

The world's top production-scheduler brand

# Asprova APS

Is your company able to respond to change?



Boasting a 21 year history and top market share in Japan, the Asprova APS production scheduler is used in more than 2,000 installations spanning 30 countries. By improving the transparency of your manufacturing location, all your production planning problems will be a thing of the past.

# Experiencing these problems in your factory?

The environment surrounding the manufacturing industry is rapidly changing.

Markets are diversifying, exchange rates fluctuate daily and climate change is accelerating, not to mention various financial challenges and threats from competitors.

In response to these external factors, swiftly adjusting production schedules while improving product QCD (quality, cost and delivery) is a major challenge.

Of course, the production floor is replete with its own trials – unable to keep up with changes, or proposals being poor quality, taking too long to create or becoming too personal.

This is where Asprova APS comes in - the production scheduler to solve all your problems.

## Message from the President

Asprova Corporation was founded in 1994 as the first company in Japan to specialize in production scheduling software. Since then, we have continued to focus solely on the development and sales of the Asprova production scheduler. Over these 21 years we have continued to upgrade the software, taking the feedback from our manufacturing customers in Japan into account. Not only is our local market share in Japan now as high as 58.4 percent\*1, but our international and multilingual support system spanning 10 countries has allowed us to implement Asprova in over 2,000 sites across more than 30 countries (1,619 in Japan, 456 overseas)\*2. If Asprova APS helps your factory become more transparent, improves on-time running, dramatically shortens lead times, reduces inventory and ultimately increases profits, then our work will have been for something. These are the feelings we hope will be apparent when you use Asprova APS.

Kuniyoshi Takahashi President and CEO Asprova Corporation







We couldn't immediately give a delivery date, so we lost the contract…



Asprova APS's Planning Efficiency Improvements.

Planning proposals are sped up, with rapid and accurate delivery estimates reducing lost opportunities.



It looks like demand will increase in the future, but I'm not sure we have the capacity we need…



Asprova APS's Transparency.

Asprova APS' s solid understanding of future equipment load enables you to make the changes you need, such as shift adjustments and outsourcing.



We've got excess capacity but the warehouse is full, so we can't increase production…



Asprova APS's Inventory Reduction.

Make maximum use of resources thanks to higher production planning accuracy.



We gave our customers process timeframes based on experience and intuition… we messed up big time…



Asprova APS's Sharing of Process Information.

All process information is shared throughout the company, making customer support far easier.

# With success stories like these, it's no wonder Asprova is confidently solving everybody's problems.



Case 1: Pentel Co., Ltd.

Coordination with ERP achieved significant improvements in on-time delivery and reducing stocks of unshipped inventory.

Pentel Co., Ltd. is known for its school stationery consumer products, while recently the company has expanded into the manufacture and sale of electronic devices and industrial robots. Pentel implemented Asprova APS to assist with production proposals related to sales planning. Originally, the company would prioritize on-site tasks in its planning, but its bulging inventory was showing no signs of abating. Among other business reform efforts, Pentel linked Asprova APS with other newly-introduced ERP solutions, resulting in a drastic reduction in unshipped inventory by 50 to 75 percent. The on-time delivery rate was also significantly improved.







# Case 2: Nishikawa Rubber Co., Ltd.

Production plan steps reduced by two thirds, while a better grasp of production capacity facilitated more flexible yield adjustments.



Quicker

Planning

Nishikawa Rubber Co., Ltd. is a specialist manufacturer of automotive, residential, civil-engineering and medical / cosmetic products, while also producing various sealing materials. The company introduced Asprova to create viable production plans and understand its production capacity by simulating future load. Asprova allowed it to reduce the number of steps required for production plans by two thirds, while also making it easier to adjust yield. Setting minimum inventory also allowed Nishikawa Rubber to achieve a 40 percent reduction in product inventory.



Case 3: Panasonic Appliances Air-Conditioning Malaysia Sdn. Bhd.

Made the global standard for its production planning system, improving efficiencies in product planning and reducing inventory across subsidiaries in several countries.

