



Solution Overview





HCL's Experience in 3D Visualization



eDrawings Publishers – Standard in 3D Collaboration. Available on popular CAD platforms viz. CATIA, Creo, NX, Pro/ENGINEER, Inventor and Solid Edge.



Glovius – Modern CAD Viewers for the desktop, iOS, Android and the Web

Benefits

Improve collaboration

Faster decisions on latest information with simpler, task-specific tools with great user experience.

Enhance productivity

Enable hyper-connected and technology savvy users get work done – anywhere, anytime.

Improve efficiency

Save on expensive CAD licenses. Collaborate better in 3D, not screenshots. No FTP servers or training required.







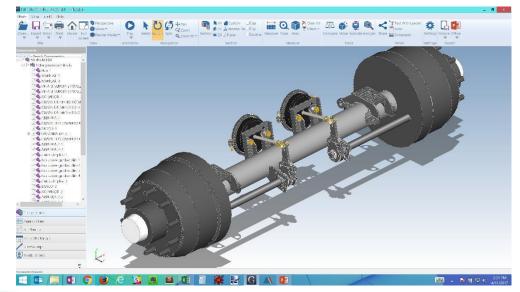
HCL Presents – 3D for the Enterprise Strategy

Modern, multi-platform apps purpose-built for consumption of Engineering Data across the Enterprise

- Modern Desktop Viewer for Windows
- Access 3D from any browser with HTML5 Viewer
- Native Apps for iOS and Android

Benefits

- Get work done anytime, anywhere
- Simple and easy-to-use, no training required
- Make decisions using product data, not snapshots
- Intuitive query and collaboration tools
- Create automation for self-service apps
- Customize workflows with Full API SDK





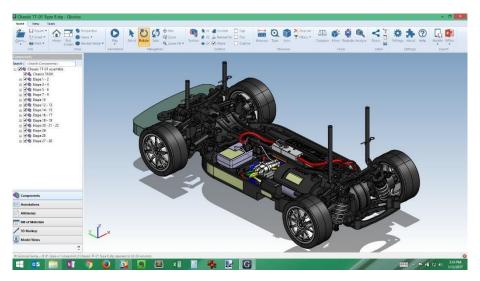








3D for the Enterprise - Use Cases



View, Query, Collaborate, Export and Compare Popular 3D/2D Models on Windows without using a CAD License



Visualize 3D Models and Embed/Share Links inside popular browsers

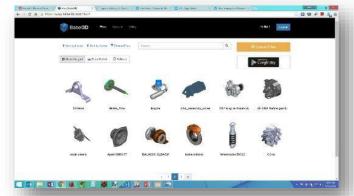




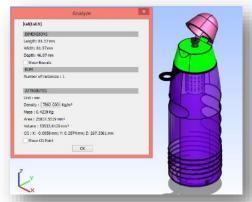




Access 3D Models with desktop grade performance on iPhone, iPad and Android devices, Share Feedback and Collaborate on the go



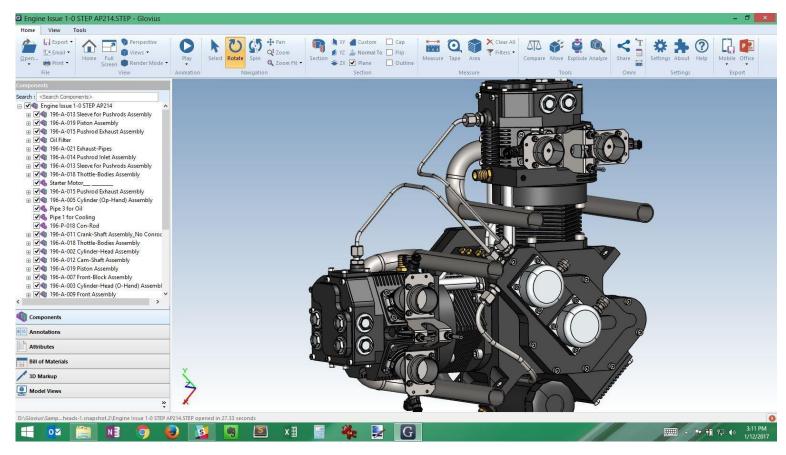
Create Project Status Dashboards and Product Catalogs

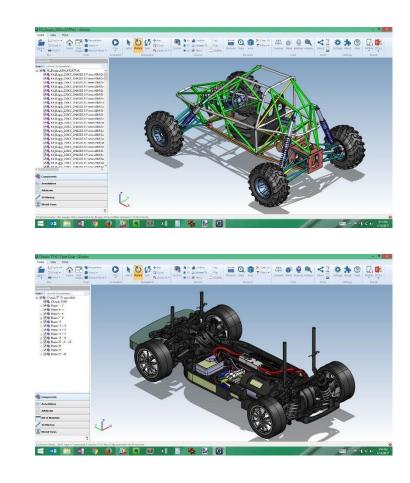


Create Self-Service HTML5
Apps for Marketing & Sales



3D for the Enterprise – Windows App





Modern CAD Viewer for Windows

- Simple, easy-to-use and instantly familiar
- Powerful tools for measurement, sectioning, BOM, Comparison, Collaboration and Export







