

Certified Digital Video Editor (DVE) Competency Requirements



This Competency listing serves to identify the major knowledge, skills, and standards areas which a certified Digital Video Editor needs in order to perform the professional tasks associated with the development of electronic digital videos for digital technology.

Digital Video Editors must be knowledgeable in the following technical areas:

1.0 Screen Format

- 1.1 Explain Aspect Ratios in detail including:
 - 1.1.1 the differences between the following:
 - 1.1.1.1 Widescreen Aspect ratio, 16:9
 - 1.1.1.2 Standard Aspect ratio, 4:3
- 1.2 Explain the use of letterbox technique
- 1.3 Describe the 'Scan and Span' technique use
- 1.4 Explain the screen formatting's 'safe zone'
- 1.5 Describe the 'split screen' and its usage
- 1.6 Identify how Picture in Picture (PIP) is used in video editing
- 1.7 Explain 'Overscan' and associated terms:
 - 1.7.1 Title Safe
 - 1.7.2 Action Safe
 - 1.7.3 Underscan

2.0 Video Fundamentals

- 2.1 Explain the following color details:
 - 2.1.1 Luminance
 - 2.1.2 Chrominance
 - 2.1.3 RGB
 - 2.1.4 YUV
- 2.2 Describe the significance of Frame and Frame Rates per second in digital video editing
- 2.3 Explain in detail progressive scanning or noninterlaced scanning
- 2.4 Explain the following video terminology:
 - 2.4.1 Master
 - 2.4.2 Talking Head
 - 2.4.3 Freeze Frame
 - 2.4.4 Dub
 - 2.4.5 Explain video techniques such as:
 - 2.4.5.1 Pan
 - 2.4.5.2 Tilt
 - 2.4.5.3 Roll
 - 2.4.6 Identify the differences between the following video transitions:
 - 2.4.6.1 Fades
 - 2.4.6.2 Wipes
 - 2.4.7 Explain the differences between "open caption" and "closed caption"
 - 2.4.8 Timecode
 - 2.4.9 Synchronize

3.0 Digital Video Fundamentals

- 3.1 Explain pixels in depth
 - 3.1.1 Explain pixilation
- 3.2 Describe display resolution and the relationship of aspect ratio to resolution
- 3.3 Describe Transcoding and its effects:
 - 3.3.1 Video transcoding, i.e., HandBrake©
 - 3.3.2 Audio transcoding
- 3.4 Describe Compression and Decompression technology

4.0 Digital Video Formats

- 4.1 Explain the difference between a video file container and a codec
 - 4.1.1 Explain 'Codec' and how it works
 - 4.1.2 Describe Codec's effect on digital video
- 4.2 Describe the basic video formats including:
 - 4.2.1 DV Digital Video tape
 - 4.2.2 AVI Audio Video Interleave (.avi)
 - 4.2.3 ASF Advanced Systems Format (.asf)
 - 4.2.4 Advanced Stream Redirector (ASX)
 - 4.2.5 Windows Media Video (.wmv)
 - 4.2.6 QuickTime[®] (.mov or .qt)
 - 4.2.7 RealMedia[®] (.RM or .RAM)
 - 4.2.8 Advanced Video Coding, High Definition (AVCHD)
 - 4.2.9 Flash Video (.flv)
 - 4.2.10 Shockwave Flash[®] (.swf)
 - 4.2.11 Moving Picture Experts Group – 4 (.M4V, MP4)
 - 4.2.12 MPEG Transport Stream (.mts)
 - 4.2.13 Material Exchange Format (.mxf)
 - 4.2.14 WebM (.webm)
 - 4.2.15 Matroska Video files (.mkv)
- 4.3 Identify the differences of streaming media versus progressive downloads
 - 4.3.1 Explain video streaming and how it is accomplished
 - 4.3.2 Explain progressive downloads and how they are accomplished
- 4.4 Explain video compression formats including:
 - 4.4.1 MPEG 1- 4 (moving picture experts group)
 - 4.4.2 CBR (constant bit rate)
 - 4.4.3 VBR (variable bit rate)
 - 4.4.4 HEVC (High Efficiency Video Coding)
- 4.5 Explain still image format types including:
 - 4.5.1 BMP (bitmap image file)
 - 4.5.2 GIF (graphics interchange format)
 - 4.5.3 JPEG (joint photographic experts group)
 - 4.5.4 PICT (Apple graphic file format)
 - 4.5.5 TIFF (tagged image file format)

