

Titania Delivers Intelligent Engineering Content

Oberon Technologies' Titania Web Collaboration Suite

CIMdata Commentary

Key takeaways:

- *Product development companies strain to author and deliver the volume of product documentation necessary to produce and support their products.*
- *Engineers are required to provide critical information; however, they desire the use of familiar tools and user interfaces for the creation and consumption of engineering content.*
- *Oberon Technologies®' Titania® Web Collaboration Suite eases the burden on engineering Subject Matter Experts (SMEs) and documentation teams to enable collaborative authoring and reviewing of product related content.*

As manufacturing companies pursue the development and release of products, they author numerous 3D CAD product models and drawings. However, what many fail to consider is the wealth of engineering textual data that must be generated for product specifications, manufacturing instructions, user and service manuals. The drain on engineering staff efforts to produce and review this technical material cuts into their productivity better directed toward product development. Oberon Technologies, Inc. (<https://oberontech.com/>) has created a solution, the Titania Web Collaboration Suite, to ease these burdens.¹ CIMdata welcomes the solution and believes it fills a pressing need.

Documentation organizations within manufacturing companies commonly use XML to automate the production and delivery of product information.² Having content in XML enables automated processes and reuse of data in downstream applications like help systems, diagnostics, chatbots, and IOT or XR (extended reality) technologies. Engineering subject matter experts (SMEs) who author the initial technical content are not familiar with XML authoring tools. They prefer to use their customary tools such as Microsoft Word and Adobe PDF. To overcome this gap, Oberon has developed the Titania suite of solutions to easily author and review XML-based content using a browser and familiar user interface.

The companies can then easily gather this XML content in their data repository or the PLM data management repository with which they are already familiar for use across the enterprise. The repository can serve as a knowledge base for all product and process information.

Titania Solution Architecture

The initial offering in the Titania solution suite is the Titania Web Editor. The Editor allows SMEs and casual users to generate technical content in DITA³ or XML using a simple, intuitive user interface through a browser. Users can enter content directly or drag-and-drop as well as copy and paste data items from Word or other sources using familiar keyboard shortcuts. The web-based solution does real-time XML validation behind the scenes and automatically saves or updates the content in the preferred repository location. Users are free to add metadata and include non-textual content such as graphic images, videos, and formulas with just a click of a

¹ Research for this commentary was partially supported by Oberon Technologies, Inc. Oberon Technologies and Titania are registered trademarks of Oberon Technologies, Inc.

² XML, eXtensible Markup Language, is a software- and hardware-independent tool for storing and transporting data.

³ The OASIS Open Darwin Information Typing Architecture (DITA) is a standard XML-based architecture for representing documents intended for primarily human consumption.

button. Because the solution is web-based, it can be accessed from any device supporting a browser. CIMdata views this as an effective, time-saving method for content generation.

A companion part of the solution is the Titania Web Reviewer. Staff can collaborate on-line performing simultaneous commenting and adding annotations to the documentation. The interface further allows reviewers to propose new content additions. All comments and annotations are layered on the XML rather than in the XML to ensure the integrity of the original authored content. A reviewer can obtain a complete or filtered view of comments. Both the Web Editor and Web Reviewer work on source XML documents stored in the company’s choice of data repository or PLM data management repository together with XML documents authored by the documentation group using their XML toolset in a Create/Capture phase of the Titania solution (Figure 1).

