

Lotus Lives Video Documentation

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Movements in Lotus Lives

1. Prelude
2. Prologue
3. Artificial Flower
4. Tango
5. My Granddaughters
6. Skit
7. Folktale
8. Finale
9. Postlude & Slam

Overview

Lotus Lives is a chamber opera for two singers, a brass quintet, and percussion.

Video plays throughout the performance, sometimes acting as the set, and other times taking center stage.

It is designed to be flexible. A basic concert performance uses only one screen, plus audio playback, while the full staging uses multiple projectors with video mapped onto 12 surfaces. And it is possible to stage versions with complexity in between. It should adapt to fit the performance space.

The video is broken into sections ranging from 30 seconds to 5 minutes long. The end of each section has a tail of extra video, which will play until the video operator launches the next clip. This way, the video remains in sync with the live performers, who don't have to worry about what's going on behind them.

The playback software has two parts: the Controller and the Player. The Controller is like a smart remote control, operated from a single computer to trigger the cues. The Player is the program that actually plays the media clips. Both can be on the same computer, or it is possible to have multiple Players on multiple computers, one per projector, controlled from a single Controller over a network.

The software is written in a program called Max (Max/MSP/Jitter), which will output video to any single projector. However, if projecting onto multiple surfaces from one projector, additional video mapping software is needed. Technical details about the software and mapping are below.

It's also possible to run this media on other performance playback software (Isadora, Resolume, VDMX, modul8, etc.), in which case the fade timing would need to be set according to the cue list.

Please see page 17 for full video cues
See page 19 for lighting, audio, and tech notes.

This is also a spreadsheet: **Lotus Video Cues.xlsx** in the documents folder

The Set



The video surfaces are:

- (A) a large central screen above or behind the performers.
- (B) four banners on either side of this screen (for a total of eight).
- (C) a dressing room "mirror" set piece (best as rear-projection).
- (D) projection across the width of the stage, onto a handheld scrim during the ballet sequence, and onto the performers at other times.
- (E) projection onto the walls and ceiling of the performance space, to fill the space with rippling light during the climax of the Folktale.

The video is meant to be immersive, and the size and placement of the surfaces can be tailored to each production. The only thing that needs to be maintained is the aspect ratio of each surface, and relative distance between the banners.

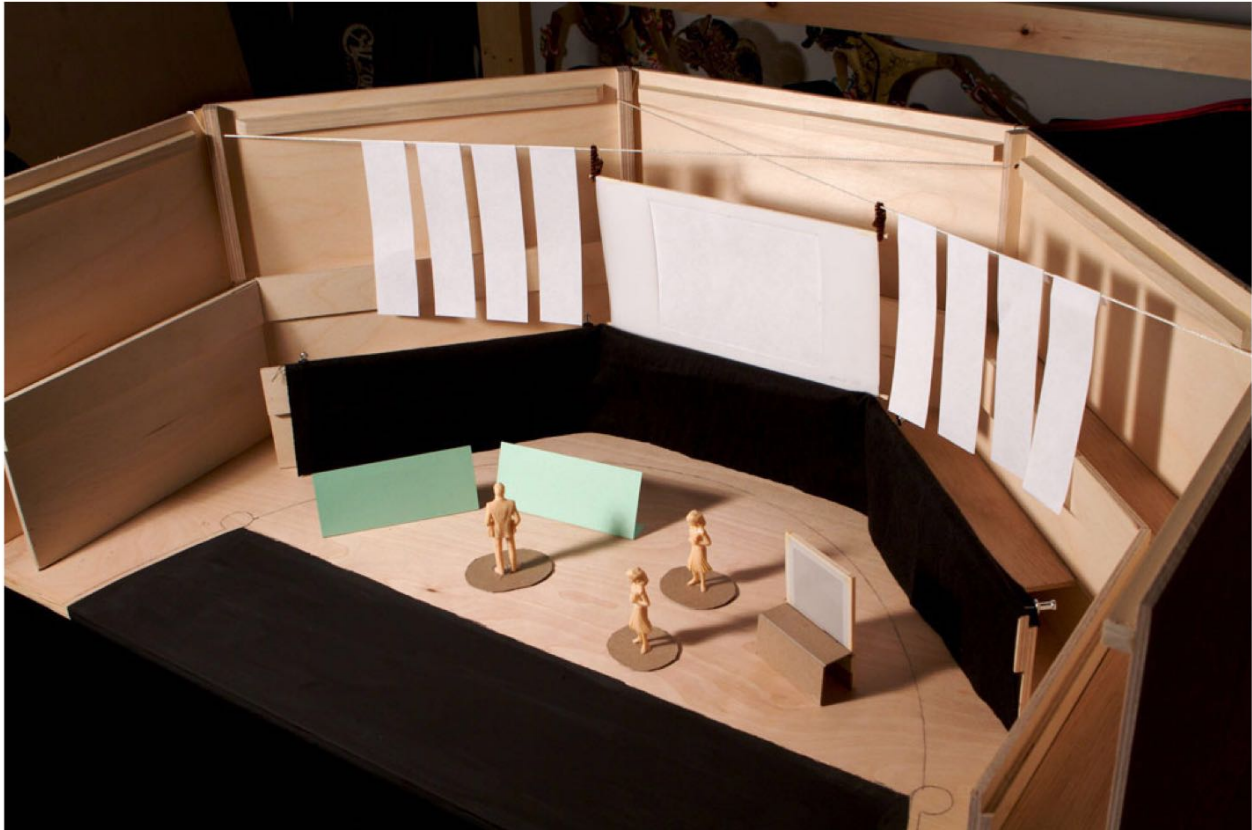
The aspect ratios are:

