REQUIREMENTS
ENOVIA Requirements

ENOVIA® Requirements enables firms to improve their overall requirement management process by capturing the "voice of the client" and translating it into a program that defines the owner project requirements (OPR) and subsequently the architects/ engineers basis of design (BOD). ENOVIA Requirements provides a central repository of the client's program needs and the project requirements that satisfy them. The benefits of having ENOVIA as a "single source of the truth" is maximized when requirements can be linked to ENOVIA program and project management activities, users get full traceability throughout the entire project delivery process ensuring that the projects that are constructed meet original client goals.

Key Benefits

· Meet standards, regulations, guidelines, and rating systems (e.g. codes, ASHRAE, LEED, , etc.) by controlling the requirement management process

· Improve project quality and client satisfaction because projects are designed and constructed that accurately reflect the voice of the client

· Reduce development costs and rework by bridging the gap between project requirements, design, construction, commissioning/verification and post occupancy.

· Improve visibility, team communication and collaboration because teams are using a central repository and common tool to manage project requirements

· Improve overall project traceability throughout the evolution of requirements

Product Overview

ENOVIA Requirements enables project development teams to drive consistency in a shared environment when capturing client, regulatory standards and market- driven requirements. Requirements can be defined and decomposed into a hierarchy, and fulfilled through the design, construction, commissioning/verification, and post occupancy of a project to provide traceability throughout the project delivery life-cycle.

ENOVIA Requirements enables firms to improve efficiencies and effectiveness of their requirements management process by enabling the following:

- Improve efficiency and effectiveness of integrative project planning processes using a common source to manage requirements.
- Fully manage the requirements lifecycle from initial authoring to fulfillment with commission/verification and post occupancy.
- Maintain requirements traceability back to the original OPR and BOD documents
- Improve configuration of requirements to reduce project development costs and project schedule slippage by establishing baselines agreed to by all stakeholders
- Enhance sharing and communication of requirements to all project teams (consultants, agencies, contractors, owners, communities, etc.) resulting in less rework, missed objectives and missed deadlines
- Support optimal design definition by enabling trade-off analysis that balances functionality, performance and cost

Product Highlights

Product Planning

ENOVIA Requirements provides firms with the ability to organize and manage their portfolio of projects and the planning and introduction of future projects.

Product Objectives Setup

ENOVIA Requirements offers the ability to specify objectives thru numerical values associated to the requirements to be met such as mass for total weight, mass for CO_2 produced, percentage of recyclable materials, cost, response time, etc. Those objectives are available to constrain the implementing features allowing a real seamless requirement-driven design process. The knowledge management solutions can also be leveraged to check whether the objectives are met, and dashboards can be used to ensure that the design is converging towards the objectives.

Requirements Capture

ENOVIA Requirements allows users to capture and import requirements from Microsoft Word and Excel® and 2007, and 2010. From Microsoft Word documents, users can manually or automatically parse a chapter structure and requirements by key words and then import them into the ENOVIA database. These requirements are captured from Microsoft Word by highlighting and tagging individual requirements. When capturing requirements from Word, it is possible to import and maintain how the requirements were organized into chapters. The captured data can include rich text formatting, tables, bullets, images, symbols and 3D XML information. Each chapter and requirement imported from a source document is given a unique object ID and organized into a specification structure that is traceable to the respective section in the source document. From Microsoft Excel spreadsheets, users can import requirements from user configurable formats.

After requirements are captured and stored in the ENOVIA database, product teams can use a robust structure navigator and rich text editor to browse, view and modify the requirements without losing any of the original formatting.

Requirements Analysis

ENOVIA Requirements supports the requirements analysis process so that project teams can review, assess, prioritize, and balance the needs of numerous clients. Requirements can be decomposed from high level requirements into individual detailed low-level requirements so that they can be partitioned and allocated to project components. While creating derived and decomposed requirements, design rationale can be captured to maintain design decisions effectively throughout the project lifecycle and provide traceability to the underlying foundation of the original designs.

During the analysis process, users can filter requirements in specifications and compare entire requirement structures or individual requirements to identify changes or deltas. ENOVIA Requirements additionally provides the ability to reserve and un-reserve requirements structures to prevent multiple users from making modification simultaneously.

Requirements Search

ENOVIA Requirements has an advanced requirement search capability that allows users to query the entire database based on defined attributes or query for requirements that are included in the context of a requirement specification structure and project revisions.

Organization Nodes for Very Large Scale Project Support

In order to allow management of many diverse specifications, whose applicability along the different stages of the project may vary a lot, it is now possible to organize those specifications within structuring elements. New grouping nodes will allow project teams to build trees whose specifications will be the leaves.

Change Management

Once requirements have been reviewed and approved, a requirements specification baseline can be established that prevents a set of requirements from being changed. A baseline establishes a set of agreed upon requirements for all project stakeholders to measure performance. Changes to requirements specifications and requirements are inevitable; therefore, specifications and requirements can be revised or versioned as part of a cross functional change process that is managed, auditable, and traceable. ENOVIA Requirements provides a choice of change processes. Project participants gain immediate visibility to change requests when reported and can also review the eventual internal resolution. For simpler changes, a company may choose to use issue management. For more complex changes that affect many downstream processes, a company may choose to use a formal design change after an initial issue is submitted. By subscribing to modification events, design teams stay informed via email in real-time whenever requirements change.

Requirements Traceability

Requirements traceability maintains the linkages from the source of each requirement through its decomposition to implementation and verification. ENOVIA Requirements provides the following traceability reports:

- The requirements validation matrix report provides traceability from requirements to test cases to ensure that every requirement has a test associated for verification and validation purposes.
- The requirements to requirements traceability matrix report provides traceability to other derived and decomposed requirements to ensure that every lower level requirement can be traced to a higher level requirement or original source.
- The requirements fulfillment report provides an overview of the fulfillment progress of requirements to linked design features in the context of their associated projects
- The derivation traceability report ensures a complete system requirement definition by analyzing how requirements have been derived into new requirements and captured in a requirement specification.

In addition, users can navigate from selected requirements to view all parent and children requirements with all related product information. Navigation can continue to derived requirements for a complete understanding of requirement allocation.

Document Report

Some stakeholders will not have access to ENOVIA Requirements or just want to read the requirements specifications off-line. ENOVIA Requirements Central provides the ability to download the entire requirement specification structure with all its related rich text and detailed information to Microsoft Word for viewing or printing.

The Role of ENOVIA and Integrated Project Delivery

As an app of Dassault Systemes' 3DEXPERIENCE Platform, ENOVIA Requirements supports integrated project delivery by contributing to a digital platform where project and firm-wide interactions and contribution are visible and persistent over time.

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