

The Sky's the Limit using Design Software by Ashlar-Vellum™

By Julie H Bou

Around the world, creative thinkers in the aerospace industry are using Ashlar-Vellum™ software to conceptualize, detail and manufacture all types of aircraft, orbital, trans-orbital and deep-space vehicles. From the revolutionary design of Scaled Composite's SpaceShipOne to routine maintenance on American Airlines' Boeing MD-80s, Ashlar-Vellum software allows designers, engineers and technicians to get their jobs done without thinking about how to run their software.



Beyond the edge of space, Scaled Composite's SpaceShipOne carried Brian Binnie to over 111 kilometers above the earth's surface.

Recently introduced into Eastern Europe by their office in Kiev, this new software lets you think and design as you draw. Unlike other CAD drafting and 3D modeling programs that are cumbersome and require a great deal of training to use, Ashlar-Vellum products have an extremely elegant user interface that contains all of the power necessary for precision engineering. Two products dominate their Eastern European product line. These are Cobalt™ for 3D modeling, and Graphite™ for precision drafting.

Underneath both products is the unique Vellum® interface, providing creative simplicity and efficient power. This special interface anticipates your next move, offering help without intrusion.

Cobalt's Modeling Dexterity

The most forward-thinking designers, engineers and inventors in aerospace and aviation must be able to think through their designs as they work. Sketching, refining and visualizing as they go, Cobalt enables them to finish with models and drawing sheets precise enough for manufacturing. Cobalt offers a unique hybrid of integrated solid and surface modeling, and wireframe drafting tools. Associativity and history-based modeling allow easy design exploration and fast engineering changes. Unlike competitive programs that limit your ideas to lines, arcs and circles, Cobalt has a special affinity for complex shapes and curves, allowing you to produce any shape that you imagine, with the precision to manufacture it. Cobalt also offers beautiful photo-realistic renderings so you can sell those ideas to the people that really matter.

Graphite's Drafting Elegance

Also from Ashlar-Vellum is the precision wireframe drafting program, Graphite. No other CAD software on the market is as fast to learn or as easy to use. Yet Graphite has all of the strength and power to meet any of the world's leading competitors head-on and beat them. What gives Graphite the edge? It's the Vellum user interface that harnesses its great power and strength to make it the most useful tool imaginable.

A Few of Those Using the Software

Aerospace and aviation are extremely important industries to Ashlar-Vellum. While a few of their high profile customers are discussed here, a more complete list is found at www.ashlar-vellum.com.



Burt Rutan and the experimental aircraft of Scaled Composites have

The Global Flier, designed by Burt Rutan and the team at Scaled Composites, flown around the world by Steve Fossett in 67 hours.

been in the news a lot lately. From winning the coveted Ansari X-Prize for being the first private company in space with their SpaceShipOne, to designing Steve Fossett's record breaking Global Flyer, achieving the first solo flight around the globe in 67 hours, Rutan and his team depend on Cobalt. Every part of SpaceShipOne, except the landing gear, was designed in Cobalt. Ashlar-Vellum's president, Robert Bou recently visited Scaled Composites in their Mojave, California headquarters. Reports Bou, "They told me that they saved 33% of their engineering costs by using our software over that of our competitors." To learn more, see their website at www.scaled.com.



Aurora Flight Sciences' Mars Flyer for exploring the red planet.

aeronautical engineer with Aurora, "The great thing about Graphite and Cobalt is that they let us sketch out our ideas as easily as if we were working with a pencil." See their website at www.aurora.aero.

A longtime user of Ashlar-Vellum software, most especially Graphite, is the team at AeroVironments, makers of high-efficiency unmanned aerial vehicles, focusing on communications, reconnaissance and research. AeroVironment first started using Graphite, known back then as Vellum, in the early 1990's. As their team has grown, so has their number of engineers using Graphite. Today AeroVironments continues to design innovative products including the Helios. Working with NASA, they have developed this unmanned solar-electric airplane, capable of continuous flight for up to 6 months at over 20,000 meters. The Helios is used as SkyTower, a low cost, rapidly deployable, local access solution for wireless broadband telecommunications to "the last mile." Learn more on their website at www.aerovironment.com.



The Heleos solar-electric airplane, by AeroVironment and NASA, capable of continuous flight for 6 months at 20,000 meters.

Other significant users of Ashlar-Vellum software in the aerospace industry include the United States' National Aeronautics and Space Administration (NASA) national labs including Dryden Flight Research Center, Jet Propulsion Laboratory, and Langley Research Center. See some of their interesting projects at www.nasa.gov.

When You Want to Change the World

For over 15 years, Ashlar-Vellum has set the standard for usability and precision drawing. Headquartered in Austin, Texas, in the southwestern region of the United States, the company has recently established a development and testing office in Kiev, Ukraine, and has sales partners around the world.

Some people want to create new things that change the world, while others are satisfied with merely calling themselves experts at running a particularly aggravating piece of software. If you've got greater dreams than simply being the technician that documents someone else's ideas, you'll want to learn more about Ashlar-Vellum products at www.ashlar-vellum.com