Is design & engineering sector ready for ERP?
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The substantial differences between design companies are clearly visible even between the companies in the same sector and often stressed by the company owners. Most probably two architects claiming and stressing their uniqueness and differences would easily agree that their daily routines are quite similar. Relations with the customer, project coordination, fulfilment of the requirements, rules and law are just their craftsmanship.

Of course there is an area of the creativity that makes every designer unique but the design process in fact is not very much different not only within the same branch of engineering but in general in the whole sector. It should not be any surprise to understand that designers active in oil and gas, shipbuilding, construction, mechanical, energy and other areas of the industry are in fact often doing similar things that can be defined by quite similar procedures and processes. The requirements of standardization and normalization like for example ISO standards enforces the development of the procedures that are describing processes and helping to maintain the required quality and fulfill the customer requirements. Very often the procedures are guidelines for the employees and by this means are the foundation of the professional design and engineering organization.

Having a practical experience from the industry, small, medium size and corporate, employing over 1000 designers design and engineering companies I can confirm that as far as the design is concerned multidisciplinary companies are following pretty much the same procedures. The differences are mainly in the area of terminology and the specific sequences of the design process. While architects are waiting for the building permit the ship designers are expecting the class approval. The similarity is that before going to the detailed design phase there is an external verification and confirmation required and very seldom the end user or investor and accept the project delivery delays caused by the protracted approval process. In this case the terminology is different but the consequences for the company are just the same. Somebody must evaluate the risk and decide if it is safe to start the detailed design before the approval to satisfy the investor. The same is with the never ending modifications, alterations, variation orders, additional requirements, changes and other disruptions of the design process. Design business is so sensitive that modifications to a huge project if performed without proper compensation might be deadly for the company.

So if the process are similar and can be mapped the first requirement of the ERP is fulfilled. What are the reasons that for now only a very few organization decided to implement ERP systems and most of the design and engineering companies are working using various, not properly integrated software solutions for planning, time registration, document managements, information exchange and so one. During the development and numerous implementations of Wayman system we have experienced all possible reasons of rejection. First and the most common obstacle is the cost.
Large ERP systems are focused on the huge corporations and are able to build an excellent environment for any type of the company, any process and any business in all areas. This flexibility is very costly both in time and founds. If the typical design project consumes 7-10% of the investment the scale of the business from the financial point of view is not that great, cause only part of this founds can be invested into the management systems implementation. The scale of financial involvement exceeds the capability of the design companies, and the natural conclusion is that ERP implementation simply does not pay off. Understanding that ERP solution for design and engineering companies must have the competitive price and should be affordable and scalable was one of the foundations of Wayman development. The second obstacle that typical ERP system implementation idea faces is the deficit of time. It is a common knowledge that ERP implementation is a long term project that takes time and effort both from the designer and implementation team. This is why the important feature of the ERP dedicated for design and engineering organization is that it must bring positive results immediately.

The third and very important obstacle is the lack of process orientated managers in design companies. Typical career of the manager usually starts in the technical university where the main faculty is the design. Later one, when the companies created by those of engineering faculty alumni with the entrepreneurs character grows the daily management, financial aspects, human resources, planning and execution, budgeting consumes most of the time. To cope with the daily management designers implement temporary solutions as fast response to a small problems. Those temporary solutions work somehow but still are far from the functionality offered by well-tailored and properly implemented ERP. The key to the success is to give the managers a possibility to adopt existing templates of procedures, modify it and adjust to their needs and reality. Nothing works better than studying an example when the goal is to develop a final procedure. This is the reason why Wayman is delivered with the extensively explained example procedures, and design processes are already build-in in the software environment that comes right “out-of the box”.

Finally, last but not least, the important obstacle, known as a human factor must be recalled. What designers really hate in ERP systems is the control and transparency that the software gives to the management. Maybe people would not have a problem with being controlled, as for most of the good design projects checking is part of their work but the irritation comes from the fact that ERP does not give much back to the designers spending their time on reporting. Reluctance of the design team members and employees is very often the reason of failure of the implementation process. Therefore the ERP provider considering implementation in design and engineering must guarantee that the real and prompt benefits will be available for employees in all levels of the organization. Predictable future, fast and easy access to the data are very important and have a real influence on the comfort of work of regular designers. One of the consequences of Wayman management system implementation in design companies is the gradual improvement of the atmosphere in the company.

The question in the title of this article is not asked properly, the case is not if design and engineering companies are ready for ERP, but the correct questions is if the ERP providers are ready to fulfill design and engineering sector requirements. The response from Wayman to this question is positive and fast growing number of our happy customers just confirms it.

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