Asprova Case Study Report NO.18

Effectively reduces plan proposal time and cuts back on inventory to trim lines of completed product inventory 62.8%.

Company A makes and sells auto parts. It's a global corporation with manufacturing plants in the Americas, Europe, China and ASEAN as well as two plants in Japan.

Company A decided to install Asprova for more efficient product planning times and in doing so, reduced planning time by one-third and cut its inventory of completed products to 62.8 percent of what it had been.

We talked to those who work with the software about the background for installation, its effects and what developments will be like from here on out.

Why select Asprova?

The objects for installation of Asprova at Company A are the three external facing areas comprising the main production base: the PCB, forming and assembly areas. With lots becoming smaller and the cycle time for each process increasing, Company A was being forced into dealing as quickly as possible with changes in orders received, minimization of preparations, and efficient setting up of optimum schedules for production planning

Their core system only instructed the start and stop of each lot, it was not a system for instructing the start and stop of each process. Instructions for each process were left up to the skills of the line supervisor. The company determined that there was a growing need to clarify production targets in time units and that that would be very difficult to do with the existing system, so they decided to install a scheduler.

The three reasons that Company A decided on Asprova were:

① Sharing and general purpose capabilities

High reliability because Asprova leads all others in the number of units installed in Japan and is actively used in a wide range of manufacturing areas.

② High-speed scheduling

All areas of manufacturing need to be able to rapidly redraw production plans to deal with immediate changes in the production environment. To answer that need they have to be able to speedily set up plans detailed in hour and minute units

③ Full scheduling logic

Another reason they selected Asprova is its ability to set up optimum production plans by using the master setting for minimization of setup times (eliminate waste).

Problems and difficulties with the Asprova installation and methods for solutions

◎ Problems and difficulties

Required time to test and record programmed values in the Asprova master at initial installation.

Difficulties lay in the plant having three-shift, 24-hour-a-day production and the kind of timing we would use to start up a command system for all processes.

◎ Solution

We changed from values in master programming at initial installation to optimized continuous demand values that would change in line with changes in production performance and production system. This continues at present and the search is being made for optimum values.

Tests were implemented when the instruction system was started up in the manufacturing plant. When a certain level of permeation had taken place, a switch was made to full-scale operation.

We also needed to convince workers of the logic of detailed work instruction content, and from installation time to the present we have been continually working on the task of getting compliance through discussions with those in charge of each work place.

Effects of installing Asprova

Installation of Asprova has had the following effects.

① Reduce setup time of production planning

before installation a supervisor had to be appointed for planning and the work time needed to check orders, set up plans, and give instructions for work took an entire day. After installation work time in the PCB area was 61% of what it had been previously and in the forming area it was 89 percent.

Our previous planning was set up for three days and we would really have some problems when an rush or special express order would come in. Now we can easily handle any immediate changes in orders.

Main advantages in installing Asprova

Visibility **Strict adherence to delivery time** **Inventory reduction** **Shorter lead time** Improved throughput More efficient planning

Improved planning precision Shorter planning cycles Faster response to planning changes Better sharing of process info

■ Opinions from the sales agents who did the installation

NS・Computer Services, Inc.

We not only did theoretical work on desktop but went to the customer's plant to configure, program and support the planning commands and parameters needed for their work. And we built the peripheral systems that are affiliated with them.
We will continue to provide the support that will give solutions to the tasks the customer is working on.

■ Points in their appraisal of Asprova

・High-speed scheduling
・Prepares detailed schedules in time units
・Saves energy and reduces time in setting up production plans
・Reduces inventory of finished products

② Prepare detailed plans in time units that pay attention to load

Makes possible clearer production targets in all areas in time units and by all task resources. The first installation of Asprova in a PCB area in 2004 made the parts supply time for each process easy to know and reduced the stock of parts near assembly lines.

③ Reduces inventories

Effectively reduced finished product inventories to 62.8 percent of what they had been in the post-PCB-area processes (monthly 2009, comparison of means for the two previous years).

④ Controls progress in real time

Understanding real-time performance for each process in series with POP in the PCB and finishing areas makes control of progress in real time possible.
(Diagram below Example See configuration diagram)

Continuous improvements and future developments

The initial target of scheduling each process in time units and reducing production planning preparation time were achieved and continue at the present. They also continue their search and are making changes for optimum methods of preparing production plans.

◎ Points for constant improvement

We are working to make improvements through program adjustments that will reduce preparation time by having the same molds and dies move along continuously and taking into consideration the conditions for the workers who are making the preparations in the forming area.

We are also working to create plans that will minimize wait time for each process and reduce delivery time by regulating the time for arrival at the next process in the PCB and finishing areas.

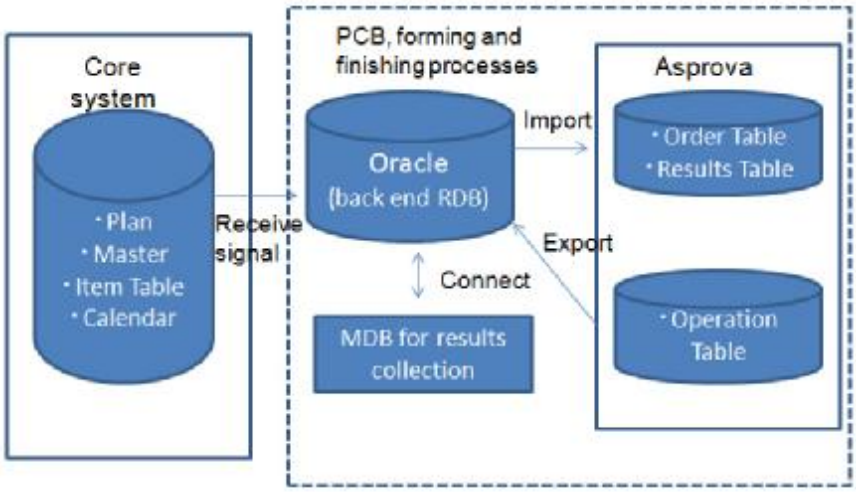
Asprova is also being used as a simulation tool for the calculations added to programming manufacturing department policies and planning that take into consideration the number of steps in manufacturing and preparation to decide optimum lot size in line with work volume.

We will continue to build setups for clarifying tasks and problems and for analyzing differences between production performance and production planning.

◎ Outlook for the future

The range for planning action will widen because a future task of scheduling is to have each area: PCB, forming and exterior finishing move away from the present format in which they are planned separately to one in which planning is linked and product moves directly through in a straight-line. We are also looking at developing this same system at our overseas manufacturing bases.

Configuration diagram



Leading vendor of production schedulers: Asprova Corporation

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