DIGITAL VIDEO PROGRAM

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DIGITAL VIDEO RESOURCES

Digital video (DV) production is now more accessible to consumers with home computers. What was once limited to video professionals using expensive equipment is now available to students at BGSU.

Any registered BGSU student can borrow a DV camera kit free of charge. It comes complete with extra batteries and various adapter cables. In addition, students may also borrow tripods, microphones, lighting kits, and external Firewire hard drives. This hardware makes it easy to shoot, edit, and save digital videos for course-related use. One-on-one equipment training is available in the Student Tech Center in 127 Hayes Hall. Editing digital video can be completed at dozens of DV-ready lab systems across campus and at the Student Tech Center.

The following sections contain self-paced tutorials specific to student digital video use at BGSU, along with Frequently Asked Questions (FAQ), policies, and related information. If you are a BGSU student, feel free to schedule a tutoring session with StudentTech staff. If you represent a BGSU student organization and need additional help learning how to use digital video equipment to create your own videos, you may sign-up for our Digital Video Basics workshop on our Workshops page.

DV FREQUENTLY ASKED QUESTIONS (FAQ)

The following DV questions and answers have been compiled from various BGSU students, faculty, and staff. If you have a specific DV question not addressed on this page, please let us know.

Can I use the DV camera and equipment with Windows-based systems on campus?
Students can edit, export, and save their footage using all the Macs at StudentTech, and numerous lab Macs. On the Windows side, however, there are still some hardware and software issues to resolve. Digital video editing on Windows-based systems at BGSU will eventually happen.

How many tapes should I buy before I checkout a DV camera kit?
It depends on your needs, but we recommend two. The bookstore and Student Tech has 60-minute miniDV tapes you can purchase. Retail stores like Wal-Mart and Best Buy would likely carry both 60 minute and 90-minute tapes, as well. We recommend using two tapes: one for storing raw, unedited footage, and the other for storing finished, edited footage. If you intend on exporting your movie to a format suitable for the Internet, you should also bring a Zip disk or blank CD-R disk to temporarily store the exported version.

How do I use the camera and edit the footage?
See the StudentTech tutorial titled, "Apple's iMovie". You can also schedule a one-on-one tutoring appointment at StudentTech. Group tutoring sessions are also available, on request.

Are there headphones available for use when I edit my footage?
StudentTech and various campus labs may have some headphones available for use. However, we recommend bringing your own.

Can I take the camera kit wherever I want, as long as I return it on time?
Certainly, as long as you use the equipment in a responsible manner. Again, you are financially accountable for loss or damage to any equipment you borrow. Using the equipment in extreme weather conditions, for example, will likely result extreme damage to the camera, so please exercise good judgment.

What do I do if the camera isn't working properly when I get it?
If the camera isn't working properly when you get it, immediately return it to the Technology Support Center (during our regular operational hours). The Technology Support Center staff will examine the equipment and try to resolve the problem. If they can't, the camera kit will be taken out of service for repairs. Based on availability, you will be issued a new one.

What happens if the camera breaks or is stolen while I have it?
BGSU does not assume any responsibility for damage or loss of the camera kit and any related accessories. You will be responsible for repair costs if any items in the camera kit are damaged due to misuse, accident, modification, an unsuitable physical or operating

environment or improper maintenance by the user. Please refer to our Digital Video Policies page for more information.

If the camera is lost, stolen, or otherwise damaged, will my parents' homeowners insurance cover the repair / replacement costs?
It depends on their policy. You should probably ask your parents to double-check their policy now, or contact their insurance company. The same applies for renter's insurance, if you live off-campus. Your Bursar account will still be charged for any damages.

What if I have my own miniDV camera? Can I still edit the footage on campus?
BGSU currently supports iMovie for Digital Video editing. If your video camera has a Firewire connection, you should not experience any problems connecting your camera to a StudentTech or lab Macintosh computer, editing your footage, exporting your footage, and saving your file.

Are light kits and external microphones available?
A limited amount of light kits are available for use. These must be checked out separately from the camera kits and/or FireWire drives. Both handheld and lapel microphones are available to borrow. However, the miniDV camera itself does have a built-in microphone that is well suited for close ranges.

