ARIZONA PBS
ARIZONA STATE UNIVERSITY

ASU Walter Cronkite
SCHOOL OF JOURNALISM
AND MASS COMMUNICATION
ARIZONA STATE UNIVERSITY

555 N. Central Ave, Phoenix, AZ, 85004-1252

PROGRAM DELIVERABLES

1   PACKAGING YOUR AZPBS PROGRAM

1.1   *Program Metadata Information*

Program Title:	
Program subtitle:	
Program number:	
Sequence Num:	
Actual Length: (hh:mm:ss;ff)	
Program Description Short:	
Program Description Long:	
Genre Category:	
Program topic:	
Language:	
Program Rating:	
Captioning:	
CC language:	
Screen Format:	
Content Flag:	
Target Audience:	
Suggested Scheduling:	
Program URLs:	
Tags:	
Production Location:	

PROGRAM DELIVERABLES

Technical information:

Closed Captioned: (YES or NO)

Audio:

SAP:

Format/Version:

Aspect ratio:

WEB/OFFERS:

Web announcement:

To order a _____

from The _____ website, please visit

Broadcast Air/OTT Right: Start _____ End_____

Type of Program: Describes the general type of Episodes such as standalone or special.

1.2   ***TV Ratings Icons***

Please consult your AZPBS contact for your program specific rating

Instructions for on-air icon use: The appropriate icon should appear in the upper left corner of the picture frame for the first 15 seconds of a program. The icon should be 52 scan lines high and have at least a 70% density. Either a white background with black text or a black background with white text may be used to ensure that the icon can be clearly seen against any program opening.

1.3   ***Underwriting credit pod (:60 max) All pods MUST be pre-approved by AZPBS.***

**NOTE: The underwriter credit is the only material that may occur prior to
 program material.**

1.4   ***Program Body (Including production credits & optional :05 lower third web markers)***

Web markers: Max 3 (1/30), Max 5 (1/60). Must be pre-approved by AZPBS.

NOTE: Deleted word(s) must be silenced and not "bleeped."

**NOTE: During Pledge Event breaks the lower third must be graphics free
 to avoid covering station inserted contact information.**

PROGRAM DELIVERABLES

1.5   Closing Elements

> **NOTE: The order of closing elements after program body and before the :03 animated AZPBS distributor logo is at the discretion of the producer and may include the following:**
>
> :60 max underwriting credit pod (all pods MUST be pre-approved by AZPBS)
>
> :15 max web site announcement (MUST be pre-approved by AZPBS)
>
> :30 max product offer (offer may air before or after production credits).
>   (MUST be pre-approved by AZPBS)
>
> :05 maximum Producer credit/logo
>
> :01 black (required)
>
> :30 of black and silence following the :03 animated AZPBS distributor logo. (required)

1.6   Program Length

> (HH:MM:SS) Preferred program total running time (TRT).
>
> (1/30)   00:26:46
> (1/60)   00:56:46
> (1/90)   01:26:46
> (1/120) 01:56:46

1.7   If the native format of your program is HD/1080i

> One (1) .MXF OP1a file fully packaged, captioned, tech-evaled, per episode/version
> One (1) Pro Res 422 (HQ) NTSC :30 Promo (series' generic).

2   FILE FORMAT REQUIREMENTS

2.1	**Master format**	Digital File
2.2	**Video Format**	HD: (1080i)

2.3   Aspect Ratio

Programs will be produced in 16:9 aspect ratio. To protect all titles and credits, we <u>suggest</u> that the program be 4:3 title, content, and center cut safe to prevent titles and credits from being truncated or action being lost if a program is down converted

Note: programs are provided to stations in the proper ratio but there is no control over a cable company center cutting the programming. For example, a program titled GREAT MUSEUMS" could appear on screen as "EAT MUSE" if outside the 4x3 safe area.

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Safe Action is the area within which all significant action must be contained as defined by SMPTE standard 2046-1. The area is defined as 93% of the width and height of the production aperture.

Link: SMPTE Recommended Practice - Specifications for Safe Action and Safe Title Areas for Television Systems

Safe Title Area is the area within which all significant text must be contained as defined by SMPTE standard 2046-1. The area is 90% of the width and height of the production aperture.

