Chasing timecode and "scrubbing" with AV Binloop Uncompressed

On a typical setup all units must receive the same Sync Signa via a Sync Generator. In order to keep sync up-to-the-very-frame the entire system must be in the same frame rate. When an external SMPTE clock generator is used our controller must be set to accept the incoming LTC and this is done by allowing the controller to be in Read mode. Imagine that the Audio Engineer (represented in Fig. 1 as our external SMPTE clock generator) wants to mix the show audio at the same seating area as the guest. The Engineer will provide you with a SMPTE signal. Every time the engineer goes forward in time or back in time to listen to his or her progress all the devices should move together at the same time. If the engineer drags the cursor over a segment on the timeline this is defined as Scrubbing.





Setting up a Script for success:

Always make sure our controller can read a SMPTE signal and lock clock via V-Sync. All these settings can be adjusted under the Configuration tab (shortcut Ctrl+T) and by picking Timecode.

Timecode an	?	×	
Clock Settings	TC (SMPTE) Event Timing		
	Master Clock		
Lock Clock To	Genlock (VSync)	-	
Frame Rate	29.97	•	
	Network Audio		
	LTC (SMPTE)		
	🔿 Disabled 🔿 Generate 🔘 Read		
Frame Rate	29.97 💌		
	VSync Out		
	Enabled - Video frame rate is: 29.97		

Next add 4 AV Binloop Uncompressed into the script.

	Devices 🖷 🗶									
🛨 New 💉 Edit 🗙 Delete 💿 Move Up 💿 Move Down 🛠 Configure 🌣 Timecode 🗘 Protocols 🚺 Resize Columns										
#	D	Name	Device Type	Protocol	Connection	Details				
1		V16Pro	Alcorn McBride, Inc V 16Pro							
2		AVBU1	Alcorn McBride, Inc A/V Binloop Uncompressed	ASCII	ethernet A	UDP: 192.168.000.254, 2638				
3		AVBU2	Alcorn McBride, Inc A/V Binloop Uncompressed	ASCII	ethernet A	UDP: 192.168.000.253, 2638				
4		AVBU3	Alcorn McBride, Inc A/V Binloop Uncompressed	ASCII	ethernet A	UDP: 192.168.000.252, 2638				
5		AVBU4	Alcorn McBride, Inc A/V Binloop Uncompressed	ASCII	ethernet A	UDP: 192.168.000.251, 2638				
6										

Three (3) basic sequences now need to be created:

Sequence one (1) is to Arm the Timeline when Button 1 goes on, sequence two (2) is the Video Timeline and sequence three (3) is to disarm the timeline when button 2 goes on.

	Seque			e x	📕 Devices 🔎 🗶 📒	Timeline Events [Seq_Video_Timeline]	🖉 🗙 🧧 Variables 🖤 🗶 Watch List [Watch List 1] 🖤 🗶
+	New		In	sert 🗣	Comment 🗙 Delete 🕥	Nove Up 🕘 Move Down 🔲 Viev	v Events 🖅 Increase 📑 Decrease 🔌 Options 🔡 Triggers 🖃 Collapse All 💽 Expand All []] Resize Columns
÷	D	A	L	Status	Sequence Name	Triggers	Comments
1				∎∥▶	Arm Timeline	button 1 goes on	When Button#1 is pressed our Timeline sequence will be armed and ready to Chase the incoming SMPTE signal.
2				•	Seq_Video_Timeline		
3				∎∥≻	Disarm Timeline	button2 goes on	When Button#2 is pressed our Timeline will be disarmed.
4							

Sequence One: Arm Timeline

	Eve	ents [Arm Timeli	ne] 🔳	×									
Туре	: Ti	med		Current 1	īme: 00:00:00.00	0 Timeline	🛰 Op	otions	> Start	Pause	Reset	🔊 💋 Stop		Execute B
+	New	⊒	Insert	💰 Edit	🔁 Comment	🗙 Delete 🛛 🕤	Move U	р 🕑 Мо	ve Down	Collaps	e All 🛨	Expand All	III R	esize Columns
#	D	S	Lat	bel	Time	Device			Event			Param1		Param2
1								Arm			Seq_Vide	o_Timeline		
2														

