



August 25 2017

TEIGHA[®] VISUALIZE

PROFESSIONAL 3D RENDERING SDK

www.opendesign.com

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BACKGROUND

Teigha Visualize is a high-performance rendering SDK for developers of CAD and technical graphics applications. It features an easy-to-use, powerful API suitable for any type of graphics from simple 2D geometry to complex 3D CAD and BIM models. It is developed by Open Design Alliance (ODA), a non-profit technology consortium that develops software components for the CAD industry.

Teigha Visualize puts high performance graphics into the hands of ODA members, at no additional cost over the price of a standard membership. Smaller companies that have not had the resources to invest in specialized visualization components now have a professional solution available at a modest price. Larger companies that are licensing third-party technology in this area are encouraged to evaluate Teigha Visualize and compare. Development of this new technology is ongoing, with performance and feature enhancements being added at a rapid pace.

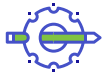


BUSINESS OVERVIEW



INTRODUCTION

Rendering technology has been a key part of Teigha for many years. As originally developed, this technology was tightly integrated with Teigha's support for various file formats such as .dwg and .dgn. With Teigha Visualize, this rendering technology has been separated out from the core Teigha platform, and made available to developers who need a general purpose graphics engine that is not tied to a specific file format.



STREAMLINED API

Teigha Visualize offers a new streamlined API that simplifies the process of integrating high performance graphics into any application.



ACCELERATE TIME-TO-MARKET

In addition to ready-to-use rendering, Teigha provides components for publishing, interoperability and more. Using Teigha as a base, you can build more sophisticated applications spending less time and resources.



INDUSTRY-PROVEN TECHNOLOGY

Teigha Visualize inherits the experience and best practices of Teigha products that have been used for decades in mission critical roles across all engineering disciplines.



ATTRACTIVE PAYMENT TERMS

Teigha Visualize is part of the standard set of components offered to all ODA members. If you are already an ODA member, there is no additional cost to use Teigha Visualize. All ODA memberships are offered at a fixed annual fee with no royalties for cost-effective deployment.

PRODUCT PORTFOLIO

FLEXIBILITY

Teigha Visualize simplifies the process of rendering custom engineering data, in addition to supporting a number of standard file formats

PERFORMANCE

Teigha Visualize incorporates the following optimization techniques:

- ▶ Overlay support allows fast redraw of dynamic graphics such as cursors, trackers, and grip/snap points—significant for editing applications
- ▶ Partial (for visible objects only) graphics cache regeneration—boosts regeneration performance for large drawings
- ▶ Metafiles for complex entities such as hatches, TrueType text and block references—geometry is combined for fast GPU rendering
- ▶ Spatial filtering—culls objects that are not visible on screen
- ▶ Coming December 2017: Multi-threaded metafile preprocessing—generalized metafile optimization for fast GPU rendering

PLATFORMS AND LANGUAGES

- ▶ Implemented in object-oriented C++
- ▶ Available for all popular compilers on Windows, Linux and Mac

STANDARD RENDERING FEATURES

- ▶ Render modes including wireframe, HLR, shaded, etc.
- ▶ Lineweights and linestyles
- ▶ Materials
- ▶ Navigation including zoom, pan, and 3d rotation
- ▶ Visual styles support allows customization of silhouettes, hidden edges, transparency and more

