

WORLD FOOTWEAR

This year, Simac was directly linked to Lineapelle by the use of halls 31 and 32. The exhibition in April seemed to suffer a little from the close proximity of related exhibitions. Nevertheless, with over 340 exhibitors it remains a unique opportunity to see a wide range of equipment for producing footwear and leather goods.

CAD and continuous cutting systems take the lead at Simac

Mary Simons

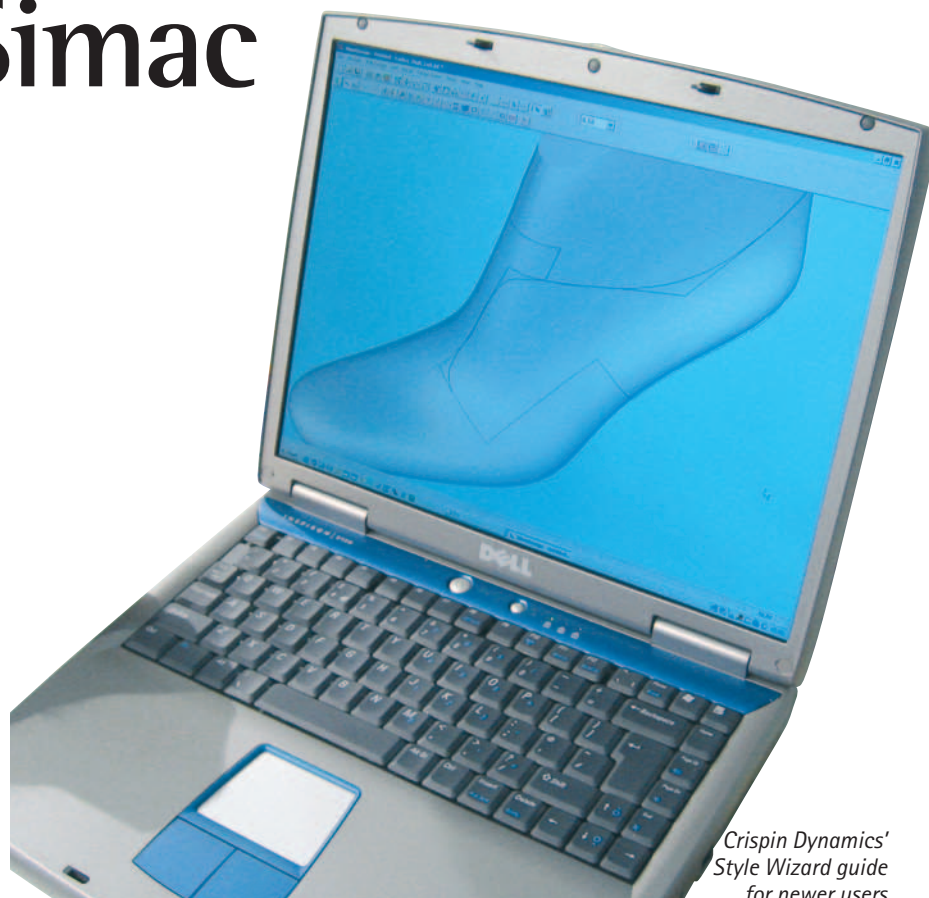
Predictably, the two main areas of development were CAD and continuous cutting. However, other aspects of production were not ignored and there were new items of interest in all areas.

CAD highlights

The latest developments are making it easier for inexperienced users to get to grips with CAD. There are fewer menus and more icons, more guidance and automated functions, and continuing improvements in graphic rendition.

Version 5 of CSM3D's Shoemaker system has just been released and was demonstrated on the Torielli stand. An important new feature is the inclusion of 'Expert Knowledge', a system to guide designers as to the typical size and position of components and norms for last dimensions. Other advances include the facility to copy a feature from paper and on-line self-teaching for the system. More speed and new software to drive cutting equipment are also provided. The small format 'Scanny 3D' laser last digitiser is the latest option to be offered by the company.

