

# A PRACTICAL APPROACH TO CHOOSING A CONSTRUCTION INDUSTRY INTEGRATED SOLUTION



## White Paper Authors & Contributors:

Reef Fielding – IPM Global

Miree LeRoy – IPM Global

Kim Olson – Enabling Melbourne

## **Why is the Construction industry different when it comes to software?**

When a company chooses to invest in Construction software should the rules really be very different to other software purchases? When buying software there are a number of criteria a company uses to select appropriate systems. These include a number of factors including useability, supportability, flexibility, integration to other business applications as well as the technical aspects such as the technology platform.

In the construction industry some of these factors have had to be ignored over time due to the very specific nature of the industry and its jargon. True suppliers of construction software in many cases seem to have been caught in a time warp and not moved much past the early 90's with their products, some looking more appropriate in 1970's banks than in the current business environment.

So why has this situation perpetuated? Is it that the construction industry always adopts a conservative approach, hanging on to the familiar, albeit sluggish, programs because they are as comfortable as well-worn sneakers?

In construction, it's easy to justify the purchase of new construction equipment. With a \$90,000 front end-loader, for example, a contractor knows exactly what it can do and how it's going to make money for the company. He can compare models and due to competition will find that most have a lot in common with the rest of the motor industry and have kept up with current standards.

Harder to negotiate is the decision-making process involved in new construction software purchases. Significant questions such as , "how long will the new system be supported and work in today's constantly changing IT landscape?" are often overlooked because there really aren't that many construction products to choose from.

So what is it about the construction industry that makes it so unique that the current "state of the art" offerings from the main stream vendors don't fit the bill? The following points will try to establish whether the construction industry will be forever caught in this vertical web of ancient applications or if it can join the mainstream.

## **Does construction account differently?**

Construction packages are usually built from the project out. Wholesale distribution systems are driven by sales and inventory focused processes while everything in a construction system tends to be focused around a job. Does this affect the way the general ledger, accounts payable, accounts receivable or cash management work? No, they still operate pretty much the same with the exception of a requirement to track retentions/retainage for both receivables or payables.

Does this requirement dismiss the mainstream products from the sector? Certainly not! One of the advantages of mainstream Enterprise Resource Planning (ERP) solutions is that they are usually designed to be easily modified if required to accommodate specific business processes.

This actually highlights one of the weaknesses of a construction specific solution. Since construction specific solutions are usually aimed at a much smaller market than the main stream offerings, they usually offer very limited flexibility as they have been purpose built and deemed not to need any further customisation.

## **Who actually uses the accounting system in a construction company?**

Experience shows us that in almost 100% of cases the end users of the software tend to be the accounting staff. Project staff have a strong aversion to anything that looks like accounting and therefore go to some lengths to create their own systems. These systems may be as simple as spreadsheets or more complicated databases or completely separate standalone project systems.

Job cost reporting from the accounting system is usually a source of frustration and confrontation. Job reports from the accounting system naturally report on projects from an accounting perspective although they will usually include budget and commitment information. These reports can then cause major irritation to project staff because the figures can always be supported by accounting transactions and don't evaluate a job from their perspective, which is why project staff develop an aversion to them.

What is also unfortunately relatively common is that companies try an industry specific solution and then revert to an entry level system with comments such as "the construction system is too difficult to use," or "the program is incapable of doing what is necessary for our company", when it clearly is. These comments and the decisions behind them are driven by inflexibilities in vertical applications that result from the relatively small installed base compared to mainstream financial systems which compete in a very aggressive marketplace.

## **Why not just buy a mainstream product?**

If the accounting departments are the main users of these systems then why not just buy a generic system that suits the accounting department?

The construction industry needs to evaluate the main stream products to assess their viability to meet their needs. There are many main stream accounting products that offer some level of project costing.

The main issue with these products is not the accounting which as stated earlier, most can be modified to meet the accounting requirements, but the non-accounting requirements. Facilities such as Variation/Change Order control, forecasting, Subcontract Control are typically absent from these main stream products and the support organisations that sell them usually don't know enough about industry specific business requirements and how they should be implemented to add them to the standard products

Hence, you have a strong account solution with silos of project related information in many different forms, basically, a non-integrated finance and project management solution or should we say "solutions". This will lead to many hours of merging data in order to make an accurate and/or timely business decision.

## Where to from here?

So what is the answer? If vertical products are old and inflexible and main stream products don't do all that is needed, then where to from here?

