

Engineering Team Educational Videos - Best Practices

Sharing Technical Information

Introduction

These best practices provide guidelines for educational videos created by the UL Standards & Engagement Engineering Team. Using basic editing skills and these best practices, videos produced by the Engineering Team will ensure each video in the [Engineering Team's library](#) is uniform and complies with UL Standards & Engagement branding. [DaVinci Resolve](#) (Free Version) by Blackmagic Design is the video editor used by the Engineering Team. DaVinci Resolve was used to edit the included examples and develop a systematic approach to video development. If you have any questions regarding these best practices or need help creating your video, contact Dave Mercier. For branding questions, contact Matt Schumake.

How to Use Best Practices

The best practice document provides a **communication plan** for our educational videos' objectives, strategy, tactics, and key messaging. Use this to understand the intended use of our videos and share with others if asked about the purpose of our videos. Included are two **examples** of an engineering team video with an overview and link for each video demonstrating Engineering Team Best Practices. A detailed **systematic approach** to developing engineering team educational videos is provided to aid in developing your video.

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Engineering Team Educational Videos – Communications Plan

Overview

Educational videos created by the UL Standards & Engagement Engineering Team are used as an internal resource to share technical information within UL Standards & Engagement and with Technical Committee members. These videos are available at the Engineering Teams SharePoint [site](#) featuring information developed in support of the Engineering Team's areas of focus, projects, and initiatives.

The majority of the current library videos are Microsoft Teams recorded presentations. Future videos will include branded presentation-style videos, laboratory tours supporting horizontal testing requirements, and supporting videos for engineering team projects.

Objective

Support UL Standards & Engagement Strategy in deploying safety science research and engineering by translating key data findings, science and technology advancements, and research using video technology.

Sharing findings and technical resources across UL Standards & Engagement and other stakeholders.

Strategy

Use internally developed media in support of findings among the primary target audiences – UL Standards & Engagement staff and Standards Technical Committees – as well as the following secondary audiences:

- UL Standards & Engagement staff
- UL Research Institutes and UL Solutions colleagues

Tactics

Internal

- [Engineering Team SharePoint Site](#) will be the principal repository.
- MS-Teams will be utilized to communicate the availability of new videos.

External

- Technical Committees: Videos created by the Engineering Team are for internal use and as an educational resource for Technical Committee members.
- Represent Brand: If shared outside the primary and secondary audiences, videos created by the Engineering Team should professionally represent UL Standards & Engagement.

Key Messages

- Communicate how science and engineering findings are relevant to developing and maintaining UL standards.
 - Showcase the role that science and engineering play in standards that address the safety, security, and sustainability of products and systems.
 - Opportunity for staff to explore select topics to learn how science and engineering impact their standards.
 - Educational resource to help staff educate technical committee members to understand the link between standards and safety-based engineering.
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Development of a Basic Engineering Team Video

Introduction

Engineering Team educational video development is based on the Engineering Team Educational Videos – Communications Plan developed to provide consistency in the development and use of educational videos produced by the engineering team. The video's primary use is for internal educational purposes and sharing with technical committee members on an as-needed basis. Videos developed for external use should be developed by UL Standards & Engagement Communications. The following is a summary of how the Engineering Team approaches developing videos.

Education Videos Audience

The Engineering Team's primary purpose in developing videos is for educational purposes, with the target audience for those within UL Standards & Engagement. The video should be created keeping top of mind that it is an educational tool that those with UL Standards & Engagement may want to use as an education tool with stakeholders. Videos should stay on the subject with the understanding that the video may be shared with stakeholders that would not understand internal jargon or if refereeing to a staff person by name will not know the employee or employee's area of responsibility.

Simple Presentations

Presentations are the most straightforward videos to develop as they can be as simple as a recording of an online presentation. Three fundamental problems can occur when posting an unedited recording.

- "Dead" time before the presentation begins and at the end of the presentation.
 - This dead time is not distracting for a live presentation but can be distracting when watching the recording.
- Technical or other interruptions during the presentation.
 - Technical or other issues are expected during presentations and typically do not severely interrupt the presentation. Most attendees understand that problems can occur. In a recording, viewers wonder why a technical issue is included when it adds no value.
- An introduction that is applicable for viewers of the recording.
 - Often, a presentation has a concise introduction or no introduction since all attendees already know the subject and the context in which it is being presented.
 - Over time the lack of a proper introduction leaves the viewer watching the presentation without the adequate context of why it was being presented.

With proper planning and appropriate editing of the video, these issues can be quickly addressed.

- The editor will cut the unwanted portion of the recording from the beginning and end of the video.
- The editor can cut unwanted portions during the presentation that may be distracting.
- The editor can add an introduction slide to introduce the video and include a voice-over for the slide.
- The editor will also add the standard Engineering Team pre- and post-roll to the video.

Demonstrations

Educational videos, such as a lab tour or demonstration of a test is a more complex videos requiring more effort in preparation and editing. The critical element is to develop the story to be

told and determine the interviews, photos, slides, and video segments required to educate the viewer. The story is similar to a presentation, yet it includes multiple voices, such as an interviewer and interviewee, multiple videos taken at different times, photos, and graphics, such as equipment drawings. Similar to a presentation video, the audio content must be on subject and consistent throughout the video. The user does not typically want to watch a test without a voice-over explaining what they see in the video. Because we are most familiar with PowerPoint, this may be the best tool to prepare for the video shoot to ensure all interviews, videos, and photos are taken during the scheduled lab visit. Because stakeholders may view videos, proper permissions should be requested before the videos are shot and also before the edited video is posted.

Systematic Approach to Video Development

Introduction

A systematic approach to the development of the Engineering Team's educational video production process consists of four main steps:

- **Pre-Production:** The stage for mapping out your strategy and script.
- **Production:** The phase in which the video is recorded or shot.
- **Post-Production:** The editing of the video and adding other components such as a uniform branded introduction (Intro) and an ending (outro).
- **Publish:** Post the video for the intended audience.

The most challenging part of recording a presentation beyond a screen recording of a Team's presentation is understanding the components needed to publish a final video. The following provides a systematic approach to developing educational videos (Tech Talks) for internal use.

Pre-Production

Pre-production is very similar to preparing for a non-recorded presentation. The added complexity is how the presentation will be recorded and everything is ready for the recording. The following should be used to develop a checklist to address the recording component fully and a backup plan if technology fails.

- **Who will be recording the presentation?**
 - **Teams:** Limited people have permission to record the presentation made with Teams. Determine who has the ability/availability to record the presentation before the presentation.
 - **Camera/Operator:** Before the presentation, ensure an appropriate room is reserved and all equipment is operational. Lighting and acoustics are critical for acceptable recordings. Also, ensure that the camera operator is available and familiar with the equipment.
- **What is to be recorded?**
 - **Teams:**
 - Slides/audio only?
 - The presenter with slides?
 - Q&A from the audience?
 - **In Person:**
 - Presenter/interviewee?
 - Interaction with the audience?

- If in a lab: Equipment only, equipment with test specimen, lab technician, etc.
- **Permission to Record**
 - If recording in a lab or other property, do you have permission to record?
 - If recording in Teams or with an audience, do you have the audience's permission to record by telling them the presentation will be recorded before pressing the record button?
- **International Audience**
 - If working with an international audience, translation may be needed. If so, work with the appropriate person to determine if/how translation will be handled.
- **External Audience**
 - If the presentation is for an external audience, it needs to be provided to Denise Durrant and George Borlase, so they are aware of the presentation and content.

Production (Video Recording)

The central part of the production is the video recording. If in Teams, it is a screen recording of the meeting/presentation. If in person, it is the recording of the presenter and any additional recordings needed for video and audio as determined during pre-production.

One should never go into production without completing pre-production pre-planning. Having at least two people working together ensures everything is set before recording. Review the pre-production planning checklist to ensure nothing is overlooked during production. Check the list before recording and immediately after recording so that if anything is missed, you can record the missed item.

- **Checklist** – A checklist is critical to make sure nothing is overlooked! A checklist is a best practice, and most people regret not creating one and checking it twice before, during, and after recording.
- **Early Set-Up** – Make sure equipment and internet connections, if applicable, are working. Make certain presenters and others involved in the production arrive early for set-up. How early? Early enough to ensure everything is in working order and, if needed, there is enough time to go to the backup plan.
- **Start Recording: Press the Record Button** – Don't ask why this is on the list. Just make sure it is always on your checklist.
- **State to the Audience the Presentation is Being Recorded.**
- **Stop Recording**
- **Checklist** – Review the checklist to make sure nothing was overlooked.
- **Final Review** – Note if there are any portions of the recording that needs to be removed during editing. If there are deadlines for posting the video, make sure everyone knows their assignments and when they need to be delivered.

Post Production

Video Editing: The following provides information on the video editing approach once all the materials are provided to the video editor.

Materials Needed for the Editor

The video editor will need guidance on what should be included or excluded (cut) from the video. The editor will also need a copy of the video(s), an audio recording (if applicable), and

any graphics, such as a slide deck from the presentation. The following should be used as a checklist when working with an editor.

- **Guidance**
 - What part, if any, of the beginning/end of the video should be cut?
 - Is there anything else in the video that needs to be cut?
 - If there are questions from the audience, should they be cut?
 - How should the video end?
 - Are there any graphics, additional video materials, or audio that needs to be added?
 - Working with the video editor prior to shooting the video can provide insights into how additional video, still images, and graphics can be used to enhance the video.
 - Videos can be used during the interview or presentation to add visual interest. Such as a video of a flame test during an explanation of the purpose of the test. This can be easily done in the video editor.
 - Confirm that the standard Tech Talk intro/outro is to be used.
 - Confirm intended audience.
 - Confirm materials meet branding requirements for internal use.
- **Components**
 - Provide video recording to the editor. Files are easily shared in Teams or OneDrive. Emailing is not preferred due to file size.
 - Are any additional graphics, slide decks, or audio needed in the video? Provide these files the same way as the video file or, if small enough, email them.
- **Intro and Outro**
 - Components are used to ensure uniformity for videos in the Engineering Team's video library. These [instructions](#) detail how the intro and outro were developed.
 - Components meet UL Standards & Engagement branding requirements as of August 2022.
 - The intro and the outro are inserted at the video's beginning and end.
 - **Intro (Standard Tech Talk Introduction)**
 - [Link](#) to intro video file.
 - **Outro (Standard Tech Talk Ending Graphic)**
 - [Link](#) to outro graphic file.

Publish: Once the post-production is complete and the video has been exported from the video editing app (such as DaVinci Resolve), it needs to be posted for the intended audience. The approach taken for Tech Talk videos is to share with UL Standards & Engagement via the Engineering Teams SharePoint site. The following are the steps for posting.

- **Saving the Video File:** Save the file to the UL Standards & Engagement Team directory using one of the following methods. If sharing outside UL Standards & Engagement, check the share permissions to ensure your audience can access the file.
 - SharePoint
 - The Sharepoint directory is "Documents > Standards Engineering Team > SET Internal Sharepoint Site Documents > Videos." ([Link](#))
 - Team's

- In the Teams column, select UL Standards & Engagement Team/Standards Engineering Team, then in the top menu, choose files.
 - The Teams directory is "Standards Engineering Team > SET Internal Sharepoint Site Documents > Videos"
- **Posting the Video Link:** Select the Sharepoint page to add the link to the video file. The following instructions show how to add a link in the Engineering Vault under Tech talks.
 - Go to the Standards Engineering Team Engineering Vault. ([Link](#))
 - Select edit in the top right corner.
 - Go to the Tech Talk section on the page.
 - Add the name/description of the video to the list.
 - Get the link for the video file by going to the saved location of the file, hovering the mouse over the video file and the three dots (Show actions), and clicking on this. Select Copy Link and then select copy. You now have the link copied and ready to paste for the link in SharePoint.
 - Highlight the name and select Hyperlink from the menu (or Ctrl+ K).
 - Insert the link copied from the saved location into the address field and select save.
 - Republish the page (top right corner).
 - Test the link to make sure it works.
- **Viewer Settings in Stream:**
 - After posting the video and testing the link, you will see that Stream (the video player used within SharePoint) displays a menu in the top right corner.
 - **Thumbnail:** To set what the start screen will be before playing the video, select "Video Settings" and then Thumbnail. You can select a frame from the video or upload a graphic.
 - **About:** Click on "Add a description to explain what this video is about." under the video if a detailed description of the video is needed.
 - **Chapters:** Turn on "Chapters" under video settings and select "Chapters" in the sidebar. Select "New Chapter" to add a title, and then in the time box, type or drag to the appropriate time in the video for the new chapter.
 - These Stream settings are based on menu items available in August 2022.
- **Sharing the Video Link**
 - The easiest way is to go to the link on the SharePoint page, right-click, copy the link, and then paste it into the email or document.

Examples: The following are three examples of types of videos typically created as educational videos by the Engineering Team.

- **Video 1 – A Microsoft Teams' Recording**
 - Used video recording of the slide deck and audio, such as a Teams presentation.
 - Clip the beginning and ending as needed.
 - Add a short audio introduction if needed to state when/where/why the video was presented.
 - Insert the standard intro and outro into the video.

- **Video 2 – Slide Deck Presentation with Voiceover.**
 - Record Audio
 - Output slide deck as jpg files.
 - Insert audio and jpg files into the video editor and adjust the timing of each slide with audio.
 - Insert the standard intro and outro into the video.
 - **Video 3 – Interview or Lab Tour**
 - Record video segments needed for the "story."
 - Bring video files into the video editor
 - Edit, as needed, files in the video editor.
 - Insert the standard intro and outro into the video.
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Examples Demonstrating Best Practices

Introduction

The following are two videos demonstrating Engineering Team best practices and available for viewing on the Engineering Team's SharePoint site.

- The "Intern Presentation" provides an example of a presentation recorded on-site using a video camera rather than recording the online video feed. The slides from the presentation were added to the video recording during editing. ([Link](#))
- The "International Presentation" was prerecorded using Microsoft Teams for an international presentation. The video was cropped to remove as much of the Teams framing as possible, leaving the slides as the central part of the video and the presenter in a small window.

Intern Presentation

The Engineering Team's intern's presentation is available on the Engineering Team SharePoint site in the Engineering Vault under Tech Talks. The video is available via this [link](#).

- **Purpose:** Educate the Audience on Intern Projects and Accomplishments
- **Preparation:**
 - **Type:** Hybrid presentation at RTP.
 - **Location:** Reserved Room/Test Equipment
 - Make sure equipment works in the room for a Teams presentation by reserving the space for the presentation a week before the presentation and testing equipment.
 - **Camera(s):** Elected to have a separate camera record the presentation.
 - **Video:** Determine who will record the Teams video. Denice Durrant has recording rights within Teams if the Teams presentation recording is needed.
 - **Editor:** Determine who will edit the video to provide all collateral needed for the video.
- **Obtain/Deliver Video, Sound, and Graphics**
 - **Graphics:** Slide deck provided to convert each slide to a jpg to use if needed in the final edit.

- Files were provided to the editor via a link in Teams.
 - JPG files were created by using the Export function in PowerPoint.
- **Video:**
 - **Camera Recording:** Files were provided to the editor via a link in Teams.
 - **Teams Recording:** The file is obtained with the person recording providing the editor a link that can be used to download the video.
- **Sound:** All needed sound was included in the video files.
- **Back-Up Materials:** Due to this being the intern's last day, a prerecording using a webcam was provided if there technical issues with the recordings during the formal presentation.
- **Delivery Method:** Providing links to materials in Teams has proven to be a successful method of sharing large files with the video editor.
- **Editor:**
 - **Focus:** Determine if, in editing, the focus is on the slide deck/graphics or the presenter.
 - **Edit:** The editor edits the video and inserts the proper intro/outro in the video.
 - **Finished Video:** The editor will save the finished video file on their computer and then share a link to the file or a specific location. Typically, the file is saved on the Engineering Team SharePoint site available via this [link](#).

