



BLACKBox IS COMING - ARE YOU READY?



Eurovision 2009 - Moscow

BLACKBox

- the first live, realtime 3D — 6D positioning
and communicating hardware/software,
plug-and-play technology solution

As regular readers of The Plan, you're all aware of the advances and achievements of **wysiwyg** and also our pre-visualization and design software, Vivien—Event Designer, spawned from **wysiwyg** and launched in Apr 05, for venues, event planners/designers, and those producing meetings and special events (galas, awards, conferences, weddings, training sessions, etc.)

Last year, the entertainment production market place began to talk about a new CAST innovation – BlackBox. We even gave a few sneak previews last year at PLASA and LDI.

By leveraging our 15 year development history and knowledge of pre-visualization in 3D, CAST designed BlackBox (US Patent pending) to use a new **wysiwyg.bb** proprietary “CAD-type” software which defines the parameter (to establish “0”0”0”) and any fixed objects or geography in the space, calculate of the absolute position of moving and stationary objects, and communicate in/out data in realtime.

Our Core Technology

From the beginning, **wysiwyg** made it possible to pre-visualize (virtually) the set and stage lighting designs before installing any real hardware, lights or even occupying the venue, which increases productivity and reduced production costs for End Users (production professionals → productions). **Green**-responsible production professionals and venues also know that **wysiwyg**'s powerful pre-cueing and pre-visualizing capabilities can be used offsite on a PC and that delivers significant energy savings and reduces the carbon footprints of venues/productions.

wysiwyg previsualizes the plot in 2D, 3D wireframe and time-of-day Shaded View, and automatically generates the lighting plots, equipment schedules, pipe-tapes, colour cut lists, gobo lists and anything needed to make the show happen. **wysiwyg** has been morphed into a comprehensive software production design suite

BLACKBOX IS COMING - Continued

of tools which incorporates virtual realtime pre-visualization of lighting, motion, and media content used primarily for pre-show work, and that processes data and communicates with controllers of lights, moving and static, as well as listening to motors that move scenery and replicating streaming media content (for coordinating with lights and other controllers). Via CAST's developer program, **wysiwyg** is used by a continually growing number of hardware manufacturers and entertainment control systems for adding visualisation to hardware, as well as for testing new conceptual lighting fixtures, robotic/automated hardware and new production technologies.

Just a few samples of **wysiwyg**'s work: The Queen's Jubilee at Buckingham Palace, numerous Olympics ceremonies, multiple Cirque du Soleil and Disney shows, concert productions (including U2, Elton John and Eurovision 2009) and gala events like the 2008 Nobel Peace Prize Ceremonies/Banquet. **wysiwyg** is used by many large theatrical venues like the Royal Opera House in Covent Garden, the new Four Seasons Centre for the Performing Arts in Toronto, and the Sydney Opera House. As well, **wysiwyg** is used extensively by major film productions such as the Harry Potter series, Spiderman, X-Men, and Charlie and the Chocolate Factory, Alexander the Great.

BlackBox -- New Technology|

BlackBox will use a new proprietary file type **wysiwyg.bb** (128 bit encryption) and utilising our proprietary 6D positioning protocols defining the parameters (to establish "0"0"0") in relation to any or several moving or fixed objects, or geography in the "space" (as uploaded in **wysiwyg.bb**). BlackBox will run on a high-speed communications server-type computer likely using XP (64 bit embedded) or other viable OS. It will be an all-in-one positioning and bi-directional communications and data distribution system that enables all technologies of all control or robotic devices to be connected together (plug and play – open systems architecture) through BlackBox.



Cirque Du Soleil - "O"

Live realtime tracking data from wireless and/or wired sensor Input Devices like RFID, SONAR, RADAR, Infra Red, stereoscopic cameras (with or without thermal imaging), or any other 3rd party sensing device, as well as programmed streaming positioning data from any controller or sensor operating moving objects, or programme controllers for any electromechanical device (operated either automatically or manually), is received in BlackBox

which then calculates the absolute positioning of stationary and moving objects in the space and then distributes this data to whatever 3rd party technologies/controllers want it. All of this 6D spatial moving information between all devices is being translated/specified to run at a minimum of 50MHz.

For the highly automated, hi-tech entertainment industry, using BlackBox means that formerly autonomous hardware/controller technologies can interact and cue off each other in live realtime, or trigger pre-programmed commands (in one or several dependent devices), based on the dynamic positioning of moving or stationary objects, to instruct moving lights, robotic cameras, automation systems, multi-media servers – even to deliver positional information for spatial audio.



Cirque Du Soleil - Fuerza Bruta

The software can be used for decision aid/support to identify/predict for intrusion detection/prevention and to warn about intrusions, unexpected movements, or potential collisions (virtual/augmented reality) in the designated area within the prescribed boundaries, and to exempt or prevent a collision of objects by using anti-collision boundaries set in BlackBox to trigger pre-programmed avoidance alerts to all connected technologies if something isn't right or working as expected.

While early days, entertainment production professionals claim that BlackBox will revolutionize the industry. CAST believes that in the future, BlackBox will also have additional important, vital uses for military, aeronautic, security (perimeter, border, internal), safety, medical, health, construction, and logistics applications.

BlackBox will be a powerful, fast, and robust (new code + the proven proprietary intelligence of **wysiwyg**) to which, with the right DLL, any or several sensor, tracking, hardware/controller technologies and electromechanical device can connect/interconnect (Input or Output) to share live, realtime positioning and other data.

CAST seeks Partners

CAST is always interested in discussing opportunities to collaborate on R&D projects with big vision partners with significant strength/prominence/dominance in their industry segment. For more information, please contact either :

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