Online-Projects.Net

An Overview of the Web-Based System For Documentation and Information Management

"A Dedicated Project Site"

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1. INTRODUCTION

The nature of many engineering projects, say, for example, a large offshore oil and gas field development project with its sizable volume of documentation and many project participants, demands a comprehensive, yet flexible and easy-to-use, system of documentation and information management. Online-Projects.Net's web-based system for management and control of documentation and information is just such a system. The benefits of a web-based system over standard methods of document control are now well proven. This system will:

- Facilitate Communications Project personnel have immediate access to all project documents, communiqués, notices, published criteria, etc., thereby shortening and improving the lines of communications.
- **Enable Collaboration** Online collaboration on design matters becomes practical with the ability to review and annotate project documents online.
- Save Time Minimizing, or in many cases eliminating, the time for reproduction and distribution of project documents will save significant time. Online distribution of procurement packages will save days of shipping time.
- **Improve Quality** Better communications and more collaboration results in a higher quality design with less ambiguity and fewer errors.
- **Spread Knowledge** By being online, the project is automatically organized and stored for future use and reference.

There are also several advantages of Online-Projects.Net's system over other systems including:

- Low Cost The pricing of the system is designed to encourage its use. Employees, clients, partners, and third-parties all have unlimited access to the system for a single monthly fee. There are no individual end user licensing agreements.
- **Minimal Training** Unlike other systems, to learn and understand this system requires practically no training. A brief orientation is usually all that is required to bring personnel up to speed. Training costs are minimal, and your training investment is secure in that once learned, personnel tend not to forget how to use the system, even with infrequent use.
- **Designed by Offshore Engineers** Unlike most software developed for managing project documentation and information, this system incorporates the perspective of engineers and document control personnel experienced in managing major offshore engineering projects. Project personnel can access, review, and publish project documentation in a manner with which they are familiar, using a truly intuitive interface that is easy to understand.

2. ORGANIZATION OF THE WEB SITE

Unlike other web-based documentation management systems, Online-Projects.Net's system <u>does not</u> utilize the so-called familiar, windows-based, directory tree interface for the organization of documentation and information. Rather, we use a considerably more intuitive approach that is designed around the way engineering projects are organized. The interface for the publication and retrieval of project documentation and information is a unique, easy-to-use site navigation system. The main navigation menu contains the fundamental site categories -- Home, Project Management, Engineering, Procurement, Construction, Drilling, and Operations -- making it extremely easy to locate any document you may be interested in. Submenus for each fundamental site category provide an intuitive degree of refinement to the organization of the documents. For example, the Engineering category is divided into the following subcategories: Engineering Procedures, Deliverables, Photos, Tasks, RFIs, and Expenditures.

A primary benefit of this organizational system is that it requires practically no training to understand and use. Documents can be found quite easily without having to learn a hierarchical file structure. The organization allows for the flexible input of parameters for defining the documents, i.e. document titles, descriptions, categories, subcategories, etc. Furthermore, the document numbering system is particularly accommodating in that it can accept a dual system of numbering – one for the engineer and one for the client.

There is more to the site than just publishing (or adding) documents and retrieving them for review. One must also be able to edit or update the information about the documents, and modify the content of the web site itself. The process of editing document information and web site content, like that for publishing and reviewing documents, is straightforward and intuitive. It is described in more detail in Section 5, Editing Web Site Content.

3. USER ACCESS

An automated user management system permits new users to request site access online. The request goes automatically to the site administrator for evaluation. After evaluating the request, the administrator verifies the user's permission level and grants or denies access. The user is automatically notified by email of the administrator's decision. There are several types of users, each with a slightly different level of site authorization.

Employee or company users have access to most project documentation; however, depending on their specific permission level, they may be restricted to viewing or editing certain types of documents or web site content.

Client users are granted a permission level of Client. Clients have access to all project documentation except that which is specifically locked to access. Clients are limited in what they can publish to the site, and may usually edit only information about documents that they have created.

