THE ART OF ERP

How to achieve a world class business system implementation?

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Summary

This article describes the route to best practice in choosing, implementing and optimising an Enterprise business system. Using light-hearted parallels to the world of fine art, the author takes us on a journey from the basics of what ERP represents, through experience-led advice on the important preparations for and selection of appropriate software, to how to get the best from your business process in the longer term. Many of the lessons here come from long hard-won battles with organisations big and small, and should equip the reader with a number of useful tips to ensure success in what is often seen as a risky business.

About the author

Chris Stanghan is a highly experienced ERP project manager, business adviser and application consultant, who in recent years has focused on implementation of IFS Applications, with projects throughout Britain, Europe and South East Asia. An enthusiast for ERP and lean business process, he started his career in high technology manufacturing, but since moving into independent consulting has built a reputation as one of Europe's leading independent IFS functional experts. Equally comfortable as a senior programme manager in large Pan-European roll-outs, or as a hands-on project resource in single sites, he has recently started Absolute ERP Ltd, a full service ERP implementation and support provider, based in the UK.

Introduction

For those not familiar with Enterprise Software systems, an Enterprise Resource Planning system is one which integrates multiple business functions into the same database. The most common being Purchase and Inventory Control, Financial Accounting, Sales Order Processing and Customer Relationship Management. Asset Management and Human Resources are other commonly integrated modules.

Market leaders in this competitive arena are SAP (Germany), Oracle (USA), Microsoft (USA) and IFS Applications (Sweden). Each year, IT industry analysts Gartner release their 'Magic Quadrant' which indicates the trends in the market. The results for 2015 are shown below;

Magic Quadrant

Figure 1. Magic Quadrant for Single-Instance ERP for Product-Centric Midmarket Companies

Source: Gartner (December 2015)

There has always been a fervent debate on the relative merits of integrated ERP packages and 'Best of breed' software. Certainly the latter generally have greater process flexibility and often greater detailed functionality. However, for most organisations I would contest that the cost of interfaces between the systems, either automated or manual, will outweigh the advantages of these additional 'bells and whistles', and it is surprising how many businesses spend huge budgets on acquiring the best HR or CRM system, but then only deploy the parts that the ERP could have done anyway!

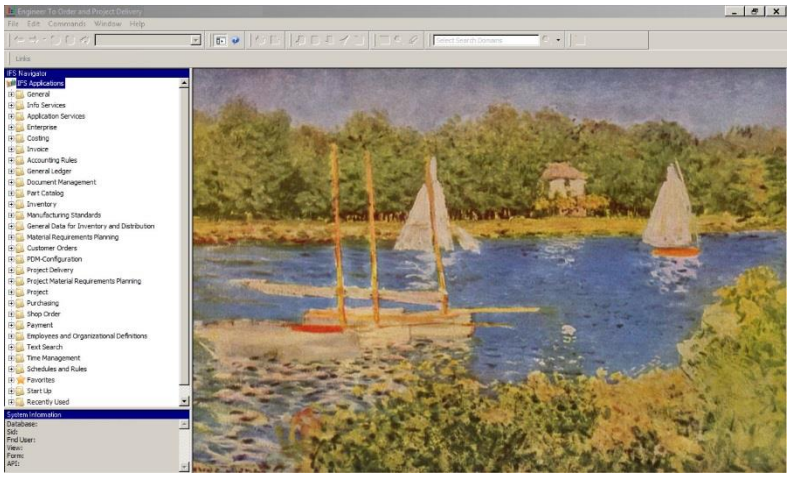
Becoming an ERP Artist

In common with many arts disciplines, a competence in ERP implementation can really only be acquired through extensive practice and the collection of varied experiences. You can however give yourself a good grounding in the basics by a study of the literature and from exploring the many discussion groups available on-line, where others share their knowledge and opinions. It is best to retain a degree of scepticism, as with all on-line publications, since

most of the articles will have an agenda and unless you know the author well any bias may not be immediately apparent. If you are in the position of needing to commence an ERP project in the near future, it is always best to select a project manager who has extensive experience in the field. Whilst you may have high quality project managers in your business, unless they are experienced in ERP, it may still be best to look outside for this key role. The external PM offers two major advantages. The first is independence and the ability to rise above the inevitable office politics, to act as an 'honest broker' on the inevitable contentious discussions which accompany any ERP project. Secondly, they have no lasting tenure, and so will be compelled to ensure that the business acquires the necessary skills during the project to support and enhance the system going forward.

