The Design Explorer

The Ashlar-Vellum User Newsletter

First Quarter, 2018

Cobalt™, Xenon™ & Argon™ v10 in Soon to Release

Version 10 of our trio of 3D modeling products went into release candidate this week. That means that barring any unforeseen bugs, breaks or blemishes this version will become our full release the first week in April. Should our QA department find a problem it will be fixed as quickly as possible and the release candidate process will begin again. We apologize for the delay but our team is dedicated to making our software as solid as possible, for the best user experience.

Version 10 of our three 3D modeling programs contains maintenance upgrades to support the latest Mac and Windows operating systems. There are also upgraded file translation tools and a number of minor fixes and enhancements under the hood.

Ashlar-Vellum is also re-architecting our software infrastructure in parallel with the upgrades to our existing software. Future versions will use the new infrastructure when complete. ❖

Graphite™ v11 Near Release

The newest version of Graphite, version 11, has also entered release candidate stage and is anticipated for full release the first week in April.

Like our 3D modeling software, this latest version is designed to support the newest Mac and Windows operating systems, in addition to the AutoCAD DXF/DWG 2018 file translation capabilities.

We are also working on a new infrastructure for Graphite, changes to which will probably be transparent to our users except for taking advantage of newer hardware and operating system technology. ❖

Turbo Charge your System with NVMe SSD

Medium	Typical Sustained Speed in Megabyte/Second	Typical Price for a 1-Terabyte Drive
SATA HDD (Hard Drive)	50	US $50.00
SATA SSD	450	US $270.00
NVMe SSD	1800	US $490.00

The transaction speed of a fully-powered CAD system has traditionally been related to processor speed. Today, how fast that same system feels can be much more powerfully influenced by the speed of the data storage drive. The addition of a Solid State Drive, and more specifically an NVMe drive increases that system's speed dramatically.

SSDs in general offer clear performance benefits over traditional hard drives. While expensive, they are worth the price. SSDs offer:

- Higher transfer rates (read/write speed)
- Lower latency (delay between instruction and actual data transfer)
- Greater durability (no moving parts)
- Silent operation (again no moving parts)

SSDs come in two varieties:

1. The older SATA SSDs, or Serial Advanced Technology Attachment, which are fast.
2. The newer NVMe SSDs, or Non Volatile Memory Express, which are faster still.

How much faster is an NVMe? Oh, 4X or more. The chart above compares the typical read/write speed for the three storage media and their typical prices.

The NVMe drives are more expensive than SATA drives but are well worth the additional cost.

Screen Resolution Slows Performance

In addition to the read/write speed of your storage medium, the other factor greatly affecting a CAD system's speed is screen resolution. For example many users upgrade from a screen resolution of 1440 x 900 to 5120 x 2880 and assume it's a 3X jump when in reality it's an 11X increase in the number of pixels. Still in doubt? Here's the math:

$$1440 \times 900 = 1{,}296{,}000 \text{ pixels}$$
$$5120 \times 2880 = 14{,}745{,}600 \text{ pixels}$$

Pushing that many pixels around the screen takes more processing power, and hence more time. If the graphics card and processor combined are not at least 11 times faster, the new, high-resolution screen will feel like molasses in January…running uphill.

