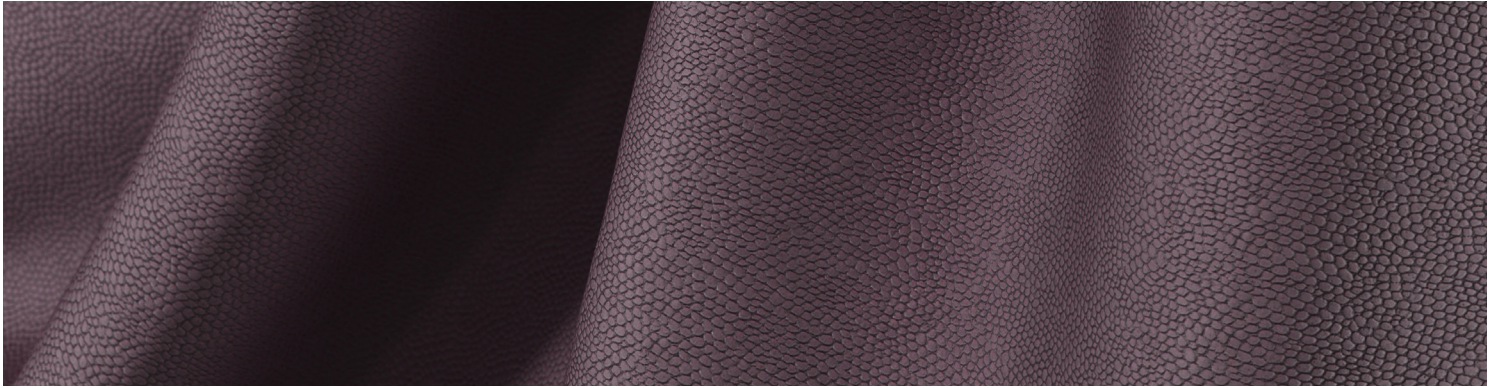# TOTAL APPEARANCE CAPTURE – FOR THE FOOTWEAR INDUSTRY

What is TAC?

TAC stands for Total Appearance Capture and is a technology that captures all of the visual aspects of a material as seen by the human eye under different lighting conditions, and stores the results in a digital file format, AxF (Appearance eXchange Format). The AxF file can be exchanged and used by a range of CAD and PLM software, and 3D rendering engines to virtually recreate the material aspects in design, and create physically accurate materials in the design process.

- Aspects captured are color, gloss, surface structure, transparency, metallic and effect coatings, metal surfaces, etc.
- Materials can be leather, fabrics, meshes, plastics, metals, rubber, paints, etc.

Do I need it?

All environments where large amounts of physical material samples are used in the supply chain (from front-end: concept, design, marketing to back-end: quality control) or are used as sales samples. Prospective customers could benefit from:

- Cost savings (faster design process, and less physical samples prepared and shipped around)
- Decreasing prototype numbers / cycle (accurate color and material visualization)
- Faster time to market
- More flexibility (fast virtual material assessment)
- More creativity (create more variants possibilities with no additional time or cost)
- Customer satisfaction (direct integration, better and faster virtual assessment)
- Faster communication to buyers and e-vendors

Would it fit in my workflow?

If your company has a digital design process or if marketing is creating product brochures or web content with product images, your comany will already be using digitalized materials. The real power of digital materials will come in play when:

- Digital material files can easily be shared within large organizations (corporate connectivity) across multiple geographical locations
- Your customer can use digital materials in their workflow (supply chain connectivity)
- Upgrading your workflow to a full industry 4.0

How does it work?

Physical material samples are scanned using the TAC7 scanner under a multitude of lighting conditions. The result is a digital representation in an AxF file with the exact same optical characteristics as the real material. The AxF file then can be ingested by popular CAD and PLM software, and rendering engines. Material scans can also be stored in the Pantora Material Hub for distribution and reuse. Material scans can be viewed in the Virtual Light Booth (VLB) for comparison with physical samples and/or virtually applied to a CAD model in the VLB's various lighting conditions. TAC7 scans delivers significant time and cost savings due to the reduced requirement for manual adjustments made to files within most design tools—ensuring realistic, accurate and consistent appearance throughout the design, production and marketing processes.

Why X-Rite?

X-Rite Pantone has a long legacy of innovation in the art and science of color. For more than 60 years, we've created tools and technologies to help companies master color management. The TAC technology solution builds on this legacy by extending our expertise in color communication and measurement to appearance, taking virtualization and 3D technology to the next level by offering a new level of realism and efficiency in digital material capture.

Capture. Communicate. Visualize & Compare.

www.xrite.com/TAC