Can I connect the camera to a projector or TV and play my video project in class?
Absolutely. The miniDV cameras available at the Technology Support Center will have a full range of audio and video outputs. If your class meets in a room that has a projector, or TV / VCR, you can directly connect the miniDV camera and playback your video.

You can of course connect the miniDV camera to your own TV or VCR, either for playback or to transfer the video to VHS.

Where can I go to transfer my video to a DVD or a VHS tape?
You can transfer your video at StudentTech. We have several dubbing stations set up with the necessary equipment to do these transfers. You will need to provide your own tape or DVD, both, which can be purchased at StudentTech

Can I burn my video onto a CD-R?
Yes. You will need to provide your own blank, CD-R or CD-RW media. StudentTech staff will show you how to transfer your finished videos onto the blank media. Computers equipped with DV decks, in various locations across campus, will also have CD authoring capability.

What about still photos? Don't I need a different kind of digital camera for that?
It's relatively easy to extract a single "still" frame from full motion video. StudentTech staff can show you how to do this. Be aware that this will produce a very low-resolution photo, not suitable for enlarging for printing. If you are in need of higher resolution digital still photographs, the Technology Support Center has digital still cameras available for students to borrow.

DIGITAL VIDEO POLICIES

The information below lists policies for DV equipment borrowing and use. Please read through each item.

- Eligibility for participation requires enrollment in a BGSU undergraduate or graduate program.

- Equipment must be used for Academic purposes.

- You are responsible for providing your own miniDV tapes. These are available at Student Tech, BGSU Bookstore, and in retail stores such as Meijer and Staples. We will not provide "loaner" miniDV tapes, even on a temporary basis.

- The DV camera kit and light kit can be borrowed a period of three (3) days. An external Firewire drive can be borrowed for seven (7) days. Late fees are as follows:

    - **Camera Kit: $20 / day**
    - **Light Kit: $5 / day**
    - **Firewire Drive: $5 / day**

  Late fees will be charged to your Bursar account and may be taken out of your financial aid package, if applicable.

- All equipment must be returned during regular hours of operation. These times are listed on the checkout contracts and on the main page of this site.

- If any components are missing, you will be responsible for any replacement costs associated with the missing item.

- If you withdraw from BGSU or graduate and still have DV equipment checked-out, you must turn it in as soon as you withdraw, or prior to graduation. All equipment should be turned in during our regular hours of operation. Failure to return DV equipment by the due dates will result in late fees (see above).

- BGSU does not assume any responsibility for damage or loss of the camera kit or any related accessories. You will be responsible for repair costs if the user damages any items in the camera kit due to misuse, accident, modification, unsuitable physical or operating environment or improper maintenance. This type of damage may include, but is not limited to the following damages:

    - Damaged LCD view finder from being dropped or other excessive force
    - Cracked, scratched or broken parts
    - Broken latches or connectors
    - Liquid damage inside the camera or foreign material inside the system
    - Damage caused by excessive force, shock or from being dropped.

Repair costs will be charged to your Bursar account, and may be taken out of your financial aid package, if applicable.

- Stolen or missing DV equipment should be reported immediately to BGSU campus police at 372-2346.

BORROWING A DIGITAL VIDEO CAMERA FROM THE TECHNOLOGY SUPPORT CENTER

Any current BGSU student has the opportunity to borrow a digital video camera kit from the Technology Support Center (TSC). The only thing you'll need is a mini DV tape – the TSC provides all the rest. You can borrow a digital video kit for a period of 3 days. External firewire hard drives, used to store digital video files for editing, are also available for a period of one week.

HOW TO BORROW A CAMERA KIT AND ACCESSORIES

If you are interested in borrowing a digital video camera, stop by the Technology Support Center in Hayes Hall 110. You must be a current BGSU student with a valid ID. Only individual students may borrow a camera - no loans will be made to groups or organizations. You are responsible for the camera and accessories while they are in your care. When you check out the camera you will be asked to sign a contract. This is simply an agreement letting us know that you understand your responsibilities while the camera is in your possession.

