

Video Assist

- Real time video production for Android.
- Supports front and back camera, 2 media players, live inputs, character generator, audio mixer and video recorder.
- Can be used manually or by scripted production commands.
- Supports cascading of multiple video assist apps for multicam or larger productions.

Version 1.1.35

Introduction

- Real time video production tools to Android.
- Modelled on TV News Production workflow where journalists enter script and production commands into a news room computer system and the automation system execute those commands.
- Includes script editor and simple production command language.
- Can be used manually or from a script.

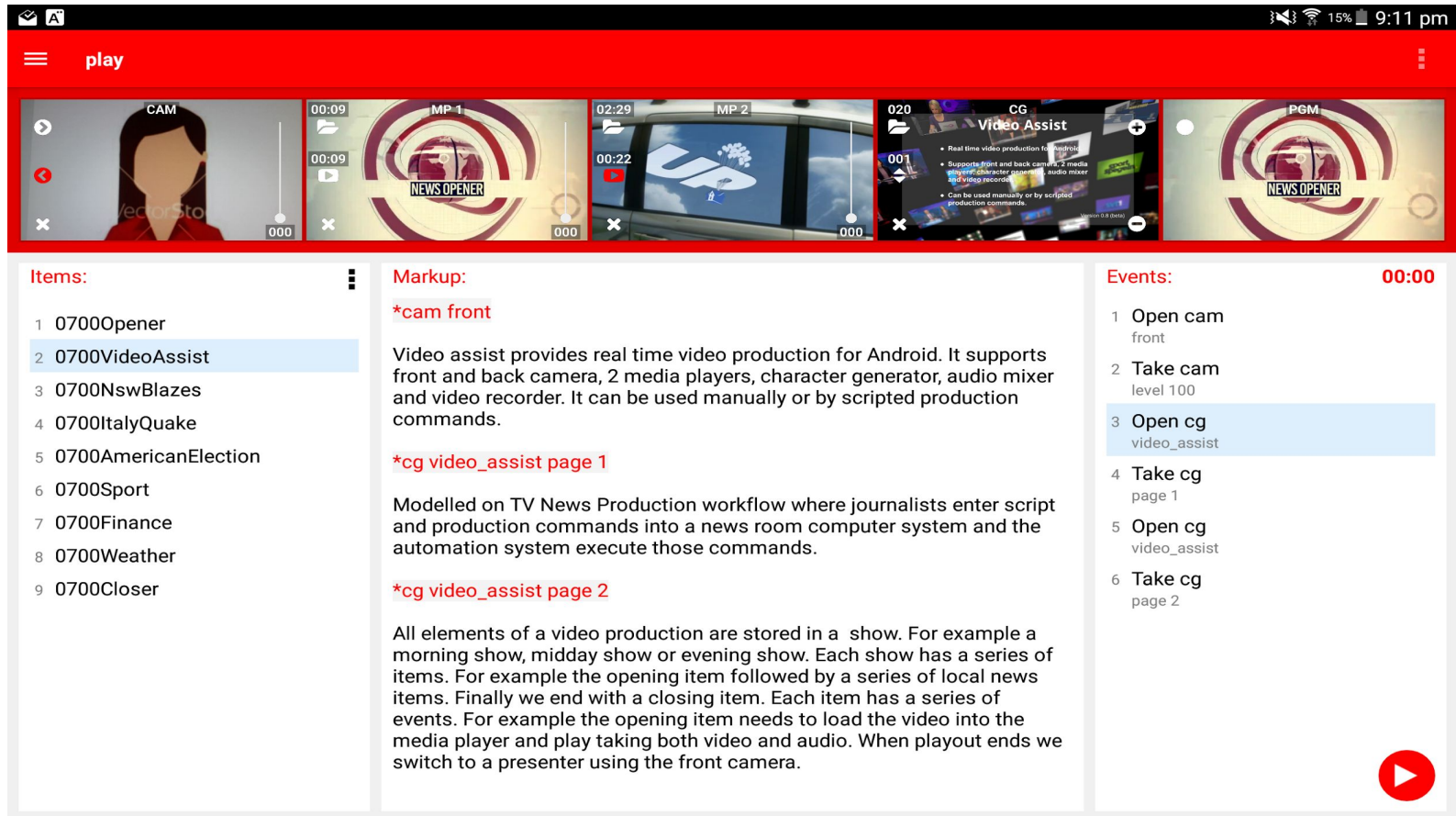
Hardware and Software

- Requires a phone or tablet running Android 6+ with OpenGL ES 2.0.
- Supports front and back camera, microphone, 2 media players / live sources, character generator, audio mixer and video recorder.
- Supports cascading of multiple video assist apps for multicam or larger productions
- User interface is landscape and has tablet and phone support.
- Graphics are pdf files or prebuilt text templates.
- Media files are mp4 with 48k stereo audio.
- Supports 16x9 1080p, 720p, 480p and 360p at 30 fps video format.

