

To Be or Not To Be User Friendly?

By Phil Nicholls, MBA, B.Eng.
Managing Director, eMerge Information Technology Ltd

Introduction

In the cut-throat, competitive and acquisition-laden world of Enterprise Resource Planning (ERP), there is one attribute that all system suppliers claim. A claim, which is in danger of being so misused that it becomes meaningless. That is User-Friendly. In this paper I shall investigate what we mean and what we should mean by the term user-friendly and show how the common image can be misguided. I shall also show how at least one modern ERP system is taking the idea of user-friendliness to a higher plane.

Why is User-Friendly so important?

Every ERP supplier will claim that their product is user-friendly. It is almost marketing suicide to suggest that your ERP product is not, yet speak privately to a number of seasoned developers and consultants (strictly off-the-record, of course) and a healthy number of industry-based I.T. Managers and you will find out that this may not be such a bad thing after all. Before everyone jumps up and down and hotly refutes such heresy, we need to be clear what we are talking about so let us lay down a few ground rules before we jump to any hasty conclusions.

What is “User-Friendly”?

Firstly, let us try to navigate the minefield that is “User-Friendly”. There are a number of attributes that people assume are the definition of user-friendliness, which in fact do little more than cloud the issue. Let us examine some of them.

User-friendly or user-comfortable?

One of the biggest misconceptions held by people today is that a user-interface is inherently user-friendly simply because it looks like 90% of the software packages that they see in their everyday working environment. This only means that it is user-comfortable. That is, because they think they have seen it before, internally their barriers go down. There is, of course merit in this because it means that the early stages of training new users are easier because there is an immediate acceptance that this new system lays within the trainee’s comfort zone. Therefore the trainee feels less threatened by the introduction of this frightening new technology. But let us not kid ourselves that this equates to user-friendly.

User-friendly or user-efficient?

One of the single most important benefits that a new ERP system can bring to an organisation is a stepchange in the efficiency of its users. In the past a big play was made of “reducing keystrokes”. Even today, I hear many IT Managers hold up the measure of required keystrokes as a way of distinguishing between competing ERP solutions.



Admittedly, it is used more as a negative eliminator rather than a positive discrimination, but even so, it still exists in many IT Managers' minds as a means of determining the attractiveness of a software product. User-efficiency is good but still does not provide a definition of user-friendliness, for that we need to look elsewhere.

Who is this User?

A major attribute of an ERP system is that it is a single integrated system that manages as many of an organisation's functions as is sensible. This therefore suggests, rightly, that there will be very many users across the organisation wishing to use the system for many different purposes. What can we say about this community of users?

Firstly, they will be carrying out very many different functions and so will require many different interfaces to the system. For instance, a sales order clerk will be perfectly happy interfacing with the Customer Record of an ERP system but may be completely lost if faced with a Part Catalogue screen. ERP systems can handle this easily by ensuring there are many different input and query screens, designed for each of the functions within the system.

Secondly, this community of users will probably have many different levels of expertise, intelligence and experience. This is where the difficulties start for the ERP system. The CRM side of the system may need to be driven by tele-sales operators who have little experience and only some of the standard IT skills (e.g. Microsoft Office) taught as part of the ubiquitous Computer Driving Licence. However, on the technical side of the company there are likely to be a number of users who are capable (and have direct experience) of building the P.C. that they use and programming many of its major functions. How does the modern ERP system manage this divergence of skills of those who will be using it?

A further aspect of this usability issue is the natural inclination of the user to using a particular interface mechanism. That is, are they a mouse user or a keyboard user? Many experienced users are, of course, comfortable with both, but often data input employees end up, due to their experience with other systems, with a bias to one or the other. Unfortunately for them, there are few systems that have the required level of redundancy between these interfaces to allow all the system's functionality via both methods. The good news, however, is that some of the more modern systems can provide this flexibility.

