

Eos Family Magic Sheets

Expert Topics: Interactive Graphic Displays

V2.4.0 Rev. A

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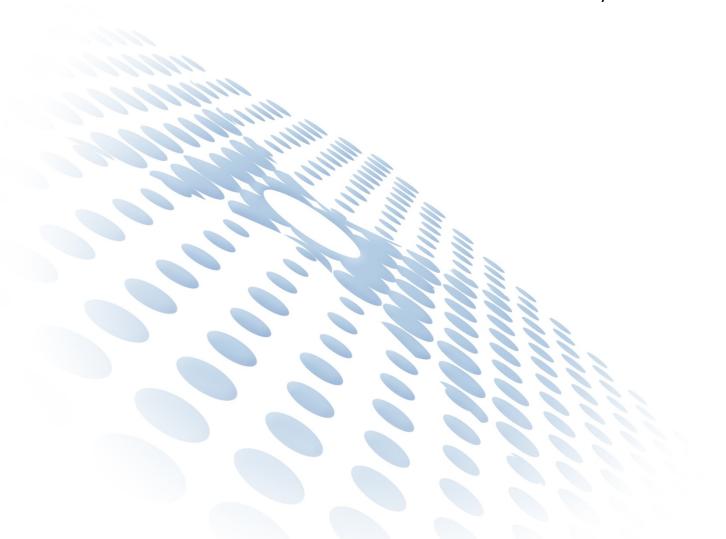


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Purpose of the Class

The Magic Sheet class will provide a quick overview look at the basic operations and functions that can be used while creating a magic sheet on an Eos family console.

LEARNING OBJECTIVES:

After completing this class, one should be able to:

- Create a simple object on a workspace
- Work with the properties of the object
- Understand the use of Target assignments and Fields
- Take advantage of Link to Color and Channel
- Use the alignment and array tools to add multiple objects
- Use Group and Ungroup functions
- Navigate within a single magic sheet or multiple sheets

SYNTAX ANNOTATION

•	Bold	Browser menus
•	[Brackets]	Face panel buttons
•	{Braces}	Softkeys and direct selects
•	<angle brackets=""></angle>	Optional keys
•	[Next] & [Last]	Press & hold simultaneously



Play Icon
 Link to video on ETC's YouTube Channel ETCVideoLibrary

HELP

Press and hold [Help] and press any key to see:

- the name of the key
- a description of what the key enables you to do
- syntax examples for using the key (if applicable)

As with hard keys, the "press and hold [Help]" action can be also used with softkeys and clickable buttons

About Magic Sheets

About Magic Sheets

Magic Sheets are user-created graphic displays that offer customizable interactive views for showing data and programming. Magic Sheet objects can be tied to show data, such as channels and palettes, or can be representational graphics, such as scenic pieces, architecture or electrics.

Magic sheets can be designed, edited or used in offline or from any control device online. Different views of a Magic Sheet can be stored, and Magic Sheets can be printed out like traditional magic sheets.

Magic Sheets are powerful for everyone in a lighting team:

- A Lighting Designer may use them to lay out channel displays in a custom or specialized way.
- An Assistant Lighting Designer may use them to track data, keep up with labels, and help the Designer keep track of moves, marks, discrete timing, etc.
- A Programmer may use them to view and interact with certain portions of the rig, or to bring forward tools to make programming quicker.
- An Electrician may use them for specialty views, rig-specific layouts, or data regarding the health of fixtures.
- Non-Technical people can interact with Magic Sheets to accomplish tasks on the system without any programming knowledge, such as archi-tainment installations.
- Other Production Team members may use Magic Sheets for indication of rig status that pertains to their area of operation.

The Magic Sheet editor – while simple in design – is powerful enough to allow a myriad of options for creating a Magic Sheet space. This book is an overview of the tools in the Magic Sheet suite – how you use those tools are nearly endless.

CAPACITY

- 99 Magic Sheets in a show
- Each Magic Sheet can have up to 16 views



Getting Started

Magic Sheets is a tool that allows you to create a custom layout to display and to interact with your console functions in different ways. There are multiple ways of opening a new or blank magic sheet.