Panasonic Appliances Air-Conditioning Malaysia Sdn. Bhd. was founded in 1972, today making and exporting air conditioner packages and parts to more than 120 countries. With the massive growth in demand for air conditioning after 2000, the company implemented Asprova to improve production efficiency and minimize inventory space. Today, Asprova assists with production planning. At the same time, other units within the Panasonic group of companies experienced similar problems. Impressed by Asprova's local support network, Panasonic chose to make Asprova its global standard, working to expand implementations into the rest of its network.



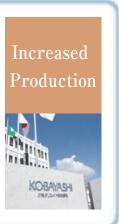
Over the last 21 years, Asprova has been brought into various factories around the world to solve a variety of problems faced in production planning. While many of them experienced the Planning Efficiency Improvements, Transparency, Inventory Reduction and Sharing of Process Information Asprova enables, these six examples are the most significant.



Case 4: Kobayashi Create Co., Ltd.

Factory transparency increased, with yield per planning time increased by 30 percent.

Kobayashi Create Co., Ltd., which provides products and services centered on the printing of recording paper and business forms, introduced Asprova to achieve coordination between multiple businesses with the aim of maximizing efficiency across the board. The company's printing business operates entirely on a build-to-order basis, with each customer order unique to another, originally making short delivery times difficult. With optimized production proposals now possible however, Kobayashi Create was able to increase yield per planning time by 30 percent. Promised same-day delivery improved from 20 to 80 percent as well, reducing lost opportunities.



Reduced Inventory



Case 5: Webasto Japan Co., Ltd.

Planning moved from a daily to hourly basis, drastically reducing warehouse inventory.

Webasto Japan Co., Ltd. makes products such as car sunroofs; its headquarters are located overseas. The company implemented Asprova as part of the broader group's drive to globalize, demanding manufacturing efficiency improvements and the ability to manage all processes, from parts procurement to manufacturing and shipment, by the hour. All assembly line production is now planned on an hourly basis, while related parts ordering and product shipping is now automated, delivering a dramatic reduction in inventory and necessary warehouse space. Personalization of production planning was also removed, eliminating experience and intuition from the process.



Case 6: Yamaha Corporation

Information sharing between production floor and management reduced proposal creation and manufacturing lead time by two thirds.

Yamaha Corp. has considerable global operations in the music and sound industries, producing musical instruments, A/V equipment and music classes. The company was previously spending large amounts of time on product proposals, with small production volumes and complicated manufacturing processes weighing down on basic packaging operations for its electronics and professional audio products. Asprova was brought in, introducing information sharing between production floor and management. Planning could now be updated with performance information in real-time, reducing time needed for proposals from 60 to 20 hours/month, as well as manufacturing lead time and WIP inventory by two thirds.



All the features you need for production scheduling in one package.

Meet your clients' needs without custom software suites.

An extensive set of essential features

- Support for plans synchronizing multiple processes Save several steps when building master data, creating proposals synchronizing each step of the plan.
- Support for plans by the second, based on standard time Capacity can be noted per item, process and/or machine, enabling highly-accurate proposals.
- Support for individual machines, molds and personnel Production plans can take machine, mold and personnel restraints into account.

Works just like an Excel spreadsheet Easy even with large amounts of data Maintenance made easy

Asprova is equipped with a multitude of standard features covering everything you need on the production floor. Over the years we've listened to user feedback and release updates on a regular basis, adding the features requested by factory operators.

Most companies using Asprova have been able to take advantage of the rich, practical feature set, operating in a non-customized manner.

### Resource Gantt Chart

Orders, production, purchasing and inventory can be displayed in threaded format.



## Integrated Master Editor table

Two different windows are available to display master data: a spreadsheet view for easy editing and a graphical version for quick reviewing.



# Backing efficient proposals

- Develop plans that take note of your progress When you run ahead of schedule or encounter delays, your entire plan can be rescheduled as necessary.
- Support for multiple planning scenarios This functionality, included as standard, allows for scenarios based on delivery time, product and other sequences.
- Modifiable planning results (manual adjustment) Previously created plans can be partially adjusted manually before being rescheduled.



# Load Graph

Load discrepancies can be viewed by day, week or month for each resource.