- (A) 1.78:1 (16:9)
- (B) 1:4 for each banner, to be spaced 1/2 the banners' width from each other, four on each side of surface A.
- (C) 1.14:1, which is a 1:1 square with an additional border on the left, right, and top.
- (D) 4:1. The handheld scrim should be a white or gray mesh suitable for projections, about 7' high and the width of the stage, or at least 30'. The bottom of the projection should be along the downstage edge of the stage. It should be adjusted so that the dancer in the Folktale Ballet 2 (cue 709) is life-size, and appears to be on stage when

projected onto the mesh.

(E) The source movie is 16:9, but this is an abstract rippling texture meant to fill as much of the performance space's ceiling and walls as possible, so long as it's masked off from the other surfaces. The projected aspect does not matter. It runs from cue 706 through 710, during the Folktale.

Screen Materials and Construction Notes

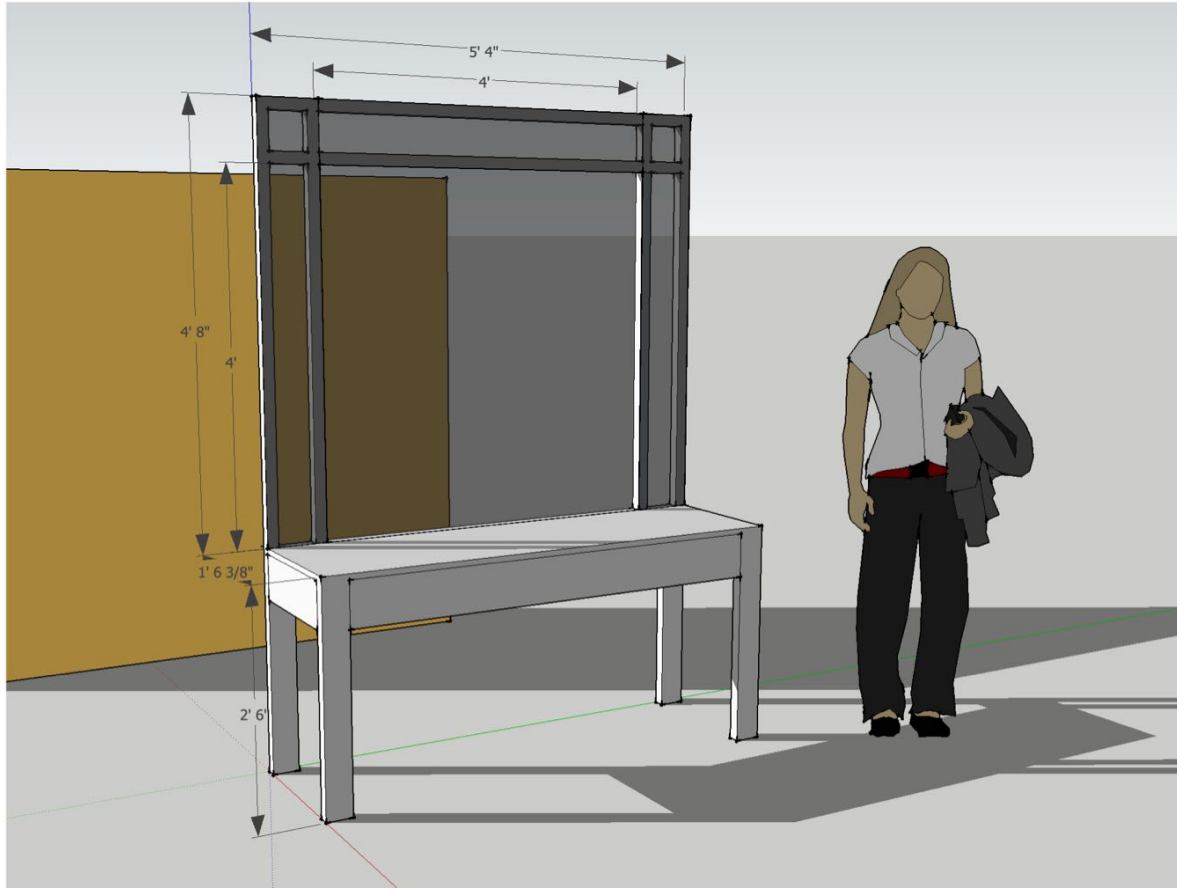


One idea for the **main screen (A)** and **banners (B)** is to take inspiration from the Malaysian Wayng Kulit shadow puppet theater, by attaching cloth (like muslin) to a bamboo or wooden frame. However, any rigging method and suitable screen material will work.

A gray screen will handle ambient light better than a highly reflective white one, but also requires a brighter projector.

A carpet on stage will help reduce reflected light.

The rest of the set is nominally a theater dressing room, after Lily has performed in a different opera, in formal Chinese operatic costume. There are two plain wooden chairs, a coat rack for hanging her costume, and a dressing room table with mirror. The mirror is screen surface C.



Surface (C) should be a wooden frame attached to the back of the table, covered with a gray rear-projection material (<http://www.rosebrand.com/product703/Projection-Screen-and-Rear-Projection-Screen.aspx>). There is an inner screen, which is square, and an outer frame to the left, right, and top of the square. The overall width should match the width of the table, ideally 4 feet. The inner screen material can be attached to the back of the frame, and the outer frame screen can be attached to the front of the frame, to give the frame relief. See ScreenCDiagram.jpg for sample dimensions.

The projector for (C) should be upstage from the screen, with sides of the projection masked off.

Projection (D) covers the stage, from the front edge to above the performers' heads (below (A)). Most of the time the video is a lighting effect, except for the Ballet 2, cue 709.

