



## Fusion

### Fusion for Engineering Projects

Specifically designed to manage engineering documentation in the context of a construction project

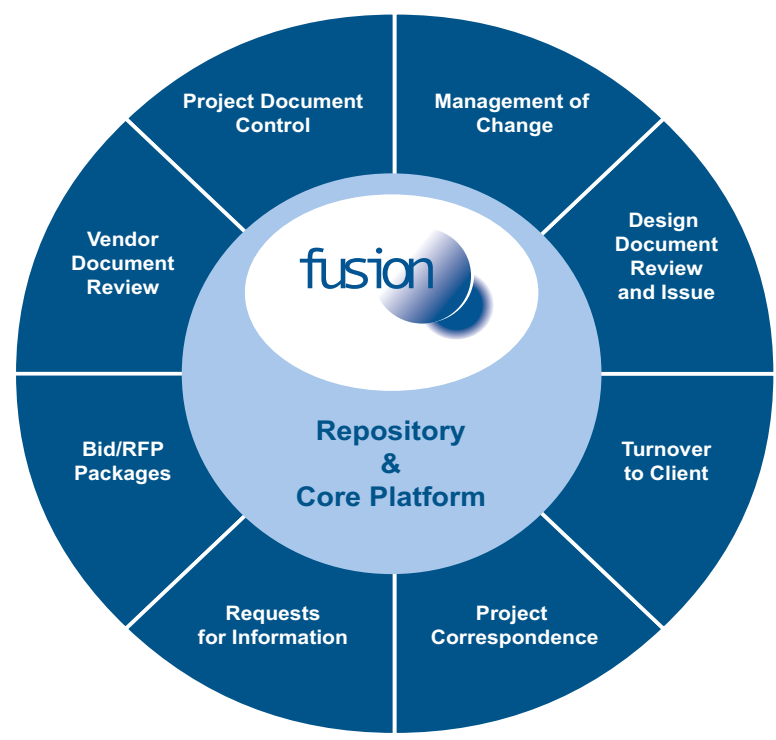
Fusion has been specifically designed to manage engineering documentation in the context of a construction project.

It enables organizations to automate everyday document control operations and document-centric business processes using a standard web browser.

Based on the latest web technology, it provides a secure, easy-to-navigate web application that uses common information search/retrieval metaphors found in popular web sites today.

It allows organizations to quickly deploy document control and automate business process to enforce compliance to corporate and governmental standards.

Fusion enables anyone within an organization or supply chain to quickly perform design and engineering tasks.



#### Key Features:

Easy to Configure - operation, look, and feel can be configured without programming

Simple to Use - Easy for all users across the enterprise to add, change and find information with minimal training. Immediate benefits due to less reliance on a centralized document controller

Powerful Searching - Powerful query capabilities presented in an intuitive interface. Power Search for advanced users

Personalisation - Users can add information to their own private folders for immediate access

Document Viewing - Powerful features to display and manipulate hundreds of document formats

Collaboration - Users and business partners from any location can participate in business processes

Change Control - Automates change processes to ensure compliance to corporate and government standards

(continued)

## Fusion 4 - Powerful new features

- User interface greatly improved to make it faster and easier to use
- New document types: complex documents, and logical documents
- User searches can be saved in the My Searches workspace
- Collaboration space - an area where users can collaborate on documents
- Transmittals workspace – an area dedicated to managing the transmittal, distribution and collaborative processes surrounding technical documents
- Importing documents - new batch upload capability along with the ability to import document registers

### Searching

Fusion has an intuitive searching tool for novice users, and advanced search capabilities for power users:

**Quick Search** - A simple method to find information based upon entering a search expression. The context of what is to be searched is derived from the Browse tree.

**Folder Search** - A simple drill-down through the browse tree to find information.

**Power Search** - An advanced search form based on the category of information in the browse tree. The user can enter Query By Example (QBE) search expressions in any number of fields to locate information.

**Content Search** - Search for documents by entering a word or phrase that is contained within the body of a document (Full Text Retrieval - FTR).

### Viewing

Fusion provides a range of viewing features:

**Preview** - Users can preview the contents of a document without downloading the document to their machine. Fusion's inbuilt viewer supports all commonly used drawing and office document formats.

**Application Launch** - Documents can be launched into a local application at the user's workstation. Once launched, the user can print the content to a local or networked printer.

**Forms** - The attributes (metadata) associated with a document can be displayed in an HTML form. The form can be configured to display the information in a format and style familiar to the end user.

**Quick Info** - Displays metadata for the currently selected document. Fusion can be configured to display specific fields.

