TEIGHA® BIM

PROFESSIONAL SDK
FOR AUTODESK® REVIT® FILES

www.opendesign.com

BACKGROUND

Teigha BIM is the first stand-alone independent SDK available for developers working with the .rvt and .rfa file formats. It was developed by Open Design Alliance (ODA), a technology consortium that has been providing interoperability tools since 1998. New to the market in 2016, Teigha BIM is a professional toolkit for Building Information Modeling that is already meeting the expectations of software companies throughout the industry and creating new opportunities for ODA members.

BUSINESS OVERVIEW

INTRODUCTION

Teigha BIM is the result of collaboration within the ODA community—competing companies working together to develop a common technology that is critical to all.

INDUSTRY-PROVEN TECHNOLOGY

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

ACCELERATE TIME-TO-MARKET

In addition to turn-key support for Autodesk® Revit® files, Teigha BIM provides a variety of components for visualization, publishing, interoperability and more. Using Teigha as a base, you can build more sophisticated applications in less time, using fewer resources.

ELIMINATE MISTAKES

Teigha BIM can be used to automate tedious manual processes and to perform automatic validation of BIM data. This translates to fewer mistakes and more accurate and efficient processes.

ATTRACTIVE LICENSING

Teigha BIM is offered under a fixed fee license with no royalties for cost-effective deployment.

PRODUCT PORTFOLIO

SUPPORTED FILE VERSIONS

‣ Read version 2011 through 2018 .rvt/.rfa files
‣ Write support for the latest version only

PLATFORMS AND LANGUAGES

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

BIM DATABASE ACCESS

‣ High level classes provide convenient access to all BIM entities
‣ Full access to all file data through the more general TfObject interface
‣ Filter database objects based on specified criteria

BIM GEOMETRY ACCESS

‣ Convert 2D and 3D geometric representations of BIM
  entities to standard Teigha geometrical objects
‣ Access to B-rep geometry

ENTITY CREATION

‣ Create non-parametric geometric entities
‣ Parametric entity creation is under development, with support
  for an initial subset of parametric entities planned for Q4 2017

RENDERING SUPPORT

‣ Professional rendering support provided by the standard
  Teigha Rendering Framework

EXPORT

‣ Export BIM data to COLLADA .dae

PROFESSIONAL RENDERING

PERFORMANCE

Teigha BIM rendering makes use of spatial filtering and other performance enhancing techniques to provide fast rendering of BIM data

STANDARD RENDERING FEATURES

- ▸ Render modes including wireframe, HLR, shaded, etc.
- ▸ Lineweights and linestyles
- ▸ Materials
- ▸ Zoom, pan, 3d rotation and other navigation features
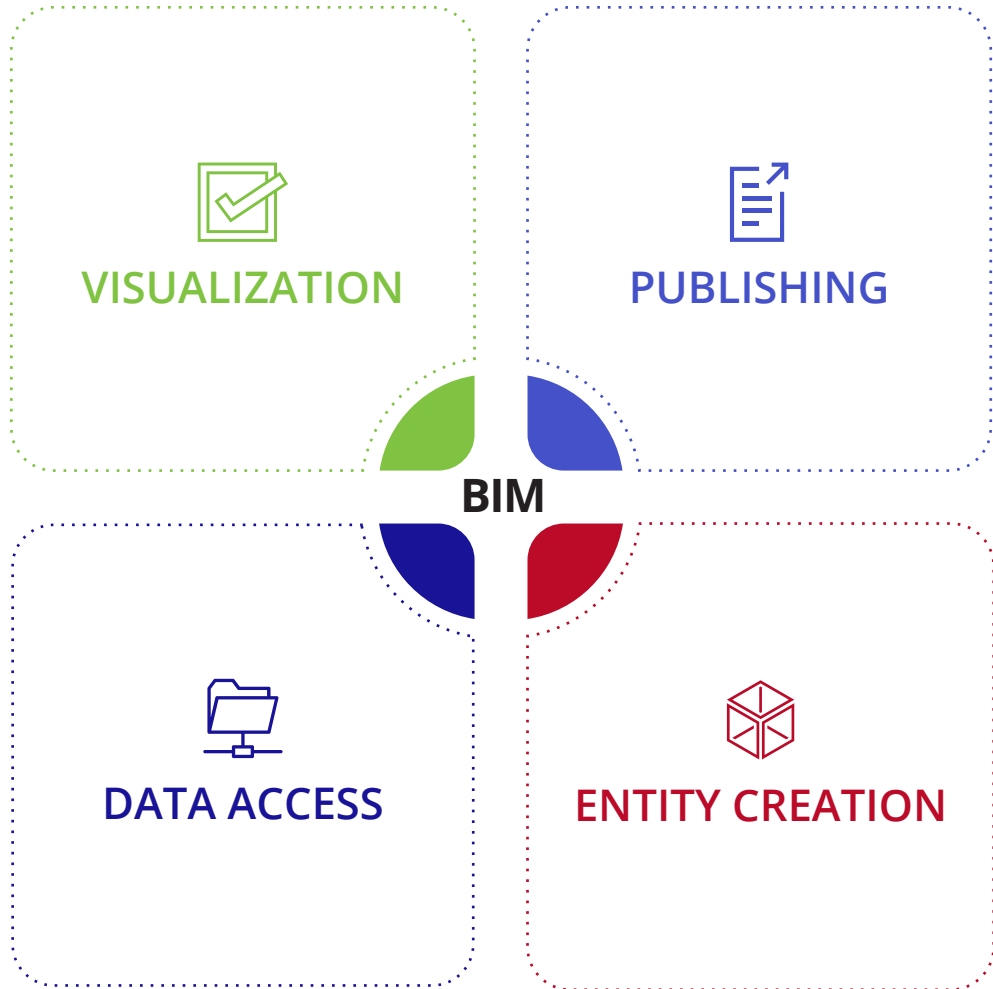- ▸ Entity selection and query

VISUAL STYLES

Custom your rendering of silhouettes, obscured (hidden) edges, "always on top" edges, transparency and more

APPLICATIONS

- Integrate professional rendering into any application on any platform
- Cloud-based rendering also available

- Publish BIM models to 2D or 3D PDF
- Extensive customization options available

VISUALIZATION

PUBLISHING

BIM

DATA ACCESS

ENTITY CREATION

- Import BIM data directly into any application
- Search/index
- Implement custom validation using Teigha BIM's powerful API

- Create simple non-parametric entities with arbitrary geometry
- Create parametric entities – under development*

*Register on www.opendesign.com/products/teigha-bim for updates on this area of development.

RELIABLE LONG-TERM ACCESS TO BIM DATA

For engineering projects that will live for decades, long-term reliable access to BIM data is critical. Teigha BIM is an independently developed, open, platform-neutral solution that can ensure your continued access to this data. For projects that are too important to depend on the fortunes and whims of a single software company, Teigha BIM can provide the continued access and the peace of mind that you need. Full source code licenses are also available.

A PARTNER WITH A CLEAR STRATEGY

As a non-profit, ODA can focus on building great software without the distractions that most companies face. Our business model for Teigha BIM is simple: all revenue from product licensing goes directly into Teigha BIM development. Nothing gets diverted to shareholders, owners or unrelated products.

Establishing an ODA membership is like expanding your development team with our team of industry experts. By leveraging ODA technology and expertise, you can bring sophisticated applications to market faster, with fewer bugs.

More information about Teigha products
www.opendesign.com
More information about ODA
www.opendesign.com/about