difficult to recommend a model. Be sure the drive you purchase is compatible with your platform, e.g. PC or Mac.

# Watching your video

## Basic software for watching video on the web

- ❑ Please remember that applications and operating systems are updated continually and new software is published all the time. Software changes rapidly. Check often for new versions and updates. If you can't play a particular media file, check for updates for the program that you're using to play it.

- ❑ Reliable Internet browser – There are lots of choices: Firefox, Safari, Chrome, Opera, Bing, Flock, Internet Explorer, etc. Here is a good article comparing the various browsers: http://www.informationweek.com/news/internet/browsers/showArticle.jhtml?articleID=219400649&pgno=1&queryText=&isPrev

- ❑ Adobe Flash Player – For viewing Flash video; most computers have this software loaded. Be sure to install the most recent update. If you don't, visit: http://www.adobe.com/shockwave/download/index.cgi?P1_Prod_Version=ShockwaveFlash)

- ❑ JavaScript – Required for viewing many web sites; most computers have this software loaded. Be sure to install the most recent update. Available at http://www.java.com/en/download/manual.jsp)

## For watching your media files

There are scores of free media players available. If you install the two free players below you will be able to most of the audio and video files that you will encounter.

- ❑ VLC Media Player – A great free multimedia player for both Macs and PCs that plays a very large assortment of audio and video formats: http://www.videolan.org/vlc/

- ❑ QuickTime – A great free multimedia player for both Macs and PCs that plays certain kinds of audio and video files; available from http://www.apple.com/
  Optional: For editing talks, you might also want to purchase the $29 QuickTime Pro update from www.apple.com.

- ❑ For Macs only:
  - o Perian is a free, open source QuickTime component that adds native support for many popular video formats: http://www.perian.org
  - o Flip4Mac® WMV Components for QuickTime: Allows you to import, export and play Windows Media video and audio files on your Mac: http://www.telestream.net/flip4mac-wmv/overview.htm

- ❑ For PCs only:
  - o If you can't play a video, you can download and use gSpot to establish what video and audio codecs are required to play the file video: http://www.videohelp.com/tools/GSpot
  - o K-Lite Codec Pack is a collection of codecs and related tools. Codecs are required to encode and/or decode (play) audio and video. The K-Lite Codec Pack is designed as a user-friendly solution for playing all your movie files. With the K-Lite Codec Pack you should be able to play 99% of all the movies that you download from the internet: http://www.free-codecs.com/download/K_Lite_Codec_Pack.htm

# Editing your video

In general, for your work in early childhood, you will almost definitely want to be able to do these three basic editing functions:

1) Trimming unwanted footage from clips

2) Joining multiple clips

3) Compressing your video to make the file smaller, and easier to share

Other video editing functions that you might want to do include:

4) Adding captions or titles

5) Adding transition effects between clips (e.g., a cross-dissolve)

6) Converting video to other file formats

Be sure to note:

- Not all editing applications, especially the free ones, will enable you to do all of the functions that you want them to do.

- Be sure that you choose software that matches the kinds of video files that your camcorder produces (e.g., mp4, .mov,) and your platform (e.g. Mac or PC).

**Recommended App:** There are many, many free applications that edit, compress, and convert video files. My favorite (right now) is one that works on both Macs and PCs. You can use it to trim clips, combine multiple clips, and compress your video files to make them much smaller:

Download and Install MPEG Streamclip: http://www.squared5.com/

My Video Tutorial on Using MPEG Streamclip: http://www.cde.state.co.us/resultsmatter/RMVideoSeries.htm

**Other Notes:**

❑ Some camcorders come bundled with editing software, either "in-the-camera" or software that you can install. For example,

    o With the Sanyo xacti CG20 you can trim and join clips in the camcorder. See the manual.

    o With the Flip Ultra, you can install the application Flipshare, which comes in the camcorder, or can be installed from the Flip web site http://www.theflip.com/es-mx/products/flipshare.aspx

❑ For both PCs and Macs, the $29 QuickTime Pro update from www.apple.com enables basic editing functions and lots of other tricks as well.

