IN THIS ISSUE: The Eighth Wonder of the World - *wysiwyg*

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EXCLUSIVE: **wysiwyg** at Eurovision Song Contest in Moscow

The Eurovision Song Contest, now in its 54th year, is an annual song competition held between the members of the European Broadcast Union, currently 42 competitors. The show is hosted in the country of the winner of the contest the previous year, bringing a new venue, new host broadcaster, and new challenges every year and the guarantee that nothing will be the same. (This means there is competition both on the stage and about the stage…) The production is massive – second only to the Olympics in worldwide television viewers – currently estimated somewhere around 200 million.

When Russia won Eurovision in Belgrade last year, plans started immediately to make the 2009 production in Moscow the biggest and most spectacular in Eurovision history. With the live broadcasts just days away – the Semi-finals on 12 and 14 May and the Finals on 16 May – many details have been kept under wraps. However, CAST has exclusive photos of rehearsals and a few ideas of what viewers can expect.

This year’s production is big indeed – the most ambitious yet. With an astounding 2000 square meters of LED and over 750 moving lights, it’s not for the faint at heart. The
stage design was completed late 2008 by a Eurovision alum, John Casey, principal designer of Design Events (based in New York).

Casey’s design for this year’s contest is inspired by Tatlin’s tower, Lissitzky paintings and prints, Malevich’s graphic arts, Koltunovich’s lithographs, Kandinsky’s paintings and other Russian artists.

John Casey stated, “I’ve tried to come up with a theatrical design for the contest that incorporates Russian avant garde art into a contemporary setting, almost entirely made up of different types of LED screens”. Casey added “It’s an honour to act as their designer because it’s the first time Russia has ever hosted the Eurovision Song Contest.”

The animated stage was released and spread fast on the internet, finding its way to YouTube: [http://www.youtube.com/watch?v=sR3i4U1Q3Eg](http://www.youtube.com/watch?v=sR3i4U1Q3Eg). Casey designed the initial stage design, then sent it to the creative team in Moscow, where they manipulated it to show the various possibilities. While Casey created this animation in Cinema 4D, he is a strong proponent of all previsualization software. “For a stage of this scale and the movement involved, it just simply couldn’t be expressed in a drawing. The entire concept would have been lost,” said Casey.

Pre-production began mid-March at a studio in London, where Lighting Designer Al Gurdon and his team of programmers worked away preparing lighting and video using [wysiwyg](http://www.wysiwyg.com) as one of their tools. [wysiwyg](http://www.wysiwyg.com) alone is responsible for over one third of all the moving lights hung in the 26,000 seat Olimpiysky Arena, site of the 1980 Summer Olympics. All the GrandMA Systems were run thru [wysiwyg](http://www.wysiwyg.com), which included 280 x Mac 2k washes, 50 x VL3500 spots , and 110 Pixel Lines 110.

“We were very pleased,” said Gurdon, who has designed for some of the most prestigious events in the world including the MTV Europe Awards, Robbie Williams and Victoria’s Secret, to name a few. [wysiwyg](http://www.wysiwyg.com) did exactly what we needed it to do, and did it well, which says a lot when you consider the magnitude of this production.”

Unfortunately for those of us in North America and other non-European parts of the world, the show is not broadcast on television. However, you can view a live stream on the internet through eurovision.tv.

And for those of you curious to keep up with the technical behind-the-scenes action, be sure to bookmark the Eurovision Diary [link: www.m-m-pr.com/index.php/eurovision-diary](http://www.m-m-pr.com/index.php/eurovision-diary) a daily blog kept by Production Manager Ola Melzig. CAST will be sure to release full details and broadcast photos after the event. 🎥
CAST Software’s 

CAST Software Helps Design A Solid Future For Students With 

About this time each academic year CAST Software of Toronto Canada, proud owner of wysiwyg, likes to inform schools about ways to help them equip graduates as they move into the real world. This is an important extension of CAST’s already widespread wysiwyg Learn Programme, currently in more than 300 schools, colleges and universities around the world and, last year, each of these Learns averaged more than 20 students – that means more than 6000 students!

To demonstrate CAST’s commitment to the production professionals and designers of tomorrow, this year CAST is offering the wysiwyg New Graduate’s Opportunity. Simply put, until 15 Jul 09 grads can purchase a wysiwyg Design license for USD1250 or a wysiwyg Perform license for USD2099 - that is half-price - a savings of up to USD2000.

CAST recognizes the importance of equipping these highly computer literate aspiring professionals with the right tools to start off their careers. The New Graduate’s Opportunity is an incredible offer. Grads will get the edge-up and the help they need to beat their competition for the best jobs. This opportunity means grads can launch their career with wysiwyg — the state-of-the-art lighting design and pre-visualization professional production software that is the Industry Standard.

The offer is only open to graduating students. To take advantage of the Opportunity, grads must first register their new graduate status with CAST by submitting the Student Opportunity Registration form (which requires information about their school, course and educational status) available at http://media.viviendesign.com/wysiwyg/learnprogram/forms/learnform.html. Alternatively, grads can telephone +1.877.989.2278 extension 221 in North America or SKYPE Michell.Perez and speak to Michell about the New Graduate’s Opportunity, or just send an email to learn@cast-soft.com.

Why Students Love wysiwyg

1. It’s Easy and Inexpensive to Learn.
   CAST invests an enormous amount of time and research to keep wysiwyg intuitive and easy to learn. Like any good tool and as a young professional just starting out, it’s vital to have the tools you know from your training, tools that will do the job for you so that you have the confidence that you are equipped and know how to use them. Our aim is to be sure that students have easy access to gaining valuable experience learning wysiwyg – The Industry Standard. We receive dozens of letters regularly from young people around the world sharing their stories of how they basically self-taught themselves the program. Read our latest story below: “So Easy a High Schooler Can Do It.”

2. Previzualization means students gain valuable experience about stages and staging by building and playing with various concepts and ideas – safe trial and errors in the virtual world – using wysiwyg’s infamous library of 20,000+ objects specific to the industry.

3. Students can purchase wysiwyg Education that runs for an academic year and costs about as much as a textbook.

4. wysiwyg can be upgraded as careers build.

5. Knowledge and skill gets you the JOBS.

Why Faculty Love wysiwyg

1. Previzualization means that with any CAD drawing of the stage or venue, using the tools and wysiwyg’s massive library of dynamic industry objects, virtual scenarios can be projected in the classroom to demonstrate rules, standards, options and alternatives. It’s possible to assign a standard stage/venue set-up for all students to work on in the school’s computer lab.

2. wysiwyg Learn comes in network form packaged for 10, 20, 30, 40 or more seats. Approximately 300 education facilities around the world run wysiwyg Learn to teach students about CAD-ing and theatre arts/production.

3. CAST also delivers an inexpensive version of wysiwyg – Education that only students can buy. It runs for the academic year only and comes in 3 levels – Report, Design, Perform – which students can purchase for less than the cost of an average textbook these days.

4. CAST installs and supports, and also trains the teaching/coaching staff. CAST provides updates that keep the school’s lab software current with the leading edge in the industry.

5. CAST’s tech support is second to none. Also, wysiwyg is so widely used, it is always
wysiwyg Learn Programme - continued

possible to connect with local professional
Users for help, pointers, or even the odd classroom
visit. And the *wysiwyg* PLAN (the bi-monthly
magazine) is interesting, full of ideas, has good
tips and tricks – on an international scale which
is vital for students to grasp.

6. *wysiwyg* is a virtual, previsualization software and
that means that Faculty and students can share
media for course work and yet be independently
creative (within the safe haven provided by
*wysiwyg*) for individual projects.

7. Whether in the school computer lab or by using
*wysiwyg* Education on their laptops, students
gain valuable experience it usually takes
years to get (and saves teaching time too) about
stages and staging by building and playing with
various concepts and ideas – safe trial and errors
in the virtual world – using *wysiwyg*’s infamous
library of 20,000+ objects specific to the industry.

8. Apart from all the advantages of *wysiwyg*, since
it is taught at so many other schools we feel we
have to keep our graduates as well trained
and prepared.

9. CAST visibly helps students not only with special
“getting started” offers for new graduates. CAST
also sponsors a number of student design
competitions throughout the academic year
including The USITT Southwest Student Design
R23 Showcase at the University of Glamorgan
(see winners below). CAST sponsors these
awards through the donation of the Educational
Licenses of *wysiwyg* Design.

Knowledge and skills get JOBS. We hear plenty of stories
about how young professionals (often self-taught) have
used *wysiwyg* to great success, even in the face of odd
challenges. See our article “How *wysiwyg* Saved the Day”

For more information or to download a *wysiwyg* R23 demo
version – which is also a tremendously useful free tool for
developers (imagine using one of the 4 different custom-built
demo files to demonstrate or learn about using consoles in
showrooms, classrooms, testing labs, trade shows) -- go to
[www.wysiwygsuite.com](http://www.wysiwygsuite.com).

Finally, if you are a school interested in acquiring or
updating Learn, or receiving regular updates about
specials, sponsorships, *wysiwyg* The PLAN (a bi-monthly
e-newsletter), and important industry and technology
materials (which you can also pass to your students), email
CAST: learn@cast-soft.com to register your school for free.
Technology is constantly changing, and it is hard to keep up, but for a high school student it is almost impossible. I was lucky enough to get my hands on a copy of *wysiwyg* Design Educational Edition R22 and then later upgrade to R23. I was expecting to only be able to use it as a basic tool, because I do not have formal training, but boy was I wrong.

The most advanced software I have had any training with is AutoCAD and that was only a very basic three-week part of a required computer class for school. The first time I worked with *wysiwyg* was an experience in itself. The first version I used was the Report Educational Edition. The drafting tools were easy to find and use. I used the “draw: venue” option and got a rough sketch of what the shape my school’s auditorium was like. Then, I proceeded to add the catwalk and batons that our lights are hung on. This took me about an hour from start to finish. When I had finished that, I was amazed with the software and that was all I used it for until about a week later. This is when I noticed that there were “DATA” and “PRES” tabs up top. I looked through these for a bit, then went ahead and assigned all the lights to a channel and focus position that I had just created. That alone made my next focus 300% faster, and that’s all I used the software for until I upgraded to Design.

Upgrading is as easy as 1-2-3. E-mail Cast, fill out the form, get your code, put it in, and then you’re done. After upgrading and looking at the shaded views, I realized that what I had was great for doing plots, but if I wanted to use this as a design tool I would actually have to draw out the auditorium. Looking at a job that big for the first time is a daunting task, so I broke it up into sections. The first parts I took care of were the house and catwalk, and those took me about four hours to complete. Then I went ahead and did the stage and all the curtains and batons, all kept in the same file, yet separated. Then I moved the two together and recreated a set from a previous show so I could see how close I could get a rendering to an actual photo. The day after I got all this done, Release 23 came out, and I wanted to see the difference between 22 and 23. The results actually surprised me; having variable focus and hot spots made a big difference to me.

Now that I have had the time to work on other stuff with *wysiwyg*, I have found many of the quick tools are lifesavers, especially the quick fixture tool in DATA mode. A few other things that I really enjoy having access to include but are not limited to: a large and ever-growing fixture library, people and mannequins of all different poses, enough gels and gobos to last a lifetime, and the modeled difference between a board operator and a bored operator. In Design mode, the tools are very easy to use and being able to put them where you want them on your screen allows the user more comfort with their designing preferences. Overall, the software is such that at first glance it is completely overwhelming, but it is extremely easy to learn and is very beneficial in helping you design and get paperwork for whatever event you are doing. However, I am sure having a board connected would make life even easier.

I started using the software with no experience or training. Now I am very comfortable using the software and wish to upgrade to Perform, but that is neither necessary nor financially worth it to me right now. Since I started using *wysiwyg*, design has become faster, more efficient, and the overall effect the lighting has had on the shows has increased greatly. I even have begun to wonder how I lived before *wysiwyg*. This software is one of the easiest and best lighting softwares I have ever used; VectorWorks Spotlight with Vision (from the demo) is way more complicated and the looks it gives you are nothing compared to those of *wysiwyg*, in my opinion. Just remember, *wysiwyg* is so easy a high schooler can use it.
My name is George Jackson and I have been teaching an Advanced Lighting class for over 5 years now at a community college in Orlando. The main focus of the class is the design, implementation, and programming of automated lighting for various entertainment events. When I first started teaching the class, I was faced with an interesting challenge. I have 16 students but only one Wholehog 2 lighting console to teach programming from. I had to figure out how to train everyone so that each gets an equal amount of time on the board. The answer came in the form of pre-visualization, namely wysiwyg. Even though we only have one copy, I was able to make it work by having two students come in at a scheduled time every hour during the course of the day. One student programs on the actual console, and the other one programs on HogPC connected to an identical lighting rig in wysiwyg. Both stations are side-by-side so that I can stay in the middle and answer questions. In addition, I have both systems connected to timecode so they can have their song trigger their lighting cues.

This setup has worked great and gives everyone the most time on the console. Oddly enough, some students prefer wysiwyg over the real thing because of the haze -since we are not allowed to use any sort of fog or haze machine in our lab until the final project. wysiwyg is great because I get to show them how to setup a show from beginning to end—starting with the plot, paperwork, and then pre-visualization. Over the years, I have seen wysiwyg progress to its current form today with realistic beams and haze animation. Because of this, I try my best to replicate our lighting rig down to the smallest details such as scroller colors, fabric transparency, and exact measurements. I need to do this because after programming in the computer, my students then move a couple of feet to upload their show in the actual console and expect their show to look exactly like the pre-visualization.

Lastly, the best thing I love about this program is the support that I have received whenever I have a problem. When we had discrepancies with our fixture profiles, I called tech support and they provided me with an updated profile the next day. The future looks bright for wysiwyg and I cannot wait to see what is in store in the years to come. Because of this product, all of my students will get to have a chance to express their creative ideas through light.
Internationally renowned concert lighting designer Matthieu Larivée of Montreal-based Lüz Lighting Design delivered the keynote address on 28 April at the Lighting Solutions conference staged in Dubai in conjunction with the PALME Middle East exhibition, the Middle East’s premier entertainment & event management show. Larivée is well known for his special event lighting design at the Pyramids in Egypt for the live broadcast Beladi: A Night at the Pyramids, from singer: Chantal Chamandy.

His presentation, entitled “Transforming One of the Seven Wonders of the World - Live at the Pyramids” discussed the need to push the boundaries of lighting and AV technologies for events. Using his own work with wysiwyg as an example, he discussed future trends in the industry. Larivée described the role of wysiwyg in Cairo: “wysiwyg helps me to illustrate to my clients what I have in mind. I use it in the pre production step to do the structure, the first layer. Once on site, I play with the real feeling of the light, to get the right feeling and to create the magic.”

For the concert at the pyramids, Larivée and Assistant LD Valy Tremblay of Proluxon used wysiwyg to design a colorful array of effects on the massive structures using almost 600 fixtures to achieve the perfect look to accompany this historical event. Larivée worked on the project for a year, and was also responsible for working with the director on the correct stage placement for the show.

“Working on a square mile of landscape and trying to light a 160m high by 230m wide historical background, is basically not a usual surface. When you think that a football field is around 100m wide!” continued Larivée, “To get an accurate site plan, we’ve extracted the 3D file drawing of the pyramids site from Google Earth to use it in Google Sketch up. Since wysiwyg supports Sketch up, it was now easy to get the layout of the site. Then we’ve used Google Earth pictures as a scale reference to adjust the floor level in wysiwyg. That 3D was essential when you think that below the stage, there was a meter gap between Stage Right and Stage Left. On top of that, time was a huge challenge so using wysiwyg was even more than the structure; it was also used as a simulator. With the result of the tests, we adjusted our levels in advance.”

In addition to receiving international awards for the pyramids and being nominated for Best Lighting Designer at the 2008 LDI Parnelli Awards against the Beijing Opening Ceremonies, Larivée has also designed for such prestigious productions such as Cirque du Soleil’s Wintuk, TV specials featuring REM, Lenny Kravitz, and Celine Dion.

Visit the Lüz Lighting Design website at www.e-luz.ca.
CAST's objective for the Beta Testing Programme is to uphold the highest level of dependability and robustness of **wysiwyg** by enlisting a broad base of Users to test drive Releases, and sometimes specific innovations, in the field under a breadth of real conditions. CAST carefully monitors the selection of Beta Testers to assure a reasonable cross-section of uses in order to optimize the usefulness of the feedback.

Accordingly, the approaching conclusion of the software development and QA testing phases for R24 signals it is time to get ready for the launch of the R24 beta testing programme, the penultimate step in CAST’s vigorous quality control process.

Dino Mazza, CAST’s Product Manager, is on the lookout for additional Beta Testers willing to participate in the upcoming **wysiwyg** R24 Beta Testing Programme that will be launched within in the few weeks.

Reflecting on past Beta Testing Programmes, we note that Beta Testers really put in significant effort to put new software releases through their paces. CAST keeps in close touch with the Beta Testing Team during the testing period. At the end of the Test, Testers email their questionnaires and provide valuable feedback to CAST, all of which is part of the long list of priority items for CAST to check before a new Release is approved for circulation. Your input contributes directly to the quality of **wysiwyg**.

As you know, the highly anticipated **wysiwyg** R23 was in fact the second phase of our visualization project, delivering new footprints and shadows which when coupled with new beams from R22 made **wysiwyg** the most lifelike pre-visualization software available on the market today. Possibilities for other enhancements became evident to Testers as they used the software, putting it through its paces, driving it to their standards.

R24, as discussed elsewhere in this issue of the PLAN, continues to add software innovation plus it pulls the sum gains of R22 + R23 together. So, it is fair to state, the culmination of R22 + R23 + R24 is tantamount to being a new version of **wysiwyg** – all the more remarkable because despite all the new innovation we maintained the same speed. R24 will be a very powerful release!

Want to help? If you would like to be considered for the R24 Beta Tester Team then click www.wysiwygbeta.com and follow the thread to fill in and submit the application form. Dino will be back to you very soon. 📥
Rescue Me With *wysiwyg*

by Edward I. Read, Rigging Gaffer - Rescue Me

**Editor’s Note:**
The following story, written by Edward I. Read, explains how *wysiwyg* is used for the critically acclaimed television series, *Rescue Me*. The production, produced by and starring Dennis Leary, is a post-9/11 drama revolving around the lives of the men in a New York City firehouse, the crew of 62 Truck. The production crew relies on a number of technologies to take the design from concept to realization. Reid shares in detail how *wysiwyg* in particular played a central role in accomplishing these tasks.

*Rescue Me* has been awarded The American Film Institute’s Outstanding Television Program Award and The Producer’s Guild of America’s Visionary Award, as well as many Top Ten Shows of the Year listings from numerous publications, critics and media organizations ever since its debut of FX in the spring of 2004.

Read’s story illustrates both *wysiwyg*’s adaptability and key benefits by saving time and money, and pulling the production together, both indoors and out (thanks to time-of-day rendering). Read on to learn more about this clever production crew.

CAST would like to thank Edward for sharing this interesting story.

Lighting for television in today’s production environment can be a study in interoperability. Tight production schedules, shrinking budgets and high expectations require today’s lighting departments to integrate with the rest of the production on many different levels.

Moving data around between the departments allows creative information to flow multi-directionally and provides everyone with the opportunity to contribute to the show as a whole. On *Rescue Me* files originate from the design department on Vector-works, distribute as DXFs, go the Gaffer in Sketch-up, are plotted in *wysiwyg* and driven in Figment 5.1. Light Factory, Hog III or Expression. Without the ability of these programs to exchange information creative idea sharing would be far more cumbersome and time consuming. In a show that frequently shoots from the hip this ability often saves time, money, and unnecessary work.

File integration has improved over the last few years to the point where it is the exception when a file can’t be picked up by another program and manipulated to some degree. This integration will only improve as the digital age matures over the next decade. With the advent of hand held computing devices like the I-phone, Blackberry’s Storm or the Google Android, data management will enter the hip pocket and be available to a wide ranging network created for each show/production. Remote network computing will allow that data to be translated to lighting consoles and control interfaces from different locations and inputs. In Light Factory, a laptop based control program, the interface can be completely manipulated allowing the user to design his, or her, own control console. Most current console manufacturers have software only consoles for download allowing lighting to be driven by laptop interfaces running VCN (virtual control network) software. This allows the user to remotely access their control setup from another laptop, or more recently in the case of the Hog III, with an I Phone.

For *Rescue Me* it is *wysiwyg*, CAST Software’s lighting design software, which has proven to be the central informational hub for the show’s lighting department. While designed as a lighting visualiser, *wysiwyg*’s inherent ability to manipulate lighting information quickly and efficiently has shown its strength in the high pressure environment of television production. The program’s ability to take in different file types, translate them, and output drawings and reports has proven to be invaluable. Reading DXF’s, DWG’s, SKPs. and importing a host of graphic files, both for use as a rendering to illustrate to production lighting needs, or as a ground plan to scale an otherwise difficult location, the software has proven an invaluable tool. While not without its difficulties, the process has increased the informational flow between departments. In the following examples some of the simplest abilities of *wysiwyg* had a powerful effect on the production.

During *Rescue Me*’s Season 5 a bar set has been created and becomes a central story line within the narrative. During pre-production our Art Director, Clay Brown, output design drawings in Vector-works 12. Those drawings were input into Sketch-up, Google’s free drawing program, and the central lighting concepts were outlined by the gaffer, Mark Schwentner. Those drawings were then imported to *wysiwyg* and re-plotted using its’ CAD capabilities, library templates, text labeling and output functions. On a typical day 15 to 30 lighting setups are created and broken down by the crew. During production, routine changes are plotted immediately and a letter sized plot can be produced before the shot is in the can.

Notably, all this is generated in a 2D environment. While the 3D capabilities of *wysiwyg* are renowned, the speed with
Rescue Me With **wysiwyg** - continued

which a 2D plot can be generated by a moderately skilled operator is conducive to the high speed environment of movie and TV lighting. The entire show’s studio lighting is maintained on hard disk and the whole show’s Season 5 history can be seen through the different updates to each set. This data management has been maintained throughout the shooting season, and flows bi-directionally. While information is primarily generated in the art department and disseminated by the Art Director there are times when info is generated in the lighting department and distributed to other departments. In one particular episode one of the characters is involved in a High School play. Scenery was created by the art department and mounted in a NY High School Drama department. Drawings for the stage were said to be non-existent. During the scout, a copy of a building ground plan was discovered in the booth of the theatre. At 11x17, and a copy, the drawing did have the scale visible in the corner. After scanning the picture to a bit-map image **wysiwyg** was used to trace out the ground plan, creating a CAD of the stage. This was output in DXF and sent up to the art department to plan the hanging of their soft goods. A further copy was input into Sketch-up and emailed to the gaffer for him to get a grasp of the scene and come up with the lighting concept for the “play”.

And finally, after the backdrop was painted a photo was taken of it and the JPG was input onto a surface created in 3D showing what the drop would look like in relation to the rest of the theatre. While the rest of the theatre was still 2D the 3D image of the drop still gave the idea to the production designer of what his drop would look like. Given enough time the entire theatre could have been inputted in 3D, however the typical production schedule crunch that we all face meant that no one, least of all the Production Designer, would have had more than a minute to admire the drop in its location. This tactic, at least, gave him the information that he was looking for regarding playing area and shooting space.
Rescue Me With wysiwyg - continued

On location wysiwyg’s tracing ability has enabled the planning of large exterior shots. An exterior shot envisioned by the creative team encompassed a large college green at Wagner College in Staten Island - an area of, possibly, 3 acres. Using Google Map’s satellite capabilities a screen shot was copied to MS Paint and a JPG of the campus was created. This was then inputted into WYG as a ground plan and the pertinent structures and roadways traced - creating a CAD of the location. Using this CAD, the lighting and lift positions were plotted, cable runs and distribution were planned and equipment schedules were created. Additional manpower issues were resolved using the created plan as a justification for the large workforce needed to put the shot in place.

In the above diagram generator and lift positions are marked in blue, 4/0 feeder runs are marked in Red, 2/0 runs are marked in yellow and #2 banded in orange. Distribution box positions and cam-lock T positions are also marked in this scaled drawing. This process has been used extensively on location to plan lighting lift locations. Frequently man lifts (usually 80’ boom lifts or 50’ scissor lifts) are rigged out to carry either 20kw Tungsten Units or 18Kw HMI Units. Lift locations and truck positions are plotted using the above technique and maps are generated for the transportation department giving precise locations of the equipment and parking.

It is not an exact science: programs often have a limit to the amount of information that they can share with others, often depending on what parts of the information the ingesting program can read. This can lead to drawings coming in with no labels, or with different layers that are blank or unavailable. Frequently a jpg of the real drawing, sent with the drawing file, can clear up some of the confusion. In 99% of the cases however it’s better to get some of the drawing in CAD form than none. Still, setup and plot updates, as well as frequent schedule changes and location moves, have been handled with relative ease by the use of wysiwyg and other programs that aid the lighting department in keeping track of the looks and equipment on the show. This can easily be seen when a hand drawn drawing makes its way into the informational flow.

In future episodes the traditional visualization capabilities of wysiwyg will be utilized. The ability of the program to hook up to an offline version of the Hog and program prior to gear rental will be a huge benefit to the schedule while giving the creative team an accurate look at what effects they will be getting and what they can look like. But, by and large, it has been the lesser known of the wysiwyg’s abilities - specifically its abilities to interact with other formats and platforms - that have made the most difference to Rescue Me. wysiwyg’s ability to “play nice” with other programs has enabled the lighting department of Rescue Me to stay ahead of the curve.

The official bi-monthly publication for wysiwyg Members
Believe It Or Not
By Ellen Lampert-Greaux

Cirque du Soleil and Criss Angel may seem like strange bedfellows, but they are in bed together at the Luxor, where Criss Angel® Believe™ opened with a Halloween gala on October 31. Cirque du Soleil’s sixth resident show in Las Vegas, Believe is the mega-entertainment purveyor’s first foray into magic — and first star-based effort — a departure from Angel’s popular A&E Network TV program, Mindfreak.

“The lighting of illusions is actually a very technical and scientific process, although not as difficult as I thought it might be,” says Jeanette Farmer, a 17-year veteran of Cirque du Soleil’s lighting team. Believe is her first production in the role of lighting designer. “Part of the challenge is that, once the foundation is built, it needs to be brought back into the story as an emotional component of what we are trying to show you visually.”

“The goal is to take people through many different worlds, such as a nightmare/dream world, and play with different time periods. It was challenging to play with the idea of time,” says Farmer. “The show starts in the present tense with a cutting-edge magician and a rock ‘n’ roll feeling. Then right away, we take the audience back to a Victorian dream world.”

Inspirations for the designs included drawings by Leonardo da Vinci and a Renaissance style, and Farmer did research into what theatre lighting looked like before gaslight. “The director had strong opinions about the visual aesthetic, and I was thrilled he had a specific vision for the quality of the show,” Farmer notes. “Having that goal in mind gave me a lot of room to experiment. We talked a lot about color and how it relates to emotion and how we might feel about something.” One of the design decisions was to use a different monochromatic palette for each scene. “It’s as if the scenes are tinged with sepia, and you are looking at an old photograph,” Farmer adds.

“Dance is also a key element, as this is not an acrobatic show,” she continues. “The hallmark is magic supported with the ground-based dancers led by choreographer Wade Robson.” As a result, one of Farmer’s responses was to create the first layer of her rig as a traditional dance plot. “I cracked open Jean Rosenthal’s The Magic Of Light and looked at classic lighting design for dance sidelight,” she says, noting that there is a constant of two-tone light on Criss Angel coming in from the sides. “Almost every scene has some sidelight.”

Storytelling also informed the shape of the rig. “The next layer is a theatrical rig with box booms and front washes to light surfaces,” Farmer adds. A third layer is in keeping with Angel’s persona, allowing Farmer to create a rock ‘n’ roll feel when appropriate, blasting the artist and the audience with big beams in the air.

“The following is a truncated version of the article, which originally appeared in Live Design, December 2008. Used with permission by Live Design and Penton Media.”

“Josh Koffman and I imported the scenery into wysiwyg, and I was able to sort it out not having the crew hanging around the theatre...all the prep paid off, and everybody’s jaw dropped in the theatre.” – Jeanette Farmer, Lighting Designer for Believe
Believe It Or Not - continued

The many layers result in a big rig, the architecture of which was in part influenced by color considerations. As Farmer points out, the rig is “big for the size of the room,” with a total of 1,500 fixtures. “O has 1,800 lights. It’s an interesting comparison when you look at the sizes of the shows,” she says, noting that for Believe, she uses more conventional fixtures than automated luminaires, with just 140 movers in the overall rig, laid out in advance using Cast Software wysiwyg, with Proluxon in Montreal providing initial file preparation.

“The rig is big but really simple — nothing very ground-breaking,” says Farmer. “It is symmetric in terms of the conventinals and automated hang. I wanted to know where all the lights were in my head. Once they were installed, I concentrated on lighting the main characters and dancers, and everything is very angular, with beam breakups from strange angles. It’s all about non-symmetrical patterns and shifts from the symmetrical rig.”

One of Farmer’s favorite lighting looks is a moment when there are no upstage projections. “It’s the scene with flames and smoke when Criss is going to be cut in half,” she says. “There is a large corrugated wall on stage. We put holes in the wall so we could blast bold light from behind in custom positions, with the light piercing through from the upstage back wall.” This was achieved by using a cluster of 19 750W ETC Source Fours and 40 ACLs. “That gave me the power I wanted with no color and strong white light to cut through the scene, with its ambers and reds for the flame effects. Second assistant lighting designer Josh Koffman and I imported the scenery into wysiwyg, and I was able to sort it out not having the crew hanging around the theatre. We solved it and knew where the fixtures needed to go to get the effect we needed. That was one moment when all the prep paid off, and everybody’s jaw dropped in the theatre.”

While Believe got off to a rocky start in terms of reviews, the visual and technical elements are what anyone would expect from Cirque du Soleil. And as they have done in the past, the creators will continue to tweak the show. After all, everybody believes in magic!

Lighting Designer: Jeanette Farmer
Assistant Lighting Designer: Brad Nelson
Second Assistant Lighting Designer: Joshua Koffman
wysiwyg File Creation: Proluxon Montreal
Costume Design: Meredith Caron
Photos: Tomas Russo

To read the full article, go to LiveDesign website
See the complete wysiwyg lighting plot on the next page or CLICK HERE.
Seeing Green - How CAST Software Promotes a Greener Future

The words “green”, “carbon footprint” and “sustainability” are cropping up in almost every topic of production and event planning, especially in reference to the lighting and electromechanical components used these days in the entertainment industry. More and more manufacturers are heeding the call and stepping up progress toward increased energy efficiency, more eco-friendly products and better practices.

At CAST Software Ltd. Toronto, Canada, going “green” goes beyond an energy-saving light or reduction of waste. It embodies a different way of working, which turns into enormous savings of energy, time and manpower through the pre-planning and pre-visualization of lighting design, interfacing with other mechanical technologies, pre-cuing and realtime playback.

But it’s not only a matter of consciously wanting a greener planet. Companies are finding worldwide initiatives to enforce friendlier practices and even offering financial incentives to do so. A major step came with the introduction by the City of London of BS 8901: Specification for a sustainable event management system with guidance for use. In November 2007, the British Standards Institution (BSI) published this new standard and gained worldwide attention to the growing concern.

The UK event industry’s involvement in the development of BS 8901 was essentially recognition of its need for a more structured and systematic way of engaging in sustainable development, tailored to the specific nature of the industry.

The BS 8901 guidelines specifies how the City will improve its management of London’s carbon footprint for performing venues and major performances (Olympics, concerts, launches) in London and how productions, including all major events and venues, will conform to the guidelines. It has even established a certification process like the ISO pointing to London’s codification put in place in anticipation of the 2012 Olympics.

Venues can earn tax breaks, rebates, reduced rates and grants in most other jurisdictions by upgrading facilities, promoting off-peak use of electricity, etc. by improving their carbon footprints to become certified to meet the carbon standard. The London Olympics, for example, will attribute a substantial ten percent of tender points for sustainability performance.

In North America, similar initiatives are cropping up and gaining nationwide attention. In New York, the PlaNYC 2030 initiative to improve sustainability efforts in the city spawned a more specific effort targeted at Broadway, resulting in “Broadway Goes Green”, encouraging and even rewarding theatres that practice everything from lower energy lighting to responsible recycling efforts. Hollywood and Las Vegas are showing similar efforts as well.

The 2010 Olympics in Vancouver is also following suit. The Vancouver 2010 Bid Corporation has established sustainability as a cornerstone of Canada’s Winter Games Bid. In addition, one of the primary goals of Vancouver Organizing Committee’s (VANOC) procurement efforts is to maximize the integration of sustainability principles of environmental stewardship into the procurement process as a significant element of their strategy to host a sustainable Olympic and Paralympic Winter Games.

The Olympic Games are obviously getting a majority of the attention, but they are just an example of how all future events will be handled worldwide, requiring attention from manufacturers, designers, producers – every part of the supply chain, right now.

How CAST is contributing?

wysiwyg has been a staple in many a production professional’s toolbox for years, but many people value the convenience and results alone and don’t stop to consider the eco-friendly decision it creates or to leverage its “green” benefits when bidding for projects.

It comes down to this. wysiwyg enables you to precue, previsualize and do a virtual realtime run-through of a production any number of times, making myriad changes, all offsite. Using the time-of-day capabilities in its render engine (which will be available for use in Shaded View in the R24 release due this summer), production professionals can test their design with any combination, for example, of venue/stage orientation, or weather attributes for elements such as time-of-day, sun or moon positioning, clouds and fog. All of this can be accomplished on 1 PC, without being in the venue and without turning on a single light.

Durham Marenghi, one of the world’s top production
professionals for lighting major world-class events, gave this testimony on the Olympic Delivery Authority (ODA) Procurement Policy: “With the extensive public and press interest in the carbon footprint of recent live events and the inclusion of carbon emission control as part of the ODA Procurement Policy an inspection of the energy requirement of the 2012 Olympic Ceremony lighting and its environmental impact seems timely and appropriate.

“The Live Earth concerts for example, whilst using low power LEDs and sporting a commendable array of LED fixtures attached to oil drums and used tires, missed one golden opportunity in their handling of the press cynicism as to the power used and fuel consumed to stage the concerts… wysiwyg.”

wysiwyg is a computer lighting programming system whereby a major amount of lighting programming can be undertaken in the virtual world. This invaluable resource, which was not used in the Athens Olympic ceremonies, has been used regularly by Marenghi since its inception on events such as Classical Spectacular and the Winter Olympics.

Marenghi continues, “Classical Spectacular pre-wysiwyg would hire an arena and set up and run the full lighting rig for one week to create a light design prior to the show’s opening at the Royal Albert Hall where time and money issues precluded the show being programmed onsite. The power consumption for this process was around 40,000 kilowatts. We now program the entire show in the virtual world with the power consumption of 1 PC for one week.

“The energy consumed whilst programming a large lighting system over the two weeks prior to an event such as the Olympic Opening Ceremony in Athens in considerable and has a massive carbon emission impact on the environment. If we take a reasonable system for this type of event of one thousand two-kilowatt lighting fixtures and run them for 12 hours a day over two weeks, we would need a power consumption of 336,000 kilowatts.”

The wysiwyg system such as that used by Marenghi in Turin requires power consumption over the same period of less than 10 kilowatts. “Whilst we clearly need to switch on, test and focus equipment prior to the event, the integrated use of wysiwyg could reduce our power consumption and carbon emissions by at least fifty percent.”

BlackBox

Going forward, CAST recently unveiled BlackBox, promising to unite, indeed revolutionize, the entire industry for large and small scale productions alike – lighting, media, sound, motion, cameras, staging, performers – touching every component of a production. BlackBox is built with special hardware and proprietary software to be an all-in-one, bi-directional high-speed communications nerve centre which enables all control devices to instruct or receive instructions from each other. Live, realtime input in all forms is received by the BlackBox, which acts as the brains – running an ultra high-speed hybrid version of wysiwyg that works with a special new wysiwyg file version (that CAST is working on now). BlackBox receives and converts live positional data about any or many moving objects, selected or deselected for tracking as required from one or several sources, applies its brain power and speed to establish the exact 3D positions of those objects, then computes instructions in XYZ, yar, pitch and roll terms (that’s actually 6D), and then shoots out moving positional information to whatever control devices need it. So moving lights, set pieces, cameras etc. are synchronized and tracking the action of those moving objects – all in live realtime, all in true 3D.

BlackBox and wysiwyg, working before and at the show, will mean much of the preproduction planning and cuing (relying on wysiwyg’s previz and renderings) can occur in an office and not the venue, and BlackBox means that less rehearsal time (and more spontaneity) is required to coordinate actors, moving objects and various technologies. All of these time efficiencies will reduce the use of wasted electricity by reducing production setup times, and also orient electricity utilization more toward off-peak times. Given the importance to taking action to reduce carbon footprints today, production companies and venues will be able to essentially offset the cost of BlackBox by receiving government grants available for companies that utilize new technologies that conserve electricity and other fuels AND the direct cost savings from less power (and less rehearsal time) PLUS gain its significant technology advantages too.

If wysiwyg alone can be shown to reduce consumption by 50%, the speculation is that BlackBox will far exceed that, as it substantially reduces the time (lights, power, personnel and all other production elements to be coordinated in advance and then rehearsed.

The progressive trend in the industry for all public and major production RFPPs requires the respondent to outline whether or not their work/production will be carbon neutral or better. Increasingly, the selection of winning candidates for jobs and productions depend on it. Products such as wysiwyg and BlackBox aim not only to make the results of these jobs better, but to ensure getting the job in the first place.

For more information about wysiwyg and BlackBox, visit www.cast-soft.com
Tip 1: Using The Ruler Tool

In Release 23, we added a new tool to wysiwyg’s arsenal, one that greatly improves your efficiency when working in CAD mode: the Ruler Tool.

This visual aid guides you when inserting, drawing, or moving objects in CAD mode, and always shows you where the Origin is (i.e., the 0,0,0 coordinate) even when you create a custom Origin (User Origin) for your file.

The following graphic shows what the Ruler Tool looks like in each of the wireframe quadrants of the Quad tab:

And this is how the Ruler appears on the Wireframe tab:

More features of the Ruler Tool

• It only appears in CAD mode (Wireframe or Quad) and only when the view is set to anything but Isometric.

• It uses different colors to represent the three axes: red for the X-axis, green for the Y-axis, and blue for the Z-axis.

• It matches the unit type currently set in your file, either Metric or Imperial.

• Its interval matches the Grid Interval set in your file. To learn how to change it, see Changing the Grid Interval.

• It updates dynamically as you zoom in and out: when you zoom in on your drawing, the precision of the ruler increases, displaying fractions or decimals; when you zoom out, the precision decreases to the point where the ruler disappears.

TIP: When working with a large venue, it is recommended that the Grid Interval be increased in order for measurements to be visible when zoomed out.

• To turn off the Rulers, click Options > User Options. In the User Options window, click the Draw Defaults tab, and then deselect the checkbox beside On/Off.
Changing the Grid Interval

You can change the Grid Interval in two ways:

To change the grid interval for all views in CAD mode

1. Click Options > User Options.
2. Click the Draw Defaults tab.
3. In the Interval box, type the new interval.
4. Click OK.

To change grid interval only in the active window/view

1. While working in the Wireframe tab or in one of the wireframe quadrants of the Quad tab, right-click and select View Options.
2. Click Draw Options tab.
4. In the Interval box, type the new interval value.
5. Click OK.

Understanding and Using the Ruler Tool

The Ruler Icons

The icon in the upper left corner of the ruler changes depending on the origin and the corresponding position of the Ruler. This applies to the Wireframe tab as well as any of the Quad tab’s three wireframe quadrants.

Icon Descriptions

D: This icon indicates that the Ruler’s zero position (origin) is displayed at the file’s Document Origin, which is set by default to be the center point of the **wysiwyg** venue defined for the event. This is the default icon that appears for any document and will remain the same unless you change the Ruler options/properties.

Note: When you draw a **wysiwyg** venue, its origin is aligned with the file’s Document origin. In the case of the Proscenium Arch venue, the origin is the point at which the venue’s center line intersects the “plaster line”—the line connecting the upstage ends of the proscenium arch—on the stage floor. For the other **wysiwyg** venues, the origin is at the center of the venue, on the floor.

U: This icon indicates that the Ruler’s origin is displayed at the User Origin, when the User Origin is defined. (To define a User Origin, click Tools > Set User Origin. Then click in the location to set the new origin or type the origin coordinates.)

V: This icon indicates that the Ruler’s origin is displayed at the current view’s Origin. You can set a different View Origin for each of the following views: CAD mode’s Wireframe tab, and/or each of the Quad tab’s three drawing quadrants. In addition to this icon, when you define a View Origin, the rulers change their background color, visually alerting you that the current origin is not the Document or User Origin.

? This icon appears when you have selected the Move Ruler (Set View Origin) command from the Ruler pop-up menu and are in the process of defining your new origin.

Changing the Options/Properties of the Ruler Tool

Unless you change the Ruler’s Properties/Options manually, it will always display at the Document or User Origin (if a User Origin is defined), with “D” and “U” icons indicating which Origin is being displayed, as explained above.

Right-click on the rulers or icons to toggle between displaying the rulers at the Document/User Origin or at the View Origin.
The last option on the pop-up menu, Move Ruler (Set View Origin), allows you to set the View Origin.

To set the View Origin

1. Right-click on the ruler.

2. From the pop-up menu, select Move Ruler (Set View Origin), and then click in the location to set the new origin, or type its coordinates (exactly the same as when setting the User Origin).

While *wysiwyg* waits for your input, the “?” Ruler icon is displayed. Once you set a View Origin, the rulers automatically change to display this new origin, the ruler icon changes to “V”, and the ruler’s background changes to a different color to indicate that the origin currently displayed is not the Document or User Origin.

Another way to change the View Origin is from the View Options:

1. **Right-click the View in which you wish to change the View Origin and select View Options.**

2. **Click the Draw Options tab.**

3. **Deselect the checkbox beside Use Document Origin.**

4. **In the Origin box, type the coordinates for the new origin.**

5. **Click OK.**

Result: The rulers automatically change to display the new origin and, as explained above, their background color changes to visually alert you that the origin currently displayed is not the Document or User Origin.

Once you set a View Origin, you can always return to the Document/User Origin by right-clicking on the Ruler (or the Ruler Icon) and selecting **Display Ruler at Document Origin**.

Example

As noted above, you can assign a different ruler option to each of the CAD mode’s wireframe views (the Wireframe tab and three wireframe quadrants in the Quad tab).

In the screenshot below, while the two quadrants at the top display the Ruler at the Document Origin (no User Origin has been set), the bottom-left quadrant displays a View Origin. In this quadrant, the origin has been changed to (0’, 0’,-4’) in order to enable measurements from the floor of the venue itself, and not the stage floor (which is the default, as explained above).

In the pop-up window that appears on top of the shaded view quadrant, the View Origin has been changed to (0’,-10’,0’) in order to enable measurements from the front of the stage as opposed to the plaster line.
Tip 2: Object Optimization

This month’s optimization tip focuses on optimizing the objects in wysiwyg files to make the files faster, more efficient, and easier to handle. Please note that this optimization only applies to Release 23 and earlier versions of wysiwyg. Release 24 and beyond will feature a new, easier-to-use and more efficient object optimization method.

wysiwyg, like AutoCAD and all other similar applications, handles single objects comprising many components much better than it handles each of the components separately. In other words, a file that contains twenty risers each made of six surfaces is less efficient, and thus slower, than a file that contains the same twenty risers combined into a single Library Object.

This is one of the main reasons why we introduced the ability to create new Library items out of pretty much anything—not only does a New Library Item group objects together for easier handling (i.e., moving, rotating, and so on), but when loaded into memory, these objects are “seen” by the application as a single entity.* (Note that Groups are not the same as Blocks since objects within a group are still loaded into memory as individual entities.)

To illustrate this point, we are providing two sample files that you can download/save by clicking the following links:

http://theplan.wysiwygsuite.com/issue24/individual.wyg

http://theplan.wysiwygsuite.com/issue24/library-item.wyg

The file “individual.wyg” contains 18 spheres that were broken into a total of 19,872 surfaces; the file “library item.wyg” contains the same 20 spheres broken into the same total of 19,872 surfaces, but then converted into a New Library Item. Open these files and note the huge difference in speed between the two!

To create a new Library item

Note: This procedure assumes that you have already created 18 spheres.

1. Selected all 18 spheres.

2. From the Tools menu, chose Break > Solids into Surfaces.

3. Re-select the (now-broken) spheres.

4. From the Library menu, choose Create New Library Item.

5. Type 0,0,0 for the insertion point** and proceed through the remaining steps of the Wizard.

6. Selected all the spheres a third time, and then delete them.

7. In the Objects library, navigate to the Custom category.

8. Double-click the new object that you just created, and then type 0,0,0 to insert it in the same position as the original set of spheres.

Such optimizations are recommended for all wysiwyg files, but especially for large or complex files. Objects to consider for such optimizations include complex venues, seating sections, and complex set pieces.

* For those familiar with AutoCAD, a New Library Item in wysiwyg is very similar to an AutoCAD Block.

** We chose 0,0,0 as the insertion point so that the object is inserted from the library at 0,0,0 and will appear in the exact same position as the original objects.