During cue 709, a white scrim like (<http://www.rosebrand.com/product2036/118-Lustre-Net-IFR.aspx>) that is 7' high and 30' wide should be held up across the stage, acting as the screen for the projected dancer. It can be attached a pole at either end: a wooden closet rod works well. The screen can be moved into position on the floor at the beginning of the Folktale, raised at the beginning of 709, lowered at the end of 709, and walked off stage at the end of the Folktale.



The Media

This drive includes masters of the surface movies, plus several configurations for performance playback.

The videos are QuickTime movies, using Apple's ProRes 422 codec.

The "masters" folder contains high resolution movie files, which can be used if making new layouts. These use the ProRes422-HQ codec, with uncompressed 48k audio on clips 301 and 401. Resolutions are:

- (A) 1920 x 1080
- (B) 1440 x 720
- (C) 914 x 800
- (D) 1920 x 480
- (E) 1920 x 1080

The "media" folder contains movies and audio for playback. These use the ProRes 422-LT codec, which has a lower data rate but maintains quality. Audio is AAC on the video clips.

There is also an audio folder which contains .aif audio files, which are to be updated with recordings by the performers. See "Setting Up Audio Clips" below for details.

There are four versions of the video, which are configurations for different projection setups.

V1: This is for running projections from multiple networked computers. There is one screen per video, with the exception of surface B.

For surface B, all eight banners are composited onto this video, so it will need to be sliced up with mapping software. If using multiple projectors, B1-B4 can play on the left-hand screen, and B5- B8 on another computer on the right.

Only 301-A-V1 and 401-A-V1 contain audio, so the audio board will need to be patched into the computer playing screen A.

Dimensions are:

- (A) 1280 x 720
- (B) 1440 x 720
- (C) 823 x 720
- (D) 1280 x 320
- (E) 1280 x 720

A MadMapper file has been prepared with the mapping for surface B, in “programs” / lotus-V1B.mad.

V2: This is the version for one screen only. Critical elements that would be missing by eliminating surfaces B-E are included on this single, main-screen video.

Its dimensions are 1280 x 720

V3: This has all the surfaces composited onto one large movie, to be mapped onto multiple screens from one projector, or multiple projectors from one computer.

Its dimensions are 2723 x 1200

A MadMapper file has been prepared with the mapping, in “programs” / lotus-V3.mad.