Use Add-a-Tab (the {+} sign)

[Displays] {Magic Sheet} [Enter]

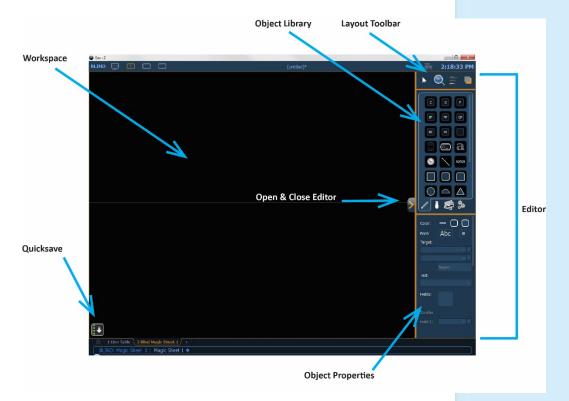
Click or touch "create a new Magic Sheet..."

[Displays] {Magic Sheet} [1] [Enter]



WORKSPACE LAYOUT

Clicking on the Edit button (>) on the right hand side of the magic sheet display will open the editing tools.



QUICK SAVE

Clicking on the **{Quick Save}** button allows you to save a restore point for the magic sheet you are working on. Once saved, a green check mark will temporarily appear next to the **{Quick Save}** button.

NOTE: If no restore points are saved, [Undo] [Enter] will delete the magic sheet.



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SIMPLE TOOLS

Click in the Object Library on the rectangle

Drag and drop it on the worksheet

- Green Handle for proportional stretch
- Blue handles for edge stretch
- White dot handle for rotate
- Pink handles for individual point move

OBJECT PROPERTIES

COLOR PROPERTIES

- Outline line weight
- Outline color
- Object fill color
 - Brightness (saturation) bar on right side
 - X is the no fill or clear.

Select a line weight and a fill color

TARGET ASSIGNMENT

- Address
- Channel (default)
- Cue
- Fader
- Group
- Macro
- Pixel Map
- Snapshot
- User

- Beam Palette
- Color Palette
- Effect
- Focus Palette
- Intensity Palette
- Magic Sheet
- Preset
- Submaster
- Console Button
- Zoom when clicked, the view will zoom in to show all objects within that object's group.
- Selection when clicked, all other objects within that object's group will be selected.

Make the target 'Group' and start at number 8

FIELD SELECTION

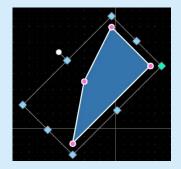
Up to six different fields of custom information can be displayed

- Target ID
- Target Name
- Text 1-10, Text Gel
- Color Swatch
- Focus
- Beam
- Prev Move / Next Move
- Port Offset

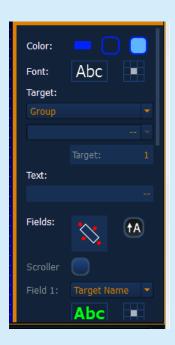
- Fixture Type
- Label
- Intensity/ Intensity Bar
- Summary
- Color
- Status
- Channel /Address
- DMX /DMX Bar
- Abc or Font icon adjust the font type, size, color and style (bold, italic, underline)
- Alignment icon position of the field

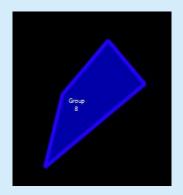
Make Field 1 the Target Name and make Field 2 the Target ID

The object might look something like the image to the right.