Many businesses appoint a 'generic' IT project manager to oversee the entire needs analysis, selection and implementation stages. This has the advantage of grounding the PM in the requirements of the business and enables them to select and prepare the project team. It does, however bring a dilemma. In smaller projects, it is hugely beneficial to have a PM that knows the software, and can double as a part-time application consultant. Anyone who brings detailed knowledge of a particular ERP, is going to find it very hard to be objective in the selection. Even if they succeed in avoiding bias, the presence of existing experience in the team can even be used by the senior management as an advantage to that system.

Selecting your brushes



Getting the correct ERP system for your business is a major decision. However, it is not as daunting as many people paint it. By their very nature, such software suites all cover very similar functionality, and will certainly feature competent processes for the major tasks required by any business, such as;

- Purchase orders
- Sales orders
- Inventory control
- Customer and supplier invoice processing
- Ledger control and trial balance analysis
- Employee data management

The larger systems will provide options for how these processes are achieved, and will add comprehensive modules for Project Management and Delivery, Customer Relationship Management, Asset Maintenance and Payroll.

Modern ERPs are quite flexible in their configuration and allow customers to tailor their system and processes in a supported way without resorting to customisation. There should be no reason, however unusual you consider your business to be, to resort to the development of a bespoke system, either procured externally or developed in-house. Such an approach almost always ends in failure, either in cost over-runs, delays, lacking functionality or poor long-term support and development. Whatever your chief accountant might assert, your business will not gain a long-term competitive advantage from a slick custom-built fixed assets register!

There are differences in emphasis between ERP vendors, in terms of their target industries, and for historical reasons many will have strengths in certain sectors and weaknesses in others. You should select your system by comparing its functionality to those processes you need most, and then mould your process to suit the software.

Most vendors will sell their systems with pricing based on two things;

1. Which modules you take
2. How many users you have

When deciding upon 1., bear in mind that most ERP vendors will be much more open to negotiation at the pre-sales stage, so if you think you might use a module in the future, try to get it included upfront.

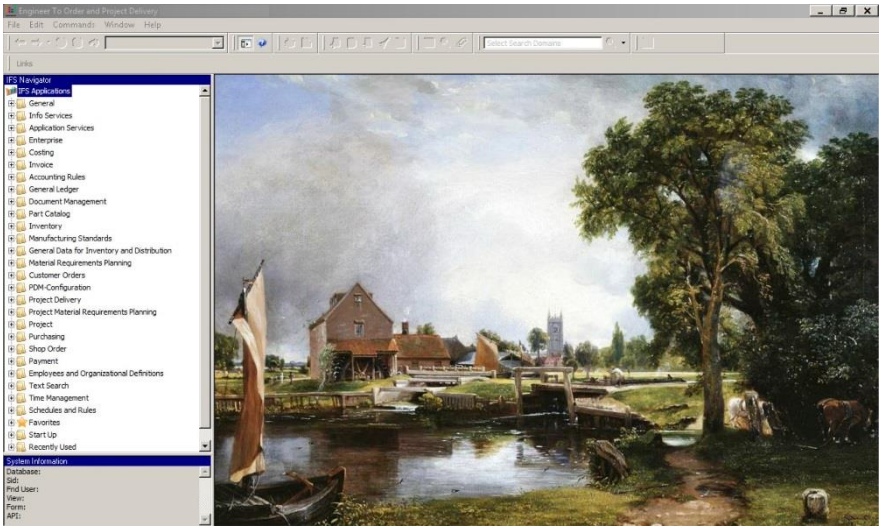
User counts are usually either ‘concurrent’ – how many people can connect at the same time, or ‘named’ – how many people can have an active user account. The latter approach is usually easier to manage (as your administrator can monitor how many users they are creating), but for multi-shift operations and global businesses with follow-the-sun working hours, there can be cost savings to be had by insisting on a concurrent user basis.

