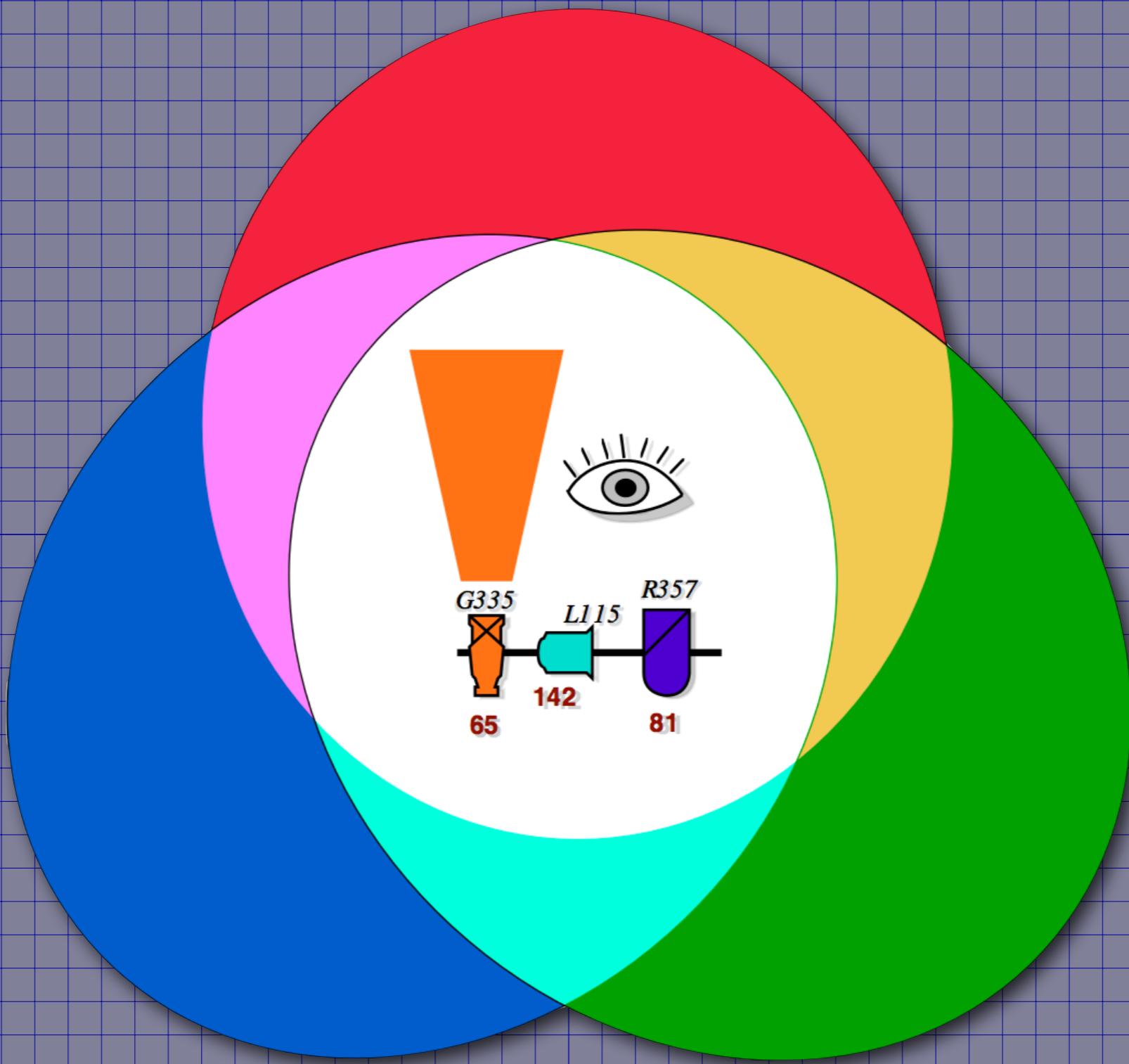


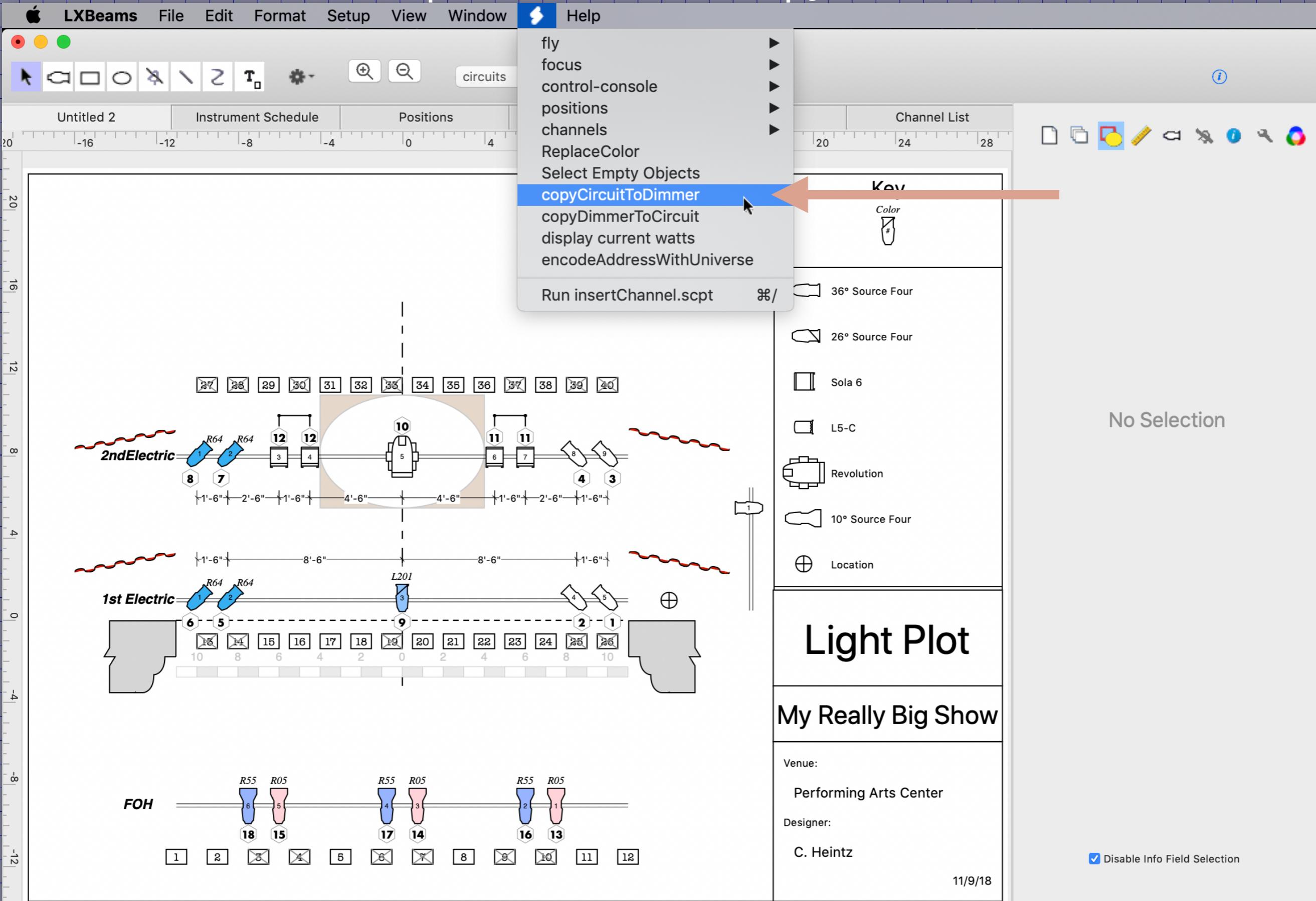
# Scripts



IATSE 728 Workshop 2020

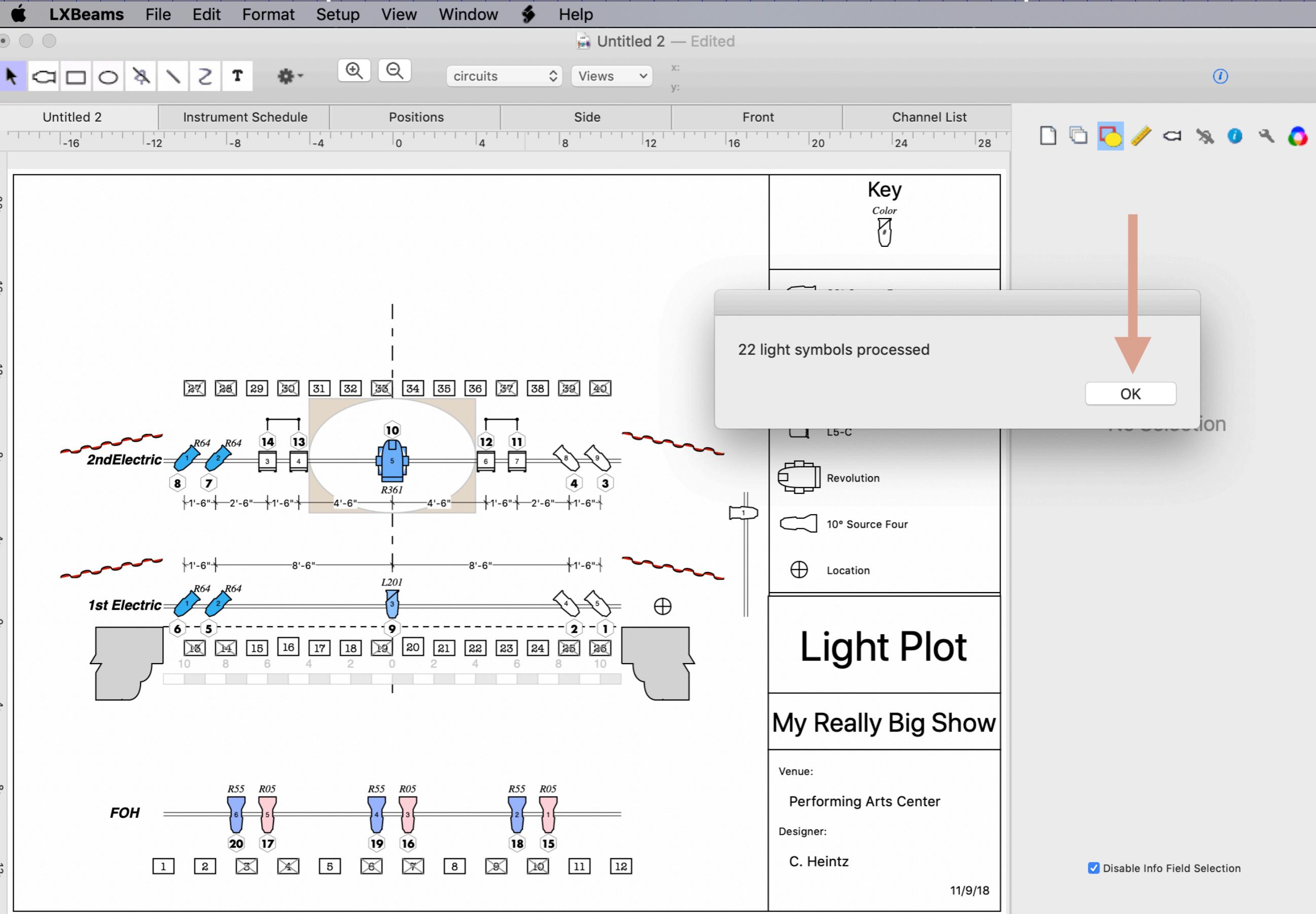
©2020

# From the Script menu, choose copyCircuitToDimmer.



The script menu contains AppleScripts, small programs for specific tasks.

# The script will show a message when it is complete.



In the info tab, look at the properties of the center light.

Finder File Edit View Go Window Help

Untitled 2 — Edited

circuits Views x: y:

Instrument Schedule Positions Side Front Channel List

Untitled 2 -16 -8 0 4 8 12 16 20 24 28

20  
16  
12  
8  
4  
0  
-4  
-8  
-12

Key

Color #

36° Source Four

26° Source Four

Sola 6

L5-C

Revolution

10° Source Four

Location

Property Value

Position

Light

Position 1st Electric  
# 3  
Color L201  
Channel 9  
Dimmer 19  
Template  
Use  
Group

More

Frost  
Circuit 19  
Mark  
Note

Focus

Focus X 0'-1.5"  
Focus Y 12'-7.5"  
Focus Height 0'-0"

Device

3D

Rendering  
X offset 0'-0"  
Y offset 0'-0"  
Z offset -1'-6"

Light Plot

My Really Big Show

Venue:  
Performing Arts Center

Designer:  
C. Heintz

11/9/18

The circuit has been copied to the dimmer (address).

In the info tab, look at the properties of the center mover.

LXBeams File Edit Format Setup View Window Help

Untitled 2 — Edited

circuits Views x: y:

Untitled 2 Instrument Schedule Positions Side Front Channel List

20 16 12 8 4 0 -4 -8 -12

2nd Electric 1 R64 2 R64 3 4 12 12 5 6 7 8 9 10 11 11 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40