V4: This is surfaces A and E composited into one movie, since it's likely that a single projector can be used for both surfaces. Mapping is required. This way, the climactic moment when the dancer leaps off screen onto stage during the Folktale (709) can be maintained.

Its dimensions are 1280 x 1200

A MadMapper file has been prepared with the mapping, in “programs” / lotus-V4.mad.

Setting Up the Computer:

You will need to install:

- Max (version 7 or later) - <https://cycling74.com/>

Max is free if using it for running files like the Lotus Controller and Player. A paid license is only needed for saving changes, after the free trial period.

- Apple ProRes codec

Probably installed on any Mac with QuickTime; also available for download from Apple.

If mapping the video output:

- Syphon for Jitter - <https://github.com/Syphon/Jitter/releases/>

Syphon is a Mac OS framework that allows multiple applications to share the same space in video memory, without a hit to performance. This is how the video gets to the mapping software.

To install, unzip the package, then move the Syphon folder into Users/[user]/Documents/Max 7/Packages

- Mapping software of choice

I use **MadMapper** - <http://www.madmapper.com/>

It does require a paid license to use, but it is easy to use and runs beautifully.

There are other options, which you can search for. Max can also handle mapping, although this Player isn't set up for it.

Downloads of all this software as of early 2016, is in the "z-downloads-2016-02" folder on this drive.

Setting Up the Media and the Programs:

This is a USB 3.0 drive, which is fine for playing the media if your computer supports USB 3.0. Otherwise, please copy the media folders you need onto a suitably fast drive.

The Lotus Controller (Lotus Controller.maxpat) and Lotus Player (Lotus Player.maxpat) are in the "programs" folder on this drive. Please make a copy onto the computer's hard drive, and run them from there. These are files (or, "patches") for Max.

Also in the "programs" folder are MadMapper files, mapping the V1B, V3, and V4 movies. The output positions and projector size will have to be adjusted, but the surfaces have been sliced up.

Setting Up Audio Clips:

In addition to movies 301 and 401, which have stereo audio tracks, there are four more separate audio clips that will play back in sync with the video.

These are recordings of the performers, and need to be prepared for each production.

There are placeholder clips in lotus/media/audio, which are from the original 2011 performance. ***These are for reference only, and may not be used in another production.*** There are copies in the "reference" folder, so please replace the placeholder clips with new ones with the same names.

The clips need to match the timing of the video exactly.

The text for the narration is on pages 15 and 16 of this document, and also in the documents folder. It includes timings.

Also, QuickTime movies of the subtitled narration can be found in the lotus/z-reference folder, which can be read karaoke-style for exact timing if wished.

The audio clips are:

401-narration1.aif

Narration for Tango 1.
duration: 1:12

401-narration2.aif

Narration for Tango 2.
duration: 1:43

401-tango1.aif

Recorded music during the Tango 1. The EQ should be adjusted on this to make it sound like an old record.
duration: 3:33

