William Michael McHugh
541-997-4980
https://www.freelanced.com/williammichaelmchugh

This document was prepared to show how new technology that is being created at an astounding rate today can be harnessed and used creatively to further explore an IMMERSION theatrical experience.

New exciting projects today can only happen when the right team of people is brought together and share the same vision of what the end product will be and have the skill, passion and energy to make it happen.

This document attempts to identify those team members and technology best suited to successfully execute this new immersion theatrical experience.

THE BIG IMMERSIVE SHOW TECH CONCEPT:

New technology is pushing the envelope for immersion theatrical productions.

I have explored in depth new technology solutions that could be incorporated into a new BIG SHOW theatrical production that centers around a dome experience.

This type of production requires more than ever a good "team" of creative and technology experts working together to achieve a visual dream.

The Dome:

This is a recliner/rumble seat dome configuration tuned and engineered to work with the 3D/360.

Early per-engineered concept study:
http://www.myfunprojects.com/virtual-production-studio--3603d-dome-projects.html

There will be room for a slightly elevated central stage area for actors and puppeteers to perform live and interact with the film projection.

There will be 2 types of projection systems married together.

Digital and real-time interactive 3D/360.

http://micoyentertainment.com/home/

Working in conjunction with R&S Production services the executive producers of the "Illusions" show at Joyland.

Vortex Immersion would also support the Dome experience with their long track record of fantastic dome productions..

http://vorteximmersion.com/

https://vimeo.com/82994605

http://www.imdb.com/name/nm0281201/

REAL-TIME PERFORMANCE:

This new concept will incorporate new technology that is being experimented with by companies like "Moment Factory" who utilizes all sorts of innovative interface technology in a real time format as illustrated in the recent demo produced for the C2 conference in Montreal.

http://www.momentfactory.com/en/portfolio/C2-MTL/#_/_/_/_

Moment factory is cutting edge and has their R&D facility in Santa Barbara.
http://www.momentfactory.com/en/contact

To push the envelope even further I want to involve:

Roger Nelson and his company Motionwerx. They handle the state of the art
in wearable wireless motion capture suits that will most certainly help with
the flexibility of tech integration and show development but also the suits
allow for costumes and puppets to be integrated into the suit as well. You can
even attach the tracking sensors to the puppets joints or armature resulting in
motion control capture in real-time of creatures not yet imagined.

http://motionwerx.com/

THE HARDWARE:

The main show system will be developed around the Nvidia VCA units
possibly requiring a bank of 10 to 12 running one virtual environment with
characters in real-time at 4k (or better) with multiple outputs for the required
projectors.

This system would blend with the new Devil supercomputers to help with the
real-time animation.

http://www.devildemonsystems.com/

Note: this system may in fact want to become a traveling show and this
equipment could easily be configured into a portable "roadie" touring box or
boxes.
http://www.nvidia.com/object/visual-computing-appliance.html

https://vimeo.com/97923352

https://www.youtube.com/watch?v=5V_J-EXCC9c

Horse power is not the only requirement to make this real. All the elements need to be designed and developed with game development "Optimization" in mind. That is not to say low polygon mesh but rather a "discerning" use of polygons so as to allow the VCA units and Devils to perform high-quality real-time renders of the show and all the real-time animations that will be integrated on the fly during the live performance.

THE SOFTWARE:

Nvidia has a wonderful set of tools that work nicely with 3rd party SDKs like Unreal and Unity to name a few.
https://developer.nvidia.com/content/what-gameworks

I hope this helps you understand better my thoughts and vision of the type of show I have been thinking about for the China folks, as well as other venues.

I want to intro you to all these players with this doc..

Let me know your thoughts,

regards,
Michael McHugh