Link: SMPTE Recommended Practice - Specifications for Safe Action and Safe Title Areas for Television Systems

2.4   (NTSC) XDCAM 422 50Mbps MFX Op1a files with 8 channels of PCM audio, as outlined below

2.4.1   File Contents

Files will contain a minimum of 15 seconds at the beginning: 13 seconds of which is slate information identifying the included media followed by 2 seconds of clean black. Files will contain 15 seconds of clean black run-out at the end of the file. Files will contain a time code track that provides continuous, sequential timecode from start to end of file. Timecode should start at 00:59:45;00 with the first active program material starting at **01:00:00;00.**

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2.4.2 File Formats (NTSC)

ITEM	XDCAM 50	Note:
Video Codec	MPEG-2 Long GOP	Conversion Note: When supplying a program that has been frame converted **from 23.98 or 25 to 29.97** it must be as free as possible of motion artifacts and interlacing issues. A high-end hardware or software frame conversion process that minimizes the number of **"dirty frames"** created during the frame manipulation process should be used.
Video Bitrate	50 Mb/s	
Video Bit Dept	8 Bit	
Resolution	1920 x 1080	
Frame Rate	29.97 Interlaced or 29.97 PSF	
Aspect Ratio	16x9	
Chroma	4:2:2	
Field Order	Upper Field First	
Audio Codec	PCM	
Bit Dept	16 Bit	
Sample Rate	48 kHz	
Audio	5.1 / 2.0	
CH-1	Left Front / L	
CH-2	Right Front / R	
CH-3	Center / SILENCE	
CH-4	LFE / SILENCE	
CH-5	Left Surround / SILENCE	
CH-6	Right Surround / SILENCE	
CH-7	DVI (Mono) or Mono Mix	
CH-8	Alternate Language (Mono) or Mono Mix	
Timecode	Dropframe	

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1. XDCAM 422 File must meet Sony XDCAM file specifications including File Container: MXF OP1a PBS Technical Operating Specification 2020

Video:	Audio:
1920x1080i	8 channels
29.97 fps	16 of 24 Bit
4:2:2	48 KHz sampling rate
MPEG-2 Long GOP @ 50 Mbps	1152 kbps Bitrate

AZPBS AVC-L12 is a preset - **remote editor** - high quality HD files to us for air and other web based uses. It's purpose is for remote deliveries of finished products and minimizing transfer times from slower home internet connections and not for editing later on down the road.

AZPBS XDCAM HD50 is mpeg2 based and is quick to export and scrub that is our current standard internal use export in an .MXF wrapper.

Click here for preset Link - https://tinyurl.com/3zafkf28

2.4.3 Ancillary data:

436M EIA 608/708 captions DID 61, SDID 01 for CEA708 and DID 61, SDID 02 for compatibility bytes must be included
SMPTE 2016-3 compliant Active Format Description (AFD) data may be included DID 41 SDID 05

2.4.4 Timecode track:

Drop frame timecode on DID 64, SDID 07 and LTC DID 64, SDID 64

2.4.5 Captioning / NOTE: Not applicable for European Suppliers - AZPBS will provide a closed caption file.

All media must have accompanying captions on SDID 01 for CEA708 and DID 61, SDID 02 for compatibility bytes or a   .scc or SMPTE Timed Text xml caption file.
The caption file should include an EDM (Erase Displayed Memory command), also known as a clear pulse as the first frame matching video.

　　　SCC formatted Captioning file (.scc extension)
　　　SMPTE Timed Text Captions ST 2052-1:2010 - Timed Text Format 1

Here's the link to the FCC guide on captioning rules:
http://www.fcc.gov/guides/closed-captioning

Here's the link to the federal rule language:
Title 47, Section 79.1

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2.4.6 Feature: DVI / SAP - NOTE: Not applicable for European Suppliers.
DVI/SAP features should be delivered within the file's audio tracks, as described above.

3 DELIVERY INFORMATION

Ship Hard Drive to:

555 N. Central Ave.
Suite 500.
 Phoenix, AZ 85004-1252

Upload File(s) to:
Please contact: _____ for a link to our upload service.

