

Newsletters



An engrossed Community!



Loughborough's "Rapid Prototyping" research - 3D Concrete – intricate geometric forms

Spring 2013



Newsletter 15 Spring 2013



Introduction

Tony Thorpe welcomed everyone to Loughborough University. Tony is Dean of the School of Civil and Building Engineering. He has also been involved with COMIT from day one. Loughborough was one of the three organisations (with Arup and BSRIA) that comprised the start of COMIT, initially as a Government-sponsored project to look at the uptake of Mobile IT in construction. We gave Tony thanks for his huge support over the years, not just to COMIT, but the vast number of students that started under his wing and are now contributing to our industry.



Fifty delegates attended the Community Day, which was the second largest turn out in our 10 year history! We welcomed a record eight new members (since our December Community Day):

AceCad Software – www.acecadsoftware.com;
Bruel and Kjaer - www.bskv.com; Crossrail –
www.crossrail.co.uk; Computerlinks -
www.computerlinks.co.uk; Data Systems
International - www.dsionline.com; iHandover -
www.momentumplus.co; Keller - www.keller-uk.co.uk and Tarmac - www.tarmac.co.uk

We also welcomed eight guests: CSCS, Faro Technologies, IFS, Newforma, NG Bailey, Nottingham University, Skanska and Transport for London.

If you wish to be put in touch with any of the new members or guests, please contact Gerry on Gerry.samuelsson-brown@bsria.co.uk.

Chairmen's comments

From Jason - case studies have been COMIT's life blood; however there are limits to how many we can produce. We are looking at producing a number of shorter (single page) versions where we have knowledge of what applications are being used in which areas / for what purpose / what happened? There is a call to technology members to provide your material (not just PR data) so we can start creating more studies and at the same time give technology members some (soft sell) publicity. Please inundate Jason with your solutions on jason.scott@comitproject.org.uk

From Iain - a call to see who might be our next Construction Chairman. The position is vacant as Jason left Balfour Beatty at the end of 2012. Jason is steering COMIT's work on the Mobicloud project, as well as Acting director of Professional Services for COMIT's core business – great news for us all! Would you like to be our new Construction Chair? Iain is really hoping to hear from you - Iain.Miskimmin@bentley.com

Technology Elevator Pitch

Bechtel – Moninder Sokhi discussed their use of iPads. They initially purchased 10 and gave them to younger staff to trial and then increased to 100 devices. The main business driver was staff spending less than 50% of their time in the field – this increased to circa 75%. Having the iPad and wireless technology in place in one year generated a very substantial saving. For more information, contact Moninder on mxsokhi@bechtel.com



Objective Computing – Simon Kalp discussed the new Windows Phone 8 mobile device and the development environment and how this could be leveraged for development within organisations that have investment with the Microsoft products. There is also a degree of synergy between Windows Phone and Windows 8 with more functionality coming with the next “Blue” release of Windows / Windows Phone.

Simon also offered preferential development rates for anyone interested in developing for this platform. For more information please contact Simon on simon.kalp@objectiveit.com.



EMS – Lawrence Walker discussed site connectivity at remote sites (rapid site set up which has and still is an issue for construction). The iMO prototype solution was refined and trialed. Their solution provided bonding of 3G connections and is now close to a third generation product.

They also now have software to help collate information on site. For more information, contact Lawrence on Lawrence.Walker@ems-uk.com



CONSTRUCTION PRESENTATIONS:
Stephen Smith from Bechtel discussed what BIM means to Crossrail. One interesting slogan was “*not business as usual*”. Their aim is “*to ensure through Crossrail as an enabler, the use, exploitation and adoption of appropriate technical information tools to support the whole life of the infrastructure asset*”.

There are three task groups: 1). **Modelling** (getting consistent 3d modelling and a focus on 4d modelling). 2). **Mobility** which looks at document verification application (eB –Mobile application, due to be launched in March 2013) and electronic forms (launch set for May 2013) looking at a doc pen overlay on drawings (using Bentley’s ProjectWise). 3). “**As Built**” - The benefit of BIM is envisaged to be “*ultimately in using the model to manage completed facilities*”. Members were encouraged to get involved as collaboration is key! One way is to join the Crossrail – Bentley Information Academy!



For more information, contact Stephen on ssmith1@bechtel.com or for the Academy, Iain Miskimmin on Iain.Miskimmin@bentley.com.

