Savigent SOFTWARE

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CASE STUDY

REQUEST SYSTEM

Get the Job Done Faster and More Efficiently with Request Systems

One of the world's leading electronics manufacturers was facing a problem indigenous to manufacturers in many markets: Everyone in the factory wanted to get their jobs done, get a job request done, get something done—in this case with a wafer. Within the organization, different groups were developing different systems to get their jobs done. Some were using Microsoft SharePoint; some were using Lotus Notes. Others relied on email, which was particularly problematic because it was difficult to know who within the group that received the email was going to complete the request.

The organization needed an overarching system that could communicate with everyone. The company consulted with Savigent to explore the possibilities of incorporating actions—workflows—into a request system. This requirement proved feasible, and a request system was designed using Savigent Workflow™ to provide a controlled system for workflow automation within the request system. It also delivered guaranteed compliance with SOPs, excellent traceability, and rich manufacturing data previously unavailable without an extraordinary, time-consuming, and costly effort.

"We are finding this solution very successful," says a senior manager in wafer processing engineering. "Just the time savings on not wasting time looking for wafers is significant."

The new request system works like this: Staff put in a request. It then goes to an individual for approval. If it is approved, the system becomes aware of the request and its work requirements. If an engineer needs to look at a particular wafer in the factory, but doesn't need to look at it for several days (e.g., because the wafer won't be at the correct location in the factory for the work on the request to be done until then), the wafer will move through the factory until it reaches the correct location to be examined. When it does, the system creates a task for the correct individual to address the wafer and complete the work request. No longer are engineers and technicians sitting around the factory wondering where a wafer is. The system tracks the wafers and tells the appropriate parties when the work can be done and exactly what work needs to be done.

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Powerful Benefits

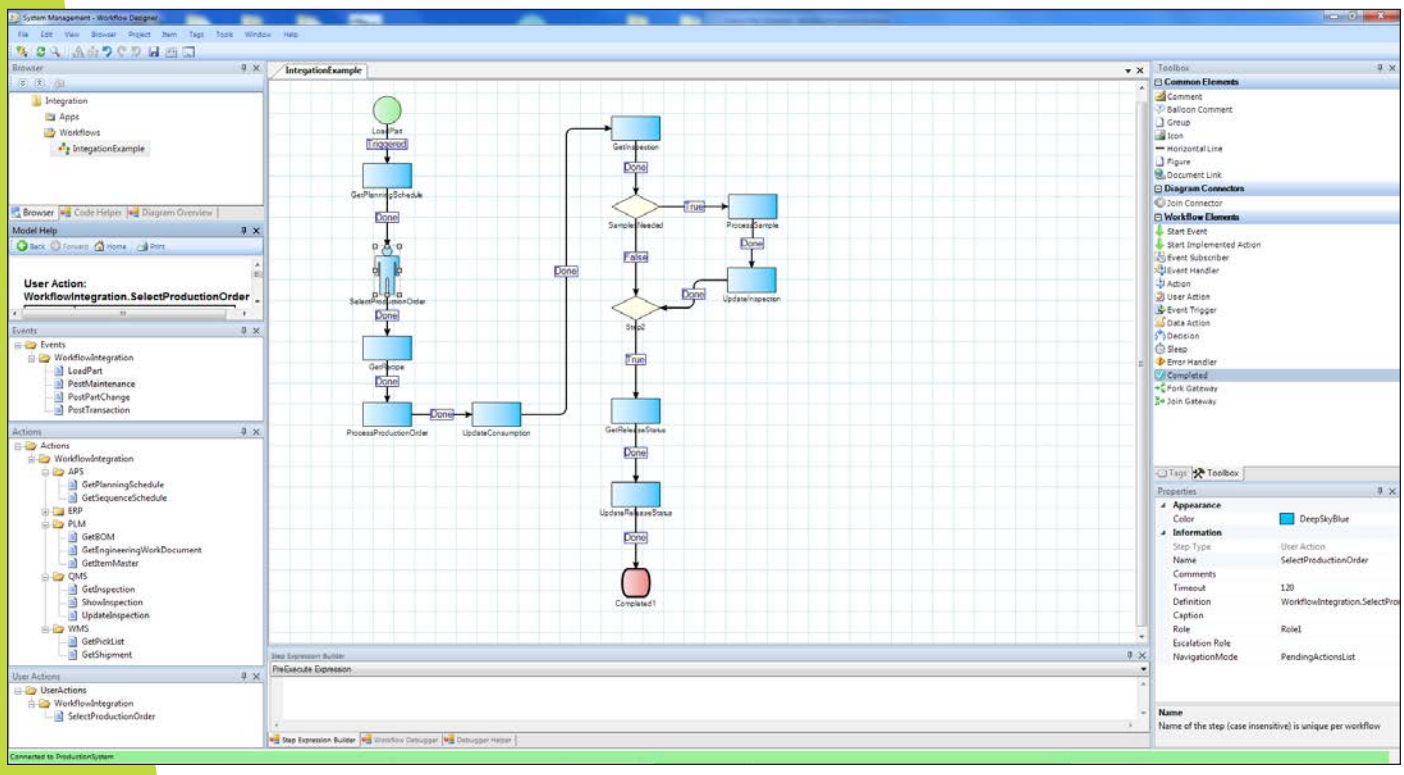
The system also provides traceability on the types of jobs being requested, how long it takes to do each job, and the average completion time for each type of job. "Eventually, the system will give us information on, and options for, managing our workforce," says another senior staff engineer.

