

SIGGRAPH 2007 Computer Animation Festival

Final Report

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This document presents the final report for the SIGGRAPH 2007 Computer Animation Festival. It provides relevant information about decisions made and work executed for the various aspects of putting on the show, and suggestions for improvements for future years.

If you have any questions about this report – especially if you are in the process of organizing a SIGGRAPH Computer Animation Festival or similar event yourself – please feel free to contact me at paul@debevec.org.

Contents

Chairing a successful SIGGRAPH Computer Animation Festival was enormously rewarding but a huge amount of work. It required recruiting a skilled and dedicated CAF committee and anticipating, planning, and executing hundreds of tasks efficiently and effectively. This document describes the most significant tasks with an eye toward helping future CAF chairs learn from both the successes and lessons learned from putting on the SIGGRAPH 2007 Computer Animation Festival. The organization is as follows:

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Writing the Call for Participation

Writing the Call for Participation was the first major job I had in being the CAF chair. It involved following the form of previous years, plus making a few decisions specific for 2007. These decisions included:

Setting the submission deadline

I chose the submission deadline to be as close to the SIGGRAPH conference as I felt would be safe - March 14 - to allow the latest-breaking material in the show but so that there would be enough time to have the material juried in time to leave time to put the show together. I had wanted an even later deadline to allow people (including SIGGRAPH papers authors) more time to submit their pieces, but was strongly encouraged by Terrence to set it earlier; the choice seemed good in the end.

One consideration is the distance in time between the papers deadline (January 23rd) and the CAF deadline (March 14th) to allow paper authors to create CAF pieces about their latest research. This time period was as much as three months in the late 1990's, but the CAF submission deadline was much later in the past (it was April 24th in 1997) and has moved earlier due to the lead time required to author the SIGGRAPH Video Review on DVD instead of VHS as well as conference being earlier in August, so the timeframe has shortened to as little as a month. Keeping these two deadlines apart in the future would not only help encourage submissions from the research community but also will help bring in the timeliest content from the visual effects industry. The short time-to-publication is a strong draw of the SIGGRAPH papers program and it makes sense to carry this benefit across all of the programs.

Later deadlines also benefit the other categories. In retrospect, we should have had a way for VFX studios to submit pieces later on in the process since many of the feature films with potential VFX pieces are still working hard on their films at the time of the jury submission deadline. It might make sense to give studios a deadline of two weeks after the release date of the film or one month before SIGGRAPH, whichever is earlier, to supply the piece on HDCAM/SR tape which is the easiest format to edit into a show reel. However, it probably makes sense that a proposal or rough cut of their piece be complete in time for the main jury meeting.

Deciding Against an Entry Fee

There was a proposal for SIGGRAPH 2007 to consider introducing entry fees for many of the conference programs. Entry fees between 10 and 50 dollars are common for film festivals, and they likely add additional self-selection to the submission process (fewer films would be submitted, but generally the higher quality ones still would be.). A \$20 entry fee could easily generate ten to fifteen thousand dollars for the CAF budget. After much consideration I decided against having an entry fee, due to the added complexities,

our anticipated cost savings by having the jury meeting in Los Angeles, and questions about how to handle invited submissions and curated content in this case.

Setting the Submission Categories

I expanded the submission categories to eight in order to emphasize the show's desire for a diverse set of submissions. Furthermore, eight categories juried by eight jurors also worked out symmetrically. The categories were:

- **Animated Short** (story- or character-based, any medium)
- **Art** (abstract and experimental)
- **Broadcast** (commercial, music video, design)
- **Cinematic** (pre-rendered video game animation)
- **Real Time** (video game play, interactive art, and scientific visualizations)
- **Research** (explaining and/or demonstrating new computer graphics or interactive techniques)
- **Visual Effects** (not story- or character-based)
- **Visualization** (scientific, medical, architectural)
- **Other** (any work that does not fit the categories above)

I separated “Research” from “Scientific Visualization” since pieces which explain and/or demonstrate graphics research are really fundamentally different than scientific visualization pieces; those use computer graphics to visualize a result or trend in data from another field. Also, since both categories are traditionally underrepresented, having two categories in the CFP emphasized our desire for both types of content. Similarly, I separated “Cinematic” from “Real Time” to emphasize the show's interest in both types of content from the video game industry. The “Other” category hopefully encouraged people to submit who didn't see a direct connection between their work and any of the categories listed above.

It might have been a good idea to change “Animated Short (story- or character-based, any medium)” to “Animated Short (story- or character-based, or feature excerpt)”. We received some stop-motion and non CG animations, perhaps due to the “any medium” listing on “Animated Short”. Adding “feature excerpt” might encourage animation studios to submit sneak peek clips from their upcoming films to the show.

Specifying the Jury-Version Upload Formats

We were fortunate that the S2006 CAF pioneered digital upload for the CAF jury process. My goal was to strongly encourage online upload and streamline the jury meeting and its associated preparations as much as possible. Essentially, I required everyone to submit a digital movie file that could be played on a PC, or more specifically, on the Linux “xine” program that Sam Black’s jury system uses. I allowed no DVD-Video or VHS submissions; there were only a few complaints about disallowing DVD-Video and no complaints about the lack of VHS; all submitters were eventually able to submit an electronic movie file. If people did not have reliable internet access they were allowed to submit their digital movie file on CDROM, which was easy for us to copy to the jury system.

I expanded the upload limit from 200MB to 500MB, and this did not adversely impact the performance of the system, and allowed people to better take advantage of the new possibility of 1280x720p uploading. At some point, when HD video projection is more common, it would make sense to allow 1920x1080p upload. Interlaced submissions were strongly discouraged.

We allowed a number of container formats (QuickTime, .avi, .wmv, .mpeg) and codecs (H264, DivX, Sorenson, etc.). Perhaps we could have or should have been more restrictive on the file format. We did have some trouble playing some of the uploaded files, and there was unfortunately not time to check all of them before the jury meeting. This led to a few interruptions to the jury process when we could not play a movie in the jury system. For future years, it could make sense to require all submissions to be in MPEG4, Quicktime H.264, or Quicktime Sorenson 3 format.

Choosing the CAF Committee

Our Computer Animation Festival Committee consisted of:

Chair

Paul Debevec
USC ICT

Technology Director

Sebastian Sylwan
Digital Domain / Autodesk

Electronic Theater Producer, Outreach & Event producer

Maya Martinez

Animation Theaters Producer

Tom Pereira
USC ICT

Assistant Producer

Carlye Archibeque

Minister of Information (Database coordinator)

Sam Black

Autodesk

Jury Meeting Technical Supervisor

Rob Groome

USC ICT

Our committee was similar in makeup to CAF committees of previous years. Some years there has been a specific “Electronic Theater Director”; being relatively hands-on I mostly functioned in that role myself. All positions were volunteer except the Assistant Producer who was paid by SIGGRAPH through Talley management. In the past, this paid position has also been called the “Coordinator”.

Choosing the committee is very important, and having a group of people who will be dedicated and work together as a team is crucial. Here are the recommendations for choosing a team which I can make based on experience:

- Figure out beforehand what all of the skills necessary will be to put on your show and make sure there is someone on the committee who will be able to accomplish those aspects of the show. Make sure people know what they are signing up for.
- Cast the net wider than just the people who immediately come to mind for your committee positions. If you’re on a business networking site such as LinkedIn, **do a job announcement** to your contact list; some people you haven’t thought of who are qualified and interested may come back.
- **Interview people** for the key positions, don’t just make offers. Very important: talk to people with whom they have worked before in a related capacity for a recommendation, and call references outside of the ones which they provide. Take any red flags very seriously.
- Make sure that people give you a **firm commitment** early on to the work they will need to do. If people waffle for several weeks, that’s not a good sign. If they say they will take the position only under certain conditions of creative control, that’s also not a good sign. Keep looking in that case.
- Find people who are **detail-oriented** and are **not satisfied with so-so results** – people who in their nature will **work hard to get things right**. The work in the CAF is done by filmmakers who poured their souls into their work – the CAF committee needs to honor that commitment.
- Find people who are primarily interested in the work of putting on an excellent show and strengthening the tradition of SIGGRAPH’s excellent festival. The perks of the job – networking, special conference access, sneak peaks at studio work, should be secondary.

- Be clear about what people's titles will be on the show and what is expected for their position. Do not allow people to suddenly change their titles (e.g. from coordinator to producer), without discussing the need for a different position and the responsibilities any particular title should entail.
- Consider what people's on-site responsibilities to their real job during SIGGRAPH will be. We had an unanticipated surprise on this: our technology director took a new job just before the SIGGRAPH conference and this significantly increased his real-job work responsibilities during SIGGRAPH 2007, which placed additional stress on him to devote time to the technology direction of the shows once the conference started. Fortunately, he came through for us nonetheless.

Outreach

Outreach is extremely important. Our committee engaged in an intense outreach effort to attract the best quality of submissions from all areas of computer graphics across the world. The quality of the show is a direct product of the quality of the submissions. Our outreach efforts included:

- Appointment of an **Outreach Chair** (Maya Martinez) who personally mailed hundreds of animation and visual effects companies. Many of these international groups were found by searching the web for lists of computer graphics companies. Many of our submissions, including a significant number of accepted pieces to the AT and ET and a significant number of international entries, were brought in through this effort.
- As in years past, we specifically asked **members of the Jury and the Committee** to serve as members of the outreach committee. Each was specifically asked to work within their professional network to solicit submissions to the show in their corresponding areas of expertise. We believe this helped significantly with submissions from Europe as well as from the video game industry.
- Maya Martinez also set up a CAF **MySpace page**: <http://www.myspace.com/caf2007/>. The page received thousands of page views and through social networking obtained 2,000 friends including animators, visual effects companies, industry magazines, and other festivals. When it was ready, we posted the CAF Media Trailer to the MySpace page where it would receive over 5,000 viewings before SIGGRAPH. The page was able to collaborate with other MySpace pages including the SIGGRAPH 2007 volunteers MySpace page. "Facebook" has gained in popularity and would be good to leverage for future outreach.
- **Cooperation** with Robert May of **The Animation Show** festival. We were invited to attend and make an announcement at the beginning of their UCLA and San Diego showings, where I made an on-stage announcement of SIGGRAPH 2007 computer animation festival and the upcoming submission deadline,

reaching several hundred potential submitters and potential attendees of the conference in San Diego.

- **Announcements** of the submissions deadline at three consecutive LA SIGGRAPH chapter meetings and the LA Motion Graphics Users Group meeting, reaching several hundred potential submitters.
- **Targeted Call For Participation Emails** to everyone who submitted films, research papers, or artwork to SIGGRAPH 2005 and SIGGRAPH 2006. These were arranged with Laurie Schall from Talley Management.
- **Personal contacts** with potential submitters at visual effects and animation studios (Sony, ILM, Pixar, Digital Domain, nVIDIA, ATI, Valve, etc.) as well as individual filmmakers. My feeling is that people who are personally invited to submit works to the show are more likely to put in their best efforts.

We believe our outreach effort was very successful with **905 valid submissions**, a 20% increase over the previous year, and with good representation across submission categories. The **submission breakdown by category** was:

489 Animation

108 Art

118 Broadcast

16 Cinematic

48 Real Time

33 Research

56 Visual Effects

37 Visualization

As usual, the submissions were dominated by “Animation” pieces, however, traditionally underrepresented categories from Art, Research, Visualization, and Real Time were remarkably better represented.

Organizing and Running the Jury Meeting

Our jury meeting took place March 23-27, 2007, at USC ICT in Marina del Rey, CA. Aside from the show at SIGGRAPH, the jury meeting was the largest single event that needed to be organized for the computer animation festival. Organizing a productive jury meeting was probably the most important part of having a good show, and fortunately there was relatively ample time to plan and prepare for it. I had been warned by previous CAF chairs that the “real” work starts after the jury meeting getting the show ready, and indeed they were right. The jury meeting took a ton of work and left us exhausted, but it was a small affair compared to the main show. So, it’s productive to think of producing the jury meeting as warm-up for SIGGRAPH. I was extremely fortunate that I had served on the CAF jury in 1999, 2001, and 2004, and shadowed Terrence Masson at his

jury meeting in 2006 in order to get a good sense of the elements of a productive and enjoyable jury meeting. If I hadn't had this experience, talking with past chairs would have been all that much more important.



The CAF Jury, Committee, and Volunteers in the main jurying room at USC ICT.

Choosing the jury

Starting at SIGGRAPH 2005 when I was chosen as the CAF chair I began a list of potential jurors. My goal was to cover all of the submission categories with jury as a collective having the ability to recognize innovation and excellence in each category. In general, I chose jurors who were responsible and recognized for the *creation* of notable works in each category, and thus especially suited to recognizing innovation and excellence in that category. We had people responsible for great films and animations (Randal Kleiser, Jay Redd, Nickson Fong, Shelley Page), great visual effects (Habib Zargarpour, Jay Redd, Nickson Fong), great research pieces (Gavin Miller, Michael Kass), great scientific visualizations (Carter Emmart), great art (Lina Yamaguchi (alternate), Nickson Fong), great video game cinematics (Habib Zargarpour), great real-time (Carter Emmart, Habib Zargarpour), and great broadcast (Nickson Fong). Other considerations:

- Balance across expertise in the eight submission categories (see above)
- Balance across gender – we could have and should have done better, but we at least had one juror and one alternate who were women.
- Representation of Europe and Asia, with one juror from each. As travel budgets allow, it would be great to increase this representation.

I chose jurors with whom I was familiar enough to know they were of good character and exceptional talent, but not people with whom I was close friends. Importantly, I invited the jurors one at a time, allowing me to see what areas of expertise were still needed once

each juror accepted the position. Where possible, I asked the jurors in person, and followed up with an Email with the key information. Several of them were invited when I saw them at the SIGGRAPH 2006 conference in Boston.

Taking care of the jurors during the jury meeting is extremely important – my focus was to make sure that we did everything possible to prepare them for the meeting, explaining beforehand the jury process, and making sure they saw the pieces in their best possible light, as comfortably as possible, with as few technical glitches as we could have. The rest of this section explains the major components of preparing for and executing the jury meeting.

Jury Information Booklet

We prepared a **Jury Information Booklet** that included a photo and bio (both supplied or at least checked by the jurors) of each of the jurors as well as a schedule of the weekend and a letter from the chair detailing our expectations for the weekend. This letter was the first time I communicated my direction to the jury: look for pieces having innovation, excellence, and representation across the full spectrum of computer graphics.

This jury booklet was Emailed as a nicely formatted .pdf file in late February approximately a month before the jury meeting. A big part of the excitement of being on the jury is to get to meet and interact with one's fellow jurors. This was the first Email that was mailed out to the jury as a whole and the first time they all got to learn who their fellow jurors were. At the end, I had the whole jury sign one of the booklets.

Jury Technical Pre-Meeting

Sam Black flew down for a technical pre-meeting a few weeks before the real meeting. The rest of the CAF Committee, including Technology Director Sebastian Sylwan, met for the weekend to configure the jury meeting workstations and to select the jury room locations and setups. By the end of the meeting we had compiled a plan of action for being ready in time for the real jury meeting.

Juror Expertise Survey

Before the jury meeting, I asked each juror (over Email) to rank their expertise in each of the eight submission categories on a scale of 1 to 9, with a total of 40 points to distribute. These surveys were used for me to get to know the jurors better for choosing who would watch which categories of pieces in the first round: one juror marked unexpectedly revealed a high level of expertise in Art, which recommended an additional juror for judging the "Art" pieces in the first round. In the later rounds, we used the juror expertise to weight the juror's votes for consideration for the AT as described in the Round 3 section below.

Juror Travel and Accommodation

SIGGRAPH Contractors from Talley management were very helpful for arranging juror travel. Jurors were accommodated at a nearby hotel, a nice walk from our institute. Several jurors being local to LA and California helped save on the CAF budget.

Jury Compensation

There was disappointment from a few jurors regarding receiving only 50% off of their conference passes. This was a cost-saving reduction introduced at SIGGRAPH 2007. In Hollywood, receiving complimentary passes for jurors (who are VIP's) would be standard. If budgets allow, and if the fairness issue can be addressed, it would be nice to revert to 100% conference registration for the jurors. With only eight jury members this would not be a large expense.

Jury Meeting Schedule

The Jury Information Booklet also included the Jury Meeting Schedule. To minimize costs and make the least impact on the jury's time we returned to a 3½ day jury meeting (down from 4½ days the previous year) and thus we knew we needed to be as efficient as possible. Our schedule was:

- Friday, March 23rd – 7pm – Welcome dinner at a local restaurant
- Saturday, March 24th – 9am-10pm – Orientation and 1st round jurying
- Sunday, March 25th – 9am-10pm – 2nd round jurying
- Monday, March 26th – 9am-10pm – Complete 2nd round and begin 3rd round
- Tuesday, March 27th – 9am-1pm – Final adjustments and awards choices

We advertized in the schedule that the jurying would run until 11pm, so the jurors were pleasantly surprised when were generally able to finish around 10pm each night. Some were having such a good time that they stayed afterwards to continue discussing pieces.

A variety of **snacks and beverages**, as well as headache medicine and eye drops, were made available throughout the jury process. Jurors were asked before the meeting what some of their favorite snacks and meals were.



Snacks, meals, and comforting supplies provided during the jury meeting.

Continental Breakfast, Lunch, and Dinner were all provided on-site by a local catering company. The **quality of the meals is very important** since the meals will characterize the only significant breaks that the jurors will have during the day.

Jury Briefings – Every morning and at the beginning of every round of jurying, I gave a briefing to the jurors about the current status of the jury process (number of pieces remaining in each category, etc.), and instructions for the next round of jurying. I prepared Microsoft Powerpoint slides and projected them in the main screening room for this purpose. This same set of slides eventually evolved into the set of slides which I use to introduce the show to people.

Conflict of Interest – On the first day, my briefing welcomed the jurors and explained the jury process for the next few days. One thing I explained was how we would handle conflicts of interest. If a juror worked on one of the animations under consideration, or if they worked at the company, or had a credit on the film, or were close friends with any of the creators of the piece, or were in a position that could create the *perception* of a conflict of interest, the jurors were asked to leave the room while that piece was screened, discussed, and voted upon. I also asked jurors to be careful to vote fairly on pieces from *competing* companies, and to feel free to excuse themselves if they felt that they were at all conflicted for any such reason. A jury alternate was asked to vote in place of any conflicted juror; we alternated between which alternate was chosen.

Jurying Facilities at USC ICT

First Round Jury Rooms

For the first round of jurying, we set up four identically equipped jury rooms on the 1st floor of our institute, each equipped with a Linux jury workstation (provided by Hewlett-Packard) with a 23” widescreen monitor for showing the films and a 19” second monitor for operator controls and displaying notes to the jury and other information about the film. Each room was shielded from outside light and we placed gray curtains behind the screens to provide a neutral non-distracting background.



One of the four jury-room setups for the first-round jurying. Volunteer operator Charles-Felix Chabert screens films on the left widescreen monitor for jurors Shelley Page and Randal Kleiser. The right screen alternates between information about the piece being shown when the film is being shown and the operator's controls between pieces. In the first round, each juror writes YES or MAYBE or NO for each piece on a pre-printed ballot. The ballots are tabulated by the database coordinator during breaks.

Main Screening Room

We set up the main screening room of USC ICT for the main jurying rounds. There were typically about twenty people in the screening room. The screening room featured a bright Digital Projection 1400x1050 video projector which we connected to an additional HP workstation running Linux and Sam Black's jury system. Since the regular seats in the room were not comfortable for long periods, we retracted the seats in the screening room and brought in five couches and various comfortable office chairs for the jurors and committee. We installed two sets of portable "pipe-and-drape" curtains across the door

(which was propped open) so that people could come and go silently and without letting light into the room.



Fisheye photograph of the main screening room at USC UCT used for the rounds of jurying after round 1. We see the main screen at the with a film in progress being juried, a smaller side screen displaying information about the piece to the jury, including the filmmaker's "notes to the jury:", and the screening control workstation (being operated at the time by Sebastian Sylwan in the lower left). Approximated twenty people (jurors, committee members, and volunteers) are in attendance.

Jury Room Side Screen

We set up a 1024x768 projector and side screen to the left of the main screen that allowed jurors to see the "Notes to the Jury" and a piece's vital information (title, total run time, whether student work, etc.) during the jurying process. We also used dual monitors on the first round jury system computers to make this possible. The information on the side screens eliminated the need for large binder booklets with all of the pieces' information printed out on paper. This accelerated our jury process (no flipping through binders in the dark) and also saved a lot of paper and printing. Furthermore, the notes to the jury were read and taken into consideration with a far greater frequency than in any other jury meeting I have attended. I strongly recommend the continuation of side screens for enhancing juror's access to information about the pieces during the jury process. The side screen included:

- Title of Piece
- Medium-resolution image from the piece
- ID Number
- Total Run Time (very important - everyone is always wondering this)
- Student Work yes/no

- Willing to Edit yes/no
- Brief Description
- Notes to the Jury
- Final Resolution (to help determine if this will look good on the big screen)

Electronic Voting Wands

With approval from conference chair Joe Marks we purchased an electronic voting wand system from <http://www.replysystems.com/> to allow jurors to cast their votes with greater precision (a scale of 1 to 5) and more privately than in the past. Previous year's CAF jury meetings had only taken votes of "ET/AT/NT" and in some years required jurors to raise their hands to indicate their vote. No matter how professional your jury is, people appreciate privacy in casting their votes and will be most likely to give their truest individual opinion if it is made privately.



Electronic Voting Wands, labeled with the jurors' names. 3M "Privacy-Guard" film seen on the left group of units prevented the displayed numeric vote values from being easily seen by others.

It was nontrivial to connect the voting wand system to Sam Black's jury system since the software development kit for the device was not functional. Sam valiantly and ingeniously read the votes from the dialog box of the test demo application that the system came with, and this worked. Due to signal strength and multi-room complexity, we used the voting system only for the rounds after round 1, and used private paper ballots for the first rounds.

Jury Process

The goal of the jury process was to choose approximately 1¾ hours of material for the Electronic Theater program and up to six hours of additional meritorious material for the Animation Theaters in the 3½ days available for jurying. This process proceeded in a series of **rounds**:

Round 1

In the first round, we followed the time-saving tradition of breaking the jurors into four groups of two and we had each group work on separate batches of animations. This divided the 905 valid submissions into about 225 films for each jury room to handle over the day. We grouped the jurors so that they could be given pieces in the area corresponding to their highest expertise – people with experience in Art judged the Art pieces, and the same with Research, Visual Effects, etc. Of course, every group of jurors also juried a large number of "Animation" category material. We partially rearranged the groups during the afternoon break for variety. Each room was staffed with a trained

volunteer from ICT or a local art school or visual effects facility who had been shown the jury system's operation the day before jurying began.

The Electronic Voting Wand system used in the later rounds did not have reliable enough signal to all four rooms, so we reverted to paper ballots for the first round. Sam Black's jury system allowed lists of pieces to be printed to serve as juror ballots. The jurors would see the animation on the widescreen monitor and the "notes to the jury" on the side screen as the piece played. After watching a substantial amount of a film, jurors could request "fast forward" (a default speed of 4x) in order to make it through the pieces during the day. After seeing each piece, the jurors could quickly discuss with each other, and then they would write their vote of "YES" "MAYBE" "NO" – answering the question of "Should this piece be in the SIGGRAPH 2007 Computer Animation Festival" on their ballot papers. Miraculously, and with many thanks to Sam and his jury system, we made it through Round 1 on the first day.

Advancing past the first round

In Round 1, 153 pieces received a vote of YES from both jurors and 84 received one YES and one MAYBE vote. This totaled 237 pieces receiving "YES/YES" and "YES/MAYBE" votes and thus a sufficient number for consideration for round 2. "MAYBE/MAYBE" pieces thus generally did not advance to the second round. There were approximately four the "YES/NO" category and we decided to continue these pieces to round 2 as well.

Upon returning the second day, jurors were given this list of the pieces which would advance to Round 2. Using chair's discretion, I pushed a handful of pieces which would have been eliminated in the first round on to round two. One of these pieces, whose contribution I had the sense had been missed during the first round of voting, ended up being voted enthusiastically into the Electronic Theater by the jury in subsequent rounds. In addition, jurors were allowed to bring pieces back into Round 2 at will, on the idea that a piece should not be completely eliminated until the jury meeting is over. Again, this resuscitated a few pieces.

Round 2

The main jurying rounds took place over the next two and a half days. For Round 2, we **organized the order of viewing the pieces by category** so that pieces in similar categories would be judged together. We watched a batch of Animated Shorts, then all of the Art pieces, all of the Broadcast pieces, etc. In retrospect, **THIS WAS VERY IMPORTANT** in choosing a show that represented the best-of-the-best in each category. This avoided the jurors having to context-switch between the pieces and hopefully was fairer to each category by letting each piece be judged more toward the standards of its category. For example, a scientific visualization should not need to have the same entertainment value as an Animated Short, and a Real-Time piece should not need to achieve the same level of graphical fidelity as a visual effects piece. This was in keeping with the goal of the festival doing its best to provide representation of the best of the best across all submission categories.

The jury convened in the main screening room and began watching the Round 2 pieces. Before each piece, if a juror was **conflicted**, they would leave the room and an alternate juror (Lina Yamaguchi or Sebastian Sylwan or Jill Smolin) would vote in their place. If during the screening, the jury wanted to fast-forward a piece, these requests were indicated by pressing the “*” key on the keypad – once Sam saw two “*”s he called out that the piece had been requested to be fast-forwarded, and if an additional “*” was entered by another juror we would fast-forward the film. The jury-room side screen displayed the vital information about the piece (Title and ID, Brief description, Notes to the jury, whether it was Student work, NOT who created the piece) before and during each piece being show.

At the conclusion of a piece, jurors were allowed to discuss the merits of the piece with their fellow jurors and/or supply additional information they happened to know about the piece. Jurors keyed in 1-5 for their vote, with the votes corresponding to “DEFINITELY NOT”, “PROBABLY NOT”, “MAYBE”, “PROBABLY”, and “DEFINITELY” in response to “Should this piece be in the SIGGRAPH 2007 Computer Animation Festival”.

The “real time” category was treated somewhat specially since it is a growing area in computer graphics and one that is traditionally underrepresented – and since the “real-time” nature of the graphics is important to consider when judging the merit of the piece. We hooked up an XBOX 360 and played a few minutes of some recent notable games on the big screen to help jurors get in the mood. We also explained the technical process of creating “Demoscene” pieces, and what to look for in “64K” animations, etc. For all categories, jurors were invited to share their thoughts on what makes a piece particularly innovative or excellent.

Voting on all approximately 240 pieces in Round 2 required all of our second day of jurying plus the morning and early afternoon of the third day of jurying.

Advancing to Round 3

The jury system automatically computed an average score (1-5) for each of the pieces voted on in Round 2. No ET/AT recommendations or considerations had been made up until this point; I believe this contributed to a higher-quality AT venue since no pieces would be voted in on the thinking “well, this is good enough for the AT”. The pieces were sorted in order from highest vote to lowest vote and the highest-scoring **two hours and fourteen minutes** of material (unedited running times) – 37 pieces – was designated our “**Candidate Electronic Theater**”. This was intentionally longer than the intended ET length of 1:45 (which would also include the AT trailer, opening sequence, and papers preview) in order to encourage further selectivity and under the assumption that many of the longer pieces would have edit requests.

The remaining approximately 200 pieces were sorted according to a weighted score, with the juror’s votes being **weighted according to expertise level**. The pieces chosen from this group were overall likely destined for the animation theaters, and the idea was that for our AT we would emphasize innovation and excellence *with respect to the submission category* more than innovation and excellence *with respect to the broad appeal* needed

for the ET. We found, however, that the weighted scored and unweighted scores did not make a significantly noticeable difference to the ordering of these pieces. This could simply be because our jurors each had relatively broad expertise and tastes, but my conclusion was that I don't think the weighting scheme ended up being important.

Sam Black's jury system also allows for "Olympic" vote scoring, where the highest and lowest score for a piece is ignored in determining its average score. This limits the influence of any single juror, and would prevent a single juror from significantly lowering an otherwise high-ranking piece's score by giving it a solitary score of 1 – easily enough to knock it out of consideration for the Electronic Theater. Though I'm not aware of any such occurrences, I could recommend considering the use of Olympic voting for future CAFs.

Of the remaining 200 pieces not in the "Candidate ET", 85 of them scored a weighted average score above 3.5 out of 5 – halfway between "MAYBE" and "PROBABLY". This also corresponded to four hours and forty-five minutes, which was about the amount we were looking for the AT. We labeled this list (also distributed to the jurors) the "**Candidate Animation Theaters**". We also printed out one more page full of pieces that were just below the 3.5 score cutoff – these 22 pieces scoring above 3.34 and less than 3.5 were designated the "**AT2**" list and jurors were welcomed to nominate any of these pieces – or any others from any round – for Round 3 consideration. [Of these AT2 list pieces, two eventually made it into the Electronic Theater and two made it into the Animation Theaters.]

Round 3

Coming back from lunch on the third day, jurors were given new printouts of the order of the pieces after Round 2. The first set of approximately two hours of material were indicated as the "Candidate ET". The next set of pieces with votes above 3.5 were indicated as the "Candidate AT". An additional page-and-a-half (approximately 30 pieces) of pieces scoring just below 3.5 were included on the printout as well, so that jurors could recommend bringing them back into consideration.

Round three was designed to fine-tune ET versus AT selections and to make sure no poor choices (of omission or inclusion) were made in AT selections. In addition, Round 3 was a chance for jurors to recommend edits to the pieces if they were accepted into any particular venue.

Time needed to be used efficiently at this point, so we focused attention on the pieces near the ET/AT borderline and at the AT/reject borderline. Pieces at the top of the ET lists were quickly listed off as ET accepts in case any juror wanted to bring the piece up for an additional vote. If a motion to re-vote was seconded, a new vote was taken. The majority of the running time of the ET was accepted in this manner.

After accepting the highest rated pieces to the ET, we went to the bottom of the Candidate AT list and allowed jurors to vote for reconsideration of pieces above or below the cutoff between AT (score above 3.5) and AT2 (scores just below 3.5). Most of the

pieces above the cutoff still received favorable support to remain in the AT. A few pieces below the cutoff received support to rise into the AT, and two were eventually accepted in some form into the ET!

The pieces on the borderline of the ET and the AT received the most discussion. Votes were taken as to whether each piece had greater support to be in the ET or the AT, and this was recorded in the database, along with any recommended edits.

One juror suggested leaving any final fine-tuning between ET and AT to the Computer Animation Festival Chair, which was unanimously supported by the jurors.

Recommending Edits – We used Round 3 to record recommendations from the jury regarding the editing of pieces. Some CAF chairs have opted not to have any pieces be edited, with the valid goals of keeping the integrity of the pieces as the authors intended them. In the interests of the strength of the CAF as a whole as well as making each piece make its best contribution to the show, I went with the more common decision of allowing and to some extent encouraging the jurors to recommend edits, especially for ET pieces where the total show time is limited and longer pieces limit the ability to increase the show's breadth by including more pieces. Also, as CAF contributor, I feel that my pieces were generally improved by the editing suggestions of the jury.

For many of the pieces, a motion was made by a juror to vote on editing the piece to a certain length, sometimes a small trim and sometimes a substantial reduction. I believe this helped produce an ET that didn't drag on (audience reaction supports this) and which focused on what was innovative and excellent in each work.

Combining Pieces – The jury also recommended in some cases that several related pieces be combined into a single piece. This included the three real-time pieces submitted by nVIDIA, which were accepted into the ET as an edited, consolidated piece, as well as several pieces of video game material from different companies which were accepted in edited form into a "Game Technology 2007" montage piece; they also appointed Habib Zargarpour and myself to edit this piece.

Excerpting – for long pieces, the jury was given the option of voting to include an excerpt or trailer for the piece in the Electronic Theater and the full version of the piece in the Animation Theaters. It was decided to recommend this for the 14-minute piece "Dreammaker", and I subsequently asked the filmmakers to prepare a 90-second trailer for their piece to run in the ET and we showed the full 14-minute piece in the Animation Theaters. I'm quite sure that running the full 14-minute piece in the otherwise fast-paced Electronic Theater would have been a disservice to the piece and the ET, and would have kept out at least three other deserving works.

Round 3 was substantially complete by the end of the third day of jurying, running into the morning of the last day slightly. After Round 3, the standings list was printed once again with any new votes taken into consideration and any editing notes entered into the system indicated.

Choosing the Award Winners

The final two hours of the jury meeting were set aside for choosing the award-winning pieces. Since 1999 through 2007, SIGGRAPH has allowed for up to three awards to be given, each with any name chosen by the jury. A “Best of Show” award however qualifies that film for Academy Award consideration for Best Animated Short since the SIGGRAPH Computer Animation Festival is an Academy-Qualifying Festival. Usually, two awards have been given, named similarly to “Best of Show” and “Jury Honors”. Award selections are traditionally the result of unanimous agreement of the jury, though in reality I have observed them to be the result of a convergent process of forming a consensus.

Our jurors each recommended certain pieces for awards consideration, bringing up a total of around seven pieces. Our volunteer operator put the still image submitted with each of these pieces up on the side screen to help focus the discussion. After additional discussion and voting, a consensus was reached to award “Best of Show” to “Ark”, “Award of Excellence” to “En Tus Brazos”, and “Jury Honors” to “Dreammaker”. The new award title “Award of Excellence” was designed to honor the work without implying a priority with respect to the “Jury Honors” award.

Final ET/AT Selections

In the next few days after the jury meeting, I worked with my committee to finalize the ET and AT selections. This was done by following the jury’s decisions with a few cases of exercising the Chair’s Discretion to ensure that the ET and AT would have ideal lengths and balance of pieces. My target ET length was 1:45, which meant accepting approximately 1:38 of material in order to leave room for the opening title sequence, the papers preview video, the Animation Theaters Trailer, and the final credits. For a few of the pieces near the ET/AT cutoff region, I promoted one or two into the ET and demoted one or two into the AT for overall show balance. I promoted one borderline piece which had appealed *extremely* well to several jurors but whose humor was lost on a few; it was one of the best received pieces in the show and consistently received thunderous applause both during and after being shown. In retrospect, I wish we had had more time to review the final AT selections and to recommend edits to them as well just as closely as we did for the ET selections, but I don’t feel there are any undeserving pieces anywhere in the show.

Additional Jury Meeting Notes

- I believe that the CAF benefits significantly from a **physical jury meeting** and that it would not be as effective at choosing the best pieces for the show if the meeting were conducted over the internet. First, it would be difficult to provide all of the material for screening privately for each juror. Second, it is difficult to imagine that every juror would possess the resolve to personally watch hundreds of animations in a timely manner without the focus and camaraderie of a physical jury meeting.

- In the future, it would be great to have a **visible progress bar on the movie playback system** – showing how many minutes have played and clearly indicating the percent done. Also, we should be able to see the start time of the 5-minute time the submitters have asked the jury to review.
- As chair, don't be afraid to **enforce the conflict of interest policy**. Jurors will naturally be friendly with and respectful of each other and may see no need for conflicted jurors to leave the room. Speaking from experience, it's way better if people step out. As chair just be the enforcer on this and no one will mind in the end.
- Make sure to tell the jurors to be a little more lenient on **visual effects pieces** from upcoming films where the studios may not have had as much time to work on the pieces since their productions are not yet finished. To keep SIGGRAPH as current as possible, there really should be a later deadline for these types of pieces.
- Allowing the jurors to contribute to a list of **“Worst-Of”** pieces that they see in Round 1 can give you some humorous material to show to the jury after returning from breaks. Be aware, though – one of these pieces may then get voted into your show!
- **Take notes** throughout the jury process for making adjustments the next day and for the next year's chair. The jury room is dark, so get a little LED lamp to light up your laptop keyboard or clipboard. Make sure to write down all editing suggestions for the pieces in your own words somewhere you won't lose them.
- **Watch** as many of **the pieces yourself** before the jury meeting. There will be some hidden gems the jury might miss in the first round. Also, note which are the “great” pieces that are surefire hits for the Electronic Theater. These will be treats for the jury, and you can space them out in the jury process.
- Remind the people who are not jurors – including the CAF committee members and in particular the other volunteers – that they're not supposed to talk unless it's necessary during the jury process. **The jurors are the ones who are supposed to be talking and deciding.**
- The **“Willing to Edit”** option on the submission form should change to be an opt-out rather than an opt-in. That is, you should have to check a box to say “I am unwilling or unable to edit my piece even if that would be a condition of acceptance by the jury”. You'll probably get more people willing to edit their pieces that way.
- **Remind jurors** when necessary that the purpose of discussions after seeing each piece is to try to inform, discuss, and explain your opinions, but not to sway or try to convince each other of how to vote on a piece. Your vote should truly reflect what you think of the piece!
- Don't accept more than 1:40 to the Electronic Theater – leave room for pieces that will come in longer than they should and for special pieces such as the papers preview and AT trailer. People typically start to squirm in their seats about 1:45 in to the show – especially if you are planning a pre-show event beforehand!

Notification of Acceptance (or not)

We set a deadline of one week after the ET jury meeting to Email out the submitters whether their piece had been accepted. It is good form to announce this date on the original call for participation and to make good on getting the word out by then. We used the automated SIGGRAPH system for mailing out the accepted/rejected pieces and quadruple-checked that we were sending out the right information before hitting the final send. We were lucky to dodge the complication and embarrassment of sending out acceptance information to rejected pieces, which has in fact happened in the past.

Our notifications indicated clearly whether people were accepted to the ET or the AT. This forced these final adjustment decisions to be made quickly. The Emails also indicated the edits requested, the final total running time requested, and the procedure for delivery of the final material. **It would have been a good idea to individually call each ET filmmaker to verify their understanding of the editing requests made by the jury and the final submission dates and formats.**

Video Postproduction

The most important job after the jury meeting is to assemble the actual media (e.g. videotapes) containing the accepted pieces that will be screened at the SIGGRAPH conference as well as to prepare the pieces for the SIGGRAPH Video Review DVD sets to be sold at the SIGGRAPH conference. For our year the material was prepared as follows:

Electronic Theater: Mastered onto two HDCAM/SR videotapes (one 24p and one 30p) from the delivered material by RIOT studio in Santa Monica, CA. This was then shown from two HDCAM/SR decks at the San Diego Civic Theater onto a stack of two 18K Christie Digital video projectors.

Animation Theaters: Encoded into QuickTime H.264 files at the native resolution and frame rate of each piece by CAF committee and volunteers on CAF PC workstations at USC ICT. Shown from Linux workstation servers onto Sony SXR D projectors in rooms 24 and 25 of the San Diego Convention Center.

SIGGRAPH Video Review: Encoded into Standard-definition Widescreen QuickTime Animation Compressed .mov files by CAF Committee and Volunteers at USC ICT.

Delivery of Final Accepted Pieces

Final delivery of pieces was given a deadline of April 24, three weeks after the acceptance notification. For final material delivery we requested either a hard drive or a set of DVD-ROMs with a numbered TIF image sequence (8 or 16 bit) and a .wav or .aiff audio file. We asked for 2-pops to indicate the sync information at the beginning and end of the piece. Having the original frames at their original native resolution and frame rate gave us all possible options over how each piece would eventually appear in the show. Most of the material arrived on time and to specification. However, there were many

problem pieces, and in fact most of the pieces needed some form of special treatment in order to get them into the show at their best.

This form of material delivery was idea for the material that went to RIOT, since frame sequences are what they needed for loading onto their Flame systems. But it was a pain to prepare the material for the SVR and the Animation Theaters.

In retrospect, we might have done better if we had requested the material in one of the following two forms:

- 1) For the AT material, As QuickTime “Animation Compressed” .mov files, with a PC-formatted NTFS hard drive for the Animation Theaters pieces. The “Animation” compressor is a simple, fast, lossless codec that produces smaller files than uncompressed but loses none of the information. The benefit is that this would have made syncing audio and video trivial, and converting to H264 .mov files would have been more straightforward and more easily delegated to volunteers.
- 2) For the pieces going on to the SVR, we should have requested that the authors prepare a QuickTime Animation Compressed version at the SVR video resolution, in addition to sending us the frames. This would have made preparing the SVR material much easier.

SIGGRAPH Video Review

Our show is presented on issues 155, 156, and 157 of the SIGGRAPH Video Review (SVR). We did contact many of the authors of pieces which had not originally allowed access for the SVR DVD, but only a few were able to grant these rights. In the end, however, we achieved over 2/3^{rds} of the pieces making it to the SVR DVD: 23 of 34 pieces made it onto the ET DVD, and 66 of 95 pieces made it onto the two AT DVDs.

I sequenced the order of the 23 pieces for the ET SVR DVD to have an enjoyable show sequence that played well from start to finish. The sequencing for the AT DVDs was done by AT producer Tom Pereira.

Converting Movies for the SIGGRAPH Video Review

Although Dana Plepys explored authoring HDDVD's for the SVR this year, the format war had not played out and few people would have had HDDVD players by SIGGRAPH. A, good thing, since it looks like Blu-Ray has now won. Instead, the SVR was upgraded to a WIDESCREEN standard-definition format, which significantly increases the size and resolution of the predominantly widescreen material on video projectors, computers, and widescreen TVs.

Dana Plepys' production house in Chicago needed anamorphic 1.2 pixel aspect ratio QuickTime Animation compressed 720x480 movies to author onto DVD, so we used our

donated in-house HP workstations to convert the delivered frame sequences using Adobe Premiere. The need to sync audio and respect each film's original frame aspect ratio and pixel aspect ratio proved while converting to 16x9 frames with a 1.2 pixel aspect ratio proved too difficult for our volunteers to execute reliably. Furthermore, we discovered that Adobe Premier used a unacceptably poor algorithm for resizing large frames to small ones, and could also not natively handle 16 bit frames. Using DOS scripts and the Imagemagick toolkit for resizing, Sebastian and I personally tried to finish the conversions for the 90-some SVR films in the final weekend, and we ran over due to the volume of work. This made us late getting all of the material to Dana and her team in Chicago, but by sending what we had as soon as we could and the SVR's extra efforts, everything made it onto the DVDs on time.

Tips for future years:

- Continue to invite the head of the SVR team (in our case Dana Plepys) to attend the jury meeting.
- Stay in weekly contact with the SVR team after the jury meeting.
- Note that getting the films ready for the SVR as the first major production deadline after of the jury meeting. Note that the SVR deadlines are HARD deadlines – they schedule (often donated) studio time to put their show together. Plan to have all the material delivered on time, in the right format (in our case, QuickTime .mov, 720x486 animation compressed, 1.2:1 widescreen anamorphic aspect ratio), to SVR.

Electronic Theater Postproduction

Video Postproduction for the ET was performed by RIOT in Santa Monica. We had an initial meeting with them in April 2007 to contact them about performing the postproduction services having known a few contacts there. In retrospect, we should have been in touch with post houses several months earlier, and we should have brought the (volunteer) job to several houses and picked the one that seemed the most capable and enthusiastic. Nonetheless, we were very fortunate that RIOT agreed to take on the post work for the Electronic Theater, even though they didn't take on the work for the Animation Theaters, as it would have been too much work for them to perform. Even so, the ET postproduction turned out to be a large amount of work for them, approximately three times what they had originally thought.

Sequencing the Electronic Theater

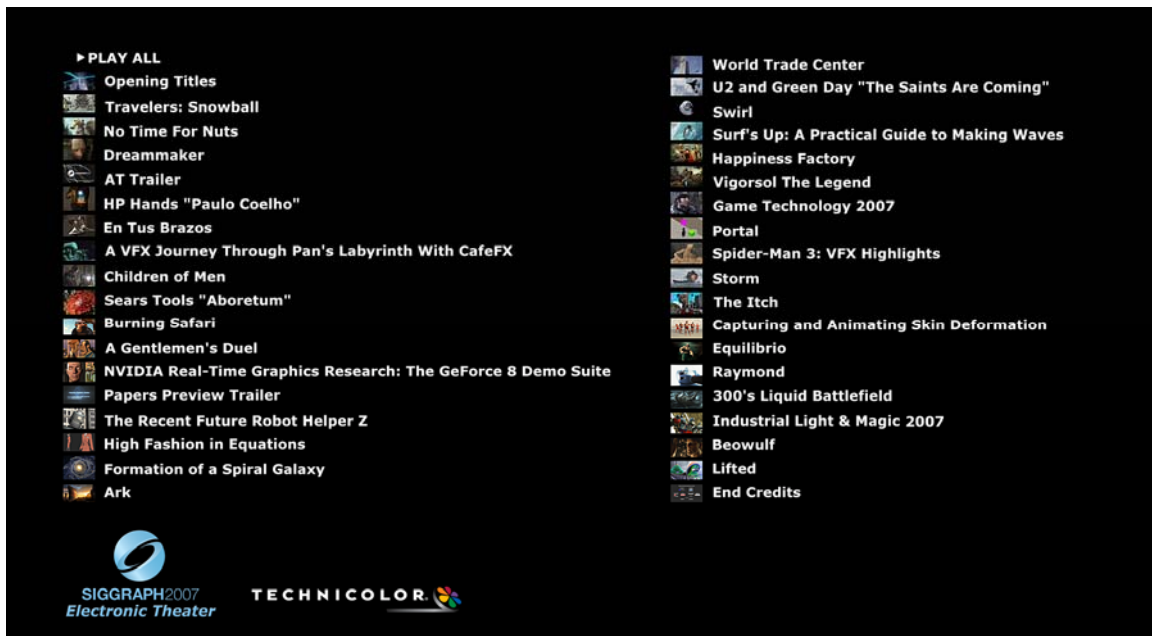
Before postproduction could begin, I had to let RIOT know the show order. I sequenced the Electronic Theater using printed out strips of paper with images of the pieces and their titles. My goals were:

- 1) **Give the show a structure** (a beginning, a middle, and an end) and an arc (beginning somewhere and ending up somewhere new). One way to do this is to break the show into three acts, and make each act have a structure an arc.
- 2) **End with something uplifting** (*LIFTED*, in our case) – everyone kept telling me not to end on a downer. I'm glad I didn't!
- 3) **Get the show rolling quickly** (*Traveler's Snowball* and *No Time for Nuts* were our opening one-two punch)
- 4) Keep the emotionally heavier pieces toward the middle of the show – ease down to them and then bring people back up.
- 5) **Don't thrash back and forth** between happy and heavy. Bring the mood up, and then bring it down, and then gently bring it up again. *Surf's Up* was a great way to bring people back up from the heavier pieces.
- 6) Look for opportunities to constructively **group pieces by thematic elements**. *HP Hands: Paulo Coelho, En Tus Brazos*, and *Pan's Labyrinth* comprised a Latin artistic/intellectual theme; *Ark, World Trade Center*, and *U2/Green Day: Saints Are Coming* were thought-provoking, disconcerting, and apocalyptic, and *Capturing and Animation Skin Deformation, Equilibrio*, and *Raymond* all found humor in the deformation and manipulation of the human form.
- 7) If pieces have elements which might be *too* similar, keep them apart. **Juxtaposition is good, clashing is not**. I spaced out the big robot fight from *A Gentleman's Duel* from the big robot in *The Recent Future Robot: HELPER Z* and both of these ran well before the big robot battles in the *Transformers* clips in the *ILM 2007* reel.
- 8) **Reserve the first and last few slots** in the show for pieces you feel are particularly worthy to highlight. You don't necessarily have to put the award winners at the end, where lighter and more uplifting pieces may get a better response from the audience.

The order I chose is shown below – I received valuable feedback from our ET producer as well as AT trailer editor Cris Blyth on the ordering as well. The order is also reflected in the show program .pdf included in the additional materials. I wish I had been able to screen the show in this order for at least myself and ideally a small audience before committing to the ordering, but since not all of the material was available in Quicktime movie form and since time was short I wasn't able to make it happen.



A photo of the layout of paper cards used to sequence the ET in final running order.



The final running order of the ET, shown as the title menu of the Blu-Ray disc produced by Technicolor.

Nonetheless, I feel the show ordering was very successful and from all feedback it worked very well. The two tiny tweaks I might have made in retrospect are 1)

Experiment with the slower-paced *Dreammaker* trailer after the AT trailer and cut it to 60 seconds or less and 2) maybe move *swirl* up one piece to be between *World Trade Center* and *U2/Green Day "Saints are Coming"*.

Creating the HDCAM/SR Show Tapes

With (quite expensive) HDCAM/SR tape stock generously provided by Sony Pictures Imageworks, we gave RIOT several hard drives onto which we had copied all of the frame sequences and audio files for the Electronic Theater pieces. Our pieces were originally at three different frame rates: 24fps, 25fps, and 30fps. We decided to run the 25fps material at 24fps (4% too slow) and put all of the 24/25 material on one "24p" tape, and to put all of the 30p material onto a second tape. That way, every piece could be played in (very close to) its native frame rate. Retiming 30p to 24p is difficult, and usually introduces temporal artifacts, so in fairness to these pieces (many from video games, broadcast, and research), we put in the extra effort to show them as intended by the filmmakers.

For redundancy at the show, we decided to make both the 24p and the 30p tapes each contain all of the pieces. The 30p pieces were put onto the 24p tape by dropping every fifth frame. The 24p pieces were put onto the 30p tape effectively in 60i using 3:2 pulldown, or telecine. This way, if we lost a deck during the show, we could at least screen an imperfect version of the whole show off of either tape. As we found out, however, the telecined 24p pieces played so well from the 30p tape that we *_might_* have been able to use just one tape for all of the pieces in the show.

Each of the ET pieces was brought in to the Flame system as a frame sequence, audio was brought in and synced, and then each piece was laid down to the tape. Audio was stretched for the the 25fps pieces, keeping the pitch intact. The 24p tape was made first, with the 24p, slowed-down 25p, and 30p frame-dropped pieces. Then this tape was copied deck-to-deck to become the 30p tape, which effectively telecined all of the 24p material to 60i 3-2 pulldown. The 30p material was then edited in natively onto the tape.

A few pieces – *ILM 2007*, *Beowulf*, and *LIFTED* – were delivered to us as HDCAM/SR tapes instead of frame sequences on hard drives. These proved easier to work with than the frame sequences as the material could simply be dubbed onto the tapes. For ET pieces, encouraging HDCAM/SR submission may be a good idea for subsequent years, although it will be beyond the means of many smaller groups.

RIOT was gracious to schedule time in their editing bays for me to review the tapes in progress. This allowed me to catch several frame aspect ratio errors and a few audio glitch issues. See later in this section for explanations of some of some of the pieces which required special attention.

Animation Theaters

Postproduction for the 93 Animation Theater pieces was done in-house at USC ICT through volunteer effort (CAF Committee, and volunteers from local effects companies, most notably Sony Imageworks). We had originally asked RIOT to perform the postproduction for both the ET and the AT, but they declined to do the AT work. It turned out to be time consuming and labor-intensive.

Our plan for screening the AT material was to encode every one of the pieces into a Quicktime H264 .mov file, and to then play these files from a Linux server similarly to how we played the movies during the jury meeting. The benefit of this is that each piece could be played in its native resolution (SD, HD, and everything in between) and frame rate, without any spatial or temporal resampling. Furthermore, we would not have to employ a high-end post studio to create high definition videotapes of the AT shows – this would have been an additional effort over twice that which RIOT had undertaken for us, and would have required renting additional equipment for the conference. Furthermore, it seemed at the time that we would not have been able to show 24p and 30p material natively using only one videotape deck. In retrospect, this would have been possible by creating one 60i (1080i) tape with the 24p material telecined onto the tape with 3:2 pulldown.

Converting the AT movies to QuickTime H264 .mov's

As we did for the SIGGRAPH Video Review, we used our loaned HP workstations to create the .mov files from the delivered frame sequences. We received a great deal of help from volunteers, but as with the SVR the complexities of getting high-def frame sequences encoded properly with good audio sync required myself and Sebastian Sylwan our Technology Director as well as Andrew Jones from USC ICT to perform much of the encoding ourselves, and this was a *lot* of not very enjoyable work. We used Adobe Premiere again, which would create the H264's from the frames, but audio sync was sometimes tricky, and we had to convert 16-bit per channel frames to 8-bit per channel frames using Imagemagick DOS scripts before importing into Premiere.

Riding the compressions levels for each piece was something of an art. For the standard definition pieces, compressing using “100%” compression ratio was fine. Some High Def pieces required dropping to “80%” or even “65%” in order for the frames to play back well. Computer-generated material is especially difficult to compress well, and a few of our pieces were killers: the fast cloud motion of *27 Storms*, the point cloud laser scanner data in *The Fallen Oak* and *Venus Venus*, and the real-time CG piece *ToyShop* all were extremely difficult to compress in a way that would play back in real time. For the latter three, we down-resed to 720p using ImageMagick and finally obtained versions that would play back well. For *27 Storms*, we included an *up-resed* versions of it on the “4K” AT reel.

Some pieces had notably poor frame quality – it was clear that what we were given was not the highest quality material that had been created. This was in particular true of the Supinfocom pieces, which had apparently been redigitized from a PAL DVD disc over an analog connection by Supinfocom's distributor “Premium Films” which had made the submissions to our festival. In every case where we could, we requested the original

material from the actual filmmakers. In several cases we were successful; in others we had to make due with the compromised material.

In retrospect, we should have asked for precisely the frames each filmmaker wanted shown without any leading or trailing frames, and to have audio files that timed *precisely* with the frames in each piece, with no extra black frames and flash frames at the beginning and end of the sequences. While these were appreciated by RIOT for the ET films, it was a complication for the AT pieces we converted in-house.

Sequencing the Animation Theaters

Tom Pereira our AT producer and I divided the AT material into several themed “reels” – typically an hour long – and then sequenced the material within each reel. These reels were called *Creativity*, *Storytelling*, *Games&FX*, *Madness*, *Science!*, *Music*, and *4K*. The schedule of the reels and the listings are included in the additional material “AT Show Reels and Schedule.xls”. The schedule matrix is included below.

Animation Theaters Schedule											
		Monday		Tuesday		Wednesday		Thursday			
		Room 25	Room 24	Room 25	Room 24	Room 25	Room 24	Room 25	Room 24		
9:00 AM		4K	Madness	4K	Science!	4K	JMAF	4K	Music	9:00 AM	
9:30 AM		Music		Games&FX		Science!	Games&FX	Storytelling	Madness	9:30 AM	
10:00 AM		Creativity	Science!		Music					10:00 AM	
10:30 AM				Madness	Creativity	Music	Madness	JMAF	Science!	10:30 AM	
11:00 AM		Storytelling	Music			Creativity		Games&FX		11:00 AM	
11:30 AM			Creativity	Science!	Storytelling		Science!		Storytelling	11:30 AM	
12:00 AM	Sunday	JMAF				Storytelling		Madness		12:00 AM	
12:30 PM	Room 25	Room 24	Games&FX	Storytelling	Music	JMAF		Music	Games&FX	12:30 PM	
1:00 PM	4K	Madness			Creativity	Games&FX	4K	Creativity	Science!	1:00 PM	
1:30 PM	Creativity		Madness	Games&FX			Games&FX		Creativity	1:30 PM	
2:00 PM		Science!			4K	Madness		Storytelling	4K	2:00 PM	
2:30 PM	Storytelling		4K	Madness	Storytelling		Madness		Creativity	Games&FX	2:30 PM
3:00 PM		Music			Science!			Games&FX		3:00 PM	
3:30 PM	Games&FX	Creativity		JMAF	Games&FX		Science!		Games&FX	Storytelling	3:30 PM
4:00 PM			Music	Science!		Music		JMAF		4:00 PM	
4:30 PM	Madness	Storytelling	Creativity		Madness	Creativity	Music	Madness	Storytelling	Madness	4:30 PM
5:00 PM			Music			Creativity				5:00 PM	
5:30 PM	Science!	Games&FX	Storytelling	Creativity	JMAF	Storytelling		Science!		5:30 PM	
6:00 PM					FJORG!		FJORG!			6:00 PM	

> The 4K reel is a special reel of 4K-resolution films (4096x2160 pixels) shown on Sony's SXRD 4K video projection system.
 > The JMAF reel presents award-winning selections from the 2006 [10th] Japan Media Arts Festival.
 > The FJORG! sessions present selections and winners from SIGGRAPH 2007's FJORG! Iron animators competition.

The show schedule for the SIGGRAPH 2007 Animation Theaters. This was put up on the screens of the AT at the conclusion of each reel so that people could decide where to go next. We considered writing a program to automatically highlight the next sessions based on the current date and time.

The 4K AT Reel

We specifically invited 4K works to be submitted to the show, and four were accepted into the CAF: *Flight to the Center of the Milky Way*, *Solar - Terrestrial Interaction from Cosmic Collisions*, *swirl*, and *Presentation of Cultural Heritage Using 4K Real Time Rendering System*. Of these, only *swirl* was accepted to the ET. Thus, we showed *swirl* in both the ET (in HD) and in the AT (in 4K), which was not a problem since the piece is quite short (20 seconds). In addition, the AT piece *27 Storms: Arlene to Zeta* was

promoted to the 4K reel since it could not be encoded as a QuickTime H264 due to the fast cloud motion in the content. In addition, through a contact with RED camera, we included Peter Jackson's short *Crossing the Line* in the 4K reel, which rounded out the 4K reel to a half hour of content.

We delivered a drive of the 4K material to Sony for encoding two weeks before the show, but due to various issues, the material ended up being encoded to the 4K digital video server on-site at SIGGRAPH 2007. The digital video server was picky about the type of TIF files it could encode and also had a problem running multiple frame rates of material (24p and 30p). As a result, we were only able to show the 4K reel halfway into Monday of the SIGGRAPH conference, and there were still some minor audio and video issues. Nonetheless, the 4K reel showed the pieces correctly for most of the week.

In retrospect, we should have been in closer touch with the Sony folks to make sure that they were successfully encoding the material *before* the SIGGRAPH conference started.

Pieces Which Needed Extra Postproduction Attention

I considered it our sworn duty to make every single piece in the show look its absolute best at SIGGRAPH, and as close to each filmmaker's intended vision conforming to the editing suggestions of the jury. This meant showing each piece at its maximum possible resolution, with the highest quality image and sound, resampled and encoded in the best possible manner, and *shown in the correct aspect ratio*. Surprisingly, most of the pieces required some sort of special help along the way to look their best on the screen. Getting the pieces optimally onto the screen was a lot of additional work, but it paid off in the final show.

The rest of this section explains some of the special issues that occurred for a selection of the more problematic pieces.

Selected Electronic Theater Pieces Needing Extra Attention

No Time for Nuts – The credits they sent were originally scrolling credits which took forty seconds to complete. The rule for CAF pieces is seven seconds for titles and credits combined. We noticed the long credits later in the game than we would have liked since it is somewhat difficult to preview HD frame sequences when they come in; we didn't see the problem until the material was taken online at RIOT. We asked Blue Sky to resubmit a seven-second version of the credits in a short time frame. They complied by speeding up the credit roll to light speed, which just looked silly. We took frames from their credits roll and recomposed their credits into two cards using Adobe Photoshop. We sent this to them for approval and they agreed; these are the credits in the ET.

Lessons: Try to encounter these issues as early as possible, not at the last minute. Be prepared to roll up your sleeves to help a piece in need.

High Fashion in Equations – We noticed that the HD frames they send had interlacing artifacts, and asked them to re-send their frames. These didn't come in time for the SVR

but with some clever trickery we produced a good-looking SD version of what they sent for the SVR. Their second set of frames also had interlacing artifacts, so we had them try one more time. These frames were nice, progressive frames, and we thought we were OK. However, editing the final show tape at RIOT, we noticed that the piece was skipping frames. What had happened is that every 25th frame of the animation was missing, causing a slight jump every second. This must have resulted from them trying to convert their piece from 25 to 24 frames per second for us. It would have been much better if they had sent us ALL the frame so that we could have simply played the piece at 96% speed at 24fps, showing every frame. We noticed the problem too late to do anything about it, so their piece has a slight jump every second in the show. No one mentioned it. **Lessons:** Pay special attention to pieces coming from Europe for frame rate issues. Don't assume that when the filmmakers fix one problem in their material that there are no remaining problems. Try to see each piece in motion at least a month before SIGGRAPH!

Game Technology 2007 – This montage piece was edited together by S2007 CAF juror Habib Zargarpour. One of the pieces' material came in with weird interlacing and field dominance issues. The authors of the piece were unable to provide better material. I wrote some Imagemagick scripts to pull the fields apart and recompose them back in the correct order, allowing Brian Miller and myself to conform a new cut of the material to Habib's edit, restoring the sequence to correct progressive scan order.

nVIDIA, The Itch, and Portal – All of these pieces had audio which was balance way too loud relative to the other pieces. The peak bars came up to the max of -0dB whereas professionally mixed pieces tended to peak at -10dB (including loud ones like ILM's transformers segment). We never rebalanced this audio on the show tape since we had AVW's show controller available at the Civic Theater to make everything balance. But, this came back to haunt us when it came time for Chapters screenings – I (or the projectionist) needs to stay near the volume knob to get through the show without blasting the audience on a few pieces. In the final Blu-Ray version of the show, Technicolor re-balanced the audio for these pieces.

U2 and Green Day "The Saints Are Coming" – This piece came in at standard definition 4:3 NTSC aspect ratio, with a 0.9:1 pixel aspect ratio. Some of the material was interlaced standard definition and some was progressive (the CG Katrina shots). We decided to keep the interlacing as being in the spirit of the intended "video look". The first time RIOT transferred the piece onto the tape they did not compensate for the 0.9 pixel aspect ratio and everything looked 10% too wide. This was corrected on the 30p tape of the show. We found out at SIGGRAPH that the visual effects studio had failed to credit the director of the piece and had also removed the director's credit from the beginning of the piece. Fortunately, our side screens title animations had properly credited the director, and this helped avoid a potentially thorny issue. In authoring our Blu-Ray disk, an audio sync issue was discovered, and this was corrected for the final Blu-Ray discs by Technicolor. **Lessons:** Check authorship issues early. Remember to remind post houses that pieces will be coming in at many different pixel aspect ratios,

and be sure to ASK each accepted piece what their pixel aspect ratio, frame aspect ratio, and frame rate are.

World Trade Center – This particularly moving piece gained much of its impact from the audio track – which was taken from the original motion picture soundtrack. The vfx company submitting it noted that it was not sure it would get the rights to the audio. For some time after acceptance, it was unknown if the audio rights would come through, and the filmmakers even suggested running the piece without audio. We communicated to them the jury’s opinion that the audio was very important, and the vfx company was able to have an alternate score composed that was similar in tone and sound to the original soundtrack which was submitted. **Lessons:** Encourage filmmakers to work hard on rights issues to help their pieces be the best they can be.

swirl – This beautiful short piece originally had no audio. That wouldn’t have worked well in the show. We asked the filmmaker if he could provide an audio track, and he soon submitted a .wav file. The audio was repetitive and strident, and didn’t seem to go with the piece well. The filmmaker had said he was not especially committed to the audio track and that we should feel free to use something else if we desired. AT Producer Tom Pereira is a musician and retrieved one of his synthesized loops for the piece. By soloing one of the tracks, Tom has a great piece of audio for the piece, and it worked well in the show. We also verified with the filmmaker that he preferred a lower-case “swirl” and not “Swirl”. **Lesson:** Every piece needs some audio. Work with the filmmakers early on to make sure there is some.

300’s Liquid Battlefield – The first version of the final frames had “Courtesy of Warner Brothers” on every single frame. This is against the “no watermarks or bugs” policy of SIGGRAPH. We contacted the filmmakers and they resubmitted a version where the Warner Brothers text fades out after a few seconds. **Lessons:** Make sure to enforce the show screening requirements as fairly as possible across all pieces.

En Tus Brazos – This award-winning piece was one of the Supinfocom pieces submitted by their distributor Premium Films. The frames were clearly re-digitized off of a Beta SP tape or PAL DVD: nonzero black levels, image noise, fuzziness, and faded frame edges. We contacted the original filmmakers and received their original frames. The format of these frames was a little tricky – the film had a frame aspect ratio of 1.66:1 letterboxed into a PAL 4:3 frame using the PAL 4:3 pixel aspect ratio of 1.067:1 (slightly narrow pixels). We had to put this into a 1920x1080 16x9 frame with square pixels. RIOT’s first transfer of the piece didn’t correct the pixel aspect ratio, so everything was 6.7% squeezed, and circles didn’t quite look like circles. I caught this and had them resize the active area of the frames to 1800x1080 pillarboxed into the 1920x1080 frame, and circles were circles. The piece also had credits that were too long; the director expressed concern at being able to include what he needed in just seven seconds but he recomposed them for an HD frame and got everything in. Finally, we needed to recreate the subtitle “Don’t stop, hold me in your arms.” in HD, and there was some discussion with the French filmmaker about the best way to translate the original Spanish into English. **The Final Result:** the filmmakers came up to me twice at SIGGRAPH to thank me for their

piece looking so incredibly great in the festival. They said it was the best they had ever seen their material screened – even better than their own monitors! **Lessons:** It pays to fight for every piece to look its best. This was very important for *En Tus Brazos* since it was a slower, emotional, and award-winning piece and originated only in standard definition. Get the original frames and put them on the tape right; work with the filmmakers to get the best material.

ILM2007 – ILM’s annual highlight reel was originally submitted at a little over 4 minutes with the promise it would eventually be 6 minutes long. The jury accepted it at 3:30. Since it included material from the July 4th film Transformers, we let ILM submit it late on HDCAM/SR tape in mid-July. Just before sending they asked if they could have an extra 40 seconds for their piece. I agreed – 4:10 should be fine. Their piece came in at SIX minutes and 40 seconds – they had overlooked or ignored the editing suggestion of the jury. They had invested an enormous amount of production effort into the piece, and it was very well done, so I let it in at 6:40 even though this was quite long. However, since Beowulf came under its juried time, things basically worked out. I did receive one comment that the piece went on a bit too long, but also many positive comments about it as well. **Lessons:** Double-check with all ET filmmakers about the edits expected to their pieces right after you send out the acceptance letters.

Beowulf – Beowulf almost didn’t make the show. The first version sent to be juried was just an animatic with no final renderings. At the jury’s request, Sony Imageworks submitted some final shots for the jury to see. Based on these the piece was instantly accepted at 5 minutes. In May we got a call from Sony Imageworks that there was an unexpected issue with the rights for Beowulf to be in the show, and its status became unknown. We had to remove Beowulf from a press release, the web site, the programs, and the Electronic Art and Animation Catalog. At the last moment the rights were straightened out and Sony sent an HDCAM/SR tape with a 2.5 minute compilation of a sequence and clips from the film. The final piece was well-received, but unfortunately included no making-of material as the jury had requested, and some audience members didn’t understand what was CG (which was all of it.) There was also a minor black level issue with the material. The final piece also included no credits – it just ended on black – which threw off the rhythm of when people should applaud. If the tape had not arrived so late, we might have been able to work with Sony to address these issues in some way in time for the show. **Lessons:** Expect major studio pieces to come with some of their own special issues. Do everything you can to get the material well in time to be seen for the show.

LIFTED - We nearly had the wrong audio on the final ET show tape – which would have been a huge gaffe given that the piece was directed by sound wizard Gary Rydstrom! Pixar sent us the film on an HDCAM/SR tape which was edited in to the show tape at RIOT. Their tape had a 5.1 surround soundtrack, but our show tapes were being mastered in stereo. We originally grabbed the left and right channels of the 5.1 soundtrack, instead of the Lt/Rt channels of the stereo mix which were on channels 7 and 8. RIOT’s Colby Allen noticed the problem in the final day of making the show tape and saved the day by including the correct audio in the end. **Lessons:** Make sure to request

STEREO sound mixes for all pieces in the show (unless you are doing surround sound – which is probably not the first priority for a *graphics* conference), and pay attention to which channels of which tapes are being put into your mix.

Selected Animation Theaters Pieces Needing Extra Attention

27 Storms – This piece, originally at 60fps 1920x1080 progressive, would not encode and play back on the Linux machines even playing every other frame at 30fps with the H.264 codec. The cloud motions were just too chaotic for the compressor. We addressed this problem by promoting the piece to the 4K reel so that it would be played back by the 4K disk server. Even though the piece itself was not 4K, it fit in with the predominantly sci-vis content on the reel.

Venus Venus – This 1920x1080 piece would also not compress in a way that it would play back without skipping frames, especially during two sequences where the camera flies through a cloud of laser scan points. After at least ten attempts at compressing it, we created a down-resed 1280x720 version of the piece which, after ten more attempts of adjusting playback settings and optimizing the Linux server, would play reliably.

90 Degrees – A great piece from Supinfocom. It was originally nine minutes and was accepted in edited form at 4 minutes. However, after expending some effort to locate the authors of the piece, we found out they had gone on to demanding vfx jobs in England and neither had the time to edit the piece; furthermore, they no longer had access to their original frames. With their permission, I created a 4-minute edit of the piece from the best material that Premium Films had been able to supply for us.

Clak Clak – Another Supinfocom piece – we had to track down the filmmakers in order to get access to the original frames (instead of the analog-redigitized versions Premium Films sent us) as well as the English version of their film. When the DVD-ROMs of frames arrived, several of them were unreadable off of the disk. Since time was short, I brought in neighboring frames in Adobe Photoshop and created intermediate frames by blending and motion interpolating the object at the point of interest. Played back in motion, it looked just fine.

Tournis – We had long discussions as to what the correct aspect ratio for this rather abstract piece should be. The only notes from the filmmaker were contradictory, and also that “this piece should be presented in its original aspect 2:35:1 ratio”. We eventually determined the aspect ratio that made sense, realizing that the individual video images within the piece should be at a 4:3 aspect ratio.

Dynamo, 8848, Ego – More Supinfocom films submitted by their distributor Premium Films. We never were able to obtain the original frames, and it was very difficult to determine correct audio sync since the sync information was not properly provided.

Johnnie Walker “Human” – The still image uploaded for this film was in the wrong aspect ratio – it was too narrow by the PAL widescreen ratio of 1.422:1. It took effort to get the aspect ratio correct on the web site, programs, and the EAAC.

Physics on GPU’s – the filmmakers originally sent us badly aliased frames (resized incorrectly) and no sound. We worked with them over the course of a week to obtain an audio track (which they probably threw together in Garage Band, etc.) and non-resampled images. In the end the piece was fine.

The Japan Media Arts Foundation Reel – We decided to continue the relationship with JMAF by setting aside a half hour slot in the AT to show their selections. They had originally sent us several hours of material but most of that made no significant use of computer graphics. We asked for approximately five pieces to highlight. It took a few iterations to get the right pieces delivered, and in a format which we could convert to QuickTime .mov for playback on the Linux servers at the AT.

Other Production Deadlines

Besides preparing the show tapes, there are several other concurrent production deadlines that require organization and effort to meet. These include:

The Electronic Art and Animation Catalog

We had heard that meeting this deadline was a problem in past years, so we were especially vigilant to be on top of it. Nonetheless, it was a challenge. It required working with the good folks at Q Ltd and all of the filmmakers to provide accurate, up-to-date, and approved versions of the credits, contact information, description, and still image for every piece. After three iterations we were still finding things that needed to be corrected, but we believe everything came out very accurately in the end. My recommendation is to confer with the company producing the catalog early on to plan the strategy for the catalog.

The CAF Programs

In 2007 as in years past, the CAF programs were produced by Computer Graphics World magazine (CGW). This production process crept up on us, and we had a very tight turnaround deadline for the catalog. We worked very closely with the excellent CGW team to make sure all of the pieces were listed with the right spelling in the right order, with the right key creative contacts and correct image for the piece in the correct aspect ratio. In the few iterations we had time for, we were able to make sure that the right pieces were highlighted on the cover of the program, that the Animation Theaters schedule could be included, and that we would include a “Thank-You” half-page ad that acknowledged the show’s major sponsors as well as the Pre-Show contributors who were otherwise not listed in the EAAC or programs.

Our final CAF2007 program is included in the Supplemental Material.

The CAF Web Site

Q Ltd. Did an excellent job up designing and maintaining the CAF web site. I worked to offer formatting suggestions for making it as clear as possible where people should click for information. I also provided improved versions of many of the pieces' icons that were sharper, more representative, or (again) in the right aspect ratio. Information about the key creative contacts needed to be updated in several cases according to the information compiled for the programs and from corrections submitted by the filmmakers.

Some of the filmmakers had initial difficulty granting rights for icon-resolution images from their pieces to be included on the web site; eventually all of these cases were addressed.

Production of Special-Purpose Pieces and Segments

Traditionally, there are several special-purpose pieces screened during the Electronic Theater. We chose to continue the majority of these traditions, and to evolve others. The special-purpose pieces we included in our show were:

- An "Opening Sequence" to kick off the ET
- Title Animations to introduce the pieces, played on side screens at the ET and on the main screens of the AT
- An "Animation Theaters Trailer" of selected AT clips shown at the ET, which evolved from our Media Trailer video
- Special Civic Theatre signage
- Curated "Walk-In" pieces shown before the ET began
- The "Laser Games" preshow (this has its own section later)
- A "Papers Preview" video shown during the ET covering clips from selected SIGGRAPH papers
- The Final Credits roll for the ET
- Electronic Theater Opening Night After Party

Producing all of this material was another huge amount of work on top of all of the other postproduction for the main show. This section will describe how each was produced.

Opening Sequence

Many Electronic Theater shows include a specially-made opening sequence played just before the juried material – the "Ray Tracey" piece at the beginning of Joe Takai's show in 2000, and the 2001-themed piece done by Blur studio at the beginning of Sande Scoredos's show in 2001 stand out as two successful audience favorites.

I was interested in having an opening sequence for our Electronic Theater and traded some ideas back and forth with Florian Witzel, our XSV (ex- student volunteer) and Diane Piepol from USC ICT. We had originally explored the idea of Florian Witzel and his colleagues at Psyop at New York doing this work, but found that producing the title animations was plenty for them to do already.

I wrote up a treatment (included in the additional materials) for an idea of interpreting SIGGRAPH 2007's *Metropolis*-based graphic identity into a camera path mashup of vector, raster, and image-based graphics and pitched the idea to a few studios. Joe Marks gave us a small amount of funding to officially license the *Metropolis* imagery from the recent restoration done in Germany. Sway studio was interested, but realized they would not have the CG resources available and instead pitched an alternative idea of a scripted comedy segment in the form of the TV show "The Office" but set at a CG production studio. We continued this idea with them until a script had been produced, but in the end it was decided the jokes might reach too small a proportion of the SIGGRAPH audience. Digital Domain became interested in producing the *Metropolis* piece, but had to pull out due to new work coming in.

With the conference approaching, I asked digital artist, and visual effects wizard **Andy Lesniak** from RIOT if he could take on creating the opening piece, and he happily agreed. In just a few weeks, he produced an amazing 45-second piece in full HD that expanded considerably on the original treatment. With glowing edges and smoke effects, his amazing camera path through a futuristic extrapolation of the *Metropolis* cityscape, ending with a reinterpretation of *Metropolis*' Tower of Babel re-inserted into a futuristic version of the San Diego skyline (done by matte painter Rob Olsson of Hydraulix) brilliantly brought the audience into the world of the show. Andy seamlessly incorporated an animation of the SIGGRAPH 2007 face and logo done by Florian Witzel at PSYOP as the end of the piece. RIOT's audio postproduction partner POP created a cool and very original ambient soundtrack. As hoped, we were also able to have the pre-show's laser system accentuate the contours of the Tower of Babel and the SIGGRAPH 2007 graphic identity at the end of the piece, drawing cheers from the audience for the entire 45-second sequence.



A matte painting by Rob Olsson of Hydraulix of a futuristic San Diego skyline created for Andy Lesniak's SIGGRAPH 2007 ET Opening Sequence.

Tips for future years: Cast the net out early and wide to many established as well as up-and-coming effects and animation studios to see if they are interested in taking on the work. Feel free to offer at least a little direction but also be welcoming of ideas they are particularly excited about. But, even though the work is being volunteered, make sure to be selective about which ideas are chosen and consider how they will be received by the full SIGGRAPH community.

Title Animations

To create a more immersive and grand ET experience, we worked with AVW to create a plan for placing side screens to the sides of the 50-foot wide screen in the Civic Theatre. Though initially thought impractical, Jim Irwin and Sebastian Sylwan figured out a mounting strategy for two 20x11 foot side screens.



A frame from one of the seven-second title animations created by XSV Florian Witzel from PSYOP, Inc. in New York.

SIGGRAPH 1998 and SIGGRAPH 2000 were years that I remember well as having beautifully produced side screen material for the Electronic Theater. In between pieces, a short animation that included the title of the piece and the filmmakers was shown to introduce the piece. This helps highlight the filmmakers and contributes to SIGGRAPH's "branding" for the show – creating an experience that is more than the sum of its parts.

Our side screen material was created by our amazing XSV Florian Witzel, who rendered a beautiful 7-second title animation for every one of the ET and AT pieces (over 130 of them!) at 720p resolution. Several iterations were required to make sure that the piece title and the directors and their affiliation were spelled correctly and were the most appropriate people and organization. Many SIGGRAPH pieces are submitted by someone at a facility who is not a key creative person on the work, and often the filmmakers are not the listed "contact" people. In all cases, we worked to highlight **the**

persons and organization primarily responsible for the key creative oversight of the work contained in the submitted piece. Hopefully, we did a good job of this – at the very least we received no complaints. We also used the side screen title animations to highlight the year’s award-winning films as can be seen above in the still from the title animation for *En Tus Brazos*.

In the Animation Theaters, the title animations were shown on the main screen interspersed. The title animations were also completed in time to be included on the SIGGRAPH Video Review DVDs.

Our side screen titles were accompanied by futuristic audio designed by Michael Fakesch also at PSYOP. They were played back from a QuVis video server generously donated (along with a backup unit) by Teddy Kim of Chrominance.

Media Trailer and Animation Theaters Trailer

We were very fortunate that commercials director Cris Blyth volunteered to edit our media trailer which was used as a basis for the AT trailer in the ET. The media trailer was edited from the jury material, so he had to go through a process of converting the variety of material to MJPEG quicktimes which he could edit in real time. Getting all of the aspect ratios correct was difficult and required some iteration to make sure pieces were not stretched or squeezed. Cris Blyth secured an excellent music track by his musician friend named “gooding”; we would later use another excellent gooding track for the final show credits. The media trailer was not only used on the press DVD but also was included on the SIGGRAPH Web page, the CAF MySpace page, posted to YouTube (not sure by whom) and shown at the FMX/2007 conference in Germany to advertise our show.

Going from the media trailer to the AT trailer was another big job. The media trailer was 4:3 aspect, standard definition, and included pieces from both the ET and AT, and only pieces with media trailer rights. None of these constraints were appropriate for the AT Trailer in the ET show – the idea was to give the selected AT pieces a chance to be represented beautifully in front of the ET audience. Cris Blyth was no longer available to further edit the media trailer, but as it turned out Cris has made an early edit of the media trailer with only AT material (which had media trailer rights granted) which turned out to be another useful base. So, we made the AT version in house at USC ICT. Brian Miller located and copied the final full-res frames from all of the clips AT included in the media trailer and got them organized into one directory. Since the majority of the material was 24p, we recreated the project at 24p instead of 30p, using a variety of the standard tricks (frame blending or playing back more slowly, etc.) to bring the native 30p clips to 24p. I left most of the 4:3 material pillarboxed (which audiences are used to seeing intercut with 16:9 by now) but did some mild zooming and a few other tricks on some others. We also brought the project to 1920x1080, using Imagemagick or Premiere to up-res the standard definition material. Brian conformed the edit to the Media trailer. I chose clips from AT pieces which did not have media trailer rights to substitute in for the ET clips, doing my

best to match Cris Blyth's editing style. At Sebastian's suggestion I also expanded the use of sound effects from the films to complement the music track of the AT trailer.

I also used the AT trailer as an opportunity to highlight a fuller range of the virtual human work represented in the CAF, bringing in clips from Digital Domain's *Orville Reddenbacher* and Filmakademie's *Kinski Revisited* to complement Cris's original selection of *Johnnie Walker "Human"*.

I wanted the AT trailer to give AT pieces a chance to shine for a moment in the ET as well as to drive an audience to the AT. Thus, at the end of the AT trailer, I used the final text to explain where the audience could go to see the Animation Theaters in Rooms 24 and 25 at the San Diego Convention Center.

The very strong original work by Cris Blyth made it possible to keep up the quality for the final AT trailer, which looked amazing in high definition. The audience gave the AT trailer enthusiastic applause at all of the screenings I attended.

Civic Theatre Signage



The marquee and 10x20 foot banner advertising the Electronic Theater on the San Diego Civic Theatre. (They later graciously fixed the spelling of "theater" back to the standard American spelling SIGGRAPH use.)

At an early visit to the Civic Theater I noticed a nice banner on the side of the building advertizing an upcoming opera performance there. I thought that such a banner would be a great way to get the audience excited about the show as they lined up at the door. [Joe Marks' present to me at the SIGGRAPH Wrap Meeting– a copy of the book “The Show Starts on the Sidewalk” about the design of classic movie palaces – echoed this sentiment exactly.] I asked SIGGRAPH's excellent media folks Brian Ban and Amy Goetz if they thought having a SIGGRAPH banner would be possible for the ET, and after consulting Joe Marks and their budgets they agreed it would be a good idea. Todd Szymanski from Q, who had designed the original S2007 graphic identity, designed a 10x20 foot poster design with the SIGGRAPH face advertizing both the ET and the SIGGRAPH conference itself, and this was printed by SIGGRAPH's signage contractor Freeman. The sign was put up on the theater a week before SIGGRAPH began so that it could also draw additional local San Diego interest to the conference.

In addition, we had the opportunity to have the Civic Theatre list our show on their outdoor marquee, and we supplied the necessary text for this. Seeing this marquee and Todd Szymanski's beautiful poster upon arriving for the setup at the Civic Theater was a very special experience. (See photo above.)

ET “Walk In” Material: Demoscene and Algorithmic Animations

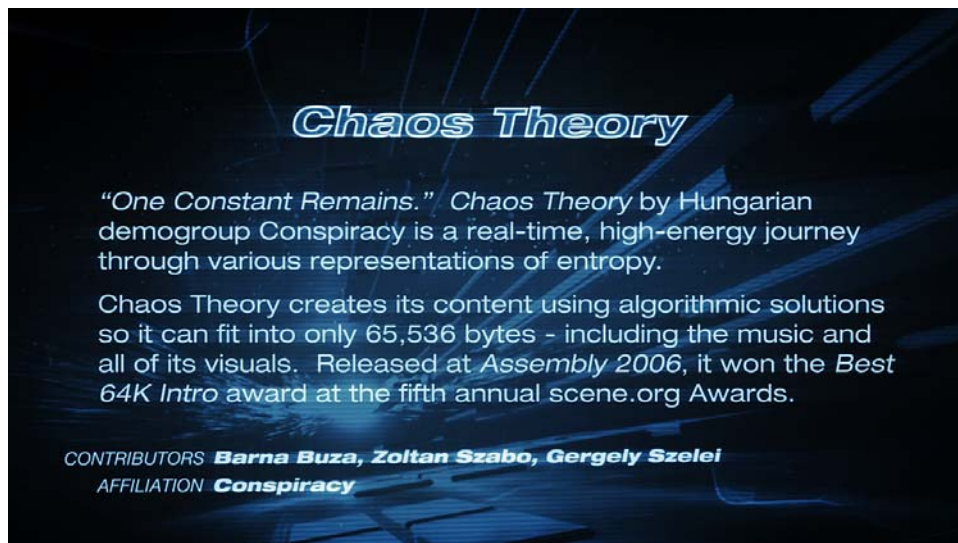
To expand the scope and production value of the ET, I decided we should have some visually interesting but non-distracting material playing on the main and side screens with the house lights on as people arrived and found their seats. Alex Strohm, editor of Zine magazine, had earlier contacted us about bringing several "demoscene" pieces – algorithmic real-time animations, often written into impossibly small amounts of code, and usually with cool music tracks – into the S2007 CAF. He shepherded over ten demoscene pieces as submissions to the jury process. Only one of them, however, was selected: *Chaos Theory* was chosen for the AT. I was personally very impressed by the artistry and technical accomplishment of these pieces and felt that if they were shown with concise technical explanations and not juxtaposed with narrative material, these pieces would be interesting to the SIGGRAPH audience, and found the ET walk-in reel to be a great opportunity to include them in the CAF experience and to follow Joe Marks' call of “curate to be great!”.

For the ET walk-in material, I curated a total of five pieces, three of which were from the demoscene. These were *Chaos Theory* by the group Conspiracy and also *Evolution of Vision* by Andromeda Software Development and *Aesterozoa* by Kewlers. In addition, fellow SIGGRAPH 2007 committee member Adam Finklestein pointed me toward the algorithmic animation work of Scott Draves called *Electric Sheep*, and Florian Witzel had pointed me toward *Plasma Pong* by Steve Taylor. With help from Alex Strohm on the demoscene side I contacted the creators of all of these pieces and all agreed to be a part of the show. I asked all of them to provide high-definition 30fps frames and audio files for their pieces.



Pre-recorded game play from Plasma Pong is shown at the end of the walk-in sequence.

For *Evolution of Vision*, which uses computer vision techniques to process a user-supplied video, I shot a short video of Pixar walking teapots on Steve Heminover's desk in Chicago when visiting Aura Technologies. The people from ASD also helped customize the text within the piece for the SIGGRAPH Electronic Theater, and I chose it for the first piece of the walk-in segment. Kewlers provided a 30fps version of *Aesterozoa* in widescreen high definition. Conspiracy provided a new version of *Chaos Theory* at 30fps – actually sending me the executable file that would generate the frames and save them to disk. In the case of *Electric Sheep*, I asked for five minutes of the continuous animation, and for *Plasma Pong*, I asked for about 90 seconds of game play and about 90 seconds of the “sandbox” experimental mode. Sebastian Sylwan discovered the “Fraps” screen capture utility which made it possible for Steve Taylor to record his Plasma Pong game play at the full frame rate. We had everyone sign the standard SIGGRAPH permission-to-use forms.



Florian Witzel's side screen title which was shown next to “Chaos Theory”

Sony Imageworks graciously transferred the 23 minutes of total material to an additional HDCAM/SR tape. I added a minute of black in between the pieces to give the audience a chance to resume their conversations and keep looking for their friends, etc. Steve Heminover had the excellent suggestion of turning on the “Lumia” colorwash effect from his laser system during these intervals, and Mark Podaney from AVW selected music to played for these intervals.

Very importantly, I worked with the creators of the pieces and Florian Witzel to create side-screen titles which would concisely explain was new and interesting about each of the pieces. These came up a little before and continued a little after each piece. They were played off of the same QuBit video server as the side screen title animations.

The last piece in the sequence, *Plasma Pong*, served as a great transition to the laser video games immediately thereafter in the show. All of the creators of this curated content were excited to be a visible part of SIGGRAPH and we received a number of positive comments about it being included in the show. The Demoscene – the community of people who create these amazing real-time demos with roots back to the Commodore 64’s and Atari 800’s of the 1980’s – will likely continue to have groundbreaking material to potentially contribute to SIGGRAPH in future.

Papers Preview

In 2007, we worked to have an especially triumphant return of the papers preview compilation in the SIGGRAPH 2007 Electronic Theater.

In 2006, a communication gap led to a papers preview being produced by Jim Blinn and Microsoft Research but not being made a part of the SIGGRAPH 2006 Electronic Theater. The people at Microsoft who made the 2006 papers video were disappointed that their laudable efforts were seen only in the media trailer, even though CAF Chair Terrence Masson valiantly did his best to exhibit the piece on several flat screens in the Boston Convention Center as people waited in line to enter the ET.

For 2007, I had early discussions with Marc Levoy, the papers chair for that year, about the possibility of a papers preview for SIGGRAPH 2007. I pushed the idea of creating the papers preview in high definition, and we were extremely fortunate that the Microsoft team of Jim Blinn, Michael Cohen, and David Thiel signed on to create the papers video for us in 2007. As in previous years, the piece served a dual purpose of being the papers program’s “media trailer” piece as well as being the papers preview video in the CAF. Both Marc Levoy and I stayed closely involved in reviewing draft .avi copies of the papers video and offering feedback on the editing and technical considerations. In the end, Microsoft’s work had great narration, excellent imagery, excellent sound, looked beautiful in HD, and was a well-received piece in the 2007 CAF. The piece increased the “research” content of the show and helped the S2007 CAF and ET better represent what is innovative and excellent in computer graphics in 2007.

Suggestions for future years: The CAF chairs and the papers chairs should discuss and plan out their hopes and interests for the papers program's representation in the CAF at least a year before the conference. It's not clear that the Microsoft team will *_always_* be willing to write and edit the papers preview video, so the CAF and papers chairs should approach candidates early on. Returning to the tradition of having next year's CAF chair be involved in the papers preview video for the previous year might be worth looking into, as this helps form a natural bridge between the two of the most important and visible programs of SIGGRAPH.

End Credits

Our ending credits were done in-house at USC ICT. CAF Assistant Producer Carlye Archibque invited Sony Imageworks 2D Artist Rachel Nicoll to perform an initial layout of the main groups of names in Adobe Illustrator, which we exported to Photoshop. We then created a scrolling version of the credits, adding sponsor company logos and additional-thank yous. I asked our media trailer editor Cris Blyth if he had additional music recommendations and he provided some additional tracks from gooding, one of which "Licorice and Grape Cool-Aid" was excellent. I edited the track to length and worked with Brian Miller to have animate the credits crawl to briefly pause on the Jury group and CAF committee group, and leave a SIGGRAPH 2007 logo in the middle of the screen to fade out in the end. We edited the credits at 30p for smoother scrolling than 24p. A misspelling of a name in the credits required a touch-up reinsert for the final master tape.

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MEMBER MEMBER OF NATIONAL ACADEMY

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GAVIN MILLER
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ANIMATION PRODUCER

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HABIB ZARGARPOUR
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JILL SMOLIN
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ARTIST

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Assistant Producer
CARLYE ARCHIBEQUE

Jury Meeting

Technical Subcommittee

ROB GROOME **SAMUEL LORD BLACK**
ARTIST

SEBASTIAN SYLWAN
ARTIST

Electronic Theater Opening Sequence

ANDY LESNIAK **RICHARD WARDLOW** **BRYANT REIF**
ARTIST

ROB OLSSON **DAVE CARLSON** **MIKE MAHALE** **FLORIAN WITZEL**
ARTIST

Special Thanks
DIANE PEPOL
ARTIST

Computer Animation Festival Title Animations

FLORIAN WITZEL **MICHAEL FAKESCH**
ARTIST

SIGGRAPH 2007 Papers Preview

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MEMBER OF NATIONAL ACADEMY

MICHAEL COHEN **MARC LEVY**
MEMBER OF NATIONAL ACADEMY

Game Technology 2007 Montage Editor **Animation Theaters & Media Trailer Editor**

HABIB ZARGARPOUR **CRIS BLYTH**
ARTIST

AT Trailer and End Credits Music

GOODING
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FLORIAN WITZEL

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JOHN KENNEDY
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Electronic Theater Vector Arcade Game Laser Show

RAVEN SYSTEMS DESIGN, INC.
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AURA TECHNOLOGIES
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Special Thanks

DAVE THOMPSON **MILES PERKINS**
MISCONTROLS **INDUSTRIAL LIGHT & MAGIC**

Electronic Theater Video Postproduction
PRODUCED BY
RIOT

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Special Thanks for their Support

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Very Special Thanks

JOE MARKS
ARTIST

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MIK HALEY **JOAN COLLINS CAREY**
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NORRIS KURACHI
ANDREW GARDNER
SCOTT BORDEN
SANDY SELINGER
SYBILLE SCHENKER

SIGGRAPH2007

The SIGGRAPH 2007 Electronic Theater credits roll.

Recommendations: Keep a running document of your final credits list, and add to it at every opportunity that you think of someone who should be in the credits. Triple-check name spellings. Gather all of your donor logos in a directory in high res so that you can include those as well. Pick the music for the end credits as early as possible.

The Award Winners Sketches Session

SIGGRAPH 2007 Sketches and Posters chairs Adam Finklestein and Marc Alexa set aside a special sketches session for the filmmakers of the Award-winning CAF pieces to talk about their work. Organizing this session was another production task – I personally contacted each of the filmmakers to invite their involvement and guiding them through the preparation of their materials and making sure they had the information necessary to show up on time. I asked S2007 CAF juror and feature film director Randal Kleiser to moderate the award-winners sketches session; he did a wonderful job, drawing on years of experience interviewing fellow filmmakers for the Director’s Guild of America and in other venues. In the one hour available, a representative filmmaker from “Ark”, “En Tus Brazos”, and “Dreammaker” each presented a 12-15 minute presentation on the work that went into their film.



Film director and SIGGRAPH 2007 juror Randal Kleiser (left) moderates the award-winners sketch session with Greg Jonkajtys (“Ark”), Francois-Xavier Goby (“En Tus Brazos”), and Leszek Plichta (“Dreammaker”).

At the conclusion of the session, a representative from Hewlett-Packard presented each filmmaker with a certificate indicating they would be receiving an HP workstation as a prize for their award-winning work.

After the award-winners session, S2007 CAF juror Michael Kass of Pixar chaired a second group of technical sketches describing the technologies used for several of the selections from the S2007 Computer Animation Festival.

Electronic Theater Opening Night After Party

We were extremely fortunate that Polygon Pictures offered to sponsor our Electronic Theater Opening Night After Party. The party was organized and produced by Maya Martinez, who exhaustively researched local clubs and negotiated a great deal at Aubergine on 4th to host the party and provide food and drinks. She also secured additional beverage sponsorship from Nutrisoda. A special DVD showcasing video loops from the sponsors and noteworthy CAF pieces was created to run during the party. An electronic invitation was created and sent to all of the CAF contributors; our E-invite text to the jury is included in the Supplemental Material.



The invitation to the Electronic Theater Opening Night After Party

The party was a big success. Thanks to additional and timely generosity by the SIGGRAPH Executive Committee, we had plenty of funding for consumables for the evening. Well-attended but not crowded, vibrant but not deafening, it was an event where the CAF contributors and committee could meet each other and other notable members of the SIGGRAPH community and celebrate their success.

Producing the Laser Game Pre-Show

Many SIGGRAPH Electronic Theaters have had a popular and creative pre-show event that helps the crowd get excited and which contributes to the “event” nature of the computer animation festival. Often these involve audience participation. Frequent popular attractions have been Loren Carpenter’s Cinematrix system, used most recently at SIGGRAPH 2006. Another recent popular pre-show was the “SquidBall” motion-captured retroflective beach balls from Chris Bregler’s show in SIGGRAPH 2004.

For our preshow I had the idea of using a laser-based vector graphics projection system to pay homage to the early days of computer graphics – when graphics were made from line segments instead of pixels – as well as to the golden age of Arcade video games, which included several vector-based CRT games. My thought to do this grew out of my lab’s experience with high-intensity laser projection in some of our recent SIGGRAPH papers research, as well as demos of the Multiple Arcade Machine Emulator (MAME) by Andrew Gardner (now at TIPPETT studios) when he was a member of our laboratory. When I saw that MAME could play Asteroids, I knew it would be exciting to see Asteroids rendered on a big screen in bright, laser-projected graphics.

I contacted several people I knew who I thought might be able to help, including Andrew Gardner and Tim Skelley who I had met on the SIGGRAPH 2001 CAF committee. This produced some leads, but no real progress until ET producer Maya Martinez got a hold of noted laserist Steve Heminover from Aura Technologies in Chicago. Steve had been responsible for the laser shows at SIGGRAPH in the 1980’s and early 1990’s, and was interested to become involved again. He ended up not only donating weeks of his time but also allowed us to use his own laser equipment for the show, which was incredibly generous. Steve had been in contact with another laserist named Matt Polak from Raven System Design in Cleveland, OH, and Matt had already had some involvement with hooking up a MAME system to a laser to play vector graphics games with laser projection, which he called LaserMAME. Matt ended up significantly upgrading this system for SIGGRAPH and bringing much of his own personal equipment for the production.



Amazing laserists Steve Heminover and Mike McHale from Aura Technologies at the laser control station in the Civic Theatre.

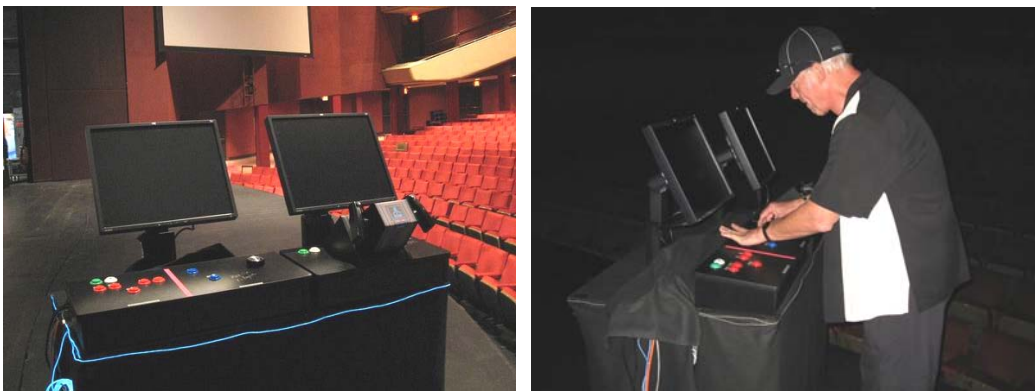
After a few productive conference calls, we arranged an in-person meeting before the SIGGRAPH show to put the laser games plan into place. The first was in San Diego during the early June SIGGRAPH 2007 committee meeting. Sebastian Sylwan, Maya Martinez, and I took the opportunity to visit the Civic Theater and plan the placement of the laser projection system and how to run power and water to it. Amazingly, Matt Polak had prototyped a desktop version of the projection system using a bright green laser pointer and we had a dim, green version of Asteroids running on the fire screen of the Civic Theater. Based on the popularity and appearance of the laser games Matt could project, I decided our featured games should be Asteroids, Tempest, and Star Wars.

We had our next laser meeting in late June in Chicago, where Maya Martinez and Florian Witzel I visited Steve Heminover and his artistic director Mike McHale at their Aura Technologies offices in Chicago. Florian and Mike worked together to explore ways of integrating laser projection into the video-based ET opening sequence, which we were able to do in the end. Also, we had a conference call with Matt Polak, where we discussed the game controllers and upgrading the MAME enhancements to allow for dual-laser scanning to reduce image flicker.

We tracked down the relevant people at Atari who controlled the rights to the original video game code and were very fortunate they consented to granting rights for us to use

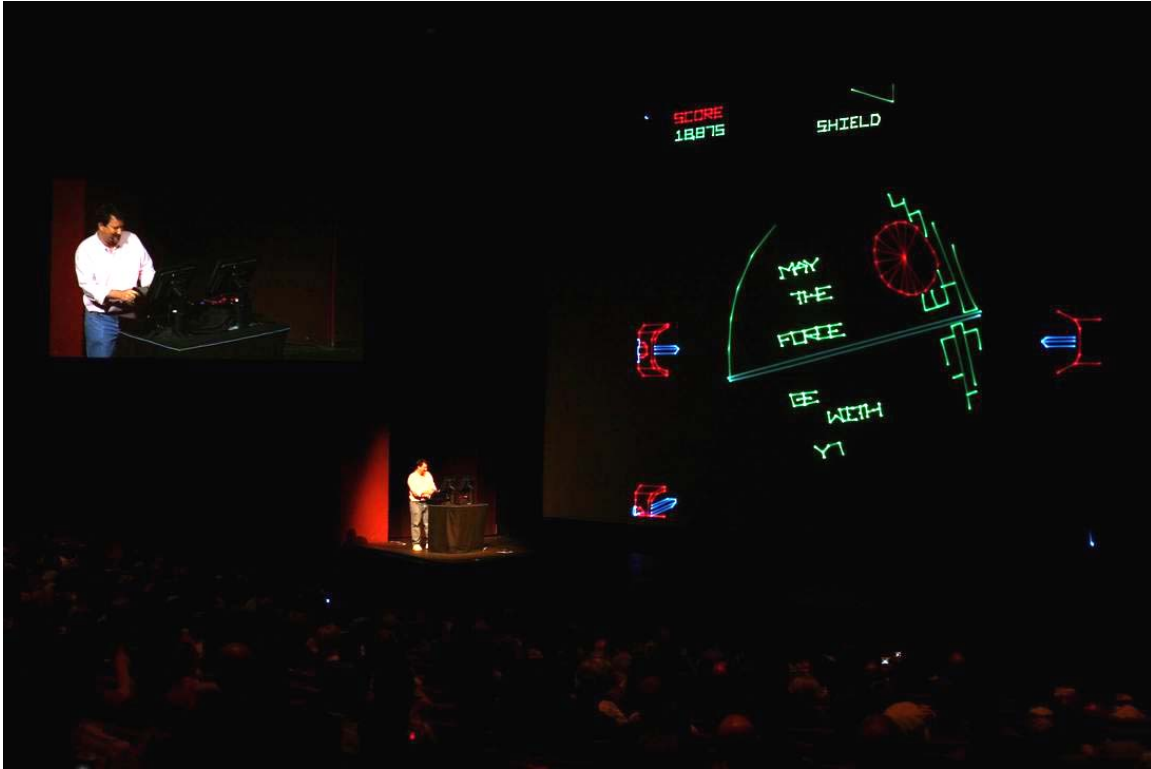
Asteroids and Tempest. Star Wars was more complicated since the rights were in the hands of LucasArts despite being originally an Atari game. Tom Pereira contacted Miles Perkins from Industrial Light and Magic to help move the process through LucasArts which was eventually successful.

After several discussions at the Civic Theater as to whether the game player should be in the middle of the audience or on stage, we opted for on stage and to have them use two “confidence monitors” to see their game play. Jim Irwin provided valuable guidance on the theatrics of the opening. Maya Martinez found a company called WESTCONTROLS which manufactured custom, USB game controllers based on the original game layouts and components and gave us a special SIGGRAPH discount (many thanks to Joe Marks for funding the controllers.)



(Left) The game controllers for Asteroids, Tempest, and Star Wars which were custom-made by WESTCONTROLS. The blue electroluminescent wire was provided by David Coons. (Right) Richard Taylor practices TEMPEST before the show.

During setup at the Civic Theatre, Jim Irwin guided us through the theatrical sequencing of the video game playing and all of the invited game players were given a chance to visit the theater and practice the games. Matt Polak and I polished a script for him to use as he emcee'd the laser games segment. AVW's Mark Podaney and I worked to choose some music to play in the background of the games segment. AVW's Tom Popielski used the show controller to make transitions from the walk-in material to the laser games and then quickly and smoothly into the main show. Steve Heminover and Mike McHale made numerous enhancements to the laser projection, including some use of pre-recorded laser motion to have the right game logos come up on cue before the live game play began.



ILM's John Knoll plays Star Wars on the 50-foot screen at the Civic Theater on opening night. The side screen set up by AVW provided "eye-mag" for the audience to have a better view of the player.

I invited a total of eight computer graphics "celebrities" to be the game players for the evening shows, and decided to give audience members chosen semi-randomly to be the game players for the Matinee shows. The celebrities were chosen to span a range of people in research, the vfx industry, and the video game industry:

Monday (Opening night)

Asteroids: Jim Blinn (CG pioneer)

Tempest: Glenn Entis (S2007 featured speaker)

Star Wars: John Knoll (Academy-Award winning vfx supervisor for *Star Wars I, II, III*)

Tuesday:

Asteroids: Greg Ward (S2007 Computer Graphics Achievement Award winner)

Tempest: Ken Perlin (CG pioneer)

Star Wars: Kevin Mack (Academy-Award winning vfx supervisor for *What Dreams May Come* and *Ghost rider*)

Wednesday:

Asteroids: Nelson Max (S2007 Coons Award winner)

Tempest: Richard Taylor (vfx supervisor for *Tron*, among many other achievements)

Star Wars: John Knoll (reprise)

Results: The laser games added a ton of complexity to our show – at least half of what we needed to do on site at the Civic for planning and setup was for the laser preshow. In some sense, as Jim Irwin said, this was the typical case of the tail wagging the dog. However, the laser games received a lot of applause and cheering from the crowd and many impressed remarks from audience members after the show. It seemed to get people into the perfect mood to enjoy the ET. Having them played using laser projection made the graphics ten times brighter than standard video projection and considerably enhanced the “special” nature of the production. The game players all had a great time – and everyone played their games much better than they did in practice!

Planning and Preparing the Screening Venues

We were fortunate to be able to work with the excellent team at AVW to plan the logistical and technical plans for each show. Here is an outline of the basic setup for each show.

Electronic Theater at the San Diego Civic Theatre

The technical plan for the ET screenings at the Civic Theatre was designed by CAF2007 Technology Director Sebastian Sylwan and Jim Irwin from AVW. We had:

- A 50x28 foot perforated main screen
- Two 20x11 foot side screens for the title animations
- Two “stacked” 18K Christie Roadie projectors for the main screen, set up by AVW’s amazing projectionist Gerry Lusk
- One 8K Christie projector for each side screen
- Two synchronized HDCAM/SR decks for the main ET show, one with a 24p tape and one with a 30p tape, with a backup deck, run from the show controller managed by AVW’s Tom Popielski
- An HD QuVis QuBit video disk server to display the side screen material, and a backup QuBit
- A full mixing board and impressive behind-the-screen stereo sound system run by AVW’s Mark Podaney

Achieving a Bright, Sharp Image for the ET

Achieving a vibrant, bright image for the ET was a key goal of ours. We realized that on a 50-foot-wide screen there would be no way to achieve the DCI-compliant specification of 14 footlamberts (lumens per square foot) using even two Sony SXR10 10,000 lumen projectors. Sebastian, Maya, and I traveled to NAB in April 2007 to speak with projector manufacturers Christie, BARCO, and Digital Projection at their booths. We were extremely fortunate to make contact with Gary Fuller, VP Marketing at Christie, who pledged on the NAB show floor to support the SIGGRAPH 2007 Computer Animation Festival as a point of honor for Christie.

We had originally selected a Christie Roadie 25K projector for the screen, calculating that its 25,000 lumens would allow us to achieve 14 footlamberts. I did this as follows:

Our screen was a 16:9 aspect ratio of 50 feet by 28 feet. Our material was 1920x1080 square pixels – HD resolution. However, digital cinema projectors are designed for 2048x1080 pixel projection. Thus we would not use 7% of the projector's width and thus could not leverage 7% of its light output. To compensate, I calculated the screen space needed to be covered by the projector as 7% wider than our actual screen:

$$50 \text{ feet} * (2048 \text{ pixels}/1920 \text{ pixels}) = 53.33 \text{ feet projected width}$$

Our total projected area was thus:

$$53.33 \text{ feet} * 28 \text{ feet} = 1493 \text{ square feet}$$

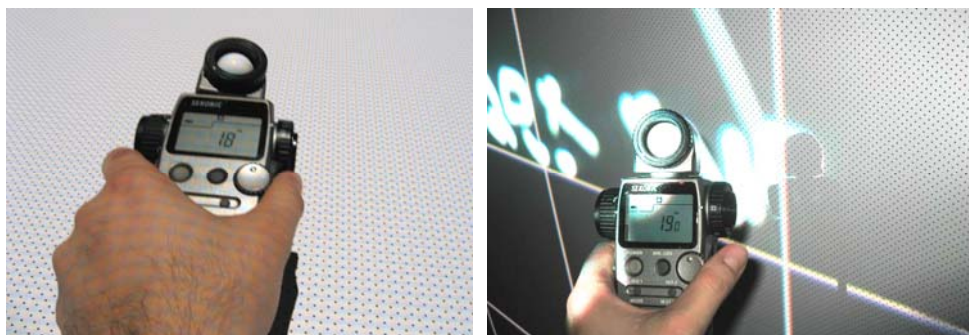
To achieve 14 footlamberts over this area, we would need the following number of lumens:

$$1493 \text{ square feet} * 14 \text{ lumens/square ft} = 20,906 \text{ lumens}$$

Assuming a 25,000 lumen projector is operating at 80% of its rated efficiency, this will achieve 14 footlamberts. We found out later this might be an overestimate of typical projector efficiency.

Christie graciously provided a 25K Roadie projector and an 18K roadie projector to be used as a hot backup. During setup, we noticed a color ramp problem with the 25K projector which we could not fix onsite. The image from the 18K backup projector looked excellent, but provided only , but 14 footlamberts. Christie graciously sent over a second 18K roadie projector, which AVW projectionist Gerry Lusk stacked on the first 18K projector, expertly aligning them pixel-for-pixel.

The stack of two 18K Christie projectors provided a maximum of 18 footlamberts of illumination on the screen for a fully white pattern, which was deemed to be too bright for audience comfort for two of the pieces. Thus, used the internal aperture to reduce the brightness using the projector apertures to **16 footlamberts**, which produced a notably bright, vibrant image.



(Left) The stack of two 18K Christie projectors yielded a vibrant 18 footcandles on the main screen (measured with a Sekonic L-608 Cine light meter), exceeding the DCI (Digital Cinema Initiative) specification of 14 footlamberts (our screen gain was 1.0 making incident footcandles and radiant footlamberts interchangeable). For the actual screenings, we iris down the projectors to 16 footlamberts. (Right) The bright laser lines of the video projector system measured in at 190 footlamberts – a notably bright and vibrant image for the laser games segment.

During the post-SIGGRAPH screening at Industrial Light and Magic's theater in the Presidio, I found out from their projectionist that they also tune their system to 16 footlamberts, which was excellent validation from one of the best screening facilities in the world.

Animation Theaters at the San Diego Convention Center

The animation theaters took place in rooms 24 and 25 of the San Diego Convention center, with about 400 seats in each. Following the success and relative simplicity of using a Linux PC running the "xine" movie playback program to screen the content at the jury meeting, we decided to use this same approach for the animation theaters. This would also enable us to play back pieces in their native frame rates (24, 25, 30) without audio stretching or having to have multiple decks in the rooms. We also were able to re-use our jury computers which had been provided by HP for this process, saving some money on deck rentals. The equipment in each room was as follows:

Room 24:

- A 20x11 foot perforated main screen.
- A Sony SXR4 4K video projector at 5000 lumens (donated by Sony).
- A backup 4000 lumen VPL-VW5 HD projector (donated by Sony).
- A Linux PC with QuickTime H264's of each AT piece and the associated title animations. (PC provided by HP)
- A basic sound system.

Room 25:

- A 20x11 foot perforated main screen.
- Two Sony SXR4 4K video projector at 5000 lumens, one to play 4K content and one to play to play standard and high-def content (donated by Sony).
- A Linux PC with QuickTime H264's of each non-4K AT piece and the associated title animations. (PC provided by HP)
- A video disk server to play the 4K pieces. (donated by Sony).
- A basic sound system.

As noted before, we had to individually encode every one of the non-4K AT pieces for the show into a Quicktime H264 movie. Perhaps, we could have asked the filmmakers to perform this encoding themselves, but for a consistent and controllable look we did this in house. It was about six to eight person-weeks of work. Sebastian Sylwan wrote a

UNIX script that played the pieces from each AT reel in order, with the title animations in between them.

We ran into one unfixable problem which is that the audio on the title animations was quite loud compared to the pieces, and the sound design Michael Fakesch from PSYOP was designed to be cut into the show with a balancing process. Since the “xine” program didn’t have a command-line volume control and there was no show controller in the AT screening rooms, the sound on the titles was too loud between the pieces.

Thanks to well-optimized Linux computers gotten into shape by Sebastian Sylwan and help-us-in-a-pinch volunteers Michael Wahrman and Daryll Strauss, the H264 movie files played back smoothly for pieces of all sizes and frame rates. On the SXRD projectors, the images looked bright and vibrant.

As mentioned elsewhere, the 4K pieces posed technical difficulties for the first two days since they needed to be transferred to the server through a difficult conversion process on-site at SIGGRAPH. The inability to include both 24p and 30p material on the same server meant that the 30p material needed to be slowed down, which impacted the effectiveness of two of the pieces. If we hadn’t had so much effort concentrated on the preparation at the Civic Theatre, we might have been able to open the 4K pieces on time and looking their best. Not having the 4K material looking its best at the opening of the AT is the principle thing that I wish we could have done better!

Audience Response: Apparently Pretty Good

The feedback I received about the show from at least a hundred people at the conference was exclusively positive, the overwhelming majority of it very much so. A few typical comments I wrote down include:

- **“One of the best ET’s I can remember”**
- **“One of the best ET’s in years”**
- **“The best ET in ten years”**
- **“The best ET since the first one I went to”**
- **“My favorite Electronic Theater ever”**
- **“Your show so didn’t suck”**
- **“Let me congratulate you again for a great show”**
- **“I never checked my watch. Usually at some point I’m fighting to stay awake.”**
- **“I was almost sad when it ended – it’s over already?”**
- **“I loved the laser games”**
- **“That was cool how you had the demoscene stuff at the start”**
- **“Great to see some research pieces in there”**
- **“I thought there might be too much science stuff with one of you academic types in charge. But you had a really good show!”**

Also, the Electronic Theater scored the highest of all SIGGRAPH 2007 programs in attendee satisfaction according to the official SIGGRAPH attendee survey, followed closely by the Animation Theaters.



Amy Goetz from SmithBucklin reports survey results for SIGGRAPH 2007 Attendee Experience across programs at the October 2007 wrap meeting.

The success of the show stands squarely on the shoulders of past Electronic Theaters and CAF Chairs who set a strong example for our show, the work of the 2007 CAF committee, the careful selections of the 2007 CAF Jury, and most importantly the quality of the submissions that people sent in!

A Recommendation for the Continuing Format of the Festival: Keep the Electronic Theater!

The current division of the festival into the Electronic Theater and the Animation Theaters has been the festival's format since at least the 1990's. The division arose when there was too much worthy material submitted to the festival for it to be shown in a single screening. The earliest "Animation Theater Screening Rooms" were room with TV's and VCR's screening loops of the material not in the Electronic Theater. By 2007, the Animation Theaters evolved into 400-seat screening rooms with 20-foot screens and high-definition video projection showing up to 5 hours of material from up to 100 pieces. The Electronic Theater has come to comprise 20-40 pieces shown on 35- to 50-foot screens to audiences of 1500-3000, with the highest production values that SIGGRAPH can offer.

The central benefit the division is that the Electronic Theater, which packages a specially sequenced selection of 1½ to 2 hours of the "best of the best" animated computer graphics material and is projected at a large venue reaching the majority of the

conference attendees over the course of the week, has become a signature highlight of the SIGGRAPH conference. An unintended side effect of the arrangement is that the Animation Theaters are less prestigious by comparison, since their material is shown on smaller screens to smaller audiences up against many simultaneous activities at the conference.

One proposal which has been discussed for an alternative future format for the CAF is to remove the Electronic Theater / Animation Theaters distinction, having all pieces accepted to a general “Animation Festival”, following the examples of other film festivals. In such a format, pieces could be shown in several larger screening rooms throughout the various days of the SIGGRAPH conference, with significantly less emphasis on compiling an independent program of “best-of-the-best” pieces to be shown to an especially wide group of attendees at an elevated venue (i.e. an Electronic Theater event). While attractive from certain perspectives, my experience with the Computer Animation Festival as a fourteen-time attendee (1994-2007), six-time filmmaker (1997-2000, 2004, and 2006), three-time juror (1999, 2001, and 2004), and one-time chair (2007) gives me a strong belief that the ET/AT format is the far better format for the SIGGRAPH attendee experience and to serve the needs of SIGGRAPH’s computer animated filmmaking community. Some of the strongest reasons are:

1. **The SIGGRAPH Electronic Theater is the best** and most prestigious show for computer graphics there is **and there is nothing else like it**. There are hundreds of film festivals and scores of animation festivals around the world, and none of them provide a show with a character of its own like the SIGGRAPH Electronic Theater. The 2-5 minute typical average length of ET pieces provides an opportunity to bring a very diverse set of material together in a single 1½ to 2 hour experience, as opposed to all-day screenings of longer form films found in most festivals.
2. The Electronic Theater **has the form of a feature film** which is one of the most familiar and popular forms of modern entertainment. People are culturally conditioned to relate positively to a 1½ to 2 hour screened experience that has a beginning, a middle, and an end, and are universally excited by the chance to attend a highly-anticipated show of brand new material.
3. The Electronic Theater is not just a compilation of clips but is **a creative work in itself**. From the pre-show to the opening to the sequencing and editing of the films and title animations to the final credits, the Electronic Theater is itself a creatively designed experience built for and from the accepted ET pieces for the purpose of elevating and adding value to every piece within it. The great desire of SIGGRAPH chapters organizations to screen “The Full ET”, uncut, speaks to the coherence and indivisibility of the show.
4. **Big studios** submitting pieces **expect a big event that the whole community will see**. The cost that a studio can invest in an Electronic Theater production can exceed a hundred thousand dollars. For a studio to commit this magnitude of personnel and budget, they need a high expected payoff in **visibility, prestige, and recognition**. Anything less than the Electronic Theater – that is, a highly

- selective show screened at special times to large, enthusiastic audiences and attended by nearly all full conference attendees – would not meet these expectations that studios will have for their investments.
5. **Student and independent animators want a chance to shine** in front of the whole SIGGRAPH community. The student pieces which are accepted to the ET each year and screened throughout the week to over 10,000 of the conference's most accomplished and influential attendees inspire students filmmakers to devote their best efforts to making it into the show for future years. While an AT piece is excellent for a resume and provides significant exposure, the ET provides a chance for the most accomplished student filmmakers to become noticed by the whole SIGGRAPH community and be approached for the best opportunities that the industry can offer.
 6. **SIGGRAPH attendees – new and old – don't want the Electronic Theater to go away.** I've talked to researchers, SIGGRAPH volunteers, software developers, game developers, and visual effects artists from ILM, Digital Domain, and Sony Imageworks and they are generally confused to hear that the Electronic Theater may not be a part of future SIGGRAPH conferences.
 7. In 2007, the **Electronic Theater was voted #1** amongst all SIGGRAPH programs in attendee experience according to SIGGRAPH exit surveys. While it is essential to improve and evolve the SIGGRAPH attendee experience from year to year, it makes sense to make the biggest changes to the least successful programs and to avoid major reconfigurations to successful cornerstone programs which are performing well.
 8. **The Electronic Theater has a significant history worthy of respect and continuation.** It has become extremely prestigious to have a film accepted into the Electronic Theater; the graphics community recognizes that it is mark of distinction and contribution to have "an ET piece." This is just as true for sci-vis and art pieces as it is for visual effects and animated shorts.
 9. The "Electronic Theater" is an important part of **SIGGRAPH's branding.** People know what the Electronic Theater is and that it stands for a mind-blowing show with the best of the best in computer graphics. It's a big reason that people come to SIGGRAPH, and SIGGRAPH should continue to offer such a show for the same reasons that Apple will continue to call the new editions of their computers "Macs" and the new editions of their music players "iPods" It would be a loss for SIGGRAPH to fail to capitalize on this strong brand recognition.
 10. The Electronic Theater **helps SIGGRAPH maintain its leadership position** within the worldwide group of other computer graphics conferences. Several conferences (FMX in Germany, View in Italy, FITA in France, Mundos Digitales in Spain, and the Japan Media Arts Festival), have recognized the world class leading nature of the Electronic Theater and have invited encore performances of the show to be shown at their events. This increases the international awareness of the SIGGRAPH conference, and gives the CAF chair a chance to personally announce the next year's SIGGRAPH conference, web site, and submission deadlines as they introduce the show. Without an ET, it is not clear that there

- would be a similar “crown jewel” of the SIGGRAPH conference to serve as its calling card to the world. SIGGRAPH should strive to maintain this position of leadership.
11. The Electronic Theater **brings the full spectrum of computer graphics together** under one roof. SIGGRAPH’s greatness stems from having successfully brought together Art, Technology, and Industry together into one coherent event, filled with mutual interest and admiration. The Electronic Theater personifies and reinforces this success by bringing together all of the communities together to see a very wide spectrum of what’s amazing and new in computer graphics each year.
 12. **The Electronic Theater is the talk of SIGGRAPH.** “What night are your ET tickets?”, “Have you seen the ET yet?”, “What did you think of the ET this year?” are questions asked thousands of times by excited attendees each year. Since it is a shared experience seen by nearly all attendees above exhibits plus level, it provides a great conversation starter for attendees and a big part of the shared experience that is SIGGRAPH. Recent studies have quantified and validated that shared experiences – such as a community sitting together watching a movie – leave people with more memorable, more positive impressions of the experience.

The CAFTERlife: Chapters Screenings and Beyond

There was significant demand for encore screenings of the SIGGRAPH 2007 Electronic Theater for SIGGRAPH Chapters Events and Special SIGGRAPH-affiliated screenings at major conferences.

Many of these post-SIGGRAPH ET screenings are done by Chapters organizations by simply playing the ET DVD of the SIGGRAPH Video Review. Unfortunately, this misses all of the pieces in the show that did not grant SVR rights – typically the big studio pieces. Also, the SVR DVD is standard definition whereas the show is meant to be enjoyed in High Def. Thus, there is usually a demand for “uncut” ET screenings, ideally in High Definition now that that is a common screening format.

According to the prevailing interpretation of the rights granted by the filmmakers for their work to be shown at SIGGRAPH, we are entitled to make encore presentations of CAF Selections including the ET at SIGGRAPH Chapters Events as well as at major studios (who have usually contributed to the show) and conferences which are partnered with SIGGRAPH, as long as the SIGGRAPH CAF Chair or a CAF Committee or SIGGRAPH EC member is present at the screening. See some notes below for some thoughts on the need for post-show screenings.

Screening Media Formats

For chapters screenings, we needed a way to show the complete show off of one piece of media since no show controller would be available to switch signals and there would be no side screens. We thus prepared several forms of single-media for these screenings: HDCAM/SR, HDCAM, DVD, and Blu-Ray.

HDCAM/SR – As it turned out, the HDCAM/SR 60i tape that we already had made as one of our show masters was almost sufficient for screening. This tape effectively had the 30p pieces at 30p and the 24p pieces “telecine”d onto the tape with 3-2 pulldown. Both of these techniques for converting 30p and 24p material to 60i are so common for TV broadcasts that most video projectors will automatically detect and reconstitute this material back to 30p or 24p for projection as required. In fact, we could have shown the ET at SIGGRAPH from just this one 60i tape, and by all indications everything would have looked identical, pixel-for-pixel, to what we did end up screening from the two decks. However, we would have needed to check with the Academy that it would be acceptable to screen the 24p piece “Ark” in this manner and still have it qualify for Academy consideration.

The one problem with this tape is that it had nine seconds of black in between the pieces in order to leave time to run the seven-second side screen animations. So, RIOT graciously dubbed in Florian Witzel’s side screen QuickTime Animations onto the tape, upresing them from 720p to 1080p. (It might have been better to author them at 1080p to begin with). We found at the LA SIGGRAPH screening that the audio for the titles was much louder than for the actual pieces in the show, and thus the titles audio needed to be rebalanced in order to have a tape that would not require riding the volume knob for the entire show (which is what I did for that screening). This was an additional, unexpected piece of work for RIOT to do, and we are fortunate that they continued their generosity to our show!

The tape still had audio issues with three pieces which were balanced to -0dB instead of the more standard -10dB: The Itch, nVIDIA, and Portal. As a result, I still generally have to ride the audio during performances. Our final Blu-Ray disk may finally rebalance these issues.

Note for future years: Remember that while at SIGGRAPH you will have a show controller that can adjust the sound mix for each piece, you will not have this for the chapters screenings. Thus, you need to prepare a tape with balanced audio, and this is additional postproduction work.

HDCAM – We had three HDCAM dubs made from the HDCAM/SR master, the first by RIOT, the second by Sony Imageworks, and a final tape by Technicolor in Vancouver. HDCAM is a slightly lower resolution and more highly compressed version of HDCAM, but still looks really good on a big screen, and the decks used to play it are more common and much less expensive to buy or rent.

In nearly all screenings, the 60i HDCAM/SR or HDCAM tapes made from it produced a flawless rendition of both the 24p and 30p pieces, with the video projectors correctly reconstituting the material to 30p and 24p, respectively – this is sometimes called “intelligent inverse telecine” or “inverse 3-2 pulldown”. One exception was at the Pixar screening where the 24p material looked a little juddery, but it was still screenable and no one remarked on this.

DVD – Sony Imageworks prepared a standard-definition DVD of the show from our master tape. Again, both 24p and 30p pieces made it onto this DVD just fine. This was used as a backup plan for the screenings, and came into use for the Orlando Chapter screening when their primary venue fell through and we had to revert to using

Blu-Ray – I contacted Klaus Steden of Technicolor from the SIGGRAPH 2006 committee and he put me in contact with the Technicolor folks in Los Angeles who do DVD, HDDVD, and Blu-Ray authoring. Through this contact and the great work of Nathan Philips, Miles DelHoyo, and Bob Michaels, they prepared a Blu-Ray disc which looked nearly as good as the HDCAM/SR master we provided and definitely better than the HDCAM dubs.

Having successfully anticipated Blu-Ray winning the format war, a second small run of Blu-ray discs was produced by Technicolor in February 2008 which fixed a few audio balance issues and a minor audio sync issue with the U2/Green Day video.

Introducing the Screenings

I prepared a 15-minute PowerPoint slide presentation that introduces the show, and gave this presentation from my laptop before each of the screenings. This Powerpoint covered:

- 1) What the original show was like at the San Diego Civic Theater
- 2) Who the CAF committee was
- 3) Who the Jury Was
- 4) How pieces were selected
- 5) Breakdown of selected pieces by category
- 6) Which pieces won awards
- 7) Overview of the Pre-Show
- 8) Video Clip from the laser games in the pre-show (John Knoll destroying the Death Star)
- 9) Thank-yous to all of the major volunteers and sponsors who made the show possible
- 10) Submission deadlines for the next year's (2008) CAF and Student Volunteers programs

This presentation is included in the Supplemental Material.

To show the presentation I had to also ensure that we could hook up my laptop to the projector and then quickly switch to the screening media. This was never a huge problem but it did add some complication. In future years when the screenings are done more regularly from BluRay, it could make sense to encode this sort of introductory slide presentation onto a special chapter of the screening disk.

Purpose of Post-Conference Screenings

It's important to consider the purpose of the post-SIGGRAPH screenings and how they benefit SIGGRAPH and the SIGGRAPH Conference. The CAF and the ET in particular are a big part of the draw to coming to the SIGGRAPH conference, so to some extent there is the potential of undermining SIGGRAPH conference's value by conducting screenings of the "Full ET" after the conference – people might not go to SIGGRAPH since they assume they can see the ET. However, properly framed, the post-SIGGRAPH screenings can serve more greatly as an attraction to future SIGGRAPH conferences. Here are some thoughts about achieving successful screenings:

- Having the Chair (or a committee or EC member) be present at a screening is important because:
 - They can introduce the show, which gives people a better sense of SIGGRAPH, how to get involved next year, and who deserves thanks for the show.
 - The chair can ensure that the screening is of excellent technical quality.
 - The chair can guard the media so that it is not stolen or copied.
 - The chair gets a chance to serve as an ambassador for SIGGRAPH amongst the animation community at each screening.
 - The chair's presence appropriately increases the perceived importance of the screening, the pieces being shown, and SIGGRAPH in general.
- You should set up a phone conference with the people who are hosting the screening at least three weeks before the actual screening. Discuss technical all technical details and other logistics to make sure everything will go smoothly and that the projection quality and sound will be excellent.
- Make an effort to accommodate all SIGGRAPH Chapters screenings possible. If the chair is not available, often, there will be a juror, CAF committee member, or SIGGRAPH EC member available to host the screening.
- Work with the Chapters Chair (Scott Lang in 2007/2008) on all Chapters Screenings. The chapters chair will be able to make valuable suggestions and help guard against a host of issues that may arise.

Post-SIGGRAPH Screenings Schedule

Here is a list of the completed and anticipated post-SIGGRAPH screenings of the ET. All were hosted by 2007 CAF chair Paul Debevec unless otherwise indicated; a “~” indicates an approximate date, a “?” indicates a screening which may or may not happen.

9/11/2007	Los Angeles SIGGRAPH Chapter, HDCAM/SR
9/19/2007	Vancouver SIGGRAPH Chapter (host: Maya Martinez) HDCAM
9/20/2007	Pixar Animation Studios Emeryville, CA, HDCAM
9/24/2007	Industrial Light and Magic San Francisco, CA, HDCAM
10/13,14/2007	Orlando SIGGRAPH Chapter (DAVE School), DVD
10/30/07	Ft. Lauderdale SIGGRAPH Chapter (Cinema Paradiso) - HDCAM
11/8/2007	University of Illinois at Urbana-Champaign - HDCAM
11/9/2007	Purdue University Student SIGGRAPH Chapter Screening - HDCAM
11/15/2007	USC Institute for Creative Technologies – HDCAM
11/15~/2007	PISAF 2007, Seoul – AT Selections, (host: Jinyoung Yoon) - SVR DVD
12/3/2007	Paris SIGGRAPH Chapter (Club de l'Etoile) - HDCAM
12/7,8/2007	FITA '07 Conference, Angouleme (Blu-Ray Disc)
2/~2/2008	Additional Paris Screening (host:Terrence Masson)
2/~6/2008	Anima 2008, Brussels (host:Terrence Masson)
2/10/2007	Japan Media Arts Festival, Tokyo - HDCAM
2/14/2007	New York SIGGRAPH Chapter (potential host: Scott Lang)
2/20/2008	Thousand Oaks High School Performing Arts Center, Southern CA
2/20/2008	Ventura County LA SIGGRAPH Screening, Thousand Oaks – Blu-Ray
2/28/2008	Silicon Valley SIGGRAPH Chapter – Blu-Ray
2/29/2008	San Francisco SIGGRAPH Chapter – HDCAM/SR
~4/2008	Singapore (potential host: Nickson Fong)
~3/2008?	Screening TBD in Albuquerque, NM (potential host: Maya Martinez)
5/~6/2008?	FMX Conference, Stuttgart, Germany
5/~21/2008	SICAF 2008, Seoul (host: Jinny Choo, SIGGRAPH Asia 2008 CAF Chair) – BluRay (plus some AT selections)
6/2008	View Fest, Turin, Italy (potential host: Shelley Page)
7/4/2008	Mundos Digitales conference, Spain

In Conclusion

I hope this document will give future CAF chairs and committees a behind-the-scenes look at what we did to create the S2007 CAF – our major successes, our avoidable missteps, and the hard work that brought everything together into the final show. Hopefully, what we did and learned will help you more fully realize your vision for your own successful CAF. Please feel free to contact me with any questions – paul@debevec.org.

Being the chair of the SIGGRAPH 2007 Computer Animation Festival was a great honor and an amazing, exhausting, experience. I am incredibly grateful to the hundreds of filmmakers and volunteers who put in amazing efforts to make the show a success. What left the largest impression on me was the incredibly positive reputation that SIGGRAPH, the CAF, and the Electronic Theater have across the computer graphics and digital postproduction industries: so many people very generously offered their time, equipment, expertise, and efforts to help us create an excellent show simply because they believe in what SIGGRAPH and the show stand for. I hope our show has continued the tradition of excellence and contributed to the enduring strength of SIGGRAPH and the CAF!

Supplemental Material

The remainder of the pages in this document includes supplemental documents relating to the SIGGRAPH 2007 Computer Animation Festival. These include:

- 1) Animators/Art/Papers Outreach letters
- 2) Jury Expertise Request
- 3) Juror Information Booklet
- 4) Acceptance and non-acceptance Emails
- 5) Frame processing instructions for the AT QuickTime conversions
- 6) Spreadsheet of ET show sequence and timing (close to final times)
- 7) RIOT's time code list for the 24p HDCAM/SR ET tape
- 8) Animation Theaters Schedule and Show Reel lists
- 9) Treatment for the ET Opening Sequence
- 10) Civic Theatre banner sign design by Todd Szymanski
- 11) CAF Program (without ads) made by CGW
- 12) CAF Opening Night After Party jury invitation Email
- 13) Introductory PowerPoint Slides for Chapters Screenings
- 14) Selected Press Articles:
 - a. VFX World announces the CAF Award Winners
 - b. Renderosity Interview with Paul Debevec by Dee Marie
 - c. *The Digital Eye: Reshaping SIGGRAPH's CAF* on VFX World
 - d. *ZINE meets SIGGRAPH* from Alex Strohm's ZINE magazine
 - e. *SIGGRAPH Debuts Arcade Play-Off On Giant Vector Display* on *Gamasutra*
 - f. *C-U praises computer imaging at Electronic Theater Festival* from the *Daily Illini* on the UIUC Student Chapter screening



Submit your Animation!

The **SIGGRAPH 2007 Computer Animation Festival (CAF)** is now open for submissions! Animations chosen for the festival will be shown at prestigious **Electronic Theater** at the San Diego Civic Theater or in the **Animation Theater** screening rooms at the San Diego Convention Center August 5-9, 2007. The submission deadline is **March 14, 2007**.

For thirty years, the SIGGRAPH Computer Animation Festival has been the world's premiere event for the most innovative and groundbreaking animations made using the computer. And since 1999, the CAF has been an Academy-qualifying festival for the Best Animated Short Academy Award for the CAF's "Best of Show" pieces.

Animated films can be uploaded electronically for the selection process at resolution of up to 1280x720 pixels, and animations accepted to the Electronic Theater segment of the show may be screened at resolutions of up to 4096 x 2160 pixels. The online submission web pages are now active: see the festival web page for this year's submission formats and procedures:

<http://www.siggraph.org/s2007/presenters/caf/>

Electronic Submission Deadline: March 14, 2007, 5pm U.S. Pacific Time (GMT-8)

Tips for completing your animation:

- The jury will pay special attention to pieces that are **groundbreaking** through either their art or technology. Pieces that present a new visual technique, an innovative style of animation, or that develop or apply new computer graphics techniques to the realm of CG filmmaking will all receive particular consideration. As with any other film festival, story, character design, animation, lighting, and music are also important factors considered by the jury.
- **Length** is an important factor considered by the jury. A three-minute film with great visuals and an engaging story will be more attractive to the jury than the same material presented in eight minutes. This is particularly true for the Electronic Theater, which strives to present an overview of the state of the art in computer graphics in a two-hour show. A breathtaking, never-before-seen visual experience that's just a minute or two will be hard for the jury to pass up.
- Submit and render with as **high resolution** as possible. Since 2005, the majority of the Electronic Theater show has been in high definition resolution (1920x1080 pixels, 24fps or 30fps). This year, the CAF is working with Sony's SXR group to provide native 4K playback of 4096x2160 pixels for 24fps pieces as well – if you can render at that resolution, imagine seeing it in motion! Standard definition material (640x480) is acceptable, but it will look soft by comparison. For the jury submission, movie file uploads of up to 500MB can be up to 1280x720 pixels. Consider taking advantage of the increasingly popular 16:9 wide screen format; 4:3 pieces won't use as much of the screen.
- Figure out **music licensing** as early as possible. It's terrible to make important creative decisions using a temporary music track and then have to re-conceptualize the piece if the necessary performance rights cannot be obtained. Using original music composed just for your piece is encouraged. More information on music licensing is available on the CAF web site.
- Most importantly, send us your great work!

Paul Debevec

From: <LSchall@TALLEY.COM>
To: <undisclosed-recipients:>
Sent: Monday, February 12, 2007 1:30 PM
Subject: SIGGRAPH 2007: Call for Research Animations



Dear SIGGRAPH 2007 Papers program submitter,

The **SIGGRAPH 2007 Computer Animation Festival** (CAF) is seeking submissions from the computer graphics research community. Pieces chosen for the festival will be shown at the prestigious SIGGRAPH Electronic Theater at the San Diego Civic Theater, or in the Animation Theater screening rooms at the San Diego Convention Center.

The CAF especially encourages submitting animations that explain and/or demonstrate new computer graphics research techniques, that is, animations in the "Research" category. You just might realize that the research you are working on today has exciting cinematic potential, or that you can take your existing results to the next level by using them to create a short film for the Computer Animation Festival. (Note that the CAF is separate from the papers program -- if you submit a piece to the CAF that relates to a SIGGRAPH paper submission, but then find out the paper wasn't accepted, you have the option, but are not required, to withdraw your piece from the festival.)

Submissions are now open: see the CAF web page for this year's submission formats and procedures:

<http://old.siggraph.org/s2007/presenters/caf/>

Electronic Submission Deadline: March 14, 2007, 5pm Pacific Time

Tips for submitting an animation in the "Research" category:

- Just like papers, **length** is an important factor considered by the jury. A two-minute piece with great visuals and a clear message will be more attractive to the jury than the same material presented in four minutes. This is particularly true for the Electronic Theater, which is limited to just two hours of material. A breathtaking, never-before-seen visual experience that's even as short as fifteen or thirty seconds will be hard for the jury to pass up.
- **Look to your favorites for inspiration.** Some research animations in the CAF follow the same form as a good papers video, paying particular attention to clear explanations, smooth timing, and high-quality renderings (there are numerous SIGGRAPH papers videos that might have been accepted to the CAF if only the authors had submitted them!) Other research animations use new research techniques creatively to create an exciting visual and/or narrative experience. Some of the best research animations manage to do both.

- Submit and render with as **high resolution** as possible. Since 2005, the majority of the Electronic Theater show has been in high definition resolution (1920x1080 pixels, 24fps or 30fps). This year, the CAF is working with Sony's SXR group to provide native 4K playback of 4096x2160 pixels for 24fps pieces as well - if you can render at that resolution, imagine seeing it in motion! Standard definition material (640x480) is acceptable but will look soft by comparison. For the jury submission, movie file uploads (up to 500MB) can be up to 1280x720 pixels. Also, consider taking advantage of the increasingly popular 16x9 wide screen format; 4x3 pieces won't use as much of the screen.
- **Give your piece structure and progression.** Most good stories, songs, papers, and films have a beginning, a middle, and an end: they introduce the scenario, present the problem, and then resolve it creatively.
- If you're new to filmmaking, **ask for advice** from people who know a thing or two. Considering collaborating with artists (student or professional), who may have just the right abilities to help your models, lighting choices, camera work, and editing present your material the best. Consider inviting an experienced filmmaker to direct your piece!
- Figure out **music licensing** as early as possible. It's terrible to fall in love with a temporary music track and then have to re-edit if the necessary performance rights cannot be obtained. Using original music composed just for your piece is encouraged. More information on music licensing is available on the CAF web site.
- Even if you don't submit a film to the CAF, if you're working on a SIGGRAPH papers video, keep in mind that clips from the best videos from the accepted papers will be selected for the Electronic Theater's **papers video teaser**. Also note that you may also be asked if you can provide such clips in high definition resolution (1920x1080) as well.

On behalf of Paul Debevec ~ SIGGRAPH 2007 Computer Animation Festival Chair,

Laurie Schall
Program Manager, ACM SIGGRAPH
Talley Management Group, Inc.

Submit your Animation!

The **SIGGRAPH 2007 Computer Animation Festival** (CAF) is seeking submissions from the computer graphics research community. Animated films chosen for the festival will be shown at prestigious SIGGRAPH Electronic Theater at the San Diego Civic Theater or in the Animation Theater screening rooms at the San Diego Convention Center August 5-9, 2007

The CAF especially encourages animations in the “Art” category. Art submissions can be abstract, experimental, non-narrative, or narrative, using either 2D or 3D rendering techniques. Pieces making use of innovative technology are especially encouraged. Many pioneering computer animations from artists such as Larry Cuba, Charles Csuri, John Whitney Sr., and Michael Naimark have premiered at SIGGRAPH.

Submissions are now open: see the CAF web page for this year’s submission formats and procedures:

<http://www.siggraph.org/s2007/presenters/caf/>

Electronic Submission Deadline: March 14, 2007, 5pm Pacific Time

Tips for submitting your animation to SIGGRAPH Computer Animation Festival:

- **Length** is an important factor considered by the jury. A two-minute piece with great visuals may be more attractive to the jury than the same material presented in four minutes. This is particularly true for the Electronic Theater, which is limited to just two hours of material. A breathtaking, never-before-seen visual experience that’s even as short as fifteen or thirty seconds will be hard for the jury to pass up.
- Submit and render with as **high resolution** as possible. Since 2005, the majority of the Electronic Theater show has been in high definition resolution (1920x1080 pixels, 24fps or 30fps). This year, the CAF is working with Sony’s SXR group to provide native 4K playback of 4096x2160 pixels for 24fps pieces as well – if you can render at that resolution, imagine seeing it in motion! Standard definition material (640x480) is acceptable but will look soft by comparison. For the jury submission, movie file uploads can be up to 1280x720 pixels with a file size of up to 500MB. Also, consider taking advantage of the 16x9 wide screen format; 4x3 pieces won’t use as much of the screen.
- Figure out **music licensing** as early as possible. It’s terrible to fall in love with a temporary music track and then have to re-edit if the necessary performance rights cannot be obtained. Using original music composed just for your piece is encouraged. More information on music licensing is available on the CAF web site.

Paul Debevec

From: "Paul Debevec" <debevec@ict.usc.edu>
To: <carter@amnh.org>; <ubadfrog@yahoo.com>; "Michael Kass" <kass@pixar.com>;
 <RKProds@aol.com>; <drgavin@aol.com>; <gmiller@adobe.com>;
 <shelley.page@dreamworks.com>; <bigredd@gmail.com>; "Zargarpour, Habib"
 <habib@ea.com>
Cc: <meelen@eggstorycp.com>; "Lina Yamaguchi" <llama@stanford.edu>;
 <sam_black@siggraph.org>; <carlye@siggraph.org>; <tom_pereira@siggraph.org>;
 <sebastian@siggraph.org>
Sent: Monday, March 12, 2007 8:26 PM
Subject: Your Expertise, Please!

Dear Jurors,

I am greatly looking forward to seeing all of you at the 2007 computer animation festival jury meeting next week! With submissions rolling in from around the world, by all indications we will have a record number of entries this year. Hopefully, this will give you the chance to select the strongest computer animation festival ever seen at SIGGRAPH!

In preparation for the jury meeting, I would like to ask each of you to rank your expertise level in each of the festival's eight submission categories. By "expertise", I mean your ability to recognize *innovation* and *excellence* for a piece in that category. The categories are:

Art (abstract and experimental)
 Broadcast (commercial, music video, design)
 Cinematic (pre-rendered video game animation)
 Visual Effects (not story- or character-based)
 Animated Short (story- or character-based, any medium)
 Research (explaining and/or demonstrating new computer graphics or interactive techniques)
 Real Time (video game play, interactive art, and scientific visualizations)
 Visualization (scientific, medical, architectural)

You have **40 points** to distribute among the eight categories, with a maximum of **9** and a minimum of **1** for each. Someone with strong "broadcast" expertise and weak "visual effects" expertise might fill out the list as follows:

Art: 4
 Broadcast: 9
 Cinematic: 5
 Visual Effects: 1
 Animated Short: 6
 Research: 5
 Real Time: 3
 Visualization: 7

 Total: 40

In deciding your rankings, you may also consider your fellow jurors' expertise and backgrounds: http://www.debevec.org/CAF/CAF2007-Jury_Information.pdf.

Please send your rankings to Sam Black, sam_black@siggraph.org. Sam was the chair of the SIGGRAPH 2005 Festival and is this year's Minister of Information, running our electronic jurying system (a system he himself wrote!). Your rankings will be internal to the system and not broadcast to the committee or rest of the jury.

We will use your rankings to determine how to split up the jurying for the first round, which will have four rooms with two jurors each. In the next rounds, we'll ask you to give each piece a score of 1 (lowest) to 5 (highest). We will make the initial ET (Electronic Theater) decisions based on which pieces received the highest *unweighted* score, counting all jurors equally. We will then make the initial AT (animation Theaters) decisions based on which of the remaining pieces received the highest *weighted* score, weighted according to your expertise levels. The

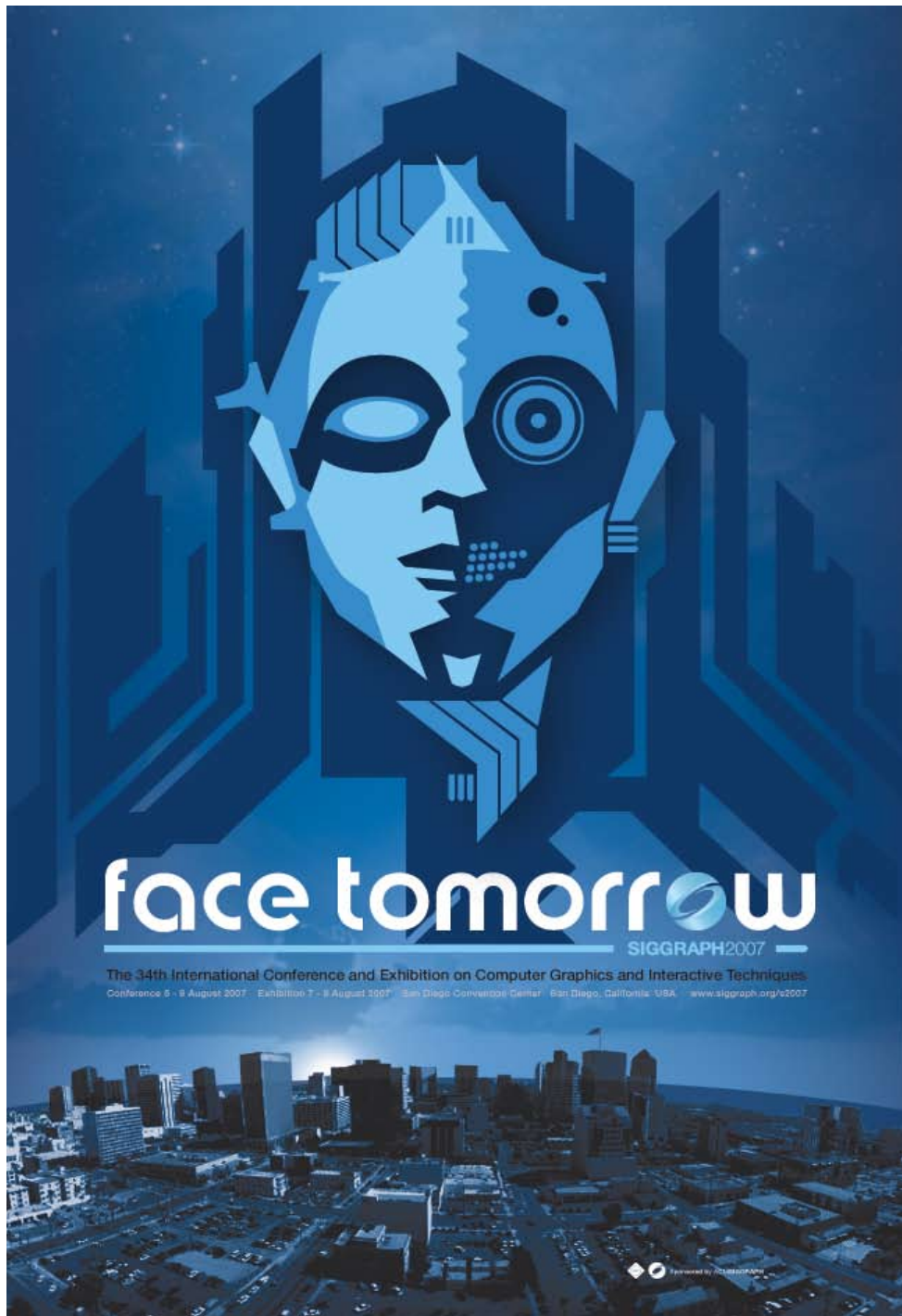
final round(s) will make any recommended adjustments to the ET/AT decisions.

Finally, I would like to introduce Ms. Lina Yamaguchi from Stanford University, who along with Vibeke Sorenson is one of SIGGRAPH 2007's Art Gallery co-chairs. She will be attending the jury meeting to serve as one of our Alternates and to weigh in on all of the pieces submitted in the "Art" category. Welcome Lina!

Please do not hesitate to contact me or Carlye with any questions as the jury meeting approaches! Very best,

Paul

Paul Debevec / USC ICT / www.debevec.org
SIGGRAPH 2007 Computer Animation Festival Chair



SIGGRAPH 2007
COMPUTER ANIMATION FESTIVAL
JURY BOOKLET
03.23-27.2007



Dear SIGGRAPH 2007 Computer Animation Festival Juror,

Welcome to the jury! It is a thrill to have such a distinguished and talented group of individuals engaged in selecting the best possible show for the 2007 Computer Animation Festival (CAF).

In its 30 years of history, the CAF has consistently presented the most innovative and groundbreaking computer animated work from the full range of activity in computer graphics. This year's submission categories are:

- **Animated Short** (story- or character-based, any medium)
- **Art** (abstract and experimental)
- **Broadcast** (commercial, music video, design)
- **Cinematic** (pre-rendered video game animation)
- **Real Time** (video game play, interactive art, and scientific visualizations)
- **Research** (explaining or demonstrating new computer graphics techniques)
- **Visual Effects** (not story- or character-based)
- **Visualization** (scientific, medical, architectural)
- **Other** (any work that does not fit the categories above)

As you can see in the following pages, our jury has an amazing range of expertise across all of these areas. We'll be in touch with you shortly to ask you to rank your expertise for each category in order to direct pieces to the best jurors in the first round of selections. At the jury meeting, the suggestion I'd like to give you for making your selections is to look for the most innovative and excellent pieces across the full spectrum of computer graphics.

Submissions are due for electronic upload on March 14th, and we're hoping to get the broadest range of great pieces from the most places as we can. So, please share the attached Outreach Letter with everyone you can think of who is doing innovative and excellent work that we should consider for the CAF, or refer them to the CAF submissions website: <http://www.siggraph.org/s2007/presenters/caf/>

Looking forward to working with you!

Paul Debevec
SIGGRAPH 2007
Computer Animation Festival Chair
USC Institute for Creative Technologies

On behalf of the SIGGRAPH 2007 CAF Committee

**2007 SIGGRAPH COMPUTER ANIMATION FESTIVAL
JURY INFORMATION**

COMPUTER ANIMATION FESTIVAL COMMITTEE

3/25/2007

CAF Chair	Paul Debevec
Animation Theater Producer	Tom Pereira
Assistant Producer	Carlye Archibeque
Technology Director	Sebastian Sylwan
Minister of Information	Samuel Lord Black
Outreach & Event Producer	Maya Martinez
CAF Jury	Carter Emmart Nickson Fong Michael Kass Randal Kleiser Gavin Miller Shelley Page Jay Redd Habib Zargarpour
Jury Alternates	Lina Yamaguchi Sebastian Sylwan
Opening Subcommittee	Florian Witzel Diane Piepol
Jury Meeting Technical Committee	Rob Groome Sebastian Sylwan Samuel Lord Black
S2008 Representative	Jill Smolin

JURY MEETING SCHEDULE (TENTATIVE)

CAF 2007

FRIDAY, MARCH 23

7:00 P.M. Welcome Dinner – location TBD

SATURDAY, MARCH 24 – 1st Round Voting in Separate Groups

8:30 A.M. Breakfast
9:00 A.M. Introduction - screening room or board room
9:30 A.M. Test jury voting as a group in main screening room
10:00 A.M. Break into first-round groups, begin jury process
1 hour Lunch*
Resume Jury Duties
15 min Break*
Resume Jury Duties
1 hour Dinner*
Resume Jury Duties
15 min Break*
11:00 P.M. End for the Day

SUNDAY, MARCH 25 – 2nd Round Voting as a Single Group

8:30 A.M. Breakfast
Jurying as a group in main screening room
1 hour Lunch
Jurying as a group in main screening room
15 min Break
Jurying as a group in main screening room
1 hour Dinner
Jurying as a group in main screening room
15 min Break
11:00 P.M. End for the Day

MONDAY, MARCH 26 – 2nd and 3rd Round Voting

8:30 A.M. Breakfast
Jurying as a group in main screening room
1 hour Lunch
Jurying as a group in main screening room
15 min Break
Jurying as a group in main screening room
1 hour Dinner
Jurying as a group in main screening room
15 min Break
11:00 P.M. End for the Day

TUESDAY, MARCH 27 – Final Voting, ET/AT recommendations and Award Discussion

8:30 A.M. Breakfast
Final voting
Final ET/AT decisions
Awards decisions
12 noon Lunch (optional, depending on travel schedules)
2:00 P.M. Fin!

**Please note that break times and durations are yet to be determined but they will be plentiful and filled with good meals and snacks!*

CARTER EMMART



**DIRECTOR OF ASTROVISUALIZATION
ROSE CENTER FOR EARTH AND SPACE,
AMERICAN MUSEUM OF NATURAL HISTORY**

Carter Emart joined AMNH in the late 1990's as the Rose Center was constructed to house the completely rebuilt Hayden Planetarium to be used as an immersive display that surrounds its audiences in an accurate 3D atlas of the Universe. He was one of the original team members at AMNH of the NASA funded Digital Galaxy Project that helped redefine how a planetarium theater can present science to the public through immersive data visualization. Carter directs the in-house space show production at AMNH as well as past collaborations with the visualization teams of the National Center for Supercomputing Applications and the San Diego Supercomputer Center. AMNH full dome space shows are now playing in world-wide distribution.

Starting astronomy courses at the age of ten in the old Hayden, Emart grew up in a family of artists and got his BA in geophysics from the University of Colorado where he was an organizer of the Case for Mars Conference series. He has had careers in architectural modeling, spacecraft illustration and data visualization and has worked at NASA Ames Research Center and the National Center for Atmospheric Research prior to joining AMNH. In May, 2006, Emart received an honorary PhD from Linköping University in Sweden in part for his advising of a graduate intern program hosted at AMNH for software development of interactive and networked methods to visually explore the ever expanding volume of scientific data continuously across all scales.

**2007 SIGGRAPH COMPUTER ANIMATION FESTIVAL
JURY INFORMATION**

NICKSON FONG



CHIEF EXECUTIVE OFFICER EGG STORY CREATIVE PRODUCTION

Graduating from the Savannah College of Art and Design in 1994, Nickson first started as a CG Animator for Future Pirates, a games developer in Tokyo, Japan. In 1996, Nickson joined DreamWorks SKG and was one of the first few CG Animators involved in the early pre-production for “Shrek,” which won an Academy Award for Best Animated Feature Film in 2001. In the late 1990s, Nickson worked with several of Hollywood’s largest and renowned visual effects companies; including Sony Picture Imageworks, where he was the Lead Compositor for “Starship Troopers” (Academy Award® nominee for Achievement in Visual Effects in 1997). At Centropolis Effects, where he was Lead Light/Render Technical Director for “Godzilla” and “The 13th Floor,” Technical Supervisor for “Stuart Little” (Academy Award nominee for Achievement in Visual Effects in 1999), Nickson also supervised a team of FX technical director and headed up the effects Department for “The Patriot” (Academy Award nominee for Best Cinematography, Music and Sound in 2000) and Senior Technical Director for “8 Legged Freaks” and “The Scorpion King.” At ESC Entertainment, Nickson was FX Technical Director for “The Matrix Reloaded” and Shot Development Technical Director on “The Matrix Revolutions,” sequels to “The Matrix.”

Prior to co-founding Egg Story Creative Production, Nickson was headhunted by Digimax, a media and entertainment company based in Taiwan, as Chief Operating Officer to manage the start-up of their new CG Animation Division, the development of Digimax’s first CG animated feature film and the construction of a major visual effects and animation facility in Taipei. At Digimax, Nickson developed, produced and directed his third CG animated short film, The Egg Story.

**2007 SIGGRAPH COMPUTER ANIMATION FESTIVAL
JURY INFORMATION**

MICHAEL KASS

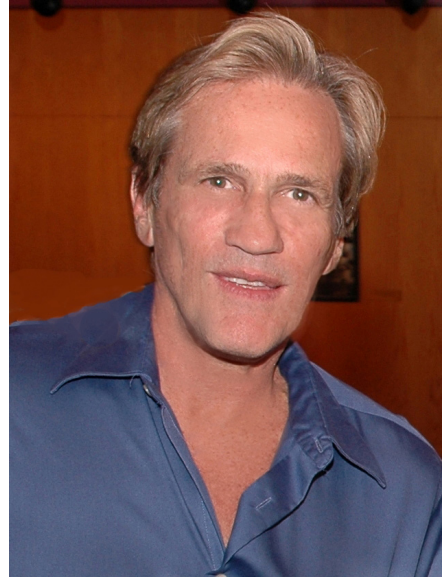


SENIOR SCIENTIST PIXAR ANIMATION STUDIOS

Dr. Kass received his B.A. from Princeton in 1982, his M.S. from M.I.T. in 1984, and his Ph. D. from Stanford in 1988. Dr. Kass has received numerous awards for his research on physically-based methods in computer graphics and computer vision including several conference best paper awards, the Prix Ars Electronica for the image "Reaction Diffusion Texture Buttons," and the Imagina Grand Prix for the animation "Splash Dance." Before joining Pixar in 1995, Dr. Kass held research positions at Schlumberger Palo Alto Research and Apple Computer.

At Pixar Studios, Kass developed the clothing simulator used for "Geri's Game," and later worked with David Baraff and Andrew Witkin to develop the clothing and hair simulation system that was used in "Monsters Inc." and "The Incredibles." With Baraff and Witkin, he received a 2005 Scientific and Technical Academy Award for "Pioneering work in physically-based computer-generated techniques used to simulate realistic cloth in motion pictures."

RANDAL KLEISER



FILM DIRECTOR RANDAL KLEISER PRODUCTIONS

Randal Kleiser has been an internationally known film director since the release of his first feature, *Grease*, the most successful movie musical ever made. His current projects include *Red Riding Hood*, an original movie musical shot on virtual sets which debuted in the summer of 2006 at the 1st International Digital Cinema Festival in Lisbon, and *Lovewrecked* being released by the newly formed Weinstein home entertainment group in March of 2007.

Kleiser is fluent in cutting-edge digital technologies. One of his articles, "Directing in 3D" was published in the Director's Guild magazine based on his direction of "Honey, I Shrunk the Audience" in 70mm for Michael Eisner, which has been drawing record crowds at the Disney theme parks in Anaheim, Orlando, Tokyo and Paris for more than a decade.

Kleiser's interest in the latest technologies led him to a five year consulting position with USC's Institute for Creative Technologies, where he was a co-inventor of *Vistarama HD*, an immersive digital Cinerama process shot using the 4K DALSA camera and ultra-wide-angle photography.

GAVIN MILLER



PRINCIPAL SCIENTIST ADOBE SYSTEMS INCORPORATED

Miller received a Ph.D. from Cambridge University in 1986 and has been a member of numerous influential R&D labs including Alias Research in Toronto, Apple's Advanced Technology Group, Interval Research Corporation, and now Adobe Systems Incorporated. He has contributed to and/or directed numerous short films showcasing new graphics techniques for SIGGRAPH's computer animation festival, including *Natural Phenomena* (1988), *Her Majesty's Secret Serpent* (1989), *The Audition* (1990), *Splash Dance* (1990), *Flow* (1993), and *Rondeau* (1998) (see www.doctorgavin.com). In addition to creative writing, he has also has also invented and built numerous Snake Robots (www.snakerobots.com).

Gavin Miller's research interests include realistic rendering of natural phenomena such as terrain, trees, sky, fur and water, as well as the semi-automatic generation of realistic creature motion. His interests also include in real-time interaction techniques for multimedia and interactive simulations. In addition Miller's works on the use of graphics techniques for enhancing user interfaces.

SHELLEY PAGE



**EUROPEAN REPRESENTATIVE
DREAMWORKS ANIMATION
spage@dreamworksanimation.com**

Originally trained in the UK as an illustrator, Page has been working in the field of Feature Animation since 1986 when she was UK Backgrounds Supervisor on "Who Framed Roger Rabbit" (Disney). In 1989 she joined Steven Spielberg's Amblimation Studio in London as background supervisor working on "An American Tail 2", "We're Back' and 'Balto". In January 1995 she moved to Los Angeles to participate in the creation of the new DreamWorks Animation studio. As Co-Head of Artistic Development at DreamWorks, Shelley supervised the hiring and training of artists in preparation for DreamWorks epic first animated project "The Prince of Egypt". In 1997 Shelley was one of the initial team of visual development artists working on "Shrek", winner of the first ever Academy Award® for an animated feature.

Her current DreamWorks projects include "Shrek the Third", "Bee Movie" and "Kung Fu Panda." Shelley has a particular interest in student animation and hosts student events at all the major European animation festivals. She sits on the graduation juries of leading animation schools Les Gobelins and Supinfocom in France and on the advisory boards and selection juries of many international animation festivals including: Annecy (France), Imagina (Monte Carlo), FMX (Stuttgart), Brief Encounters (Bristol), Animex (Teeside) and SAND (Swansea).

**2007 SIGGRAPH COMPUTER ANIMATION FESTIVAL
JURY INFORMATION**

JAY REDD



**VISUAL EFFECTS SUPERVISOR, ANIMATION DIRECTOR
SONY PICTURES IMAGEWORKS
bigredd@mac.com**

In 1993, after working in post-houses in Salt Lake City, Utah, Jay Redd decided to continue his career in computer graphics in Los Angeles. He ventured to California for the SIGGRAPH 93 conference there his flair for photography led to his first job at Rhythm & Hues as a Technical Lighting Director. While at R&H he worked as a CG supervisor on numerous commercials, theme park rides and feature films such as the Academy Award®-winning "Babe" and "Waterworld."

After working as CG Supervisor on the Academy Award®-nominated "Stuart Little", Jay went on to be Digital Effects Supervisor on the sequel "Stuart Little 2," refining the title character and adding two photoreal bird characters. In 2003, Jay was the visual effects supervisor on Disney's "The Haunted Mansion" working once again with director Rob Minkoff ("Stuart Little 2").

Jay Redd joined Sony Pictures Imageworks in August 1996 to work on the Robert Zemeckis film "Contact." As an amateur astronomer with a longstanding interest in the project, he was the perfect person to create the film's opening shot, a 4710-frame, 3- minute and 19-second journey from the earth to the end of the known universe. The opening shot was the first digital animation to be nominated for an Annie Award.

Jay Redd recently completed work on the Academy Award®-nominated animated feature film "Monster House" which utilized Performance Capture, a refined version of motion capture. As the Visual Effects Supervisor for the Film, Redd was responsible for creating and overseeing, along with a team of over 200 artists, animators, and technicians, the look and lighting of the entire film.

**2007 SIGGRAPH COMPUTER ANIMATION FESTIVAL
JURY INFORMATION**

HABIB ZARGARPOUR



**SENIOR ART DIRECTOR
ELECTRONIC ARTS
habib@ea.com**

Habib Zargarpour began his career in visual effects for film in 1990 when he spent a few years working on digital effects for IMAX films in Los Angeles. He had worked as a graphic artist and fine arts illustrator since 1981. He graduated with distinction in Industrial Design from the Art Center College of Design in Pasadena in 1992 and discovered his passion for design in film. Subsequent projects included the development of such effects as the particle tornadoes in “Twister”, the digital oceans and stormy seas in “The Perfect Storm,” *Spawn’s* cape, and the pod race simulations and crashes in “Star Wars Episode I.”

While at ILM, he was nominated for two Academy Awards® in Visual Effects for “Twister” and “The Perfect Storm” and garnered two British Academy Awards for those films working with Visual Effects Supervisor Stefen Fangmeier. He worked as a Digital Effects Supervisor with John Knoll on the pod race sequences in “Star Wars Episode I” and on two Star Trek films: “Star Trek Generations” and “First Contact”, working on the never before seen space anomalies and the Phoenix rocket launch sequence.

Zargarpour continues to value the CG industry as the perfect mix of technical and artistic realms. Since 2002, Habib has worked as a Senior Art Director at Electronic Arts on driving and racing titles. His projects included *Need for Speed: Underground* and *007 Bond Everything or Nothing* for which he was nominated for a VES (Visual Effect Society) award. His latest project was Art Directing a next generation title called *Need for Speed: Most Wanted*. He is an active member of AMPAS (Academy of Motion Picture Arts and Sciences) and BAFTA (British Academy of Film and Television Arts), and a founding member of the Visual Effects Society.



Submit your film to SIGGRAPH!

The **SIGGRAPH 2007 Computer Animation Festival** (CAF) is now open for submissions. Animations chosen for the festival will be shown at prestigious **Electronic Theater** at the San Diego Civic Theater or in the **Animation Theater** screening rooms at the San Diego Convention Center August 5-9, 2007. The submission deadline is **March 14, 2007**. This year's categories include:

- **Animated Short** (story- or character-based, any medium)
- **Art** (abstract and experimental)
- **Broadcast** (commercial, music video, design)
- **Cinematic** (pre-rendered video game animation)
- **Real Time** (video game play, interactive art, and scientific visualizations)
- **Research** (explaining and/or demonstrating new computer graphics or interactive techniques)
- **Visual Effects** (not story- or character-based)
- **Visualization** (scientific, medical, architectural)
- **Other** (any work that does not fit the categories above)

For thirty years, the SIGGRAPH Computer Animation Festival has been the world's premiere event for the most innovative and groundbreaking animations made using the computer. And since 1999, the CAF has been an Academy-qualifying festival for the Best Animated Short Academy Award for the CAF's "Best of Show" films.

Animated films can be uploaded electronically for the selection process at resolution of up to 1280x720 pixels, and animations accepted to the Electronic Theater segment of the show may be screened at resolutions of up to 4096 x 2160 pixels. The online submission web pages are now active: see the festival web page for this year's submission formats and procedures:

<http://www.siggraph.org/s2007/presenters/caf/>

Electronic Submission Deadline: March 14, 2007, 5pm U.S. Pacific Time (GMT-8)

Tips for completing your animation:

- The jury will pay special attention to pieces that are **groundbreaking** through either their art or technology. Pieces that present a new visual technique, an innovative style of animation, or that develop or apply new computer graphics techniques to the realm of CG filmmaking will all receive particular consideration. Also, films that creatively *explain*, *visualize*, or *demonstrate* how new techniques are employed in their groundbreaking achievements will be given special consideration. As with any other film festival, story, character design, animation, lighting, and music are also important factors considered by the jury.
- **Length** is an important factor considered by the jury. A three-minute film with great visuals and an engaging story will be more attractive to the jury than the same material presented in eight minutes. This is particularly true for the Electronic Theater, which strives to present an overview of the state of the art in computer graphics in a two-hour show. A breathtaking, never-before-seen visual experience that's just a minute or two will be hard for the jury to pass up.

**2007 SIGGRAPH COMPUTER ANIMATION FESTIVAL
JURY INFORMATION**

- Submit and render with as **high resolution** as possible. Since 2005, the majority of the Electronic Theater show has been in high definition resolution (1920x1080 pixels, 24fps or 30fps). This year, the CAF is working with Sony's SXR group to provide native 4K playback of 4096x2160 pixels for 24fps pieces as well – if you can render at that resolution, imagine seeing it in motion! Standard definition material (640x480) is acceptable, but it will look soft by comparison. For the jury submission, movie file uploads of up to 500MB can be up to 1280x720 pixels. Consider taking advantage of the increasingly popular 16:9 wide screen format; 4:3 pieces won't use as much of the screen.
- Figure out **music licensing** as early as possible. It's terrible to make important creative decisions using a temporary music track and then have to re-conceptualize the piece if the necessary performance rights cannot be obtained. Using original music composed just for your piece is encouraged. More information on music licensing is available on the CAF web site.

Most importantly, send us your great work!

Paul Debevec
SIGGRAPH 2007 Computer Animation Festival Chair

Re: caf_0234, "Title"

Congratulations! Your animation has been conditionally accepted to the SIGGRAPH 2007 Computer Animation Festival. It was chosen from approximately one thousand animations submitted to the festival, making this the most selective festival in SIGGRAPH history.

Your animation was selected for the * **Electronic Theater** * venue, where it will be seen by thousands of SIGGRAPH attendees at the San Diego Civic Theater, 6-8 August 2007.

- or -

Your animation was selected for the * **Animation Theaters** * venue, where it will be shown to thousands of SIGGRAPH attendees at the San Diego Convention Center, 5-9 August 2007.

Your acceptance is conditional based on the followings editing requests made by the festival jury:

Total edited time: **02:20** (mm:ss)

Tighten/remove title stills (title and studio will be shown on side screens) and edit down credits to maximum of seven seconds

Please deliver your final material to arrive by 24 April 2007 as follows:

- Please render your edited animation at the highest resolution possible. If your material comes from a feature film, submit at no less than 1920x1080 pixels. Do not scale up low-resolution frames; we will professionally scale all material to the resolution of the show tapes.
- Files for accepted films should be delivered to the Computer Animation Festival Chair on an **external hard drive** (FAT32 filesystem, USB 2.0 or Firewire) or a set of **DVD-ROMs**. You should deliver your film as a sequence of TIF image files with a corresponding stereo audio file in WAV or AIFF format as follows:
- Your **numbered, progressive-scan frames should be in TIF format**, either uncompressed or LZW compressed, 8 or 16 bits per pixel, target gamma of 2.2. Determine an eight-letter name for your film with only alphabetic characters and name your TIFF files as "filename#####.tif". For example, if your film name is "starwars", your first frame should be "starwars00000.tif". Note the leading zeroes – it is important that you include these.

- Frames should be at the **highest resolution available** up to the full 4K resolution of 4096 x 2160 pixels; other preferred resolutions are 1920 x 1080 pixels and 1280 x 720 pixels; standard definition resolutions of 1024 x 576, 768 x 576, 720 x 576, 720 x 480, 640 x 480, and 640 x 360 pixels are acceptable but will look soft in comparison to much of the other material in the show. Deliver the frames in the native aspect ratio of your film, avoiding adding black bars at the top/bottom or sides of your frames (i.e. do not letterbox or pillarbox your material).
- **Do not submit interlaced** frames or frames with 3:2 pulldown. Please submit only full image, progressive-scan frames.
- **Audio and Sync Info:** On the same media, include your stereo audio file as an uncompressed .WAV or .AIFF file. Supported sample rates are 44.1kHz and 48kHz. Include a clear audio synchronization cue both at the beginning and end of your audio file and correspondingly in your video frame sequence. Do this by having two seconds of black, followed by a flash frame of white, followed by the remainder of two seconds of black at the beginning and the end of your film. In your audio file, put one frame duration of 1kHz tone at the beginning and end that synchronizes *precisely* with each flash frame.
- Prepare a **README.txt** file to include on your hard drive or DVD-ROMs with:
 - CAF ID number, animation title, and complete contact information
 - Frame aspect ratio (examples: 4:3, 16:9, 1.85:1, 2.35:1)
 - Pixel aspect ratio (examples: 0.9:1, 1:1, 1.2:1, etc.)
 - Frame rate (examples: 23.976fps, 24.00fps, 25.00fps, 29.97fps, 30.00fps, 59.94fps, 60.00fps). When your movie is played at this frame rate, it should synchronize to your audio at its designated sample rate.
 - Sample rate of your audio file
- Label your DVD-ROMs or external hard drive with your CAF ID number, the name of your film, and your complete contact information.
- Send your material so that it arrives no later than 24 April 2007 to:

Paul Debevec
 USC ICT
 SIGGRAPH 2007 Computer Animation Festival Chair
 13274 Fiji Way
 Marina del Rey, CA 90292
 USA
 +1.310.574.5700

- Hard drives and DVD-ROMs will not be returned by mail; they may be picked up at the SIGGRAPH 2007 Computer Animation Festival office, Room 22 at the San Diego Convention Center, 6-9 August 2007.

If you have any questions regarding the final submission formats, please contact the [Computer Animation Festival Technology Director](mailto:caf2007@siggraph.org) at caf2007@siggraph.org.

We will also soon be contacting you to receive your final Animation Description, Contributor Credits, and High-Resolution Still Image.

Finally, please take a few moments to review the instructions below regarding several important steps that must be completed in order for your work to be shown, and the process by which you will be registering for the conference.

Acceptance Agreement

As soon as possible, please log into the submissions system using the following link: <https://esub.siggraph.org/cgi-bin/cgi/mySig.html> and click on the Upon Acceptance link for your work. Your signed Acceptance Agreement must be faxed within 2 weeks from the date of this notice to (609) 482-8382. This agreement verifies that you have the right to show the work at SIGGRAPH 2007, and allows you to grant or deny distribution and promotional rights for the material. If you do not provide a completed, signed agreement, you will not be able to participate in SIGGRAPH 2007.

We strongly encourage you to grant permission (acquiring the necessary rights to do so) for as many items as possible, as it will enable the maximum exposure for your work at SIGGRAPH. We especially encourage you to grant the rights to be included on this year's SIGGRAPH Video Review, the journal of record for advances in computer animation: <http://www.siggraph.org/publications/video-review/SVR.html>

Contributor recognition

Your accepted submission entitles one contributor to your animation to a 50% discount off the "early member rate" conference registration fee, plus up to four tickets to the Electronic Theater show. ***NEW THIS YEAR:*** you will be responsible for registering yourselves online. When online registration becomes available (on or about April 16, 2007), you will receive an e-mail that includes your access code and instructions for conference registration. Please note that the discount code may *only* be used by a collaborator whose name is being published as a contributor in the conference proceedings.

Please begin working on delivering your final material immediately and contact us at caf2007@siggraph.org with any questions regarding the preparation or delivery of your material.

Once again, congratulations on your acceptance! We look forward to seeing you in San Diego.

Paul Debevec
SIGGRAPH 2007 Computer Animation Festival Chair
e-mail: caf2007@siggraph.org

Not Selected Email

Re: caf_0234, ""

Thank you for submitting your animation to the SIGGRAPH 2007 Computer Animation Festival. We are sorry to let you know that your animation was not accepted for the festival this year.

This year, we received a record number of entries – over one thousand animations were submitted. This forced the jury to be extremely selective: only one in ten submitted animations were chosen for the festival, and many animations with high levels of artistic and technical accomplishment were unable to be included.

We also hope to see you at SIGGRAPH, 5-9 August 2007 in San Diego: <http://www.siggraph.org/s2007/> . Thank you again for submitting your animation and please accept our best wishes for your continuing work in the field!

Very best regards,

The SIGGRAPH 2007 Computer Animation Festival Committee

Processing Frames for the SIGGRAPH 2007 Computer Animation Festival

- 1) Use the printed material log to choose a film that still needs to be processed
 - a. Locate the frame sequence and audio file for the project
 - b. Double-click on a frame around the middle of the image sequence to check that it loads, also check the Native Resolution next to the frames in Windows Explorer window or by selecting “properties” for one of the frames
 - c. Open the project’s README text file and review the project specs
 - d. The frames should not have any black borders around them. If they do, then please make a note on the material log (or find Paul or Sebastian) and move on the next piece. Exception: if the film’s “aspect ratio” is wider than 16:9 (such as 2.35:1, since 16:9 is actually 1.78:1) then it’s OK for the film to have black bars at the top and bottom IF the frames themselves are 16:9 (such as 1024x576, 1280x720, and 1920x1080).
- 2) Start a project for the film in Adobe Premiere (Hit “Cancel” for activation if it asks)
 - a. Go to “New Project”, and bring up “Custom Settings” tab, enter:
 - b. Editing Mode: Desktop
 - c. Time Base: Consistent with project README
(23.976=23.98, 24.00, 25.00, 29.97, 30.00 frames/second)
if it’s anything else, make note for “special case” on material log and go on to another piece
 - d. Frame Size: Set to precisely the native pixel size of the project, e.g. 1920x1080, 1280x720, 1024x576, 853x480, etc.
 - e. Pixel aspect ratio: Set to same as indicated in the README file. This should almost always be Square Pixels (1.0). If it’s not, then set it accordingly but make a note on the material log
 - f. Fields: No Fields (Progressive Scan)
 - g. Display Format: Use Default
 - h. Title Safe / Action Safe: Use Defaults (they don’t matter)
 - i. Audio Sample Rate: Use 44100 Hz or 48000 Hz according to the audio sample rate in the README file
 - j. Project Location: Browse into the same directory where the movie’s folder (with the audio, README, and the image folder) is located
 - k. File name: use “0123_filename” where 0123 is the 4-digit CAF ID number.

Project creation settings summary

- **Editing Mode:** Desktop
- **Time Base:** Consistent with project README (23.976=23.98, 24.00, 25.00, 29.97, 30.00 frames/second)
if it's anything else, make note for "special case" on material log and go on to another piece
- **Frame Size:** Set to precisely the native pixel size of the project, e.g. 1920x1080, 1280x720, 1024x576, 853x480, etc.
- **Pixel aspect ratio:** Set to same as indicated in the README file. This should almost always be Square Pixels (1.0). If it's not, then set it accordingly but make a note on the material log
- **Fields:** No Fields (Progressive Scan)
- **Display Format:** Use Default
- **Title Safe / Action Safe:** Use Defaults (they don't matter)
- **Audio Sample Rate:** Use 44100 Hz or 48000 Hz according to the audio sample rate in the README file
- **Project Location:** Browse into the same directory where the movie's folder (with the audio, README, and the image folder) is located
- **File name:** use "0123_filmname" where 0123 is the 4-digit CAF ID number.

3) Import the Frames and Audio

- a. Go to File... Import and select the first frame of the sequence (there may be a pause as the file list is created), and in the dialog click the box for "Numbered Stills" and click Open
- b. Drag the frame sequence from the Premiere bin to the beginning of the Video 1 track of the timeline
- c. Go to File...Import for the movie's audio file ".wav" or ".aif" or ".aiff"
- d. Drag the audio file to the beginning of Audio 1 track

4) Check audio sync and Adjust in/out points

- a. Check that audio and video are precisely the same length of time. Use panning and zooming to check the beginning and end in detail. If they are not, then re-check the frame rate of the piece specified in the README file. Having 29.97 for a 30.00 frames/second project (or vice-versa) will cause a small but problematic time discrepancy toward the end of the piece. If things can't be made to make sense, please make a note in the material logging or find Paul or Sebastian and move on to the next piece.

- b. Zoom to the beginning of the film and check that the “2-pop” tone and white flash frame are correctly sync’d at the beginning of the film. If so, place the beginning of the work area to about four seconds into the piece, two seconds after the 2-pop, just before the first sound of the film or the first non-black image. If there is no 2-pop and the film simply begins immediately and seems to sync to the audio, then just leave the work area at the beginning of the film.
- c. Zoom to the end of the film and check the 2-pop there for sync as well. If the sync is not within a frame of accuracy, then check the project frame rate and the audio sample rate once again. If things can’t be made to make sense, then make a note in the material log and move on to the next piece. If there is no 2-pop at the end, but the audio seems to sync, then move on.
- d. If there was a 2-pop at the end, bring the end of the work area to 4 seconds earlier than the end of the piece. Verify and adjust that this ends the work area just after the end of the piece’s audio and after the film’s frames are complete.
- e. Use the time slider to play the beginning, end, and pieces of the middle of the film to verify audio sync throughout

5) Export the H.264 version:

The H.264 compressed version will be used to play in the Animation Theaters from a playlist running on a Linux machine and also for Pre-screenings leading up to SIGGRAPH. It should be the native pixel resolution, frame rate, and audio sampling rate as the original material received.

- a. Go to File ... Export > Movie...
- b. Browse over to the directory “AT_Movies” on the root of one of the external hard drives (or, on the C: drive if that is where an AT_Movies directory is.)
- c. For filename, use the form of the following examples:

ETS_0123_filename_1920x1080_24p00_H264.mov

AT_0123_filename_1024x576_29p97_H264.mov

The rule is:

(ET – Electronic Theater or AT - Animation Theaters, check the material log)(S if this is going on the SVR)_(caf ID number)_ (XRESxYRES)_(frame rate with a “p” before the two decimal places)_(codec = H264).mov

No spaces.

- d. Hit “Settings...” near the file name and select under “General”:
 - i. File Type: QuickTime

- ii. Range: Work Area Bar
- iii. Check Export Video and Audio, Uncheck Add to Project When Finished, Check Beep When Finished
- iv. Embedding Options: None
- v. Under “Video”:
- vi. Compressor: H.264
- vii. Color Depth: Millions of Colors
- viii. Frame Size: set to same as the movie’s native frame resolution (this should be the default)
- ix. Frame Rate: same as the native movie frame rate (this should be the default)
- x. Pixel Aspect Ratio: same as the native movie pixel ratio (this should most likely be Square Pixels 1.0 but not necessarily)
- xi. Quality: 90%
- xii. Uncheck “Recompress”
- xiii. You should not need to change “Keyframe and Rendering” or “Audio” options, but make sure that under “Keyframe and Rendering” that it is set to “No Fields (Progressive Scan)”
- xiv. Hit OK

h.264 export settings summary

- **File Type:** QuickTime
- **Range:** Work Area Bar
- Check Export Video and Audio, Uncheck Add to Project When Finished, Check Beep When Finished
- **Embedding Options:** None

Under “Video”:

- **Compressor:** H.264
- **Color Depth:** Millions of Colors
- **Frame Size:** set to same as the movie’s native frame resolution (this should be the default)
- **Frame Rate:** same as the native movie frame rate (this should be the default)
- **Pixel Aspect Ratio:** same as the native movie pixel ratio (this should most likely be Square Pixels 1.0 but not necessarily)
- **Quality:** 90%
- Uncheck “Recompress”
- You should not need to change “Keyframe and Rendering” or “Audio” options, but make sure that under “Keyframe and Rendering” that it is set to “No Fields (Progressive Scan)”

- e. Hit Save – encoding will take five minutes to up to an hour depending on film length and source resolution
- f. If another computer is free, you can begin processing a movie on that computer
- g. When it’s complete, check that the movie file output to the correct location and double-click it to be sure that it plays well in Quicktime and has correct audio sync. It’s OK if the movie looks less contrasty than it did in Premiere – that’s a PC H264 thing that won’t be a problem playing back on Linux.
- h. In QuickTime, under “Window”, go to “Show Movie Info” to verify that all the specs match the original image and audio specs.
- i. Make sure there’s barely any black at the beginning and end of the film, but that all non-black frames and fadeups/fadedowns are completely included.

- j. If all is good, on the material log, check off “Conversion H264” with an X. If not, either try again or make a note of the problem on the material log and go on to a different movie.
 - k. You can debug problematic movies by using the work area bar to export just 5 seconds or so to see if that works for a clip from the film.
- 6) Export the SVR “Animation” version:
- The SIGGRAPH VIDEO REVIEW (SVR) “Animation” compressed version will be sent to Chicago to be made into the DVDs of the festival sold at the conference. It needs to be formatted in NTSC Standard Definition, “Widescreen” resolution, which is 720x486 or 720x480 pixels with a 1.2:1 “widescreen” pixel aspect ratio. The QuickTime “Animation” compressor is used since it is lossless but still compresses out black frames and areas that are all the same color.*
- a. Go to File ... Export > Movie...
 - b. Browse over to the directory “SVR_Movies” on the root of one of the external hard drives (or, on the C: drive if that is where an SVR_Movies directory is.)
 - c. For filename, use the form of the following examples:

ETS_0123_filename_720x480_24p00_Anim.mov
 ATS_0123_filename_720x486_29p97_Anim.mov

The rule is:

(ET or AT)(S if this is going on the SVR – if it is not you do not need to output an “Animation” version)_(caf ID number)_(XRESxYRES)_(frame rate with a “p” before the two decimal places)_(codec = H264).mov

No spaces.

- d. Hit “Settings...” near the file name and select under “General”:
 - i. File Type: QuickTime
 - ii. Range: Work Area Bar
 - iii. Check Export Video and Audio, Uncheck Add to Project When Finished, Check Beep When Finished
 - iv. Embedding Options: None
 - v. Under “Video”:
 - vi. Compressor: Animation
 - vii. Color Depth: Millions of Colors

- viii. **Frame Size:** This should be 720x486, except if the movie's native resolution is 480 pixels high. In that case, use 720x480 to avoid vertical resampling.
- ix. **Frame Rate:** same as the native movie frame rate (this should be the default)
- x. **Pixel Aspect Ratio:** D1/DV NTSC Widescreen 16:9 (1.2:1)
- xi. **Quality:** 100%
- xii. Uncheck "Recompress"
- xiii. You should not need to change "Keyframe and Rendering" or "Audio" options, but make sure that under "Keyframe and Rendering" that it is set to "No Fields (Progressive Scan)"
- xiv. Hit OK

QT Animation export settings summary

- **File Type:** QuickTime
- **Range:** Work Area Bar
- Check Export Video and Audio, Uncheck Add to Project When Finished, Check Beep When Finished
- **Embedding Options:** None

Under "Video":

⇒ **Compressor:** Animation

- **Color Depth:** Millions of Colors

⇒ **Frame Size:** This should be 720x486, except if the movie's native resolution is 480 pixels high. In that case, use 720x480 to avoid vertical resampling.

- **Frame Rate:** same as the native movie frame rate (this should be the default)

⇒ **Pixel Aspect Ratio:** D1/DV NTSC Widescreen 16:9 (1.2:1)

⇒ **Quality:** 100%

- Uncheck "Recompress"
- You should not need to change "Keyframe and Rendering" or "Audio" options, but make sure that under "Keyframe and Rendering" that it is set to "No Fields (Progressive Scan)"

- e. Hit Save – encoding will take five minutes to up to an hour depending on film length and source resolution

- f. If another computer is free, begin processing a movie on that computer
 - g. When it's complete, check that the movie file output to the correct location and double-click it to be sure that it plays well in Quicktime and has correct audio sync. The movie should look vertically squished a bit (1.2:1 ratio) with everything a little skinny. If the movie was originally supposed to be 16:9 aspect ratio, the whole frame should be filled. If it was originally 4:3 aspect ratio, it should be pillarboxed with black bars on the two sides. If it was originally wider than 16:9 (e.g. 2.35:1), then it should still look letterboxed with black bars at the top and bottom.
 - h. In QuickTime, under "Window", go to "Show Movie Info" to verify that all the specs are what they should be.
 - i. Make sure there's barely any black at the beginning and end of the film, but that all non-black frames and fadeups/fadedowns are completely included, just like for the H264 version.
 - j. If all is good, on the material log, check off "Conversion Anim" with an X. If not, either try again or make a note of the problem on the material log and go on to a different movie.
 - k. You can debug problematic movies by using the work area bar to export just 5 seconds or so to see if that works for a clip from the film.
- 7) You're ready for the next film! (Or maybe some sleep...)

Other notes:

- If Premiere gets almost all the way done with outputting a movie, and then quits with some sort of "unexpected error", then that's unfortunate and lamentable. Make a note in the material log, reboot the machine, and move on to the next movie if you're not too demoralized. We'll try again when the karma is better.
- Sebastian or Paul will check that all rendered movie files meet the right specs. If they do, they will initial the "Conversion Anim" and "Conversion H264" slots on the material log. If they don't, they will make a note in the material log and rename the problem rendered movie file to have an "X" in front.

Electronic Theater Show Order July 27, 2007							
ET	Status	CAF_ID	Title	Submit Time	Edited Time	Resolution	Frame Rate
Titles	NOT DONE YET		Opening Sequence	00:45	00:45	1280x720	30
Broadcas		662	Travelers Snowball	01:00	01:10	1280x720	24
SHORT	New Credits	24	No Time for Nuts	07:06	06:00	1920x1080	24
SHORT		660	Dreammaker (Trailer)	13:46	01:30	1024x576	25
SHORT	Not Seen		Animation Theaters Trailer	00:00	02:57	1280x720	24
Broadcas		1121	HP Hands "Paulo Coelho"	00:27	00:31	768x576	25
SHORT	New Credits, subtitle?	312	En Tus Brazos	05:14	05:14	720x576	24
VFX		1072	A VFX Journey Through Pan's Labyrinth with	04:27	03:40	1920x1080	24
VFX		417	Children of Men	02:28	02:15	768x576	24
Broadcas		557	Sears Tools "Arboretum"	02:09	01:00	720x540	30
SHORT		302	Burning Safari	01:50	01:50	1024x576	25
SHORT		34	A Gentlemen's Duel	07:45	06:00	1920x1080	24
Real Time		669	nVIDIA Real-Time Graphics Research GeForc	05:27	02:45	1280x720	30
Research	Was cut off, need to see		SIGGRAPH 2007 Papers Preview	04:30	03:00	1920x1080	30
SHORT		628	The recent future Robot HELPER Z	01:42	01:42	640x480	30
Research	Have not seen	937	High Fashion in Equations	04:17	01:30	720x540	24
Research	Are new frames in?	761	Formation of a Spiral Galaxy	03:30	02:00	1920x1080	30
SHORT		474	Ark	07:23	07:23	1920x1080	24
VFX		283	World Trade Center	04:44	03:00	1024x576	24
Broadcas		749	U2 and Green Day "The Saints are Coming"	04:53	04:30	720x480	29.97
Art	Have not seen with new audio or frames	182	swirl	00:12	00:26	4096x2160	24
VFX	Have not seen	369	Surf's Up: A Practical Guide to Making Waves	05:00	03:05	1920x1157	24
Broadcas		1004	Happiness Factory	01:36	01:36	1280x720	29.97
Broadcas		687	Vigorsol: The Legend	00:42	00:42	1024x576	25
Real Time	New Fixed Frames		Game Technology 2007	05:00	05:10	1280x720	30
Real Time	Not sure if seen	1080	Portal	02:22	02:00	1280x720	24
VFX	Have not seen		Spider Man 3 VFX Highlights	02:30	02:30	1920x1080	24
VFX		894	STORM	02:11	01:45	1920x1080	24
SHORT		262	The Itch	01:42	01:42	720x576	25
Research		854	Capturing and Animating Skin Deformation	01:22	00:41	1280x720	30
SHORT		734	Equilibrio	01:07	01:07	1920x1080	24
SHORT		838	Raymond	05:00	03:31	640x360	29.97
VFX	Sent new frames	1003	300's Liquid Battlefield	01:47	01:58	1920x1080	24
VFX		463	Industrial Light & Magic 2007	06:00	06:45	1920x1080	24
VFX		770	Beowulf	06:00	02:31	2048x853	24
SHORT		1065	LIFTED	04:59	04:59	1920x1080	24
			Sidescreen Titles between pieces		04:05	1280x720	
			Final Show Credits		02:17	1920x1080	30
			Total Electronic Theater Time		1:45:32		

Siggraph - Electronic Theater
24sf HDcam-SR - Content Checklist
8/2/07

FINAL ORDER	CAF ID Number	Title	fps	Source	TIME CODE	
1	caf_TTLE	Opening Titles	30	Frames	01:00:00:00	01:00:45:00
2	caf_0662	Travelers: Snowball	24	FireWire	01:00:54:00	01:02:00:00
3	caf_0024	No Time For Nuts	24	FireWire	01:02:09:00	01:08:05:12
4	caf_0660	Dreammaker	25	FireWire	01:08:14:12	01:09:45:13
5	caf_ATTR	AT Trailer	24	FireWire	01:09:54:13	01:12:50:14
6	caf_1121	HP Hands "Paulo Coelho"	25	FireWire	01:12:59:14	01:13:28:02
7	caf_0312	En Tus Brazos	25	FireWire	01:13:37:01	01:18:08:17
8	caf_1072	A VFX Journey Through Pan's Labyrinth With CafeFX	24	FireWire	01:18:17:17	01:21:58:20
9	caf_0417	Children of Men	24	FireWire	01:22:07:20	01:24:23:04
10	caf_0557	Sears Tools "Aboretum"	24	FireWire	01:24:32:04	01:25:34:23
11	caf_0302	Burning Safari	25	FireWire	01:25:43:23	01:27:33:04
12	caf_0034	A Gentlemen's Duel	24	FireWire	01:27:42:04	01:33:38:19
13	caf_NVDA	NVIDIA Real-Time Graphics Research: The GeForce 8	30	FireWire	01:33:47:19	01:36:32:20
14	caf_PAPR	Papers Preview Trailer	30	FireWire	01:36:41:20	01:39:43:01
15	caf_0628	The Recent Future Robot HELPER Z	30	FireWire	01:39:52:01	01:41:34:05
16	caf_0937	High Fashion in Equations	24	FireWire	01:41:43:05	01:43:18:03
17	caf_0761	Formation of a Spiral Galaxy	30	FireWire	01:43:27:03	01:45:27:04
18	caf_0474	Ark	24	FireWire	01:45:36:04	01:52:59:21
19	caf_0283	World Trade Center	24	FireWire	01:53:08:21	01:56:08:07
20	caf_0749	U2 and Green Day "The Saints Are Coming"	30	FireWire	01:56:17:07	02:00:50:19
21	caf_0182	swirl	24	FireWire	02:00:59:19	02:01:28:01
22	caf_0369	Surf's Up: A Practical Guide to Making Waves	24	FireWire	02:01:37:01	02:04:43:13
23	caf_1004	Happiness Factory	25	FireWire	02:04:52:13	02:06:26:07
24	caf_0687	Vigorsol The Legend	25	FireWire	02:06:35:07	02:07:17:01
25	caf_GAME	Game Technology 2007	30	FireWire	02:07:26:01	02:12:36:11
26	caf_1080	Portal	24	FireWire	02:12:45:11	02:14:41:12
27	caf_1132	SPIDER-MAN 3: VFX Highlights	23.98	HD-SR	02:14:50:12	02:17:26:04
28	caf_0894	STORM	24	FireWire	02:17:35:04	02:19:20:17
29	caf_0262	The Itch	25	FireWire	02:19:29:17	02:21:18:08
30	caf_0854	Capturing and Animating Skin Deformation	30	FireWire	02:21:27:08	02:22:14:06
31	caf_0734	Equilibrio	24	FireWire	02:22:23:06	02:23:31:02
32	caf_0838	Raymond	25	FireWire	02:23:40:02	02:27:11:14
33	caf_1003	300's Liquid Battlefield	25	FireWire	02:27:20:14	02:29:18:04
34	caf_0463	Industrial Light & Magic 2006	23.98	HD-SR	02:29:27:04	02:36:08:04
35	caf_0770	Beowulf	23.98	HD-SR	02:36:17:04	02:38:42:20
36	caf_1065	Lifted	23.98	HD-SR	02:38:56:20	02:43:55:07
37		END CREDITS	30	FTP	02:43:59:01	02:46:16:07

	Sunday		Monday		Tuesday		Wednesday		Thursday	
	Room 25	Room 24	Room 25	Room 24	Room 25	Room 24	Room 25	Room 24	Room 25	Room 24
9:00 AM			4K	Madness	4K	Science!	4K	JMAF	4K	Music
9:30 AM			Music	Science!	Games&FX	Science!	Games&FX	Storytelling	Madness	
10:00 AM			Creativity	Science!	Madness	Music	Music	Madness	JMAF	Science!
10:30 AM			Storytelling	Music	Science!	Creativity	Creativity	Science!	Games&FX	Storytelling
11:00 AM			JMAF	Creativity	Science!	Storytelling	Storytelling	Science!	Madness	Storytelling
11:30 AM			Games&FX	Storytelling	Music	JMAF	Music	Madness	Games&FX	Games&FX
12:00 PM			JMAF	Creativity	Science!	Storytelling	Storytelling	Science!	Madness	Storytelling
12:30 PM			Games&FX	Storytelling	Music	JMAF	Music	Madness	Games&FX	Games&FX
1:00 PM	4K	Madness	Madness	Games&FX	4K	Madness	4K	Creativity	Science!	Creativity
1:30 PM	Creativity	Science!	Madness	Games&FX	4K	Madness	Games&FX	Creativity	Science!	Creativity
2:00 PM	Storytelling	Music	4K	Madness	4K	Madness	Games&FX	Storytelling	4K	Creativity
2:30 PM	Storytelling	Music	4K	Madness	Storytelling	Science!	Madness	Storytelling	4K	Creativity
3:00 PM	Games&FX	Creativity	Science!	Madness	Storytelling	Science!	Madness	Games&FX	Creativity	Games&FX
3:30 PM	Games&FX	Creativity	Science!	JMAF	Games&FX	Science!	Science!	Games&FX	Games&FX	Storytelling
4:00 PM	Madness	Storytelling	Music	Science!	Games&FX	Music	Music	JMAF	Storytelling	Madness
4:30 PM	Madness	Storytelling	Music	Science!	Madness	Creativity	Music	Madness	Storytelling	Madness
5:00 PM	Science!	Games&FX	Storytelling	Music	JMAF	Storytelling	Creativity	Madness	Storytelling	Madness
5:30 PM	Science!	Games&FX	Storytelling	Creativity	JMAF	Storytelling	Creativity	Science!	Storytelling	Madness
6:00 PM					FJORG!		FJORG!			

- > The Animation Theaters present seven reels: Creativity, Storytelling, Games&FX, Madness, Science!, Music, and 4K.
- > The reels play continuously throughout the week in Rooms 24 and 25 of the San Diego Convention Center.
- > The 4K reel is a special reel of 4K-resolution films (4096x2160 pixels) shown on Sony's SXR4K 4K video projection system.
- > The JMAF reel presents award-winning selections from the 2006 [10th] Japan Media Arts Festival.
- > The FJORG! sessions will present selections and winners from SIGGRAPH 2007's FJORG! iron animators competition.

Creativity	
Manakai	02:25
Sky HD "Feel Everything"	01:06
90°	04:00
EGO	06:00
CONTRAST minimum edition	05:00
Lenovo "Virus"	00:30
BEGINNING	02:49
Clak Clak	05:36
Dreammaker (JURY HONORS)	13:38
Tournis	06:07
La Marche Des Sans Nom	05:35
<i>additional time for titles</i>	<i>01:24</i>
	0:54:10

Storytelling	
Video 3000	04:15
Perpetuum Mobile	07:10
Oli's Chance	10:00
Dynamo	06:02
49	07:15
The End	06:05
8848	05:25
Alter Ego	06:34
Fetch	01:15
<i>additional time for titles</i>	<i>01:20</i>
	0:55:21

Madness	
13 Ways to Die at Home (Interstitials)	02:26
Versus	05:42
Cafard	04:54
Volkswagen Touran	00:40
It's JerryTime!: The Big Time	03:59
Moutons	05:55
Space Shower Hot 50	00:39
The Animator and the Seat	02:09
Boneheads	06:52
Adidas - Adistar	00:48
The Adventures of Baxter & McGuire	02:37
Chocolate Pillows	00:50
Kinski Revisited	00:34
Aditya Birla Group India	01:00
Fat Chance	01:49
Respire, Mon Ami (Breathe, My Friend)	02:09
Codehunters	08:25
<i>additional time for titles</i>	<i>01:52</i>
	0:53:20

Music	
Crow	01:32
Happy Feet	01:26
Herbstlaub	03:06
Chaos Theory	04:03
Ted	02:09
HP Hands "Jay-Z"	00:30
The Grandfather of Soul	02:00
Gears of War - Mad World	02:45
Beck "Girl"	03:27
Gorillaz 'El Manana'	03:54
<i>additional time for titles</i>	<i>01:17</i>
	26:09

4K	
Flight to the Center of the Milky Way	01:58
27 Storms: Arlene to Zeta	04:55
Solar - Terrestrial Interaction from Cosmic Collisions	02:35
swirl	00:25
Presentation of Cultural Heritage Using 4K Real Time Rendering System	03:19
"Crossing the Line" Peter Jackson Red Camera Short	12:00
	0:25:12

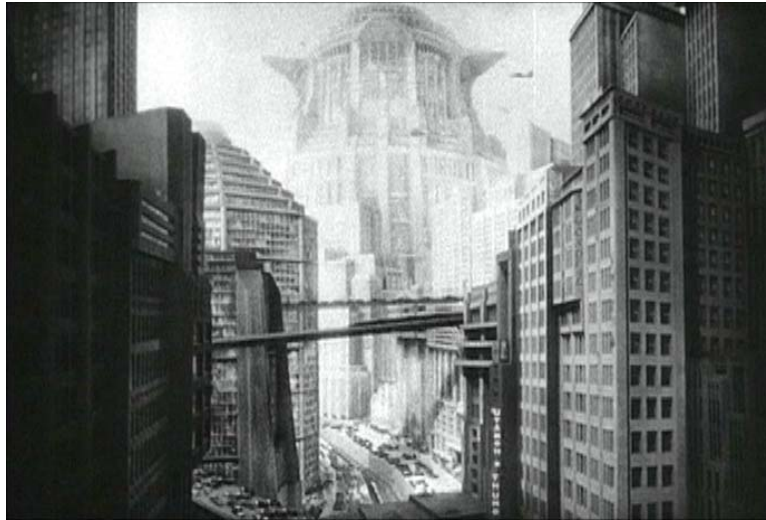
A Little Abstract	054:10
Largely Longform	055:21
Mostly Mayhem	053:20
Some Science	049:48
Very VFX/Rather Realtime	055:36
4K	025:12
	453:27

Science!		Games&VFX	
Jet Production from a Rotating Black Hole	00:57	Spider-Man 3: Birth of Sandman	03:11
FedEx Office Moon	00:50	Marvel Ultimate Alliance - Intro	02:30
Liquid Simulation of Lattice-Based Tetrahedral Meshes	01:08	Lost Odyssey Opening Cinematics	05:00
Real-Time Water Waves with Object Interaction	01:07	Nissan 4x4	00:30
L'Odyssée de la Vie (The Odyssey of Life)	02:41	Warhammer Online - The Age of Reckoning	02:35
Coal Fire Research: A Sino-German Initiative	03:00	World of Warcraft: The Burning Crusade	01:59
Johnny Walker "Human"	01:06	Microsoft Zune "Two Little Birds"	00:37
Venus Venus	04:00	Half Life 2: Episode 2	01:53
L'Uomo Uccello	04:00	Budwiser "King Crab"	00:32
Capturing and Animating Occluded Cloth	00:49	Fight Night Round III	01:36
Toyshop	04:00	NBA Street	01:57
Beach Ball	01:01	Pepsi "Dance Tron"	00:31
Magic Fluid Control	02:32	Paraworld	01:06
Building Blocks	01:00	Superman	01:52
Physics on GPUs	02:05	Charlotte's Web - Charlotte's World	03:14
The Fallen Oak	02:39	Donkey Xote Trailer	00:54
GMC "The Encounter"	00:45	Chevrolet "Buildings"	00:58
Perceptive Pixel Multi-Touch Demo Reel	03:31	Orville Redenbacher	02:58
Sony Bravia Paint Technical Breakdown	02:04	Arthur and the Invisibles - Making Of	08:02
Artificial Stupidity	01:46	Silent Hill - Making Of	04:35
Esc	04:00	The Rat Rules!	02:58
Space	02:27	300	03:34
<i>additional time for titles</i>	02:20	<i>additional time for titles</i>	02:34
	0:49:48		55:36.0

Electronic Theater Opening Sequence: “Metropolis Light Transport”

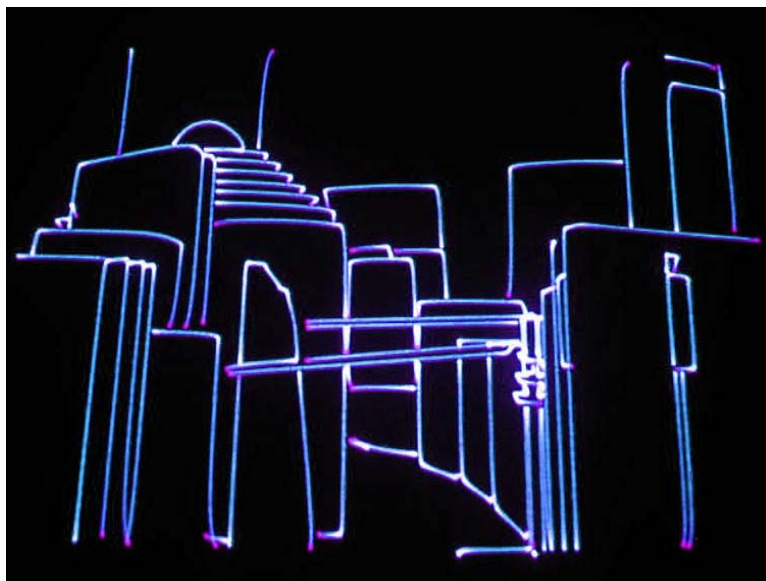
For Video and Laser Projection

“Metropolis” film clips of machines coming alive – gears turning, pistons pumping, switchboards lighting up. Cut to:

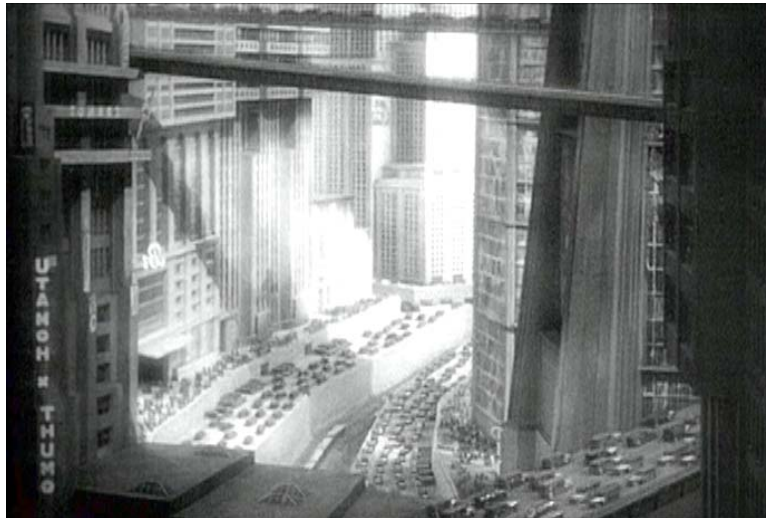
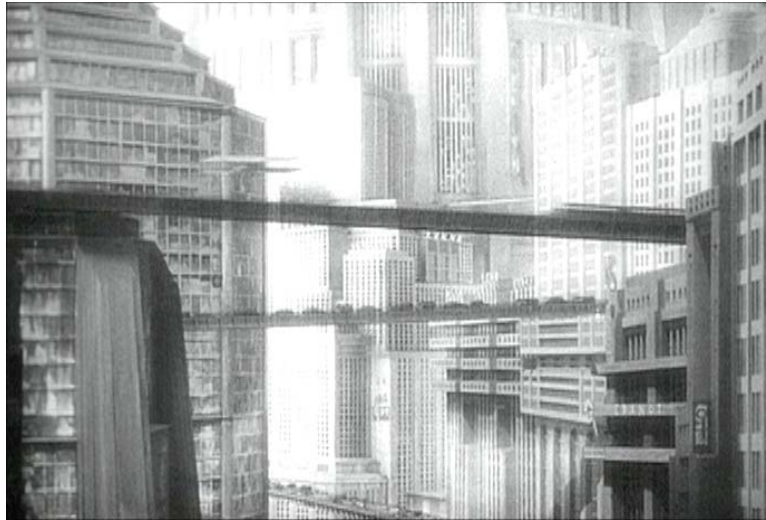


Main Street, looking toward the “Tower of Babel”

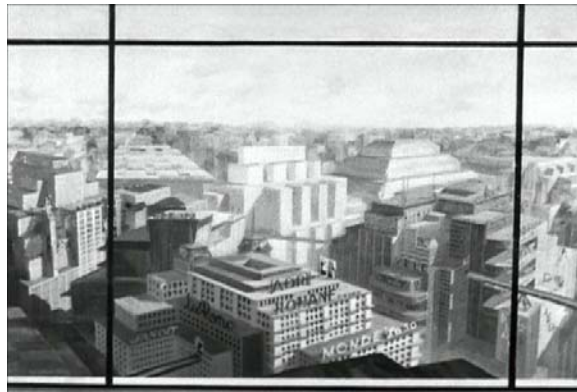
In the distance we see the animated cars moving along the road. It’s the iconic clip from the film we’ve all seen before. Then, using image-projection, the camera pulls slowly backwards, and we see the buildings start to move away in 3D. As the camera continues back, the scene fades away (as if we’re walking out of range of its signal) and is replaced with its representation in vibrant wireframe, courtesy of the laser projector.



The camera stops, hovers momentarily, and then moves forward again. The lasers fade away and we see the street scene again in black-and-white, image-projected glory. The camera keeps moving forward move down the street using, with the textures for these closer views afforded by two zooms into the scene present in the original film:



As we move further forward, the rendering cross-dissolves back to the laser, allowing us to fly in vibrant wireframe mode to a new perspective on the city. It happens to line up with another view of the city that the movie's matte paintings provide – one of:



As the camera view approaches the matte painting, there is another ephemeral handoff from the laser-projected-wireframe to the video-projected image-based rendering of the architecture. As the camera moves further the view passes back to the wireframe. This (potentially) repeats on different architectural images, until we finally fly over the tower of Babel itself, beginning in wireframe and dissolving to the image-projection for the summit:

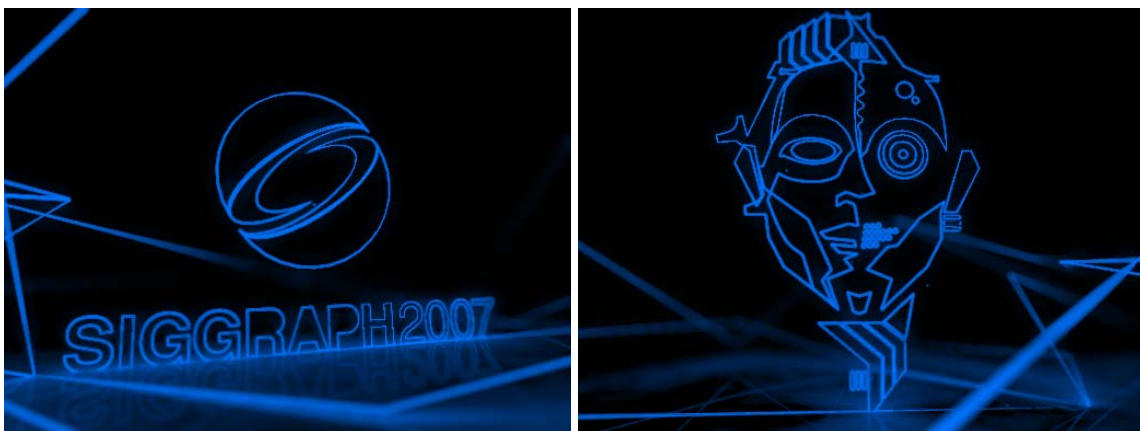


Our flyover is helped out by the tower's 5-fold symmetry allowing us to use the same textures for the tower both as we approach and recede.

Our view falls away to a brilliant view of the tower from street level at night:



With the view still in motion, a planar piece of architecture sweeps across our view, obscuring the tower, but revealing the laser-drawn SIGGRAPH 2007 logo rotating into view from edge-on to straight-on and back to edge-on, which then rotates to turn over into SIGGRAPH 2007's "Face" logo. Both logos are in the process of forming as they rotate in front of us.



The camera holds on the face momentarily, which then fades to black.

The show begins.

Note on laser projection: Mike McHale, Creative Director at Aura Technologies in Chicago, can take a 3D Studio Max model and camera animation and semi-automatically generate laser vector commands that will trace the visible edges of the model's outline. The animation could be made first using raster graphics to simulate the laser lines, and versions with and without these lines could be delivered to Mike to create the laser commands to be drawn on top of the "without" version.



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FACE TOMORROW

THE 34TH INTERNATIONAL CONFERENCE AND EXHIBITION ON
COMPUTER GRAPHICS AND INTERACTIVE TECHNIQUES

Conferene 5-9 August 2007 Exhibition 7-9 August 2007
SAN DIEGO CONVENTION CENTER

COMPUTER ANIMATION FESTIVAL

electronic theater

6-8 AUGUST 2007 SAN DIEGO CIVIC THEATRE

6 AUGUST - 7PM 7 AUGUST - 2PM & 7PM 8 AUGUST - 2PM & 7PM

For tickets or to register: www.siggraph.org/s2007



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SIGGRAPH 2007 Computer Animation Festival Guide is made possible by *Computer Graphics World*, a long-time SIGGRAPH media partner.

COMPUTER ANIMATION FESTIVAL COMMITTEE & JURY

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USC Institute for Creative Technologies

TECHNOLOGY DIRECTOR

Sebastian Sylwan
Autodesk, Inc.

ANIMATION THEATER PRODUCER

Tomas Pereira
USC Institute for Creative Technologies

ASSISTANT PRODUCER

Carlye Archibeque

MINISTER OF INFORMATION

Samuel Lord Black
Autodesk, Inc.

OUTREACH & EVENT PRODUCER

Maya Martinez

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Randal Kleiser
RK Productions

Adobe Systems Incorporated

Shelley Page
DreamWorks Animation

Sony Pictures Imageworks

Jay Redd
Habib Zaragarpour
Electronic Arts

JURY ALTERNATES

Lina Yamaguchi
Sebastian Sylwan
Autodesk Inc.
Jill Smolin

FROM THE CHAIR

In the three decades since SIGGRAPH attendees first gathered to show each other their 16-millimeter films and 3/4-inch videotapes, the SIGGRAPH Computer Animation Festival has grown into the premier event for the world's most innovative and accomplished films made with computers.

Choosing the program for the 2007 festival began with an extensive outreach effort, emailing literally thousands of animators, artists, scientists, and companies to submit their newest and best material to the show. As the March deadline approached, gigabytes of digital movie files poured in from countries around the world, resulting in a record-shattering 905 submissions to the show.

The internationally recognized Computer Animation Festival jury spent four intense days selecting the most innovative and excellent pieces across the full spectrum of computer graphics. Each juror brought with them a time-tested ability to identify and represent these qualities in two or more of the submission categories: Animated Shorts, Art, Broadcast, Cinematic, Real Time, Research, Visual Effects, and Visualization.

The extensive pool of submissions and the hard work of the jury led to the amazing and diverse selection of films found in this program. The selections include the show's three award-winning films: Dreammaker (Jury Honors), En Tus Brazos (Award of Excellence), and Ark (Best of Show), each of which tells a compelling story about characters who are much more than three-dimensional. But the award winners are just part of the show: the festival truly represents the "best of the best" in all categories, with stunning visual effects, amazing scientific visualizations, groundbreaking research, awe-inspiring art, and jaw-dropping real-time graphics.

The Computer Animation Festival program is divided into the Electronic Theater, a single gala program shown five times at the San Diego Civic Theatre, and several hour-long episodes of the Animation Theaters, shown continuously in two large screening rooms at the San Diego Convention Center. In recognition of the especially high quality of the films in this year's Animation Theaters, for the first time in SIGGRAPH history, these theaters feature high-definition video projection as well as a special reel of 4K-resolution content.

The films you are about to see are the result of thousands of individuals devoting years of their lives to communicating their visions to us. The hard work of the 2007 Computer Animation Festival committee has been to present these visions in their truest, most powerful form to the attendees of SIGGRAPH. These films represent a snapshot of the state of the art in computer graphics: its art, technology, hopes, and dreams. I hope the festival will make our heads spin and force us to re-evaluate what we think is possible: what artists can envision, what researchers can enable, and what industry can accomplish, and open our minds to even more astounding visions in the years to come.

PAUL DEBEVEC

SIGGRAPH 2007 Computer Animation Festival Chair

SIGGRAPH 2007 Electronic Theater Schedule

SIGGRAPH 2007 Electronic Theater tickets are included with Full Conference and Conference Select registrations. Tickets also can be purchased at a cost of \$50 per ticket for evening showings and \$25 per ticket for matinee showings at Conference Registration. Tickets are not available for purchase at the Civic Theatre.

Location: San Diego Civic Theatre
1100 Third Avenue, San Diego, CA, USA

Dates and times:
Monday, 6 August 7-9 p.m.
Tuesday, 7 August 2-4 p.m., 7-9 p.m.
Wednesday, 8 August 2-4 p.m., 7-9 p.m.

siggraph 2007

Travelers: Snowball



Dan Lemmon
Visual FX Supervisor
Weta Digital, Ltd.
New Zealand

No Time For Nuts



Chris Renaud & Michael Thurmeier
Directors
Blue Sky Studios
USA

Dreammaker (Trailer)



JURY HONORS
Leszek Plichta
Filmakademie Baden-Württemberg
Germany

Animation Theaters
Trailer

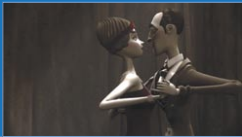
Cris Blyth
R!ot
USA

HP Hands
"Paulo Coelho"



Mathew Cullen
Director
Motion Theory
USA

En Tus Brazos



AWARD OF EXCELLENCE
François-Xavier Goby, Edouard Jouret, Matthieu Landour, Directors
Supinfocom Valenciennes
France

A VFX Journey
Through Pan's Labyrinth
with CafeFX



Everett Burrell,
Visual Effects Supervisor
CafeFX, Inc.
USA

Children of Men



Tim Webber
VFX Supervisor
Framestore CFC
United Kingdom

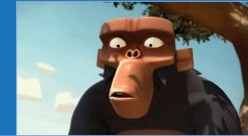
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Sabrina Elizondo
Method Studios
USA



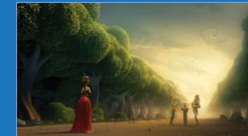
Sears Tools
"Arboretum"

Vincent Aupetit, Florent de la Taille, Jeanne Irzenski, Maxime Maléo, Aurélien Prédal, Claude-William Trébutien
Gobelins, l'école de l'image
France



Burning Safari

Blur Studio
USA



A Gentlemen's Duel

NVIDIA Demo Team
NVIDIA Corporation
USA



NVIDIA Real-Time
Graphics Research: The
GeForce 8 Demo Suite

Jim Blinn, Michael Cohen, David Thiel
Producers
Microsoft Research
USA



SIGGRAPH 2007
Papers Preview

Katsuyuki Suzuki
Japan



The Recent Future
Robot: HELPER Z

Nadia Magnenat-Thalmann
MIRALab, University of Geneva
Switzerland



High Fashion in
Equations

**The Four-Dimensional Digital
Universe Project**
*National Astronomical
Observatory of Japan*
Japan



Formation of a
Spiral Galaxy

siggraph 2007

Ark



BEST OF SHOW
Marcin Kobylecki,
Grzegorz Jonkajtys
 Producers
 Poland

World Trade Center



Michael Ellis
 VFX Supervisor
Double Negative
 United Kingdom

U2 and Green Day "The Saints Are Coming"



Benjamin Loram
Sway Studio
 USA

swirl



Lee Griggs
 United Kingdom

Surf's Up: A Practical Guide to Making Waves



Rob Bredow
Sony Pictures Imageworks
 USA

Happiness Factory



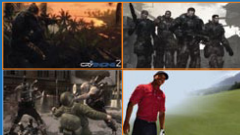
Todd Mueller & Kylie Matulick
 Directors
PSYOP, Inc.
 USA

Vigorsol: The Legend



Ben Dawkins
 Director
The Moving Picture Company
 United Kingdom

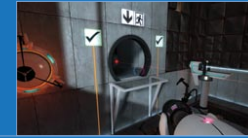
Game Technology 2007



CryENGINE2, **Crytek**
 Gears of War, **Epic Games**
 Resistance, Fall of Man,
Insomniac Games
 Playable, Universal Capture,
Electronic Arts

siggraph 2007

Doug Lombardi
Valve Corporation
 USA



Portal

Scott Stokdyk
 Visual Effects Supervisor
Sony Pictures Imageworks
 USA



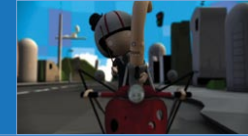
Spider-Man 3:
 VFX Highlights

Digital Domain, Inc.
 USA



STORM

Joel Green
Bournemouth University
 United Kingdom



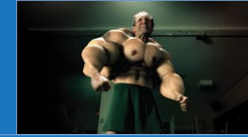
The Itch

Jessica K. Hodgins
Carnegie Mellon University
 USA



Capturing and Animating
 Skin Deformation

Tomas Salles
 Director
New York University
 USA



Equilibrio

Fabrice le Nezet, Jules Janaud, François Roisin
The Mill
 United Kingdom



Raymond

Stephan Trojansky,
Danielle Plantec
SCANLINE VFX
 Germany



300's Liquid Battlefield

Industrial Light & Magic 2007

LIFTED



Miles Perkins, Brent Bowers,
Greg Grusby
Industrial Light & Magic
USA

Gary Rydstrom
Director
Pixar Animation Studios
USA

ANIMATION THEATER SCHEDULE

	Sunday		Monday		Tuesday		Wednesday		Thursday	
	Room 25	Room 24	Room 25	Room 24	Room 25	Room 24	Room 25	Room 24	Room 25	Room 24
9:00 AM			4K	Madness	4K	Science!	4K	JMAF	4K	Music
9:30 AM			Music	Madness	Games&FX	Science!	Science!	Games&FX	Storytelling	Madness
10:00 AM			Creativity	Science!		Music				
10:30 AM					Madness	Creativity	Music	Madness	JMAF	Science!
11:00 AM			Storytelling	Music			Creativity		Games&FX	
11:30 AM				Creativity	Science!	Storytelling		Science!		Storytelling
12:00 PM			JMAF				Storytelling		Madness	
12:30 PM			Games&FX	Storytelling	Music	JMAF		Music		Games&FX
1:00 PM	4K	Madness			Creativity	Games&FX	4K	Creativity	Science!	
1:30 PM	Creativity		Madness	Games&FX			Games&FX			Creativity
2:00 PM		Science!			4K	Madness		Storytelling	4K	
2:30 PM	Storytelling		4K	Madness	Storytelling		Madness		Creativity	Games&FX
3:00 PM		Music	Science!		Storytelling	Science!		Games&FX		
3:30 PM	Games&FX	Creativity		JMAF	Games&FX		Science!		Games&FX	Storytelling
4:00 PM			Music	Science!		Music		JMAF		
4:30 PM	Madness	Storytelling	Creativity		Madness	Creativity	Music	Madness		
5:00 PM				Music			Creativity			
5:30 PM	Science!	Games&FX	Storytelling	Creativity	JMAF	Storytelling		Science!	Storytelling	Madness
6:00 PM					FJORG!		FJORG!			

- The Animation Theaters present seven themed reels: Creativity, Storytelling, Games&FX, Madness, Science!, Music, and 4K.
- The 4K reel is a special reel of 4K-resolution films (4096x2160 pixels) shown on Sony's SXRD 4K digital video projection system.
- The reels play continuously throughout the week in Rooms 24 & 25 of the San Diego Convention Center following the schedule above.
- The JMAF reel presents award-winning selections from the 2006 [10th] Japan Media Arts Festival.
- The FJORG! session presents selections and winners from the FJORG! iron animators competition.

The Computer Animation Festival Wishes to Thank

PRE-SHOW CONTRIBUTORS

Evolution of Vision Konstantinos Pataridis, Fotiris Varotzis, Nikos Mpatalas - *ASD*
Resterozoa Kimmo Seppänen, Arto Koivisto, Jarno Wuolijoki - *Kewlers*
Chaos Theory Barna Buza, Zoltan Szabo, Gergely Szelei - *Conspiracy*
Plasma Pong Steve Taylor, Sean Beeson
Electric Sheep Scott Draver, Kenji Williams

With special thanks to Alex Strohm of *ZINE* magazine

LASER GAME CONTRIBUTORS

Raven Systems Design - Matt Polak
Aura Technologies - Steve Heminover, Mike McHale
NECSEL by *Novalux* - Gregory T. Niven, Chris Stuart
Atari - Kathryn Butters, *LucasArts* - Anne Marie Hawkins, Hadley Fitzgerald

OPENING SEQUENCE - Andy Lesniak, Mike McHale **SIDE TITLES** - Florian Witzel

ELECTRONIC THEATER POSTPRODUCTION BY RIOT

Very Special Thanks • **ATARI** • **CHRISTIE DIGITAL** • **CHROMINANCE** • **LUCASARTS** • **HEWLETT-PACKARD** • **NOVALUX** • **POLYGON PICTURES** • **SONY ELECTRONICS** • **USC ICT**

Image: Chaos Theory by Conspiracy

ANIMATION THEATER

siggraph 2007

[Creativity]

Manakai



Makoto Yabuki
Director, Producer, Designer
TANGRAM Co. Ltd.
Japan

[Creativity]

Sky HD
"Feel Everything"



Jo Sheppard & Stefanie Boose
Producers
The Mill
United Kingdom

[Creativity]

90°



**Jules Janaud, Raphaël Marti-
nez-Bachel, François Roisin**
Directors
Supinfocom Valenciennes
France

[Creativity]

Contrast
minimum edition



Tomoko Nagai
CAD Center Corporation
Japan

[Creativity]

Lenovo "Virus"



Simon van de Lagemaat
VFX Supervisor
The Embassy Visual Effects
Canada

[Creativity]

Beginning



Takehisa Igarashi
Director
Tohoku University of Art & Design
Japan

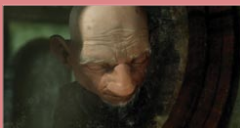
[Creativity]

Klik Clak



**Aurélie Fréchinós,
Victor-Emmanuel Moulin,
Thomas Wagner,** Directors
Supinfocom Arles
France

Dreammaker



JURY HONORS
Leszek Plichta
*Filmakademie Baden-
Württemberg*
Germany

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ANIMATION THEATER

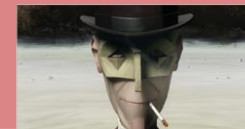
[Creativity]

François Vogel
Paranoid Projects
France



Tournis

**Nicolas Laverdure, Lucas
Vigroux, Jean Constantial**
Directors
Supinfocom Arles
France



La Marche Des
Sans Nom

[Music]

Marie Hyon & Marco Spier
Directors
PSYOP, Inc.
USA



Crow

[Music]

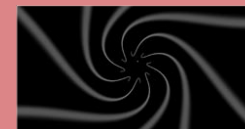
George Miller
Director
Animal Logic
Australia



Happy Feet

[Music]

Oliver Vogel
Director and Animator
*Filmakademie Baden-
Württemberg*
Germany



Herbstlaub

[Music]

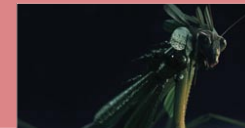
**Barna Buza, Zoltan Szabo,
Gergely Szelei**
Conspiracy
Hungary



Chaos Theory

[Music]

Serge Patzak
1st Ave Machine
USA



Ted

[Music]

**Rich Silverstein &
Steve Simpson**
Creative Directors
Motion Theory
USA



HP Hands "Jay-Z"

[Music]

Jaime Maestro
Director
Keytoon Animation Studio
USA



The Grandfather of
Soul

ANIMATION THEATER

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[Music]

**Gears of War:
Mad World**



Joseph Kosinski
Director
Digital Domain, Inc.
USA

[Music]

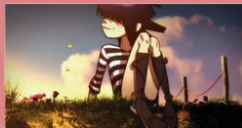
Beck "Girl"



Mathew Cullen & Grady Hall
Directors
Motion Theory
USA

[Music]

Gorillaz "El Manana"



Pete Candeland & Jamie Hewlett
Directors
Passion Pictures
United Kingdom

[Technology]

Video 3000



Jörg Edelmann
Stuttgart Media University
Germany

[Technology]

Perpetuum Mobile



**Enrique García, Raquel Ajofrín,
Rubén Salazar**
SilverSpace Animation Studios
Spain

[Technology]

Oli's Chance



**Johannes Weiland,
Sascha Unseld**
Directors
Studio Soi
Germany

[Technology]

Dynamo



**Fabrice le Nezet, Mathieu Goutte,
Benjamin Mousquet**
Directors
Supinfocom Valenciennes
France

10

49



Ichiro Iwano
Director
Iwano Design
Japan

The End



**Michel Samreth, Maxime Leduc,
Martin Ruyant**
Directors
Supinfocom Valenciennes
France

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ANIMATION THEATER

**Maelys Faget, Kévin Franczuk,
Grégory Jennings**
Directors
Supinfocom Valenciennes
France



8848

[Technology]

Kuba Gryglicki
Studio Mansarda
Poland



Alter Ego

[Technology]

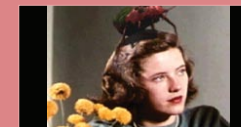
Dana Dorian
Director, Writer
Axis Animation
United Kingdom



Fetch

[Moderation]

Lee Lanier
BeezleBug Bit, LLC
USA



13 Ways to Die at Home (Interstitials)

[Moderation]

Marie Anne Fontenier
Producer
Supinfocom Valenciennes
France



Versus

[Moderation]

Anne Brotot
Producer
Supinfocom Arles
France



Cafard

[Moderation]

Appert Aurélie
Mikros Image
France



Volkswagen Touran

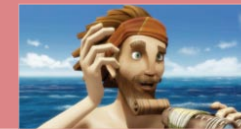
[Moderation]

Jerry Zucker & Orrin Zucker
Ozone
USA



**It's JerryTime!:
The Big Time**

**Simon Blanc, Vivien Cabrol,
Arnaud Valette**
Directors
Supinfocom Arles
France



Moutons

11

ANIMATION THEATER

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Space Shower Hot 50



Synichi Yamamoto & Yasuo Koga
Directors
OMNIBUS Japan
Japan

The Animator and the Seat



Eric Drobile
Director
Ringling School of Art and Design
USA

Boneheads



Hiroshi Chida
Director
Nickelodeon
USA

Adidas — Adistar



PLEIX
Directors
Mac Guff
France

The Adventures of Baxter & McGuire



Mike Blum
USA

Chocolate Pillows



Doron Fiterman
Gravity Visual Effects & Design
Israel

Kinski Revisited



Volker Helzle
Filmakademie Baden-Württemberg
Germany

Taking India to the World



Doron Fiterman
Gravity Visual Effects & Design
Israel

Fat Chance



Ben Jones
Bournemouth University
United Kingdom

siggraph 2007

ANIMATION THEATER

Chris Nabholz
Director
Ringling School of Art and Design
USA



Respire, Mon Ami

Ben Hibon
Director
Axis Animation, Blink Ink
United Kingdom



Codehunters

Donna Cox
Director
The National Center for Supercomputing Applications
USA



Jet Production from a Rotating Black Hole

The Mill
United Kingdom



FedEx Moon Office

Nuttapong Chentanez, Bryan E. Feldman, François Labelle, James F. O'Brien, Jonathan R. Shewchuk
University of California, Berkeley
USA



Liquid Simulation on Lattice-Based Tetrahedral Meshes

Cem Yuksei
Director
Texas A&M University
USA



Wave Particles

Niels Tavernier
Director
Mac Guff
France



L'Odysée de la Vie

Nils Sparwasser
Director
German Remote Sensing Data Center
Germany



Coal Fire Research: A Sino-German Initiative

Dante Ariola
Director
The Mill
United Kingdom



Johnnie Walker "Human"

ANIMATION THEATER

siggraph 2007

Venus Venus



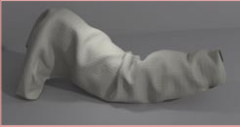
Tomoko Nagai
CAD Center Corporation
Japan

L'Uomo Uccello



Renaud Jungmann
L'Institut Supérieur des Arts
Appliqués
France

Capturing and Animating Occluded Cloth



Keenan Crane
University of Illinois
at Urbana-Champaign
USA

ToyShop



Natalya Tatarchuk, David Gosselin, Dan Roeger
Directors
AMD/ATI Research
USA

Beach Ball



Sam Bayer
Director
PSYOP, Inc.
USA

Magic Fluid Control



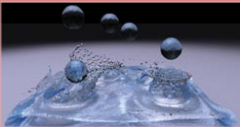
Nils Thuerey
ETH Zürich
Switzerland

Building Blocks



Chris Staves & Marco Spier
Directors
MassMarket
USA

Physics on GPUs



Takahiro Harada, Seiichi Koshizuka, Yoichiro Kawaguchi
The University of Tokyo
Japan

The Fallen Oak



Chris Rowland
University of Dundee
United Kingdom

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ANIMATION THEATER

Simon van de Lagemaat
VFX Supervisor
The Embassy Visual Effects
Canada



GMC "The Encounter"

Jefferson Han
Perceptive Pixel
USA



Perceptive Pixel
Multi-Touch Demo Reel

Jonathan Glazer
Director
The Moving Picture Company
United Kingdom



Sony Bravia Paint
Technical Breakdown

Jonathan Lyons
Producer, Director
USA



Artificial Stupidity

Justin Henton
Director
Canada



Esc

Sang Yeong Jeong
Director
NCsoft
South Korea



Space

Scott Stokdyk
Visual Effects Supervisor
Sony Pictures Imageworks
USA



Spider-Man 3:
Birth of Sandman

Blur Studio
USA



Marvel Ultimate
Alliance — Intro

Ikuo Nishii
ROBOT Communications Inc.
Japan



Lost Odyssey Opening
Cinematics

ANIMATION THEATER

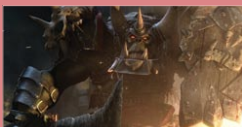
siggraph 2007

Nissan 4X4



Lieven van Baelen
Director
La Pac/Czar.be
France

Warhammer Online —
The Age of Reckoning



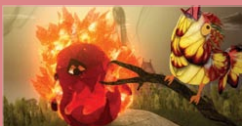
Blur Studio
USA

World of Warcraft:
The Burning Crusade



**Jeff Chamberlain,
Scott Abeyta**
Blizzard Entertainment
USA

Microsoft Zune “Two
Little Birds”



Nick Losq
Director of Animation
72andSunny
USA

Half-Life 2: Episode 2



Valve
USA

Budweiser “King Crab”



Brian Smego
Producer
The Mill
United Kingdom

Fight Night Round III



**Christopher Sjöholm, Kat Kelly
Hayduk, Mike Blank, Celia Jepson,
Rob Hilson, Andrew Ellem, Vicki
Ferguson, Pawel Siarkiewicz**
Electronic Arts, Canada

NBA Street



**Mike Young, Ryan Clevon, Simon
Sherr, Ryan Santos, John Cruz,
Malcolm Andriesbyn, Hafid Ros-
erie, Alan Jarvie, Sinisa Karolic,
Stu McKenna, Derek Sibelle,
Trevor Delahaye**
Electronic Arts, Canada

Pepsi “Dance Tron”

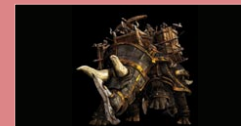


Sabrina Elizondo
Method Studios
USA

siggraph 2007

ANIMATION THEATER

Michael McCormick
Director, 3D Lead, Shading &
Lighting Artist
USA



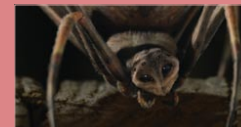
Paraworld

Jon Thum
Visual Effects Supervisor
Framestore CFC
United Kingdom



Superman Returns

John Dietz
VFX Supervisor
Rising Sun Pictures
Australia



Charlotte’s Web —
Charlotte’s World

Jose Pozo
Director
Filmix Entertainment
Spain



Donkey Xote Trailer

Simon van de Lagemaat
VFX Supervisor
The Embassy Visual Effects
Canada



Chevrolet “Buildings”

David Fincher
Director
Digital Domain, Inc.
USA



Orville Redenbacher

Pierre Buffin
CG Director
BUF Compagnie
France



Arthur and the
Invisibles

Patricia Boulogne
BUF Compagnie
France



Silent Hill

Blair Clark, Joel Friesch
Visual Effects Supervisors
Tippett Studio
USA



The Rat Rules!

ANIMATION THEATER

siggraph 2007

[Genre & FH]

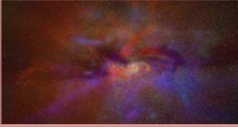
300



Kirsty Millar
Visual Effects Supervisor
Animal Logic
Australia

[4H]

Flight to the Center of the Milky Way



Donna Cox
Producer
The National Center for Supercomputing Applications
USA

[4H]

[4H]

27 Storms: Arlene to Zeta



Gregory W. Shirah
Scientific Visualization Studio, NASA Goddard Space Flight Center
USA

[4H]

Solar — Terrestrial Interaction from Cosmic Collisions



Carter Emmart
American Museum of Natural History
USA

[4H]

[4H]

swirl



Lee Griggs
United Kingdom

[4H]

Presentation of Cultural Heritage Using 4K Real Time Rendering System



Takanori Ito
Toppan Printing Co., Ltd.
Japan

siggraph 2007

Paul Debevec

From: "Paul Debevec" <debevec@ict.usc.edu>
To: <caf-jury@siggraph.org>
Cc: <maya@siggraph.org>; <sebastian@siggraph.org>; <carlye@siggraph.org>; <tom_pereira@siggraph.org>; "Stark, Cindy" <cstark@smithbucklin.com>
Sent: Saturday, July 07, 2007 5:19 PM
Subject: CAF Opening Night and After Party

Dear Gavin, Nickson, Habib, Carter, Shelley, Randal, Jay, and Michael,

The **Opening Night** of the Electronic Theater is less than a month away: Monday, August 6th. Hopefully you have gotten the information for your discounted SIGGRAPH registration and have been able to select a **Monday night Electronic Theater ticket** on the online form. If you are having any trouble with this please mail carlye@siggraph.org and she will be able to help.

On Opening Night, the doors will open for the main audience at 6:30pm, but we have arranged a special **VIP side entrance** on 3rd street halfway between C and B streets starting at **6:00pm** for you to avoid the rush for seats. The pre-show program will begin shortly after 6:30pm.

Also, immediately following the show, we are hosting a CAF Opening Night After-Party 9pm-Midnight at:

Aubergine on 4th
Corner of 4th and Island
San Diego, CA 90292
<http://www.aubergineon4th.com/>

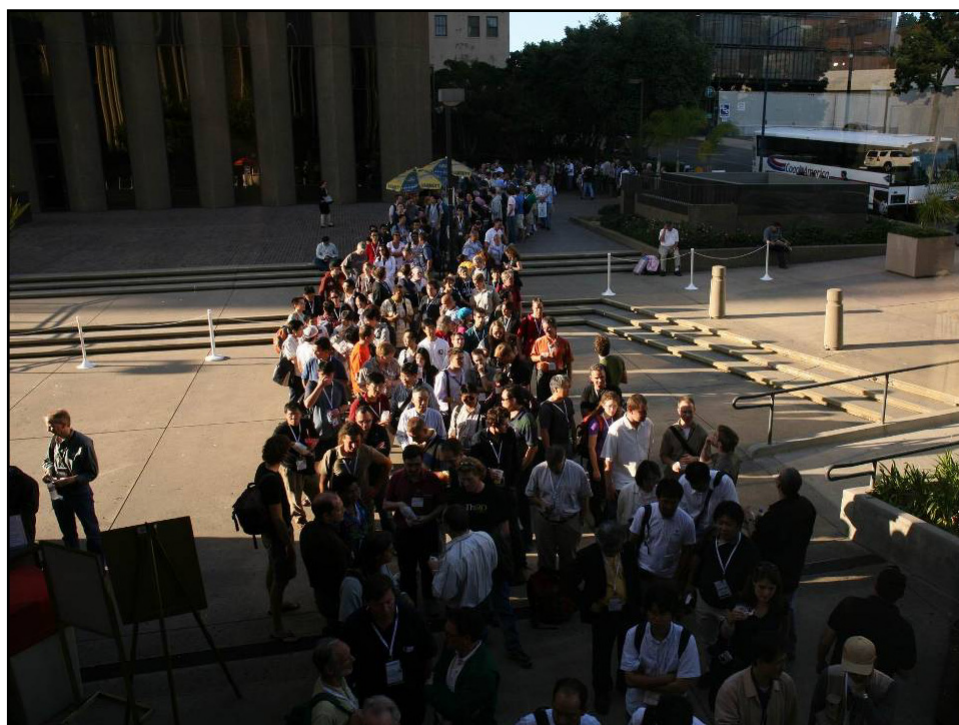
Just a few blocks south of the Civic Theater.

Everyone coming through the CAF VIP entrance **MUST** have a valid Monday Night ET ticket AND be on the VIP entrance list. Please let us know if you would like to bring a guest through the VIP entrance and if there are any additional people you would like us to invite to the CAF After Party. Please mail maya@siggraph.org us as soon as you can but **No Later Than Friday, July 13th** their: Name, Affiliation, and Email Address.

We can't wait to see how your selections look on the big screen, and we'll continue to be in touch as the show approaches!

Paul and the CAF Committee

Paul Debevec / USC ICT / www.debevec.org
SIGGRAPH 2007 Computer Animation Festival Chair





Computer Animation Festival Committee

Paul Debevec, Chair

Maya Martinez

Electronic Theater &
Outreach and Event Producer

Carlye Archibeque

Assistant Producer

Sebastian Sylwan

Technology Director

Tom Pereira

Animation Theater Producer

Samuel Lord Black

Minister of Information



**Computer Animation
Festival Jury**

 Jay Redd Sony Imageworks	 Habib Zargarpour Electronic Arts	 Shelley Page Dreamworks	 Nickson Fong Egg Story
 Randal Kleiser RK Productions	 Michael Kass Pixar	 Gavin Miller Adobe	 Carter Emmart Hayden Planetarium

Goals for the 2007 CAF



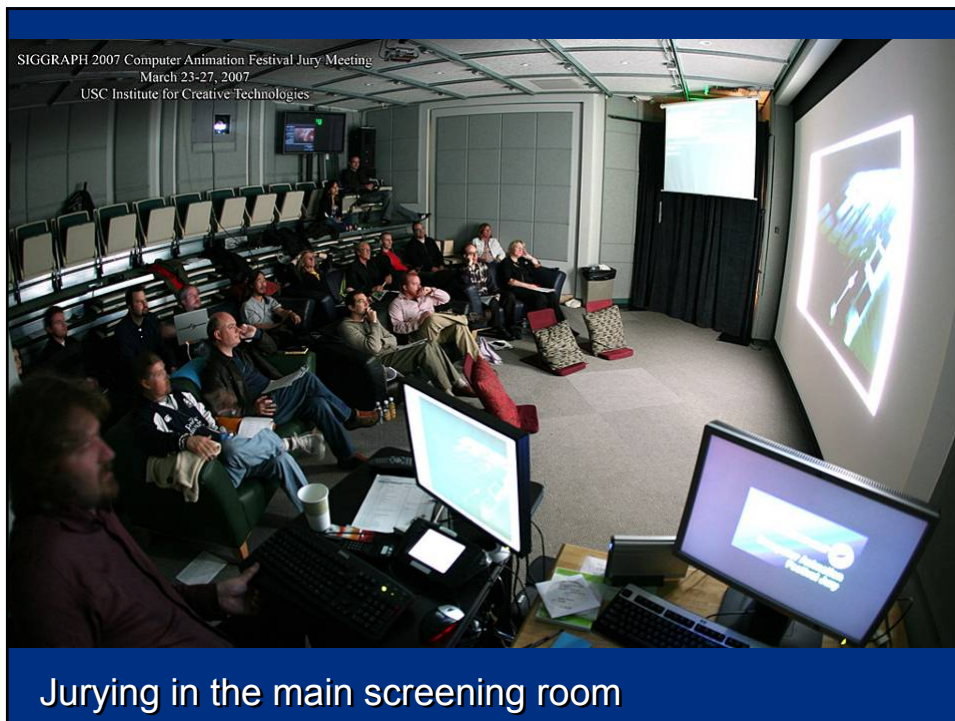
- **Selection Criteria:**
 - **Innovation** – shows us something we've never seen before
 - **Excellence** – all production aspects executed well
 - **Representation** – selections represent the scope of innovative and excellent material across all categories
- **Jurors** chosen to be experts at recognizing innovation & excellence in at least **two** categories
- **Strong outreach** especially to underrepresented categories



Record submissions!



- **905** valid submissions
 - Many pieces submitted at 720p resolution
 - 55 hours of material (!)
 - Good representation across categories:
- | | |
|------------------------|----------------------------|
| • 489 Animation | • 48 Real Time |
| • 108 Art | • 33 Research |
| • 118 Broadcast | • 56 Visual Effects |
| • 16 Cinematic | • 37 Visualization |



Jury Meeting



- Electronic Submission System from 2006 expanded to allow for **1280x720 HD resolution**
- **Voting wands** allowed faster, more precise jurying and allow juror's votes to be more independent, with no worries about how their vote will look to others
- Careful management of conflicts of interest



Final Selections

Electronic Theater (36) Animation Theaters (93)




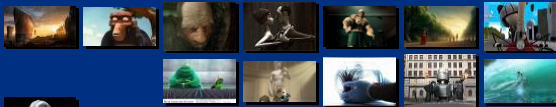






- | | |
|--|---|
| <ul style="list-style-type: none">• 12 Animation• 1 Art• 7 Broadcast• 0 Cinematic• 5 Real Time• 2 Research• 9 Visual Effects• 1 Visualization | <ul style="list-style-type: none">• 32 Animation• 4 Art• 15 Broadcast• 5 Cinematic• 8 Real Time• 5 Research• 9 Visual Effects• 8 Visualization |
|--|---|




Final Selections


35 Electronic Theater (93 Animation Theaters)






- 12 Animation 
- 1 Art 
- 6 Broadcast 
- 3 Cinematic & Real Time 
- 3 Research 
- 8 Visual Effects 
- 1 Visualization 



And the winners are:



- **Ark – Best of Show**
 - Grzegorz Jonkajtys & Marcin Kobylecki
 - Independent Filmmakers, Poland
- **Dreammaker – Jury Honors**
 - Leszek Plichta
 - Institute of Animation, Visual Effects and Digital Post Production / Filmakademie Baden-Wurtemberg, Germany
- **En Tus Brazos – Award of Excellence**
 - Francois-Xavier Goby, Edouard Jouret, Matthieu Landour
 - Supinfocom Valenciennes, France



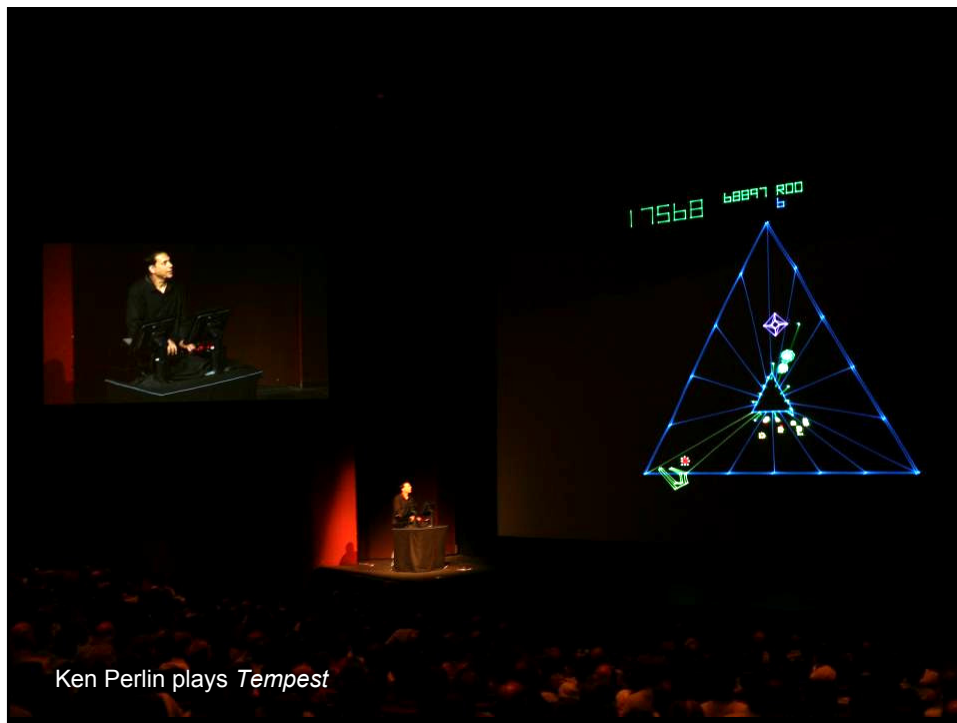


The Laser Guys!



Matt Polak
Raven Systems Design
Cleveland, OH

Steve Heminover & Mike McHale
Aura Technologies
Chicago, IL



Ken Perlin plays *Tempest*



Special Thanks



- RIOT – Chris Almerico, Colby Allen, Matthew McManus (HDCAM/SR)
- Andy Lesniak (Opening Sequence), Chris Blyth (AT Trailer), Florian Witzel (Title Animations)
- Jim Blinn, Michael Cohen, David Theil (Papers Preview)
- Atari – Kathryn Butters and LucasArts/ILM - Miles Perkins
- Hewlett-Packard (Jury System Computers)
- SONY Pictures Imageworks - Brian Hamblin, Sean Callan, Dawn Guinta, Sande Scoredos, Don Levy (HDCAM and DVD)
- Technicolor – Bob Michaels, Miles DelHoyo, Nathan Phillips (Blu-Ray Disc)
- Rob Groome, Drew Weiss, Tom Pereira, Randy Hill, Bill Swartout
- **< People from the local venue >**



The screenshot shows a web browser window with the address bar displaying "www.siggraph.org/s2008/". The website header includes "SIGGRAPH 2008" and "Evolve". Below the header, there is a navigation bar with links: "Call for Submissions", "Call for Volunteers", "For Attendees", "For Exhibitors", "For the Media", "For Presenters", and "For Sponsors". The main content area is titled "The Evolution Starts Now" and features a list of key dates and events:

- **Los Angeles, August 11-15**
- **Computer Animation Festival**
Submit: 30 January 2008
Upload: 27 February 2008
- **Student Volunteers Applications**
Submit: 24 February 2008

To the right of this list is a "Recently Added" section with three entries, each dated 8/2:

- 8/2 **Call for Submissions**: Full details on how to submit your work to SIGGRAPH 2008.
- 8/2 **Call for Volunteers**: Full details on how to become a volunteer for SIGGRAPH 2008.
- 8/2 **SIGGRAPH 2008 Site Launch**: We're live! Read the SIGGRAPH 2008 Committee's introductory statement.

SIGGRAPH 2007 Computer Animation Festival Awards Announced

Tuesday April 24, 2007

Winners of the SIGGRAPH 2007 Computer Animation Festival have been announced: Best of Show Award (ARK from Poland), Jury Honors (DREAMMAKER from Institute of Animation, Visual Effects and Digital Post Production Filmakademie Baden-Wurtemberg) and Award of Excellence (EN TUS BRAZOS from Supinfocom Valenciennes). The 34th International Conference and Exhibition on Computer Graphics and Interactive Techniques will be held Aug. 5-9 in San Diego, California.

The Computer Animation Festival jury selected three award winners from a record-breaking 905 entries for exemplary use of computer-generated imagery, animation and storytelling. For the first time in the history of SIGGRAPH, two of the award-winning films are student entries. In all, 134 pieces were selected for the Computer Animation Festival.

Groundbreaking films presented at the SIGGRAPH Computer Animation Festival have amazed audiences for three decades. Since 1999, the SIGGRAPH Computer Animation Festival has also been an official qualifying festival for the Academy of Motion Picture Arts and Sciences "Best Animated Short Film" award. Paul Debevec is the SIGGRAPH 2007 Computer Animation Festival chair from the University of Southern California's Institute for Creative Technologies.

"This year's winners are perfect examples of how computer graphics is enabling small, independent groups to create films with vast landscapes, complex characters, and amazing visuals," commented Debevec. "Just as computer graphics blurs the line between real and virtual, each of these films in its unique way explores what is tangible and what is imaginary and whether that difference is important."

According to Debevec, 2007 marks the first time that filmmakers were able to submit high-definition video to the selection jury, which greatly increased the jury's ability to appreciate the intricacy of each film -- especially the award winners.

Debevec continues, "The winning films are not cartoons where scissors dance with staplers, but films with credible human characters who find love, suffer loss and face their mortality, leaving a profound emotional impact on the audience."

* ARK (Best of Show)
Grzegorz Jonkajtys and Marcin Kobylecki
www.thearkfilm.com
Poland

An unknown virus has destroyed almost the entire human population. Oblivious to the true nature of the disease, the only remaining survivors escape to the sea. In great ships, they set off in search of uninhabited land untouched by the deadly virus. So begins the exodus, led by one man...

* DREAMMAKER (Jury Honors)
Leszek Plichta
Institute of Animation, Visual Effects and Digital Post Production
Filmakademie Baden-Wurtemberg
Germany

In the past, this talented dreammaker created the most beautiful dreams for people. Now, he lives in solitude focused on only one purpose -- the creation of a special dream -- his dream...

* EN TUS BRAZOS (Award of Excellence)
Francois-Xavier Goby, Edouard Jouret, Matthieu Landour
Supinfocom Valenciennes

France

A remarkable tale of the greatest tango dancer of the 1920s who finds himself confined to a wheelchair after an unfortunate accident. Thanks to his loving wife, he recovers the use of his legs just in time for the most magical dance of his life.

This year's jury featured the following award-winning and internationally acclaimed industry experts:

- * Carter Emmart
Rose Center for Earth and Space, American Museum of Natural History
- * Nickson Fong
Egg Story Creative Production
- * Michael Kass
Pixar Animation Studios
- * Randal Kleiser
Film Director (GREASE)
- * Gavin Miller
Adobe Systems Inc.
- * Shelley Page
DreamWorks Animation
- * Jay Redd
Sony Pictures Imageworks (MONSTER HOUSE)
- * Habib Zargarpour
Electronic Arts

For complete details on SIGGRAPH 2007, visit www.siggraph.org/s2007.

SIGGRAPH 2007 will bring an estimated 25,000 computer graphics and interactive technology professionals from six continents to San Diego for the industry's most respected technical and creative programs focusing on research, science, art, animation, gaming, interactivity, education and the web from Aug. 5-9 at the San Diego Convention Center. SIGGRAPH 2007 includes a three-day exhibition of products and services from the computer graphics and interactive marketplace from Aug. 7-9. More than 250 international exhibiting companies are expected. Registration for the conference and exhibition is open to the public.

View this page @ <http://vfxworld.com/?atype=news&id=19614>

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Welcome Visitor! Tuesday, January 15, 2008 2:18 PM CST. 3576 artists currently online



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SIGGRAPH 2007: Animator Anticipation!

Interview by Dee-Marie, Contributing Columnist

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Stormi's Touch
3DXO
RadiantCG
ANS Graphics
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SturkWurk.com
The Art of 4thorder
ThorneWorks

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Tour SIGGRAPH 2007 Computer Animation Festival, with Chair, Paul Debevec

There can be only one word to describe Paul Debevec—*brilliant!* After a short visit to his [web site](#), it is hard to imagine how Paul manages his time. With degrees in both Math and Computer Engineering, as well as a Ph.D. in Computer Science, perhaps the answer to his prolific career lies in a dark corner of his research room. Rumors have circulated that Doctor Debevec has discovered the secrets to cloning, through computer animation.



For, not only is Paul a Research Associate Professor at the Computer Science Department at the University of Southern California, he also heads the Graphics Laboratory at the USC Institute for Creative Technologies. Unsubstantiated reports state, that in lieu of sleep or nutrition, Paul fortifies his thirst for knowledge by immersing himself within a world of computer graphics: including research papers, computer animations, art projects, software, and educational resources.

Although, his name may not be instantaneously recognizable, if you are an avid movie buff you have seen his work. His computer graphics and lighting techniques have enhanced such box office adventures as: *Superman Returns*, *Spider-Man*, *X-Men*, and *Pirates of the Caribbean*. Paul Debevec's name can even be found in the [IMDb](#) (Internet Movie Database).

Yet, even with his inexhaustible hunger for erudition, Paul has found time to chair this year's SIGGRAPH Computer Animation Festival. He has also graciously set aside time from his demanding schedule to take our readers on a behind the scenes tour of the SIGGRAPH 2007 CAF.

Paul, it is an honor to get to know you better. Your research with Light Stage devices is fascinating. I recommend serious animators read your SIGGRAPH 2007 paper, *Post-production Facial Performance Relighting using Reflectance Transfer*.

It's great to have new work in the papers program and that paper is notable since it gets some surprisingly convincing relighting results even though the performance is only captured under fixed lighting.

Did your research play a part in your being appointed Computer Animation Festival Chair for SIGGRAPH 2007?

I've contributed a number of animations to the Computer Animation Festival, and served on its jury a few times. Joe Marks [SIGGRAPH 2007 Conference Chair] understood that I'd be extremely committed to helping the Computer Animation Festival be the best show possible.

How did your lighting research techniques come to be used on such movies as *Superman Returns* and *Spider-Man 2*?

Our first paper about capturing and rendering photoreal models of human faces was published at SIGGRAPH 2000. In 2002 visual effects supervisor Scott Stokdyk, from Sony Pictures Imageworks, contacted me about doing a test for capturing the actors for *Spider-Man 2*.

About the same time they hired facial animation expert, Mark Sagar, to join their effects team. Mark had been a collaborator on our Light Stage 1 project, and had started a great Image-Based Rendering team at Sony. After a promising test, Sony brought over Alfred Molina [Doc Ock] and Tobey Maguire [Spider-Man] to get scanned in our second Light Stage device nearby in Marina del Rey.

The shots of the CG Doc Ock looked great. Sony pushed the technique much further for *Superman Returns*: there were Superman [Brandon Routh] close-ups that I didn't realize were CG until I saw John Monos' presentation at the VES festival last summer. Nic Nicholson built a rig that allowed us to scan Brandon Routh's hands as well—another Light Stage first.

Were your techniques also used on *Spider-Man 3*?

For *Spider-Man 3*, we scanned most of the principal cast, this time also in costume to help model the reflectance properties of the clothing and equipment. We got a great long-exposure photo of James Franco, as New Goblin surrounded within a sphere of light. We even captured a small pile of the official "Sandman" sand.



Spider-Man 3: Birth of Sandman

Spider-Man® 3 images courtesy of Columbia Pictures © 2007 Columbia Pictures Industries, Inc.

Spider-Man Character © 2007 Marvel Characters, Inc. All rights reserved

Director: Sam Raimi—Scott Stokdyk, Visual Effects Supervisor—Sony Pictures Imageworks—USA

What ground breaking projects are you currently working on at the University of Southern California Centers for Creative Technologies?

We've developed a new light stage scanning process that uses digital still cameras to capture especially high-resolution models of facial geometry and reflectance. These cameras can take 16 or so pictures in a few seconds. We also derived a new set of spherically polarized lighting conditions that let us reconstruct about 0.1mm resolution geometry, normals, and diffuse and specular intensity maps from just those photographs. We have a [paper](#) at the Eurographics Symposium on Rendering, and Alex Ma will give a SIGGRAPH 2007 Sketch about the capture system.

Our other major project is a new 3D display we've developed that uses high-speed video projection at over 5,000 frames per second, and a rapidly spinning mirror to show interactive graphics in 3D to any number of people standing around the display—no glasses required! We have a SIGGRAPH paper about that as well and there's an [online video](#).

Not only are you the SIGGRAPH 2007 Computer Animation Festival Chair—you have also been a vital contributor to past SIGGRAPH conferences. How many years have you been a part of the SIGGRAPH experience, and what were the circumstances surrounding your first SIGGRAPH conference?

My first SIGGRAPH was 1994 in Orlando. I was a summer intern at Interval Research Corporation in Palo Alto, and they graciously sent me there. I was amazed with the size and breadth of the conference—a 20-ring circus of amazing stuff for an entire week. The Electronic Theater was great that year, and I remember being thrilled by the mix pieces spanning from art to commercial to scientific. ILM's piece on re-animating JFK for “Forrest Gump” is particularly etched in my mind.

I returned to grad school at UC Berkeley with the hopes of contributing to SIGGRAPH some day. My first paper was at SIGGRAPH 96, and I also worked with Golan Levin from Interval on an Art Gallery piece that year. I had my first film, *The Campanile Movie*, based on my Ph.D. work, in the Electronic Theater the following year. I haven't missed a SIGGRAPH since.

Thanks for filling our readers in on your background. Now, onto this year's Computer Animation Festival, which is consistently one of the biggest draws to each SIGGRAPH conference. What's new to the festival this year?



Ark

[Best of Show]

Ark 2007 © Grzegorz Jonkajtys, Marcin Kobylecki

Director: Grzegorz Jonkajtys— Producers: Marcin Kobylecki, Grzegorz Jonkajtys—Poland

We have very strong material this year—with a record-breaking 905 submissions, the jury had an enormous amount of great work to choose from. I think it will be a great Electronic Theater, however the Animation Theaters are especially strong as well. Recognizing that, this is the first year that we will be screening the Animation Theaters in full high-definition—in fact, there will be a complete reel of 4K resolution material shown on Sony's SXR D projectors in the Animation Theaters.



En Tus Brazos

[Award of Excellence]

© Supinfocom/Premium films

Director: François-Xavier Goby, Edouard Joret, Matthieu Landour—Supinfocom Valenciennes—France

This is only the second year that the jury selected three award-winning pieces and the first year that two of them (*Dreammaker* and *En Tus Brazos*) are student work. *Ark*, the jury's choice for Best of Show, has the most breathtaking detail and tonal range I've seen in an independent work. I can't wait to see how it will look on the 50-foot screen of San Diego's Civic Theater, played from HDCAM/SR with the projectors from Christie Digital.



Dreammaker

[Jury Honors]

© leszek plichta 2007

Director: Leszek Plichta— Filmakademie Baden-Württemberg—Germany

How did this year's entries to the Computer Animation Festival vary from past SIGGRAPH conferences?

I believe this year's show succeeds in being as representative as any show we've had in recent years—representative of the whole field of computer graphics: Animated Shorts, Art, Broadcast, Cinematic, Real Time, Research, Visual Effects, and Visualization. It's a great year for studio-produced shorts, with Pixar's *Lifted*, Blue Sky's *No Time for Nuts*, and Blur Studio's *A Gentlemen's Duel*, anchoring the Electronic Theater show.



Lifted

© circle C 2006 Disney/Pixar

Director: Gary Rydstrom—Pixar Animation Studios—USA

Wow, I'm impressed. Are you seeing any specific trends in this year's festival?

Then there are a ton of fun and surprising shorts from students and smaller studios around the world. We have several research pieces including an awesome preview of the SIGGRAPH 2007 papers program narrated by Jim Blinn, and some gorgeous scientific visualizations. It's also a breakout year for real-time content—we have a record amount of material from the video game industry, where the quality of the graphics has surpassed what pre-rendered computer graphics could deliver just a few years ago.



300—Liquid Battlefield

© Image courtesy of Warner Brothers

Director: Stephan Trojansky—Kirsty Millar, Visual Effects Supervisor—SCANLINE VFX—Australia

The Electronic Theater is also a watershed year for fluid simulation in feature films: Scanline's 300's Liquid Battlefield, Sony Pictures Animation's Surf's Up, and Digital Domain and Industrial Light and Magic's Pirates of the Caribbean, all feature beautifully compelling, but completely unique, digital oceans.



Surf's Up: A Practical Guide to Making Waves

© 2006 Sony Pictures Animation Inc. All right reserved

Director: Rob Bredow—Sony Pictures Imageworks—USA

The competitive edge is evident in each year's entrees to the Computer Graphic Animation Festival. Do you feel there is a balance between the rising number of outstanding animators, and the high demand for animation in the film and gaming industries?

With movies, television, commercials, mobile devices, and the web all using animation with increasing frequency, it seems like the demand should be strong. But the positions will always be competitive—good animation requires a great level of talent and skill, and jobs that feature the opportunity to show one's work to the world will always have a lot of people attracted to those positions.

What is your stand in regards to talent versus education? Do you feel a formal education is essential for an artist to make a living as a computer graphic animator?

Formal education isn't an absolute requirement, but there are many excellent schools across the world right now that have very much to offer—look through the program of this year's show to find out where the best student pieces are coming from. Talent plus experience is the key. So, if you're not in school it's important to keep making animations and get as much critical feedback as possible. One of the best experiences in going to school is the opportunity to learn with, and to learn from, your fellow students.



A Gentleman's Duel

© Blur Studio, Inc.

Directors: Francisco Ruiz and Sean McNally—USA

PC, Mac-Bryce, Vue, Maya, Carrara, Poser-what specific types of software and hardware are "indispensable" for the aspiring animator?

Those are all great tools. I'm personally a fan of animations that use advanced lighting techniques—global illumination, physically-based materials, and image-based techniques. Throughout history, many of the greatest artists have been innovators technically as well as artistically. Whether that means formulating your own paints and brushes, or writing your own shaders and C++ code.

Outstanding advice!

Every artist I know who has gained expertise in programming, physically—based rendering, or advanced shading has used those skills to dramatically increase their ability to realize their visions.

How many animations were chosen this year, and what specifically were the judges looking for when casting their votes for this year's nominees?

We have 39 films in the Electronic Theater, and 93 in the Animation Theaters—representing 1 in 25, and 1 in 10 of the total submissions, respectively. The direction I gave the selection jury was to look for the most innovative and excellent pieces across the full spectrum of computer graphics. I chose the jury for being internationally-recognized innovators themselves—demonstrating a time-tested ability to identify and represent innovation and excellence in at least two of the submission categories; such as Real-Time and Visual Effects, or Art and Scientific Visualization.



No Time For Nuts

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Directors: Chris Renaud and Michael Thurmeier—Blue Sky Studios—USA

Thank you so much Paul, for taking time out of your busy schedule. One last question—looking ahead to SIGGRAPH 2008, what advice can you give artists who have hopes of being among the privileged animators showcased in next year's conference?

Find a unique message, look, and story for your film—something that is both universally understandable and uniquely meaningful to you, and your connection to the work will come through in your film. Assume the jury has seen every animation ever made, and realize a vision that no one has ever seen before.

Know your strengths (whether they are story, animation, camera, character design, lighting, editing, sound), and make a film that plays to your strengths and doesn't tax your weaknesses. Better yet, find collaborators who compliment your skills and create an even stronger film by working together. Finish your project early so there's time to tweak and refine in the weeks before the deadline. Upload early and often, and in widescreen HD if you can!

We invite you to visit the following sites:

- [SIGGRAPH 2007](#)
- [Animation Theater Schedule](#)
- [Electronic Theater Schedule](#)
- [Paul Debevec Personal Web Site](#)

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Get to know industry leaders and professionals as they sit down and talk candidly with Contributing Columnist, [Dee-Marie](#).

July 9, 2007



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Member Opinions:

By: [LillianH](#) on 7/10/07

I am a huge fan of your work Paul, even though I am just now learning your name, your work speaks for itself. Fantastic!

Thank you so much for sharing your insights and letting us get to know more about you and the Siggraph Computer Graphic Animation Festival.

By: [StaceyG](#) on 7/10/07

Great Interview. I learned alot about you Paul. Thanks for sharing:)

By: [maxxxmodelz](#) on 7/10/07

Excellent interview. Thank you.

By: [SndCastie](#) on 7/10/07

Wow great review Dee-Marie and thank you so much Paul for sharing this with us. You are a busy man that is for sure so again thank you for taking the time out to give us this insight into your work.

By: [danob](#) on 7/10/07

Some amazing artwork and easy to see why you are where you are today!!

By: [Paula Sanders](#) on 7/10/07

Terrific interview. Your creativity and breadth of knowledge, Paul, is amazing. Thank you so much for sharing this with us. And thank you, Dee-Marie, for another very insightful interview.

By: [DreamWarrior](#) on 7/10/07

Amazing! Thank you for this interview!

By: [bobbystahr](#) on 7/10/07

Thanx so much, Dee, for this interview. This gentleman has done more for CG than any one person with his work on HDRI Lighting. He's one of my heros and it's nice to have a human face on such a 'god'like' character.. ...

By: [infinity10](#) on 7/10/07

Wow wow wow !

What a treat !

Thank you so much for this interview.

By: **nemirc** on 7/10/07

It's an honor to see Mr. Debevec as a CAF chair this time. It's such a big shame that I will miss SIGGRAPH.

Is there a chance they will do the electronic theater tour like they did last year? The CAF visited some of the SIGGRAPH chapters around the globe. That was really cool.

By: **ARTWITHIN** on 7/10/07

A very informative interview. Paul is so impressive. I really admire his creative drive in research as well as the art projects themselves. Thank you, Paul, for giving this interview. We all benefit.

By: **ialora** on 7/11/07

Ah yes! I've been reading about some of this in CGW magazine. Impressive work! The waves for "Surf's Up" look amazing!

By: **Hypernaut** on 7/11/07

Thank for this extensive insightful interview!!!
Gave me a lot of stuff to check out :D

By: **Incarnadine** on 7/12/07

Always a pleasure to see what's behind the names that help make our worlds possible. Much appreciated!

By: **chrispoole** on 7/15/07

I can't believe I missed this interview until now, I've followed and read quite a few papers on your work and it's wonderful you taking time to do this interview. I've implemented your lighting techniques into my Vue renders with great success. Many thanks for all your hard work and I believe your name will go down in history as one that change computer rendering forever.
Chris

By: **Iwanmtr** on 7/17/07

Just a note to anyone going...check out "Invasion", a super duper animation with great social commentary. It will be playing on one of the big screens there, and proly at the Art Institutes booth too...sorry for the shameless plug

By: **thelady52** on 7/20/07

I am new but I have seen your work. Fantastic!

By: **DramaKing** on 7/24/07

Wow. That was a real eye-opener. I'm one of those people who have never heard the name of Paul Debevec, but I won't forget it now!

[Login and voice your opinion!](#)

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The Digital Eye: Reshaping SIGGRAPH's CAF

In this month's edition of "The Digital Eye," Bill Desowitz chats with acclaimed CG researcher Paul Debevec about chairing the SIGGRAPH 2007 Computer Animation Festival, to be held Aug. 5-9 at the San Diego Convention Center.

Bill Desowitz: *You've appeared at SIGGRAPH many times and have presented some very influential papers on lighting research. What's it been like chairing the Computer Animation Festival for the first time?*

Paul Debevec: The thing that people tell you when you accept this position is that the real work comes after all the pieces are selected. And now I'm really realizing what they mean by that. The thing I had basically put together in my mind for the couple of years that I had been thinking of doing this someday was who do I really want on the jury and how do I want to run the jury meetings so we can get the best information out of the jurors [Carter Emmart, Nickson Fong, Michael Kass, Randal Kleiser, Gavin Miller, Shelley Page, Jay Redd and Habib Zaragarpour], so we can get the best possible selections. And all of that came off without a hitch. And then it becomes a really exciting process of production, where your material is coming from over a 100 different places from around the world, getting it on the most consistent format as possible and then sequencing it into the best possible show.

BD: *Talk a little about some of the changes you've made for this year's show.*

PD: We've tried to do our best for as much outreach as possible to all the different categories that we have. The SIGGRAPH Computer Animation Festival is not a typical animated shorts festival. There are actually eight submission categories and these include things from art and research and broadcast and scientific visualization. And I think we were successful in having a number of pieces in each of these categories, and at least one from each category in the Electronic Theater.

So we have a pretty fast paced show this year. I think there are about 41 pieces in the Electronic Theater, and that's definitely more than some other years. The longest piece is about six minutes. The other thing that I think is great is that every piece has something exciting about it: amazing imagery or very new technique or it's competently executed. So we're hoping for an intellectually stimulating and aesthetically entertaining evening for the Electronic Theater.

BD: *In recent years, there has been less emphasis on scientific technology. Given your expertise and research background, what can we look forward to that's innovative?*

PD: We're very lucky to have submissions that push the boundaries of technology and show us things we've never seen before. To me, that's the most important thing. And the kinds of things that people are doing with computer graphics today are just inconceivable from even five years ago. One of the biggest areas of innovation has been in fluid simulation and water, and there are a couple of research pieces that look at that but also a number of studio making of pieces such as ILM's work on [Pirates of the Caribbean: At World's End](#), and [Surfs Up](#), with the surfing penguins that Sony Animation and Imageworks did. It's got absolutely beautiful water that's directable: they can actually treat those waves as characters that they can animate, but then the water does things that are completely believable. And it's a shorter sequence in the movie [300](#) but Scanline has some pretty amazing stuff and they have a very innovative fluid simulation rendering system there as well.

It's also a good year for digital characters as well, so we're going to see some photoreal humans: there's a pretty breathtaking making of [Children of Men](#) from CafeFX, with a nice breakdown of the birth sequence. It's a very nice mix of good old, traditional filmmaking and having the right things on set to get the performances out of the actors and then compositing in the right things to make it look exactly like it needs to.

BD: *And some nice performance capture in the show too.*

PD: Absolutely. In fact, there's going to be a particular clip -- which I think will be a highlight of the show -- from the upcoming *Beowulf*, and Sony Imageworks sent in some stuff and the jury was extremely impressed by it.

BD: *And, as we can see, everyone is benefiting from lighting and rendering advancements.*

PD: They are more accessible and they are the kinds of things that filmmakers can take advantage of at this point. If you look at the Best of Show winner, *Ark*, you'll see very complex lighting effects going on -- full on global illumination -- and you get so into the story that you don't notice it but it contributes to the believability of this environment, which is supposed to be realistic. It's down to dust floating in a shaft of light to the right of the screen. Everything is beautifully animated and the lighting effects in every single shot are extremely well crafted.

These tools are really out there and people are taking artistic advantage of them, and it's really a strength of the Computer Animation Festival that you see pieces that are presenting some of this research for the first time, whether it's in animation or lighting or rendering, and then within a few years you're seeing it movies like *Ark*, where independent filmmakers are able to create a very new and novel vision. And then showing up in the coolest feature film effects out there as well.

BD: *And how is your research going at USC's Institute for Creative Technologies?*

PD: It's going well. We're showing two things at SIGGRAPH in the paper session. One of them is new face relighting technique where we do work with light stages where we take pictures of people from lots of different lighting directions and use that to characterize how the light reflects off and goes through their skin, so we can make digital actors look very much like real people do when we reflect light.

And we've come up with a new technique that actually uses one of these light stage data sets of them just in a neutral pose. So that you if have live-action footage of the actor, you can essentially just multiply on novel illumination. This is exciting because it takes some of our light stage techniques to an arena where you can apply it to pre-existing footage or things shot with traditional cameras. The other cool thing that we've got is a 3-D display that actually makes a 5" three-dimensional image, which can either be a wire-frame or a photographically acquired light field of a real object that you put on a turntable. It makes it float in the air so that any number of people can walk around it 360 degrees and they see it with binocular stereo from both eyes wearing no glasses and it's a fully interactive image, so you can actually manipulate it, rotate it around or animate the model. So we have a paper about that: some of the math behind it and some of the systems aspects of how we're doing the high-speed video projection, and we're going to be bringing it to the Emerging Technologies exhibit, where it will be on display. There seems to be a lot of energy in that area now, and it's cool to be doing a little work in it.

Bill Desowitz is editor of VFXWorld.

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ZINE meets SIGGRAPH

by Axel of Brainstorm

In November ZINE approached SIGGRAPH's Computer Animation Festival (CAF) regarding an interview for ZINE. The person who replied to the request was none other than Paul Debevec, Chairman of the CAF. It turned out he knew the demoscene (check the interview with him here in ZINE 12) and after a while he asked me if I could help them to get demoscene content to SIGGRAPH's CAF in the realtime category. I answered that I'd get in touch with the groups and ask them. This process took several weeks as it also meant that we had to get high-quality movie captures and the approvals from all the people who were part of the creation of each production.

In the end I coordinated a "best of demoscene" list that was proposed to the jury, ranging from 4k's to 64k's and demos. The full list that entered the preselection process was:

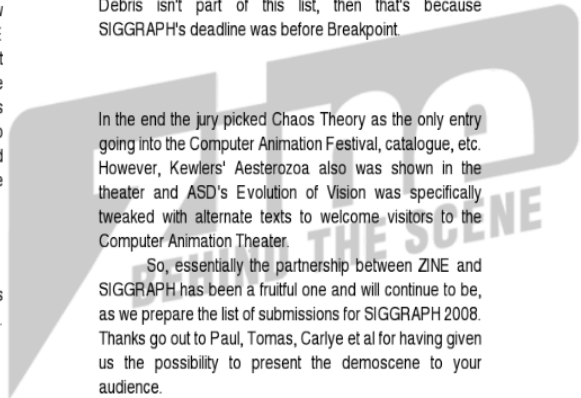
- Chaos Theory** by Conspiracy
- Final Audition** by Plastic
- Micropolis** by tbc
- Parsec** by Frenetic, r0K, Sonic and Muhmac
- Deities** by MFX
- Dead Ringer** by Fairlight
- Track One** by Fairlight
- Arise** by Stravaganza
- Five Finger Discount** by Shitfaced Clowns
- Aesterozoa** by Kewlers
- Electric Kool-Aid** by Synesthetics

- Aeon Flux** by Synesthetics
- We Cell** by Kewlers
- Don't Stop** by Portal Process
- IX** by Moppi Productions
- Fiat Homo** by Traction
- Iconoclast** by ASD
- Animal Attraction** by ASD
- Resonance** by Portal Process

In case you wonder why for example Farbrausch's Debris isn't part of this list, then that's because SIGGRAPH's deadline was before Breakpoint.

In the end the jury picked Chaos Theory as the only entry going into the Computer Animation Festival, catalogue, etc. However, Kewlers' Aesterozoa also was shown in the theater and ASD's Evolution of Vision was specifically tweaked with alternate texts to welcome visitors to the Computer Animation Theater.

So, essentially the partnership between ZINE and SIGGRAPH has been a fruitful one and will continue to be, as we prepare the list of submissions for SIGGRAPH 2008. Thanks go out to Paul, Tomas, Carlye et al for having given us the possibility to present the demoscene to your audience.





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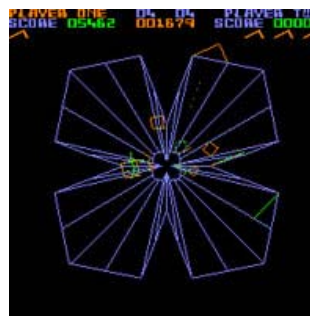
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Industry News

August 3, 2007

SIGGRAPH Debuts Arcade Play-Off On Giant Vector Display

Officials from the SIGGRAPH technology conference have announced the use of a state-of-the-art vector graphics laser projection system in order to play several classic arcade games like *Tempest* and *Star Wars* on a giant projection screen nightly at the San Diego Civic Center from August 6-8.



The event will feature celebrity players in front of a live audience prior to each night's unveiling of the SIGGRAPH Computer Animation Festival, with Atari's *Asteroids* and *Tempest*, and LucasArts' *Star Wars* comprising the title line-up.

"Playing these classic games like they've never been seen before is the perfect nod to the early days of the video games industry as well as to the early days of computer graphics," said Paul Debevec, SIGGRAPH 2007 Computer Animation Festival Chair from the University of Southern California Centers for Creative Technologies.

The games will be played through the arcade machines' original microcode via a specially-customized arcade emulator built by Matt Polak from Cleveland-based Raven Systems Design. The customizations convert the game's original vector lists into laser beam motions, while the light is supplied by San Jose-based Novalux's high-powered color laser system and aimed into a special dual-scanner mirror system assembled by Steve Heminover of Chicago-based Aura Technologies.

Celebrity players include Jim Blinn (renowned computer scientist who is widely known for his work at NASA's Jet Propulsion Laboratory), Ken Perlin (Academy Award Winner for Scientific and Technical Achievement), Glenn Entis (SVP, Chief Visual and Technical Officer, Electronic Arts), and John Knoll (Industrial Light & Magic Visual Effects Supervisor on the *Star Wars* prequels, the *Pirates of the Caribbean* series and Academy Award Winner for *Pirates of the Caribbean: Dead Man's Chest*).

Nightly tickets to the pre-show video game event and the Computer Animation Festival are available to the public at the door of the San Diego Civic Center for \$50.

"It's a thrill to be able to start the show with faithful, larger-than-life versions of the games that helped attract so many of the SIGGRAPH audience to the field of computer graphics," Debevec said.

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Industry News

Blizzard Announces *World of Warcraft: Wrath of the Lich King*

[08.03.07] As part of its Blizzcon convention, Blizzard has announced the latest *World of Warcraft* expansion to follow its *Burning Crusade*, with *Wrath of the Lich King*, promising new levels of power, dungeons, encounters, and character professions, as well as the game's first hero class.



Capcom Q1 Sales Rise On *Phoenix Wright 4*, *RE4* Wii

[08.03.07] Officials from Capcom have released details of the company's financial results for its first quarter ended June 30th 2006, which show a 35.1 percent rise in sales over the previous year, driven by releases such as *Resident Evil 4* for the Wii and DS courtroom adventure *Phoenix Wright 4*.



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Many images like this have been created by SIGGRAPH to be displayed in films and will be featured in the Electronic Theater Festival on Thursday.

C-U praises computer imaging at Electronic Theater Festival

Screenings to appeal to all audiences, honor graphics, effects in movies

By: Bonnie Stiernberg

Posted: 11/8/07

Can't stop thinking about that scene in "Spider-Man 3" where the Sandman rises up out of a pile of sand? Or maybe you're just dying to see Pixar's latest animated short. Whether you're a computer science major or an English major, the Electronic Theater Festival claims to have something for you.

The two-hour festival will be screened in the National Center for Supercomputing Applications building on Thursday after originally running in San Diego in August. Festival Chair Paul Debevec, an Urbana native, said this year's show features an array of films from a variety of genres.

"I asked the jury to really look for the best of the best across all the categories that we had, to add some diversity to the show and weave it together into a single experience," he said.

While the festival honors achievement in computer graphics, anyone will be able to appreciate it, according to Brett Jones, a senior in Engineering and chair of the University's in-formation chapter of the graphics organization SIGGRAPH.

"I definitely think anyone can appreciate it," he said. "Some of it is definitely really accessible to all sorts of people, especially the narrative stuff which everyone loves. The other half is like the equivalent of watching the behind the scenes of a DVD. It's not the main movie, but I think most people enjoy watching the behind the scenes at some point."

AJ Christensen, junior in Engineering and outreach officer for the in-formation chapter of SIGGRAPH, agreed that the festival has universal appeal.

"They're just good stories, and it has nothing to do with whether you like graphics or not," he said.

The Electronic Theater Festival received a record-breaking 905 submissions this year, and is a qualifying festival for the Academy Awards. According to Debevec, this year's Best-of-Show winner "Ark" is being considered for an Academy Award nomination.

"Shot after shot, this thing is just beautifully lit, beautifully textured," he said.

Aside from "Ark," the festival will feature a visual effects reel from "Spider-Man 3," which uses the light stage

technique that Debevec helped develop. The light stage technique mimics the way light reflects off an actor's face, allowing for more realism.

"It's a way of basically capturing a real actor and making a computer-generated model of their face or even the costume that they're wearing that is realistic enough that it reflects light the same way that the real person reflects light," Debevec said. "No matter what our superhero needs to do, they can match the lighting on the character to the scene and you can get a scene where people don't know it's a fake person. You don't get pulled out of the story that you care about."

Effects like these often go unnoticed by audiences, and few realize the enormous role of computer graphics in film, said Christensen.

"A lot of dramas and things that don't have special effects, they go out shooting and they think, 'Wow, the sky looks really gray today,' so they just paint out the sky and put in their own sky," he said. "It's all computer graphics and no one really realizes it. That's the point, right? It's this great tool for being able to invent your story and tell it the way you want to tell it."

Jones said his experiences with computer graphics have given him a new perspective when watching films.

"I'm always amazed because I watch movies differently at this point, and I find myself looking at things that I know my friend next to me isn't seeing," he said.

The festival is a homecoming of sorts for Debevec, who was raised in Urbana and attended University High School. In addition to being from the area, Debevec said he was pleased with the computer graphics work going on in Champaign-Urbana.

"As it turns out, the University of Illinois has a very impressive effort in computer graphics going on there," he said. "I was aware of the fact through John Hart (a professor in computer science) that there was a significant UIUC student computer graphics organization for those who are interested in computer graphics. The leader of that, Brett Jones, is doing an amazing job there. ... U of I is definitely a great place to do an encore of the professional screening for the Electronic Theater."

Jones' organization is in the process of becoming an official SIGGRAPH chapter, and he said the club's goal is to bridge the gap between the technical and creative aspects of computer graphics.

"We're one of those computer science clubs that kind of involves everyone in the process, and I think computer scientists and artists in general, when you separate yourselves completely from each other, you really lose a lot," he said. "I think it's important to see that other side of things."

Christensen hopes the club will be able to supplement the University's curriculum.

"You've got your graphics classes which are really good at the technical side but don't tell you anything about art, and then you've got the art classes that tell you the bare basics of the technology, like 'Here's a button, click this to make this happen' and you don't know what the button is or does, but you know that when you click it something cool happens," he said. "We're trying to fill in that gap."

Debevec said he hopes the festival will spark new interest in computer graphics.

"If there's somebody that comes to the show, maybe they didn't even know that much about computer graphics beforehand but were a little bit interested, and they end up getting interested, then that makes it worth it," he said.

The Electronic Theater Festival will be in the auditorium of the National Center for Supercomputing Applications. Food will be served starting at 6:30 p.m., followed by an introduction by Paul Debevec. The screening starts at 7

p.m. Registration is preferred but not required to attend today's festival. To register, head to the group's Web site, <http://www.acm.uiuc.edu/siggraph/>, or its event page on Facebook.

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