

# Selecting Solutions for Manufacturing – What is changing?

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**W**hen manufacturing processes evolve don't software needs change too?

About 60% of the manufacturers we speak with these days will be able to identify that they are seeking a discrete or process based manufacturing solution for their business. However we are finding that many of these manufacturers have a blend of discrete and process operations and would be better served with solutions for what we call mixed mode manufacturing. Our research suggests that almost 80% of all manufacturers now require some representation of both process and discrete functionality in their software solutions to achieve the most efficient support for their operations.

## Why is it important to be aware of this blend of needs?

When you are shopping for a manufacturing software solution, if you don't understand the nature of your manufacturing style at the transactional level, you run the risk of selecting and implementing a software solution that is just not a good enough fit. Recognizing the individual instances of process versus discrete functions in your own manufacturing operations will allow you to select a manufacturing solution that meets your full range of needs. This will prevent your organization from incurring the on-going costs of having to "shoe horn" some of your processes into poorly fitting or inefficient transactions.

## Why is this degree of detailed evaluation at the operation level so important in manufacturing?

The simple answer is because manufacturing operations are complex. But let me explain that with a practical example.

In the accounts payable department, no matter the industry or business vertical, there are only a limited number of possible transactions. The limit is so specific that no one



is finalizing their business software selection based on the needs of the accounts payable department.

By contrast, such consistency and limited needs are not widespread when applied to the operational events of a manufacturer. Certainly, there is an underlying aspect of manufacturing that is universal. All manufacturers take raw or component materials and apply effort to transform them into something else. However, the method of transformation is very important making each manufacturing industry unique.

As an example, consider how different manufacturers would use heat for transformation. Heat can be applied to melting ingot to pour castings or to making a kettle of soup or to welding the individual components of an assembly. In each case heat is common but the amount of material consumed and the quantity of output yielded has significantly different calculations that must occur to achieve accurate results for inventory count and value.

Another aspect of differentiation between manufacturers is in how they will count the materials they buy, store, consume and sell. For discrete manufacturing this count effort is most often found to be reliant on multiples of one, think of a light fixture or an automobile. Discrete manufacturing solutions are constrained by this quantity of one multiplier effect. On the other hand the process manufacturer most



frequently deals with volumes or measures of volume, which on the surface can appear to be multiples of one but more frequently require the application of units of measure with four or five decimal places like ounces, meters, feet etc.. Process manufacturing solutions therefore are specifically designed to support this variety of measurement.

### **Manufacturing value stream – process, discrete or something else?**

When we take a detailed look at a value stream in manufacturing today, we are more likely to see constant shifts from process to discrete and from discrete to process operations. We find our discrete manufacturers, those who make products like light fixtures or automobiles, are often running sub processes that reflect traditionally process based manufacturing activities like painting or punching parts. On the other hand, process based manufacturers have a need to utilize discrete functionality for events like packaging their products or capacity planning.

Manufacturing software that is labeled mixed mode incorporates the functionality for both process and discrete needs in a single solution. This is why for many manufacturers mixed mode functionality would be a better fit than a purely process or discrete solution and why we see growing interest in such solutions.

### **Why is the need for mixed mode functionality growing?**

The answer is pretty simple. More and more manufacturers as they drive to:

- a) Tighten control of their supply chain
- b) Shorten throughput time
- c) Lower the risk associated with inventory

...can identify that their physical manufacturing processes contain elements of both discrete and process type activities. As part of their overall improvement and control strategies they seek software solutions to



support their operations with maximum efficiency and they find the purely discrete or process solutions inadequate for these goals.

This effort to identify and deploy the right software solution is met on the supplier side by increasingly affordable software licensing and configurations costs. Microsoft DynamicsGP in combination with Horizons Mixed Mode Manufacturing Essentials provides one of the few offerings of mixed mode manufacturing software available today for the mid-market. Each aspect of the solution is written in Dexterity, the native code base for DynamicsGP. This allows for deep integration which provides a consistent user experience across all business roles and ensures that cost and count data is generated and updated consistently across all functions.

In 2016, Horizons International will be recognizing 20 years of effort providing leading edge manufacturing functionality to the DynamicsGP marketplace. We have focused on remaining nimble and staying in touch with trends and developments in global manufacturing. Our dedication to delivering both discrete and process capabilities in a single software solution, as well as the release of our Quality Essentials Suite product line is a demonstration of that commitment. Please visit our website [www.HZS.com](http://www.HZS.com) to learn more about our products and to help you decide if mixed mode manufacturing software is the right solution for your organization. Our video Minimizing Inventory Risk can provide helpful explanations and product fit identifiers. 