	6/26 (Sat)	(Sum)	Mon	6.23	0/3U (4:0)	(Triu)	0/12 0/10 11 1	7/8 (Sat) 16 0	(5m)	(Mor.)	(fue)	(Wa
Press1	100%	100%	98%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Press2	100%	93%	101%	107%	915			100%	86%	100%	100%	100%
	4%		100%	100%	100%	100%	51%			100%	15%	

# 4 Order Gantt Chart / operation table

Useful for working out task instructions, delays in delivery or replying to delivery time requests.



# Improving usability

- GUI makes overloaded lines and delivery delays visible Pick line overloads and delayed deliveries instantly using charts and graphs.
- Flexible support for complex configurations A variety of constraints can be shown using formulas, such as for using alternate facilities when deliveries might be delayed.
- Data I/O capable of linking data using mapping only Data can be input or output specifying any field from external databases, including production management systems.

### **Optional Functionality**

Link sales information to factory production planning.

**Purchasing:** Link production planning to purchase information.

KPI: Evaluate various KPIs in each project.

### Time Constraint MAX:

Adjust preset time between processes.

Resource Lock: Temporarily lock a resource after production.

Event: Set conditions and generate events. Optimization: Control work sequencing for all resources.

## O PSI Table

Calculate movements in demand, supply and inventory in day, week or month packets, or add your own calculation fields as necessary,

	ZXF6068	Stock	0	0	0	0	0	.0	0	0	0	0	0	0	
191	AirBag	Supply	1284	716	2474				2252			4212	4545	1222	4
191		Demand													
191		Stock	1284	2000	4474	4474	4474	4474	6726	6726	6726	10938	15583	16805	21
191	AirBag-1	Supply		2968	2474				10536	5638					
191		Demand		716	2474			2252			3253	4382	2444	4416	
191		Stock	2	2254	2254	2254	2254	2	10538	16176	12923	8541	6097	1681	1

## Dispatching View

Allows you to confirm required tasks for the day by facility and operator. Use the mouse to quickly make changes to the order, facility or worker involved,



## Equipped with advanced and highly-flexible scheduling logic.

### Main features and specifications:

- · Automatic task division
- · Load leveling allocation
- Resource prioritization
- · Settings for number of workers required
- Settings for workers, jigs and molds
- Merging / branch process allocation
- Master data (resource capacity) expiry time customization
- Restrictions on upcoming resources that specify destination
- · Customization of resource candidate selective feedback
- · Batch furnace summary supporting several simultaneous processing conditions
- Maximum limits on setup and production downtime
- · Simulations utilizing several parameters
- $\cdot$  Item summaries minimizing setup time for each process
- Restrictions on raw materials taking linked inventory and safety stock by time period into account
- $\boldsymbol{\cdot}$  Filtering to allocate partial orders, processes, resources, items and more
- Forward / backward allocation that can take buffer time into account
- $\boldsymbol{\cdot}$  Dispatch settings capable of allocation based on priority
- · Skill charts tracking differences in worker capabilities, including production abilities and time
- $\cdot \ \, \text{Automated order supplementation capable of flexible adjustment-considers inventory and confirmed stock}$
- Lot summaries with intermediate products grouped by unit periods takes into account safety stock
- Automatic linking of orders with complex linking conditions
- $\bullet \ \ \, \text{Extensive setup time customization, includes of f-line setup, setup switching and processes before/after setup} \\$
- Several processing actions during rescheduling (allocation space import / export, saving)

### **Track Record**

Over the 21 years since its introduction in 1994, Asprova APS is now used in more than 2,000 installations (Japan: 1619, other countries: 456), proof of its popularity in the world's manufacturing industries.



### **Global Support Network**

Asprova has established subsidiaries in five countries – China, Korea, the USA, Germany and Malaysia – and has sales and support contacts with more than 30 partners, enabling comprehensive care for the manufacturing sector.



### **Awards**

Starting with the 4th Annual Small and Medium Enterprise New Frontier Prize awarded in 1996, Asprova has won a total of 12 awards. Our most recent was Gold Medal AUTOMATION 2013.



# Visit our website at www.asprova.com

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