



## TCT LIVE PREVIEW

» TCT Live returns to its roots on 25 to 26 September 2012 with expert 3D printing for all levels of design and manufacturing. Here's what to look forward to

**W**ith the expansion of 3D printing in all areas of design and manufacture, this two day event offers a chance to assess the market under one roof. If you're a newcomer to the technology, or even an old hand, it provides an easy way to have all your questions answered.

Now firmly settled into its new home in Birmingham's NEC, the free event has an interesting line-up of seminars covering a wide range of topics as well as a series of presentations (turn to page 38 for a few speaker highlights).

### RAPID PROTOTYPING

Rapid prototyping is by far the biggest draw to TCT Live. Every major machine-building player will be at the show with their latest technology: from entry-level desktops to fully equipped industrial units.

At entry level, Stratasys will be wielding its Mojo desktop FDM printer, 3D Systems will be showing off its similarly small PJP printing Cubify, and both sides will be keen to point you in the direction of their larger machines should you need some industrial-sized power.

Before melding together with Stratasys, Objet makes one final independent appearance at TCT Live with its multi-material Object 30 Pro.

At TCT Live 2011 shoe manufacturer Clarks displayed a range of prototypes that had all been printed using its in-house 3D Systems Zprinter

Mcor Technologies is introducing the Mcor IRIS, a paper 3D printer providing full 3D colour prints that are robust, eco-friendly and cheaper than plastics.

Well worth a look are Danish newcomer BluePrinter, which is looking to expand its UK network using proprietary technology called Selective Heat Sintering (SHS), using a thermal print head to sinter thermoplastic powder into 3D objects.

For anyone looking for large-scale industrial printing, EOS' additive manufacturing machines are worth investigating, as are Voxeljet's innovative designs.

### BUREAUX

If you don't fancy getting your hands dirty with 3D printing, can't face the overheads of owning a printer, or simply have a few short run production pieces then a bureau is ideal.

Most at the show are already dealing with customers all around the UK and even the wider world, so don't let the fact that they aren't on your doorstep put you off. With everyone vying for the same business, it's a great opportunity to ask questions and get the best deals.

If it's a particular type of material build that you require then seek them out: Concurrent Design Group specialises in producing parts in its range of 3D Systems ZCorp machines; IPF produces its parts on the only bureau service Objet500 Connex machine in the UK.

Elsewhere, Laser Prototypes is a great example of modern bureaux tackling logistics and cost-effectiveness



while maintaining a personal service, while Sculpteo offers web-based upload efficiency with direct parts.

Star Prototype's China are newcomers; with an experienced British head at the helm, the company is

**TCT Live will offer inspiration to even the most experienced of visitors**

building on its Chinese workforce's ability to finish parts and ship in a competitive fashion.

Materialise is one of the biggest bureau providers in the world, and its UK branch is well equipped to help you devise a production route regardless of the size of the project – from its online iMaterialise system, to its huge Mammoth 3D service printers.

#### SOFTWARE

Big name CAD software companies will be there in some form, although they'll be primarily represented through their UK resellers. These companies offer a great way to learn more about the latest version of a product before you spend a small fortune on a package, plus most of the vendors will be able to offer you a helpful support package with what you buy.

The usual suspects Cadventure (SpaceClaim), Concurrent Engineering (PTC), Innova Systems (SolidWorks), Magenta (Geomagic, Autodesk & Siemens), and Man and Machine (Autodesk), Xsis (SpaceClaim, Geomagic) will all be lining the halls at the show.

#### HARDWARE

This year's latest workstation technologies will all be on show from both Hewlett Packard and Workstation Specialists. Those requiring a boost from graphics power can find Nvidia's latest graphics cards at the Man and Machine booth.

3Dconnexion will be standing by once you've decided to blow your budget on the above hardware and software with its supportive navigation devices for 3D CAD.

#### SCANNING

The ability to reverse engineer parts with speed goes hand in hand with 3D printing; as a result, many of Europe's big name scanning and metrology firms will be in attendance.

Physical Digital and Central Scanning both provide a UK based bureau-type service to cover all scanning and reverse engineering needs.

For those of you wishing to take scanning in house Steinbichler, FARO, Wenzel, Artec and Romer (EuroPac3D) all have their latest laser scanners and measuring arms there for you to peruse and compare.

[www.tctshow.com](http://www.tctshow.com)

**DEVELOP3D will be at the show, so feel free to pop to stand U41 to say hi, pick up a free subscription and ask any questions you might have. See you there!**

## HIGHLIGHTS FROM THE SPEAKER'S PROGRAMME

**Paul Doe**  
Lead engineer, Prodrive, BMW Mini Team  
11am, Tue 25 September

Rapid Results: Prodrive's development of the Mini John Cooper Works World Rally Car

The BMW Mini team has come in leaps and bounds, thanks in part to the vast experience of Paul Doe and his team at Prodrive. Find out how its 3D printed parts are tough enough to withstand even the most gruelling races.

**Sean Horning**  
Project engineer, Burton Snowboards  
12pm, Tue 25 September

3D printing functional prototypes at Burton Snowboards

A brand known on powder-covered slopes the world over, Burton is developing its kit with the help of 3D printed prototypes, giving its users the best form and fit whether professional boarders or beginners.

**Mark Bloomfield**  
Founder, Electrobloom  
2pm, Tues 25 September

3D printing unlocks customisation on-demand fulfilling your customers' needs and desires

With a mantra of 'be different', customisation is key to Electrobloom. Designing 3D printed jewellery and attire, Mark Bloomfield is sure to have tips on delivering on-demand products to a growing market.

**Phill Dickens**  
Professor, Loughborough University  
10.15am, Wed 26 September

Developments of additive manufacturing and its future

A key figure in the rise of 3D printing as a mainstream manufacturing tool, Phill Dickens, a professor of manufacturing technology, continues to be at the cutting edge of what the technology is capable of, and the direction in which it might be heading.

**Russ Harris**  
Professor, Loughborough University  
2pm, Wed 26 September

Additive manufacturing in the National Health Service

A medical engineering and advanced manufacturing professor, Russ Harris is also a key member of Loughborough University's Additive Manufacturing Research Group, putting him on the cutting edge of new medical uses for digital technology.