HIGH-QUALITY HARD COPY

Models can be published to high quality PDF (2D), or to PRC-based 3D PDF

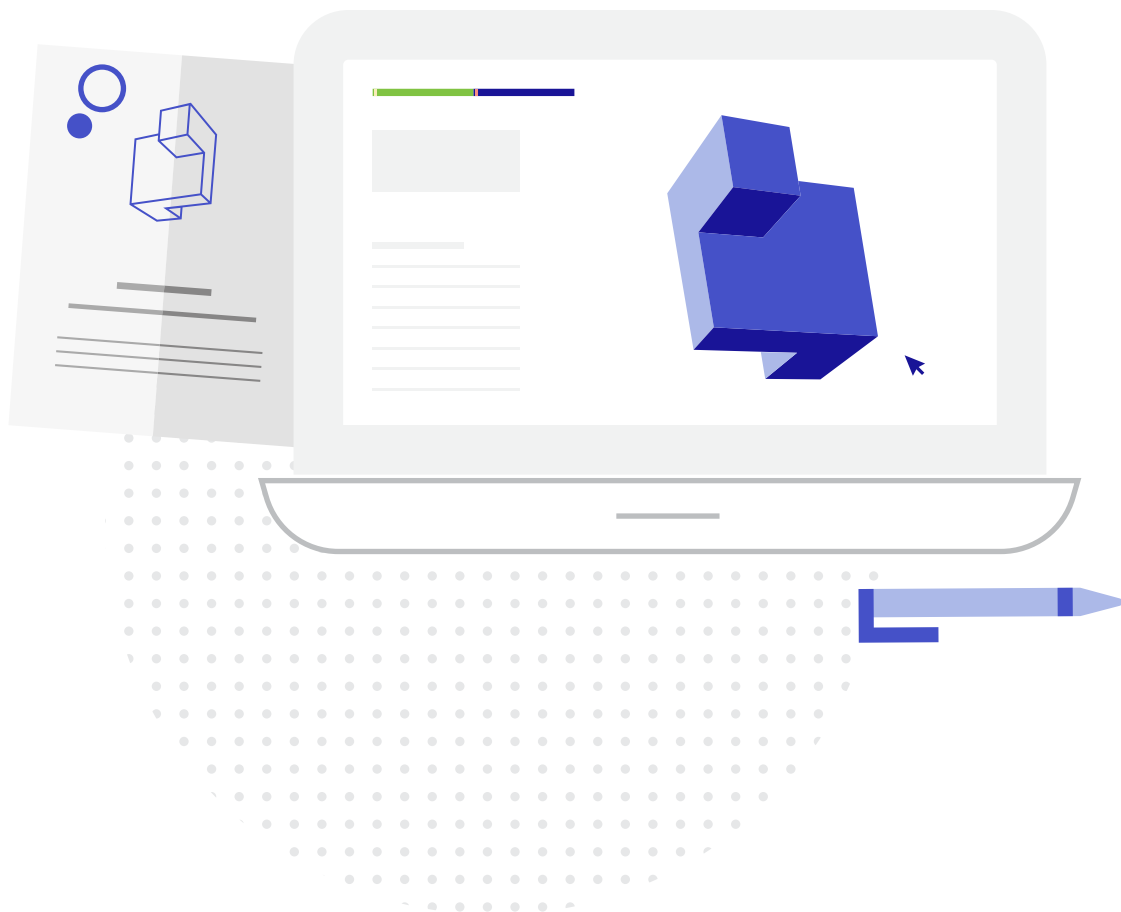
APPLICATIONS

VIEWING & PRINTING

- ▶ Accurately render complex custom data sets for CAD, BIM or CAE
- ▶ Support for large data sets
- ▶ Quickly create special purpose visualization applications
- ▶ Professional results with minimal effort

MARKUP EDITING

- ▶ Add text, lines, and other basic geometry to a model for markup purposes
- ▶ Serialize models to an optimized Teigha cache file for fast reloading



A NEW BUSINESS MODEL FOR THE HIGH PERFORMANCE VISUALIZATION MARKET

ODA was founded in 1998 to develop interoperability solutions for the CAD industry. We have no shareholders or owners. Our members fund our development through annual membership fees, and we direct more than 75% of our revenue into R&D. The result is a great product at an affordable price. This business model has been highly successful in the interoperability market, where Teigha has become an industry standard.

With the release of Teigha Visualize, we are applying the same business model to the high performance visualization market. There are a number of quality solutions already available in this market, and the better ones tend to be quite expensive. Teigha Visualize is included in a standard ODA membership—existing members can use it at no additional cost. Please use the links below to check out our free trial version or to learn more about our software, organization and competitive licensing.



More information about Teigha products

www.opendesign.com

More information about ODA

www.opendesign.com/about