4 HD PROMO TECHNICAL SPECIFICATION REQUIREMENTS

4.1 PROMO CONTENT GUIDELINES

While some program subject matter is inherently provocative to encourage use of your promos, apply discretion to ensure your promos adhere to prevailing standards of decency. The Producer should do their best to make compelling, provocative promos without using shots or language which some people might find offensive. Specific listed below:
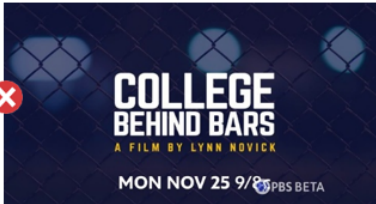
- No extreme violence/ nudity or explicit sexual content/ dead bodies
- No offensive language, racial/ hate crime slurs, threat of violence or sexual innuendo
- **LOWER THIRD CLEAR OF GRAPHICS AND WORDS FOR CO-BRAND ASSETS**
- **NO NARRATION AND MUSIC BED LOWERED GENERALLY 50% FOR THE LAST 5 SECONDS END PAGE**
- No pixilation, interlacing, glitches, jump frames, or grainy footage

Upon request, supply promos additionally as 'clean/textless,' i.e. without graphics keyed over footage, and with audio splits (a minimum of 4 separate tracks for narration, sync audio, and music/effects).
Aside from the use of the optional lower-third Promo Open graphic, keep graphics and titles out of the lower-third for the entire spot so member station can co-brand with their local information and tune-in. Many member stations use the lower-third area for tune-in graphics and branding.

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	DO Supply promos as 'clean/ textless'
	DO Keep lower third clear of graphics and words for co-brand assets
	DON'T Place graphics and titles in the lower-third for the entire spot
	DON'T Place graphics and titles in lower-third

4.1.1.1 No "Shrinkbacks"

Instead of using a lower third graphic to add local tune-in information, some stations tag their promos by shrinking back the entire promo image over a graphic background. For this reason, avoid using a shrink back effect of your own in the title treatment of your promos.

	DO Keep title treatment at a consistent size in title treatment promos
	DON'T Use a shrink-back effect in promo title treatments

4.2   Delivery Format

One (1) File (**see specs below**)

Promos **MUST** be delivered on a file separate from the program material.

Note: If your program was shot in native 16:9 Widescreen 24 fps, you must up-convert to HDCam NTSC 29.97 fps Drop frame .
Promos **MUST** be delivered on a FILE separate from the program material.

4.3   Video Format
HD File: 1080i

PROGRAM DELIVERABLES

4.4   Aspect Ratio

Promos will be produced in 16:9 aspect ratio. To protect all titles and credits, if a program is down converted, we <u>suggest</u> that the program be 4:3 title, content, and center cut safe to prevent titles and credits from being truncated or action being lost.

Note: promos are provided to stations in the proper ratio but there is no control over a cable company center cutting the programming. For example, a program titled GREAT MUSEUMS" could appear on screen as "EAT MUSE" if outside the 4x3 zone.

Safe Action is the area within which all significant action must be contained as defined by SMPTE standard 2046-1. The area is defined as 93% of the width and height of the production aperture.
Link: [SMPTE Recommended Practice - Specifications for Safe Action and Safe Title Areas for Television Systems](#)

Safe Title Area is the area within which all significant text must be contained as defined by SMPTE standard 2046-1. The area is 90% of the width and height of the production aperture.
Link: [SMPTE Recommended Practice - Specifications for Safe Action and Safe Title Areas for Television Systems](#)

4.5   PROMO Content/Length

A :30 generic promo is required for series and one-offs
Promo open must indicate visual or audio mention of the title of the program
<u>Last: 05 of promo MUST be lower third title graphic clear, and clear of voice over for local tune in information.</u>
Music and effect audio during the last: 05 must be at a level that suits adding a voice-over.
All promo timings must be frame accurate to: 30.
All spots must end with a cut to black.

4.6   **PROMO** *Packaging*

:30 seconds of NTSC color bars, with audio test tone
Starting with the test signal, the time code must be SMPTE drop frame. The file should begin with a timecode starting at 00;58;30;00, with 01;00;00;00 being the SOM.
The time code must increment without interruption until 30 seconds after the final program segment.

The **field** rate for high definition is 59:94 **fields** per second.
The **frame** rate for high definition is 29:97 **frames** per second
VITC and LTC time code must be continuous and identical, recorded on lines 16 and 18 in NTSC.

