A gentle introduction to MAGIC

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Overview

- ▶ Background
- ▶ Brief overview of structures
- ▶ What can go right/wrong (the good, the bad and the ugly)
- ▶ Any questions

Background

The International Review of Mathematics in 2004 highlighted the need for PG students to have a greater breadth and depth of knowledge of their subject. EPSRC funded 6 training centres. These are:

- Scottish Mathematical Training Centre - Taught course centre for UK PhD students.
- Taught Course Centre for the Mathematical Sciences based at Oxford, Warwick, Imperial, Bath and Bristol.
- MAGIC - Mathematics Access Grid: Instruction and Collaboration — materials are freely available.
- National Taught Course Centre in Operational Research (NATCOR).
- Academy for PhD Training in Statistics (APTS).
- London Taught Course Centre for PhD Students in the Mathematical Sciences.

Nice article by Penny Davies in MSOR Connections Vol 8 No 4 pages 8 — 10. I gave a similar talk at BAMC to appear in MSOR Connections. Mathematics is leading the UK in delivering technical subjects through interactive video-conferencing.

- MAGIC (**maths.dept.shef.ac.uk/magic/**) is a group of Mathematics Departments running a wide range of postgraduate-level lecture courses in mathematics, using Access Grid videoconferencing technology.
- How do I **login** (try:j.f.blowey@googlemail.com)?
- What are the **courses** and how do I **register**?
- If you have any questions, ask your local **MAGIC contact**.
- How do I listen to a **lecture**?

Software used is:

- ▶ Access Grid software is controlled by IG;
- ▶ Acroread (or Jarnal) for pdf.

Jarnal is a free cross-platform note taking software where you can save as a pdf — leads to more organic slides! Suggested by Bill Blyth (Aus) — Windows Journal etc.

The following hardware is typical at each Access Grid node:

- ▶ 1 PC with 4 virtual desktops;
- ▶ 3 cameras;
- ▶ 1 Mimio board (In Action) - gives interactivity.

- Pre-lecture
    1. Write up notes using standard template;
    2. Print upload notes from "Material";
- During lecture
    3. Turn on MAGIC PC and projectors;
    4. Turn on interactive whiteboard;
    5. Download pdf onto MAGIC PC;
    6. Start up Jarnal in Full screen;
    7. Click on Multicast;
    8. Export Jarnal, Interactive whiteboard & main desktop;
    9. Resize windows to taste;
    10. Switch on off microphone;
- Post lecture
    11. Save Mimio board as pdf;
    12. Upload Mimio board onto website;
    13. Switch off MAGIC PC.

With the visible equipment

- Batteries: Mouse, keyboard, microphone, Mimio board pens - fixable once you have experience of symptoms.
- Other sites microphones issues - switch them off.
- Network - your are stuck.
- External issues - workmen!
- Mimio board ceases to communicate (using 2 pens simultaneously).
- Mimio pen breaks - replacement £50.

With software

- Jarnal can be flaky:
  hyperlinks don't work.
  pdf images may or may not appear successfully (pdf2ps file.pdf file.eps |
  ps2pdf file.ps file.pdf).
- Media player:
  my ".wmv" movies didn't broadcast but when converted in flash they did!

We bought an extra software license (permanent license £550 for a laptop) as back up from RTSG.

The Good, The Bad and the Ugly!

- Students have benefited by doing the courses.
- Eases transition into Ph.D.'s and enhances the learning experience.
- Postgraduate Conferences — not MAGICally.
- Student engagement is tough as there is no formal continuous assessment in the course.
- Very little engagement with remote audience even when provoked.
- Problems are set, but I there is little evidence of engagement. I provided limited solutions for self-assessment.
- Student support — last year I provided course support for my students.
- Student assessment may be via an optional exam, administered locally, but provided by the lecturer on request (Nottingham) OR in some instances by a student portfolio (Liverpool).
- Even with jabber messages being relayed and local audience present, lecturers have happily continued lecturing oblivious that remote sites couldn't hear.
- Lecturing to an empty local room creates a surreal atmosphere.
- Student engagement tricks I've tried:
  - Students assess their level in lectures giving a Caeser thumb up/down!
  - Picking on my nephew to do an assignment!
  - Mexican Wave.

... and don't forget the launch event at 4pm on 7/10/09.