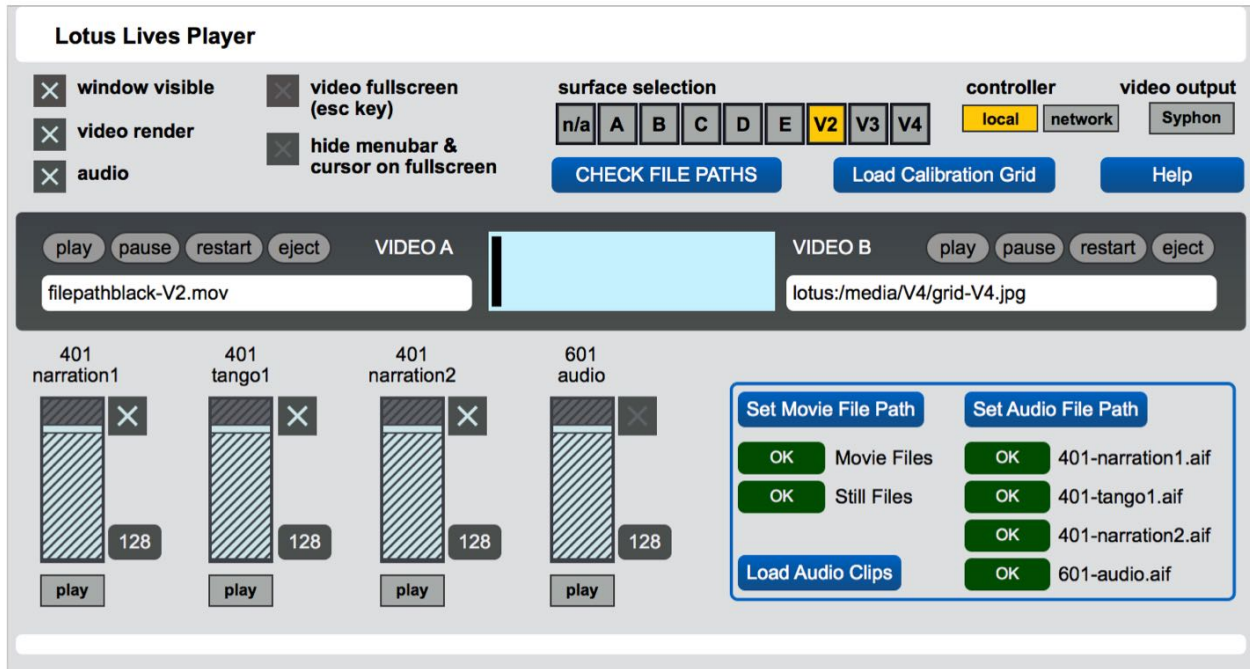
601-audio.aif

Looped '80s drum beat during the Skit. This is optional, as the percussionist may play this live. It is turned off by default on the Player.
duration: 4:00

The Lotus Player

This runs the video and audio for Lotus Lives, controlled by the Lotus Lives Controller. It should be on the computer that's hooked up to the projector.

Double-clicking Lotus Player.maxpat will launch Max, and open the Player.



SETUP CHECKLIST:

It is a good idea to restart the system before a performance, and then test a few cues before doors open.

1. Select which surface video you want to run (see page 7 for descriptions).
2. Click CHECK FILE PATHS to make sure the Player can find the media.
 - 2a. If the media is on a drive other than "lotus," click Set Movie / Audio File Path and find the folder with the media. Click Load Audio Clips. Then CHECK FILE PATHS again.
 - 2b. *Note: Audio clips will only play for surfaces A, V2, V3, and V4*
 - 2c. If the Player is having trouble loading just movies or stills, but not both, select another surface and then click back again to reload the correct extension.
3. If the Controller is on the same computer, leave "controller" set to "local." If it's on a different computer on the same network, select "network." Be sure "network" is selected on the Controller too.

4. Set the video output:

4a. If projecting directly from the Player, move the "projector" window to the projector display. If the projector is attached when launching the Player, the "projector" window will already be on the second display.

4b. If mapping the video output with a program that uses the Syphon framework (like MadMapper), select "Syphon," then launch the program and use that for display.

5. Test the audio, and set levels for the individual clips. From the Controller, select cue 301 or 401 for movies with audio. Press "play" below the levels sliders on the Player for the additional clips.

5a. The audio clip levels will not save when the Player is closed, but you can make note of the numerical setting, and adjust it the next time you launch the Player.

5b. The beat in 601 should be played live, so by default it will not play; but it can be cued for playback too by selecting the toggle next to the levels slider.

OTHER CONTROLS:

window visible - toggles whether the "projector" window is visible. Turns off if Syphon is selected.

video render - refreshes the video screen. Video will not appear to play if this is off.

audio - turns audio playback on and off. Turns off for surfaces without audio (B, C, D, E)

video fullscreen - toggles whether the "projector" window is fullscreen. Also activated by the escape key.

hide menubar & cursor on fullscreen - use this option if presenting the window on the same screen as the Player, ie. if the projector is the only display.

Load Calibration Grid - this will load a calibration grid for the selected surface.

play, pause, restart, eject - controls playback of the video in either bank.

slider - A/B fade. Operates automatically when the GO button is triggered on the Controller.