1st Electric 1 R64 2 R64 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40

FOH 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40

Key Color # 36° Source Four 26° Source Four Sola 6 L5-C Revolution 10° Source Four Location

Property Value

Position Position 2ndElectric  
# 5  
Color Channel 10  
Dimmer Template Swirl  
Use Group  
More Frost Circuit 33  
Circuit Mark  
Note  
Focus Focus X 11'-7"  
Focus Y 8'-0"  
Focus Height 27'-7.25"  
Spot/Flood 15.3  
Cd@Spot/F... 376520  
Device Channels  
Parameters ipan=180;itilt\_x=0;itilt\_y=0  
Pan -270.000000  
Tilt -135.000000  
Iris% 0.000000  
3D Rendering %;p50;w;q0.000000  
X offset 0'-0"  
Y offset 0'-0"  
Z offset -2'-6"

Light Plot My Really Big Show

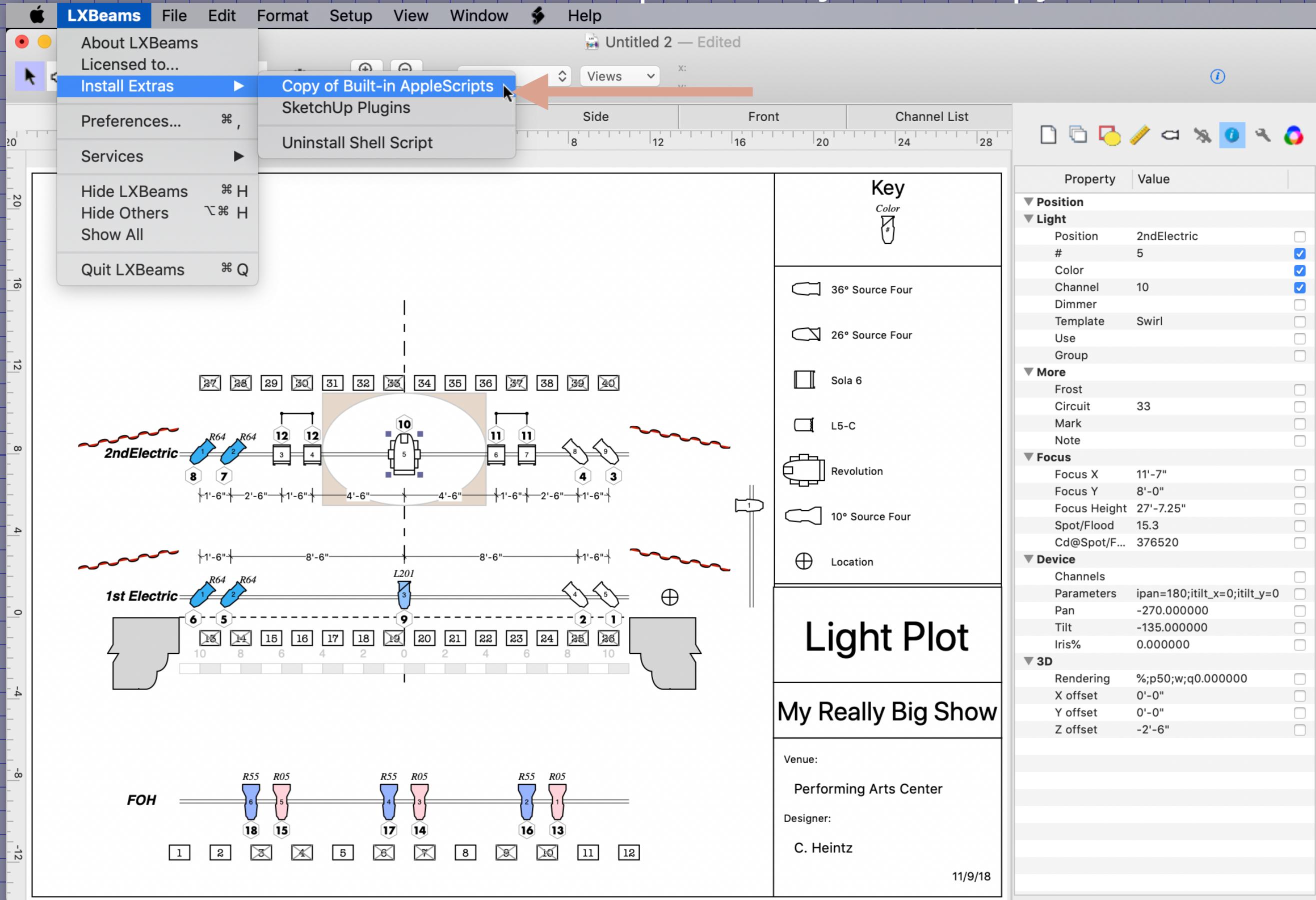
Venue: Performing Arts Center  
Designer: C. Heintz

11/9/18

The screenshot shows the LXBeams software interface. On the left is a stage plot with various lighting fixtures numbered 1 through 40. A red arrow points from fixture number 10 to the 'Info' button in the top right toolbar. Another red arrow points from the 'Info' button to the properties panel on the right. The properties panel displays settings for the selected fixture, including its position (2ndElectric), channel (10), color (Swirl), and more. A green arrow points from the 'Light' section of the properties panel to the 'Light Plot' and 'My Really Big Show' sections below, indicating the connection between the fixture's properties and the visual representation of the stage setup.