3D for the Enterprise – HTML5 Apps

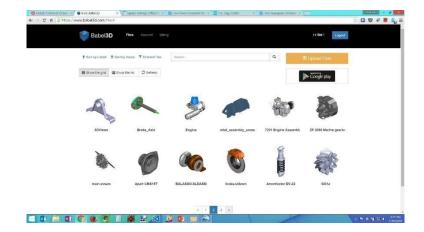
Visualize 3D Models and Embed/Share Links inside popular browsers

- Free Enterprise-wide visualization for 3D Models
- Works in all modern browsers, on Windows, Mac, Linux, iOS and Android
- Zero installation or maintenance
- View 48 popular 3D file formats with Desktop grade performance
- Share 3D Models as link, instead of emailing files or FTP
- Add and view comments with Email and Mobile Notifications
- Works with Dropbox and Box
- Offers iOS and Android apps for Mobile Users
- View 3D Models with Standard Views with Perspective Camera
- Take snapshots
- View Product Structure, GDnT and PMI, BOM and Attributes
- Take simple measurements
- Cut Dynamic sections
- Embed 3D in web pages
- Create Self-Service Apps, integrate with other Enterprise Platforms
- Automate Model Specific Tasks like Comparison and BOM Reports





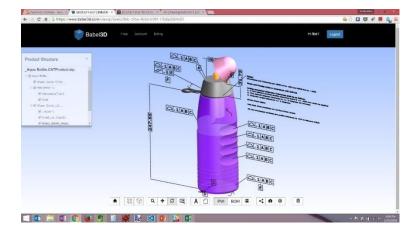


















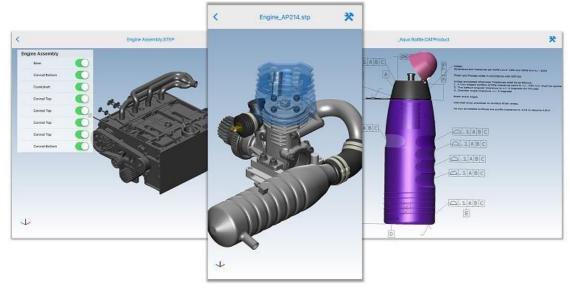


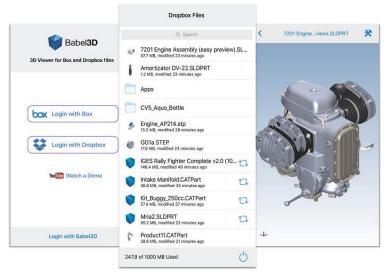
3D for the Enterprise – Mobile Apps

Showcase, review & collaborate on 3D designs on the go

- Access 3D Models, Share Feedback and Collaborate on the go
- High performance 3D viewer for iPhone, iPad and Android
- Load large assemblies on mobile devices within seconds
- Add and view comments with Mobile Notifications Support
- Work offline, in the absence of WIFI/cellular connectivity
- Zoom, Pan, Rotate & Roll 3D models with Intuitive touch gestures
- View Product Structure, GDnT and PMI, BOM and Attributes
- Take Snapshots
- Take simple measurements
- Cut dynamic sections
- Point to point measurement
- Free hand & text markup tool
- Mobile SDK for embedding within Enterprise apps





