



WHITE PAPER

Reduce the hidden costs behind ERP software by reducing the learning curve

Casey Lawrence, Enterprise Software Specialist

ABSTRACT

How standardization and consistency within a software product impacts the user learning curve and hidden costs when implementing and managing enterprise software. When standardization and consistency is missing, the learning curve increases. The greater the learning curve, the greater the potential for lost productivity. Learn what to look for when selecting an enterprise software product and how to deal with the user learning curve during implementation.

INDUSTRY STANDARDIZATION

I have been renting automobiles for over 20 years due to my heavy travel schedule. After signing the agreement and getting into a rental car, it usually takes just a few seconds to adjust the seat, rear-view mirrors, turn on the engine and lights, and drive off. I have never had to stop and re-learn how to drive an automobile because it was from a different manufacturer. Admittedly, I've experienced a few moments of frustration when trying to find the lights, high-beam or windshield wipers. But this type of frustration has basically been eliminated over the past 20 years, as the automobile industry has standardized the operation of all automobiles. Standardization in the automobile industry has made it easy for consumers to operate a complicated piece of machinery, even when the design varies from one manufacturer to another. We take automobile standardization for granted these days.

Standardization is still a long ways off within the enterprise software industry. I say "a long ways off," because I still have the hope this might actually occur in the future. Enterprise software includes ERP, SCM, CRM, WMS, PLM, POS, etc. for all industries.

The enterprise software industry is constantly experiencing major shifts in development, navigation, layout and design, which has made standardization difficult. However, the automobile industry has had similar disruptions. If the automobile industry can standardize, why not the enterprise software industry? Standardization between enterprise software suppliers is

a tall order indeed, bordering on the fringes of science fiction. But why shouldn't we reach for the stars?

Even though standardization between different enterprise software suppliers may be a pipe dream, standardization within an individual supplier's products should be a worthy and reachable goal. I can understand significant variation between suppliers; but variation within an individual supplier's products is appalling. Users should demand standardization and consistency within a product from suppliers today.

The standardization and consistency I am referring to within a supplier's product refers to variations in layouts, navigation and operational activities between forms, processes and reports in a single product. A form is a computer window or frame used to view and/or manage data.

The primary reason why standardization and consistency is so difficult within software is due to development discipline. It is very difficult to maintain clear and consistent communication between developers along with the discipline required to keep a software product operating consistently. Software development is an exercise in herding cats. Each developer wants to be an independent artist, resulting in significant variances within a product. The larger the development staff, the greater the potential for variations.

LEARNING CURVES AND HIDDEN COSTS

I am sure you are asking, "Why is standardization and consistency so important within an enterprise software product?" The reason is the learning curve for users. The greater the learning curve, the greater the potential for lost productivity. Lost productivity translates into higher hidden costs when implementing and managing software. It is difficult for a user to learn the operational activities within one form, let alone navigational and operational variations between multiple forms. Some products are so poorly designed that there are significant navigation and operational variations between most forms.

Variations between forms will result in an exponential increase to the learning curve with a corresponding exponential decrease in productivity. Specifically, if there are two different types of operational methods between forms, the product will be two times more difficult to learn. If there are four different operational methods between forms, the product will be eight times more difficult to learn. If there are more than four operational methods—well, you can see where this is going.

Most companies do not understand the amount of lost productivity from the learning curve when switching enterprise applications. Users must learn entirely new business processes along with new modes of software access, navigation and operation. Multiply this by variations between forms, processes and reports within an application and the results could spell disaster. I have seen enterprise software deployments bring companies to the brink of shut-down by overwhelming their users with unrealistic learning curves. The learning curve will reduce a company's productivity for months after the software is deployed. The "learning curve hidden cost" alone can be very expensive and is often neglected during implementation plans and deployment.

The initial implementation and deployment costs are just the beginning with inconsistent and poorly designed enterprise software. The learning curve hidden cost continues whenever users are replaced and re-trained. On-going training costs can be expensive in the long-run due to the volume of continuous re-training and heavy hand-holding whenever users are added or replaced. With poorly designed software, the IT department will be constantly harassed for re-training with heavy hand-holding after the training. If the product is well designed, training and hand-holding will be significantly reduced.

The intent of this document is to raise the awareness of the "learning curve hidden cost" in enterprise software, and hopefully provide some suggestions when dealing with poorly designed software. If companies will seriously look at standardization and consistency within a software product when making a selection decision, suppliers might actually take notice and focus on resolving the problem. However, if companies continue to ignore this important aspect when selecting software, they will continue to pay the price of poorly designed software.