:10 seconds visual slate containing
Title of Program / Series
Episode Title (if applicable)

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TITLE must appear on the slate

Closed Captioning (CC)

Audio Track Configuration (note what the audio is for each track)

Total Run Time (TRT)

Described Video(DVI), and 2nd audio programming (SAP) if included on master

Audio Track Configuration

:10 Countdown clock requirements

The countdown clock must be a :10 countdown to :02, ending with 1.8 seconds (59 frames) of silent black between the countdown clock and the beginning of the program. Countdown clock may be supered over the slate, or stand alone in the :10 following the :10 slate.

4.7   Closed Captioning

Captioning is not currently mandatory on promos.

4.8   Multiple Cuts

Cuts must be separated by :03 of black

Additional cuts must be individually slated.

A :10 sec countdown is mandatory for each additional cut.

4.9   Audio for Broadcast

**Much of the following audio provisions conform to the PBS Technical Operating Specifications (2020 Edition), with further information from the Audio Engineering Society's Technical Document AESTD1008.1.21-9 Recommendations for Loudness of Internet Audio Streaming and On-Demand Distribution.

Producers and program suppliers are encouraged to reference ATSC A/85, "Techniques for Establishing and Maintaining Audio Loudness for Digital Television."

Reference tone

The operating level and frequency for reference tone and calibration is -20 dBFS at 400 Hz and 1 kHz on all channels, with the exception of the LFE channel within 5.1 channel submissions, which must be -30 dBFS at 80 Hz.

Loudness Metering

As stipulated in ATSC A/85:2013: Loudness Metering must conform to ITU-R BS.1770-3 for loudness measurement and true-peak measurement and must apply to all channels of 5.1-channel submissions, with the exception of the LFE channel which is not included in the loudness measurement, or to both channels of a 2-channel stereo program.

Arizona PBS is committed to upholding the creative intent of program producers. With the exception of over-the-air audio processing, we do not compress, limit or modify audio mixes without notification to the program producers. Arizona PBS will normalize all audio deliveries to ensure all audio plays at the correct levels if necessary. When doing so, we will raise/lower the overall mix level to ensure consistent playback.

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The following metering solutions should conform to the loudness metering specifications we require:
- Enterprise and/or stand-alone solutions:
  Dolby DPLM, Interra Systems Baton, Emotion Systems Eff, NuGEN AMB, Minnetonka Audio AudioTools Server, TC Electronic Clarity Loudness Meter.
- Plug-in solutions:
  NuGEN Vis-LM, Waves WLM, Izotope Insight, TC Electronic LM2, Youlean Loudness Meter.

Main Audio Service
Main service audio is defined as the primary service that is intended to serve the majority of the audience. All Main Service Audio shall be stereo or 5.1 surround sound. Legacy material may contain mono audio if it was not originally captured in stereo. Only stereo will be accepted for Promos and interstitials.

Secondary Service audio
Secondary services include alternate languages and/or Descriptive Video Information (DVI).

Short Form Content
For such short form content (such as underwriting spots, video offers, etc.), or any other content at 90 seconds or less, the measured loudness shall be averaged over the duration of the body of the program, and the resultant average must conform to -24 LKFS, +/- 2 LU. True Peak levels shall not exceed -2 dBTP at any time.

Long Form Content
For long form ("program") content, the measured loudness shall indicate the average loudness of normally spoken dialogue during the body of the program, and the resultant average must conform to -24 LKFS, +/- 2 LU. True Peak levels shall not exceed -2 dBTP at any time.
- The loudness of normally spoken dialogue must remain consistent from act to act and throughout the body of the program.
- The loudness of music and sound effects must not overwhelm, but rather it must be creatively blended with the loudness of dialogue in such a way that most viewers will easily discern the dialogue on first listening. 5.1 and 2.0 program LRA should be between 4 and 18 LU.
- Program material shall not be highly compressed and/or limited. Material brickwall limited may be rejected and/or de-clipped at the discretion of Arizona PBS.

Pure Music Content
In some programs, such as music performance programs where the length of dialogue is very short and the remainder of the program audio is not dialogue, the anchor element becomes the music.
- The loudness measurement of such non-dialogue main portions of these programs is to be integrated (averaged) over the "body of the program", using BS.1770-3 LKFS meters.
- The target loudness of the "body of the program" is to be -24 LKFS +/- 2 LU when AVERAGED for the duration of the program.
- The loudness of any dialogue (e.g., introductory comments, promos, etc.) in such music performance programs also must match the average loudness level of -24 LKFS +/- 2 LU.