Crispin Dynamics has been developing its entry-level products for users with fairly simple design requirements. To guide less experienced users, the eCAD system features a Style Wizard based on David Lyon's pattern cutting principles



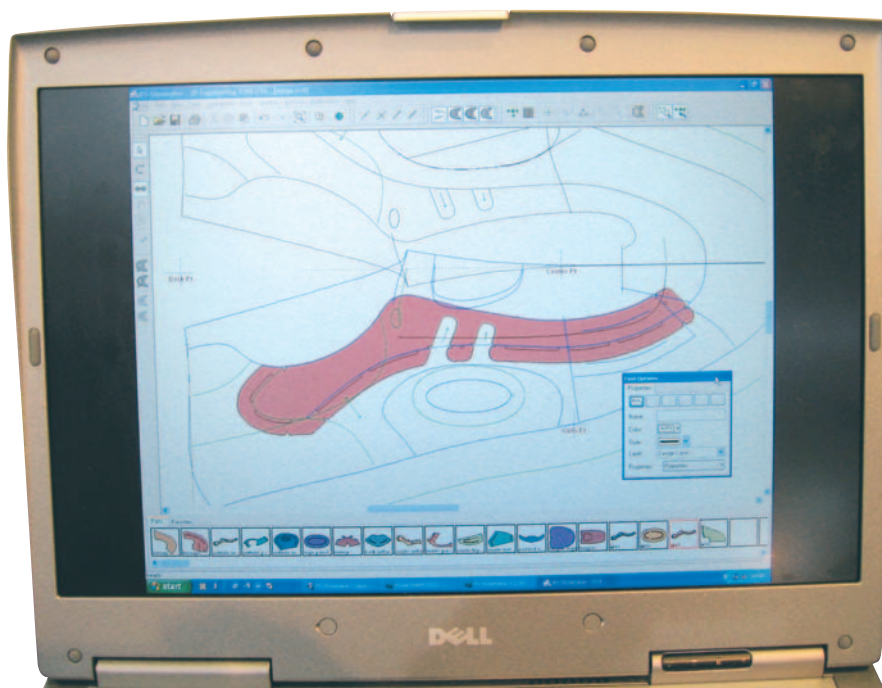
Crispin Dynamics' Style Wizard guide for newer users

which allows the user to select any last and choose a basic style type. The software then displays the basic pattern dimension lines on the last in the recommended positions as the basis for a new style.

Delcam has continued to develop its sole design module to make it easier for footwear applications. The latest, more flexible, grading options allow more efficient working for group grading, or where fixed dimension features such as logos need to be incorporated. Colour is,

of course, included in the design file and this can now be reproduced directly by the rapid prototypes created by the Z Corp equipment (not present on the stand). Further developments in this area are anticipated.

Creating great interest was the progress in the company's PS Shoemaker upper design module based on the Mind software that was acquired a relatively short time ago. 'Billboards' display any graphic image on the screen and overlays the required last on to it, allowing the



designer to trace any line from the image for incorporation into the design. Much work has gone into the 2D pattern creation routines, which are now impressively quick and easy to use.

Factory standards such as rounded ends on underlays are held on file so the user simply identifies an edge and selects the type of seam. The software adds the allowances and creates the notches and marker slots to match. Specification and costing data can also be built up in the technical files.

Lectra introduced its Version 8 of Romans CAD. This features a new user interface with customised icons in place of menus. Users compile a file of company standards, for data such as quarter and back heights, etc., to act as defaults for new designs. Improved group grading rules add the opportunity to hold or restrict grading of selected lines and incorporate features such as standardised backparts. The 2D module is now offered at three levels to allow progression for new users.

Newlast has extended the capability of the software on the EASY range. The data from last digitising can now be interrogated to provide a measurement at any point on the last such as the joint girth. If upper style lines are drawn on the last, these can also be captured in the digitising routine.

As many designs are based on existing lasts and many designers prefer to work on the last rather than a screen, this could prove a popular feature.

Procam has been concentrating on its Business Process Management module, which is now a fully-integrated, multi-lingual version undergoing beta testing. For ease of start up, Procam provides a leasing system for new customers. It has moved to a new office in Vienna and is about to open up in Dongguang where the staff will speak Chinese and Korean.

Aimpes, Comelz, Elitron, Mamecc, Microsystems, Teseo and Talamonti also exhibited systems with incremental software progression.



Designing on the last with Newlast

◀ *Delcam's PS Shoemaker module creating working patterns*

Foot-scanning

Customised footwear and automated selection require some means of capturing data about the wearer's feet and there is a proliferation of foot-scanning devices using varying techniques. This year CSM3D, Corpus.e and Ideas showed interesting new products for those operating in this sector.