5120 x 2880

2560×1440

1440x900
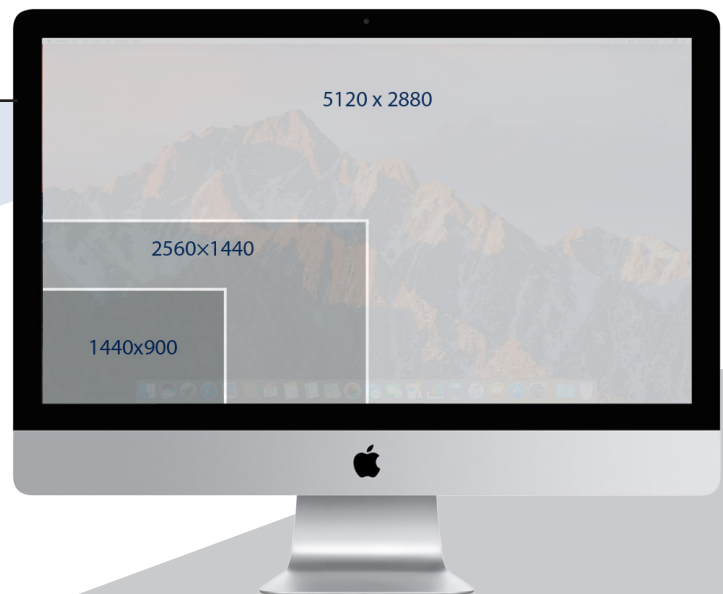
Time's Running Out

Graphite v11 and Cobalt, Xenon and Argon v10 are all in Release Candidate stage. That means that barring any unforeseen problems these versions will be fully released next week. If you haven't upgraded to the latest release of your CAD or 3D modeling software at the pre-release price, now is the hour to do so. Next week they all go up to the full release price, an increase of nearly 20%.

To get the latest version of the software you're using or to upgrade to one of our other programs in our CAD and 3D modeling family, simply give **Linda** a call in sales **at 1 800 877 2745 ext 1**, or contact your value added reseller.

You can also purchase an upgrade using the following links:

To upgrade Graphite to v11 go here.

To upgrade Cobalt, Xenon or Argon to v10 go here and click on your product. ❖

Welcome Back Dmytro

Dmytro Yudin has rejoined Ashlar-Vellum after several years of being away. As part of our software development team, Dmytro works primarily on our 3D modeling code. An avid sports enthusiast, he keeps in shape with running, volleyball, basketball and skating, while keeping his mind sharp with chess and foreign language study. Dmytro enjoys most film genres and keeps up with news in information technology and space exploration. We're glad to have him back. ❖

Welcome Suzana

Suzana Donets is our newest hire. Originally from Sevestopol, the port city of Crimea on the Black Sea, Suzana, has spent the past 10 years living in Kiev. With experience in interior design and decorating, she brings her creativity and new ideas to getting things done in assisting our management team. A painter in oils, she also enjoys the theater, nature and animals. Susan is a welcome addition to our team. ❖

Welcome Valerii

Valerii Zakharchenko is new to our technical team. A native of Kiev, he spent time every summer in the country on his family's farm where he developed a love of plants and gardening. Valerii graduated from Kiev Polytechnical Institute where he studied Technical Sciences, giving him a broad understanding of information technology, programing and electronic devices. Before joining Ashlar-Vellum, Valerii worked as a technical ecologist for the railroad in Ukraine, monitoring pollution levels and carbon emissions. ❖

Interactive Version

The Wizard of Whiz

Canadian designer Jean-François Jacques of Météore Design has a passion for making users come together as one with their products. From among Jacques' many innovative designs he won Grand Prize from the Palm enRoute Awards in Mobility Design for the On-Track airport electric scooter. The Palm enRoute awards honor ingenious ideas designed to take flight.

The OnTrack scooter whisks passengers through international airports at a brisk 6.2 miles/10 kilometres per hour (about jogging speed). The sleek vehicle features an electric motor that is easily recharged at convenient docking stations and includes a GPS system for easy navigation between tight connections.

Jacques used the Organic Workflow™ design process in Cobalt™ CAD and 3D modeling software to develop almost everything on the On-Track. As he tells it:

« *One of the most important things in the design process is the freedom to explore many paths. Cobalt's tools are perfect for this. It's so easy to create concepts, then rapidly explore them in 3D. It's easy to put parts in place for evaluation without some cumbersome assembly module. If I'm not satisfied, the on-demand history tree and parametric constraints make it easy to go back and modify my ideas.* »

Like many Ashlar-Vellum designers, Jacques uses any number of design software tools as the job demands, but he prefers Cobalt. "We've tried other CAD and 3D modeling tools but the problem was the learning curve. With Cobalt it's possible to be operational in one day."

He continues, "With Cobalt's comprehensive tools, we can create any shape, but its real strengths are the 3D Drafting Assistant™, the user interface, the intuitive approach and the pleasure it is to use. These things are fundamental, the real spirit of the software."

The On-Track electric airport scooter designed in Cobalt CAD and 3D modeling software.

Jean-François Jacques holds an STL prototype.

Background / Contact

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