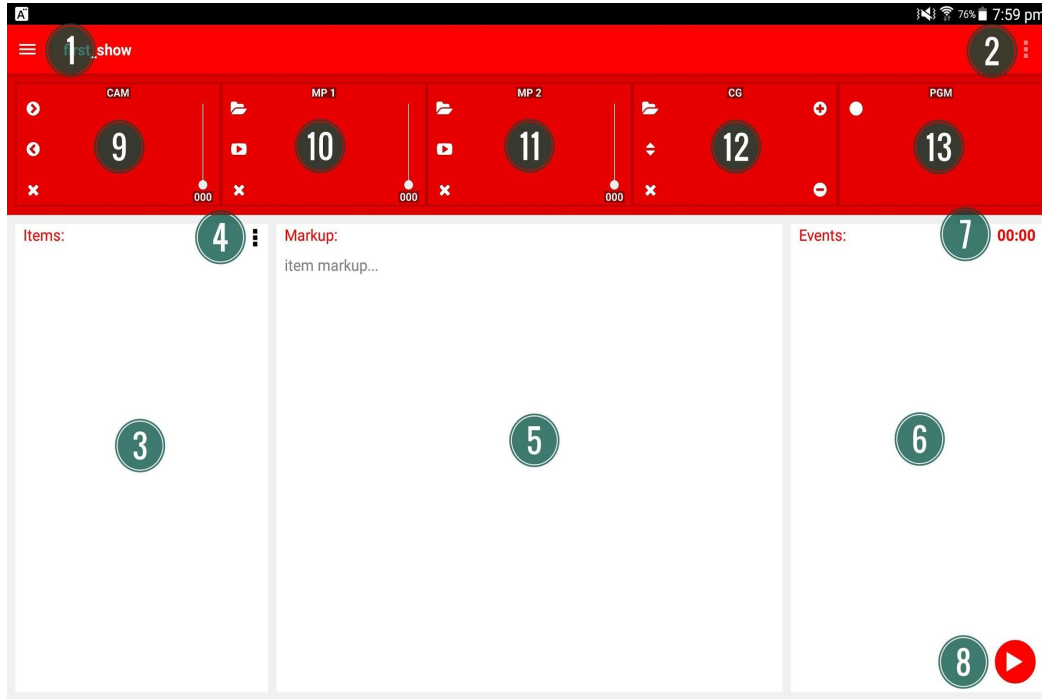
Structure

- All elements of a video production are stored in a **show**. For example a morning show, midday show or evening show.
- Each show has a series of **items**. For example the opening item followed by a series of local news items. Finally we end with a closing item.
- Each item has a series of **events**. For example the opening item needs to load the video into the media player and play taking both video and audio. When playout ends we switch to a presenter using the front camera.

