Autodesk Acquisition of NavisWorks

On August 9 2007, Autodesk announced that it has completed the acquisition of NavisWorks, Ltd.

- NavisWorks is a provider of software for 3D coordination, collaboration and project sequencing for the AEC, Plant and Shipbuilding markets.
- The addition of the NavisWorks technology supports Autodesk's commitment to interoperability by aggregating design information from multiple platforms, including both Autodesk and non-Autodesk solutions. These capabilities can help customers make better design and construction decisions.
- This acquisition positions Autodesk to better serve construction and plant design customers where NavisWorks has the majority of its installed base and growing acceptance.

FREQUENTLY ASKED QUESTIONS

1. What is NavisWorks?

NavisWorks is a software company based in Sheffield, England, that provides a software application that allows users to digitally aggregate (or combine) 3D models and data from multiple sources for construction, process, plant, and marine design projects. Users can then investigate these projects by performing visualizations, walkthroughs, clash detection, review/markup and 4D project sequencing.

2. Why did Autodesk acquire NavisWorks?

The acquisition of NavisWorks is a strategic opportunity to expand Autodesk's business in the AEC and Plant markets, and to extend the value of building information modeling (BIM).

For the AEC design community, the NavisWorks solution enables the aggregation and exploration of design models and data. The sources for the models include 2D and 3D civil, architecture, structural, building systems designs, as well as as-built data that may be acquired through laser scanning technology. This provides a more comprehensive view of the project, and the benefits include identifying issues with the overall design and also the ability to QA the construction process.

In the construction market, NavisWorks provides construction managers and general contractors with the ability to combine information, data, and geometry from different trades on a project into a single viewing environment that helps users to visualize and identify coordination and constructability problems before they get to the construction site.

The acquisition further extends Autodesk's commitment to provide complete solutions for plant design customers, who use NavisWorks products during the bid, design, construction, and operation phases for projects ranging from full-scale design and construction to refurbishment, retrofitting, and expansion of facilities. Many of the engineering, procurement, and construction firms, as well as plant owner-operators, manage risk, enhance workflow, and improve collaboration by relying on NavisWorks for their review process.

With Autodesk's recent launch of AutoCAD P&ID for piping and instrumentation diagrams, NavisWorks builds on our strategy to offer a complete suite of plant design products. NavisWorks will continue to help reduce inefficiencies and ensure accuracy on plant projects where complexity is common and changes are constant.

3. **Who is the target customer for NavisWorks?**
   The target customers for the NavisWorks products are professionals who need to view, analyze and coordinate design information from various trades in an environment that allows for conflict resolution and better understanding of design intent. These include 3D designers in architectural and engineering firms, model managers in construction firms, construction managers, and plant engineers working in the process and power industry.

4. **Where are the NavisWorks teams located?**
   NavisWorks is headquartered in Sheffield, England, and has a US sales office in Scottsdale, Arizona.

5. **What are Autodesk's plans for the NavisWorks team?**
   As with all acquisitions, Autodesk will seek to identify synergies and align personnel resources according to business needs as we learn more about NavisWorks. However, we expect this to be a growing business and are currently not planning any major changes to the staff at either NavisWorks or Autodesk in connection with the proposed transaction.

6. **How is NavisWorks related to building information modeling (BIM)?**
   The key value proposition of the Revit platform and building information modeling is the delivery of more coordinated, consistent, and computable information that deliver greater reliability for analysis and other digital workflows. NavisWorks complements this by enabling the aggregation of Revit building information with data and geometry from other sources—including our AutoCAD software, our discipline-specific applications built on AutoCAD, and non-Autodesk products. By integrating building information, data, and geometry, NavisWorks enables a most complete understanding possible of the overall project despite the use of multiple software platforms and applications.

7. **What is the relationship between NavisWorks and Autodesk's DWF initiative?**
   NavisWorks fits within the Autodesk DWF initiative, supporting DWF as one of the many popular 3D CAD formats within NavisWorks JetStream. Since DWF files can be published and shared from any Autodesk design application with metadata such as object properties, Autodesk users can immediately benefit from utilizing NavisWorks for their collaboration processes.