❑ For Macs, Apple offers iMovie which comes equipped on new Macs or can be purchased as a part of the iLife Suite of applications at http://www.apple.com/

Below are some examples of commonly used video editing applications (remember that you need an application that will handle the video file format that your camcorder produces).

| Platform | Free | Low End | Mid Range | High End |
|---|---|---|---|---|
| PC | MPEG Streamclip<br><br>Windows Movie Maker (comes bundled with PCs) | Vegas Movie Studio<br><br>Pinnacle Studio<br><br>Corel VideoStudio Pro<br><br>Cyberlink PowerDirector 7 | Adobe Premier Elements | Adobe Premier<br><br>Avid Media Composer<br><br>Vegas Pro |
| Mac | MPEG Streamclip<br><br>iMovie (comes bundled with Macs) | | Final Cut Express<br><br>Adobe Premier Elements | Final Cut Pro<br><br>Adobe Premier<br><br>Avid Media Composer |

**Please note:** The table above lists just some examples of the editing applications that you might consider; no endorsement is implied.


**Video Editing Software: Comparison Guide To The Best Consumer Video Editors Under $100:** http://www.masternewmedia.org/video-editing-software-comparison-guide-to-the-best-consumer-video-editors-under-100/


**Web sites that list free video editing software:**

o   http://tv.isg.si/site/?q=node/873

o   http://desktopvideo.about.com/od/editingsoftware/a/freevidedit.htm

o   http://jaypeeonline.net/freeware/free-video-editing-software-mac/

o   http://www.desktop-video-guide.com/top-5-free-video-editing-software-review.html

o   http://fancinematoday.com/2009/04/16/4-free-video-editing-programs-for-mac/

# Transcoding and compressing your video

**Recommended App:** There are many, many free applications that convert and compress video. My favorite (right now) is one that works on both Macs and PCs. You can use it to trim clips, combine multiple clips, and compress your video files to make them much smaller:

**MPEG Streamclip:** http://www.squared5.com/

## FREE RESOURCES:

### Using MPEG Streamclip to Edit Video Files

This instructional video illustrates how to use MPEG Streamclip, a free application that works on both PCs and Macs, to trim, join, compress, and transcode video files:
http://www.cde.state.co.us/resultsmatter/RMVideoSeries.htm

### Apps for Compressing MP4 Video Files

There are many small, inexpensive digital video recorders available today. The majority of these camcorders produce MP4 files and these files can be relatively large; depending on the device and setting used, one minute of MP4 can be between 25 – 150 MB. We often need our files to be smaller – for posting online, for sharing with others, and for storage. This document reviews four free or low cost applications that can be used to compress video files. **Note:** This document is updated and reposted periodically at: http://exploringtech.wordpress.com/

### Free Applications

For other information on free applications for playing, encoding, transcoding, posting, shipping, etc., download my handout of free apps: *Free Applications – Hundreds of Apps with Potential to Enhance Professional Development, Technical Assistance, and Dissemination Activities and Results* can be download from the Free Apps page of my blog at:
http://exploringtech.wordpress.com/

# Ways to share digital video files

**There are many easy ways to share large files. Consider which method will work best for you.**

❒ Share large files via free applications. In particular:

　　o YouSendIt (claims to be HIPAA compliant): http://www.yousendit.com/

　　o Dropbox: http://www.dropbox.com/

　　o Other free applications are described in: *Free Applications – <u>Hundreds</u> of Apps with Potential to Enhance Professional Development, Technical Assistance, and Dissemination Activities and Results* can be download from the Free Apps page of my blog at: http://exploringtech.wordpress.com/

　　o This site might be useful: <u>16 Apps That Make Sharing Large Files A Snap</u>: http://www.techcrunch.com/2009/08/08/16-apps-that-make-sharing-large-files-a-snap/

❒ Use a File Transfer Protocol (FTP) set up by your IT department

❒ Post files on media sharing sites, either publicly or privately (e.g. youtube, vimeo)

❒ Compress files and email them

❒ Share removable SD cards

❒ Copy files on flash drives, CDs, or DVDs


**Examples of free places to post video (these are NOT recommended for the video that yoiu shoot of children and familes)**