User interface for tablet

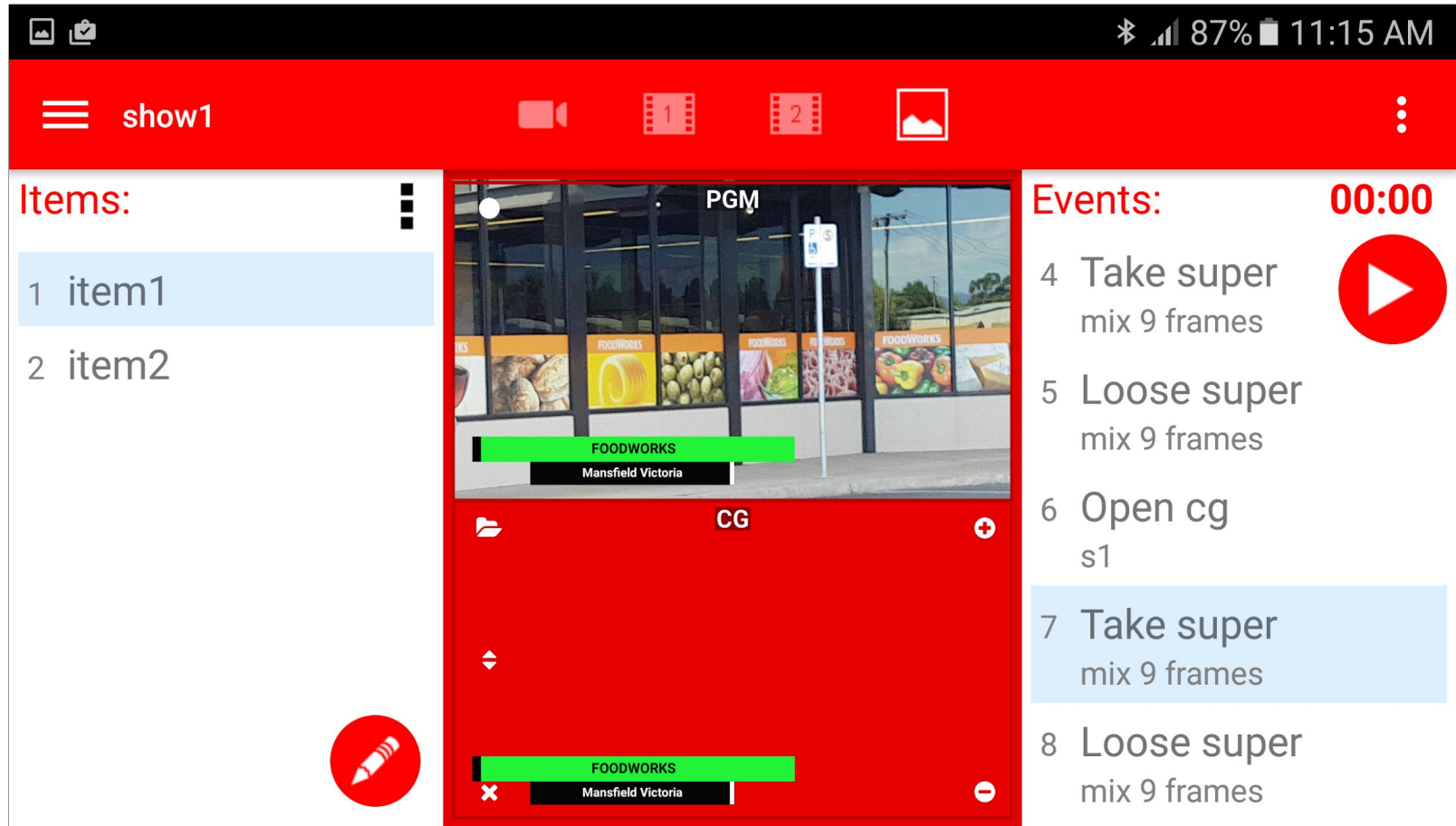


Tablet screen

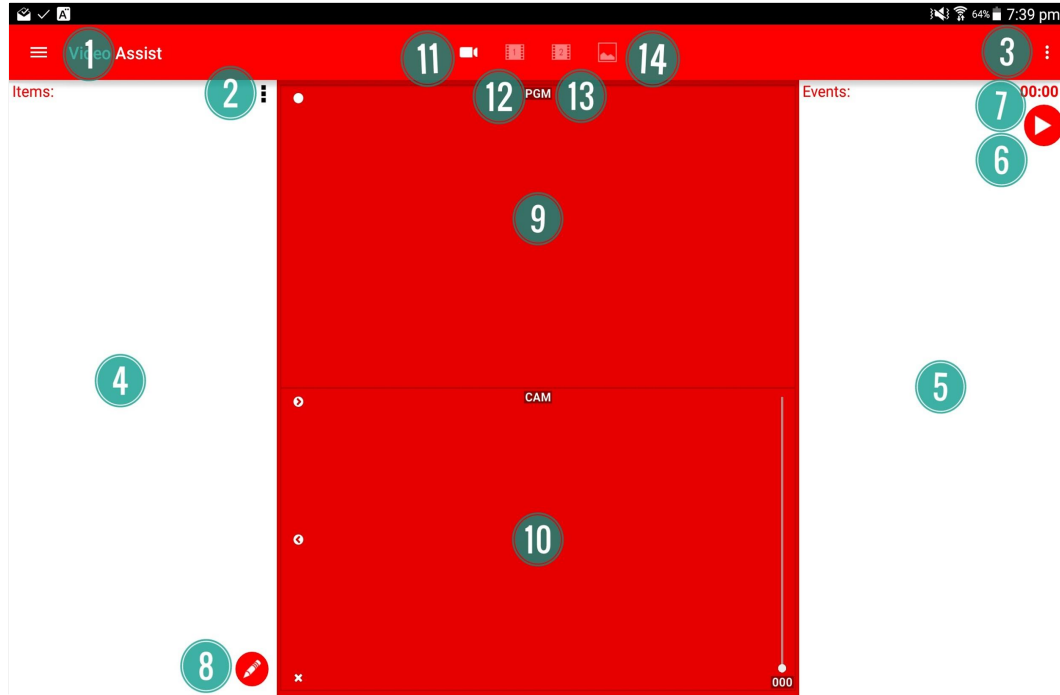


1. Show menu
2. System menu
3. List of items
4. Item menu
5. Script and commands for item
6. List of events
7. Take timer
8. Take button (auto mode)
9. Camera preview
10. Media player 1 preview
11. Media player 2 preview
12. Character generator preview
13. Program preview

User interface for phone



Phone screen



1. Show menu
2. Item menu
3. System menu
4. List of items
5. List of events
6. Take button (auto mode)
7. Take timer
8. Edit item
9. Program preview
10. Switchable preview
11. Select camera
12. Select media player 1
13. Select media player 2
14. Select character generator

Camera preview



1.Open front camera

2.Open rear camera

3.Close camera

4.Audio fader

5.Audio level

6.Zoom level

7.Exposure and white
balance lock

8.Touch center to take

Mp 1 & 2 preview



1. Open mp4 file. Displays file duration.
2. Play media file. Displays current position.
3. Close media file.
4. Audio level
5. Audio fader.
6. Touch center to take.