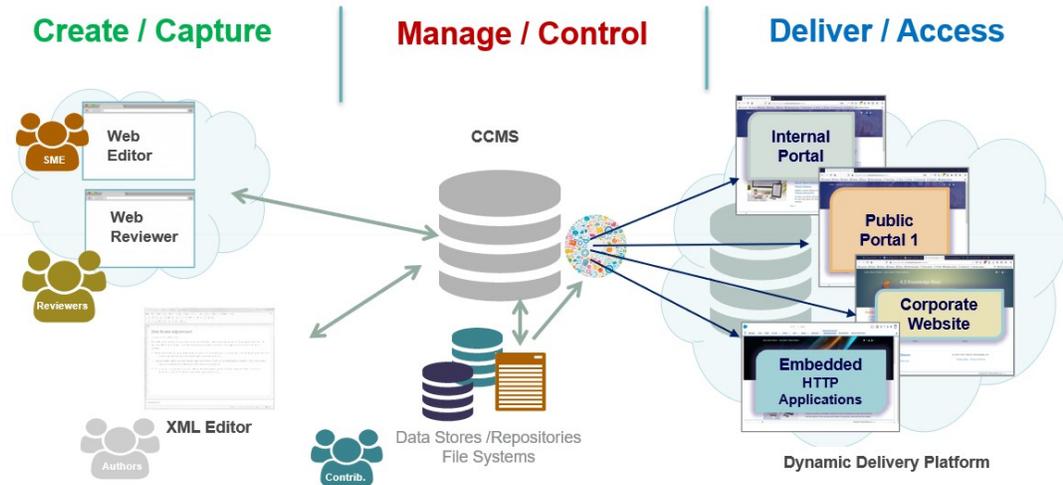


Figure 1—Titania Suite Create, Manage, and Deliver Structure
(Courtesy of Oberon Technologies, Inc.; annotated by CIMdata)

For the Manage/Control aspect of the Titania solution, the product leverages a company’s existing data management solution. The data management system is used to provide access controls, version management, search, and “where-used” capabilities. For many manufacturers the use of their PLM system which already contains the related product data and graphics frequently referenced in product and service documentation is ideal.

The downstream side of the Titania solution deals with the data delivery aspect. In CIMdata’s opinion, Oberon has chosen the proper method of data delivery for users, offering a cloud-based solution with extensive capabilities (Figure 2).

Titania enables user companies to build web portals with their desired format. Titania provides the flexibility to control the look-and-feel of their delivery sites. User companies can leverage out-of-the-box themes or create their own from scratch. The portals can be used stand alone or integrated into existing websites, intranets, or any applications that support HTTP integration. It allows the definition of data views based on user, role, and profile or any other metadata value. Not only is data accessible anywhere with any device that supports a browser, but using any data format including HTML5, PDF, animations, interactive graphics, and video.

*Provided by the PLM or
Data Repository System*

Create / Capture

- Web-based tool
- Familiar and intuitive user interface (UI)
- Includes text, tables, graphics, animations, videos, etc.
- Allows copy & paste from MS Word, PDF, PPT, etc. (and or linking to files)
- Real-time content validation (valid DITA/XML)
- Easily add metadata
- Built-in integration with CMS

Manage / Control

- Single source library for all content, images, files, etc.
- Control access/ approvals
- Version control
- Automate workflow
- Track “where-used” on reusable components
- Allow cross-functional collaboration
- Have the CMS function behind the scenes

Deliver / Access

- Access information with any common browser
- Deliver information in any format (e.g., HTML5, PDF, video, etc.)
- Define/design flexible landing page layouts
- Allow user/role/profile specific views
- Allow user feedback / notes
- Report detailed analytics
- Integrate with 3rd party tools and sites (e.g., HTTPs)

Figure 2—Titania Capabilities

(Courtesy of Oberon Technologies, Inc.; annotated by CIMdata)

Data access is secure. The company can control what each user sees based on access permissions, custom dynamic filters, and automated business rules that can be configured to the needs of the company. In addition, the Titania solution supports data analytics providing reports on various aspects of the portal’s use including views, search terms, tools used, and location of viewers. CIMdata believes that these extensive abilities give user companies the necessary information to monitor how their data portals are used and provides direction in how they can be improved.

Conclusion

Manufacturing companies must, as part of their product design, manufacture and deliver a large volume of technical data ranging from product specifications to user manuals. The authoring and reviewing of this data can burden the company’s subject matter experts and steal their time away from their engineering tasks. Oberon has recognized this challenge and developed a flexible cloud-based solution that eases the burden on engineering staff and makes the data easily available to interested parties. CIMdata recognizes the strength of the Titania solution and the role it can play in improving a company’s ability to deliver their products with a better-quality experience for their clients.

About CIMdata

CIMdata, an independent worldwide firm, provides strategic management consulting to maximize an enterprise’s ability to design, deliver, and support innovative products and services through the identification and implementation of appropriate digital initiatives. Since its founding over thirty-five years ago, CIMdata has delivered world-class knowledge, expertise, and best-practice methods on a broad set of product lifecycle management (PLM) solutions and the digital transformation they enable. CIMdata also offers research, subscription services, publications, and education through certificate programs and international conferences. To learn more about CIMdata’s services, visit our website at <http://www.CIMdata.com> or contact CIMdata at: 3909 Research Park Drive, Ann Arbor, MI 48108, USA. Tel: +1 734.668.9922. Fax: +1 734.668.1957; or at Oogststraat 20, 6004 CV Weert, The Netherlands. Tel: +31 (0) 495.533.666.

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