Glyn Matthews from Speedy mentioned RFID and how dramatic the technology has changed over the last 5 years. Their customers need easy and prompt 24/7 access to equipment and Speedy similarly needed to reduce their own costs. A solution to this is UHF RFID tags and storing equipment in an area accessed by an ePod®. The tags have maximum read range allowing them to be read when mounted inside assets, all tags are ATEX approved for petrochemical installations and use GS1 EPC2 Standard Identification process. When a scanner is used it will recognize the owner and for simplicity, gives simple audio instructions in the user's language. From testing the devices out on site, Speedy has now produced ePod® Version 2, which is an RFID portal cabin allowing access to a flexible store of equipment from a container to a 10,000 sq ft warehouse. They have realized several benefits for customers and their own staff / business. As to the future – Speedy is rolling out the ePod® portal to site to help customers manage their assets effectively.



For more information, contact Glyn on glyn.matthews@speedyservices.com

Tim Winfield from Data Systems International discussed their work with Lafarge South Africa. Lafarge had a problem with employees unable to utilise systems while away from their primary workstations resulting in issues like poor inventory accuracy, delays with PO approvals and cumbersome safety processes. They decided upon a mobility platform approach so that they could build business processes to connect multiple back end systems, that would work on different mobile devices and be used in a disconnected state (without phone or Wi-Fi connection). Some of the benefits included: better efficiency, quality and integrity of data, such as capturing safety information more promptly and reliably. Inventory accuracy levels were also hugely improved to above 99% accuracy and the sales team was able to close 8 out of 10 deals at the customer site.



For more information, contact Tim (one of our new members) on Tim.Winfield@dsionline.com

David Throssell from Skanska discussed their mobile computing achievements and ambitions. Achievements to date include:

- pockets of innovation
 - Utilities – iPhone and iPad apps
 - PFI – mobile BIM
 - Residential – an iPad Owner's manual
- iPhone rollout
- BIM investment tools.

Skanska's ambitions beyond 2013 include:

- a coordinated approach
 - APP development team
 - iPhone / iPad User Group
- New technology
 - Windows 8 Pro Tablets
- Consistent rollout
 - BIM Investment tools 2012 rollout
 - Autodesk BIM 360 Field
 - Artra
- Full IT Department Support.



For more information, contact David on David.Throssell@skanska.co.uk

BIM for MOBILITY WORKSHOP

The BIM for Mobility work group is chaired by Matt Blackwell of Costain and our own Iain. There will be a Programme manager – this will be a doctorate from Loughborough University who will be financially supported by Costain and COMIT. Interviews for the candidate will take place soon.

Three questions were posed at the workshop:

1. What additional (if any) tasks should be covered? What are important ones from the list below?
 - a. Connectivity
 - b. Health and Safety
 - c. Data sharing
 - d. Information Integration
 - e. Forms
 - f. Hardware
 - g. Asset tracking
 - h. Auto IDs
 - i. Data Standards
 - j. Apps
2. Who will lead the task group (a call for volunteers)?
3. Who can offer their participation to a task group?

The consensus from members was that all the above criteria were important but some could be grouped together. Across the board, however, health and safety is seen as key. Various ways to interpret the tasks were given and two scenarios are shown here:

Scenario A

1. Barriers, including
 - a. Health and safety
 - b. Connectivity
 - c. Quality of compliance
 - d. Off line working
2. Infrastructure
 - a. APPS
 - b. Hardware
 - c. Connectivity
 - d. Forms
3. Data sharing
 - a. Standards
 - b. Integration
4. Cultural change people
 - a. Organisation
 - b. Behaviour (user acceptance / generation gap)
 - c. Training

5. Management
 - a. Site assets and people tracking
 - b. Project
 - c. Financial
 - d. Operational efficiency
 - e. Enabling.

Scenario B

1. Quality
2. Change management
 - a. People
 - b. Training
 - c. CSCS cards
 - d. Competency
3. Assets (need business case)
 - a. (suggest renaming to Asset Management)
 - b. Auto IDs
 - c. Tracking (rationalise what we already have and then fill the gaps)
 - d. Maintenance and asset monitoring
4. Connectivity
5. Health and safety
6. Forms and Data sharing (getting data onto devices and data integrity) - use of mobile devices are similar to paper but more engaging.

Re questions 2 and 3 posed, two volunteers emerged:

- Richard Pavey (AceCad Software) would be keen to support Data Standards
- Martin Wing offered support (category to be decided).

If anyone would like to volunteer to lead or support a task group, please contact Iain on Iain.Miskimmin@bentley.com.

TOUR OF THE LABS

There were two separate tours. Tour 1 covered the REFIT Project (REFIT: Personalised Retrofit Decision Support Tools for UK Homes using Smart Home Technology). It is funded by the UK Engineering and Physical Sciences Research Council and has two aims:

- To demonstrate the potential for personalised feedback to promote energy savings in UK homes, in particular through retrofit measures
- To study the impact of Smart Home technologies on feedback and energy savings within homes.