**More Info** - Once a user selects a specific document, Fusion can quickly display other related information. More info can include audit history, mark-ups, or the previous revisions of a document (by default, a user only has access to the latest revision of a document).

**User Alerts for Change Control** - Immediate visual indication if, for example, the document is undergoing change control by another user.

### Key Features (continued):

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Related Information - Users can rapidly access information related to a document or document set

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Batch Operation - Users can add information to a selection basket for fast bulk operations

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Workflow - Automates change processes to ensure compliancy to corporate and government standards

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Visual Alerts - Alerts warn users of pre-configured business critical conditions in real-time

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Transmittals - Project Document Control that extends to include external vendors, contractors etc

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CAD Integration – provides Fusion user interface within AutoCAD and MicroStation

## Creating Content

Fusion provides a number of features for creating information:

**Document Types** - In addition to standard document files, Fusion supports two special document types: logical and complex documents. A complex document consists of a number of files attached to a single database record. Optionally, one file can be marked as primary so that if you launch the complex document, the primary file is the one that is opened. A logical document is similar to a table of contents and holds a hierarchical structure with links to standard or complex documents.

**Electronic Forms** - Authorized users access electronic HTML forms to add new documents to the system. Electronic forms provide data lookups and validation to ensure accuracy.

**Templates** - Templates help with indexing new documents or creating new records by storing default metadata that can then be used when a user adds new information to the system.

**Indexing (inserting a new document)** - A single file or a collection of files can be indexed into the system. Macros and templates can be used to automate data entry.

**Related Information** - Relationships can be created between content, providing authorized users with easy access to all information associated with a document.

**Attaching** - A file or files can be attached to an existing record.

**References** - References can be added between documents to, for example, group related information together.

**Batch Upload Manager** - A batch upload manager enables documents to be rapidly uploaded and added to the system either immediately, or stored for indexing at a later date.

**Document Register import and export** - Documents can be imported automatically using a document register spreadsheet containing their details. This provides a fast and powerful way of importing documents created in-house or received from suppliers or sub-contractors. Similarly, document registers can be automatically created for export.

## Changing Content

Fusion provides a range of features for change management:

**Change Control** - Authorized users can use the check out / in commands to modify documents. While checked out, other users are notified and are limited to read-only access until the check out is completed.

**Revision Management** - Multiple revisions of the same document can be managed within the Fusion repository. By default, the user has access to the latest revision of a document. During change control the server automatically increments the revision level, using numeric, alphabetic, or custom revision types.

**Record Administration** - If authorized, the user is able to change details of a single document or batch of documents.

**Mark-ups** - Users can create multiple mark-ups for a given document. The mark-ups are tracked to each user. A user cannot see the mark-ups created by other users until those mark-ups are marked as completed.

**Selection Basket** - A user can group together a collection of documents so that a common operation can be performed on all the selected items.

**Auditing** - Fusion provides a full audit history of changes.

## Personalization

Fusion has a number of features to help users quickly go to the information they need and to pro-actively warn of business critical conditions in real-time:

**My Favorites** - Users can select one or more document and add them to a Favorites folder. The dynamic refresh facility ensures the user always has access to the latest revision.

**My Work** - Each user has a private work area that provides immediate access to checked out documents the user can access.

**My Searches** - User searches can be saved for easy re-use in the My Searches workspace

**Alerts** - Configurable visual alerts can warn users about the conditions of the information they are working with. E.g. warn a user if they are printing a specification that is being changed.

## Fusion CAD Connector

This provides users with view, checkout, save, index drawing, importing title blocks and referencing functionality within their native AutoCAD or MicroStation CAD application.

Integration with Fusion Collaboration

Fusion allows documents to be placed into a SharePoint collaboration area where they can be worked on by groups of people. In this area, documents can be previewed, commented on, and marked up. At the end of the session, the results can be automatically re-incorporated into the document repository.

## Workflow

**In Tray** - Users are provided with immediate notification of pending tasks that require attention.

**Versioning** - New or existing document may be associated with a workflow. The documents may iterate through work in progress versions during the workflow.

**Electronic Signatures** - An electronic signature is automatically generated during approval tasks to maintain control and integrity of the actual approval action.

**Review and Approval** - If authorized, users can create, review and approve comments against documents that are associated with the workflow.

**Redline** - If authorized, users can suggest changes or provide feedback on documents that are associated with the workflow.

**Visual Workflow Status** - A user can display a visual representation of the workflow to immediately understand the current state of the process.

**Audit** - All workflow actions are recorded by Fusion in the audit history for future reference.

## Collaboration

Fusion provides powerful facilities for collaboration on distributed documents.

**Collaboration sessions** – documents can be distributed to collaboration sessions which allow users to review documents concurrently.

**Comments and comment documents** – Users can add comments to a document within the collaboration session either by adding text or attaching a complete comment document. Comments are immediately visible to other users. This prevents a lot of wasted effort by reducing the number of duplicated comments that would typically result in a manual (paper) review where users would not have visibility to each other's comments.

**Markups** – users can collaboratively mark up documents during a review process. Lead engineers can then combine relevant markups into a consolidated markup.

**Comment consolidation** – Fusion will automatically produce a comment consolidation document combining the comments made by reviewers. This can then be edited by the lead engineer to form the final consolidated comment document.

Fusion also supports close integration with SharePoint as an optional collaboration environment.

# Project Document Control

Fusion provides powerful project document control features through the support of transmittals:

**Transmittal Creation** - Users can send information to others, request them to perform some action on the information, and then receive their responses.

**Easy Distribution Generation** - Creating the distribution list for transmittals can be a complex procedure if done manually. The procedure is often repetitive with the same types of document always being distributed to the same groups of users for the same type of action. To simplify the sending of transmittals, Fusion enables users to create distribution groups and distribution matrixes and to automatically generate the required distribution lists. Multi-stage distributions can be set up as mini-workflows to streamline processes such as review, comment consolidation and approval. Ad Hoc workflows enable issues to be investigated and resolved as a collaborative process.

**External Access** - The recipients and senders of transmittals do not need access to the Fusion system, enabling you to send and receive information from external suppliers or business partners who can operate within or outside the company firewall.

**Transmittal Monitoring** - You can track the progress of the distributed information, for example to see if any responses are overdue.

**Transmittal In Tray** - Users are provided with immediate notification of transmittal actions that require their attention. The In Tray has a project hierarchy that can parallel the current ongoing projects.

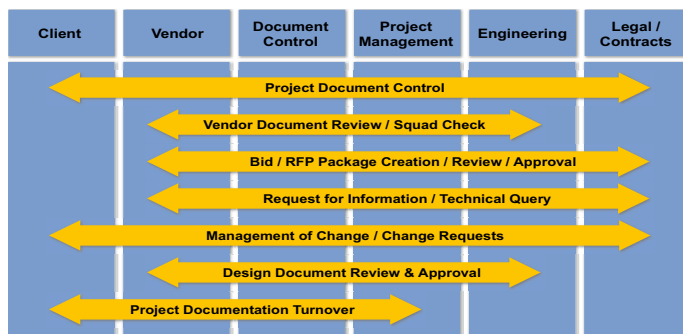
**Processing Incoming Transmittals** - Automatic importing of incoming transmittals dramatically reduces the time before incoming documents are available within Fusion.

**Note Templates** - Transmittal notes such as acknowledgement notes can be generated dynamically based on the content of the transmittal by using pre-defined note templates. The templates can also be used to consolidate user comments into a single transmittal comment note.

**Interface with Project Planning Systems** – enables a Fusion Work Breakdown Structure to be set up and synchronised with the project plan.

**Document Progress Tracking** - enables progress against milestones to be tracked on a per document basis, or rolled up and tracked according to the Work Breakdown Structure.

**Document Lifecycle Reporting** - Fusion can generate reports showing the complete lifecycle history of a document as well as its forward planning dates and its complete transmittal and distribution history.



Footprint of Fusion Engineering Processes

Engineering Process	Fusion Solution	Benefits
<b>Project Document Control</b>	Automation of clerical document control activities using Fusion Web Client	Less time to perform each document control transaction increases efficiency and reduces resource demands
<b>Vendor Document Review</b>	Electronic distribution of vendor document packages for review and approval	Faster turnaround of Vendor documents reduces risk of project delay and errors
<b>Bid / RFP Package</b>	Electronic assembly of Bid / RFP packages and electronic review and approval	Faster assembly of Bid / RFP packages requiring less clerical resources
<b>Requests for Information</b>	Electronic receipt / acknowledgement and routing to project members for processing	Faster turnaround of project issues reduces risk of project delay and errors
<b>Project Correspondence</b>	Capture of all paper and electronic project correspondence associated with project	Reduced litigation risk and improved corporate compliance
<b>Design Review and Issue</b>	Electronic signature, Review and Approval by project team	Faster routing and issue of design information due to electronic review and approval processes
<b>Management of Change</b>	Electronic routing of Change Request / Order and full Auditing of process	Faster turnaround of engineering change Full transparency and auditability of changes
<b>Turnover to Client</b>	Incremental assembly and turnover of project deliverables	Faster completion of project milestones.  Reduced risk of project delay  Improved client satisfaction

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