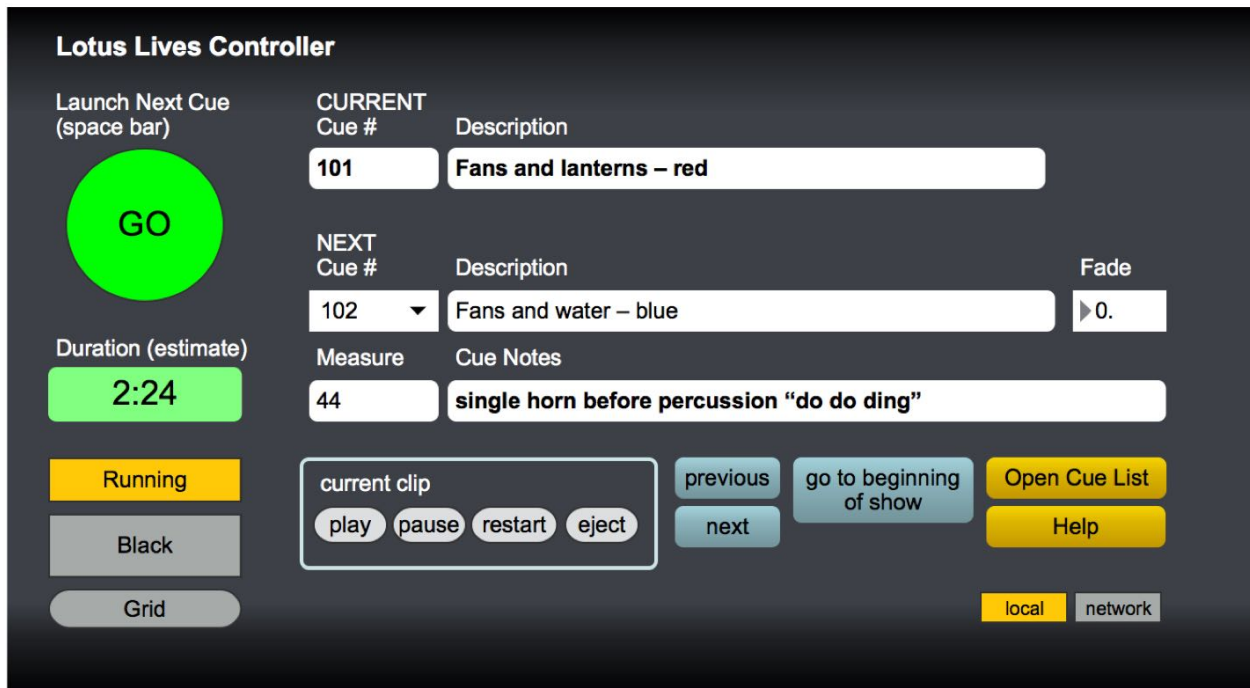
"X" toggle next to audio sliders - enables or disables individual audio clips.

play for audio sliders - manual playback of audio clips, for testing purposes.

The Lotus Controller

This controls the video Player(s), which can be on this computer, or networked over several different computers.

Double-clicking Lotus Controller.maxpat will launch Max, and open the Controller.



TO RUN THE SHOW:

1. Launch the Controller and the Player(s)
2. Set the settings on the Player(s)
3. **START THINGS RUNNING by pressing the "Run" button**
4. Go to the first cue by pressing "go to beginning of show," or the GO button several times, until the CURRENT Cue # is "1 - BLACK"
5. Press GO or the space bar to trigger the next cue

Duration is an estimated countdown to the next cue. Actual time will vary depending on the performance, but it will let you know when to be ready.

Also keep an eye on Cue Notes, which is a description of when the next cue occurs.

OTHER CONTROLS:

Black - toggles a fast fade to / from black, and pauses the active movie.

Grid - activates a calibration grid on all Players.

CURRENT Cue # and Description - what's playing now.

NEXT Cue # and Description - what's cued up to play when GO is pressed.

NEXT Cue # is a dropdown menu, so you can jump directly to any cue.

Fade is the duration of the crossfade from current to next clips. This can be adjusted manually, but will automatically set according to the cue list.

Measure - The measure of the next cue in the score.

play - plays the active movie

pause - pauses the active movie

restart - goes to the beginning of the active movie

eject - clears the active movie from the Player

previous and next move forward and backward through the next cue to be loaded.

go to beginning of show - loads the first cue up next

open cue list - this is the cue sheet in table form, which is where all the playback data is stored. Editing this will affect the show's playback.

Local / Network: If the Controller and the Player are on the same computer, keep the lower-right setting on local. If networking several computers, select network on the Controller and all Players. It is recommended to have a dedicated network, wired if possible.

Credits

for inclusion in the program

Su Lian Tan..... Composer
Tim Bartlett..... Video Design and Direction
Anne Babson..... Librettist

David Bowlin..... Violin
Arika Yamada..... Choreographer, Dancer
Denys Drozdyuk..... Choreographer, Dancer
Sonia Hsieh..... Dancer

Tami Mnoian Puppetry and Video Production
Murwarid Abdiani
Erik Benepe
Brian Chu
Matt Griffin
Denise Hofmann
Hilary Leichter

Jared Reed..... Artificial Flower Track

Brandon Grimm..... Ballet Costume

Ian Albinson..... Digital Artists
Raedia Albinson
Jimmy Mnoian

Special Thanks To.....
The Center for Performance Research-Brooklyn, New York

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Narration for Tango 1

401-narration1.aif

duration = 1:12

[0:00]

When they were twelve and fourteen, respectively,
my grandmother and the future wife of a war lord,
or so my dreams show me,
tangoed the way my sister and I tangoed together.