The answer to that question, of course is that many of them don't. Or at least, they cover it by lowering the "user-friendliness" down to the lowest common denominator. If you make sure it is simple enough for the least of the users then you can ensure that anyone (i.e. everyone) can use it. Unfortunately this does not square with our previously mentioned desire for efficiency. Simplicity of use invariably means breaking everything down into bite-size chunks which individually are easy to understand. Unfortunately for the more able staff that we employ in each of our organisations, it means long-windedness, drudgery and tediousness.

We cannot allow for the better staff to jump some of the intuitive gaps that we could put in our business processes because we have to ensure our less able staff can still use the system. Also, breaking tasks down to more easily understood stages means, unfortunately, more keystrokes and therefore less efficiency. Whilst I have been talking here about the number of steps in a process, the opposite can also be said for the complexity of input screens. The slowest of our staff struggle with vast numbers of fields as they get confused and anxious because they have difficulty in seeing their tree (required fields) amongst the forest of data (all the other fields present) that is in front of them. This normally channels the system designer down the road of simplicity at the sacrifice of functionality. However the hunt for more advanced and capable systems leads us to increasing form complexity at the risk of “losing” our “foot-soldier” staff.

What happens now?

This dilemma is faced every day by IT Managers up and down the country. In most systems, they have two options they could possibly follow:

1. Make a decision to choose the level of system complexity they can live with and go with the system that most closely matches this.
2. Decide to modify whichever system they choose upon so that they can try to satisfy both extremes of their user community.

The first normally wins on initial costs, but fails when it is apparent that either more training will be required than was originally anticipated or the expected efficiency savings will never be attained. The second usually fails on cost grounds as more bespoke work is required which needs to be repeated when each new release hits the marketplace but wins on end-user satisfaction levels.

Where can we go from here?

Obviously the options identified above are both sub-optimal. A third way must be found. How can we get the level of complexity down for some users whilst others can fly because they can understand the greater complexity required by the higher level functions? And in addition, how can we achieve this without growing our bespoke programming costs out of all proportion?

The answer is to accept a worldwide truth that is occurring universally around the world of IT. As the user community gets more experienced at using IT, so it also gains more skills that previously were the domain solely of the computer programmer or systems analyst. This devolution of skills from computing specialist to user is the only way that organisations using ERP systems are going to get future savings and benefits from their ERP systems without an excessive price tag.

This means providing tools aimed specifically at IT Managers and systems analysts that previously only systems developers could use and providing end users the tools that previously only IT Managers and systems analysts had access to.

Without getting into a long costing and cost-justification argument about who is best to do a particular task, suffice it say that this skills devolution can only be beneficial to the end user organisation.

What does this mean for the ERP system?

For those ERP systems from some of the more forward-thinking suppliers (of which the Priority from Eshbel is one) this means an ever-evolving set of facilities that allows users to manipulate their system as never before. As mentioned before, some users will need an environment to work in that is clear and uncluttered and has the minimum of transactions and fields available, but others will need to access more of the system's available functions despite the added complexity that this will bring. To allow this, such systems must allow the detailed design of input and query forms, graphs, reports and documents to be created, and modified by anyone, right down to the end-user.

"Marvellous", I hear from some, "Disastrous" I hear from others. Quite so, if such a facility is provided with no control. However, for this to be an effective strategy, then an over-arching control mechanism must be provided in tandem. Such a mechanism is already provided by many of these better systems as part of the normal privileges facility. As well as deciding which users can and cannot view, create or modify certain data (e.g. financial), the privilege mechanism can also determine which users are allowed to modify their own environment. Therefore the power here is not being wrestled away forcibly from the I.T. Manager, but is being willingly devolved to those who a) can cope with it and b) are responsible enough to use it wisely.