❒ YouTube: http://www.youtube.com/

❒ Vimeo: http://www.vimeo.com/

❒ TeacherTube: http://www.teachertube.com/

❒ Schooltube*:* http://www.schooltube.com/

❒ Ustream: http://www.ustream.tv/

❒ Viddler: http://www.viddler.com/

❒ Flickr: http://www.flickr.com/

❒ Picasa: http://picasa.google.com/

❒ Lists and comparisons:

　　http://chaos-laboratory.com/2007/08/30/top-31-free-alternatives-to-youtube-video-hosting-sites/

　　http://www.dvguru.com/2006/04/07/ten-video-sharing-services-compared/

　　http://www.squidoo.com/videohosting

# Computer hardware for using digital video

This checklist outlines basic advice for hardware that works well for using digital video. Both PCs and Macs have their strengths and limitations and their advocates and detractors. Use the platform that works best for you AND is acceptable to your agency or program's IT policies and resources. Whichever you use, choose the most recent DEPENDABLE version of the operating system (not always the most recent) and configure the computer with enough power for the applications that you intend to use, and then some extra. Please remember that operating systems are updated continually.

**To the extent that you can afford:**

❑ Maximize the available processing speed

❑ Maximize the internal storage capacity (hard drive)

❑ Maximize the available memory

❑ CD-ROM/DVD drive for playing and burning

❑ High quality video and audio cards

❑ Enabled for wireless connection to internet

❑ Most recent version of connectivity (e.g. USB, Firewire) ports

❑ Purchase an external hard drive or two for storing/archiving video files

**Please note:** While convenient because of their small size and affordability, netbooks and tablets usually do not have the capacity to manipulate digital video files.

# Accessibility and Section 508 of the Rehabilitation Act of 1973

Section 508 requires that when Federal agencies develop, procure, maintain, or use electronic and information technology, Federal employees with disabilities have access to and use of information and data that is comparable to the access and use by Federal employees who are not individuals with disabilities, unless an undue burden would be imposed on the agency. Section 508 also requires that individuals with disabilities, who are members of the public seeking information or services from a Federal agency, have access to and use of information and data that is comparable to that provided to the public who are not individuals with disabilities, unless an undue burden would be imposed on the agency.

❑ **Full text of Section 508 of the Rehabilitation Act of 1973:**

  http://www.section508.gov/index.cfm?&FuseAction=Content&ID=12

❑ **The W3C (The World Wide Web Consortium) outline of web accessibility:**
  http://www.w3.org/TR/WCAG20/

❑ **Web Captioning Overview:** http://webaim.org/techniques/captions/


**Section 508 Standards for Video and multimedia products (§ 1194.24):**
(c) All training and informational video and multimedia productions which support the agency's mission, regardless of format, that contain speech or other audio information necessary for the comprehension of the content, shall be open or closed captioned.

(d) All training and informational video and multimedia productions which support the agency's mission, regardless of format, that contain visual information necessary for the comprehension of the content, shall be audio described.

(e) Display or presentation of alternate text presentation or audio descriptions shall be user-selectable unless permanent.

**The National Center on Accessible Instructional Materials at Cast, Inc.** has an excellent video page that provides resources for making videos accessible and meaningful:
http://aim.cast.org/learn/accessiblemedia/video


**Video Captioning and Subtitling Resources**

❑ Captioning Web**:** http://www.captions.org/softlinks.cfm
❑ NCAM (cc_player): http://ncam.wgbh.org/invent_build/web_multimedia/tools-guidelines/ccplayer
❑ Best practices in online captioning: http://joeclark.org/access/captioning/bpoc/
❑ Captionate: (Flash vide capturing): http://buraks.com/captionate/index.html
❑ YouTube CC: http://www.youtubecc.com/
❑ Automatic Captions in YouTube Demo:
  http://www.youtube.com/watch?v=kTvHIDKLFqc&feature=player_embedded
❑ Section 508 Compliant Video Player: http://www.business.gov/about/features/508-video-player.html?cm_mmc=GovDelivery-_-111809-_-weekly-_-internal
❑ MovCaptioner: http://www.synchrimedia.com/

# Video file formats

For internet streaming, the top current top two formats are (this can change at any time) Flash Video and MP4 (with H.264 as the video compression codec).

Although there are many wonderful resources on the web for learning about video file formats (try searching for video file formats or extensions), FileInfo.com – The File Extensions Resource [www.fileinfo.com](www.fileinfo.com) is a particularly good resource. You can easily look up information on file extensions for all kinds of files, including text, data, image, audio, video, web, font, etc. Click on "Video Files" for descriptions of the various file formats, compatibility with PCs, Macs, and Linux, and programs that open files. Although the site covers more than 100 video formats, below are some of the most common.