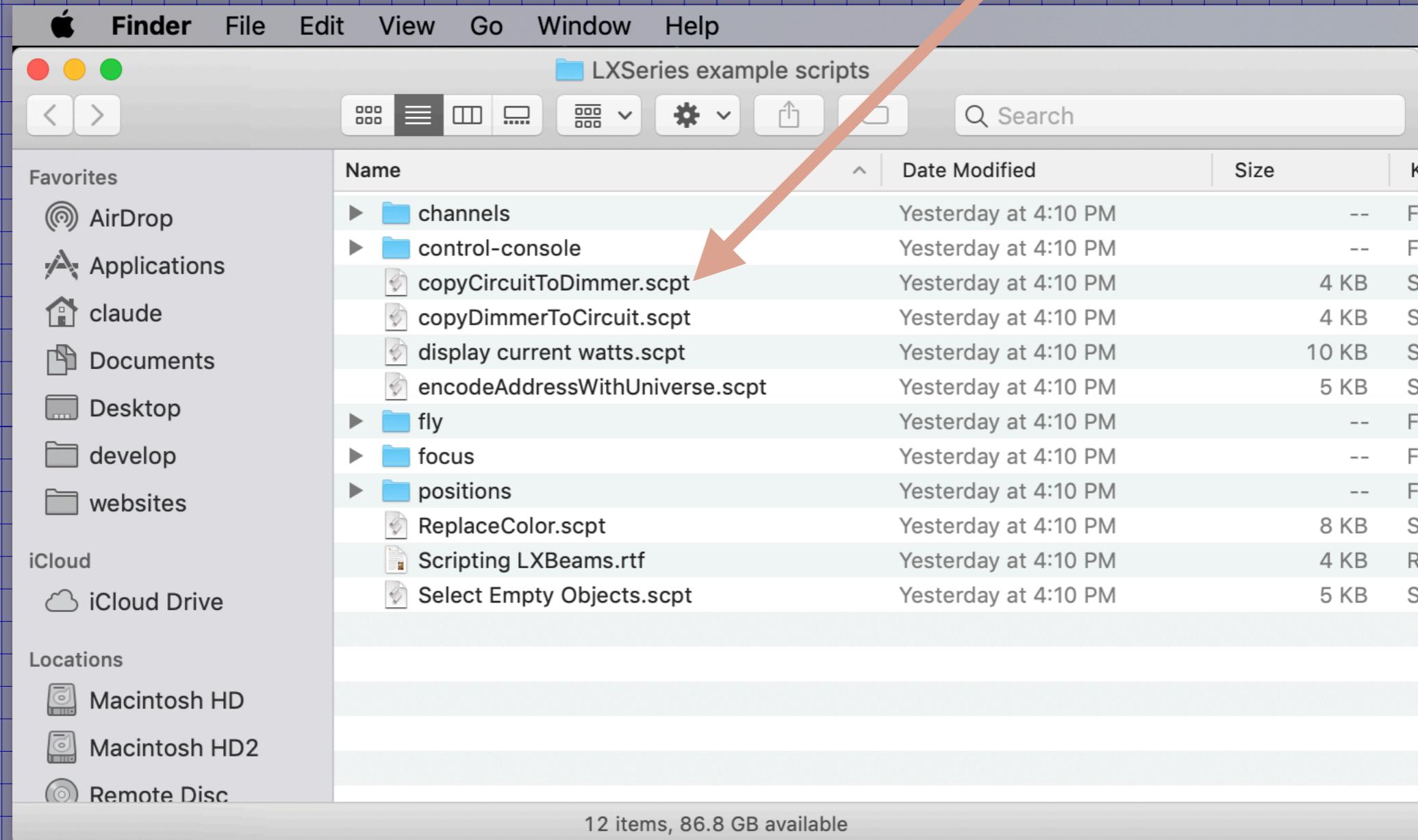
The circuit supplies power, but the address has not been assigned.

To see how the built-in scripts work, you can copy them.



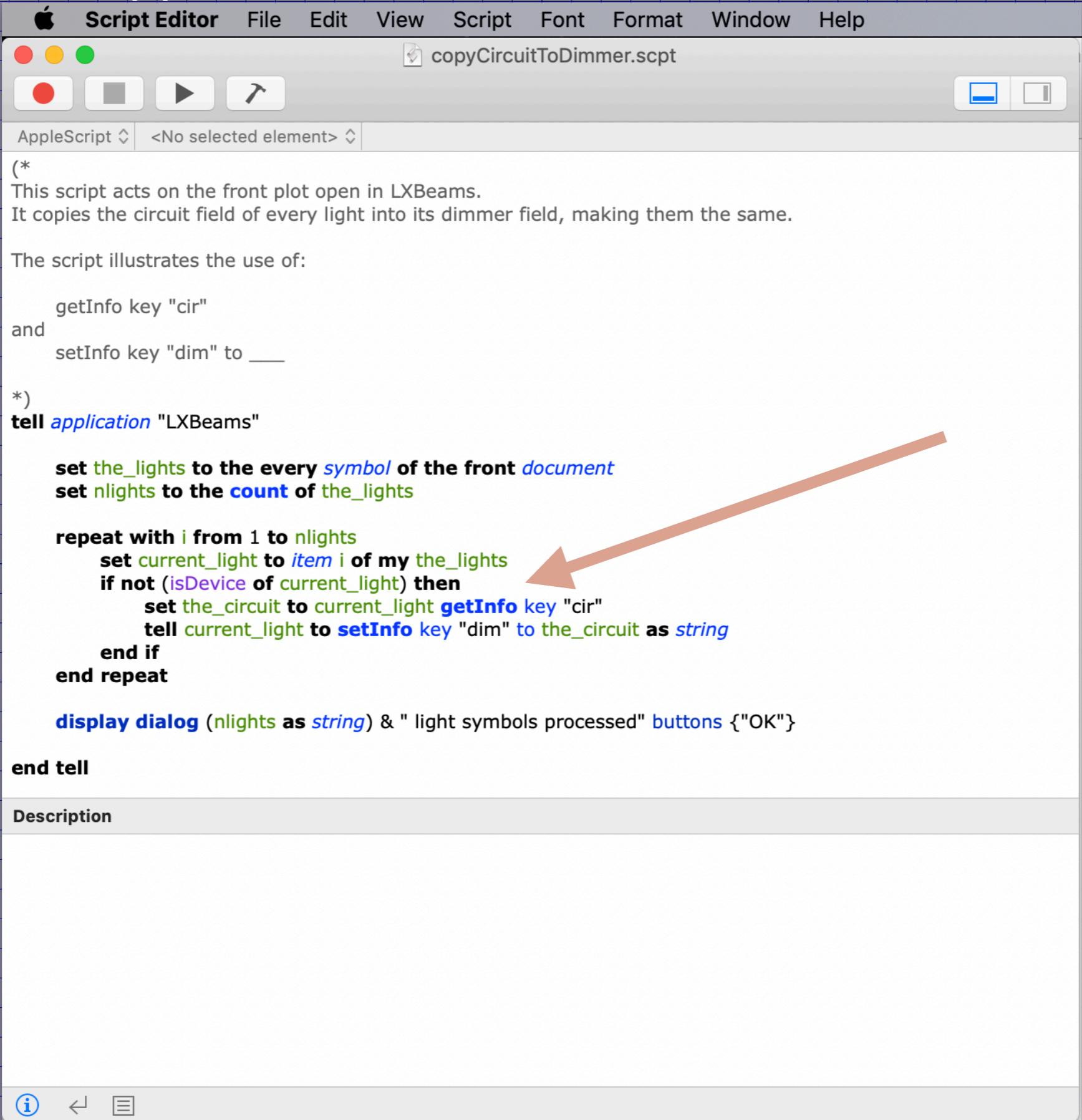
LXBeams → Install Extras → Copy of Built-in AppleScripts.

# The scripts are copied to the downloads folder.



Inside "Downloads/LXSeries example scripts" you'll find `copyCircuitToDimmer.scpt`.

# Script Editor (Applications/Utilities) lets you see and edit the script.



The screenshot shows the Apple Script Editor window with the following details:

- Title Bar:** Script Editor
- Document Title:** copyCircuitToDimmer.scpt
- Toolbar:** Includes standard Mac OS X icons for New, Open, Save, Print, and Preferences.
- Text Area:** Displays an AppleScript script. A red arrow points to the line `set the_circuit to current_light getInfo key "cir"`.

```
/*
This script acts on the front plot open in LXBeams.
It copies the circuit field of every light into its dimmer field, making them the same.

The script illustrates the use of:

getInfo key "cir"
and
setInfo key "dim" to __

*)
tell application "LXBeams"

    set the_lights to the every symbol of the front document
    set nlights to the count of the_lights

    repeat with i from 1 to nlights
        set current_light to item i of my the_lights
        if not (isDevice of current_light) then
            set the_circuit to current_light getInfo key "cir"
            tell current_light to setInfo key "dim" to the_circuit as string
        end if
    end repeat

    display dialog (nlights as string) & " light symbols processed" buttons {"OK"}

end tell

Description
```

The script goes through the lights and copies the circuit to the dimmer (if not isDevice).