Let me point out here that the level of facilities I am talking of here is far more than the common "My Favorites" that most systems have today. This merely provides an extra means of finding the functions that you are looking for rather than having to navigate your way through a potentially complex menu system. I am talking about going much further than that. Here I am speaking of changing the standard system representation, at user level, so that two logins can potentially have completely different representations of the same input screen, e.g. Customer Record, Part Master, Sales Order, etc, etc.

For this to work effectively then there must be an advanced level of software engineering in the product to allow the holding of such design changes yet not be slowed down by the need to access this information in competition with the normal performance of the system. There is no point in having the most changeable system in the world if it runs at half the processing speed of its competitors. Thus the constant battle between the many facets of the totally integrated IT system.

Is this really the Holy Grail that ERP systems are looking for?

Not necessarily. For some, such concepts have not even been considered, for others this now is a major strand of their current development, for fewer still, it is reality and is a concept embedded totally within the development team's objectives. But the important consideration is; how important is it to the client organisation? The answer to that must be an emphatic yes. Because it represents a tremendous opportunity to become more efficient, more agile and reduce costs, both in running costs and initial implementation cost.

The implications for ERP suppliers do not just remain in the realms of the original software engineering, however. There are profound implications for the support network for such an advanced product. Support for such an advanced product becomes a greater challenge because every implementation potentially can look radically different from any other, so the skills required to be able to support on different software levels will be more difficult to find and reward. For those organisations who have attained this already, there are surely many opportunities to be exploited.

Savings, savings, savings

Training. Where an organisation can configure its user interface to suit all the different classes of user within the company, it can limit the level of training required. Firstly, the users have less to be taught and secondly, what they are taught is taken on board and internalised much quicker. (N.B. it is important to note here that the company carrying out the implementation / training must be working to these concepts as well. There is no point in having the ability to streamline the user interface if the trainer insists on training everybody on every available field just because he knows what all the fields mean!)

Operational costs. With a streamlined user interface requiring less input and providing only the specific fields required for a particular task the ongoing costs are naturally reduced as each task takes less time and so more work is achieved in the same timescales.

Development costs. Where the ERP system has these user configuration capabilities, then those organisations who strive for the most efficient user interface for each class of user will be able to achieve this easily themselves rather than having to pay for (arguably) expensive external services. There is, of course the argument that the skilled resources of the ERP supplier can achieve much quicker results, however, such decisions and developments are rarely designed once and then seamlessly implemented. The real world dictates that such user interface designs evolve over time which guarantees that either the cost goes up or the development is abandoned due to spiralling cost.

Conclusion

On a simple cost justification exercise it is clear that there are significant arguments for settling on an ERP system that provides the maximum flexibility for the user interface and provides the client organisation the tools to achieve that flexibility internally. Not all systems available today have the technology and the level of software engineering to allow this level of user-based configuration. The prospective purchasers of ERP systems should seriously consider the inclusion in their selection criteria questions that test the basis of suppliers' claims to the user-friendliness of their products.

In today's businesses around the world, the battle for supremacy is getting ever fiercer and here we have a massive potential for increased competitiveness. Do we not owe it to ourselves to take advantage of this higher level of efficiency?

About eMerge

eMerge Information Technology Ltd. specialises in developing eBusiness and ERM solutions to a variety of manufacturing and commercial organisations along with providing excellent service and long-term commitment to customers' needs. The company's main expertise and core business is implementing the Priority midrange ERM system and developing additional software systems in the Priority environment. In the internet and B2B world, eMerge has gained expertise using the most advanced technologies and tools providing a variety of services such as Legacy to Web, Business Process Integration, eMarketplaces and Enterprise Application Integration.

As well as providing the software tools to enable your enterprise to flourish, eMerge Information Technology Ltd. will supply the expertise and consultancy to update your business practices and procedures to compete with the best in the market.

eMerge Information Technology Ltd

Speedwell House, Speedwell Close, Chandlers Ford,
Hampshire, SO53 4BT

Tel: +44 (0)845 230 6740 email: info@www.emerge-it.co.uk

