



SiliconEye Machine Vision

Aeronaut's SiliconEye machine vision will change the way you look at automated cutting because a SiliconEye camera system fitted over a cutting table gives a machine much more than a good set of eyes.

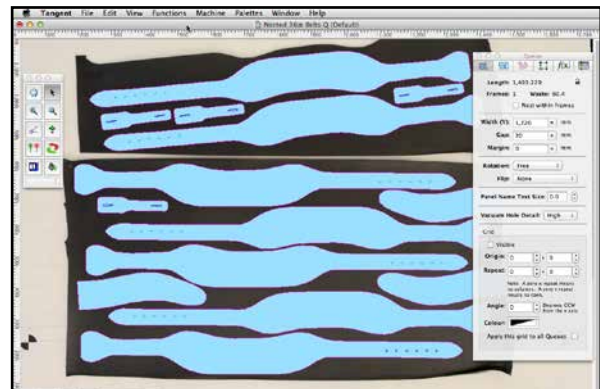
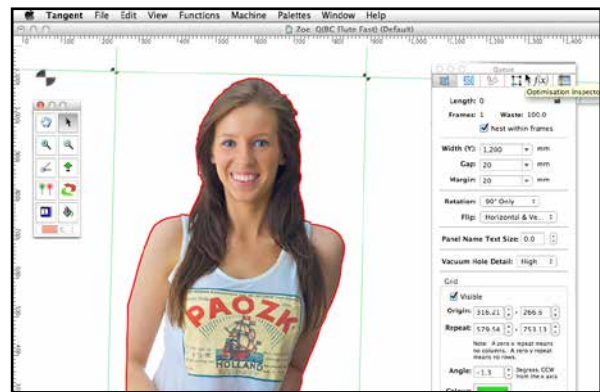
SiliconEye will completely change your viewpoint on jobs like interactive nesting, fitting shapes into irregular outlines, aligning cut shapes to patterned fabric, pattern recognition, image tracing and alignment with grids and registration marks.

Whether it is matching patterns, digitising leather hides, tracing templates or making the best use of fabric off-cuts, SiliconEye will make your work much faster and more profitable because you can see what you're cutting and where it's going to be cut.

With SiliconEye, you can trace or digitise paper, card or wooden templates in an instant. Features like notches and internal cuts are intelligently recognised and digitised. You can mark faults on fabric and you can nest into irregular areas like leather hides or fabric off-cuts.

SiliconEye uses a low cost but high-resolution digital SLR with an individually calibrated lens mounted over the cutting table and controlled by Aeronaut's Tangent nesting and cutter control software.

High resolution images of the whole cutting table can be captured, scaled and undistorted and imported into a queue in just a few seconds... then a whole range of nesting and cutting tasks get easier and a lot of new ones are suddenly possible.



Tracing Templates. SiliconEye can quickly and accurately trace templates to give patterns which in most cases are ready to cut right away. SiliconEye has features to adjust the image and colours to get the best trace and to interactively smooth the profile to get the desired result.

More than one template can be traced at once and traces can be either saved as cut patterns or as background panels for nesting into.

Interactive Nesting. A lot of nesting tasks can be done much faster with SiliconEye because for the first time, you can actually see where the pieces are being nested on the material on the cutting table. In many cases, there is no need to trace outlines of off-cuts or leather hides because you can zoom right in and see every detail.

Marking Faults. With Tangent's Fault Line feature, fabric problems from pulled threads to stains, holes and cutouts can be identified and drawn over a background image so patterns can be nested to avoid the fault.

Alignment Grids. SiliconEye lets you create grids at any angle from pattern repeats or reference marks on printed material so fabric can be quickly placed on the cutting table and patterns easily and precisely matched and aligned.

Aligning to Registration Marks. Cut profiles can be precisely aligned to registration marks on printed material. Because printed materials often shrink when processed, cut profiles can be either scaled to fit registration marks or centred evenly between marks.

Tangent. SiliconEye is a component of Aeronaut's Tangent. It requires a connected digital camera and calibrated lens mounted over the cutting table. Aligning the camera rig and adjusting scaling is a simple process which should take under 5 minutes, meaning that off-the-table digitising stations which share a camera with an overhead rig are also practical.

SiliconEye is very reasonably priced, quick to install and very easy to operate. Call sales at Aeronaut and let SiliconEye open your eyes to improved productivity, reduced waste and better profitability.