Project partners will be granted access commensurate with their expected site involvement. They will most likely have access to all project documentation except that which is specifically locked to them. They will be limited in what they can publish to the site, and may edit only information about documents that they have created.

Vendors and other third-party users will be granted a permission level of Third-Party. Third-party users normally have access to only those documents to which they have been specifically granted access. They

will be limited in what they can review and publish to the site, and may edit only information about documents that they have created.

In addition to the permission levels described above, another level of security is provided through a document classification system. Individual documents may be classified as "Confidential" or "Top Secret", or the default, "Not Classified". Access to documents is provided only to users with comparable classified access status.

4. PROJECT DOCUMENTATION

A project document may be published (or added) to the site in any file format; however, it must be kept in mind that to review the document, a user must have a copy of the application in which it was created. It is strongly recommended therefore that documents be converted into Adobe Acrobat pdf format before publishing to the site.

The publishing procedure is quite straight forward and is accomplished with a simple pop-up form from the page on which the user is reviewing the document. Instructions are always at hand from the reference link, "How to Use This Page", available on each page. To facilitate access to the documents, they are grouped into one of the following major categories: Project Management, Engineering, Procurement, Construction, Drilling, or Operations.

4.1 Project Management Documentation

Project management documentation may include various types of documents, yet it is easy to differentiate them from documents in other categories. Project management documentation includes the following types:

- Administrative Documents Administrative documents consist of management procedures, organization charts, project schedules, personnel documents, and the like. They are searchable by document number, type, date, title, category, author, and more.
- Contract Documents Contracts documents include the provisions, scope of work, fee basis, schedules, and exhibits. Contract documents are searchable by document number, date, title, category, document status, and more.
- **Project Status Reports** Project status reports are grouped together on a single page for ease of access. Included may be reports on project progress, drawing status, engineering task status, budgets and expenditures, change orders, and invoices. Like contract documents, status reports are searchable by document number, date, title, category, document status, and more
- **Meetings** Minutes of meetings may be created with any available word processing software and may be published to the minutes log in a variety of file types. By using the collaboration features of Adobe Acrobat 5.0, it is practical to publish minutes in draft form. Meeting minutes are fully searchable by meeting location and purpose.
- **Correspondence** Correspondence, including letters, faxes, memos, emails, telecon records and the like, may be published to the correspondence log in a variety of file types. Correspondence is fully searchable by document number, date, subject, author, recipient, and more.

4.2 Engineering Documentation

As with project management documents, engineering documents are grouped together in a single category. Engineering documents consist of the following types:

- Engineering Procedures Documents in this category include engineering procedures, project references, and links to project related or other engineering web sites. You may search for these documents by document number, description, type, category, date, and more.
- Engineering Deliverables Engineering deliverables are grouped into a single category to enable tracking of engineering progress. Deliverables normally will include drawings, specifications, calculations, reports, bid packages, and design basis documents. Drawings and specifications may be organized into user-defined groups and may be referenced individually or in packages. Packages, which contain more than one drawing or specification, may be created with your own software and converted into stand-alone pdf files. Deliverables are searchable by numerous parameters including company document number, client document number, title, description, date, and file type. Additional search parameters include drawing or specification group, category, subcategory, document status, author, document type, and engineering task. For even more flexibility searches can include all issue dates or just the latest issue date of a document.
- **Project Photos** Project photos are stored in a photo directory which can hold up to any number of photo groups or albums. Photos are searchable by many parameters, including photo number, photographer, date, group, category, subcategory, title, and image type. If a group of photo images is combined into a single pdf file, they may be displayed as a "set" in a form that allows user comments.