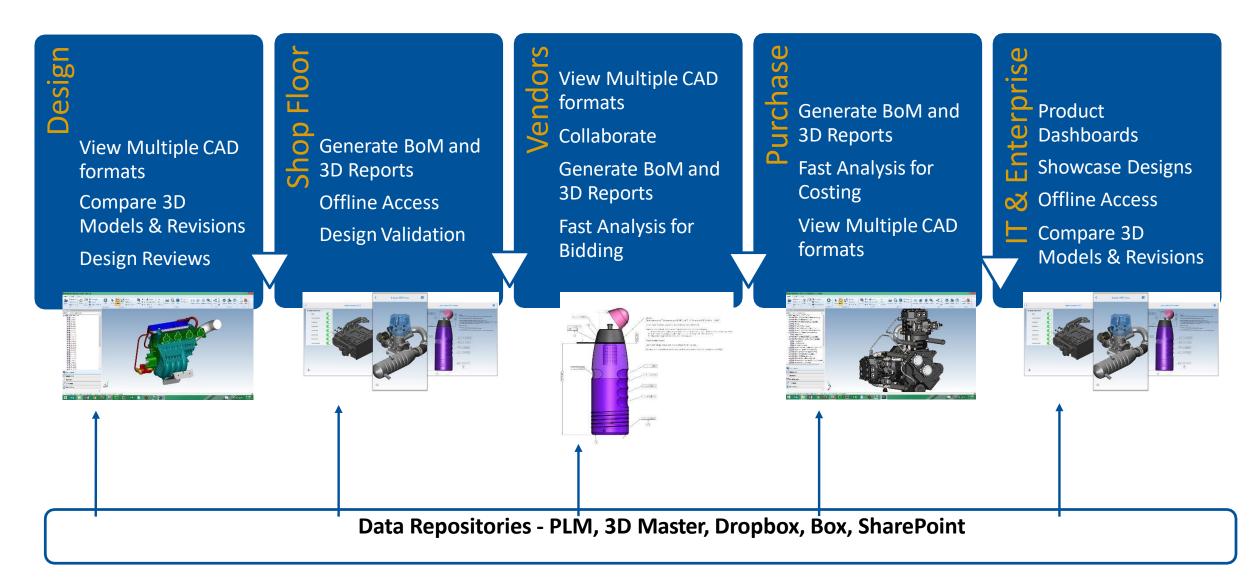








3D for the Enterprise – Multi-platform access to 3D models









Case Study – Glovius for Should Costing Teams

Automotive Tier-1 Suppliers serving Multiple OEM partners - Quickly Access and Estimate the Cost of Components



Challenges

- OEM's share 3D data in different formats
- Multiple tools needed to accomplish task of quickly generating the quotation for a component
- Lack of reporting tools



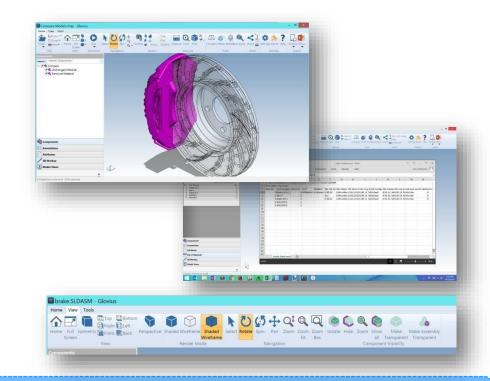
Solutions

- Glovius tools and functions developed to cater to Should Costing teams
- Glovius functions for Fast Visual Analysis, Generate Custom BoM reports, Measure and Compare tools



Benefits

- Low Operational costs -Single application to View Multiple 3D file formats
- Low Training Costs –
 Simple and Familiar GUI
 needs little or no
 training





Low Operational Costs and Non dependency on CAD applications for Viewing

Value delivered



Specialized tools and functions enable increased accuracy and fast quotation







Case Study – Enterprise Visualization Solution

Japan's leading manufacturer of Automobiles and Motorcycles

Digitize technicians workflow on the shopfloor by enabling 3D design access on multiple platforms



Challenges

- Use of paper drawings for technical references
- Lack of traceability and inability to capture work data seamlessly for process improvements
- Integration with multiple backend systems



Solutions

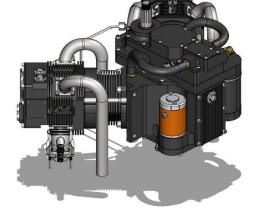
- Glovius deployed on multiple platforms viz iOS, WebGL, ActiveX and Windows app
- Glovius APIs used for integration with existing infrastructure to present a unified User Experience for the technician



Benefits

- Improved Productivity & reduction in access time with on demand 3D access
- Multi-platform solution that repurposes existing assets for new use cases
- Reduced operational cost







Digitize the workflow for technicians enable real-time feedback loops

Value delivered



Multi platform strategy re-uses the solution for multiple use cases







Case Study – Enterprise 3D Compare Solution

World's largest Automotive Component Supplier – Identify variations in 3D Geometry during transition from one CAD system to Other



Challenges

- No checks in place for ensuring accuracy of translated 3D and Attribute data
- No automatic flagging mechanism
- Lack of a centralized dashboard



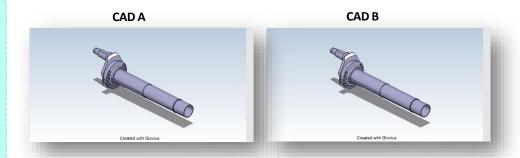
Solutions

- Glovius 3D Compare solution to compare both 3D Geometry and Attributes data
- Automated solution and access to a Dashboard enables Engineers and **Project Managers to track** and rectify errors in the translation of the data sets

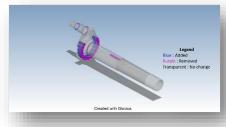


Benefits

- **Automated solution on** a server frees up system resources of Engineers and Managers
- **Prioritized & Quantified** Dashboard ensure quick and fast Visual analysis of problem areas
- No additional software needed for users









Quick Automated solution reduces dependency and maintaining multiple data sets

Value delivered



Web Dashboard and HTML apps ensures fast error analysis with no additional software