▲ *CSM3D foot scanner*

Continuous cutting

Despite an enormous existing range of equipment from many companies, new models of continuous cutting equipment again featured strongly in the exhibition.

Atom has added more models to the Flashcut series. The 15155 (1550 x 1550mm working area) was demonstrated cutting sheets of stripped insole board. Flashcut equipment with projectors for cutting leather also has some new models, the 30180 (3050 x 1850mm) and 61260 (6100 x 2600mm) for full hides. The new version of the Intelliview acquisition station, the 1510 SC-MA, was also shown. This has a curtain to further improve clarity of the projected images and a higher powered vacuum hold-down for heavy soling leathers.

Humantec, a specialist in the upholstery industry, has been purchased by Lectra. The very large format twin head continuous cutter was demonstrated cutting Redback men's boots. It is controlled by Lectra's interactive nesting ➤

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▲ Lectra's Humantec cutter automatically nesting Redback boots

software, working on a separate station with bar code identification of each skin. For simple work (with up to four quality levels) the nesting software can be run in fully automatic mode. Lectra has also integrated the Investronica software and cutting equipment into its range, with some rationalisation having taken place.

Sei demonstrated its flexible Personal Bravo equipment. This is a combined laser marker and knife cutter and comes in two versions with either a 1550 x 2000mm or a 1550 x 3000mm working area. It can create decorative effects by laser and cuts the components with either the laser (on lighter weight materials) or a blade on heavier leathers. It can also be fitted with a roller conveyor for use on synthetics.

Teseo has been concentrating on high output applications and introduced the Sigma press at Simac. This features two cutting heads with a choice of operating modes. Nesting can be completed manually, interactively or fully automatically (including leather) on the machine. The METi acquisition station has been upgraded with a new housing and combined LCD laser projector for increased clarity. The software recognises up to six quality zones on the skin and on designated areas of each piece.

Mamecc showed its Double Action continuous cutter for soles. This takes input from the P146 CAD acquisition station which automatically nests the patterns. It features improved vacuum for holding heavy bends and, while it was demonstrated on 4.5mm leather, the company claims it can cope with up to 6mm thickness.

Cei, Comelz, Elitron and Torielli also showed improved versions of existing systems together with Chiesa Artorga's travelling head press.

Uppers

A wide range of ancillary equipment for cementing and upper construction is normally shown but unless there is a specific new trend, this isn't a particularly innovative area. With the exception of two new printers for upper material from Muchcolours and Talamonti, this year offered no surprises.

Del Vecchia (Juki), Fortuna, Olympic, Sarema and SPS showed new models and OrisolAsia reported further additions to its range with HFW and embroidery machines.

Lasting and making

Although there were some new models, this area was not the focus of attention this year. However, Bima, Banf,



▲ Double Action cutter by Mamecc

Brustia, CMCI, Cosmopol, Ciucani, ElettrotecnicaBC, ESM, Giovi, Matic, Ormac and Reces had some useful developments. In the bottom preparation area, Benezzatto, Bruggi, Olympic, Robotystems and Tecno2 have also introduced some improvements.

Moulding

Moulding continues to grow in popularity and the market leaders all had new products this year.

Klockner Desma's 'E series' approach developed for direct moulding has been applied to its PU sole moulding equipment. This still retains the essential technology, but is now offered in a more economically priced version using the mixing head from the E series with mechanical self-cleaning.

A new patented system for colour changing on poured TPU outsoles was being demonstrated to great effect. Changing colour previously required full purging, but the unique Colourquick system uses a neutral material which is dosed with liquid colour immediately before being cast or injected. The need for full purging is eliminated and the amount of waste greatly reduced. Up to four colours can be simultaneously connected for changes during production.



▲ The minimal waste from Desma's Colorquick TPU system



▲ Main Group's small square format Activa moulder

Main Group introduced the Activa EVA sole moulding equipment. This is a complete redesign with a compact square footprint of only 4.6m². Unconventionally, the new injector head is positioned above the mould stations to eliminate the normal linear head transport mechanism. The machine has eight stations in two banks of four, placed back to back. Existing moulds can be modified for use on the new machine, which uses a patented valve for connection with the injector. The change required is small and reversible.