[0:13]

One summer night my grandmother,
a budding twelve-year old, unkissed,
spent the night at the future political figure's house,
also unkissed, but slightly more in bloom
and slightly more kissable.

[0:27]

The two girls first raided the kitchen for a small jug of plum wine,
which they drank in champagne glasses purloined from the china closet.
They even stole some caked rouge from an old auntie's boudoir
and painted each other's faces an absurd red,
a war paint, an ultraviolet marking for bees seeking nectar.

[0:49]

Despite the command from the nanny to go to bed,
they nicked the Victrola from the sitting room
and cranked it to play tango music softly.

They danced together the western way for practice.
It was the beginning of a century barely older than they were,
and they were both sure they would be dancing for at least a hundred years.

[end - 1:12]

Narration for Tango 2

401-narration2.aif

duration = 1:43

[0:00]

In truth, my grandmother, that is to say myself,
married just that way, for dance.

[pause]

[0:10]

At a diplomatic dinner some years later in Malaysia,
a perfectly penniless Chinese gentleman caught her eye,
and in a passion neither's ancestors had ever known,
scandalous to twenty generations,
they danced on the floor of the British Ambassador's ballroom...
much to the chagrin of all great-grandparents,
much to the delight of the British guests,
who applauded this unexpected entertainment.

[0:36]

The two of them locked at the hips and strutted around the room like two horses in heat,
like two twentieth-century Europeans.
And with such colonization absorbed, no one thought anything of it,
except, of course, my grandmother's parents,
that is to say my parents,
who would have banned the marriage,
had the passion not been so public,
had the tango not been dipped so very low,
had the décolleté of my grandmother's dress,
that is to say my dress,
not been so very unadorned by anything at all
but the six-eight rhythm and the strumming of the guitar.

[pause]

[1:23]

My grandfather,
elegant but without two coins to rub together,
became eligible by the way he moved,
as in the animal kingdom, that is to say as in my kingdom,
the kingdom of this era, this era in the Western world,
where unknissed girls dance passion for practice.

[end - 1:43]

[this last line is not recorded but said live]

One tango, and my grandma had to get married.

Cue	Description	Measure	Cue Notes	Duration	Fade Time	Screens	Still
1	BLACK		show start	0:00	0	ALL	1
2	Dragon - before show begins		keep up as audience enters	0:00	2	A	1
3	BLACK		as conductor turns to musicians	0:00	2	ALL	1
1 Prelude							
101	Fans and lanterns, red	1	when music begins	2:30	0	A B	0
102	Fans and water, blue	44	single horn before percussion "do do ding"	1:55	0	A B	0
103	Fans and silhouettes, red	64	after music pause, when it gets loud and dissonant	1:05	4	A B	0
104	BLACK	90	last horn hit before silence	0:05	1.5	ALL	1
2 Prologue							
201	Dressing room - white walls and mirror lights	91	next piece of music begins	1:05	0	A B C	0
202	Grandmother appears in mirror	107 - Q3	after "...performs duty, while rejecting it."	0:58	2.5	A B C	1
203	Grandmother fades out	123	after "...duty of every Chinese girl."	1:19	2.5	A B C	1
3 Artificial Flower							
301	Artificial Flower (includes audio)	137 - Q2	on "tale" in "Let me tell you this tale now."	5:52	2.5	A B C D	0
302	BLACK (end of 301)	244 - Q4	following 301 blackout - remains black	0:32	0	ALL	1
4 Tango							
401	Tango (includes audio)	245	tuba low G-flat	7:11	0	A B C	0
5 My Granddaughters							
501	Red silk fan	334	speaking begins, "In those days..."	4:20	3	A B C	1
502	Red silk fan, darker	447	on "I see..." after "...steamships and airplanes."	1:38	4	A B C	1
503	Add clouds	465	on "I see..." after "...remain when they want to stay."	2:14	5	A B C D	0
504	Red silk fan - clouds gone	511	after music crescendo following "...how much in awe."	0:36	4	A B C	1
505	BLACK	515 - Q3	when music ends	0:40	0	ALL	1
6 Skit							
601	Nightclub with purple light	516	with drum beat	2:18	0	A B C	0
602	BLACK	520	on "Even the ones who just wanted to be friends..."	0:48	1	ALL	1