The basic business requirements for project management control are Variation/Change Order control, Subcontract Control, Forecasting, which are all tasks that would be best carried out in an environment that was also rich in communications, diaries, and contacts with document control. It would also be a very good plan to have definable workflows around these features. For example a Variation is not just a document or a record, it is a process that is initialised and then managed through its lifecycle until it is completed. Along the way, many communications may be generated about a Variation and these may be essential to the substantiation of a claim at a later date. This claim has a financial impact on the business and the relevant finance data must be transferred to the ERP or accounting system.

This environment is not typically what comes to mind when you think of ERP or accounting systems. This does however match the environment created by a CRM application, (nowadays referred to as an "XRM" solution – "X" signifying the industry fit). Many CRM solutions create an environment which natively integrates with Microsoft Outlook, providing a highly sophisticated communications system for creating, tracking and filing just about any communication regardless of the medium. This provides an environment with a great deal of depth from a development perspective so new applications can be created as extensions of this standard platform and tightly integrated with the core underlying data.

As stated earlier many organisations run accounting applications and then separately record and control their project data resulting in multiple versions of the truth. Reading through so far you may assume this is what has been proposed to be the solution. This is far from the end game.

The ultimate solution is achieved by combining the flexibility of a main stream ERP system with the very rich environment of an XRM solution. The ERP system does the accounting and project costing as it is designed to do and XRM does the Project Management tasks. A solid example of this is the latest offering from IPM Global - IPM which is developed on the Microsoft XRM Development platform.

## Introducing IPM Project Management

IPM Project Management is a Certified for Microsoft Dynamics CRM ® product that has been developed based on over 20 real years of experience in the construction industry, implementing specific vertical market solutions.

The product comes as a number of components from which a company can chose depending on their requirements.

The main component in this product suite is the Project Management module. It is built on the Microsoft XRM Development platform providing a fully featured Project Management system to establish, track, vary, subcontract out and bill a project. It utilises the CRM contact and company database extensively and as well as its links to Microsoft Outlook and the other Microsoft Office products eg Word, Excel, PowerPoint, Sharepoint.

IPM Project Management includes many objects including such features as variation requests, variations, subcontract variations, transmittals, meetings, site diaries and site instructions. All of these objects can be modified by the user or their certified Microsoft consultant as can the workflows that drive them.

The Project Management module can be run as a standalone add in to Microsoft Dynamics CRM therefore not directly impacting on the accounting operations of a firm. Alternatively, IPM Global also offers a seamless interface for two of the Microsoft Dynamics ERP platforms (Microsoft Dynamics NAV and Microsoft Dynamics AX).

These interfaces provide bidirectional integration between the Project Management module and the ERP system so that data is managed in the appropriate area. Subcontracts created in the Project Management module will become special purchase orders in the Microsoft Dynamics ERP system, such that they can be receipted and invoiced in the Microsoft Dynamics ERP system.

Project budgets are recorded in Project Management against the project and project tasks created in the Microsoft Dynamics ERP system. Progress Billing claims created in Project Management will update Accounts Receivable when certified.

Cost information recorded against project tasks will be visible in Project Management for reporting and forecasting purposes.

In addition to these functions IPM Global have created other components targeted at the ERP system itself to make it suitable for the construction industries. Additional functionality to facilitate retention/retainage control and multi-company operations are also offered to plug any gaps in these areas.

All of these modules integrate to create a very formidable vertical market offering based on completely standard mainstream products using the very latest Microsoft technologies.

## Summary

While focusing on how the construction industry differs from others, the principles of choosing the right solution for any vertical market business are the same. You must select the solution that is a best fit for all areas of your business, keeping in mind that all the time people, processes and technology are contently changing and improvements need to be made in the business to keep competitive.

Hence, your solution must achieve greater productivity for the business and this is a relentless process of ensuring the business is effective and efficient – all meeting the strategic goals and at the same time remaining competitive. It needs careful planning, good management and relentless dedication. We believe with the implementation of a fully integrated vertical market solution this will keep your business moving forward!

IPM Global sponsors this how to choose guide, and hope readers gain key insight from our suggestions when looking to select a vertical market solution for the construction industry.

For more information on how IPM Global are able to streamline your business solutions:

Please visit our website at

**[www.ipmglobal.net](http://www.ipmglobal.net)**

Australia – +61 7 3119 7300  
North America - +503 349 6973

[info@ipmglobal.net](mailto:info@ipmglobal.net)

References:

IPM by IPM Global  
Microsoft Dynamics ERP – NAX & AX  
Microsoft Dynamics CRM

White Paper Authors & Contributors:

Reef Fielding – IPM Global  
Miree LeRoy – IPM Global  
Kim Olson – Enabling Melbourne