Accelerator Tools.
The wave of the WMS future?

By Lynn Dermott, Senior Vice President, Products

Walk into any warehouse operation, ask the person in charge how they like their WMS? Almost immediately they will complain about what it doesn't do. They may like it. They may feel, overall, it works well. But when given the opportunity to critique the system, they will undoubtedly focus on the things that make their lives a bit more difficult; that make their operation a bit less efficient. Every warehouse manager, no matter how big or how small the operation, has "THE LIST" of what will make their WMS better.

How to keep up with the changing environment?

Every company using a WMS realizes that at some point after implementation their system can't keep up with rapidly changing business requirements. Even after just a short time, the operation may find itself becoming constrained by what the software can't support. Requests for help from IT can take too long; there isn't an IT organization in the world that isn't overallocated. Requests to the vendor are answered with pricing estimates that are too rich or take too long anyway. So, the operation is forced to continue to make due, knowing well that they could be running better and less expensively.

In spite of the fact that WMS applications over the last decade have become far richer in features and functions and in spite of the fact that they are much more configurable, all implementations continue to require software enhancements. In some cases, extensive enhancements are required. The amount and extent will vary, based on the vendor and on the ability or willingness of the customer to adapt their processes to the software.

For the most part, the items on the list are not major process changes. The changes are not complex. Rather, they tend to be tweaks designed to make the workforce more productive. Maybe it's a streamlined packing screen because too many keys. Maybe they want to insert a new message into an existing RF dialogue because their temporary employees need more instruction or are required to implement more verification at the time an item is received. Maybe they want to automate a new Quality Process for the collection of information from inspection or to report a product status change without having to fill out multiple forms.

Because that warehouse manager doesn't typically have the ability to made software changes, he has to make do without them. Some warehouse managers have implemented some ingenious workarounds. Some ad hoc solutions have been necessitated by new business requirements that run into the wall of an immoveable system. These solutions address the problem but almost always cost the operation in terms of productivity or throughput.

Making Their Own EnhancementsL Is It a Reality?

Warehouse managers often say "if only we could create their own enhancements!" Users without programming skills being able to create their own software?

On the surface, this sounds like a radical idea. But, there is an emerging new technology that is designed for exactly that. Whether referred to as software configuration tools, or software acceleration products, these products enable users to do build their own programs and applications (or Apps in today's speak). Once understanding how easy these products are to use, the concept is no longer radical.

Consider the world before Excel, when spreadsheets had to be built manually, or users had to rely on sophisticated mainframe systems that were tightly in the domain of the accounting and IT groups. Excel is a development template, with built-in sophistication to automate the process of averaging or summing a column of numbers. Using its tools, a user can analyze and graph data themselves. Or, the user can create small programs to do calculations based on decision factors. As another example, remember a time when reports had to be hard coded? Think back to the enormous efforts involved in constantly updating and adding reports to a system before report-writing tools, like Crystal, became available. These tools create autonomy for the user while freeing IT to bigger things.

WMS acceleration products, in concept, are similar. Armed with an intelligent template, a non-technical user can plot out a process flow and then make it come to life. The user can create new screens, new reports, new dialogs and many other applications using the tools available in the software tool. The user can insert points of validation, create required fields, and load data into a database. A more sophisticated user can insert scripts and database triggers and integrate new enhancements with the database augmenting the features of the WMS. Users can make changes, that used to be considered sophisticated programming changes, without manipulating core software, with minimal support from IT or the vendor and with little formal programming knowledge.

As for developers, acceleration software makes their life easier too. The tools available to them will cut their total programming time by as much as 50%. Instead of having to develop new, raw code for requests like field validation, lists of values, autofill and calendars among other functions, developers can simply make use of the software template and pick and choose what they want to use.

Accelerators-- Are They Right For Everyone?

Many companies are using accelerator products in a variety of applications. For example, a pharmaceutical manufacturer has built a clinical trial system to manage drugs under trial. In a clinical trial, pharmaceutical companies face a unique challenge tracking products with pinpoint accuracy under the constraints of the trial's experimental design. And, with each new trial, packaging identification changes, pick and pack requirements change, with some drugs requiring kitting, or some may require inserts for patient returns or instructions. Simply using the product to reconfigure the process, add new instructions and new requirements, the manufacturer was able to begin a new trial in less than half the time it would have taken without the tool. Another current toolkit user has built a new inspection system, yet another; a new tracking system. The applications are nearly unlimited.

The accelerators can be used in ways beyond building new enhancements. Imagine having a template that could be used to create a proprietary Computer Based Training system? In a similar manner to designing new dialogues for the WMS, any user could create a dialogue to take a trainee through his instructions, complete with illustrations and hands on practice. Accelerators enable users to build these things themselves, which also means they can be quickly changed or adapted to new situations. The same could be said for testing and quality programs. For that matter, imagine being able to use a template to reconfigure the WMS when you add a new extension to the building, or simple reconfigure your racks. In this application, toolkits are configuration tools as well.

Acceleration software holds the promise of changing the way WMS systems are delivered, maintained and evolved. Vendors will embrace these tools as a means of extending their offering. Vendors will focus on advancing their prod-

ucts in concert with market trends and won't have to focus nearly as much on specific customer requests. It won't be long before evaluations of WMS systems will include questions about the robustness of the vendor acceleration module. Companies will adopt the acceleration products as a means of reducing costs and positioning their business to make adaptations even faster than they are required to do today. Software acceleration products will become a strategic part of a company's overall software platform.

Whether extending the life of legacy system, making improvements in process or reporting, or simply freeing up the IT staff's time, accelerator tools are the future of the WMS industry.

About stepLogic

stepLogic is a software development tool that replaces development tasks with configuration steps. The product provides decision tree analyses to allow customers to configure their current WMS to meet their specific needs. User created dialogues can automatically update the appropriate tables and parameters and provide the user with recommendations. The software will enable you to:

- design new processes,
- build new screens,
- log every input and step for easy research and diagnosis.
- enhance your QA procedures,
- add special handling instructions and,
- create testing plans.

Each step within stepLogic is made exclusively by the users enabling the operation to move more quickly. This allows your IT staff to focus on bigger projects without expensing more time and money to your WMS vendor.

stepLogic tracks, documents and catalogs customer specific SQL reports and provides user-friendly mapping of interfaces between host systems and the WMS. Able to be deployed on mobile devices, all input values can be verified and existing processes replicated to insert new procedures such as QA, packing instructions and cycle counts. stepLogic is designed with a point-and-click user friendly interface. The product operates with any system with multi-level security defined by the user. The system can be hosted by IIS or Apache and uses HTML based messaging.

About the Author

Lynn Dermott is the Senior Vice President of Products at Pittsburgh-based DMLogic. DMLogic offers one of the industry's first software accelerator tools. Making the task of software development easier, stepLogic is DMLogic's new tool that turns traditional coding efforts into configuration steps and scripts.

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