Getting Started

Whether you are painting a picture or implementing a new ERP, it is crucial to employ a sound and well-understood methodology. Most ERP vendors and integrators will have a detailed process that they will expect their customers to follow, and from experience it is unwise to deviate too far from the recommended sequence. Most are phased project plans bearing a close resemblance to the principles and themes of PRINCE2. If your business has people who are well-versed in this approach, then it is well worth pushing the suggested vendor plan into a formal PRINCE2 project. Such standardisation will aid communications in a larger project, and result in stronger working relationships between the main parties involved.

Landscapes

The key to an effective ERP is to ensure a clear business process, which is simple and easy to understand – your customers will cause your business additional complexity, so there is no need to add more of your own. This returns to the point made in the previous section, that having a perfectly designed process is probably less important that a simple, clear and well-managed one. So, the key to designing and maintaining an effective process is to keep it simple. This can be done by focussing on the most probable (and therefore most frequent) outcomes or scenarios. For example, a book seller will mostly raise orders to non-existing customers for a single item with a pre-set price. Payment will be instant, in cash with no VAT and the product will never be returned. For this example, make this scenario as easy and slick as your software will allow, and only then consider the much rarer scenarios of returning customers, multiple sales or customer returns/credits.



A key experience here is that users are very adept at becoming quick users of a simple, well-rehearsed process. Making customisations to save fractions of a second, or to build in allowance for all possible scenarios is unlikely to payback your investment. Never accept a customisation until the standard process has been fully established in live use for long-enough to prove that such a change would be beneficial.

If, after all this, you absolutely have to modify the standard process that the software provides, make the change ‘additive’, rather than ‘substitute’. By this I mean creating a parallel process option, controlled by a system ‘switch’, preferably at object (part, service, person, asset, customer, supplier) level. This will usually add little to the cost, but will retain flexibility and allow you to select the simplest solution for each scenario.

Portraits

The people need to be clear that the process is important. For many companies what they do and how they go about it is their biggest competitive advantage in a crowded market. For these companies, keeping up controlled continuous improvement in their business processes is vital. Shaving seconds off the time taken to carry out common tasks, or

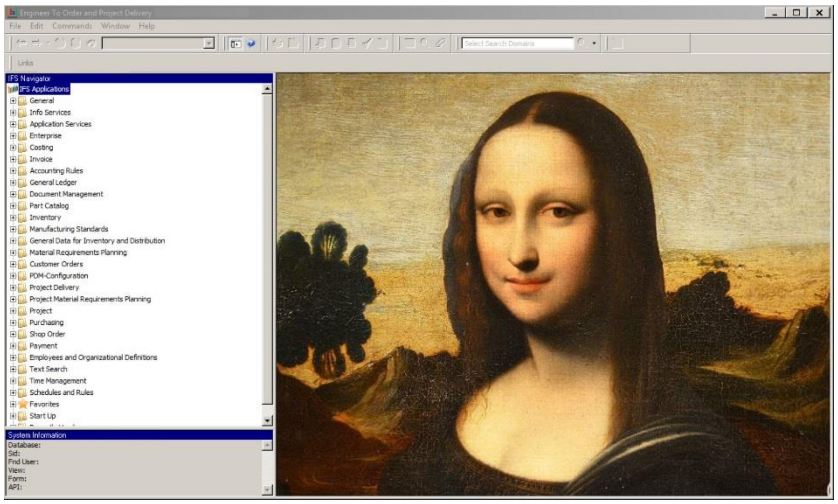
shortening the time taken to respond to a customer can make the difference between maintaining or improving market-share and operating margins, or the reverse.

However, this does not mean changing the way the system works. The biggest contributors in terms of process performance are always;

1. User dexterity in the application
2. User understanding of the data and where/how it is held
3. The accuracy and currency of the system data
4. Ease of access to key information (organised data)
5. Speed of the network and database management system

So until you have done all you can in these areas, do not consider changes to the software. Interestingly, introducing a modification usually makes 1-3 above worse in the short-term.