**AVI**  (Audio/Video Interleaved) is a file format for storing and playing back movie clips with sound on Windows-based PCs. Avi is a video container or wrapper format created by Microsoft; stores video data that may be encoded in a variety of codecs. AVI files can be played by various video players, but the player must support the codec used to encode the video data

**.FLV**  (Flash Video File) is a video file exported by the Flash Video Exporter plug-in (included with Adobe Flash) or other program with FLV file support; consists of a short header, interleaved audio, video, and metadata packets; audio and video data is stored in a similar format used by standard Flash (.SWF) files. The FLV format is an open format that is also supported by non-Adobe/Macromedia programs; FLV files may be exported from QuickTime Pro or other applications that can export to the QuickTime file format. Macromedia was acquired by Adobe in 2005, so Macromedia Flash Player is now Adobe Flash Player.

**.MOV**  (Apple QuickTime Movie) is a common multimedia format often used for saving movies and other video files; uses a proprietary compression algorithm developed by Apple Computer; compatible with both Macintosh and Windows platforms.

**.MP4**  (MPEG-4) is a movie or video clip that uses MPEG-4 compression, a standard developed by the Moving Picture Experts Group (MPEG); commonly used for sharing video files on the Internet. The MPEG-4 video format uses separate compression for audio and video tracks; video is compressed with MPEG-4 video encoding; audio is compressed using AAC compression, the same type of audio compression used in .AAC files.

**.MPG**  (MPEG Video File) is a common digital video format standardized by the Moving Picture Experts Group (MPEG); typically incorporates MPEG-1 or MPEG-2 audio and video compression; often used for creating movies that are distributed on the Internet.

**.SWF**  (Small Web Format, pronounced "Swiff") is an animation created with Adobe Flash; may contain text as well as both vector and raster graphics; also may include interactive actions written in ActionScript; plays in Web browsers that have the Flash plug-in installed.

**.WMV**  (Windows Media Video) is a video file based on the Microsoft Advanced Systems Format (ASF) container format and compressed with Windows Media compression; basically an .ASF file that is encoded using the Windows Media Video (WMV) codec; Windows Media audio files are saved with a .WMA extension. Microsoft Windows Media Player 9 was the last version of the Windows Media Player developed for Mac OS X;

however, Mac users can use Flip4Mac WMV (also known as Microsoft Windows Media Components for QuickTime) to play WMV files.

**Read more:**

- http://www.reelseo.com/basics-web-video-file-formats-video-containers/
- http://www.masternewmedia.org/video_internet_television/encoding-converting-video/video-conversion-and-encoding-tools-20070411.htm
- http://en.wikipedia.org/wiki/Comparison_of_container_formats
- http://diveintomark.org/tag/give
- http://www.longtailvideo.com/support/jw-player/26/web-video-compression

**A few resources and commentaries on html5:**

- http://benward.me/blog/understand-the-web
- http://whatishtml5.net/
- http://diveintohtml5.org/video.html

# A few resources to help you keep up with digital video

| Creative Cow: http://newsletters.creativecow.net/ |
| --- |
| Studio Monthly: http://www.omeda.com/stu/ |
| Studiodaily.com e-newsletter: http://www.studiodaily.com/main/eletter_subscribe.html |
| HD Studio: http://www.studiodaily.com/hdstudio/signup.html |
| Videatives Views: https://www.videatives.com/content-new/videatives/videatives_views/index.php |
| Video Technology Magazine: http://www.videotechnology.com/ |
| Learn about the Flash video (FLV) format. http://www.adobe.com/devnet/video/ |
| Flash video learning guide: http://www.adobe.com/devnet/flash/articles/video_guide.html |
| School Video News: http://www.school-video-news.com/ |
| Free Technology for Teachers: http://www.freetech4teachers.com/p/video-creation-resources.html |

# Other kinds of video to explore

## Free video conferencing applications

- ❒ Skype: http://www.skype.com/
- ❒ Oovoo: http://www.oovoo.com/
- ❒ Google Video and Chat: http://www.google.com/mail/help/videochat/learnmore.html
- ❒ iChat (mac): http://www.apple.com/macosx/what-is-macosx/ichat.html
- ❒ AIM: http://www.aim.com/
- ❒ SightSpeed (Logitech): http://www.sightspeed.com/

