Needs Analysis

Architecture, Engineering & Environmental Services – DAS-FM

Table of Content

Project Background:

In April of 2014 the Milwaukee County Board provided funds for a one-time project to enhance operational efficiencies, reduce debt service costs, and improve service delivery and enhance the County's long-term fiscal sustainability. The County Board allocated funding to the Architecture, Engineering and Environmental Services (AE&ES) Section of DAS-FM Division to investigate the need for an upgrade or replacement of the project management (PM) software that is currently being used by AE&ES to manage projects. AE&ES has retained RowJAC Consulting LLC to conduct a needs study to determine whether it would be more cost effective to either upgrade or replace the existing Oracle Contract Manager software.

The AE&ES section has been a long time user (since 1995) of Oracle's Contract Manager and the system has worked well, but their current version, 12.1, is outdated and somewhat obsolete. Several updated versions are now available including a new platform called Oracle Unifier. The needs analysis will examine this and other software and determine which software is a best match for the AE&ES section. This effort will include talking to other divisions to ensure that an enterprise solution is selected. It would be ideal to select a software that has utility for other divisions and departments and allow integration of information and reconciliation with other systems when possible. Over the years Oracle Contract Manager has been used by a wide variety of professionals in the AE&ES section, but there is a need for a more dynamic project management solution where the end user can easily change reports and customize transactions as their needs evolve. There is also a need to have a host of cost effective training options.
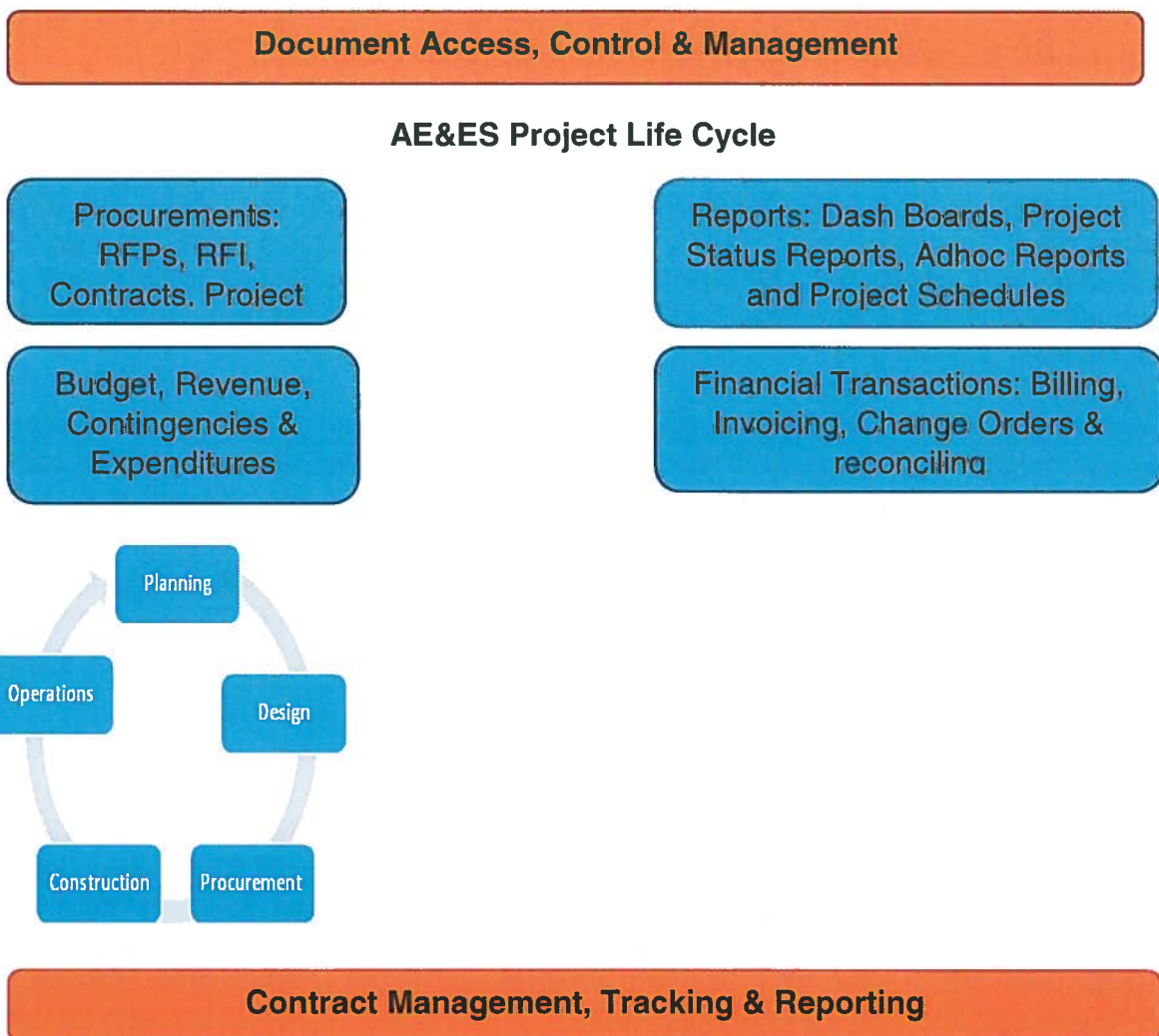
Transitioning to a new system may present a host of challenges including training, possible hardware upgrades and data migration. While the AE&ES section is at a crossroad exploring a replacement or an upgrade, the current version of Contract Manager has become obsolete. This work evaluates how the current project management software is currently being used. The desired goal is to develop a user profile for the AE&ES section that will describe how contract and project management is currently being performed.