International Presentation

- **Purpose:** Describe how standards relate to green buildings. ([Link](#))
- **Preparation:**
 - **Audience:** Worked with the international team to determine audiences interests.
 - **Type:** Pre-recorded using Teams. The presenter (Spencer Barbour) coordinated with International Team to provide a copy of the slide deck so it could include translation for the local audience.
 - **Script:** A script was developed and provided to the translator to aid in translation.
 - **Location:** Teams recording with the presenter at home and international team members using their computers for the Teams presentation.
 - **Editor:** Editing was not needed for the prerecorded presentation to the original audience. Dave Mercier added the standard Tech Talk intro/outro before posting to the Engineering Teams SharePoint site.
 - **Review:**
 - External Audience: Denice Durrant and George Borlase were provided a copy for review.
 - Branding Review: No review is needed since the presentation utilized the standard approved UL Standards & Engagement PowerPoint template.
- **Obtain/Deliver Video, Sound, and Graphics**
 - **Graphics:** Used JPG of the title slide.
 - The title slide's JPG file was created using the Export function in PowerPoint.
 - **Video:**
 - **Teams Recording:** Drag and drop the recording into Teams chat for the editor to download.
 - **Sound:** All needed sound was included in the video files.
- **Delivery Method:** Providing links to materials in Teams for the video editor to download and edit.
- **Editor:**

- **Focus:** Determine if, in editing, the focus is on the slide deck/graphics or the presenter. The presentation required no editing.
 - **Edit:** The editor edits the video and inserts the proper intro/outro in the video.
 - Deleted video without content at the end of the presentation.
 - Added intro Tech Talk video segment.
 - Inserted the title slide from the slide deck between the intro and the presentation for a simple transition between the introduction and the presentation.
 - Added the outro Tech Talk slide at the end of the presentation.
 - **Finished Video:** The editor saves the finished video file on the Engineering Team SharePoint site available via this [link](#). The slide deck in PDF format is saved along with the video file.
 - **Post Slide deck:** The Tech Talk video and slide deck (PDF) links are added to the Engineering Team's SharePoint Site.
 - **Stream Enhancements:**
 - Selected frame for thumbnail. Utilized frame with intro slide added during editing.
 - Additional information is provided in the About Video section.
 - Added chapters for introduction, UL Standards & Engagement, Green Building Standards, and Conclusion.
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Branding Guidelines

The following are general guidelines to remember when developing a video.

- Use "UL Standards & Engagement" as the org name (with an ampersand).
 - Do not refer to our org as "Underwriters Laboratories, ULSE, UL Standards and Engagement, or UL Standards."
 - Use the current logo (horizontal) in the top left or top right corner. For center placement, use the vertical logo.
 - <https://hub.ul.com/logo-overview-ul-research-institutes-and-ul-standards-engagement>.
 - Videos intended for outside audiences are to be reviewed by Denise Durrant and George Borlase.
 - Videos intended to be viewed by outside stakeholders and not using current logos and color codes should submit videos to Starfish for brand review.
 - <https://ul.sharepoint.com/sites/HorizonsNewsletter/SitePages/Checking-New-and-Existing-Communications-for-Brand-Adherence.aspx>
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Resources

DaVinci Resolve Training: <https://www.blackmagicdesign.com/products/davinciresolve/training>

- Training Videos: Introduction to Editing: Part 1 and 2 – Video and Project Files
- Training Books: The Beginner's Guide to DaVinci Resolve and The Editor's Guide to DaVinci Resolve (PDF and Project Files)

Branding Resources

- **UL Standards & Engagement Brand Hub:** <https://hub.ul.com/new-brand-guidance-and-resources-ul-research-institutes-and-ul-standards-engagement>
 - **Brand Logos:** <https://hub.ul.com/logo-overview-ul-research-institutes-and-ul-standards-engagement>
 - **Brand Color Codes:** <https://hub.ul.com/new-brand-guidance-and-resources-ul-research-institutes-and-ul-standards-engagement/colors-ul-0>
 - **Brand Review:** <https://ul.sharepoint.com/sites/HorizonsNewsletter/SitePages/Checking-New-and-Existing-Communications-for-Brand-Adherence.aspx>
 - **Brand Fonts:** UL Moderate font files can be downloaded at <https://hub.ul.com/ul-research-institutes-and-ul-standards-engagement/assets/ul-moderat-font>. Instructions on how to install fonts in Windows are available via this [link](#).
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