WHAT THE CAMERA KIT INCLUDES

The camera kit from Student Tech includes the following items:

DV Camera

Carrying Case

Two Batteries

AV Cord

FireWire Cable

Remote Control

AC Adaptor

An instruction manual is also included.

Firewire hard drives are also available to store digital video files. They may be borrowed for 7 days.

Additionally, we have a limited number of tripods and light kits which may be checked out separately. **Mini Digital Video (mini DV) tapes** are not provided with the camera kit, but are required to record anything with the digital video camera. You can purchase tapes from Student Tech, the BGSU bookstore, or from any store which sells tapes with the MiniDV logo.

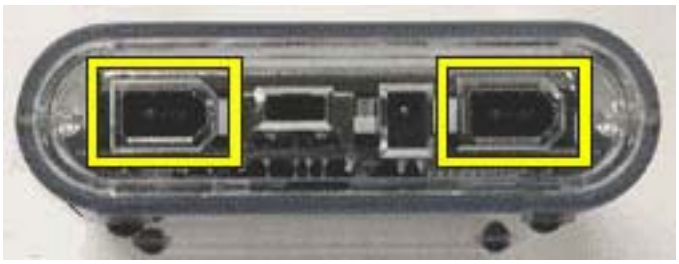
HOW TO USE THE FIREWIRE CABLE

FireWire (also known as IEEE 1394 or i-Link) is a transmission protocol used to send information between a computer and an external device. Similar to USB, but 20 times faster, devices that use FireWire range from digital video cameras to external hard drives and CD burners.
FireWire devices connect to computers using a FireWire cable. FireWire cables use either 4-pin or 6-pin connections, depending on the design of the device. In cases where the computer and FireWire device have FireWire ports with a different number of pins, an adaptor cable must be used. This adaptor cable (Figure 1) allows the two devices to be connected so that data can be transferred, but does not replace the need for an AC adaptor when one is necessary.

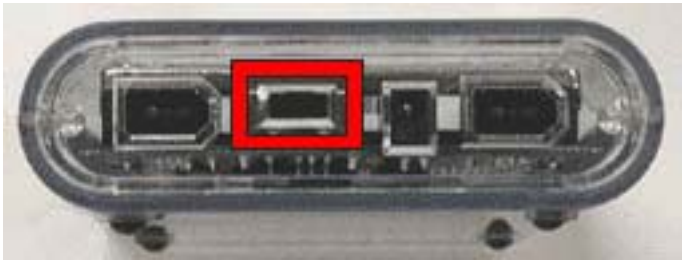
Figure 1. Adapter

HOW TO USE A FIREWIRE HARD DRIVE

1. To connect the FireWire hard drive, plug one end of the FireWire cable into one of the FireWire ports on the hard drive.



2. Make sure the power switch is in the far left position.



3. Plug the other end of the FireWire cable into the computer.

4. An icon that looks a hard drive with the FireWire logo on it will appear on the desktop. You can now use the hard drive like any other disk.

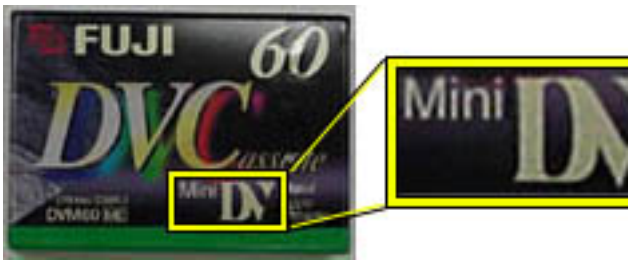
5. To disconnect the FireWire hard drive, drag the hard drive icon towards the trash can in the Dock. You may notice that as soon as you click and hold on the icon, the trash can turns into an eject icon. Simply drag the icon on top of the eject icon and in a moment or two your icon will disappear from the desktop.