The user's needs analysis is an important first step in the process of developing a purchase agreement, and determining the resources necessary to upgrade or replace an existing software system. The user's needs analysis highlights new opportunities, uncovers unmet user needs, identifies issues with existing products, and identifies new solutions. The AE&ES users have an understanding of how Contract Manager is actual being used and they have practical ideas for how the system should be improved. By undertaking a user needs analysis, AE&ES will have a better understanding of the goals and needs of Contract Manager users and will be able to identify a set of requirements to be included in an RFP or other forms of solicitation. An understanding of user needs will allow for the implementation of the best practices in the upgrade or replacement of the system.

Project Life Cycle:

The AE&ES is involved with projects throughout the entire project life cycle. They are involved from the conceptualization stage, financing, planning, design, procurement, construction and operation. Staff are involved in sharing, managing and creating information throughout this life cycle. There is a need to have access to information to manage resources, communicate and ensure that projects are properly progressing towards completion in accordance to rules, regulations, plans and specifications.

Across the project life cycle AE&ES staff have varying roles. Some set up the project to get them started by assigning identification numbers, some enter project budget information and some manage the entire project and some manage groups of projects at the micro level requiring them to manage the project level details. Some manage projects from a macro level where they are only concerned with dashboards and milestones that give an indication of whether projects are on time and on budget. As result there is a need for a system that is robust enough to accommodate the variant vantage points of each user.

Document Access, Control & Management

AE&ES Project Life Cycle

Procurements: RFPs, RFI, Contracts. Project

Reports: Dash Boards, Project Status Reports, Adhoc Reports and Project Schedules

Budget, Revenue, Contingencies & Expenditures

Financial Transactions: Billing, Invoicing, Change Orders & reconciling

Planning

Operations

Design

Construction

Procurement

Contract Management, Tracking & Reporting

Method Used:

The user's needs analysis was conducted through the use of anecdotal analysis. This entailed meeting and interviewing small groups and individual to discuss where they fit in the project life cycle and the role that the play in managing county projects. During the interview process the users related their experiences with using Contract Manager. They discussed what is working well and what needs improvement. After these experiences were gathered, the interview data was reviewed to detect consistent themes. When many of the users identify the same problems or themes, this is validation that the issue or theme is worth exploring to see if it is pervasive. As result, a set of user needs has been established.

Interviews:

The first meeting was with the AE&ES managers and the project Sponsor Greg High to discuss the scope of the project and to get their feedback about how project management is occurring and how Contract Manager is being used in the AE&ES section. Overall, the managers stressed that Contract Manager is currently being used in numerous ways.
At the onset, Primavera-P3 (scheduling component) was also used, but was found to be cumbersome for the size of projects that are managed by AE&ES staff.

Many of the AE&ES project managers are managing smaller projects ($50,000 to $150,000) that do not require the use of a complex project management system. Most of the larger projects are being managed by consultants and they have been responsible for project schedules. However, there is a need for a project management tool that is more appropriate for managing groups of small projects and there is a need for tracking, monitoring and reporting throughout the entire life cycle of each project (i.e. dash board management).

The second interview was held with Sandy Pipoly. Ms. Pipoly is the Primavera-Contract Manager subject matter expert in the section. Other interviews were conducted with the following project managers and fiscal staff: James Zsebe, Kathy Angeli, Julie Bastin, David Gulgowski, Gary Drent and Ed Baisch. In regards to enterprise management, interviews have been conducted with IMSD, WisDOT and the GMIA airport to discuss the scope of the project and to determine the utility of Oracle Contract Manager. Meetings have also been held with the Community Business Development Partners (CBDP) and the Department of Transportation (MCDOT).

Early Observation:

The majority of the Contract Manager software users are most concerned with the contract management aspects of Primavera (Contract Manager). Their work requires that they be able to get progress and expenditure information from the start of the project to its conclusion. They are concerned with knowing that they are getting the most accurate information from Contract Manger and that the information is reconciled with Advantage, the County's financial system. There is also a need for retrieved data to

be "tagged" to indicate when it was most recently updated. Currently the data retrieved from the system is stamped with the retrieval date which may not represent when the last update occurred. The preliminary analysis also show that project tracking, monitoring and reporting is a very high priority.