## Free video screen capture applications

- ❒ Screenr: http://screenr.com/
- ❒ CamStudio: http://camstudio.org/
- ❒ Screencast-o-matic: http://www.screencast-o-matic.com/
- ❒ Jing: http://www.jingproject.com
- ❒ Directory of Screen Capture, Screencasting and Software Demo Tools: http://c4lpt.co.uk/Directory/Tools/capture.html

## Make movies online

- ❒ Animoto: http://animoto.com/
- ❒ Xtranormal: http://www.xtranormal.com/

# Examples of Early Childhood-Related Video on the Web

**Results Matter Video Library:** http://www.cde.state.co.us/resultsmatter/RMVideoSeries.htm

**Desired Results *access* Project Video Initiative:**
http://www.cde.state.co.us/resultsmatter/RMVideoSeries.htm

**The Center on the Social and Emotional Foundations for Early Learning (CSEFEL) Videos:** http://csefel.vanderbilt.edu/resources/videos.html

**Technical Assistance Center on Social Emotional Intervention for Young Children (TACSEI) Pyramid Model Story Project:**
http://www.challengingbehavior.org/do/pyramid_model/pyramid_model_story_project.html

**SpecialQuest Multimedia Training Library:**
http://76.249.171.46/specialquest/trainingmaterials/searchvideos.lasso

**Head Start Center for Inclusion Videos:** http://depts.washington.edu/hscenter/videos

**Washington Sensory Disabilities Services Video Topics:**
http://www.wsdsonline.org/deafblind/space/

**Center for Early Literacy Learning (CELL) Videos:**
http://www.earlyliteracylearning.org/ta_pract_videos1.php

**Autism Speaks ASD Video Glossary:** http://www.autismspeaks.org/video/glossary.php

**Reading Rockets Videos and Podcasts:** http://www.readingrockets.org/podcasts

**Guiding Young Children's Behavior:** A Project Navigate Training:
http://www.easternct.edu/cece/guidance_training.html

**Videatives:** http://www.videotives.com/

# Recommended Video Kits

| | |
|---|---|
| By Larry Edelman larry.edelman@ucdenver.edu | |
| **Important Note**: This list reflects the equipment that we are using for our video projects with early intervention and early care and education practitioners as of February, 2011. **PLEASE REMEMBER:** camcorders and software applications change frequently as new products are released with new and improved features and other products are discontinued. This list changes, sometimes dramatically, from time to time. Here are two web sites that can help you keep up with new models to guide your purchasing decisions:<br>http://reviews.cnet.com/camcorder-buying-guide/<br>http://www.videomaker.com/grid/camcorders/ | |
| Camcorder for practitioner's use | Sanyo xacti VPC - CG20 Camcorder with the following accessories:<br>❑ Padded case that will fit the camcorder<br>❑ Extra Sanyo rechargeable battery for this camcorder<br>❑ Extra Sanyo charger for this camcorder<br>❑ One removable SD card for each person who will be sharing the camcorder; at least an 8 GB card, but the camcorder will take up to a 32 GB card |
| Camcorder for practitioner to use or lend to families, children, and other providers | Flip Ultra Camcorder (8GB \| 2 hr 720p HD \| 60 fps model) with the following accessories:<br>❑ Padded case that will fit the camcorder<br>❑ A lot of extra AAA batteries or the Lithium-ion Battery Pack<br>NOTE: at the Flip web site they have a 2 for 1 deal for k-12 educators. They may extend this for you if you ask: http://www.theflip.com/en-us/buy/educators.aspx |
| Tripod | Joby GorillaPod SLR (or if you want a cheaper one, the GorillaPod Video or cheaper still the GorillaPod Original) |
| External hard drive to store files | Samsung G2 Portable HX-MU050DC Hard drive 500 GB/external |
| Computer applications for watching, editing, compressing, and sharing video files | We will have to talk about editing programs. For the time being, I suggest you install this free software on both PCs and Macs:<br>❑ VLC Media Player: http://www.videolan.org/vlc<br>❑ QuickTime Player: www.apple.com<br>❑ MPEG Streamclip: http://www.squared5.com/<br>❑ Flipshare (for files from the Flip only: http://www.theflip.com/en-us) |