6. Or, highlight the hard drive icon and select **File > Eject** "Name of the hard drive".

7. Unplug the FireWire cable from the computer.

WHERE YOU CAN PURCHASE A MINI DV TAPE

Digital Video (MiniDV) tapes are not provided by the Technology Support Center, but are necessary to record anything with the camera. You can purchase tapes at Student Tech, from the BGSU bookstore, or from any store which sells tapes with the MiniDV logo. Tapes can be found at K-Mart, Staples, and Wal-Mart, and prices range from $4-8 a tape. Only tapes with the MiniDV logo will work in digital video cameras.



USING A DIGITAL VIDEO CAMERA

The following sections explain the basics of operating the digital video camera you have borrowed from the Technology Support Center.

- **Powering the camera**
- **Charging the battery**
- **Turning the camera on**
- **Inserting a tape into the camera**
- **Recording footage**
- **Using the monitor window**
- **Focusing the camera**
- **Zooming in and out**
- **Playing back footage**
- **Connecting the camera to the computer**

POWERING THE CAMERA

Before you rush out to shoot your video, you need to make sure you have a power source for the camera. Your choices are either plugging the camera into a wall outlet using the AC adaptor, or using the battery provided in the camera kit. Included with the camera kit is one 30 minute battery and one 2 hour battery.

Check the charge on the batteries before shooting video. The Technology Support Center does not charge camera batteries before loaning camera kits out.

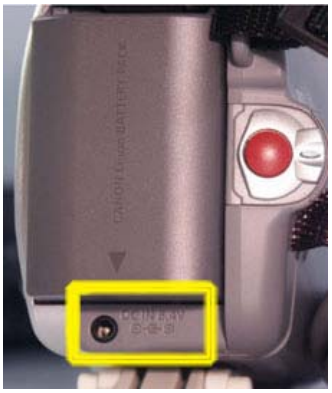
To use the AC adaptor, connect the two parts of the adaptor together.

Step 1

Step 2

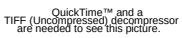
Plug the DV connector into the camera below the monitor window (You may need to pull open the dark grey flap to access the connection point). Plug the other end of the adaptor into an electrical outlet.

Cannon ZR-20 AC adaptor plug-in

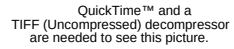


Cannon ZR-60 AC adapter plug-in

To use the battery, lift up the viewfinder to access the battery compartment. Match the two terminals on the camera with the two terminals on the battery, and slide the battery down into place.


QuickTime™ and a
TIFF (Uncompressed) decompressor
are needed to see this picture.

Step 1


QuickTime™ and a
TIFF (Uncompressed) decompressor
are needed to see this picture.

Step 2

CHARGING THE BATTERY

If you want to use the battery to power the camera, you have to sacrifice the unlimited recording time the AC adaptor allows. Therefore, you will occasionally have to charge the battery.
To charge the battery, make sure the camera is turned off.
With the battery in the compartment, connect the AC adaptor and plug it into a wall outlet. When the battery is fully charged, the indicator light next to the DC port on the side of the camera will remain red.

QuickTime™ and a
TIFF (Uncompressed) decompressor
are needed to see this picture.

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are needed to see this picture.

Cannon ZR-20/40

QuickTime™ and a
TIFF (Uncompressed) decompressor
are needed to see this picture.

Cannon ZR-60/65

TURNING THE CAMERA ON

Turn the camera on to either record live footage (camera) or playback (play-VCR) to view recorded footage.
To switch the camera to either Camera or VCR mode, push the small green button on the power switch and rotate the switch to Camera or VCR mode.

QuickTime™ and a
TIFF (Uncompressed) decompressor
are needed to see this picture.

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INSERTING THE TAPE INTO THE CAMERA

1. To insert a tape into the camera, slide the Open/Eject switch located on the bottom of the camera to Eject.

QuickTime™ and a
TIFF (Uncompressed) decompressor
are needed to see this picture.

2. Pull open the cassette compartment cover. (The cassette compartment will automatically eject.)

QuickTime™ and a
TIFF (Uncompressed) decompressor
are needed to see this picture.

3. Insert the tape, label up, into the cassette compartment, and push the compartment closed. (The tape will automatically slide back into the camera.)

QuickTime™ and a
TIFF (Uncompressed) decompressor
are needed to see this picture.