Mouse Navigation Tools	
Use your mouse wheel	to zoom in and out
Right click and hold	to pan or drag the display
CTRL+C and CTRL+V	to copy and paste
Left click and hold/drag - left to right or right to left	to select multiple objects
Zoom out to have more room	

LAYOUT TOOL BAR

On the Layout Toolbar, click on the Pointer

Click on the Quick Layout Tool (arrow with a plus sign)

Target should be Channel and Start = 56, Increment = 1

OBJECT LIBRARY

Click on the Fixtures Library tab

Select the Selador – 3rd down on right side

On the workspace, click and drop 7 Seladors - preferably horizontally

Click on the red Done icon when finished

Back on Layout Toolbar, change back to Normal pointer (simple arrow)

ALIGNMENT

Click and drag to select all the Selador fixtures

Back on the Layout Toolbar, click on the Align tool

Select Align Middle and then select Distribute Horizontally

BACK TO OBJECT PROPERTIES

Click on the Object Fill Color icon

Click on both Link to Channel Color and Link to Channel Intensity

IMAGE LIBRARY TAB

Images can be imported into magic sheets for two different purposes: background images or as icons.

- [Gobo] a direct link to the console gobo library
- Accepted image formats: .bmp, .gif, .ico, .jpg, .pbm, .pgm, .png, .ppm, .svg, .svgz, .tga, .tiff, .xbm, and .xpm.
- The maximum image size allowed is 1920 x 1920

Click in the Images Library

Select your favorite gobo from the gobo library to add to the Image Library

Click on it and add it to the Magic Sheet

The magic sheet might look something like the image to the right.







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DISPLAY BEHAVIOR

Determines how the magic Sheet tab interacts with display functions

- Normal Display takes focus like any Display Tab.
- Channel Display uses [Shift] & [Live] to toggle to just Live tabs.
- Control (Control Tab) will not take focus unless it is double-clicked.

LIVE AND BLIND BACKGROUND SETTINGS

You can select Live and Blind backgrounds for magic sheets. To select the background to be used when editing, check the **{Use While Editing}** box.

- Solid use Red, Green and Blue to select a color or click on the small square next to 'Red' to open a color picker, complete with saturation bar on the right. Note the X closes the color picker
- **Gradient** select top and bottom colors and display will scale between the two colors
- Image -- click on the image icon to select a background image, set width, height and opacity, options for inverted or normal
 - Currently accepts image files: jpg, tif, bmp, png

Select Gradient in the pull-down menu

Choose a top color and a bottom color

LET'S ADD SOME OTHER OBJECTS

Click in the Object Library on the round rectangle – 5th down center

Drag and drop it on the worksheet, stretch it out longer

Make the target Color Palette 1

Make Field 1 the Target Name, font size to 20

Make Field 2 the Target ID, font size to 20

Make Field 3 the Label, font size to 25

Make the fill color red

CTRL+C and then CTRL+V twice

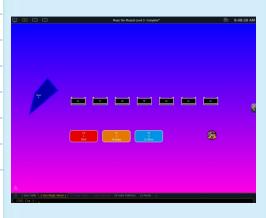
The magic sheet might look something like the image to the right.

Make the copies: Color Palette 2 (Orange) and Color Palette 5 (Lt Blue)

How it works in Live

Close the Editor	now in Live
Click on Group 8 object. [Full] [Enter]	to bring cyc lights up
Click on the Color Palette objects - red, orange, lt. blue	cyc changes color – also notice channel objects are changing color
Roll down intensity wheel	channel objects slowly fade to black.





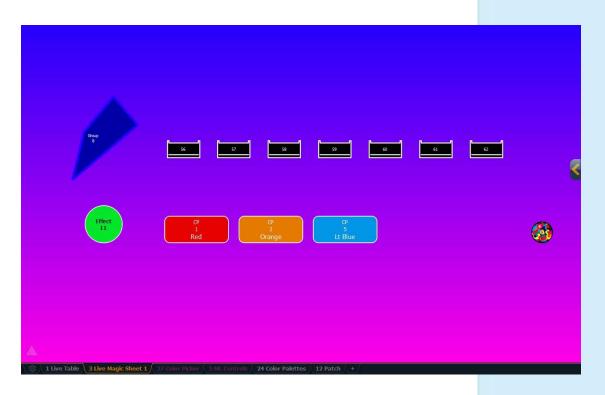


MAGIC SHEET EDITING

LET'S ADD AN EFFECT OBJECT

Open the Editor	
Add a circle to the workspace – 6 th down on left in Object Library	
Make the fill color green	
Make the target Effect 11	
Make Field 1 the Target Name, font color black, bold and size to 20	
Make Field 2 the Target ID, font color black, bold and size to 20	
The magic sheet might look something like the image to the right.	
Close the Editor	now in Live
Click on Group 8 and roll to full	to bring cyc lights up
Click on the Effect object	channels start running the color effect

