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Feeding the Machines

Programming Attraction(s)



Jason Badger has found a unique niche as a specialty automated lighting programmer. For over 10 years, he has been programming major attractions and rides for Disney parks around the world. As if this is not enough, he also spends his free time working in the Los Angeles area on other types of productions. However, what is distinctive about Jason is his work on Disney

attractions. I wanted to learn more about programming theme park attractions, so I interviewed him about his specialty. **PLSN: How did you get to this point in your career?**

Jason Badger: I have been involved with theatre since I was seven. In 1994 I started working as a stage technician at Disneyland in Anaheim doing a full range of tech type things and did some minor programming. Most of the shows at Disneyland required that the lighting consoles use SMPTE and odd integration requirements that I was getting used to, like MIDI Show Control and serial commands and such. In 1997 I started programming for Brian Gale, an Imagineer, and after working at a show at the park, he started hiring me outside of the park for shows at other Disney Parks and for odd things like movie premieres for the Disney Studios.

Because of that connection, and having a good working knowledge of show control integration and intelligent lighting consoles, I started to work more and more with Walt Disney Imagineering, starting with a refurbish of the Enchanted Tiki Room at Tokyo Disneyland, which was the first attraction that I worked on. Since then, I have been involved with the show lighting programming, integration and control design for over 16 new and refurbished attractions at all 11 Disney Theme Parks worldwide.

What separates the kind of productions you work with from the “normal” touring or theatrical shows?

First off, it really requires a very long lead time. I'll be brought in to start talking about control of the lighting system at least two years before programming starts. There are a huge amount of contingencies that need to be accounted for, like what happens when the attraction emergency stops? How does one scene interact with another scene? Is there enough time for the scene to reset before another vehicle enters the scene? How will different scenes be triggered? SMPTE? MIDI Show Control? Contacts? Will certain scenes require random-ness or are different scenarios required for different vehicles in the same scene? Would a simplified stand-alone controller or advanced cue list-based controller work better? Do maintenance hooks need to be put in? Day mode? Night mode? Startup routines? Basically everything is made so that the attraction operator or maintenance team doesn't ever have to physically touch the lighting controller. Everything needs to be able to be accessed through the show controller and have maximum up time.

Are conventionals programmed on your console with the automated lighting or on another desk?

It used to be that all conventionals were programmed on the proprietary Imagineering console, the same one used to program the Audio-Animatronics figures. If you wanted one of the front lights to go to full, you had to ask for them to turn the dial for the “Right Foot.” When the demands of lighting programming became more complex because of automated lighting, they switched to having a separate lighting controller.

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What was your most challenging programming task in the recent past?

Because of a very short time frame on a recent rehab, it wasn't going to be possible to have all of the vehicles of the attraction able to run the attraction all at once until I had to leave the project. So with only a few vehicles running and using a program on my laptop, I was able to simulate more vehicles running. This was necessary to make sure there were no problems with scenes and triggers stepping on each other. Oh, and also having to endlessly ride an attraction over and over again (Space Mountain, 175 times in a week and a half).

What is the best thing about working with the types of productions you are involved with?

The longevity these attractions have and the ability to make sure they're perfect. They could last over 20 years.

Do you use a "palette disk" with your favorite colors, and parameter settings?

I'll import my palettes from a previous show. I'll also pull macros, snapshots, settings, views, etc. Ever since using the Wholehog 2 in 1996, I've been naming everything the same as well as using the same 26 colors. I'll add more if the production calls for it, but I've found all that I need is 26.

What about position palettes?

There usually aren't many position palettes in an attraction, because typically, dimmers rule the day. There are however, lots of Intensity Palettes that I'll use. Typically I'll build the nominal value for an entire scene into an Intensity Palette.

How do you prefer to number most rigs?

In a very large multi-scene attraction, I'll usually number all the channels to correspond with the dimmer rack and number they're on. If there are moving lights then they'll be given the fixture number from the architectural plot. It gets maddening if you start introducing new numbers when perfectly good numbers already exist in these huge architectural plots. I'm going to use groups to program anyway. The thought is that you keep it simple for the maintenance folks so they don't have to cross reference some sheet when all they want to do is just bring a light up.

Do you have a programming "horror" story?

Not a horror story so much, but on one attraction at Disney's California Adventure, we found that when we turned on the work lights in the ride shaft at certain points of your drop that it heightened the excitement. The trouble was we didn't have them under dimmer control yet; they were just on a switch. We wanted to get a creative buyoff from our CEO at the time and wanted to simulate this somehow. Well, I grabbed the short straw and sat on the attraction with the CEO and his entourage with a radio and had to call cues for the lights to be turned on and off while careening up and down in the ride shaft, all the while trying to be as discreet as possible.

What is your most proud lighting moment?

Cinderellabration: Lights of Romance at Tokyo Disneyland. I got to program the effects in the hub, a vast array of 88,000 LEDs broken up into 1,700 fixtures, two-thirds of which were three color and one-third of which were white, that made up this instrumental re-telling of the story of Cinderella through light and a fully orchestrated 13-minute track that used all the major themes from the movie. It was such a hit and so much fun to see the guests enjoy it every night. It was before we were doing media servers and other "shorthand" for controlling mass amounts of LEDs and we really pushed our gear to the limit.

Is it true you often include "Easter Eggs" in your programming that cause cues to happen only on certain

days or in special colors?

Yes there are Easter Eggs, but where would the fun be in telling?

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