



NBME®

Video Submission Guidelines

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General submission information

Nuxeo

If you are submitting directly into the Nuxeo Digital Asset Management System, you will be able to login to your assigned Collection, and drag the files from your computer into the Nuxeo site in your browser to upload the files. You will then be prompted to add information about the video (diagnosis, editing instructions, patient's age and gender, etc.). You will have the option to enter this information either at the time of upload, or at a later date. More detailed instructions will be provided by the editorial staff you are working with.

Mailing Files on Disk

In some cases, mainly when files are extremely large, you may be asked to put your files on a thumb drive, or external hard drive, and mail it to us. If this is the case, please include:

- Video files
- Video log Excel spreadsheet with necessary explanation, diagnosis, edit instructions, and other information.
- Signed patient consent forms in PDF format.

A sample of a video log spreadsheet can be found in the **Advanced Users** section of this document.

Video formats and quality settings

Most imaging systems and video editing programs will use, or will allow you to choose from, one of a handful of video file types. Some of the most common file types you are likely to see as options are .avi, .mp4, .mov, .m4v, and .mpg, but there are many others as well. Our system accepts all of the formats mentioned above as well as many lesser-known file types, so this should not be a concern when submitting your videos.

Depending what program you are using, you may also see options for video and/or audio codecs. These are compression types that are applied under the umbrella of the file type. Again, our system is capable of handling most major codecs that you are likely to come across.

Quality settings may have different names based on the file format you choose. As a general rule, we ask that you set these settings to the best possible quality. More specifically, we ask that you follow these guidelines:

Video

Frame rate: 29.97 or 30 frames per second.

Quality (if applicable): 90% or higher (lossless if necessary).

Bitrate (if applicable): 1000 kilobytes per second (kbps) or higher is preferred.

Dimensions: ≥ 640 pixels on the longest edge (but do not stretch or enlarge the video if it is smaller!).

Audio

Channel: Mono (as opposed to Stereo).

Sample Rate: 30 kHz or higher.


Sample Type: 16 bit or higher.

For more detailed list of file types and codecs you can refer to the **Video Formats for Advanced Users** section of this document.

Video Formats to Avoid

While our asset management system can accept most file types, we ask that you **not** submit FLV or F4V files. They can be stored, but the bulk upload functionality will not work, and you will not be able to view the videos directly in the system as you would with other file types.

If you are recording new videos...

DO	DON'T	12 Things in this example provide visual cues for test takers...
<ul style="list-style-type: none"> • Use a plain background. • Avoid visual cues as best possible, e.g. office equipment, paintings, etc. • Record in well-lit room • Have the patient wear plain clothes or a hospital gown with no logos. • Keep actors, background, and clothing consistent if there are multiple exams or videos. • Talk to the patients as you would in a normal exam. • Do not use names when addressing patient. • Leave the videos as you recorded them, and provide instructions for editing on a spreadsheet (see next page). • Try to limit video length to 30 seconds. • Provide a signed patient consent form. 	<ul style="list-style-type: none"> • Pick a brightly colored room, a room with identifiable pictures on the wall, or a room with unique (non-clinical) furniture. • Allow the patient or doctor to wear brightly colored clothes, clothes with logos, or jewelry. • Show the faces of the doctor(s) or patient(s). • Explain everything in detail, or add narration. • Edit clips together, overdub audio, or add arrows or masking. • Add any transitions, e.g., fade-ins and fade-outs to video files. 	 <p>1. Setting (auditorium). 2. Socket is specifically identifiable within auditorium. 3. Clothes in the aisle. 4. Patient's watch. 5. Green shirt. 6. Doctor's ring. 7. Blue and white striped shorts. 8. Doctor's watch. 9. Doctor's face. 10. Doctor's shirt (white coat is preferable). 11. Doctor wearing shorts. 12. Bearded 3rd man mysteriously in background.</p>

If you are editing or masking your videos prior to submission.....

DO

- Make any necessary cuts.
- Leave everything at its current size.
- Turn off any identifying patient information, if possible.
- Use the background color to mask the patient information, if possible.
- Provide instructions for any masking you have not done yourself.
- Provide instructions for addition of any arrows, X's, circles, or other call outs.

DON'T

- Add any fade ins or fade outs.
- Resize anything or change the dimensions of the video.
- Add arrows, X's, circles, or any other call outs.
-

ORIGINAL



**GOOD MASKING:
Clean and inconspicuous**



**BAD MASKING
Incomplete and distracting**



Advanced Users

Acceptable Video Formats

Video files are comprised of three separate variables: the file type (also called a container or wrapper), the codec (which is the type of compression that is applied to the video file), and the audio codec (which applies compression to the audio, if present).

The following are some of the most commonly available video and audio formats. Most new systems will offer one or more of these as an option for exporting videos. The ones with asterisks (*) next to them support lossless compression, which means they do not lose quality when they are exported or edited.

Common Video File Types	Common Video Codecs	Common Audio Codecs
avi*	H.264	wav*
mp4	MPEG	mp3/Fraunhofer
mov*	DV	aac
m4v	MS Video	pcm*
mpg	Uncompressed*	wma
wmv	YUV*	opus
ogg/ogv	Lagarith*	vorbis
webm	RGB*	

Sample video log/editing spreadsheet....

File name	Patient Name	signed consent form (Y/N)?	Diagnosis	Abnormal/Normal	Details	in/out points	Audio (Y/N)	EDITING INSTRUCTIONS
gait.avi	Patient's Name	Y	myopathy	abnormal	gait: heel	0:00 - 0:21	N	cut length, blur patient's face
			myopathy	abnormal	gait: tiptoe	0:39 - 1:05	N	cut length, blur patient's face

Some information to include would be:

- File name
- Patient Name
- Whether the patient signed a consent form
- Age of the patient
- Diagnosis
- Whether the test being performed returns normal or abnormal results
- A description of the test being performed
- Whether the clip contains audio
- Instructions for editing

In this example one movie clip, *gait.avi*, is being split into two pieces.

In general, information that pertains to the submitted file (File Name, Patient Name, and Consent Form) for each instance.

If the file is being split into multiple clips, as in this case, information that could be different from one clip to the next, such as the Abnormal/Normal, Details, In/Out Points, Audio, and Editing Instructions should be entered for each clip, even if the information is the same.

Software recommendations.....

DICOM Viewer

SanteSoft DICOM Viewer is a good, free DICOM viewer with a comprehensive set of features.

Download: <https://www.santesoft.com/win/sante-dicom-viewer-free/sante-dicom-viewer-free.html>