To reduce the manual labour required, Tienkang has added automatic mould movement and opening to its well-established 330 rubber compression-moulding machine. The new version is the called 330L. Ottogalli Businaro did not display machines at the exhibition but was promoting its new energy saving Aurora moulder for one- or two-colour PVC soles.

Other innovations

Falan showed a novel development for sole stitching. The availability of exact sized leather soles via continuous cutting systems means that rough rounding can be omitted. This has led Falan to combine the grooving and stitching operations by adding an extra (patented) head to its established

machine, making it the FL1 Silent LS. This cuts either a groove or a slot immediately before inserting the stitches.

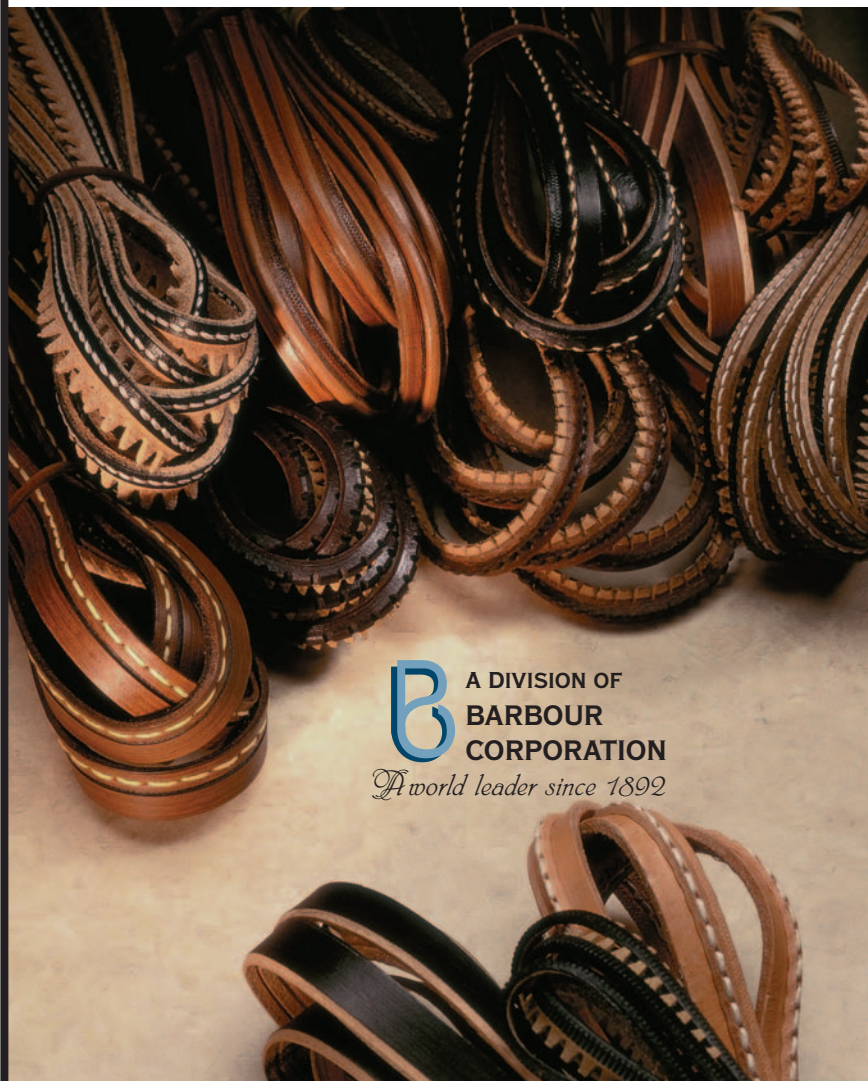
Growing concern about customer safety led both Brustia and ElettrotecnicaBC to exhibit new equipment for the detection of tacks, etc. Brustia had the NDT scanner, an X-ray tunnel made by Gilardoni. This allows the user to define metal items that are intentional and the screen display allows the user to inspect

their position. Any others that are found are displayed in red on the screen and can trigger an audible warning. Elettrotecnica BC demonstrated the BC100, a device with inflatable probes to detect any sharp objects inside shoes. Any concentrated pressure on the inflatable membrane triggers a warning.

Last maker Fagus was publicising its last location system which drastically reduces setting up time for moulding by co-ordinating the exact last position with the mould. 

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