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Average dialogue

Programs may have music or effects at true-peak levels no higher than -2 dBTP during moments of dramatic impact, as long as average dialogue levels are maintained. Dialogue LRA should be of 10 LU or less.

Surround Sound Downmix Loudness

Surround-sound programs shall be measured for downmix loudness compatibility using downmix settings of -3 dB in the center channel and -3 dB in the surround left and right channels. The audio mix of 5.1-channel programs must be created in such a manner that the stereo downmix shall have overall loudness levels of -24 LKFS +/- 2 LU. This generally entails not spreading the center image across the front channels. The Low Frequency Effects (LFE) channel is not included in the BS.1770-3 algorithm.

Audio Quality

- The audio mix must be free of audible clipping and other distortions.
- The audio mix must be free of objectionable noise such as loud hiss.

Audio Phase

To ensure compatible stereo and mono down-mix, all channels must be in phase within an audio service.

4.9.1

Audio Synchronization

Main service audio must not lead or lag video by more than one-half frame as illustrated in Figure A: Audio Sync (*credit to PBS). This specification applies to ALL program elements.

Figure A: Audio Sync

	Objectionable			Detectable		Within spec			Detectable			Objectionable		
Frames	4	3	2	1	.5	0	-.5	-1	-2	-3	-4	-5	-6
Milliseconds	133	100	67	33	17	0	-17	-33	-67	-100	-133	-167	-200

Audio leads Video by — Audio lags Video by

Audio Track Assignment

HD STEREO:

Channel/Track	Assignment
Channel 1	Left Stereo (L)
Channel 2	Right Stereo (R)
Channel 3	Silence
Channel 4	Silence
Channel 5	Silence

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Channel 6	Silence
Channel 7	DVI (Mono) or Mono Mix
Channel 8	Alternate Language (Mono) or Mono Mix

HD SURROUND:

Table 4 Media Track Assignments for File Based Content

Channel/Track	Assignment
Channel 1	Left Front (L)
Channel 2	Right Front (R)
Channel 3	Center (C)
Channel 4	Low Frequency Effects (LFE)
Channel 5	Left Surround (Ls)
Channel 6	Right Surround (Rs)
Channel 7	DVI (Mono) or Mono Mix
	Alternate Language (Mono) or Mono Mix

NOTE 1: M & E mix unacceptable
NOTE 2: Stereo synthesizing is not allowed within any content at any time.
NOTE 3: Promos must have audio on all 4 tracks

Up-mixing
When up-mixing two channels (stereo) to multi-channel surround sound (5.1 channel), audio must be properly distributed among the channels. The resulting center image should not be spread from center. Up-mixed audio must be downmix-compatible to stereo and mono such that it maintains the creator's intent, that is, the resultant downmix should be virtually indistinguishable from the original.

Audio Recommended Practices
Some of the following is taken directly from the "Audio Recommended Practices" contained in the PBS Technical Operating Specifications (2020 Edition), referenced above. It is highly recommended to read those recommended practices in full to produce programming that complies with our submission requirements.

Control Room Listening Levels: To enable correct judgments of loudness, imaging, and other issues of quality-control, all content should be monitored on properly aligned and calibrated loudspeakers as per ATSC A/85. This means aligning the 5.1-channel loudspeaker geometry to the ITU-R BS.775 standard and calibrating their loudness so that normally spoken dialogue at -24 LKFS loudness will reproduce at 78 dB SPL in most broadcast-type spaces (depending on the room volume, as explained in A/85). Monitoring environments in smaller environments such as remote trucks or single person control rooms should be calibrated to 76 dB SPL, as per A/85.

Differences between Dialogue and Music: Formal tests show that speech normalized to the same BS.1770 Integrated Loudness as music is typically perceived 2 to 3 dB louder than the music. Therefore, Arizona PBS recommends that when a program contains dialogue and music, that the music is brought up 2 to 3 LU higher than the dialogue. For example, the dialogue can be adjusted 1 to 1.5 LU lower than -24 LKFS, while the music

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is 1 to 2 LU above -24 LKFS, such that the music content measures 2 to 3 dB louder via an ITU-R BS.1770 loudness meter. The resultant integrated loudness shall still conform to the loudness levels above. For a complete understanding of the loudness differences between dialogue and music, please reference AESTD1008.1.21-9 "Recommendations for Loudness of Internet Audio Streaming and On-Demand Distribution," as cited above.

