The Design Explorer
The Ashlar-Vellum User Newsletter

Second Quarter, 2012

Featured Designer

Our web master, Andrey Simakov, is developing a new feature on our home page focusing on designers that use Ashlar-Vellum software. The Featured Designer section will change regularly and will link to a page about one of our valued customers that uses Cobalt™, Xenon™, Argon™ or Graphite™. That page will link to success stories, sound bites from interviews, graphics from our Gallery, movies and other places where they are featured.

If you are a designer, engineer or inventor who uses Ashlar-Vellum software and would like to be one of our Featured Designers, we would love to create a profile for you. Please contact Julie Bou at sales@ashlar.com.

Michael Golino
DesignJourney Industrial

Discern

Michael Golino uses Xenon™ CAD and 3D modeling software to quickly and easily.

"What I've found in using the Ashlar products is that I ca[n] way to manifestation within the product because there's a number of different ways that I can approach things."

Discover

See how he breathed new life into something like the office cub[icle] unwelcome, fixture of the contemporary work environment in Th[...]

Then see how Xenon's 3D modeling files allowed him to go from machines with virtually the same file in Design to Production in [...]

Explore

Click here to listen to Golino talk about the steps in the process [...]

Then hear why he loves designing in Xenon, which allows him to not think about the software.

Hear Golino and 14 other designers from around the world talk [...] that makes Ashlar-Vellum 3D modeling software so unique in ou[r] Consumer Product Design.

New v9 Icons

The product icons for v9 of Cobalt, Xenon, Argon and Graphite are in development. These are the icons that appear in the user's dock, desktop and applications folder to launch the program. They do not replace the 3D product logos. A conscious decision was made to keep the icons simple, especially in their smaller sizes, with minimum 3D detailing. This is because the details show as mere clutter for users running in high resolution on small screens.

Graphite Power Users

Want to use Graphite like an absolute pro? The *Graphite Tips & Tricks* book lets you work more efficiently. Even experienced Graphite users are amazed at all the simple techniques they didn't know before. Here's just a few of the tips included:
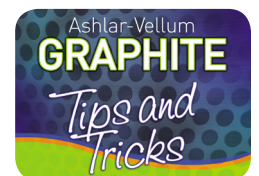
- Easily access a floating tool palette
- Instantly create tangent and perpendicular lines
- Create non-associative detail views
- Effectively use macros
- Create smart walls along their center lines

Visit www.ashlar.com for more information. At just US $49.95, this book is a great investment.

From our Email

"The fact that someone would not only pick up the tech support line 10 minutes after hours was a pleasant surprise, but to have them pass the call over to the president of the company is part of the reason we use Cobalt™ over Solidworks. Robert spent several minutes walking us through potential solutions to our issue and…solved the problem."

—Trey Hermann,
Pronghorn Gear,
Boerne, Texas, USA

New Banners

Check out the new banners on our home page. Many of you have created images that are included there. Click on them and you'll learn more about the Drafting Assistant and how it makes Ashlar-Vellum software the most intuitive CAD solutions ever.

THE most intuitive CAD and 3D modeling software EVER
for both Mac and Windows

THE most intuitive CAD and 3D modeling software EVER
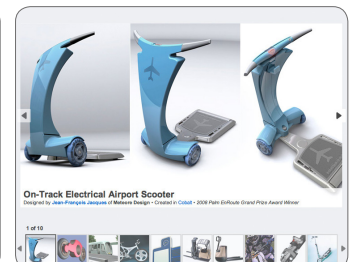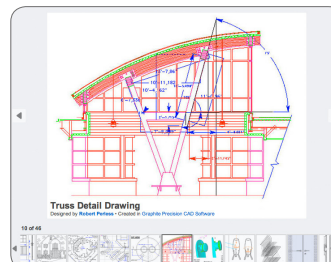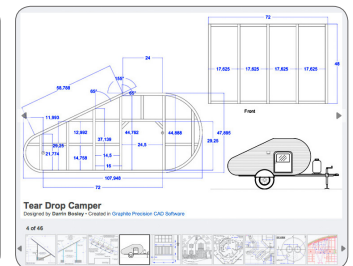for both Mac and Windows

Call for new Gallery Items

We're always looking for new items designed in Ashlar-Vellum software to feature in our Gallery. If you would like to share your designs, we'd be pleased to show them. Credit is always given to the designer, company and even client as appropriate.

Current Gallery items are organized into the following categories:

- Drafting
- Consumer
- Furniture & Home Furnishings
- Housewares
- Electronics
- Packaging
- Medical
- Business & Industry
- Environment
- Architecture
- Mechanical

- Transportation:
  · Automotive
  · Marine
  · Aerospace & Aviation
  · Other Vehicles
- University & Design School Students
- Girlstart Summer Day Camp
- Award Winning Designs
- Sketch Rendering
- Movies

Dragons
Designed by Martin Brunt for Seattle Nome • Created in Cobalt CAD & 3D Modeling Software
1 of 30

Tear Drop Camper
Designed by Darin Bosley • Created in Graphite Precision CAD Software
4 of 45

Truss Detail Drawing
Designed by Robert Pertesis • Created in Graphite Precision CAD Software
13 of 46

On-Track Electrical Airport Scooter
Designed by Jean-François Jacques of Meteore Design • Created in Cobalt • 2008 Palm EnRoute Grand Prize Award Winner
1 of 10

Graphite Drawing & Modeling Tip:
Keyboard Mask

In a complex Graphite drawing, when there are lots of overlapping geometry points in a small area, trying to snap to a particular point is difficult, especially when the Drafting Assistant™ is attracted to *all* the points in the area.