4.3 **Procurement Documentation**

Procurement documentation is organized into the following sections:

4.3.1 Bid Inquiries

Bid inquiry documentation is organized by RFQ number and includes correspondence and minutes of meetings as well as bid packages and other documentation. The documentation is searchable by many parameters, including RFQ number, title, and category. Inquiry documentation includes the following types:

- **Bid Packages and RFQs** In the inquiry section of the web site, authorized personnel can create RFQs (i.e., identify and describe the basic information about a bid inquiry); retrieve summary information about each RFQ; intuitively search for and retrieve any inquiry document; and update the information about each RFQ and its documentation.
- Other Documents Documentation other than bid packages and RFQs may also be published to the site. Correspondence, email, meeting minutes, progress reports, and any other document associated with the inquiry may be searched for and retrieved instantly as with all project documentation.

4.3.2 Purchase Orders

Purchase order documentation is organized by purchase order number and includes correspondence and minutes of meetings as well as vendor data. The documentation is searchable by many parameters including document type, number, category, vendor documentation requirement, and much more. Purchase order documentation includes the following types:

- **Purchase Orders** In the purchase order section of the web site, authorized personnel can open a new purchase order (i.e., identify and describe the basic information about a purchase order); retrieve summary information about each purchase order; intuitively search for and retrieve any purchase order document; and update the information about each P.O. and its documentation.
- **Required Vendor Documents** Required vendor documents are the documents that the vendor is required to submit as a condition of the purchase order. The submittal requirements for these documents are normally specified in the Document Requirements Sheets (DRS) of the engineering specifications. Progress on these documents is trackable. See Tracking Progress of Purchase Orders, below.
- Inspection and Testing Requirements Inspection and testing documents report the results of required inspections and tests. The submittal requirements for these documents are normally specified in the Inspection and Testing Requirements Sheets (ITRS) of the engineering specifications. Progress on these documents is trackable. See Tracking Progress of Purchase Orders, below.
- Other Documents Documentation other than required vendor documents and inspection and testing requirements may also be published to the site. Correspondence, email, meeting minutes, progress reports, and any other document associated with the purchase order may be searched for and retrieved instantly as with all project documentation.

4.3.3 Vendors

The vendors page is where you search for and review information about project vendors. From this page you may also add vendors to the web site, or create or modify an approved vendors list for the project. If authorized, you may edit the information about vendors.

4.3.4 Products

Products (i.e. materials, equipment, supplies, and services) are what make up the procurement scope. Products are organized by category to simplify their association with vendors. In the product section, one may add to, or edit products and product categories.

4.4 Construction Documentation

The construction section of the site organizes documentation by construction phase. Construction phases include:

• Fabrication

- Transportation
- Installation
- Hookup and Commissioning

Within each phase, documentation is segregated by contract number. For each contract the documentation is searchable by many parameters, including document type, number, author, status, contractor documentation requirement, and much more. Contract documentation includes the following types:

- The Contract Listing Within each phase of construction, authorized personnel can create new contracts (i.e., identify and describe the basic information about a construction contract); retrieve summary information about each contract; intuitively search for and retrieve any construction document; and update the information about each contract and its documentation.
- **Required Contractor Documents** Required contractor documents are the documents that the construction contractor is required to submit as a condition of the contract. The submittal requirements for these documents are normally specified in the Document Requirements Sheets (DRS) of the engineering specifications. Progress on these documents may be tracked. See Tracking Progress of Purchase Orders and Construction Contracts, below.
- Inspection and Testing Requirements Inspection and testing documents report the results of required inspections and tests. The submittal requirements for these documents are normally specified in the Inspection and Testing Requirements Sheets (ITRS) of the engineering specifications. Progress on these documents may be tracked. See Tracking Progress of Purchase Orders and Construction Contracts, below.
- Other Documents Documentation other than required contractor documents and inspection and testing requirements may also be published to the site. Correspondence, email, meeting minutes, progress reports, and any other documents associated with the construction contract may be searched for and retrieved instantly as with all project documentation.

