

Luminance

A Multimedia Art Installation

Produced by **Short Attention Span**

a.k.a. Lee Marrs, J.J. Toothman, and Scott Wong

Luminance is a live, playful, interactive art installation in which participants use their own physical body movements to create and influence digital content on a 10' X 7.5' screen. Participants are completely untethered. Their gestures, dancing, leaping and stillness can create image elements on the screen that move with the user and/or move digital content already on the screen.

Luminance is the graduate thesis project developed by Short Attention Span: Lee Marrs, J.J. Toothman, and Scott Wong. Luminance was developed to answer the thesis research question, "Can a new methodology be developed to create complex, playful content for multimedia installations whose interactivity depends solely on physical body movements?"

Artists' Statement

The connection between man and machine has evolved since the invention of the wheel. Our digital age offers increased opportunity to explore the mechanisms by which people in physical realities interact with the world of bits and bytes. These richer, technically sophisticated interactions are gravitating towards humans' inherently natural movements. With each additional technical innovation, the tethers between man and machine become smaller and less obtrusive, eventually erasing the physical connections altogether. Such innovation allows for creative and artistic exploration as well practical implementation.

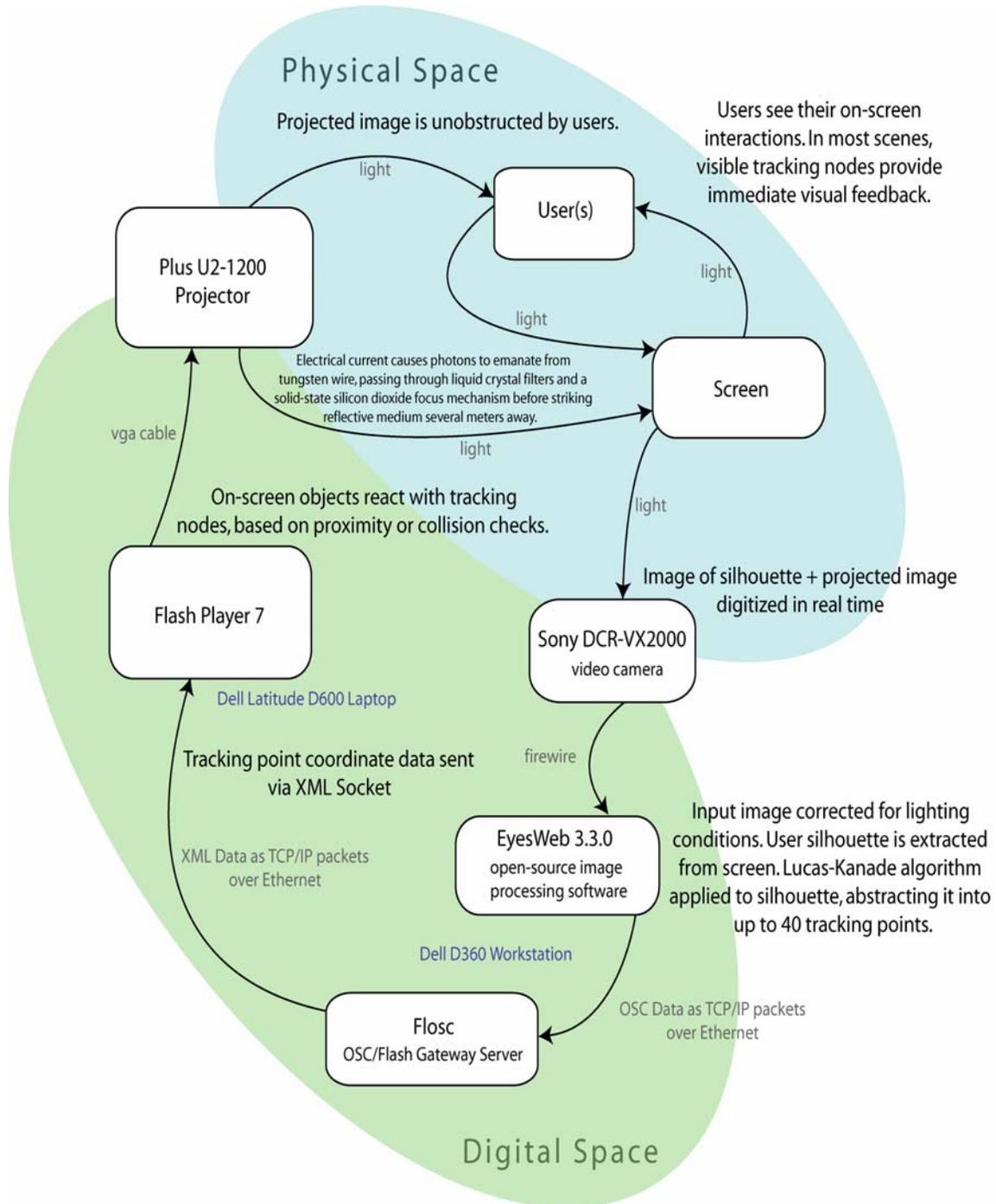
Luminance's technical foundation provides an opportunity to explore the "Three I's" – Illusion, Interactivity, and Imagination. The illusion of content is combined with interactive movement, providing a multimedia experience which provokes the imagination of Luminance participants, resulting in another level of content. Participation and interactivity are as much a part of the storyline as the visuals projected on the screen and the sound playing in the background. The variety of content provides a number of unique experiences for the participant and increases the potential for inner narrative.

How Does Luminance Work?

A participant in the Luminance installation does not use an input device such as a mouse, keyboard, virtual reality goggles, or any other augmented device. Within the installation space, the user's image is captured by a video camera. A computer analyzes the user's image and converts his/her postures into a set of point coordinates.

These coordinates are transmitted to a second computer projecting digital content onto the back of a screen. The point coordinate data from the participant's movements is used by the second computer to manipulate the projected graphics and sounds. The user plays an integral part in this feedback loop, responding physically to the projections. In some scenes, this movement changes the content and in other scenes it actually creates the content.

Components of the Luminance Installation



Complete information on Luminance can be found at <http://www.solidether.com/luminance>

If you are interested in having Luminance installed for your gallery, exhibition, conference, or basement, please contact Short Attention Span via the website.