Early Findings:

AE&ES needs a project/contract management solution for the entire life cycle of architecture and engineering projects. The system should compliments AE&ES's workflow.

1) The system must be flexible to meet a multitude of user needs. Some are using contract manager to do contract administration, some are using it for project management and some are using it to track payments from planning to construction.

2) Several projects are financed with multiple funding sources (color of money). There is a need to track and make sure that funds from a variety of funding sources are managed correctly throughout each project's life cycle.

3) There is a need for executive reporting across Departments with dashboards and other metrics. The information provided in the dash boards should be as real-time as possible. The dashboard should show project progress by funding sources and should also track and display project managers' performance on multiple projects.

4) The system should be able to correlate project status (on-time, on-budget) per project manager; this would allow for a comparative analysis by Unit Managers and assist with workload management.

5) The system should have the capability to "drill down" and get information on all projects and there should be a date stamp indicating when it was last updated.

6) Staff should be able to view past, current and future commitments and change actions throughout each project's life cycle and the data should be date stamped indicating when it was last updated.

7) A project manager should be able to look across multiple projects with ease. This "cross project" reporting functionality should be available through a single easy to use interface.

8) AE&ES needs a good inventory of customized application or a process for easy customization. There is a desire to customize reports so that they look a lot more like those that come out of advantage.

9) The system should keep an audit trail of when documents are uploaded.

10) There is a need for project management protocols that recognizes that small projects should not require the same level of effort, in regards to scheduling, as larger ones. The use of scheduling software may not be efficient for all projects.

11) No one is using the Oracle P6 Software; there is a dependence on consultants to provide schedules and to manage the details of those projects.

12) The system should be backward compatible and brings forward files from the County's current version of Primavera so that the County's current investment is not lost.

13) The system must work well with other systems (interoperable). System should have an open architecture (it should be an Enterprise Solution).

14) The system should be able to start action items and manage project issues.

15) The system should link all commitments with funding sources.

16) There is a need for an economical training resource.

17) There is a question about who should be entering project data into the system. Should consultant/contractors enter data? Some entities require the consultant/contractor to enter the data.

Preliminary Software Review

At this point six software packages have been reviewed: E-Builder, Prolog, Newforma, Asta Power Projects, Oracle Unifier and Smart Sheets. In the second phase of the study, these and other soft wares will be looked at in greater detail.

1) **E – Builders -** On August 13, RowJAC had an internet presentation by Ivan Matovu. E-builder appears to be a very strong tool for managing projects that have multiple funding sources. It allows you to view data from various sources and mark- up files without having to have the software. It has the ability to track budgets at all phase of a project from design through construction and has a dash board reporting function.

2) **Prolog (Building Point Midwest)** – RowJAC has been in discussion with Mike Young from Prolog; it is construction project management software for contractors and AEC firms and provides a complete system of record for managing project information, from the field to the back office. Prolog is built for project managers accountable for construction costs, scope and schedules, and for project teams responsible for the successful delivery of projects.

3) **Newforma -** RowJAC had a conference call with Ryan Sullivan on July 25th. Newforma sits on their server. It does document management and contract changes throughout the construction phase of a project. It allows Information and plan marks up. However, it does not do budgeting or invoicing.

4) **Asta Power Projects** – RowJAC contact Rusty Hamilton on August 18th. RowJAC participated in a webinar and provided was provided access to some You Tube Lessons. It is user-friendly project management software that is primarily used for project scheduling. It is a more simple form of Primavera P6.

5) **Primavera Unifier**– RowJAC Called Mat Petrauskas on August 7th, August 19th and sent email on August 25th. I was told that he no longer works at Oracle. RowJAC also talked to Parvez from Oracle and he arranged for an Oracle representative to call me back on 8/25/14. RowJAC has established contact with Oracle.

On August 28, 2014 RowJAC connected with Mark Jakoski from Oracle and he explained that there were numerous changes at Oracle, but they are interested in discussing how Oracle may be able to help Milwaukee County. They are prepared to come and present their product. RowJAC had a scheduled conference call with them on September 9, 2014.

6) **Smart Sheets** - On August 7, RowJAC contacted Annika Van Dam and she demonstrated Smart Sheets. It is a very easy to use as a scheduling tool. It can work with Primavera files. This may be a more economical option for small project management. It is a more simple form a Primavera P6.

Next Steps:

- Completion of the First Phase Report by October 24, 2014
- Phase 2 -Software Evaluation will start on October 27th and conclude on November 17th
- Phase 3 -System Requirement swill start on November 18th and conclude on December 5th.
- Phase 4 -Feasibility of RFP vs Purchase off GSA Price List – will start on December 6th and Conclude on December 15th.
- Phase 5 -Recommendation on Implementation – January 2015.
- Phase 6 -Purchase of the Software and Implementation – February 2015.
- Phase 7 -Training of Project Management Staff – Dates to be established with vendors in the Spring of 2015.