4.5 Drilling Documentation

Drilling documentation is organized into the following two sections, each section being accessible from the main Drilling submenu:

- **Reservoirs** The Reservoir section is structured to readily retrieve documentation and reports on the various reservoirs in the field development. To facilitate searching for documentation, reservoir documents are categorized by type. From the Reservoir section you may edit the types of documents that are applicable to reservoirs. After giving each reservoir a number and a name, one may then publish documents to the site for the reservoirs.
- Wells The Wells section is organized to readily retrieve documentation and reports on individual wells within the field development. To facilitate searching for documentation, well documents are categorized by type. From the Wells section you may edit the types of documents that are applicable to wells. After giving each well a number and a name, and assigning the well to a reservoir, one may then publish documents to the site for the wells.

4.6 Operations – This section is under development.

4.7 Collaboration

Real time, online collaboration on project documents is practical with Online-Projects.Net's documentation management system. Users of Adobe Acrobat 5.0 or higher can take advantage of Acrobat's commenting and annotation features by using them with our WebDav enabled server to interactively review and comment on project documents. The procedure for annotating documents directly in your browser is straightforward, requiring virtually no training. As comments are completed and uploaded, they become immediately accessible to all authorized users.

Adobe Acrobat's Online Comments feature allows multiple users to post comments on a single document. Users in an online commenting session can share their comments and view others' comments in real-time, or users can comment on a document at their own convenience and upload their comments at a later time with the offline option. Remote users can comment on any pdf file. Comments shared over a server are secure, meaning they cannot be changed by anyone other than their original author. Users do not alter the original document while commenting. Comments are saved in a repository outside of the document, maintaining the author's control in revising the original document.

4.8 Document Custody Transfer

This feature facilitates the transfer of custody of document files from the engineer to others. It is extremely easy and intuitive to use -- simply search for and select any group of document files and press a "Copy" button. An index of file attributes is automatically generated and copied, together with the files themselves, to a transfer folder where they can then be downloaded to a local computer or CD for ease in transferring the files to a client or other third party. The format of the document index will enable the client to easily place the document files into the client's electronic filing system.

You may access the document custody transfer system through the Edit Web Site Content dropdown box, see Section 5.1, below.

5. EDITING WEB SITE CONTENT

All parts of the site can be instantaneously updated – from the introductory text in the various sections of the site to the many links, references, logs, and lists that are available. Content can be added, deleted, and edited, intuitively and without the need to learn, understand, or remember the complex rules and conventions associated with most of the competition's software products.

The primary means of editing web site content, whether it is general content or the information about a user or a project contract, is through what is called the Edit Web Site Content dropdown box. This dropdown box is located near the upper right-hand corner of each page of the site. The content of this box will change depending on the user's type and permission level. Its purpose is to provide links to pages on which web site content or information about documents can be modified. If you do not see this box then you are not authorized to edit any site content.

The method of editing the information about a project document is through a direct link to the information itself.

5.1 The Edit Web Site Content Dropdown Box

The Edit Web Site content dropdown provides access to authorized users for setting project site parameters; adding site users and updating user information; editing the sub-pages of the Home page, i.e., site notifications, opinion polls, the project forum, and the action list; setting user permission levels; editing the help screen and the knowledgebase; creating document custody transfer directories; and creating or updating the information on purchase orders or other project contracts. A brief description of each link can be found from the reference link, "How to Use This Page" on the Home page of the site.

5.2 Direct Editing Links to Document Information

Direct links are available for editing the information about individual project documents, whether they be project management documents, engineering deliverables, procurement documents, or construction, drilling or operations documents. These links show up as an "Edit" hyperlink in the respective document listing. Clicking the link will open a popup window in which you may edit the information about the document. If you do not see the hyperlink, you are not authorized to edit the document. Instructions are at hand from the reference link, "How to Use This Page", available on each page.