8. **How does NavisWorks fit into the Autodesk viewing and publishing strategy?**
   Autodesk provides solutions for our customers to view and print published DWF files as well as design data in native formats such as AutoCAD DWG and Inventor IPT and IAM and IDW files. Additionally, our viewing strategy expands to include advanced workflow solutions that go beyond simple viewing such as DWF for extended teams to review, measure and mark up 2D and 3D designs; Autodesk FMDesktop to access, integrate, and distribute important facility information and Autodesk Buzzsaw and Autodesk Constructware collaborative project management (CPM) services. NavisWorks expands upon this portfolio and provides a

complement with software for 4D coordination, collaboration and sequencing in design and construction.

9. What is the relationship between NavisWorks and Autodesk's collaborative project management (CPM) applications?

Autodesk's CPM applications include Buzzsaw and Constructware. NavisWorks delivers value together with these applications in several ways. For example, clash detection reports generated from NavisWorks can be published and uploaded as part of a Request for Information (RFI) managed through a CPM application, or a 4D model created by linking to MS Project or other similar solutions can then be stored in a CPM application.

10. What product does NavisWorks offer?

NavisWorks provides a product under the *JetStream* name comprising the following modules:

Roamer – The core of the NavisWorks offering, Roamer is a smooth real-time walkthrough application that supports many native 3D design and laser scan file formats. Roamer can combine digital models from different applications in one environment in order to analyze models.

Publisher – A plug-in to Roamer that allows users to share 3D models that are faithful to the original design data with anyone using the free JetStream Freedom viewer.

Freedom – A freely available viewer that allows users to visualize NavisWorks projects.

Presenter – A plug-in to Roamer that allows users to easily create compelling images and animations that convey design ideas and intent.

Clash Detective – A plug-in to Roamer that provides effective identification, inspection and reporting of interferences in a 3D project model

TimeLiner – A plug-in to Roamer that facilitates visual simulation of work processes by linking 3D model data to project schedules

RVM Reader – A plug-in to Roamer that serves as a reader for RVM and RVS files created by AVEVA Plant Design Management System

11. In what languages is the NavisWorks product currently available?

NavisWorks products are available in English, Simplified Chinese, French, German, Japanese and Russian

12. What is the sales model for the NavisWorks JetStream product?

Freedom (Viewer) is available at no cost. Users can buy Roamer licenses and any of the vertical products (Publisher, Presenter, Clash Detective, TimeLiner and RVM Reader). Customers may also purchase an annual NavisWorks subscription SRP of 20% of the list suggested retail price of the seat license. Subscription provides product upgrades and email support.

13. Which Autodesk products are interoperable with NavisWorks?

Autodesk products that work with NavisWorks include: AutoCAD, AutoCAD Civil3D, AutoCAD Architecture, AutoCAD MEP, Revit Architecture, Revit Structure, Revit MEP, Inventor, 3DS Max and Autodesk Design Review. In addition, NavisWorks also supports a large number of 3rd party applications built on AutoCAD software.

14. What file formats are currently supported by the NavisWorks products?

For an updated list of the file formats and applications supported, please follow the link below.

http://www.navisworks.com/en/support/formats

15. What changes have been made in terms of file format support?

Autodesk is now shipping Autodesk NavisWorks JetStream v5.5. Autodesk is committed to supporting industry interoperability and intends to continue support for as many file formats as possible. A short list of file formats that are not currently supported in v5.5 follows.

File Format Changes for v5.5		
Format	Change	Workaround
DGN	v8 not supported natively	Use Exporter for most accurate output, save as DGN v7 or DWG
Solid Edge	Native format not supported	Use IGES or STEP
SolidWorks	Native format not supported	Use DWG, DXF, IGES, STEP or VRML
Trimble	Native format not supported	Use ASCII

Autodesk will continue to work with intellectual property holders and other software providers with the goal of supporting these file formats in future releases of NavisWorks JetStream.

16. Are trial versions of the NavisWorks JetStream product available?

NavisWorks provides an online demonstration, a downloadable demo version with NavisWorks demo files, and a limited-time evaluation version available upon request.