Sequence Three: Disarm Timeline

	Eve	ents (l	Disarm Timeline] 🛛 🕯	• ×					
Туре	: Ti	med	🝷 🛛 Current T	ime: 00:00:00.00	🕐 Timeline 🔺	Options 🕴 🕨 Start	Pause	■ Reset	pin
+	New	₫	Insert 📝 Edit	🕈 Comment	🕻 Delete 🕥 Move	e Up 🛛 🛈 Move Down	🖃 Collapse	e All 🛨 Expand All 🚦	11
#	D	S	Label	Time	Device	Event		Param1	
1						Disarm		Seq_Video_Timeline	
2									

Sequence Two: Seq. Video Timeline

Create a new sequence and set the sequence type to SMPTE/EBU and display type to timeline view (this is a key point that cannot be missed). The SMPTE/EBU must be selected when the controller is generating his own or reading SMPTE.



Once finished, add the media files into the timeline. In this case we are using four AV Binloop Uncompressed where each unit will be playing a video file named "My Video File 01".

Timeline Events [Seq_Video_Timeline] 🖷 🗙								
Current Time: 00:0	0:00.00 🛰 Op	otions 🛡 Arm	🔵 Disarm 🕨 🕨	Start I Pause	e 🗖 Stop 💋 S			
View Time: 00:00:	00.00 🕂 New	+ Sequence	🕂 Media 🛛 🗙 D	elete 📝 Edit 🛛	🔍 Zoom In 🛛 🔍			
	00:00:00.00	00:00:16.26	00:00:33.22	00:00:50.18	00:01:07.14			
custom								
audio								
control								
display								
lighting								
projector								
video	My_Video_File_(01, My_Video_File_	01, My_Video_File_	01, My_Video_File_	01			
00:00:02.00	My_Video_File	_01						
3 00:00:02.00	My_Video_File	_01						
1 00:00:02.00	My_Video_File	_01						
1 00:00:02.00	My_Video_File	_01						

Align each video so all AV Binloop Uncompressed units start at the same time. Right click on the first video file and choose Edit Event. For this example, here we are using a SPlay Event to all the Repro2KU cards that belong to 4KG1.



Followed by the settings on the next window.

Edit Event ?		×
Set Event Data		
Event		
SPlay		
This command functions like Play Clip, except that the playback does not begin as quickly as possible Instead, the reproducer waits a consistent amount of time (60 SMPTE frames by default) after the c is received before it starts playback. This ensures that all reproducers that receive this command at time, start playing at the same time.	ommano he sam	d Ie
Data Parameters		
Source 4K G1		
File Name My_Video_File_01 *		
Start Frame		
End Frame 00:01:40.00		
Darameter Description		
: Address of the card(s) you want to process the command. Reproducers, Groups, 4K Groups, or All Reproducers. Example: G1		
< Back Finish	Can	cel

Once finished save the script file and send it into the controller. After rebooting, click on Connect and press the button #1 to trigger the Arm Timeline sequence to run.

#	D	A	Status	Sequence Name		Triggers	Comments
1	0		■ II ▶	Arm Timeline	►	button1 goes on	When button 1 is pressed our Timeline will be arm and ready to Chase a SMPTE signal.
2				∡ Seq_Video_Timeline			
3			■ II ト	Disarm Timeline	►	button2 goes on	When button 2 is pressed our Timeline will be Disarm.
4							

If you want to see the cursor moving over the Timeline View simply double click Seq. Video Timeline to scrub to a specific time in the timeline then enter the new time on your SMPTE generator and the cursor will move to that point.