



# technology focus

ShadowMagic | By Richard Cadena

*"This isn't a visualiser with a cue stack, nor does it allow you to use moving lights or do crossfades, but it's a fun app that can help lighting design students ..."*



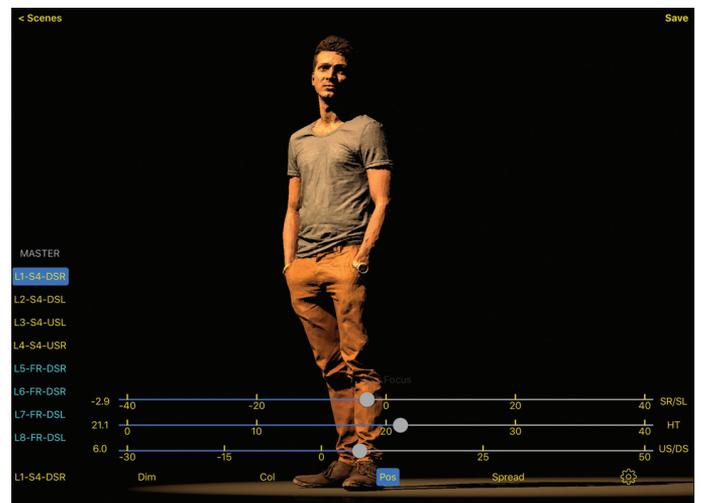
In an ideal world, every lighting design student would have round-the-clock access to a gleaming theatre or studio with a full complement of lights to practice lighting subjects and scenery. They would be able to use different lighting instruments with different lenses and gel colours to experiment with lighting positions and angles. In reality, that's as easy to come by as an August snowball in Texas - but a very inexpensive alternative is a new app called ShadowMagic.

The app runs on any iOS device, including on a tablet, which is pretty amazing considering the quality of the rendering. It wasn't that long ago when the best a desktop computer could do was render in wireframe and stick figures. It's very different today, but it's still incredible that a tablet or smartphone has enough power to render an image of a person standing on a stage with the correct lighting and shadow, and that you can change the viewing angle in realtime. And the renderings are surprisingly realistic.

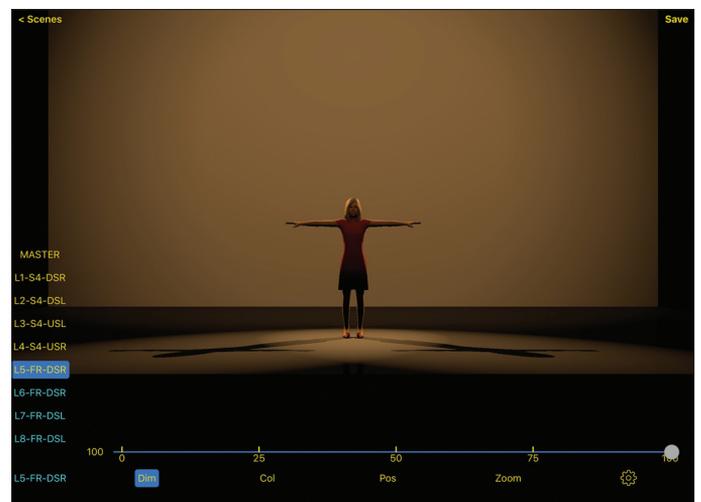
ShadowMagic is described by its developer as a 'virtual black box theatre' and the 3D stage measures 40ft (about 12m) wide by 30ft (about 9m) deep and 20ft (6m) high. There can only be one subject standing on the stage at a time, but you can choose from four different models. There are eight static lights available to use, and you can pick between Source Four ellipsoidals or Source Four Fresnels for each. These can be focused on the subject or anywhere on the cyc behind the subject, and the app renders the illuminance of the beams accurately in terms of the beam angle and the relative intensity.

Besides changing the light source, you can also set the dimming level of each light, and, because they are incandescent lamps, there's a corresponding red shift as they fade to black, just as it happens in real life. You can also change the gel colour, the position in 3D space, and the beam or field angle. When you are adjusting the attributes, a list of the lights appears on the left side of the display, and they are colour-coded to indicate if they are focused on the subject or on the cyc. That makes it easier to see what you're doing.