4.10 Audio for Internet Streaming and/or On-Demand Content

Content that will be distributed on platforms such as Facebook and YouTube may be processed by Arizona PBS such that resultant integrated loudness will be between -16 and -18 LKFS, +/- 2 LU, with True Peak levels not exceeding -1 dBTP. When doing so, we will raise the overall mix level to ensure consistent playback at these higher loudness levels. However, Arizona PBS may compress and/or limit the audio mix. Every effort will be made to uphold the creative intent of the program producers.

If you are submitting content "only" for delivery on platforms such as Facebook and/or YouTube, please provide two versions of the program; one conforming to the audio levels for broadcast indicated above, and one conforming to integrated audio levels of -18 LKFS, +/- 2 LU, with True Peak levels not exceeding -1 dBTP.

4.11 Video

Video Level

Video levels must be measured with direct digital waveform monitoring equipment calibrated to represent video levels on the final submission. The luminance level in black areas of the program must fall as low as 0%, but not below 0%. Objectionable black clipping must not be evident. Black setup is not allowed in any digital submissions. When measured as a derived composite signal, the black level must not fall below 7.5 IRE units. The luminance level in white areas of the program must reach as high as 100%, but not above 100%. Objectionable white clipping must not be evident. When measured as a derived composite signal, the white level must not exceed 100 IRE units.

Derived standard definition NTSC peak chrominance plus luminance gamut must not exceed 120 IRE when measured with a flat filter on a digital waveform monitor. Component digital derived GBR values must remain within the legal gamut of 0-700 millivolts.

4.12 File Delivery

4.12.1 File Naming Convention: TITLE-EPISODE # -PROMO + DURATION

4.12.2 PROMO File Delivery:
Codec **- Pro Res 422 (HQ) NTSC**
Width x Height - 1920 x 1080
Frame Rate - 29.97
Interlacing – 1080i

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Audio - Uncompressed | PCM
Audio Format - Stereo
Sample Rate - 48 KHz
Audio Bit Depth - 16 / 24
Length - :25/:05 (last :05 V/O free for station tag)

4.12.3 Timeline:

:5 Slate (Local NOLA + Title + Episode # + Package Type + Revision # + Audio Format) +
:10 Countdown +
:30 Promo +
:05 Black (run-out) =
:50 TRT**.**

Upload Link:

<mark>ALL ON-AIR PROGRAM & PROMOTIONAL SPOTS MUST BE CLEARED FOR STREAMING ON PBS.ORG AND AZ PBS WEBSITES AND ALL OTT PLATFORMS.</mark>

4.13 PROMO SELECTS

There are several scenarios in which AZPBS may request or require promo reels:

4.13.1 AZ PBS BRAND/PROMOTIONAL SIZZLE:

Upon request, the Producer is asked to provide three minutes per episode of the most visually engaging, exciting excerpts that would be appropriate for a general montage reel and/or the most compelling interview clips with audio. Ideally, the clips are short, readable and visually dynamic. Interview excerpts should relay the main idea or themes of an episode or series.

4.13.2 PROMOS FOR INDIVIDUAL EPISODE (EPISODIC PROMOS):

If AZ PBS is creating promos for individual episodes within a series, then additional fully cleared footage may be requested.

4.13.3 RAW CLIPS REEL:

The Producer may be requested to provide material for the raw clips reel, which is made available to AZ PBS stations for their use to edit their own promotional sizzles. The raw clips reel will consist of several minutes of visually interesting ("sizzle-y"), textless, high resolution media with corresponding audio splits clips.
For all Promo Selects, the material must be cleared for all media uses and out-of-context program promotion. If there is music under any sync audio, the Producer will need to also provide audio splits as WAV, AIFF or mp3. If the music or any video is not cleared for promotional use, do not include it.

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4.13.4 **Format**
- • Full res HD digital files Prores HQ or
- • Please include the program title in the naming of any digital files so that a general editor can tell what program each file comes from.

If promo selects are requested, AZ PBS will provide a deadline to receive this material.

5 AZPBS Digital

5.1 *STREAMING VIDEO*

AZPBS integrates video streaming across all distribution endpoints. Using AZPBS's video content management system, video content will be available on pbs.org, AZPBS station websites, mobile iOs and Android video apps, and over-the-top television devices (i.e. AppleTV, Roku, etc.). Throughout the life cycle of a program, audiences will be able to stream the following types of video(s).