6. DOCUMENT TRANSMITTALS

Whereas publishing documents to a web site certainly makes them readily available to project personnel, the publishing act itself does not necessarily eliminate the need for formal document transmittals. Online-Projects.Net's online document transmittal system satisfies this requirement. It makes it easy for a user to create, send, initiate a workflow, on-forward, store, search for, retrieve, track, and print a record of any document transmittal. Any project team member – whether engineer, client, or third-party – can send or receive a transmittal. The need for creating hand written transmittals is eliminated, saving hours of valuable time.

6.1 Creating and Sending Document Transmittals

The transmittal process is quite straightforward. Using an online form, simply search for and select the documents to be transmitted. Next select from the automatically generated address lists, or the user-defined distribution lists, the recipients of the transmittal. Then select from the dropdown boxes of customizable content the subject, purpose, and message of the transmittal. Specify, if necessary, within how many days a reply is required. Finally, type in any clarifying remarks and press the transmit button. (Full instructions are provided.)

Immediately upon the submittal, the transmittal is generated and emailed to each recipient. It is also automatically posted to a transmittal log and to the web site notification log (see Auxiliary Features of the Site, below). Subscribed users of the notification log receive email notices that the transmittal has been posted to the site. Designated recipients have access to transmitted documents immediately upon receipt of a transmittal.

6.2 Initiating a Workflow

Workflow processes such as discipline reviews and approvals may be initiated and tracked without complicated rules. If you would like the transmittal to involve a workflow process, simply select

that option when creating the transmittal and you will be able to track the process in the project email system.

6.3 Forwarding of Transmittals

Occasionally it is necessary or desirable to on-forward to another party a transmittal that has been received from someone else. For example, when a contractor receives a transmittal from a subcontractor, project procedures may dictate that he on-forward the transmittal to the client.

If a document transmittal has been addressed to a single individual, that individual will see a "Forward" link in the Date/Time column of the transmittal log and will be able to forward the transmittal to another person or persons. Clicking the "Forward" link will display a new, partially completed transmittal form to which the sender may add new recipients and transmittal instructions prior to forwarding the transmittal.

6.4 Hard-Copy Printing and Distribution

Even though we live in the supposedly paperless information age, hard-copy prints are sometimes essential. If hard-copy prints are required with a document transmittal, they may be ordered at the same time the transmittal is created. Just select the quantity, size, type, and any special instructions for the printing and distribution of the documents, and the document files will be electronically transferred to the recipients' localities via a worldwide digital network. Thereafter, local facilities will handle the final printing and distribution process.

6.5 Acknowledging Receipt of Transmittals

Because a document transmittal can be a formal, contractual document, it is important to receive an acknowledgement from the recipient that the transmittal was actually received. This helps ensure that the recipients act on the transmitted documents in accordance with the instructions contained in the transmittal. The acknowledgement process is extremely simple. Each recipient is requested in their email message to acknowledge receipt of the transmittal by simply pressing a button at the bottom of the message confirming its receipt. The acknowledgement is then logged and is available for monitoring from the transmittal log. See Reviewing Transmittals, below

6.6 Reviewing Transmittals

Document transmittals may be reviewed at any time from the transmittal log. The log is searchable by several parameters including author, recipient, purpose, subject, or document number or title. A link to the transmittal provides a printer friendly version that can be printed and filed as a hard-copy record if desired. Transmittal acknowledgements are listed in the log, permitting a user to monitor by whom, whether, and when each recipient acknowledged receipt of the transmittal. The date by which a reply is required is also listed in the log. It is color-coded to give an instant report of whether a required reply has been received when due.

6.7 Downloading Files Via FTP

You may download and entire list of transmitted files to a CD or hard drive. This is done within the transmittal by clicking an "FTP Download" link located in the upper right corner of the transmittal. Follow the instructions on the form that appears to transfer the files to an FTP site from where you may download them.