The magic sheet might look something like the image below:



Navigation Tools



Navigation Tools

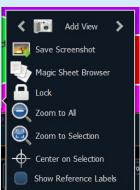
DISPLAY TOOLS

Right click or tap on the Magic Sheet tab

to see configuration settings

You can also click on the Gear tab for the same options.

- < Add View > for each magic sheet, multiple views may be created, then < and > allow for scrolling through the views.
- Save Screenshot saves a png screenshot to a USB
- Magic Sheet Browser opens a filmstrip view of magic strips to scroll through.
- Lock / Unlock locks the magic sheet so it cannot be zoomed or panned. Note that the triangle turns into a lock.
- **Zoom to all** zooms to show all objects on magic sheet
- Zoom to selection zooms to show all selected objects
- **Center to selection** centers the display on the selected objects without changing the zoom
- Show Referenced Labels labels displayed rather than target number



Click on Zoom to all Click on ■ Add View	zooms out to show all objects in MS1
Select Ellipsoidal, then click on Zoom to selection	zooms in to show only selected item
Zoom to all	zooms out to show all objects
Select the Group Array and Zoom to selection Click on ■ Add View	
Now use the < > to scroll through the 3 views	
COMMAND-LINE NAVIGATION	
{Magic Sheet} [1] [/] [2] [Enter] or {Magic Sheet} [1] [Part] [2] [Enter]	to go to a specific view - Magic Sheet 1, View 2
[Displays] {Magic Sheet} {1} [Enter]	command-line navigation

Multi-Touch Gestures

The following multi-touch gestures can be used with an external multitouch touchscreen or the onboard monitors on Eos Ti and Gio. Multitouch is not available on the on-board monitors of Eos.

- **Scroll** touch with two fingers to move around the page.
- **Zoom Out** touch with two fingers and then move your fingers toward each other.
- **Zoom In** touch with two fingers and then move your fingers away from each other.
- Zoom to All double tap with two fingers.
- Jump to Previous View use three fingers to swipe upwards or to the right.
- Jump to Next View use three fingers to swipe downwards or to the left.
- Magic Sheet Browser tap with three fingers to open the browser.

Additional Object Tools



ARRAYS

You can create multiple of the same type of object quickly, using the Array tool.

Open the Editor by clicking the Cheveron on the right of the Magic Sheet tab



In the object library, select the Color Palette object, and drop it below the existing Red Color Palette button



With the Color Palette object still selected, change Field 3 to Label.



With the Color Palette object still selected, Click on the Alignment tool, and then Create Array.

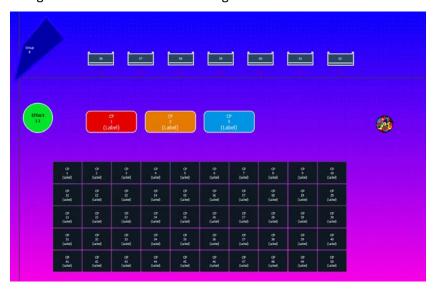




In the Array Settings window, change the amount of rows to 5. Click OK.



Your Magic Sheet should look something like this:



Additional Object Tools 11

OBJECT PROPERTY - LINK TO CHANNEL COLOR

Objects that are set as Palettes or Presets can have their fill color automatically populated. When the object's fill color is linked to channel color, the object's fill will take on the color data of the LAST channel stored in the target.

With all the Color Palette objects selected, open the Background Color, and click Link to Channel Color

Close the editor, and look at the Color Palette objects



NOTE: You can do the same trick with the object's line color.

LAYOUT TOOL - GROUP

Objects can be grouped for easier handling.

