

## Toppan Printing Press Operator Training

October 2012- Toppan Printing (Japanese: 凸版印刷株式会社) a Japanese company, is a global printing and high-tech manufacturing company. It is the largest company of its kind.

Toppan Printing began their sheetfed offset printing training program with a printing press and a print simulator to prepare for the 2009 WorldSkills competition where the Toppan contestant, representing Japan, took the gold medal. Before this, print training was mainly by lecture and on the job training.

Toppan started its Printing Engineer certification program in 2009 and today there are about 50 graduate employees. The current programme has two training tracks: A “beginners” two month curriculum for an assistant to become a lead operator, and a two-week programme to ‘up-skill’ lead operators particularly with problem solving skills. Each course is limited to a maximum of 3 people to ensure effective training. Two certified trainers take care of the programme.

The daily training programme includes 2,5 hours on press, 2,5 hours with the SHOTS press simulator and 2,5 hours of classroom study.

A 510 mm 4-colour press has been assigned for training since the 2007 International Skills Festival held in Numazu. However, its operating costs for paper and ink was expensive and hence the decision to use simulation as an additional training tool. For example, ink key and register adjustments are first introduced on the press and later practiced with the SHOTS simulator.

The classroom study sessions covers a wide range of subjects like mechanical, electrical, ink, paper, chemicals and dampening etc. An example of a practical lesson poses the question as to why water temperature has to be cooler than 10°C — the students warms up water and ink in a cup to see how the ink characteristics are changed.

Toppan’s observes that poor training causes inadequate knowledge that leads to inconsistent operation that undermines quality. Its training programme has produced good even results across its 20 offset print plants. The program accelerates operator learning and the request for training is increasing at all plants. Follow-up training continues after trainees return to plants to ensure on-going motivation.

### Training Simulator

Toppan first became aware of Sinapse in 2007 with its publishing gravure simulator. Their internal study found this approach useful for technical training. The sheetfed SHOTS simulator was adopted by the WorldSkills organisers for the 2009 Calgary competition, and Toppan purchased a version to prepare their participation. At that time only an English version was available and they spent three months on the Japanese translation.

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The trainers' first impression was that SHOTS was a computer game but this changed very quickly once they learned its operation, and they became convinced of its use for young operators to gain skills in a short time. They subsequently learned at the Sinapse Asia User Group at Beijing in 2010 that SHOTS was a useful tool for broader training as underlined by the Printing University in China that has 30 SHOTS terminals in its printing class. This led to Toppan's acquisition of a second simulator in 2011.

### **Problem examples**

Press simulation is really useful for many problems that would be difficult and expensive to do on a real press. For example when a new operator has a hard time with hickies—on which plate, and what is the cause — or a colour problem related to a damaged blanket? It is easy to produce these types of scenarios so that the operators gain practice in recognising the problem. Finding root causes is good practice developed with simulator use.

Simulated ink key movements change the simulated image; while there may be a small difference from a given “real” press, Toppan believes that simulator use helps trainees understand colour and to analyse problems.

Sinapse Print Simulators is the world's leading supplier of training simulators for flexo, gravure and offset presses.

For more information on Sinapse Print Simulators visit [www.sinapseprint.com](http://www.sinapseprint.com) or contact: [info@sinapseprint.com](mailto:info@sinapseprint.com)

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# **TOPPAN**

**Mr Kikuchi, Toppan printer, competing at the 2009 WorldSkills competition in Calgary Canada. He won the gold medal. Photo source: Toppan Printing**

### **SINAPSE Print Simulators**

Bâtiment Epicure – Les Algorithmes - 91194 SAINT AUBIN CEDEX – France

Tél. : +33 (0)1.69.35 54 00 - Fax : +33 (0)1.69 35 07 15 – e-mail : [info@sinapseprint.com](mailto:info@sinapseprint.com)

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