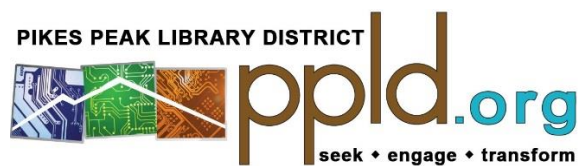


# Tim Gill Center Collaborative Red Book Standards



Revised: January 2017

# Deliverables

**Program Content:** All programs submitted to all Tim Gill Center Collaborative Members should be educational, non-political and non-commercial in nature. All submissions should feature clean edits and should comply with FCC regulations. Members reserve the right to request content/quality changes before broadcast.

**Program Format:** All program delivery mechanisms vary widely among collaborative partners, please contact the following individuals at each partner organization to confirm submission requirements. Currently, Rocky Mountain PBS is the only organization that requires the additional submission of a promotional short of :25 or :15. Please inquire directly with RMPBS for more information.

## **Contacts:**

**KRCC:** Jeff Bieri – [Jeff@krcc.org](mailto:Jeff@krcc.org)

**Pikes Peak Community College:**

*Video:* Brian Wheeler – [Brian.Wheeler@ppcc.edu](mailto:Brian.Wheeler@ppcc.edu)

*Audio:* Sharon Hogg – [Sharon.Hogg@ppcc.edu](mailto:Sharon.Hogg@ppcc.edu)

**Pikes Peak Library District:** David Franklyn – [Dfranklyn@ppld.org](mailto:Dfranklyn@ppld.org)

**Rocky Mountain PBS:** Mark Montour-Larson – [marklontour-larson@rmpbs.org](mailto:marklontour-larson@rmpbs.org)

**UCCS:** Bennie Sloan – [BSloan@uccs.edu](mailto:BSloan@uccs.edu)

For helpful tips about ensuring high quality audio and video in your submission, please visit:  
<http://www.netaonline.org/File'SubmissionRequirements-2015.pdf>

# Format

**Program Length:** Most Tim Gill Center Collaborative Members accept submissions of any length. Rocky Mountain PBS only accepts programs in the following standard lengths:

Program length of 30 minutes = 28:40.00

Program length of 60 minutes = 56:40.00

Program length of 90 minutes = 88:40.00

**Aspect Ratio and Cut-Center Protection:** Most Tim Gill Center Collaborative Members accept submissions in standard 4:3. Rocky Mountain PBS only accepts submissions in 16:9. Please inquire directly with the organization with which you are submitting for more information, and be advised that specifications MAY change in 2016.

All programs airing on all stations must meet center-cut protection requirements.

Programs airing on PPCC, PPLD, UCCS, V-Me, and Create are presented in standard 4:3. 4:3 is the aspect ratio defined by the Academy of Motion Picture Arts and Sciences as a standard after the advent of optical sound-on-film. Submitted programs that are not 4:3 must be reformatted prior to submission.

Programs airing on Rocky Mountain PBS are presented in widescreen 16:9. 16:9 is the international standard format of HDTV as well as non-HD digital television. Submitted programs that are not 16:9 must be reformatted prior to submission.

To accommodate the highest number of viewers during the transition from 4:3 to 16:9, all collaborators protect their programming for a center cut.

More information on center-cut protection can be found in the supplementary article “Aspect Ratio – Center-Cut Challenges”.

# Aspect Ratio/Center-Cut Challenges

The amount of high definition programming available to home viewers has grown considerably over the past few years. In this environment, television broadcasters are faced with challenges on how to best format and deliver their content to both HD and SD audiences.

When HD programming was introduced by broadcasters, a parallel production and distribution process was most commonplace. For scripted programming, two unique versions of a show were normally provided by the content providers – i.e. an HD version and an SD version. For live programming, two separate control rooms and production groups were often utilized. One of the main benefits of this approach was being able to maintain full control on how programming was viewed by both HD and SD audiences. See examples below.

With a changing distribution landscape and increasing cost pressures, broadcasters have been forced to move towards a more efficient single production / single delivery approach. In this model, a single version of content is produced and delivered in HD. The SD version is derived from the HD version through a down-conversion process.

The most common methods of down-conversion are referred to in this paper as “center-cut” and “letterbox.”

The use of down-conversion to generate SD from HD introduces certain restrictions on how each version can be presented to viewers. As the aspect ratio of HD (16:9) and SD (4:3) formats differ, certain decisions must be made on how to reformat the original HD signal into SD. 6 – Aspect Ratio/Center-Cut Challenges

Producing HD content for center-cut SD delivery requires producing content that is “center-cut” safe. “Center-cut safe” refers to video content with no important details on the left and right sides of the screen. This content can be center-cut to generate a properly displayed full screen 4:3 image.

However, for HD content that takes full advantage of the entire 16:9 frame, a center-cut down-conversion can result 4:3 content with that is missing important details. The examples below illustrate how full frame HD content can be adversely affected when center-cut.

The preferred down-conversion method by many HD content providers is letterbox. Letterbox down-conversion is the best way to insure that all image details from the original HD program is preserved for the 4:3 SD audience.

However, much of the content in HD distribution paths is up-converted from SD sources. When up-converting 4:3 SD signal to HD, the result is a “pillarbox” representation (with black bars on the right and left sides of the 16:9 frame. Letterbox down-conversion of this material

will result in a “postage stamp” representation.

Most HD broadcasters will continue to have a mixture of both HD and SD originated content for many years. Locking into a specific down-conversion format (center-cut or letterbox) will force broadcasters to make compromises on the presentation quality for HD and SD viewers.

*Excerpted from the National Association of Broadcasters, nab.org.*

*Full article, including photos, available at:*

<https://www.nab.org/documents/resources/paperHau.pdf>