# These fresnels have the same circuit, but could have unique addresses.

LXBeams File Edit Format Setup View Window Help

Untitled 2 — Edited

circuits Views x: y:

Untitled 2 Instrument Schedule Positions Side Front Channel List

20 -16 -12 -8 -4 0 4 8 12 16 20 24 28

20 16 12 8 4 0 -4 -8 -12

Key

Color #

36° Source Four

26° Source Four

Sola 6

L5-C

Revolution

10° Source Four

Location

Property Value

Position

Light

Position 2ndElectric

# 7

Color

Channel 11

Dimmer

Template

Use

Group

More

Frost

Circuit 37

Mark

Note

Focus

Focus X 0'-0"

Focus Y 0'-0"

Focus Height 0'-0"

Spot/Flood 15

Cd@Spot/F... 23100

Device

Parameters

3D

Rendering

X offset 0'-0"

Y offset 0'-0"

Z offset -0'-7.5"

Light Plot

My Really Big Show

Venue:  
Performing Arts Center

Designer:  
C. Heintz

11/9/18

The screenshot shows the LXBeams software interface. On the left is a stage plot with various lighting fixtures and their addresses. A red arrow points from fixture number 36 down to the properties panel. The properties panel on the right lists various properties for the selected fixture, including position, light type (2ndElectric), channel (7), color, and more. Below the properties panel are sections for focus, device parameters, and a 3D rendering section. At the bottom of the stage plot, there is a row of icons representing different types of fixtures. The overall title bar says "Untitled 2 — Edited".

They could also have separate channels...

# From the script menu choose channels→insertChannel

LXBeams File Edit Format Setup View Window Help

fly  
focus  
control-console  
positions  
**channels**  
ReplaceColor  
Select Empty Objects  
copyCircuitToDimmer  
copyDimmerToCircuit  
display current watts  
encodeAddressWithUniverse

Run insertChannel.scpt

2ndElectric

1st Electric

FOH

36° Source Four  
26° Source Four  
Sola 6  
L5-C  
Revolution  
10° Source Four  
Location

**Light Plot**

**My Really Big Show**

Venue:  
Performing Arts Center  
Designer:  
C. Heintz

11/9/18

Position 2ndElectric  
# 7  
Color  
Channel 11  
Dimmer  
Template  
Use  
Group

More

Frost Circuit 37  
Mark Note

Focus

Focus X 0'-0"  
Focus Y 0'-0"  
Focus Height 0'-0"  
Spot/Flood 15  
Cd@Spot/F... 23100

Device

Parameters

3D

Rendering  
X offset 0'-0"  
Y offset 0'-0"  
Z offset -0'-7.5"

# Enter 11 to create a space after that channel

LXBeams File Edit Format Setup View Window Help

Untitled 2 — Edited

circuits Views x: y:

Instrument Schedule Positions Side Front Channel List

Untitled 2 -16 -12 -8 -4 0 4 8 12 16 20 24 28

Key Color #

Enter channel to insert after:  
11

Cancel OK

Focus Revolution  
10° Source Four  
Location

Light Plot

My Really Big Show

Venue:  
Performing Arts Center

Designer:  
C. Heintz

11/9/18

Property Value

Position  
Light  
Position 2ndElectric  
# 7  
Color

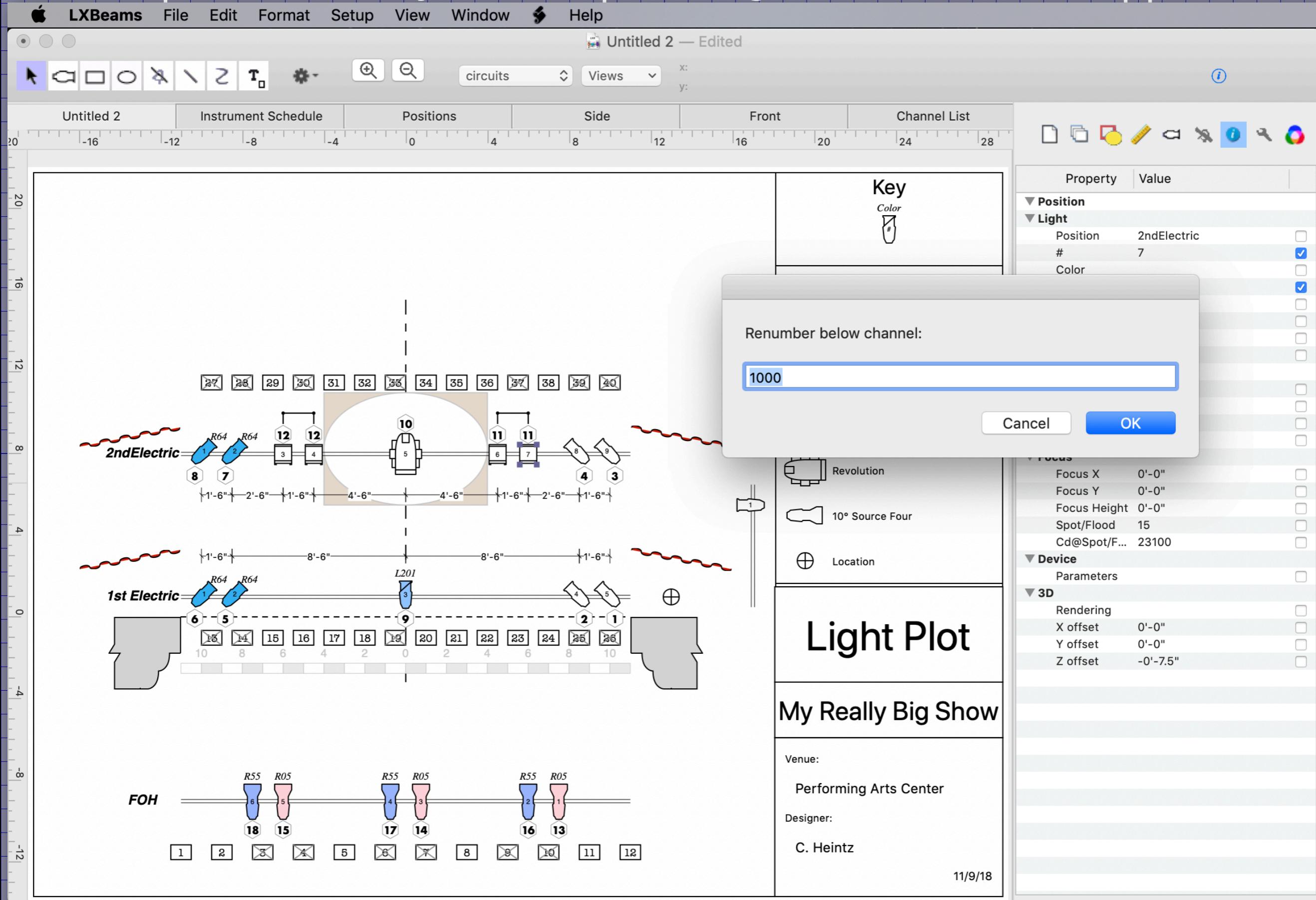
Focus X 0'-0"  
Focus Y 0'-0"  
Focus Height 0'-0"  
Spot/Flood 15  
Cd@Spot/F... 23100

Device Parameters

3D Rendering  
X offset 0'-0"  
Y offset 0'-0"  
Z offset -0'-7.5"

The screenshot shows the LXBeams software interface. The main window displays a stage plot with various lighting fixtures and equipment labeled with numbers (e.g., 1, 2, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26). The plot includes sections labeled '2nd Electric', '1st Electric', and 'FOH'. A central circular area is labeled '10'. A horizontal scale bar at the bottom indicates distances from 0' to 28'. To the right of the stage plot is a 'Key' panel with a color swatch and a 'Property Value' panel. A modal dialog box is open, prompting 'Enter channel to insert after:' with the value '11' entered. Below the dialog are sections for 'Focus' (Revolution, 10° Source Four, Location) and 'Light Plot' (My Really Big Show). The 'Light Plot' section includes venue information ('Performing Arts Center') and designer details ('C. Heintz'). The date '11/9/18' is also present. The top menu bar includes File, Edit, Format, Setup, View, Window, Help, and a gear icon.