If a certain type of request is becoming common, the company can add the appropriate manpower to meet that demand. If a certain type of request is becoming less common, the company can use the personnel who had been allocated to respond to those requests more productively.

The system also provides accountability during a shift. "We are now less dependent on exactly who is working a shift and was notified about the request," the engineer notes. "All we are dependent on now is that the role exists on the shift."

For example, before the new system was installed, an engineer might send an email to a particular process technician asking that a job be done to a wafer overnight. But that technician might not come to work that night—he could have called in sick or started a vacation. It's quite possible that job request would never get done.

With the new system, the request is sent to the role of process technician in a particular area, so whoever has that role for the evening will carry out the request.



The new request system provides the manufacturer with much greater efficiency in terms of communications and getting jobs done because the work and how it is done is measurable. A classic example is the dispositioning of a wafer. In this case, an R&D engineer makes the request. From the time the request is created until the wafer is dispositioned, the median time is about an hour. In the new system, the manufacturer has a procedure in place so that if the work takes more than two hours, the task automatically escalates and managers on the shift are notified that the job is delinquent.

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This improves factory cycle time. Once the task appears, all technicians know they are being measured in terms of the task's completion; therefore, their effort is focused on getting the tasks done within the allotted time.

In this example, the median time for dealing with an MDA wafer by the old system of email would be about four hours. Under the new system, completion time is less than an hour. "The workload didn't change because of the new system, but the benefit of getting that wafer three hours faster is significant," says the senior manager.

Savigent Workflow has not only improved communications within the manufacturing organization, but has facilitated collaboration. It incorporates different alternatives for what an administrator can do with a request. If the request is simple, it is completed and closed out; but if it is more complicated, the administrator can request more information. This request automatically goes back to the engineer or technician, stating that more information is needed to do the job.

All Phases Go

The request system has been in place for well over a year. There are actually three request systems in operation, for varying groups, but very similar in their essential functionality. The first to be implemented was the metrology request system. Next came the R&D administrative request system. Most recently added was the sustaining job request system. The system provides traceability and granular job detail in all three types of requests. Each of these jobs is slightly different, with the metrology jobs being most complicated.

Meeting the Challenges

According to the senior staff engineer charged with stewarding the new request system development, working with Savigent and using Workflow helped meet the challenges faced in putting the system together.

"One challenge was establishing the link between the request system and factory information to provide users the necessary real-time picture," he says. "The second was working with all the different customers to incorporate their feedback and build a system that would have as many features as possible to bring this together for everyone."

The ability to merge different request systems into a common platform has been a huge benefit, as has been the ability to link directly to the factory and enterprise management system that tracks all the product on the factory floor. "Savigent has been extremely helpful throughout the entire process," says the engineering manager. "They have been very accommodating to the various desires we have expressed to them."

"It's an iterative process: We gave them a list of requirements, they put the system together based on those requirements; then we tested it. Savigent was very willing to develop a new solution or modify the one that was already in place to better meet our needs. They were very responsive throughout, and they did the work we required quickly."

How is it all coming together? "The biggest indication that the system is operating well is that I do not get any complaints," says another senior staff engineer. "When an engineer wants something done to lots on the floor, it should take a minute or less to put in the request and hit a button. Then they should be able to walk away feeling comfortable that the job is going to get done."

Today, the Savigent Workflow-based system does just that.