

Transferring Media Files

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PREPARING CONTENT FOR THE STUDIO

Making Roll-ins and Leader Tapes for the Tricaster

To bring a roll-in or a show leader tape into the studio, you must pay attention to three things:

- The content of your leader or roll-in
- The format of the file
- The medium on which you bring it to the Media Center

The following three sections cover these three items.

The content of your leader or roll-in

With two modest exceptions noted below, the Tricaster has no editing capability. Therefore, your leader or roll-in must be finished and ready to play. It should be color-balanced, broadcast-safe, have balanced audio, etc. Audio levels set as high as possible without peaking are preferred. Here are a few notes to help you:

- Show leader-tape start. At the beginning of your show, the Tricaster will play the Media Center splash video (which fades to black and to no sound at the end) and then do a hard cut to your leader. Your leader should start immediately with a fade up from black and a fade up of sound. No bars and tone; no countdown; no leading black. When you get to the end of your content, just come to a freeze frame and keep the music playing, preferably for 30 seconds. This gives the director time to switch to the studio without having to be exact.
- Roll-in start. The Tricaster will start playing your roll-in as it fades to it from the studio. Your roll-in should start right away, but nothing really important should happen in the first second.
- Show leader or roll-in end. Your director can cut away at any time. If it runs to the end, the Tricaster will use the last one second of your leader or roll-in to fade to the studio.

We prefer NOT to edit in the control room, but we can:

- set an in-point and out-point for your content, getting rid of extraneous stuff at the beginning and end.
- Ride the audio levels while the roll-in or leader is playing.

The format of the file

After you have made your leader or roll-in, you need to put it in a video file. Here are the characteristics of such a file:

- **Resolution and frame rate.** The preferred resolution and frame rate are 1920 x 1080 pixels, 60 frames per second interlaced. The Tricaster will transcode any other resolution and frame rate to this, which will a) reduce the quality of the video; and b) possibly take up some control room time. If you have control of these parameters, please use the above. We don't know how well other combinations will work.
- **Codec.** If you have a choice, please use H.264 or MPEG2, which we've tested. We believe that other formats will work, but have not tested them. **IF YOU USE A DIFFERENT CODEC, BRING YOUR CONTENT TO THE STUDIO AHEAD OF TIME TO ALLOW FOR SOLVING PROBLEMS.**

Note that there is a very wretched bug in the Tricaster that causes problems with H.264/MP4 files. If you send an MP4, please make sure it's not MP4-2 in 1080i format, as the TriCaster system will transcode that to 1080p30 and then "stutter" when it plays it back. You can avoid this by using MPEG2 files instead.

- **File wrapper.** We have tested MOV and MP4 files. Both are fine. In theory, the Tricaster will accept various other wrappers, but we have not tested these and would prefer not to get files in other formats until we have tested them. **IF YOU USE A DIFFERENT FILE FORMAT, BRING YOUR CONTENT TO THE STUDIO AHEAD OF TIME TO ALLOW FOR FLAILING**

Obvious question: Can we import a file that has been 'Shared' from iMovie? Answer: yes.

The medium on which you bring it to the media center

See the section "Media for File Transfer" on page 7.

Loading Your Roll-In or Leader Tape into the Tricaster

Directions for this are in the studio cheatsheets in the control room.

Preparing Music, Photo Files, and Bugs for the Tricaster

To bring in music or photos, you must use a format that the Tricaster supports. You must also bring them in on a medium that we can support; see the section “Media for File Transfer” on page 7 for information about this latter.

Music Formats

You should ensure that your music plays at a reasonable volume level before bringing it in. Ideal is between -12dBFS and 0 dBFS (but make sure it *never* exceeds 0 dBFS). We can make minor but not major adjustments to the sound level.

The Tricaster supports the following formats:

- MP3
- WAV
- AIFF

Note that we have not tried PCM and AAC formats but believe that they work.

Photo Formats

The Tricaster will display photos with 1920 pixels horizontally by 1080 vertically. If you bring in a photo that is smaller than that in both dimensions, the Tricaster will automatically expand it (without distorting it) until it bumps into the edge of the screen either horizontally or vertically. If you bring in a picture that is larger in one of the dimensions, the Tricaster will shrink it (again without distorting) until it fits. In either case, it will just leave blank space around the edges of the photo.

Note that if you bring in photos that are substantially smaller than 1920 x 1080, they may look grainy when the Tricaster expands them. If you do not like the result, the alternative is to bring them in to LiveText as a graphic instead.

