CineGrid Alternate Endings

Tom DeFanti & Cees de Laat

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They pay Cees’s trip!
Tom was already here.
REMEMBER?
THIS YEARS PHOTO
Listening carefully
Stirred, not shaken
Networking Group

• Initial participants:
  – Ronald van der Pol (coordinator), Cees de Laat, Tom DeFanti, Brian Dunne, Andrew Howard, Kunitake Kaneko, Michael Krsek, Eduard Siemens, Alan Verlo, Greg Wickham

• Setup mailinglist

• Information gathering:
  – Local connectivity of each exchange
  – Similar networks (e.g. OptIPlanet, HPDMnet, …)

• Write Requirements Document

• Network Design Proposal
• Partial participant list:
  – Dana Plepys, UIC/EVL
  – Laurin Herr, PII
  – Natalie van Osdol, PII
  – Louise Ledeen, NetAPP
  – Shaofeng Liu, Calit2/UCSD
  – Paul Hearty, Ryerson Univ.
  – Noboru Harada, NTT Labs
  – Andy Maltz, AMPAS STC
  – Ann Gledson, Univ. of Liverpool
  – Ken Arnold, Industrious Media
  – Iara Machado, RNP (Brazil)
  – Prestospace
CineGrid Exchange Lunch B0F Notes (2)

- Congrats for first milestones of the CineGrid Exchange (CX) working group (WG)
- Work with AMPAS, iGRIDS and CollectiveAccess moving forward
- Need to develop Best Practices Guide to help the experimenters (lessons learned)
- Collect and disseminate more metadata for CX repositories upon acceptance
- Difficult to obtain metadata/information from CX Contributors; need to consider incentives (e.g. awards?)
- Discussed alternatives for identifying files within CX archive and registering components (fingerprint methodology was suggested as potential solution)
CineGrid Exchange Lunch B0F Notes (3)

- Need online template to be completed prior to uploading content
- Leverage proposed WG for CineGrid Networking for Best Practices for Networking
- Need a checklist so people don’t have to run into the same issues every time
- Supply links to SMPTE and other organizations to gain knowledge on standards efforts for sound/image synchronization, lenses, lighting for 4K, etc.
- Shaofeng has conducted network experiments using iRODS, needs to post and share results via CineGrid website, as well as Basecamp.
- Need to do a better job of presenting and publishing CX work to broader research community.
2014 Ks

Working group for 4k coverage of the Soccer World Cup 2014 in Brazil
2014 Ks

- The idea:

\[\text{Distributing live, produced, 4k coverage of the Soccer World Cup in Brazil to 5 continents.}\]

\(\text{(possibly 8k, possibly stereo – we don’t know yet)}\)
2014 Ks

• Pitch:
  – It’s an experimental research endeavour, a show-off of what can be done.
  – It’s a non-commercial activity.
  – It’s a target event/s for several strands of research, e.g., parallel produced 4k streams, camera tech, projection tech, distributed 4k stereoscopy etc etc etc.
  – It’s a global collaborative work and exploration test-bed
  – The target audience are policy makers, tech providers etc, by VIP-invitation only at each site
2014 Ks

• First steps:
  – Setting up the work group
    • Chair: Alberto Paradisi paradisi@cpqd.com.br
  – Setting up group website
    • December ‘09
  – Get the go ahead from, particularly, FIFA and CBF
    • Meet with Brazilian Minister of S & T
    • Collect relevant LOI:s from partners
    • Meet with FIFA and/or CBF
  – Group meeting in Brazil ‘10
Challenge:
Scalable Telepresence with 3 or more sites

Constraints:
• Network bandwidth
• No budget for multiple cameras
• No budget for multiple projectors
• Potential to scale to dozens or even hundreds of sites
Interactive space with single projector+camera (or more)

Mirror cone or many flat mirror surfaces will erect the image space. For a higher quality image from the room we use a standard camera aimed at the participant – but we will loose the option of being seen in all angles.
Benefits

• Remote video layering allows true interaction throughout the entire shared space between all sites
• Continuity between all locations (pointing will work)
• Not necessary to have dedicated hardware/remote node
Circular anamorphosis
by Jan Jacobsen

According to Jan – who built the camera for Swissorama (a one camera/projector circle vision system) it’s an idiotic system as it only uses the rim of a bad lens (a fish-eye lens). He suggested an anamorphic layout to use more of the frame. Today we can do it digitally – or if we want less latency with Jans mirror cone lens design.
Special Hardware

- Point Grey Ladybug
- Fish eye lens
- Swissorama - 1963
- Multiple projectors with soft edge blending
- Mirror cone
CREATING A COLLABORATIVE SHORT

Artist Conceived, Science-driven Short Film using Network Collaborative Techniques
Motivation

Collaborative Techniques now enable Global-scale Artistic and Technical Collaborations

Artists and Story-tellers drive Technical Innovation

We learn by doing...
GOALS

Collaborate across the CineGrid community

Use scientific data to drive creative content

Develop deployable, repeatable techniques for learning and education

Regularly screen interim work within the CineGrid community

Debut 4K short film at CineGrid 2010

Submit short film to juried festivals
Handelingen
by Maarten Isaäk de Heer
Need for Scientific Publications!
Call for papers!

- Guest Editors:
  Naohisa Ohta & Paul Hearty & Cees de Laat
- Special section on CineGrid!
- About 6 papers in a section
- Submission via:
  http://ees.elsevier.com/fgcs/
- Special section submission link may take few weeks to get established.
- Info: delaat@uva.nl
- Submission deadline March 1st 2010
Questions?