For example, it might be difficult to find the *center* point because the Drafting Assistant keeps jumping to the *midpoint* or an *intersect* point right next to it. Yes, you could zoom in for a closer look, but there's another way to get exactly the right point.

Using the Drafting Assistant it is possible to mask out all but the desired point in a crowded area. While holding the mouse button in the hit radius and pressing the appropriate key from the chart below, the desired point will become available and all other points masked out.

Keyboard key	Snaps to	Keyboard key	Snaps to
c	center	o	on
e	endpoint	p	perpendicular
g	grid	q	quadrant
i	intersect	t	tangent
m	midpoint	v	vertex
n	NO SNAP	%	percentage point

To Begin a Line in a Crowded Area:
1. Place the cursor near the necessary point.
2. Press and hold the mouse button.
3. Press the appropriate mask key from the chart above.
4. Move the mouse slightly within the hit radius to activate the snap. The line will begin from that specified point.
5. Release the key or drag the rubber-banding line away toward the end point.

To End a Line in Another Crowded Area:
1. Press and hold the mouse, dragging a rubber-banding line to the endpoint position.
2. Near the necessary point, while holding the mouse button, press and hold the appropriate masking key on the keyboard.
3. Move the mouse slightly within the hit radius to activate the snap.
4. When the appropriate point appears, release the mouse to end the line.

Two Things to Remember:
1. There must be an actual conflict of points for this to activate.
2. The mouse button must be held down in order for the masking key to take effect.

Success is No Shock for American Suspension

Vince Costa's life-long passion for motorcycles is reflected in American Suspension, his company that designs and manufactures high-end motorcycle suspension parts and systems for American bikes. His passion for using Ashlar-Vellum computer-aided drafting software also began early with Vellum® 2.7. Today he uses Graphite™ CAD software to draw the forks, brakes, wheels and shocks for customized American motorcycles. Costa tells us, "Graphite just seems to work fast, which is really important because we have to be continually coming up with new ideas."

One of the company's most innovative ideas is an inverted front fork with an integrated brake caliper in the lower fork leg and an integral brake line. This provides three things:

- Improved aesthetics for motorcycles often seen as works of art, selling in the $50,000 price range.
- A more powerfully functioning brake caliper because all of the strength of the lower leg is used in the structure.
- A lower manufacturing cost because one part can be machined to perform multiple functions.

Costa has patented the various parts and used them to successfully fend off overseas manufactures.

Awhile ago, custom bike builder Paul Teutul, Jr. began to collaborate with Costa creating innovative assemblies from Costa's stable of suspension systems. When the Discovery Channel held the *American Chopper Build-off* to decide who was the greatest custom motorcycle builder in the world, Teutul called Costa to brainstorm ideas. Costa tells us Teutul was looking to design the most fantastic, well designed bike they could possibly conceive and make it happen in a very short amount of time. Together they thought through the design.

Costa had been working on a concept that included ribs and rivets, giving it a look like something out of Jules Verne. Drawing further inspiration from P51 Mustang fighter planes, the two decided to try a never-before-used single-sided swing-arm front suspension, which attached the wheel on just one side, leaving the other side open, similar to a plane's retractable landing gear. They also took the suspension unit out of the inverted fork and made it into the steering neck, bolting in the front with a specially made frame and steering mechanism so the suspension could move up and down while the handlebars remained steady.

Costa admits the pressure was high because he and the frame maker were producing parts on the west coast and sending everything to Paul Teutul, Jr. for completion in New York. Working entirely from drawings, there was no time to test this front suspension before it had to be assembled on live TV. But it all worked… winningly. Costa concludes,

"I have to give your program credit. It's so easy to use and so quick. For designing suspension stuff like what I'm doing, it's like being able to sketch. It's just really, really good for doing that because I can do stuff so quickly and make changes. So it really helped when we were making it."

Paul Teutul, Jr. on the winning bike in the *American Chopper Build-off*.
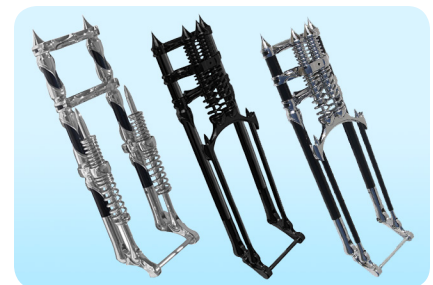
Costa's innovative suspension designs integrate the brake caliper into the front fork for better aesthetics, performance and cost to manufacture.
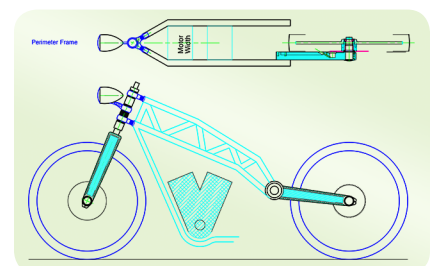
Concept drawing for the single-sided swing-arm front suspension which attached the wheel on just one side.

Background/Contact

For more details on this project contact:

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