7. TRACKING ENGINEERING PROGRESS

Online-Projects.Net's web-based documentation management system provides a convenient way to track engineering progress by monitoring the status of engineering tasks and task deliverables. Engineering tasks (sometimes referred to as CTRs) are defined at the outset to suit the project. The deliverables associated with each task are identified and are scheduled for review, approval, and final submittal. The submittal dates of task deliverables may be tied to project milestones, which are set at the start of the project, or alternatively, may be set specifically. We determine the weight of each deliverable as the relative contract value of the document. This is usually a number from 0 to 100, but can be based on any consistent formula for measuring the contract value of the document.

As each deliverable is prepared, we assess its status. Document status is an attribute defined by the engineer for each type of document on the project. It may vary depending on the type of document to which it refers, and changes as the document progresses through its development phases. For example, a meeting minute may have a status of "draft" or perhaps "final", whereas a drawing may have status of "For Review", "For Approval", or "Approved as Noted", and so forth. Each status designation is also assigned a value by the user, i.e. a number from 0 to 100, to represent the percent completion of the document at that stage of development.

Engineering progress, which is a mathematical calculation of the percentage completion of the work, is calculated automatically. Engineering progress may be determined for any group of deliverables as well as for the entire project. It is based on the progress of the latest submittal of individual task deliverables according to the following formula:

P = [Sum(V*W) / Sum(W)] * 100

where,

- P = Percentage Completion (%) of the documents, or work, being considered
- V = A number from 0 to 100, representing the value of the status of each individual deliverable, e.g. "For Review" = 50.
- W = A number, usually from 0 to 100, representing the contract weighted value of each individual deliverable.
- Sum(V*W) is the summation of the product of the status value times the weighted value of all deliverables being considered
- Sum(W) is the summation of the weighted value of all deliverables being considered

The tracking process provides an abundance of information. The information available for each task includes its percent completion, as well as the number of documents to be submitted, when they are to be submitted, how many documents have been submitted, whether they are on schedule, and whether they have been submitted for review, approval, and/or as final.

8. TRACKING PROGRESS OF PURCHASE ORDERS AND CONSTRUCTION CONTRACTS

Tracking progress of purchase orders and construction contracts is similar to tracking engineering progress. For each purchase order and contract we automatically track the status and progress of each document submitted by the vendor/contractor. Required contract documents are tracked against the milestone dates that are set when the purchase order or contract is created, whereas inspection and testing documents are tracked against the scheduled starting and completion dates of the inspections and tests. The vendor or contractor determines the weight of each document as the relative contract value of the document. This is usually a number from 0 to 100, but can be based on any consistent formula for measuring the contract value of the document.

As each document is prepared and published to the site, the vendor/contractor assesses its status. As for engineering deliverables, the status of a purchase order or contract document is an attribute which is defined by the engineer for each type of document. It, too, may vary depending on the type of document, or on the level of completion of the document. For example, a correspondence may have a status of "draft" or perhaps "final", whereas a required contract document may have status of "For Approval", "As Certified", or "As Built", etc. Each status designation is assigned a value, again by the engineer, i.e. a number from 0 to 100, to represent the percent completion of the document at that stage of development.

Purchase order and contract progress, which as for engineering deliverables may be calculated for any group of documents, is the percentage completion of the work being considered. It is based on the progress of the latest submittal of required contract documents and inspection and testing reports and is calculated according to a formula the same as that used for engineering progress, above.

The purchase order and contract tracking process also results in much useful information. Besides overall progress, the information available on each submittal includes the number of documents to be submitted, when they are to be submitted, how many documents have been submitted, whether they are on schedule, whether they have been approved, and their current status and percent completion.

9. AUXILIARY FEATURES OF THE SITE

There are many auxiliary features of the documentation management site, too many to mention here; however, the following major ones are likely to be of special interest.