Cg preview



1. Open pdf or text template file. Displays number of pages in file.

2. Toggles key on/off. Displays current page number.

3. Close character generator file.

4. Select next page.

5. Select previous page.

6. Touch center to take.

Pgm preview



Note - The record button and duration has been moved, documentation will be amended later.

If record is selected in output settings this button toggles video record on/off. Displays record duration.

If streaming is selected in output settings this button toggles video streaming on/off. Displays streaming duration

Script

A video presentation is created by entering speaker notes and production commands. Speaker notes do not require special attention however production commands must start with a asterisk *, for example:

*cam front	prepare front camera
*rec on	start recording
*mp1 news_opener	open and roll news opener on media player 1
*cam audio at 0:05	fade presenters microphone up 5 seconds in

Presenter summarizes lead items...

*cam	fade down opener and switch to presenter
*rec off	stop recording

Camera

The camera production command has the following syntax:

`*cam {front} {back} {video} {audio} {at m:s} {level nn} {mix nn} {zoom nn} {ael} {awbl}`

- select front camera
- select back camera
- if front or back is omitted we use last camera opened
- select video channel
- select audio channel
- if video or audio is omitted we default to both

cont...

Camera, cont...

- at - take trigger time in minutes:seconds
- level - audio level, range is 0 to 127, reference level is 100
- mix - dissolve camera up over nn frames
- zoom - zoom level, enter value from manual adjustment
- auto exposure - enter ael to lock exposure, ae to enable auto exposure
- auto white balance - enter awbl to lock white balance, awb to enable auto white balance
- ael and awbl locks occur on the take camera event

cont...

Camera, cont...

Opening the front or back camera for the **first time** will cause your device to stall so if a media player is playing you will see a freeze frame.

So open the camera before recording, alternatively display a graphic before opening the camera.

Media player

The media player production command has the following syntax:

***mp1 {filename} {from} {video} {audio} {loop} {at m:s} {level nn} {mix nn}**

- mp4 file name
- if filename is omitted we use last clip opened
- files are opened from the /sdcard/VideoAssist/video folder, no need to enter extent
- select video channel
- select audio channel
- if video or audio is omitted we default to both

cont...

Media player, cont...

- from - opening seek time in minutes:seconds
- at - take trigger time in minutes:seconds
- level - audio level, range is 0 to 127, reference level is 100
- mix - dissolve media player up over nn frames
- loop - repeat clip

The media player production command also supports video stream inputs:

***mp1** <http://{ip}:8080/live.ts> {video} {audio} {level nn} {mix nn}

- ip - is the ip address of a video assist compatible device
- use *mp1 <http://localhost:8080/live.ts> to test on same device

Character generator

The character generator production command has the following syntax:

```
*cg {filename} {at m:s} {to m:s} {page nn} {key} {mix nn} /  
template field 1 /  
template field 2
```

- pdf or template file name
- if filename is omitted we use last graphic opened
- files are opened from the /sdcard/VideoAssist/graphics folder, no need to enter extent
- select pdf page number
- key - select super mode (alpha blend)

cont...

Character generator, cont...

- at - take trigger time in minutes:seconds
- to - loose trigger time in minutes:seconds if supering
- mix - dissolve super up/down over nn frames
- if template files are used fields can be updated from the script, use the line-continuation character '\ ' to seperate each field. The last field ends without a '\ '

Video recorder

The video recorder production command has the following syntax:

`*rec {filename} {on} {off} {at m:s} {to m:s}`

- video clip file name (without extent). If the file already exists a incrementing suffix will be added
- if filename is omitted we use a date and time file name
- files are saved in the /sdcard/VideoAssist/video folder
- on - start record
- off - stop record

cont...

Video recorder, cont...

- at - start trigger time in minutes:seconds
- to - stop trigger time in minutes:seconds
- at ... to is a special case to trim clips (top and tail)
- If stream is selected in output settings the device will stream to a video assist compatible device, no video will be recorded

Video clip - Top and Tail

*mp1 12812275-1

*rec news_opener at 0:04 to 0:14

Plays the clip 12812275-1 and records 10 seconds of video and audio starting 0:04 seconds from the start of play.

Video Assist

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