5.1.1 SHORT-FORM VIDEO

Short-form video types can include trailers, series previews, episode previews, episode lifts, behind-the-scenes extras and digital original videos. These types of videos will be used to promote a program's premiere and engage audiences with content that is between 30 seconds and five minutes long.

5.1.2 FULL EPISODE CATCH-UP STREAMING

To reach audiences beyond broadcast television, AZPBS will begin streaming full episodes of programs either at the time of its broadcast or shortly thereafter. Generally, programs will be available for up to four weeks after original broadcast for catch-up streaming, then will be made available in AZPBS Passport, a service that gives extended viewing access to PBS station members.

5.1.3 FULL EPISODE PBS PASSPORT STREAMING

PBS Passport is a membership benefit for members of PBS member stations, with members receiving extended access to PBS programs. Generally, a program will be available in PBS Passport for the length of its license term with PBS. However, exceptions might be made for rebroadcasts and for timely/topical editorial reasons (i.e., historic anniversaries, heritage month campaigns, news events).

5.1.4 AZPBS.ORG WEBPAGE / WEBSITE ENGAGEMENT

AZPBS will work with the Producer to determine the scope of its web presence on azpbs.org. Approved programs will follow the standard vanity URL format - pbs.org/showname - for online and on-air promotion. Only the azpbs.org/ show name URL can appear on air or within any promotional material associated with the show.

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5.1.5   BASE LEVEL WEBPAGE

At the bare minimum, every PBS program has its own video show page on pbs.org. The page can feature short-form video before broadcast and full episode streaming after its premiere. Video show pages will be created no later than 14 days before broadcast. A video show page's primary purpose is to promote a program before its premiere, stream full episodes day of premiere and provide the viewer with catch-up streaming opportunities after its broadcast.

5.1.6   EXPANDED WEBSITE

The AZPBS editorial strategy team may determine that certain programs will have an expanded web presence on azpbs.org. In this case, the webpage or an expanded website might include cast and character bios, photo galleries, behind-the-scenes video, VR/360 video, interactive features and article/blog content. In addition to promoting a program before its premiere and providing the viewer with catch-up streaming opportunities afterward, the purpose of an expanded website is to engage viewers with rich content that further explains the program's subject matter.

Program websites on azpbs.org must adhere to PBS editorial and digital policies. The program website must be accessible and maintained for the duration of the AZPBS rights period. After a program's license term ends with AZPBS, all content will be removed from the azpbs.org domain.

5.1.7   WEBTAGS / WEBMARKERS

PBS will work with the Producer to determine the use of webmarkers and custom web tags in broadcast programs. Generally, only ongoing series and programs with previously approved vanity URLs (pbs.org/showname) will have these supplementary promotional placements featured within their programs. To request both webtags and webmarkers, please reach out to both your assigned Programming contact and your PBS Digital program manager.

5.1.8   WEBMARKERS

Webmarkers are text that displays onscreen during the body of the program. They reference contextually relevant content on the show's website and provide an opportunity to engage in further conversation about the show via social media. There are generally four placements per 60-minute show and two to three placements for a 30-minute program.

Sample Webmarkers

> #NativeAmericaPBS
> Follow us on Facebook, Twitter and Instagram
> Share your story at azpbs.org/meetagain
> Go behind the series at azpbs.org/kingdomsofthesky

Any web content referenced via a webmarker should be easily accessible from the program website's homepage.

PROGRAM DELIVERABLES

5.1.9   Publicity Images

A collection of at least five high-resolution digital images (JPGs, 300 dpi or greater, both horizontal and vertical orientations), along with caption, photo credit and copyright information. All photography should be cleared for promotional use (print and web) well in advance of the release date. We recommend providing on-location "action" shots over head shots/stills and avoiding screen-grabs or video-freezes as those do not reproduce well due to their resolution. Please provide updated photographs of talent as soon as those become available.

5.1.10 Press Release

A customizable press release station may adapt for local use. Please remove references to specific airdates. The press release must mention the program's distribution by American Public Television and include APT's company boilerplate as the final element. Please provide publicity contact information for reporters interested in interviews or other information.