# The script also allows you to stop moving channels after an upper limit.



# After the script, there is a space for channel 12.

LXBeams File Edit Format Setup View Window Help

Untitled 2 — Edited

circuits Views x: y:

Untitled 2 Instrument Schedule Positions Side Front Channel List

20 -16 -12 -8 -4 0 4 8 12 16 20 24 28

Key

Color

Position

Light

36° Source Four

26° Source Four

Sola 6

L5-C

Revolution

10° Source Four

Location

Property Value

Position

Light

2ndElectric

# 7

Color

Channel 11

Dimmer

Template

Use

Group

More

Frost

Circuit 37

Mark

Note

Focus

Focus X 0'-0"

Focus Y 0'-0"

Focus Height 0'-0"

Spot/Flood 15

Cd@Spot/F... 23100

Device

Parameters

3D

Rendering

X offset 0'-0"

Y offset 0'-0"

Z offset -0'-7.5"

Light Plot

My Really Big Show

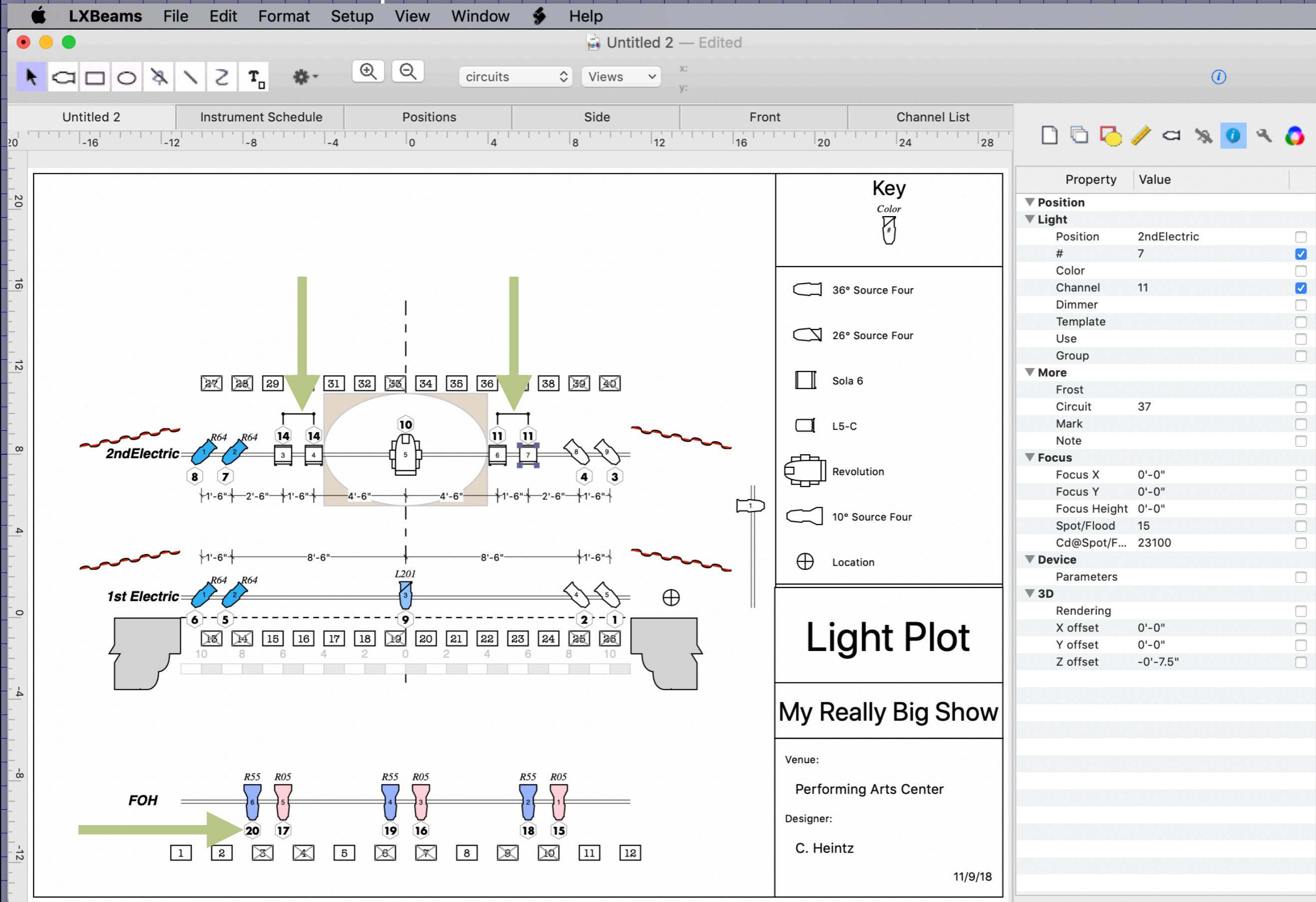
Venue:  
Performing Arts Center

Designer:  
C. Heintz

11/9/18

And, the highest channel is now 19.

Repeat insetChannel as second time.



The highest channel is now 20.

# Select the center stage left fresnel and press the "c" key.

LXBeams File Edit Format Setup View Window Help

Untitled 2 — Edited

circuits Views x: y:

Untitled 2 Instrument Schedule Positions Side Front Channel List

20 -16 -12 -8 -4 0 4 8 12 16 20 24 28

20 16 12 8 4 0 -4 -8 -12

Key

Color #

36° Source Four

26° Source Four

Sola 6

L5-C

Revolution

10° Source Four

Location

Property Value

Position

Light

Position 2ndElectric

# 6

Color

Channel 12

Dimmer

Template

Use

Group

More

Frost

Circuit 37

Mark

Note

Focus

Focus X 0'-0"

Focus Y 0'-0"

Focus Height 0'-0"

Spot/Flood 15

Cd@Spot/F... 23100

Device

Parameters

3D

Rendering

X offset 0'-0"

Y offset 0'-0"

Z offset -0'-7.5"

Light Plot

My Really Big Show

Venue:  
Performing Arts Center

Designer:  
C. Heintz

11/9/18

The screenshot shows the LXBeams software interface. On the left is a stage plot with various lighting fixtures numbered 1 through 40. A red arrow points from the fixture labeled '10' in the center stage area to the 'Key' section of the properties panel on the right. In the properties panel, under the 'Light' category, the 'Channel' field is highlighted with a blue selection bar and contains the value '12'. Below the stage plot, there are sections for 'FOH' (Front Of House) and '1st Electric' and '2nd Electric' areas, each with their own fixture lists and spacing measurements. The right side of the screen features a large 'Light Plot' section with the title 'My Really Big Show' and details about the venue ('Performing Arts Center') and designer ('C. Heintz'). The date '11/9/18' is also present in this section. The top of the screen has a menu bar with options like File, Edit, Format, Setup, View, Window, Help, and a toolbar with various icons.

Change its channel to 12.

# Select the inside stage right fresnel and press the "c" key.

LXBeams File Edit Format Setup View Window Help

Untitled 2 — Edited

circuits Views x: y:

Untitled 2 Instrument Schedule Positions Side Front Channel List

20 -16 -12 -8 -4 0 4 8 12 16 20 24 28

20 16 12 8 4 0 -4 -8 -12

Key

Color #

36° Source Four

26° Source Four

Sola 6

L5-C

Revolution

10° Source Four

Location

Property Value

Position

Light

Position 2ndElectric

# 4

Color

Channel 13

Dimmer

Template

Use

Group

More

Frost

Circuit 30

Mark

Note

Focus

Focus X 0'-0"

Focus Y 0'-0"

Focus Height 0'-0"

Spot/Flood 15

Cd@Spot/F... 23100

Device

Parameters

3D

Rendering

X offset 0'-0"

Y offset 0'-0"

Z offset -0'-7.5"