9.1 Personnel List

A project personnel list is accessible directly from the web site side bar. This is a searchable list of employee, client, and third-party personnel that is automatically generated to include such parameters as Name, Company, Position, Discipline, Phone No., Email Address, Resume, and Adobe Acrobat Signature Certificate. Additional information may be optionally included.

9.2 Project News

Users may publish project news reports conveniently and instantaneously to the Project News Page. View the headlines and summaries of articles from a summary listing. Click the headline to be forwarded to the detailed article.

9.3 Site Notification Log

A notification log that tracks the latest additions to the site makes it easy to see what documentation has been added and when it was published. Links from the list take you to the document itself. Furthermore, users may subscribe to an automatic email notification system that notifies them of happenings and assigned actions.

9.4 Project Calendars

Calendars of a variety of types and purposes may be easily created and published to the project calendar page. You may find that Microsoft Outlook calendars, converted to pdf format, are the most convenient format because they allow interactive collaboration; however, any file format may be used.

9.5 **Opinion Polls**

Users may solicit team member feedback on any number of project issues. This simple polling device counts votes and displays results instantaneously.

9.6 Project Forum

A discussion forum for instant collaboration on user-defined topics permits attachment of files to user comments. The forum is extremely intuitive and easy to use so you don't get lost in the thread. Multiple forums may be created as needed. Topics may be searched by word or phrase. Also, users may subscribe to an automatic email notification system that notifies them of new topics, or replies to existing topics.

9.7 RFIs

A forum similar to the project forum is provided to handle Requests for Information. This is particularly valuable on construction projects, and simplifies the tracking of these requests.

9.8 Action List

A dynamically generated action list is searchable by many different parameters including Action Category, Description, Responsible Party, Date Due, Completion Status, and more. The system allows a manager or other authorized person to create an action item on the fly and track it by responsible individual. (You don't need a Gant chart to do this!) Actioned individuals are automatically notified by email that they have been assigned an action item.

9.9 Knowledgebase (Coming Soon)

A user-generated knowledgebase facilitates the compilation and archiving of lessons learned, answers to frequently asked questions, and other sources of information. The information, which is displayed in question and answer form, is searchable by general area, category, and subcategory, as well as by word or phrase.

9.10 Quick Help

A set of instructions (help screens) designed to be short, easy references to get you going on a specific site operation very quickly. To access click the link in the Side Bar, and then click any of the links in the table of contents.

9.11 My Profile

My Profile is the system that allows users to change or update their individual user profiles, e.g. they may easily change their username, password, email address, etc., alleviating a web site administrator of that chore.

9.12 Activity Log

A searchable log of changes to web site content is provided for the use of the webmaster. The log includes information about additions, deletions, and updates to the site, and the users that initiated the changes.

9.13 Quick Search

This is a great feature that enables you to find any project document quickly and easily. Quick Search buttons are on the Home Page. Enter something - a keyword or number - into a search box and press the button. The listing of documents that match your criteria will be displayed. That's it.

9.14 Tasks Due

A direct link to a searchable page of all engineering and procurement tasks. Find tasks due within a specified number of days. Search by job and/or responsible task manager.

9.15 Email

Use this feature to review or create project email. Provided the emails and their replies originate from within the web site, the system will automatically categorize the mail and keep it in chronological order.

9.16 Support

A special type of forum that displays a searchable listing of reported bugs and problems giving author, number of messages, and date of last posting. It provides links for reporting new problems, and for subscribing to and unsubscribing from email notifications of newly reported topics

9.17 Batch Loading of Document Lists

A terrific convenience is the batch file loading of drawing, specification, and photo lists. Other lists, e.g. of bid inquiries, purchase orders, vendor document requirements, inspection and testing requirements, and vendor data and test results may also be batch loaded. The system links you to an Excel file in which you create your document list, and then shows you how to convert the .xls file into a .txt file and upload it to the database for displaying the list on the web site. The system also works in reverse, i.e. you can download a current document list for use in other applications.