5.0 Audio Fundamentals

- 5.1 Explain Audio Formats including:
 - 5.1.1 AIFF (audio interchange file format)
 - 5.1.2 MP3 (MPEG-1 or MPEG-2 Audio Layer III[®])
 - 5.1.3 WAV (Waveform Audio File Format)
 - 5.1.4 WMA (Windows Media[®] audio)
 - 5.1.5 AAC (Augmentative And Alternative Communication)
- 5.2 Describe the use and effects of Audio Compression

6.0 Digital Data Rates

- 6.1 Explain bandwidth in depth relating to video editing and transfer
- 6.2 Explain data rates in depth relating to video editing and transfer
- 6.3 Identify network exposure factors and how to calculate potential loss
- 6.4 Explain the difference between:
 - 6.4.1 Byte
 - 6.4.2 Bit
 - 6.4.3 Megabyte (MB)
 - 6.4.4 Gigabyte (GB)
 - 6.4.5 Terabyte (TB)

7.0 Video Editing Fundamentals

- 7.1 Define the term 'Raw Cut'
 - 7.1.1 Explain how to use a Raw Cut
- 7.2 Define the term 'Storyboard'
 - 7.2.1 Describe how to make a Storyboard
- 7.3 Explain the differences between a scene and a clip
- 7.4 Define the term 'Channel'
 - 7.4.1 Describe how a Channel is used
- 7.5 Explain a Timeline in depth
- 7.6 Explain a Track in depth
- 7.7 Define and describe the following video editing terminology:
 - 7.7.1 Time ruler
 - 7.7.2 Edit line
 - 7.7.3 Jog
 - 7.7.4 Shuttle
 - 7.7.5 Preview, Real-time preview, and Preview File
 - 7.7.6 Call-out
 - 7.7.7 Scrub
 - 7.7.8 Render and Render Scrub
 - 7.7.9 Sequence
- 7.8 Explain basic User Interface Terminology in relation to video editing
- 7.9 Explain Import and Capture in relation to video editing
- 7.10 Explain in depth editing of clips and tracks
- 7.11 Explain basic Titles and Credits relating to video editing
- 7.12 Explain Transitions and Effects in relation to video editing
- 7.13 Describe Video Composition rules including:
 - 7.13.1 Rule of Thirds
 - 7.13.2 Headroom
 - 7.13.3 Other composition techniques in relation to digital video editing

8.0 Audio Editing Fundamentals

- 8.1 Explain basic audio editing terminology:
 - 8.1.1 Noise
 - 8.1.2 Sampling rate
 - 8.1.3 Distortion
 - 8.1.4 Decibel
 - 8.1.5 Damping
- 8.2 Explain the difference between Amplify and Attenuate
- 8.3 Explain audio waveforms, how they are generated and measured
- 8.4 Explain the differences between the following recording plugins or effects:
 - 8.4.1 Equalizer
 - 8.4.2 Reverb
 - 8.4.3 Compression
- 8.5 Explain Dynamic Range

9.0 Video Editing Customer Service Basics

- 9.1 Explain the different types of budget constraints to interested parties
- 9.2 Identify expectations for all interested parties within the scope of the project
 - 9.2.1 Define a clearly written understanding of expectations within all parties
 - 9.2.2 Identify project completion processes involved in :
 - 9.2.2.1 Software needs
 - 9.2.2.2 Hardware requirements
 - 9.2.2.3 transmissions costs for a given video quality
 - 9.2.2.4 accurately identifying time requirements
 - 9.2.2.5 progress reporting
- 9.3 Identify professionalism and communication qualities needed throughout the life of digital video project

End of Certified Digital Video Editor Competency

Find An ETA Test Site: _____

<http://www.eta-i.org/testing.html>

Suggested Additional Resource and Study Material:

Digital Video Editing Fundamentals; Wallace Jackson; ISBN 978-1484218655; Apress; Apr 14, 2016

Upgrading and Repairing Networks, 5th Ed.; Scott Mueller, Terry Ogletree, Mark Soper; ISBN 978-0789735300; Que Publishing; 2006

Cut by Cut: Editing Your Film or Video, 2nd Ed.; Gael Chandler; ISBN 978-1615930906; Michael Wise Productions; 2012

O*NET online: <https://www.onetonline.org/link/summary/27-4032.00> and its related page:

<https://www.bls.gov/OOH/media-and-communication/film-and-video-editors-and-camera-operators.htm>

Audacity® online: <https://www.audacityteam.org/> and <https://manual.audacityteam.org/man/faq.html#about>

HandBrake® online: Audacity® online: <https://handbrake.fr/>

Certified Digital Video Editor Committee Advisory Board:

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ETA certification programs are accredited through ICAC,
complying with the ISO/IEC 17024 standard.