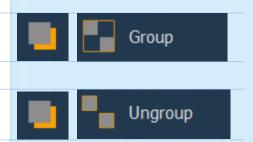
In the Magic Sheet Editor, Select all of the Color Palette objects

Click on the Ordering tool, and click Group

Move the Color Palette objects around – they move together

To Ungroup, click on the Ordering tool, and click Ungroup

NOTE: Objects cannot be edited when they are in a group. To edit, ungroup the object, and re-group when finished.





CONSOLE BUTTON OBJECTS

Objects can be assigned to console button functions, so you don't need to have a keypad.

Add a Square object above the fixtures and make it a rectangle.

Change the Object target type to Console Button.

Choose Full from the dropdown menu.

Change Field 1 to be Target Name.

Change Font to 25.

With the Full button still selected, press Ctrl & C, then Ctrl & V, to copy and paste the button, then move it next to the Full button.

Paste two buttons, for a total of 3.

Change the second button to be Out.

Change the third button to be Clear Cmd.



Macros can be assigned to objects, to make complex functions easily accessible.

Place a Circle object below the Effect circle.

Make the fill red.

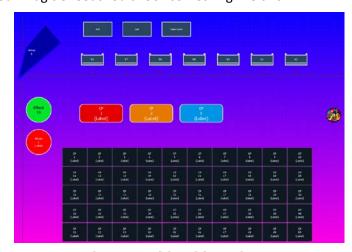
Change the object target type to Macro, Target 1.

Change Field 1 to Target Name.

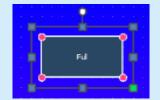
Change Field 2 to Target ID.

Change Field 3 to Label.

Your Magic Sheet should look something like this:



Close the Editor, [Go To Cue] [Out] [Enter], and play!











Additional Object Tools 13

MAGIC SHEET NAVIGATION OBJECTS

Objects can be assigned to Magic Sheet navigation functions, so you can easily change views, or switch between Magic Sheets.

NAVIGATE BETWEEN VIEWS

Close the Editor, ope	en the Magic Sheet too	l bar, and Zoom To All
-----------------------	------------------------	------------------------

[Record] [Displays] {Magic Sheet} [1] [/] [1] [Enter] Records Magic Sheet 1 View 1

Zoom in until the Direct Selects fill the screen.

[Record] [Displays] {Magic Sheet} [1] [/] [2] [Enter] Records Magic Sheet 1 View 2

In the Magic Sheet tool bar, scroll through views.

Open the Editor.

Insert a Square object next to the direct selects,

Change the target type to Magic Sheet.

Make the Target ID is 1/2.

Select Target Name for Field 1, and Target ID for Field 2.

Change the bottom-right color palette to target type of Magic Sheet, and Target ID 1/1.

Close the Editor.

Use the Magic Sheet button.

NAVIGATE BETWEEN MAGIC SHEETS

Start a new Magic Sheet – open the Magic Sheet Browser, or type [Displays] {Magic Sheet} [2] [Enter]

Insert a Square Object, change the target type to Magic Sheet.

Make sure the Target ID is 1.

Select Target Name for Field 1.

Select Target ID for Field 2.

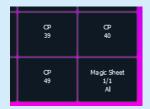
Close the editor. Click on the Magic Sheet button.

NAVIGATION BEST PRACTICES

 You can create a "Navigation Pane" in one magic sheet, and then copy it between magic sheets or views, so you don't have to recreate it.