Light Plot

My Really Big Show

Venue:  
Performing Arts Center

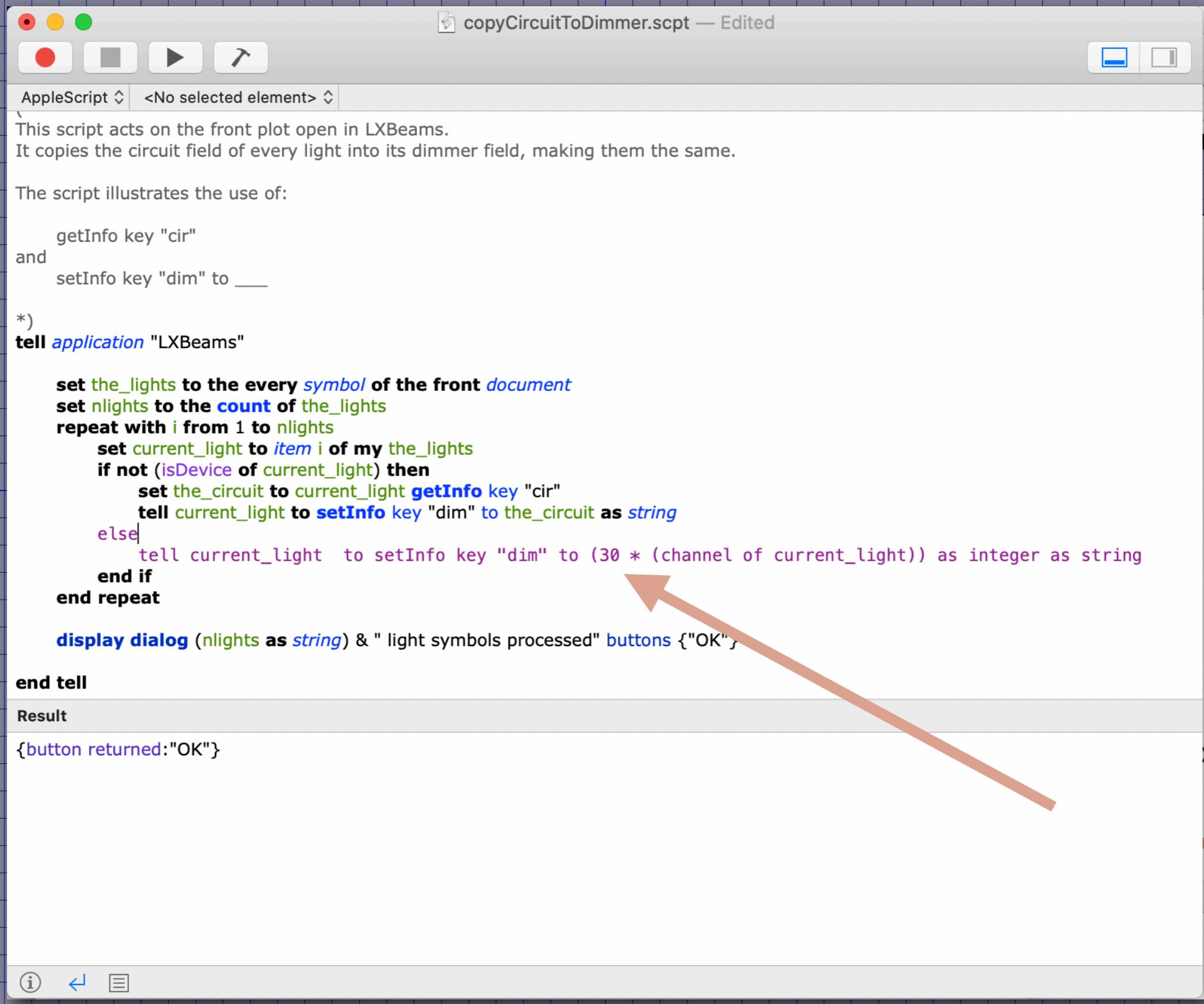
Designer:  
C. Heintz

11/9/18

The screenshot shows the LXBeams software interface. On the left is a stage plot with various lighting fixtures numbered 1 through 40. A red arrow points from fixture number 14 to the 'Key' section of the properties panel on the right. In the 'Key' section, the 'Channel' field is highlighted with a blue selection bar and contains the value '13'. Below the stage plot, there are three rows of fixtures labeled '2nd Electric', '1st Electric', and 'FOH' with fixture numbers 1 through 20. The properties panel also includes sections for Position, Light, More, Focus, Device, and 3D rendering parameters. At the bottom of the stage plot area, there is a note: 'Change its channel to 13.'

Change its channel to 13.

# Using Script Editor, modify the copyCircuitToDimmer script.



This script acts on the front plot open in LXBeams.  
It copies the circuit field of every light into its dimmer field, making them the same.

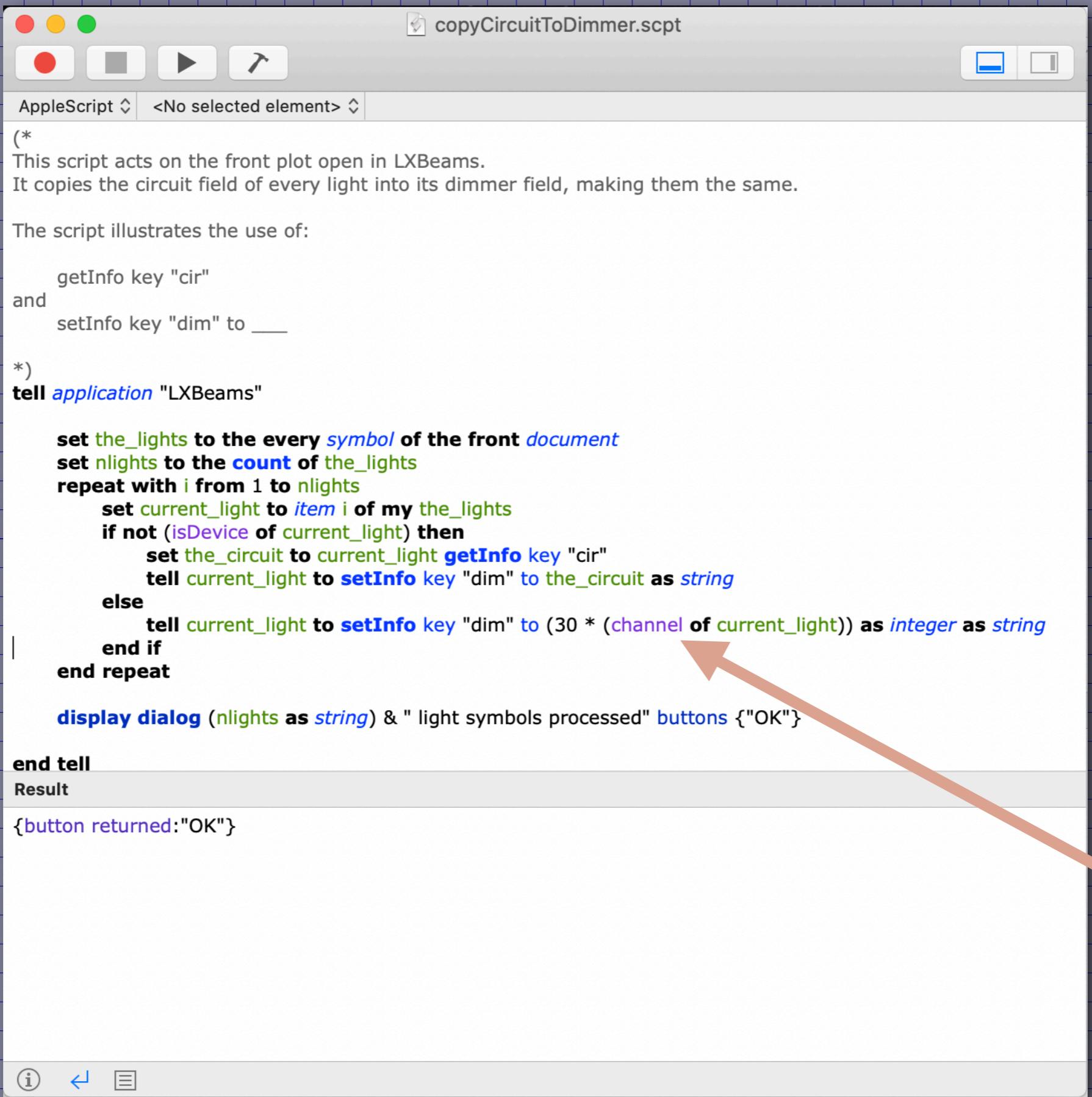
The script illustrates the use of:

```
getInfo key "cir"  
and  
setInfo key "dim" to __  
  
*)  
tell application "LXBeams"  
  
    set the_lights to the every symbol of the front document  
    set nlights to the count of the_lights  
    repeat with i from 1 to nlights  
        set current_light to item i of my the_lights  
        if not (isDevice of current_light) then  
            set the_circuit to current_light getInfo key "cir"  
            tell current_light to setInfo key "dim" to the_circuit as string  
        else  
            tell current_light to setInfo key "dim" to (30 * (channel of current_light)) as integer as string  
        end if  
    end repeat  
  
    display dialog (nlights as string) & " light symbols processed" buttons {"OK"}  
  
end tell
```

**Result**

```
{button returned:"OK"}
```

# After saving, the script should look like this.



```
copyCircuitToDimmer.scpt
```

```
AppleScript <No selected element>
```

```
(*  
This script acts on the front plot open in LXBeams.  
It copies the circuit field of every light into its dimmer field, making them the same.  
  
The script illustrates the use of:  
  
    getInfo key "cir"  
and  
    setInfo key "dim" to ____  
  
*)  
tell application "LXBeams"  
  
    set the_lights to the every symbol of the front document  
    set nlights to the count of the_lights  
    repeat with i from 1 to nlights  
        set current_light to item i of my the_lights  
        if not (isDevice of current_light) then  
            set the_circuit to current_light getInfo key "cir"  
            tell current_light to setInfo key "dim" to the_circuit as string  
        else  
            tell current_light to setInfo key "dim" to (30 * (channel of current_light)) as integer as string  
        end if  
    end repeat  
  
    display dialog (nlights as string) & " light symbols processed" buttons {"OK"}  
  
end tell  
Result  
{button returned:"OK"}
```