ARIZONA PBS
ARIZONA STATE UNIVERSITY

ASU Walter Cronkite
SCHOOL OF JOURNALISM
AND MASS COMMUNICATION
ARIZONA STATE UNIVERSITY

555 N. Central Ave, Phoenix, AZ, 85004-1252

PROGRAM DELIVERABLES

6. 1 SAMPLE FORMAT FOR VARIOUS LENGTH PROGRAMS

STANDARD PROGRAM TRT LENGTHS ARE: 26:46 (30 min); 56:46 (60); 86:46 (90); 116:46 (120)
This is a suggested order for various packaging elements. Your program may not necessarily contain all of these elements; if an element isn't included in your program, the balance of time goes to program body. Please discuss format questions with your AZPBS contact at _____

PROGRAM VIDEO MUST START AT	*01:00:00:00*	
OPTIONAL TOP OF SHOW TEASE *ADD APPLICABLE RATINGS ICON DURING FIRST FULL :15 OF CONTENT*	:30	**NOTE: If a Top of Show Tease isn't present on a program, we suggest that the Title/Open be the first element in the program, immediately followed by the Underwriting Credit Bed.**
TITLE/OPEN	:45	
UNDERWRITING CREDIT BED* (MAX :60)	:60	
PROGRAM BODY *TARGET BODY DURATION EXAMPLES:* *30-min: ~21:32* *60-min: ~51:32* *90-min: ~81:32* *120-min: ~111:32*		
ADD OPTIONAL :05 LOWER THIRD WEB MARKERS *UP TO 5 PERMITTED*		
PRODUCTION CREDITS (:01 per 1:00 of content) **30-min / :30** **60-min / :60** **90-min / :90** **120-min / 2:00**		
UNDERWRITING CREDIT BED* (MAX :60)	:60	
OPTIONAL WEB ANNOUNCEMENT* (MAX :15)	:15	
OPTIONAL PRODUCT OFFER* (MAX :30)	:30	
PRODUCER LOGO (MAX :05)	:05	
DIP TO BLACK	:01	
AZPBS STATION OUTCUE	:03	

PROGRAM DELIVERABLES
6.2 FINAL FILE FORMAT FOR VARIOUS LENGTH PROGRAMS

Differentiated between interlaced (i) and progressive (p) so that you can match your source material to keep the quality as high as possible. Note that AZPBS high end transcoding box is much better at converting to interlaced than the Adobe software is.

All of these presets continue to use the MXF container format for SMPTE and industry standards for the highest levels of compatibility across all platforms. All of these presets also have Comments shown which should also help to remind you what presets are used for and I will update the cheat sheet in the Edit suites as well.

Presets labeled AZPBS AVC-L12 1080p and AZPBS AVC-L12 1080i, both are found under the MXF OP1a format section. These are used for delivery from home only for air, these are not Master/Archive quality nor is it an edit friendly codec for use later. IF this is something we intend on editing later you must also export an XDCAM or DNxHD Master version for storage/archive that can either be brought into the station or transferred over later. These are strictly to help out with internet transfer speeds to deliver to the station in a timely fashion for air.

AZPBS XDCAM HD50 1080p and AZPBS XDCAM HD50 1080i you match your source for the highest quality. These are used in house for standard editing, air, and archive and are still found under MXF OP1a format.

For our Masters on local shows/series we use AZPBS Master DNxHD HQ 8-bit 1080p and AZPBS Master DNxHD HQ 8-bit 1080i when we need to retain the absolute highest quality for potential editing later. Both are found under the DNxHR/DNxHD MXF OP1a format section and these formats take up a LOT of storage space so these are only used when the Project or Producer wants to save the highest quality possible video for archive. These are for HD SDR content only, we have other presets for UHD/HDR content but that's something different and I don't want to clutter this email with more options, etc.   These presets are the same basic settings as before but now you match your source.

I have attached a zip file, inside are the 6 new export presets. It can be found at this link:
https://www.dropbox.com/sh/8c37svawilf9b2g/AADWfY0-ubBdgCCgpE6qQhqVa?dl=0

- Extract these files into a folder on your desktop,
- then open up Adobe Media Encoder
- Go to the Preset menu and select import and navigate to the folder with the presets inside.
- They should all show up under "User Presets & Groups" in the Preset Browser window on the bottom left hand side
- that will also make them available directly from within Adobe Premiere.