Even though the camera you are borrowing is a digital video camera, you still need a Mini DV tape to record the digital information the camera captures. A tape is not provided by the Technology Support Center with the camera kit, but can be purchased on campus and at many off-campus locations. To find out more about Mini DV tapes, go to the section called **Where you can purchase a Mini DV tape**.

RECORDING FOOTAGE

1. After you have turned the camera on and inserted the tape into the camera, you can begin recording footage:
2. Set the camera to Camera mode. Look through the viewfinder to frame the subject you want to record.
3. Press the red Record button to begin recording. When you have finished recording, press the Record button again to pause the recording.

USING THE MONITOR WINDOW

Sometimes it's hard to use the viewfinder when recording footage because you would like to get an idea of what's happening outside the area you are filming. By using the monitor window, you are free to look at what you are filming.
To open the monitor window, slide the monitor window open button and pull the monitor window out at a 90 degree angle. The monitor window rotates 270 degrees: 180 degrees forward and 90 degrees backwards.

QuickTime™ and a
TIFF (Uncompressed) decompressor
are needed to see this picture.

NOTE: When the monitor window is open, the viewfinder is disabled.

FOCUSING THE CAMERA

There are two focus modes you can choose from when operating the camera: automatic and manual. Automatic focus requires less attention; you simply point the camera at whatever you want to record and the camera focuses on what you're trying to capture. Sometimes, however, the camera focuses on the wrong object. In such cases, it's a good idea to use manual focus. With manual focus, you can control the focal distance of the lens yourself.
The camera is normally set to operate in Automatic focus mode. To change focus modes, press the focus button located above the monitor window (Figure 1). (The "Play" VCR control acts as the focus button when in Camera mode.)

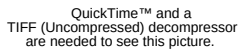

Figure 1. Focus button.

To change the focal distance when in Manual focus mode, turn the selector dial up to focus on closer objects, and down to focus on objects that are farther away.

ZOOMING IN AND OUT

Zooming is used to frame shots. You can zoom during recording or before recording, and the speed of the zoom depends on how far you push the zoom button.

QuickTime™ and a
TIFF (Uncompressed) decompressor
are needed to see this picture.

To zoom in, push the blue zoom button toward "T" for telephoto.

To zoom out, push the blue zoom button toward "W" for wide angle.

PLAYING BACK FOOTAGE

You can play back footage using the monitor window on the camera.
Open the monitor window on the side of the camera if it isn't already open. Press the green button on the power switch and rotate the dial to VCR mode.
Use the VCR-type controls on the side of the camera to rewind and play back the footage just like you would with a VCR.

QuickTime™ and a
TIFF (Uncompressed) decompressor
are needed to see this picture.

NOTE: Before recording more footage, make sure you have fast forwarded to a place on the tape where you will not record over previously recorded footage that you want to save.

CONNECTING THE CAMERA TO THE COMPUTER

After you have recorded video with the digital video camera, play back the footage to make sure the content you were trying to capture is in fact on the tape.

1. Connect the camera to a computer using the FireWire cable. Press the green button on the power switch and rotate the mode button to VCR mode.

QuickTime™ and a
TIFF (Uncompressed) decompressor
are needed to see this picture.

2. Connect the small end of the firewire cable into the camera.

QuickTime™ and a
TIFF (Uncompressed) decompressor
are needed to see this picture.

3. Connect the large end of the firewire cable into the firewire port on the computer.

QuickTime™ and a
TIFF (Uncompressed) decompressor
are needed to see this picture.

RETURNING THE DIGITAL VIDEO CAMERA TO THE TECHNOLOGY SUPPORT CENTER

Everything you've borrowed must be returned to the Technology Support Center (TSC) by the time and date specified. It is your responsibility to observe the TSC's hours of operation which are posted outside the Technology Support Center, as well as on the DV contract you signed, and return everything on time. No extra notice will be given regarding due dates or times.

A member of the TSC staff will check the operating condition of the camera and all accessories when the camera is returned. For each item missing or damaged, your bursar account will be billed. By taking good care of the camera and all accessories and returning them promptly, you can make the experience of recording and editing digital video a pleasant one.