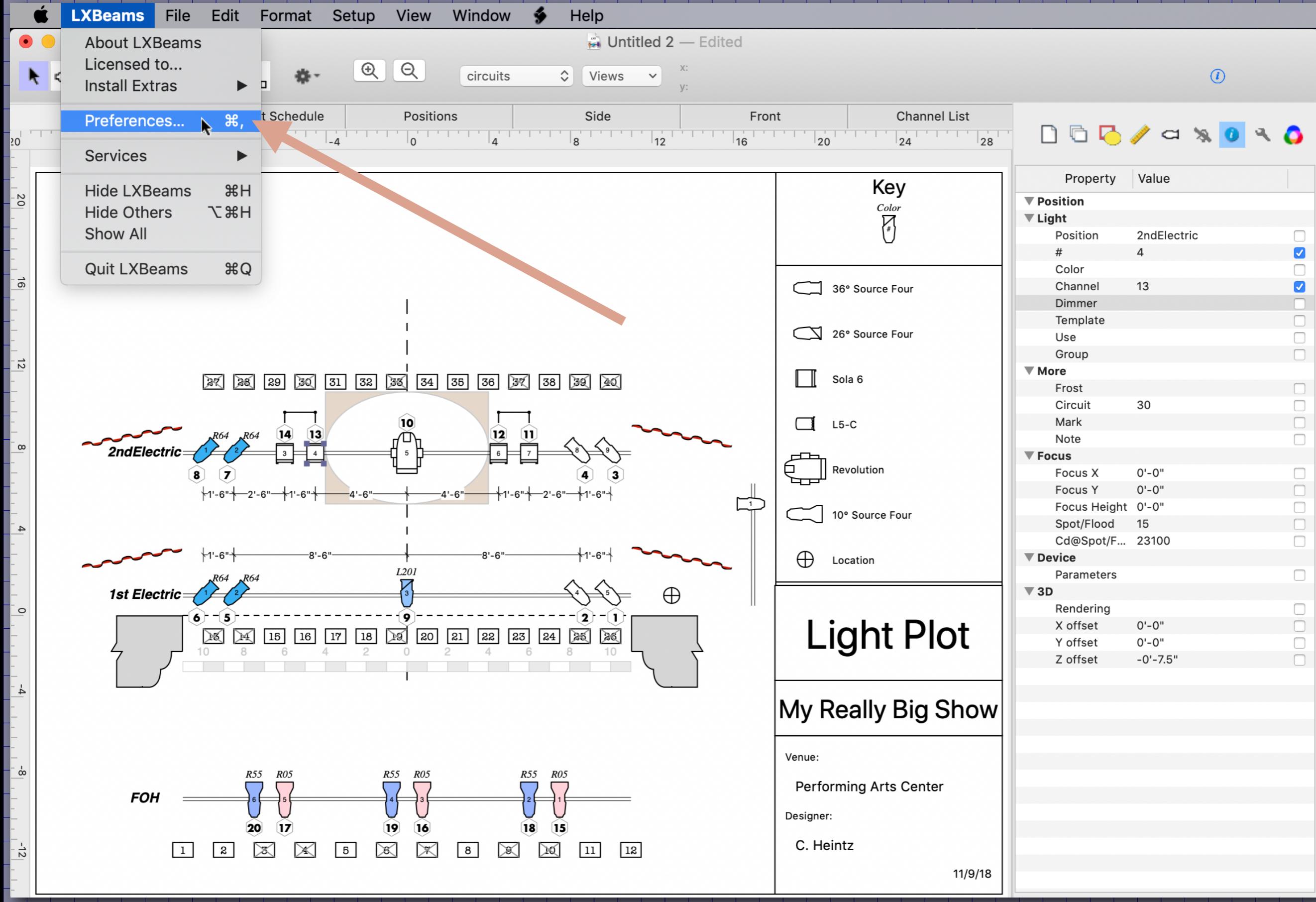
JavaScript modification looks like this.

```
if ( light.infoForKey("datatable") == null ) {  
    light.setInfoForKey( lc , "dim" );  
    count++;  
} else {  
    c = parseInt( light.infoForKey("chan") );  
    light.setInfoForKey( c*30 , "dim" );  
    count++  
}
```

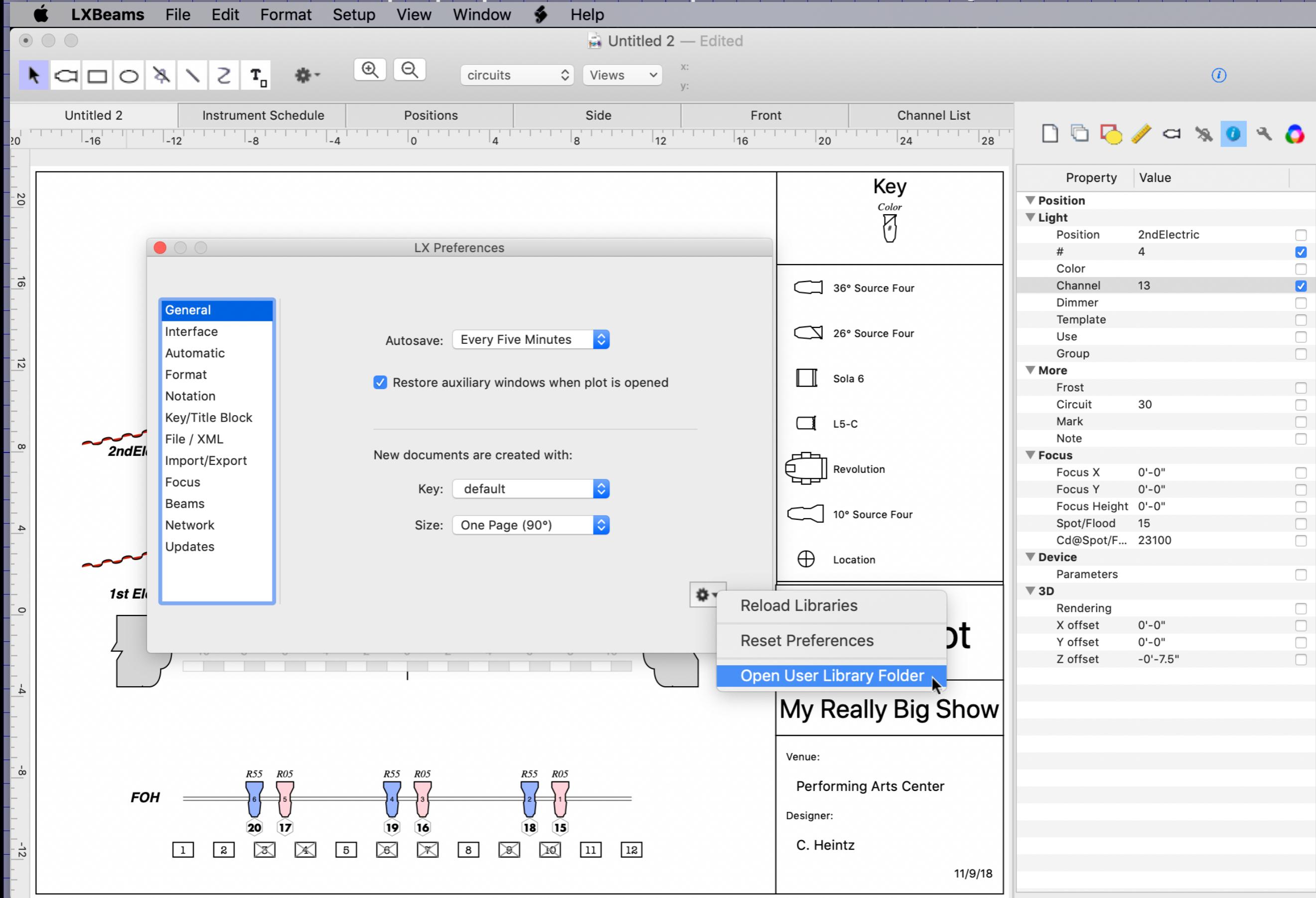
Modified script goes into:

%APPDATA%\LXSeries4Windows\LXFreeForJava\scripts

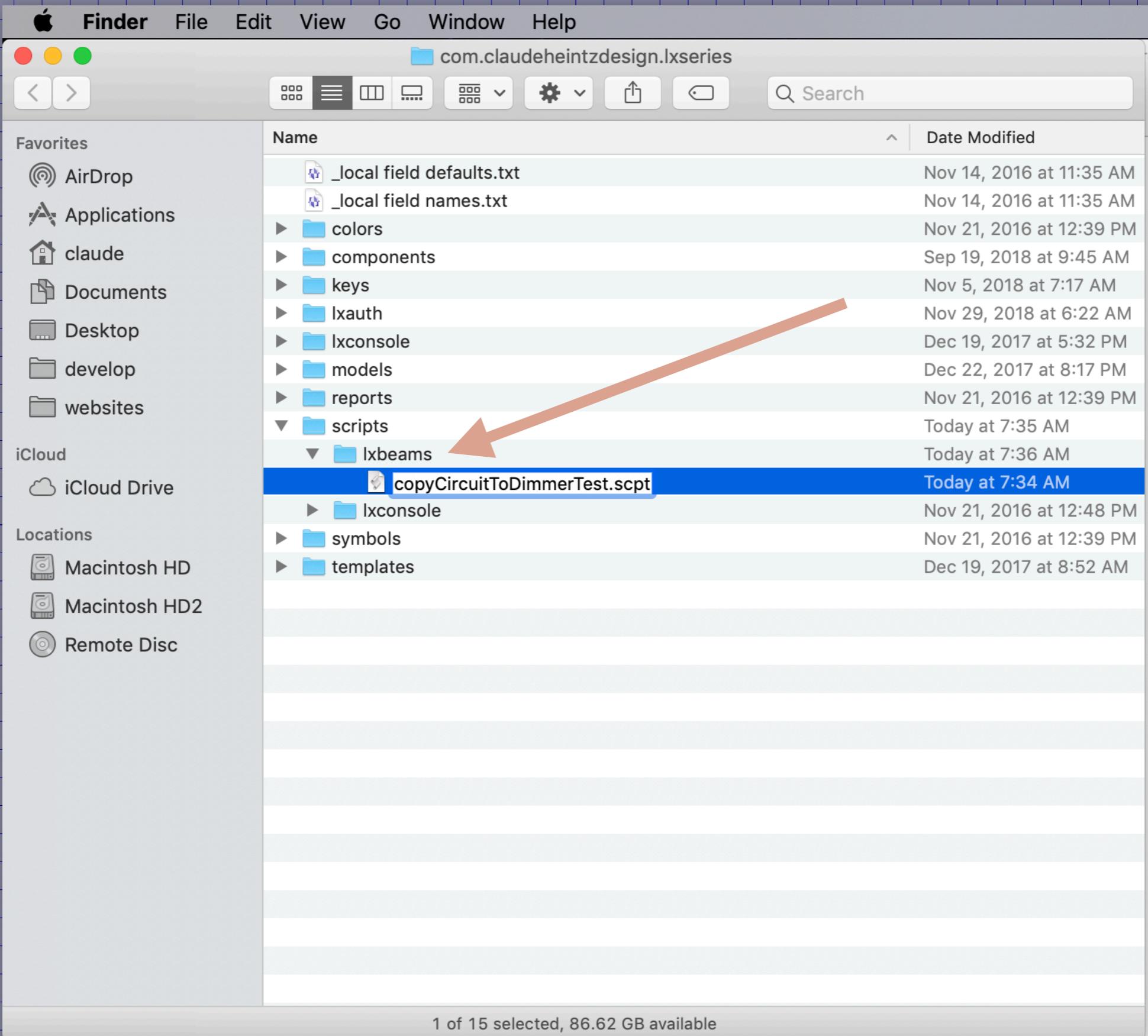
# Choose LXBeams→Preferences.



# From the popup choose Open User Library Folder.



Move the edited script to com.claudeheintzdesign.lxseries/scripts/lxbeams.



Rename the script so its clear it has been changed.

# Your scripts appear at the end of the script menu.

LXBeams File Edit Format Setup View Window Help

circuits

Untitled 2 Instrument Schedule Positions

20 16 12 8 4 0 -4 -8 -12

27 28 29 30 31 32 33 34 35 36 37 38 39 40

2ndElectric 1 R64 2 R64 3 4 13 10 12 11 6 7 8 9 4 3

1' - 6" 2' - 6" 1' - 6" 4' - 6" 1' - 6" 2' - 6" 1' - 6"

1' - 6" 8' - 6" 8' - 6" 8' - 6" 1' - 6"

1st Electric 1 R64 2 R64 3 5 6 10 14 15 16 17 18 19 20 21 22 23 24 25 26

10' 8' 6' 4' 2' 2' 2' 4' 6' 8' 10' 12'

FOH 6 R55 5 R05 4 R55 3 R05 2 R55 1 R05

20 17 19 16 18 15 10 11 12

1 2 3 4 5 6 7 8 9 10 11 12

fly focus control-console positions channels ReplaceColor Select Empty Objects copyCircuitToDimmer copyDimmerToCircuit display current watts encodeAddressWithUniverse copyCircuitToDimmerTest

Run insertChannel.scpt

Key Color #

36° Source Four

26° Source Four

Sola 6

L5-C

Revolution

10° Source Four

Location

Light Plot

My Really Big Show

Venue:  
Performing Arts Center

Designer:  
C. Heintz

11/9/18

Property Value

Position

Light

- Position 2ndElectric
- # 4
- Color
- Channel 13
- Dimmer
- Template
- Use
- Group

More

- Frost
- Circuit 30
- Mark
- Note

Focus

- Focus X 0'-0"
- Focus Y 0'-0"
- Focus Height 0'-0"
- Spot/Flood 15
- Cd@Spot/F... 23100

Device

- Parameters

3D

- Rendering
- X offset 0'-0"
- Y offset 0'-0"
- Z offset -0'-7.5"

Run the modified script.

# The script copies 30 times the channel into the address of devices.

LXBeams File Edit Format Setup View Window Help

Untitled 2 — Edited

circuits Views x: y:

Untitled 2 Instrument Schedule Positions Side Front Channel List

Key

Color #

36° Source Four

26° Source Four

Sola 6

L5-C

Revolution

10° Source Four

Location

Property Value

Position

Light

Position 2ndElectric

# 4

Color

Channel 13

Dimmer 390

Template

Use

Group

More

Frost

Circuit 30

Mark

Note

Focus

Focus X 0'-0"

Focus Y 0'-0"

Focus Height 0'-0"

Spot/Flood 15

Cd@Spot/F... 23100

Device

Parameters

3D

Rendering

X offset 0'-0"

Y offset 0'-0"

Z offset -0'-7.5"

Light Plot

My Really Big Show

Venue:  
Performing Arts Center

Designer:  
C. Heintz

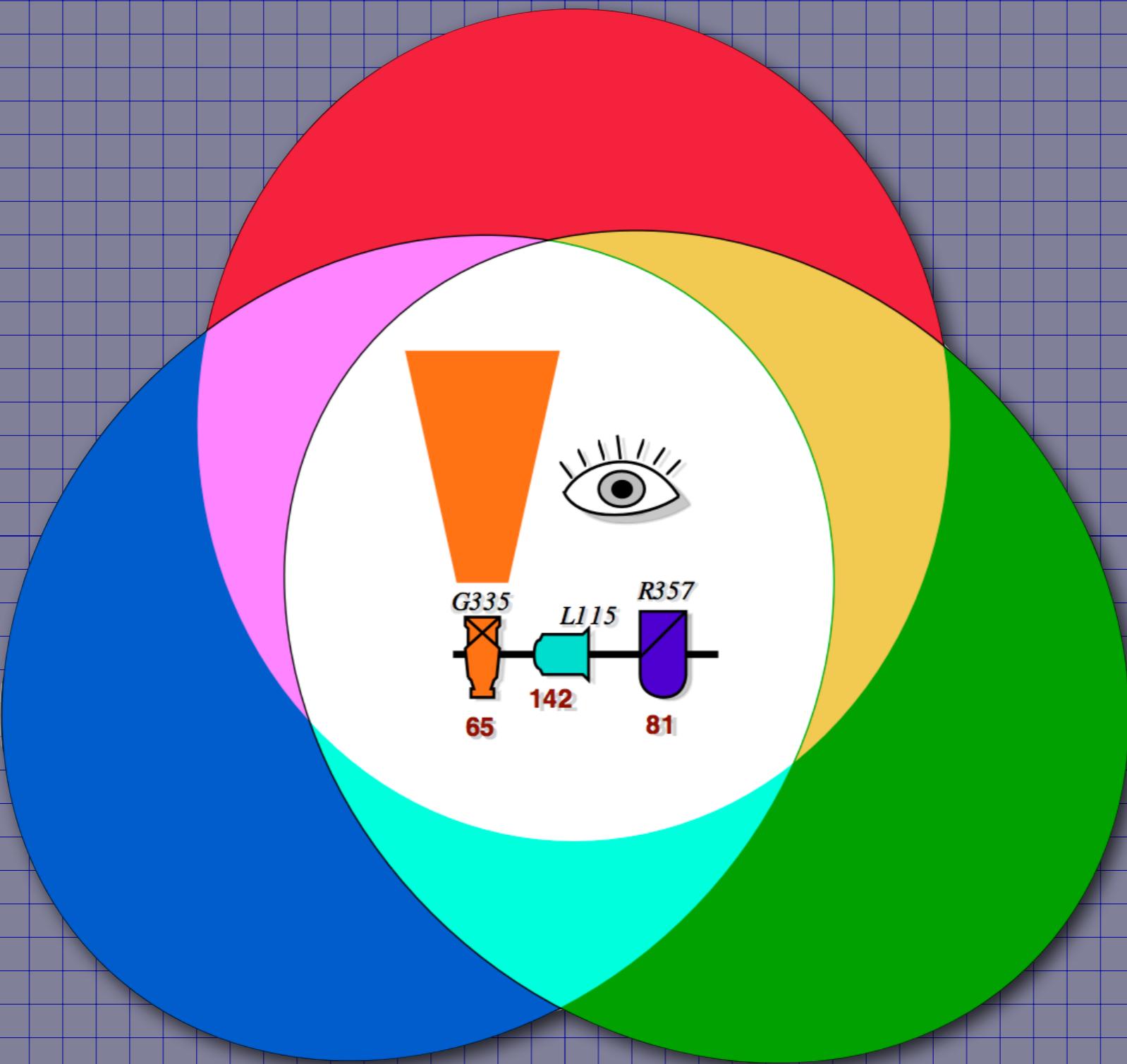
11/9/18

The screenshot shows the LXBeams software interface. On the left is a stage plot with various lighting fixtures and equipment labeled with numbers (e.g., 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40). A green arrow points from fixture number 13 down to the properties panel. The properties panel on the right lists various device properties like Position, Light, More, Focus, Device, and 3D. A second green arrow points from the 'Light' section of the properties panel to the '36° Source Four' entry. The '36° Source Four' entry has a checked checkbox next to the '# 4' value. The 'Focus' section shows Focus X at 0'-0", Focus Y at 0'-0", and Focus Height at 0'-0". The '3D' section shows X offset at 0'-0", Y offset at 0'-0", and Z offset at -0'-7.5". Below the properties panel, there are sections for 'Light Plot' and 'My Really Big Show', which include venue information ('Performing Arts Center') and designer information ('C. Heintz'). The date '11/9/18' is also present at the bottom right.

In this section we've looked briefly at automating tasks with scripts.

- Used the Copy Circuit to Dimmer script.
- Modified the script to assign addresses to devices.

<https://www.claudeheintzdesign.com/lx>



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