Optimising your Users



This starts with defining processes in detail and communicating them clearly to all staff to ensure a common usage of the system. Having clear process documentation is a necessary starting point here. This should be subject to a disciplined but light-touch version control and approval process. If possible, have only one person other than the author responsible for approving changes. This will greatly assist the agility of the system whilst maintaining a degree of control.

The second contributor to user optimisation is to have a formalised, well maintained and highly visible network of 'Key Users' throughout the organisation. Also sometimes called 'Super-users' or 'Champions', these are regular system users who have either achieved greater experience, or extended training in the ERP. They will be responsible for assisting their colleagues with first-line system support, light skills development and communication between the users and the central system management committee. Opinions vary on how much responsibility these staff should carry for training new users and transferees, but care must be taken to ensure that if this responsibility is delegated to the Key User, an appropriate amount of time is allowed for preparation, delivery and follow-up of such training, or the process will fail to deliver the required performance.

Finally, to ensure that the ERP maintains a high level of visibility and vibrancy in the life of the organisation a central management committee should be established, led by a board-

level representative with clear ownership for the overall business process (i.e: not the IT Director / CIO). This should meet at least monthly and bring together key business managers and the key users, to discuss the performance of the system, and any forthcoming changes or future requirements.

Still Life

If confidence and diligence is to be maintained in an ERP driven process, data accuracy is vital. All the disciplines and discussions mentioned in the previous section will count for nothing if the data in the system is not accurate, current and useful to those operating the organisation's business process. In ERP there are three main types of data;

Basic Data – This is mainly comprised of the mostly fixed and unchanging lists which underpin the system. Depending upon the software, they will usually include; calendars, financial structures, and standard groupings used to categorise static and dynamic data.

Static Data – This comprises the building blocks of our computer model. They do change (and are the main source of inaccuracy in many systems) but generally quite infrequently. The different tables will represent parts, customers, suppliers, employees, machines, tools, documents, vehicles, price lists or other defined objects within the business process.

Dynamic Data – This represents the objects which flow through the processes within the system. They are constantly changing and will include purchase orders, sales orders, work orders, training courses, maintenance / service schedules etc.

Optimising your data

A good motto for data in any business system is "If you use it – get it in the ERP". Examples of data frequently not properly loaded to the ERP would be sales price lists, discounts, purchase prices, blanket purchase agreements and employee cost rates. Not having these items available for lookup by those operating the relevant process will lead to delays, and inconsistencies – where people have to refer elsewhere for the information that they need. Most ERPS will default such figures into other objects such as sales or purchase orders, saving the user time, and will guarantee that everyone gets the same answer.

The common excuses for not using such data are 'We couldn't keep it up to date' (make the investment) or 'Nobody seems to know what the correct figure is' (get your process under control).

The main reason that inaccuracies creep into data in an ERP – especially 'Static Data' - is that we overlook making sure that someone 'owns' it. With some logical thought, and the disciplined oversight of a 'Management Committee', each of the main data tables can be shared out between the correct 'Key Users' who have an interest in making sure the data is updated when necessary, and regularly reviewed.

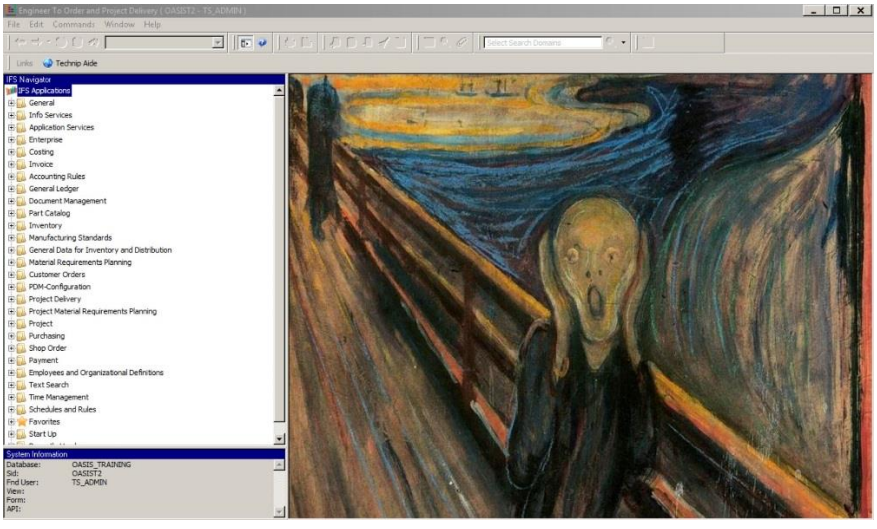
To ensure that this devolved ownership is working as intended, the management committee should arrange regular (say quarterly) audits of the data. If the ERP processes are documented within the ISO9000 quality system, then the audits can be included in the company's internal audit rota, saving the need for separate administration.

Impressionism

Creativity is like a team of horses. In harness, it can drive any process to greater heights of performance. Running wild, it will cause havoc and damage. So in your business process, you need to encourage users to come up with creative ideas for change, but ensure that suggestions are fairly and thoroughly tested and deployed to all other users effectively. Fortunately, the act of collecting and publicising promising suggestions itself motivates the users to think of improvements and offer them up for testing. Financial reward is rarely as effective a motivator as peer review and organisational praise and appreciation. However, the biggest challenge here is the word 'fair'. It must be clear to all that ideas are promoted equally by the supervisors (no favouritism) and testing is unbiased.

Process improvements which are accepted by the organisation must be quickly documented and incorporated into the daily routine by well-coordinated update training. This may sound time-consuming and bureaucratic, but there really are no shortcuts. If it is worth doing at all, it must be done professionally.

Be a critic....



In all art, both performance and graphic, criticism is ever present. In fact, most artists are their own greatest critic. It is surprising how few businesses indulge in any structured criticism of their ERP system. By this I do not mean that there isn't much unstructured 'mud-slinging'. Other than 'management' in general, the ERP is probably the most derided part of any business. This is not coincidental. Companies with the best respected (externally and internally) business systems - of which I note here that ERP is just a part - will have a management team who appreciate the role that computerised data plays in their success, and will

continuously and rigorously assess its performance and how the organisation are interacting with and through it. Key elements of a systems performance critique will be;

1. Having a board level responsible manager
2. Maintaining a KPI tree for system performance
3. Rigorous induction training/testing and continuous user development
4. Integration of system competence in employee appraisal and development planning

The rarest of these is the last... Management teams are notoriously uncritical of apathy (at best) towards the ERP, and sometimes indulge 'Key employees' in actually undermining the 'standard procedure'.

Companies in the 21st Century need a world class ERP, and to have one which gives them real benefit, ALL employees must be expected to use, respect and improve the system and its associated processes at all times. Those that do not must face the criticism, not just the software itself.

What is the purpose of art (or ERP)?

Though many have asked this question over the years, I think most would agree that the purpose of art is to 'enrich the life of the viewer'. This same belief can be taken across into the world of ERP, where a good system should enrich the working life of the user, and in turn materially benefit their organisation. To put these two factors into more business-friendly terms, it should;

1. Deliver either increased work throughput, reduce costs or improve customer service.
2. Result in a positive Return-On-Investment (ROI)

Since the latter is notoriously difficult to measure in an application as broad as ERP, where many of the changes made either in preparation for or as a result of the implementation project, will be able to stake an equal claim for providing the benefits achieved. An alternative measure that can be applied over a longer-term (five years plus), would be to examine the probable condition of the company without the system – the 'Where would we be without it?' test. Carried out at a detailed enough level within each business process, this will reveal many benefits which were never envisaged in the original investment proposal. In the end, we should probably resign ourselves to the comfort that investing in ERP is probably less risky than buying art.

Conclusions

This article has sought to paint a picture of what represents best practice in the world of ERP, discussing how to go about selecting, specifying, implementing and optimising that major asset. If the thoughts included have been of use, and you would like to discuss the matter further, the author would be delighted to do so.

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