There are three ways to reduce the learning curve hidden costs when selecting and implementing enterprise software. First, select user-friendly software with consistent navigation, layout and design. Second, if you must implement a poorly designed software product, implement the software to minimize the learning curve hidden costs.

SELECT TRUE USER-FRIENDLY ENTERPRISE SOFTWARE

As mentioned earlier, most enterprise software suppliers lack standardization and consistency regarding the navigation, layout and operation within their products, in other words, they lack simplicity or user-friendliness. The term "user-friendly" has been tossed around so much in the industry for so long, the term no longer carries any weight. Therefore, it is necessary to define within this document what I call "true user-friendliness."

The following is a list of true user-friendly features to look for when selecting enterprise software:

- **Consistency:** Look for a consistent navigation, layout and operational theme throughout the entire software product. Review as many forms as possible, noting the different navigations, layouts and operational methods within forms, processes and reports.
- **Intuitive:** Look for intuitive navigational and operational themes throughout the entire product. The navigation between and within forms should be obvious and natural, using industry standard methods used in most office software products. Avoid off-beat, awkward, complicated or unnatural interface designs.
- **Relational:** Look for relational connections between all primary objects. For example, if I am on an item, I want a relational connection to all sales orders, purchase orders, inventory, etc. for the current item I am on, without leaving the form and manually navigating to another menu or form. This is sometimes called in the industry "Zoom" functionality. Relational or Zoom functionality will significantly improve data access, maneuverability and visibility.
- **Visualization:** Look for good data visualization on as many forms as possible. Good data visualization is the volume and ease with which a user can view and manipulate data within a form. Good visualization includes the number of data rows and the ease of scrolling through data. Also, an added bonus of good data visualization is the ability to toggle between multiple and single-record views within a form. Sometimes it is helpful to see all columns for a single record within a form, and at other times, the ability to scroll through multiple records is most important. This way, both maintenance and inquiry may be combined in one form providing a boost to productivity. Also, make sure the number of records (or rows) is maximized on the form. More records (or rows) translate into

better data visualization and thus improved productivity.

Companies selecting an enterprise software product should look carefully for true user-friendliness. True user-friendliness will significantly reduce implementation and on-going hidden costs.

MINIMIZE THE “LEARNING CURVE HIDDEN COST”

True user-friendliness might become a low priority when selecting an enterprise software product, especially since most products lack true user-friendliness. If this is true, there are ways to reduce the impact of poor user-friendliness. If you have selected a software product that is not particularly user-friendly, you still may be able to improve user productivity.

The following is a list of suggestions to improve user productivity during and after the implementation for enterprise software products lacking true user-friendliness:

- **Identify and document form operational variances:** Review all of the enterprise software forms intended for use. Document the different operational ways to view and maintain data within the forms. Group all forms into operational types. Document each form operational type.
- **Document new business processes:** Identify and document all of your current business processes. Use these current business processes to develop new business processes, integrating the new enterprise software functionality. Include form shots in order to minimize explanations and provide visual simplicity. For each form used within a business process, reference the operational type. These new business processes referencing the forms and operational types will provide clear instructions for the users during training and deployment. The new business process documents will alleviate the need for users to memorize complicated and varying navigational and operational activities.
- **Educate users on form operational types:** Prior to any conference room pilot or training, educate the users on the different form operational types for

viewing and managing data. This way, the software complexity will be categorized for simplicity when working with forms operating differently.

- **Train users on new business processes:** Use the new business process documents to train users during conference room pilots and training sessions. This will reduce user anxiety by providing clear instructions and simplifying complex variances between forms.
- **Use new business processes for deployment:** Use the new business process documents when deploying the enterprise software during the first transactions. This way, the user will have documents to fall back on instead of the trainer or IT staff. This will reduce the learning curve and improve user productivity.

CONCLUSION

Since most of the enterprise software industry lacks standardization, these suggestions should significantly improve user productivity, reduce hidden costs and reduced the threat of deployment shut-down after implementation. That is, if these suggestions are taken to heart.

Hopefully, I have provided some enlightenment on the subject of standardization when selecting and implementing enterprise software. The intent is to create awareness, which in turn might create demand. If companies start demanding standardization and consistency when selecting an enterprise software product, maybe software suppliers will start taking notice and make life a little easier for us users.

Casey Lawrence



About the author:

Casey Lawrence has over 25 years of experience in marketing and implementing 10 different enterprise software applications to over 100 companies worldwide. Casey has held various technical, marketing, and senior management positions.