The app comes with a library of standard gels and lenses, including almost 1,700 colours from the Apollo, GAM, Lee, and Rosco catalogues, plus standard Source Four lenses (14°, 19°, 26°, 36°, and 50°). If you're working with a Fresnel fixture, you can adjust the field angle from 20° to 65°. According to the user manual, if you're using the GSI Gel Swatch Library app, you can set up a gel string and import it into ShadowMagic.



↑ The ShadowMagic app is versatile enough to illustrate lighting techniques like Rembrandt lighting



↑ The app allows you to light a model on a stage using virtual lights with various lenses and gels

For Richard Cadena, the road to authoring books and magazine articles ran through High End Systems and Martin, took a left turn at designer, tech, and electrician, and is still under construction.

With so many gels from which to choose, you might think it will take you longer to find the one you need than to set up a real light and put a gel in it. However, you can locate gels by brand or number, or look up generic colours with the search bar. There is also a Master control that allows you to set the dimming level for the overall scene and change the gel colour of all the lights at once. Once you set the attributes of all eight lights, you can save the settings as a scene and name your scene. You can instantly recall scenes from a list that includes both different projects and each of the scenes associated with them.

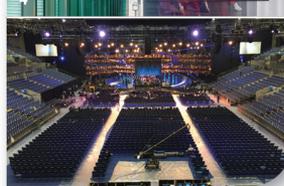
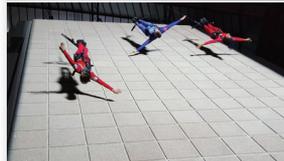
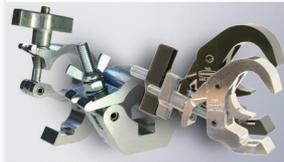
Unfortunately, you can't change the scene from the stage view; you have to go back to the list of scenes to do that. This isn't a visualiser with a cue stack, nor does it allow you to use moving lights or do crossfades, but it's a fun little app that can help lighting design students understand how light works and how light angles and colours can change the modelling and rendering of a subject. For example, I was able to render a pretty great Rembrandt lighting setup by turning off all but one of the lights and positioning it correctly in order to create that triangular patch of light on the cheek. By using the app, you can easily demonstrate the functions and look of key light, fill light, back light, and the effects of using different gel colours. And it doesn't require any prior knowledge of CAD programmes or lighting consoles to get started; it's very intuitive with almost no learning curve.

I ran version 1.2.7 of the ShadowMagic app on an iPad Air running iOS 12.1.1. You can change your view with ordinary iOS gestures like swipe to move left or right, pinch to zoom, etc. The app ran well on this hardware/software combination, although it's a bit sensitive when you're changing your point of view, zooming in and out, and moving side-to-side. The app costs £14.99.

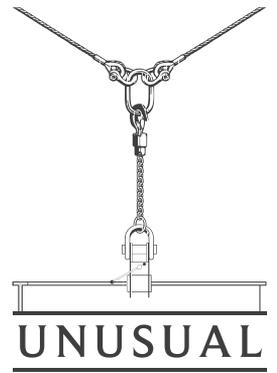
The developer of the app is a company called Gel Services, which might sound familiar if you've ordered gel string replacements for Wybron scrollers recently. The company was formed after Wybron decided to shut for good in the wake of the LED revolution. A group of Wybron employees stepped up to fill existing and future orders for gel strings, for which there was still enough of a demand to make the new company viable. Keny Whitright, the former owner of Wybron and the inventor of the gel scroller, retired, but like many others from the industry, he couldn't resist its pull and soon put his programming skills to work - the result is this app.

ShadowMagic is a great tool to illustrate various lighting techniques. It's not a replacement for real lighting in a school setting, but it offers a great start. And if its feature set can be expanded over time, there's no telling where it could lead. I think this might be the start of something much bigger and more technologically advanced. ☺

▶ [//gelstrings.com/iOS-Apps/ShadowMagic.html](http://gelstrings.com/iOS-Apps/ShadowMagic.html)



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**Yes.**  
*Impossible?*  
**No.**

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