7 Folktale							
701	Shadow puppet show begins	532	with music after "...Chinese fables."	0:36	1.5	A B C	0
702	Little girl reads letters	547	after phrase ends following "...pillowcase as a joke."	0:47	1	A B C	0
703	Bed time	567 - Q2	on "All the children..."	1:06	1	A B C	0
704	Through the night	579 - Q3	after "...into the garden."	0:30	1	A B C	0
705	By the pond	623	on "In the light of her own sweet flesh."	1:57	1	A B C	0
706	Sinking into the pond	640	on "...leaned so far over, she fell in."	1:04	1.5	A B D E	0
707	Mother receives a letter	656	on "The next day..." following "...by the dark current."	0:59	2	A B D E	0
708	Ballet 1	692	with music following "...signed Kwan Yin."	1:47	1	A B D E	0
709	Ballet- on handheld scrim at front of stage	721	on percussion following "...come to visit once." [SCRIM UP]	2:18	1	A B D E	0
710	Mother and the fine lady	746	on "Twelve years later." [SCRIM DOWN]	1:18	2	A B E	0
711	Mother buries clothes	767 - Q2	when music pauses after "...left her."	1:20	3	A B C	0
712	Dressing room gradually returns	782	on "Thus concludes this folktale."	1:02	1	A B C	0
8 Finale							
801	White fans	846	as next piece begins, following "...avoid it at all costs."	2:18	0.5	A B	1
9 Postlude & Slam							
901	Opera score	854	as next piece begins	0:32	1	A B C	1
902	Backward through the score	891	when music picks up, with trumpets	1:19	2.5	A B C	0
903	Forward through the score	922	with music after "...product of a strange upbringing."	3:05	0.5	A B C	0
904	Full white	925 - Q2	after final "...opera where the heroine lives."	0:06	1	A B C	1
905	Dragon - for curtain call		when music ends	0:00	2	A	1
906	BLACK		optional blackout	0:00	3	ALL	1

Cue	Description	Measure	Lighting Notes	Audio Notes	Tech Notes
1	BLACK			singer lavs and instrumental mics as needed throughout... No audio from playback computer except as noted.	
2	Dragon - before show begins				
3	BLACK				
1 Prelude					
101	Fans and lanterns, red	1	pool of light on musicians (stage right)		
102	Fans and water, blue	44			
103	Fans and silhouettes, red	64			
104	BLACK	90			
2 Prologue					
201	Dressing room - white walls and mirror lights	91	light on musicians, dressing area (stage left). Spot on Lily.		
202	Grandmother appears in mirror	107 - Q3			
203	Grandmother fades out	123			
3 Artificial Flower					
301	Artificial Flower (includes audio)	137 - Q2	top lights dim. Spot on Lily.	playback audio	
302	BLACK (end of 301)	244 - Q4			
4 Tango					
401	Tango (includes audio)	245	lights on musicians dim, rest of stage black. Narrow spot on costume on coatrack. - Then, light up on Lily when she returns toward end.	playback audio	

5 My Granddaughters					
501	Red silk fan	334	dim toplight, spot on singers (center stage)		
502	Red silk fan, darker	447			
503	Add clouds	465	dim spotlight to taste, with added clouds from projection D		
504	Red silk fan - clouds gone	511			
505	BLACK	515 - Q3	keep spot on Lily		
6 Skit					
601	Nightclub with purple light	516	full stage or center and right stage spots	vocal mic on stand for musicians	
602	BLACK	520	darker, spot on Lily		
7 Folktale					
701	Shadow puppet show begins	532			Scrim brought on and placed on floor at front edge of stage.
702	Little girl reads letters	547			
703	Bed time	567 - Q2			
704	Through the night	579 - Q3			
705	By the pond	623		Kwan Yin sings from off-stage	
706	Sinking into the pond	640		Kwan Yin sings from off-stage	
707	Mother receives a letter	656		Kwan Yin sings from off-stage	
708	Ballet 1	692			
709	Ballet- on handheld scrim at front of stage	721	blackout lights for stage projection on mesh		raise scrim
710	Mother and the fine lady	746	lights return to previous setting		lower scrim
711	Mother buries clothes	767 - Q2			
712	Dressing room gradually returns	782	top lights brighter as screen fades to white; same as 201		Scrim removed from stage when Lily exits.

	8 Finale				
801	White fans	846	top lights on musicians, other areas dark as Lily exits		
	9 Postlude & Slam				
901	Opera score	854	stage fairly bright, spot on Lily		
902	Backward through the score	891			
903	Forward through the score	922			
904	Full white	925 - Q2			
905	Dragon - for curtain call		blackout, then up for curtain call		
906	BLACK				