COMIT are project partners and supporters of the original bid. The project brings together a multi-disciplinary team of building, ICT, energy, design and user experts to develop a personalised decision support platform for building envelope retrofits, heating systems and appliance replacement purchases, and on-site renewables integration. The objective is to deliver a step-change in the provision and accuracy of retrofit advice to UK householders leading to a low-energy and low-carbon future housing stock. The outcomes will be of benefit to: energy, ICT, embedded systems and telecommunication companies developing technology and business models for Smart Home services; consumers to lower their energy bills and improve the safety, security and comfort of their homes; building component, boiler and appliance manufacturers developing the next generation of low-energy products; and policy makers for new insights into innovative approaches to meeting the security, affordability and carbon reduction aspirations of the UK energy system.

Tour two looked at 3D Concrete Printing (developed out of Loughborough's "Rapid Prototyping" research). This is a technique being developed at Loughborough University to free architects from the restraints of current construction methods. Architects are creating stunning buildings with intricate geometric forms, but many never progress beyond the designer's screen because their complexity makes them too costly to construct. The team has made dramatic progress with additive manufacturing technologies, where models created on-screen can be formed into three-dimensional components at full scale. This involves the use of a large 3D printer 'rig' which gives 3 degrees of freedom and movement to allow the creation of complex geometric concrete forms.



The research team has now obtained technology-transfer funding from the EPSRC to commercialise the process, collaborating with industry whose expertise and advice is essential to the team's understanding of the needs of industry, the potential of their ideas and the creation of an innovation path. A new robotic 'rig' allowing 7 degrees of freedom and movement is being tested as part of this next phase.

PROJECT UPDATE

MOBICLOUD



We are now three months into this exciting 2-yr project. Gerry and Neill attended the first consortium meeting in Kista, Stockholm last December and work is well underway.

To recap, and for the benefit of our new members, MobiCloud is a European Union-funded project to develop a European 'corporate Appstore' as part of the EU's Competitiveness and Innovation Framework Programme. It is led by Appear (Sweden) and the consortium includes EsperantoXL (Netherlands), Nettropolis (Germany), our own Costain and of course, COMIT. Jason is our key representative and has set up the project website at www.mobicloudproject.eu

MobiCloud is useful to all of you as this is an online technology marketplace where end-users, mobile developers, app vendors, system integrators and cloud service providers can collaborate to develop solutions for the construction industry.

Mobicloud will develop a platform and tools for developing and deploying cloud-based mobile applications. There will be four major trials, one of which will be run by Costain.

You are all encouraged to join the MobiCloud early adopter program by contacting info@mobicloudproject.eu or Jason at jason.scott@comitproject.org.uk. You can also follow progress on Twitter@MobiCloudproj and LinkedIn at <http://tinyurl.com/crtf4lr>.

TSB – Enable my Team

This is a TSB funded, collaborative partnership between lead partner, MobiBiz (Sandeep Jain), Costain and COMIT. Stuart Young will be steering COMIT's activities. For more information please contact Stuart on s.young@comitproject.org.uk. We will keep you posted as this project has not yet commenced - we envisage our start date to be 1st April 2013.

All our projects are listed on our website: check it out for other projects taking place - www.comitproject.org.uk.

Community days, 2013

- **6 Jun 2013** - host Oxford Brookes
- **12 Sep 2013** – host KOREC
- **5 Dec 2013** – host Timico.

Other events, 2013

- Date for your diary. COMIT's mobile IT Conference, Thursday 7 Nov 2013 – Institute of Physics, 76 Portland Place, London. We haven't yet put together the programme so more will follow.

- Coins-Global, 7 peaks challenge. For more information, contact Sharika on Sharika.Fernando@coins-global.com

Other business

Gerry stated that we have kept our core subscription at £1,450 since the outset. However, to be fair to smaller firms we are looking at introducing a range of bands. We are currently considering what these bands might be and will report back in June with our decision. If you are a firm with less than 5 staff it is likely that your subscription will be reduced when it comes up for renewal – otherwise the new schedule will largely only impact on brand new members (we are looking into higher rates for really large organisations). We are also looking at incentives for introducing new construction members into COMIT. If you have any questions, please contact Gerry on Gerry.samuelsson-brown@bsria.co.uk

Once again, we give our thanks to Simon Kalp from Objective Computing for taking all the photos at the Community Day.

Yes, COMIT is agile – well, at least Iain is!



J



Congratulations to Matt Blackwell of Costain who is the proud father of Jacob Noel Blackwell.

Jacob was born at 5.11am on the morning of our Community Day!!

See you all in June, Gerry



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