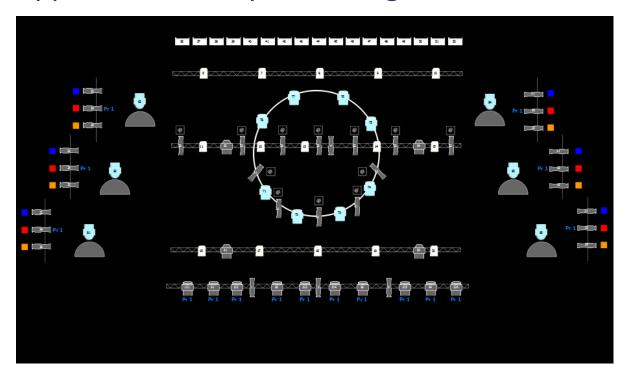




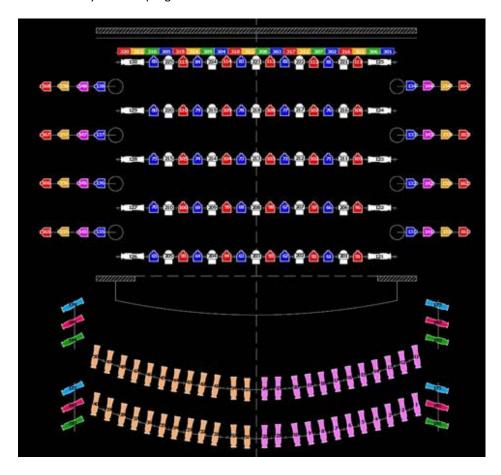


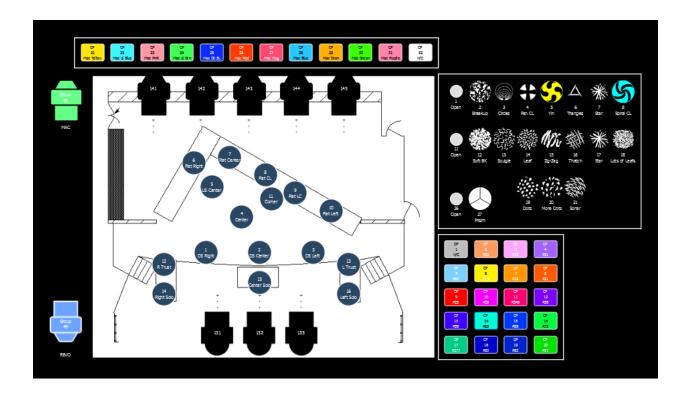


Appendix 1: Examples of Magic Sheets

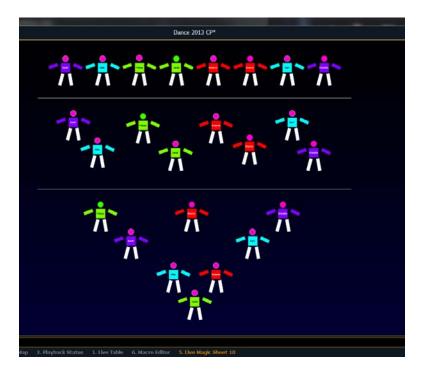


Workbook Layout - Viz program



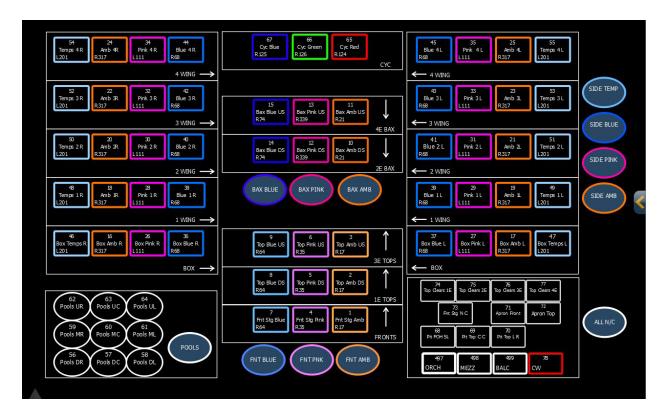


Created by Pete Wiegand, John Jay College Workshop

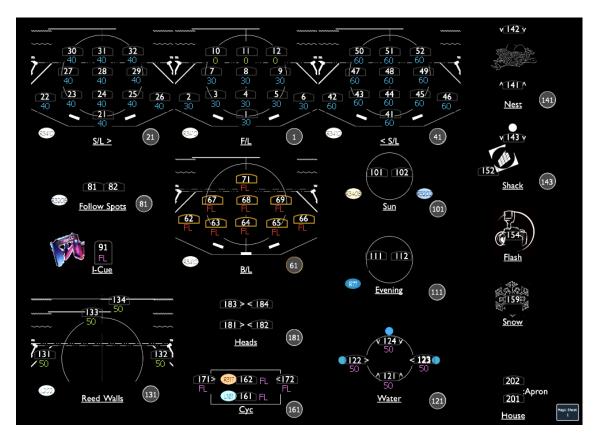




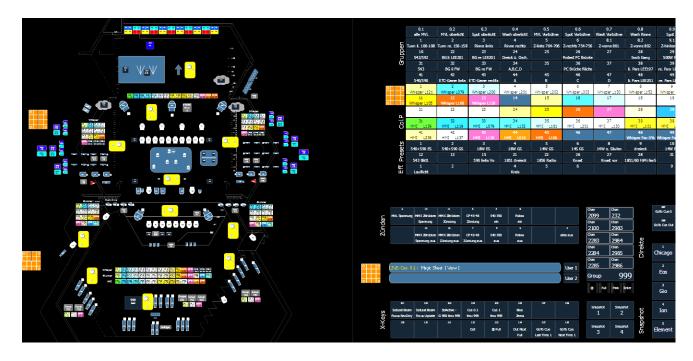
Created by Karl Wagner, a purpose-built magic sheet for a dance number with illuminated costumes



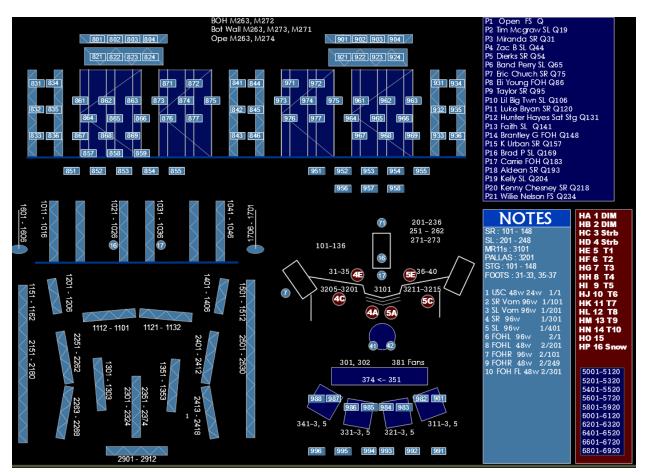
Created by Steve Bailey – Spring Dance Recital



Created by Joshua Benghiat, "Honk"



Created by Ueli Riegg, for Chicago, breaks down to four views easily.



A plan view of the 2012 Country Music Awards by Patrick Boozer. Notice use of Notes on magic sheet

Appendix 2: Fixture Symbols

IMPORTING FIXTURE SYMBOLS

Additional fixture symbols can be imported. The symbol must be saved as a .svg image file, and it needs to be tagged properly.

The outline section needs to be tagged as etc_symbol_outline and the base section needs to be tagged as etc_symbol_base.

The edits to the tags in the .svg file can be made in any text editor program, such as Notepad, or in a .SVG editor program, such as Inkscape (freeware).

IMPORTING IMAGES

Images from the third tab can be imported into magic sheets for two different purposes. They can be used as background images or as icons.

You can use a graphics image file as a background or icon. The following is a list of accepted image formats: .bmp, .gif, .ico, .jpg, .pbm, .pgm, .png, .ppm, .svg, .svgz, .tga, .tiff, .xbm, and .xpm.

The maximum image size allowed is 1920 x 1920.

You will need to have the images on a USB drive to import them into the desk.

Once an image has been imported, it is saved with the show file.

TO IMPORT AN IMAGE:

Step 1: Click on the import image icon. A separate window will open displaying any found USB drives.

Step 2: Select the appropriate drive.

Step 3: Navigate to the file you use to upload.

Step 4: Click on the file and then press {Ok}. It will now appear in the images tab.

Click on an image to select it. To use as an icon, drag and drop the image onto the magic sheet. You will be able to resize it.

Background images need to be set in the background settings tab. You can also adjust the background settings there.

