# HP Designjet T1500 ePrinter helps Tom Kovac deliver high quality output for international architecture design research project



## At a glance

**Industry:** Architecture, Engineering & GIS

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**Design** Research Institute





## Challenge

 To achieve precise high quality prints of complex large format architectural plans and drawings that needed to be shared in real time with collaborating project colleagues in many countries.

## **Solution**

Tom Kovac utilises the HP
Designjet T1500 ePrinter with
HP Designjet ePrint & Share<sup>1</sup>
technology that allow multiple
jobs to be completed in different
media from any location with a web
connected device.

## Results

- Delivering high quality prints with colouring and pixilation true to the original plans and line drawings.
- Two roll feature eliminates need to constantly change rolls and allows convenience of dedicating one roll for special print paper.
- Enables remote printing of files stored in the cloud and accessed via email, smartphone or tablet.
- HP Designjet ePrint & Share<sup>1</sup> enables files to be printed while out of the office from virtually anywhere.<sup>1</sup>
- The HP Designjet T1500 ePrinter saves time and costs as well as eliminates wasteful errors with the ability to preview the exact finished print output before starting the print process.
- Time saving thanks to the output stacking tray that delivers prints flat and collated in the right order.

"It is of extraordinary value in our field to achieve verv precise, high quality large format print output. We refuse to work with technologies that fail to give us optimum output. The innovation and performance of the HP Designjet T1500 ePrinter safeguards the integrity of the original images."

- Tom Kovac, Director 2112Ai 100YC and Professor of Architecture RMIT University

As director of 2112Ai (Architectural intelligence) 100YC (100 Year City), Tom Kovac spends much of his time anticipating what the future may hold for architecture and design. Kovac, Professor of Architecture at Australia's Royal Melbourne Institute of Technology (RMIT) University, is not alone. Along with other eminent architects, he is a major collaborator on international projects designed to create, enrich and transform the way communities will thrive in tomorrow's world.

One significant project that serves as an example is The Maribor's vision for the future - Maribor is Slovenia's second largest city and the European Capital of Culture in 2012. The Maribor 100YC project is a design vision for the city's 100 year development, envisaging the world of 2112. The program includes online modules with leading international architecture schools. It utilises the resources of 23 universities covering its 100-plus multidisciplinary projects, harnessing the collaboration and imagination of 450 architectural and design students.

# Enabling productive collaboration

The logistics of the collaboration are daunting. Specially created online collaboration software, Design Research (D-RES) helps establish directions and agree upon parameters. To get the maximum productivity from the sessions, the collaborators discuss and define the specification of the output - printed drawings, renders and detailed plans. These are the shared springboard for converting ideas into practical design.

In a 12-week period tens of thousands of drawings and 2.1 million files are exchanged with the D-RES platform for the Maribor 100YC project. The precision and quality demanded in the print output of Maribor 100YC plans and drawings is absolute.

The print output must meet exhibition presentation standards, as Kovac explains: "Achieving the desired output is crucial. The image quality is sacrosanct. We need to see the result in the printed form exactly as it was defined. The resolution, the colouring and the high quality of the line work is vital.

"Then, for instance, we can immediately distinguish and read between the complex differentiation of the thick and thin outlines. These are so often the code that unlocks the critical dimensions of an architectural plan."

Having defined the key parameters that a printer needs to meet in the highly demanding field of architectural design imaging, Kovac decided to test the 36-inch, two roll HP Designjet T1500 ePrinter at RMIT University. Kovac says that his team welcomed the three key areas of innovation whereby the HP Designjet T1500 ePrinter is eliminating what he describes as "the horrendous pattern of hit and miss printing" that had previously been the norm.

Firstly, the user experience. Kovac's colleague, Katherine Mott, the team's Project Manager says the HP Designjet T1500 ePrinter is both intuitive and ergonomically satisfying, meaning there is no need to supervise students in its use. "It puts the user in charge of the print process. The adjustable touch screen is a neat touch."



Even when seated, her team can effortlessly front load two paper rolls. "We can also easily check the touch screen with the perfect light conditions. It is simple to monitor media rolls, view printer status and track jobs during printing," she says.

The ability to take diverse stacks, from A4 to A0 size media, in flat, collated prints improves productivity: "The integrated output stacking tray, even when other teams are printing, has made output clutter a thing of the past," Mott explains.

Secondly, performance. Kovac says the true print preview reduces errors and eliminates waste, and being able to print all files across a range of media improves flexibility. But it is the image quality that is the essential factor. "Among our peers, there is a fine appreciation for quality draughtsmanship. The HP Designjet T1500 ePrinter produces a print of such quality that it catches their eye – they are surprised when we explain it is not the original.

"In the past when we defined the colour blue, the print might turn out more green than blue, or the red might emerge as a purplish tinge. With the six Original HP inks, the printer can produce true neutral gray and smooth area fills. This is fantastic because we no longer need to debate among ourselves what went wrong with the colour tones on prints.'

Print quality is matched by output speeds. "Speed means time and money saved," says Kovac. "Human nature means everyone sails close to a deadline. It is incredible how much time we are able to save with the high volume of prints we produce."

Finally, he says, the benefit of being able to print from virtually anywhere.1 "The HP Designiet ePrint & Share1 free web service is an exciting technology. The ability to use a smartphone or tablet to access, view and print your projects even when you are nowhere near the printer is fabulous.1

"Because copies of the printed project documents are automatically saved to the cloud, we were able to help an architect colleague who called from a taxi on his way to the airport. He spotted an error in a drawing and needed 20 corrected prints for an important presentation. In real time the correction was sent from a tablet and printed off, awaiting him when he reached his office.

"I've been on a Skype call, or in a meeting, and without any interruption I have simply sent a signal to the printer. No one has even been aware of what I just did."



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At press time (June 2013), Tom Kovac served as a beta test site for HP Designjet T1500 ePrinter and HP Designjet ePrint & Share

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