The Tricaster supports the following formats:

- JPG
- PNG
- GIF
- TIFF
- BMP

The Tricaster cannot read a PDF file.

Bug Considerations

The default Tricaster file will reduce your bug and move it to the lower right hand corner of the screen, so build it at some size that it easy to work with in your editor and build it more or less centered on the screen. There is no need to be precise, because adjusting the position and scale of the bug is easy on the Tricaster.

You should bring your bug into the studio in a PNG format, since that supports the transparency settings of your bug. You can bring it in at any size and location on the screen.

Loading Your Roll-In or Leader Tape into the Tricaster

Directions for this are in the studio cheatsheets in the control room.

Editing a Show for CableCast

If you have edited your show and want to have it put on the channels in its edited form, you can take it to an editor using the process outlined in the section entitled “**Error! Not a valid bookmark self-reference.**” on page 6.

After you have edited your show, export it from your editor into a file with the characteristics listed here. Note that most editors will export into a variety of formats; find the menu that controls these settings:

- MOV or MP4 wrapper format. (Very common formats)
- H.264 video compression. (Again, very common) Some editors give you a choice of bit rates for H.264; if yours does, then select 7 Mbps for high-definition video. (If you’re working on standard definition, you can use 3 Mbps.)
- AAC sound. (Yet again, not difficult to find) If there’s a choice, 128 kbps is fine.
- Interlaced video or 60-frame-per-second progressive video. The best are 1080i (which is what the studio creates) or 720p60 (which is still better than the cable will down-convert to.) (This is sometimes harder to find in the menus than the other options, but ‘i60’ or ‘60i’ formats are what we are looking for. In particular, ‘p30’ and ‘30p’ formats are to be avoided.)

Note that it appears the iMovie is incapable of producing files with the appropriate interlaced format. We have not tested iMovie output and suggest NOT using iMovie for this reason.

Name your file in this format:

<showname>_<episodename>_<yyyymmdd>.MOV (or .MP4)

The yyyymmdd entry is the date the show was taped. For example

LawTalk_14thAmendment_20150301

Bring your show file back to the Media Center on one of the media suggested in “Media for File Transfer” on page 7. Note, however, that you can also bring in a Macintosh formatted disk; you will have to plug it into one of the classroom computers.

Directions for uploading the show are in the cheatsheet binder in the control room.

Media for File Transfer

You can use any of these media to bring video, photo, or audio files into the studio or to take finished shows away:

- USB Thumb Drive or Memory Stick. We recommend that it be formatted as exFAT, as this will accommodate files larger than 4 GB; however, for smaller files, any thumb drive will work.
- Camera memory card, compact flash card, etc. (This does NOT mean that we accept a camera card straight out of a camera. It means that if you've formatted video files as outlined in 'Making Roll-ins and Leader Tapes for the Tricaster' on page 2, you can copy them to a camera card and bring that in.)
- USB hard disk drive, preferably in Windows format. (Note that we *can* handle Macintosh-formatted drives, but it's a nuisance for us.)
- Data DVD. (Note that this is a DVD formatted as a computer data drive, not a DVD that works in a DVD player.)
- Dropbox or other cloud-based storage if the file can be downloaded with a web browser. (Note that this does NOT include video sharing sites such as YouTube and Vimeo.)

We do not accept the following, although we may later. If this is all you have, we will work with you if you bring your data in ahead of time, **NOT ON THE NIGHT OF YOUR TAPING.**

- Playable DVD.
- Data BluRay disk.
- SATA hard drive, as long as it is formatted for Windows NTFS and is 3.5" form factor or mounted in a 3.5" adapter (naked drive, no enclosure).

We CANNOT accept

- Videos stored on video sharing sites, such as Vimeo, YouTube. If your video is on one of these sites, download it and convert it into one of our formats before bringing it into the studio.

TAKING FINISHED SHOWS FOR EDITING OR UPLOADING

By default the Tricaster creates a 1920x1280 60i video using H.264 compression in an MP4 file wrapper. The files are about 3.5 gigabytes per hour. We believe that most editing systems can work with these files, and they can be played with the Windows Media Player or with the free downloadable VLC video player program on Macintoshes. These are also suitable for uploading to YouTube and other video sharing services.

If you want to take your show with you, bring one of the devices listed in the section entitled “Media for File Transfer” on page 7.

The steps to copy your show to your medium are in the studio cheatsheets in the control room: