

PEGASUS SEWING MACHINE MFG. CO., LTD.



DIGITAL PROCESS ANALYSIS SYSTEM

Apparel Factories Edition (Ver. 417)



**CAMERA
COMPARISON
EDUCATION**

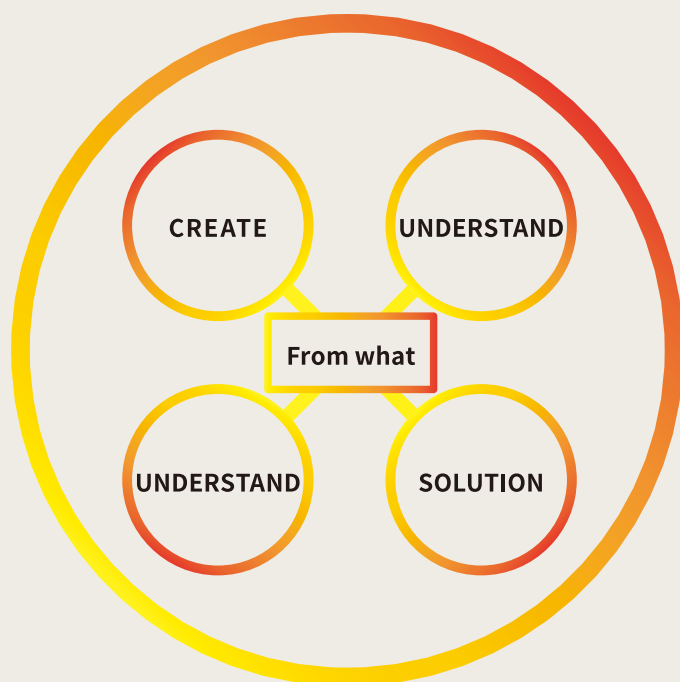


D P A
igital *rocess* *alysis* **System**

PEGASUS SEWING MACHINE MFG. CO., LTD.

01,

CONCEPT



Pegasus has been the leading top manufacturer of industrial sewing machines for over 100 years.

Since our foundation, our machines have been trusted by apparel manufacturers for their speed and quality.

From that experience and point of view our factory improvement software was created.

Digital Process Analysis System is capable to assist you to "see" the actual problems in production floor and develop solutions accordingly.

Digital Process Analysis System

PEGASUS SEWING MACHINE MFG. CO., LTD.

Digital Process Analysis system is software which promotes visualization and improves technology.

For example, "Technology Tradition" (to train beginners), "Behavior Analysis,"

"Production Improvement," and "Workload Standardization" as the driving force of visualization,

our software assists you as the embodiment of technology.

According to the Apparel Factories Edition (Ver. 417)

the support for the "Line Balance Simulation" and the "Cost Calculation" functions

are equipped to be performed at the garment factories.

This software is so simple that you can operate it with 2 fingers.

It's perfectly easy to use for those who are not accustomed to operate a computer, and for those who are busy with other work.

Wouldn't you like to improve your efficiency after putting it off for so long?

Now is your chance to start!



Shooting with a small camera



Compare two video.



To train beginners

POINT, 1

Improving operator skills

Film your expert and beginner in action, and using two screens for comparative playback you can easily spot the differences for improvements.

At my company, the most of our staff is somewhat older and finds it difficult to take advice about job improvement from me as I am younger...

Using the DPA system, our technicians are themselves able to objectively **evaluate** their wasteful or unnecessary movements.



Inner wear factory (JAPAN)

Thanks to the DPA system, it has become **easier to propose areas** for improvement and the operator's **sense of moral** has definitely gone up!

POINT, 2

Propose improvements

Since it is easy to evaluate details in your uploaded videos using the slowmotion playback, you can display the more efficient techniques without the difficulty of explaining by words alone.

Pretty soon, one of the **experts** of our company will be retiring and I thought that all their **specialty sewing know-how** would be lost forever...



Sportswear factory (JAPAN)

We thought it best to implement the system as soon as possible to allow the next operator to inherit the knowledge.

POINT, 3

Line balance simulation

Using the job standardization video as a base, you can make a simulation of the rate of your operation as well as personnel distribution.

Each time a product changed we had to search for an operator who could fit the work, it caused us to lose a lot of time measuring cycle time as well as on our production line...



Ladies/children's clothing manufacturer (Japan)

But using the videos on the DPA system we have found **the best way to organize our production line**. The **production quotas** as well as **machine number** are calculated in the blink of an eye and we will never go back to hand calculation!

The DPA system uses the **Toyota Sewing System(TSS)**'s problem solving process to exhaustively overcome any challenges!!!



Inner wear & outer wear factory (Southeast Asia)

POINT, 4

Video manual creation

Even if you don't have the necessary software to view the videos, you can still browse through the manuals. The videos explain everything so that there is no trouble with miscommunication due to language barrier.

We showed **some visiting trainee staff** who didn't speak the same language **the video manuals** from DPA, they were able to understand it and learned quickly.



AFRICA

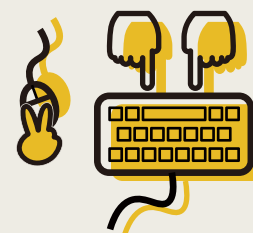


Outer wear factory (Africa)

POINT, 5

Ease of operation

You may think that editing videos is a difficult task, but it can be done by fingertips. Most of the operating is done by just a click of the mouse.



Normally I hunt and peck the keyboard with my **two fingers** but even I can operate this system! If I can do it anyone can ♪



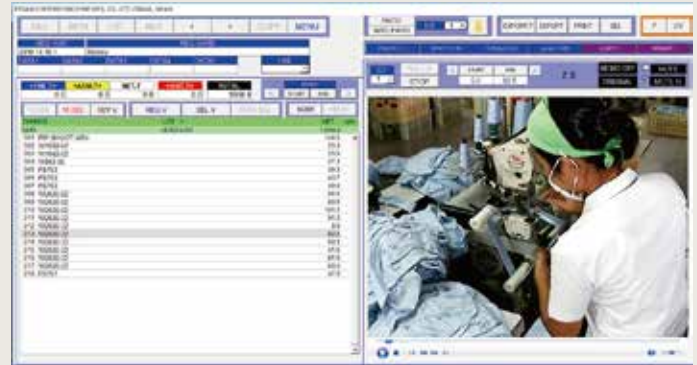
PEGASUS staff

02,

DESCRIPTION

Job standardization

After input, system will evaluate the uploaded videos and divide them into categories like "take," "sew" and "set." You only need to click your mouse for the videos to be split. It is possible to confirm the movements without the need to measure time with a stopwatch, in this way the work time can be measured without errors. By preparing the work for standardization, you can monitor your real costs and make improvements in productivity. In addition, it is also possible to leave comments on the videos for use as a job instruction manual.



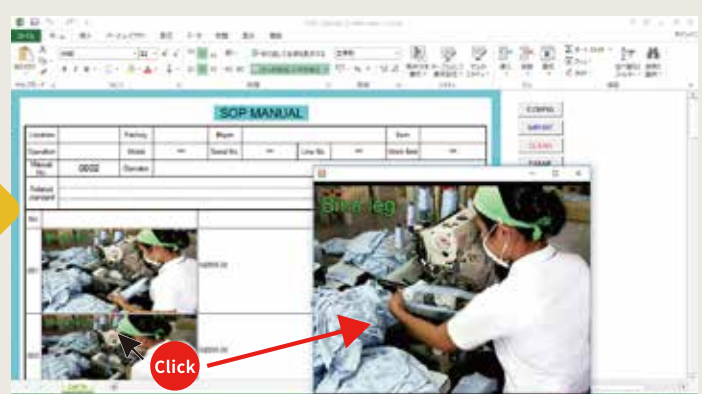
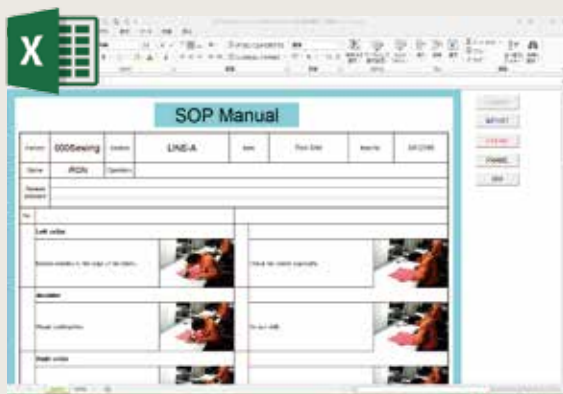
Video comparative Analysis

It is possible to use two different screens to play your uploaded videos for easy comparison. At the same time as comparing by eye, the system analyzes the worker's movements and therefore it is possible to find areas to reduce overburden, waste and inconsistency. It is possible to standardize your work. In addition, using two cameras to film your operators it is possible to check their sewing posture and technique to find detailed areas for technical guidance.



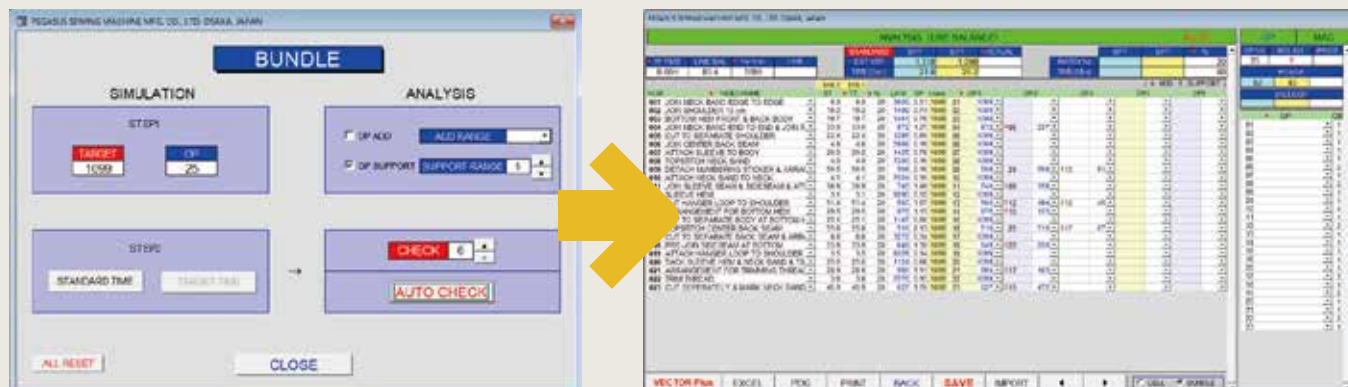
Standard Operating Procedures (SOP)

Creating operating procedures from the edited videos is easy to do. As the system automatically takes still images and comments can be attached to the videos and working hours, the time spent making production related materials can be significantly cut. And what's more, video playback is supported from the standard operating procedures for quick and easy review.



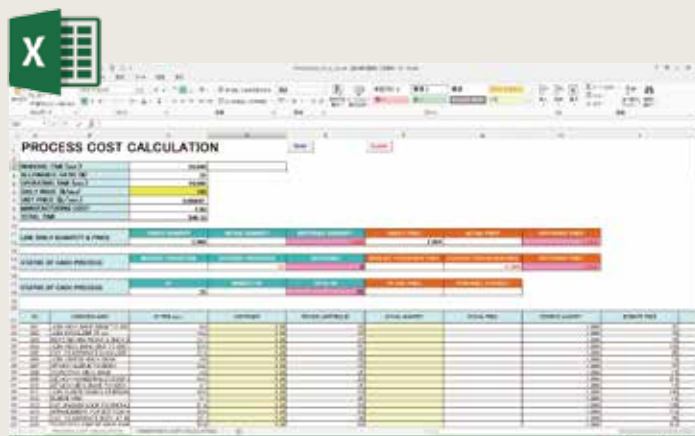
Line balance simulation

From the cycle time measured from the edited movie and the standard time acquired in advance, you can simulate the number of production output per day, the number of sewing machines, and the number of operators. Of course, simulation from the number of operators is also possible. Once you accumulate data, you can simulate the line balance quickly with new orders or repeat orders.



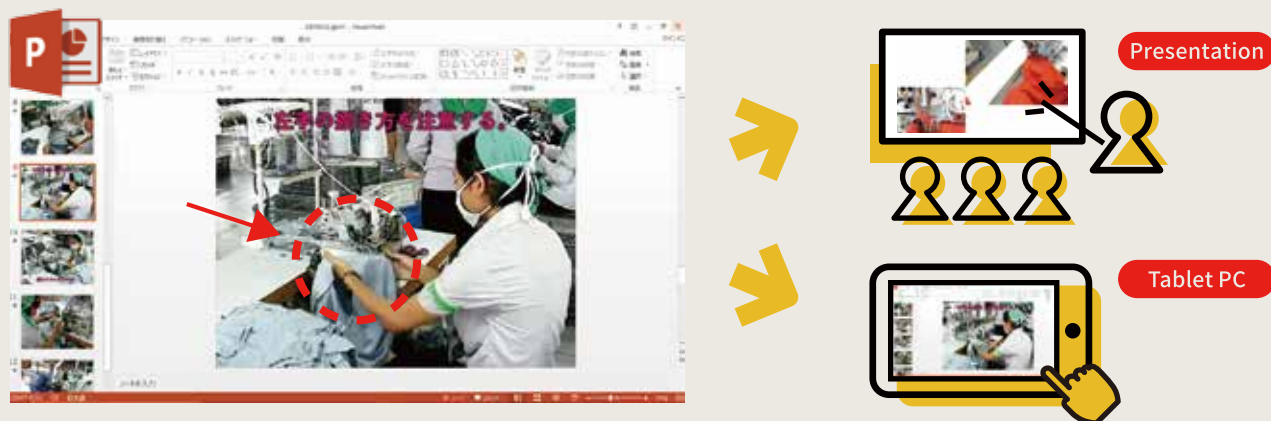
Product cost

From the total number of seconds taken for sewing one garment, it is easy to calculate the cost by process. Furthermore, it is also possible to calculate your costs by each operator. You can easily find which operators need improvement, and the improvement points will be clarified.



Video manual creation

Are the video materials only able to be seen on computers installed software? No, it is also possible to output the video materials to PowerPoint so that even without access to the software the videos are able to be viewed. If you are using PowerPoint, you can use an arrow, circle or figure to highlight points of interest. Access with a tablet is also possible so that even in environments where using a PC is difficult, like on-site at factories, it is easy to check the job information. Also, even in a garment factories where there are trainees speaking various languages, our video manuals can easily convey the job details.



03, FUNCTION

Standard video

Cycle time measurement
Continuous video division
Comment input
Subtitled Video Creation
Dubbing (voice) input
Slow-motion playback
Frame-by-frame playback function (using mouse wheel)
Video Composite File (MP4 format) (with subtitles)
Materials Setting
Automatic Photo Data creation (multiple, with subtitles)

External Transfer (transfer uploaded data)
Work schedule (element) identification
Work schedule output
Continuous playback of work schedule
Photo paste
PowerPoint output (with comments)
Job manual creation
Workload Analysis form creation
Video playback from the workload analysis (continuous)

Comparison video

Comparison video
Cycle time measurement
Collective video comparison
Comment input
Slow-motion playback

Frame-by-frame playback function (using mouse wheel)
External Transfer (send compiled data)
Power Point output (with comments)
Yield comparison

Line balance simulation

Manual line balance simulation
Auto line balance simulation
Oversight of each operator on duty
Oversight of operator's technical skill
Product cost

Line balance graph display (PDG format)
Printout of organized work schedule
Printout of analyzed table of work schedule
Import EXCEL sheet data

Comparison photo

Comparison photo
Comment input
External Transfer (transfer uploaded data)

Job manual creation (sequential photos)
Improvement record (comparative photos)
Power Point output (with comments)

Miscellaneous

Work schedule/equipment name registration
Database maintenance
Refined searches

Quick update
Backup
Video conversion

Function list

PC (Laptop computer)

Corresponding OS
Corresponding language
CPU
Storage capacity
Memory
Screen resolution
Necessary software

Windows 10
Japanese / English/Chinese (Simplified, Traditional)
Dual-Core / Core i7
100GB or more internal HDD, 1-4 TB ore more external HDD
More than 8 GB
1366X768 / 1920X1080
Microsoft Office Excel 2013 / 2016 / 2019 / 365
Microsoft Office Power Point 2013 / 2016 / 2019 / 365

Other

USB port (1 port)

Digital camera

Video file formats

MP4 (H264)

04, BEHAVIOR

Recommended operating system

*Windows is a registered trademark of the Microsoft Corporation
*Intel is a registered trademark of the Intel Corporation
*Microsoft and EXCEL are registered trademarks of The Microsoft Corporation
*Microsoft and PowerPoint are registered trademarks of the Microsoft Corporation

05,

PROCESS

And finally, implementation!

1. Consultation and demonstration

After we have heard any questions you may have about improvements you can make to your operations, we will give you practical solutions that you can put to use.

*If you prepare the videos of your operations in advance we can further provide more detailed explanations to you.

2. Trial period for your thoughtful consideration

Use the functions to test it out for yourself.

Please try out the real system in a real environment (the version is not a test version) for a one month trial period.

*Please let us know of any specific operation system requirements or preparation that may be necessary when we visit your company.

3. And finally, implementation!

Implimenting the system after you have already done a trial run in the same settings as you plan to use it in will make for a very smooth transition.

If there are any questions or unclear points please do not hesitate to contact our representatives.

We will answer you patiently and kindly.

06,

PROFILE

Name	PEGASUS SEWING MACHINE MFG. CO., LTD. the 1st in the Tokyo Stock Exchange market (CODE: 6262)
Established	January, 1947 (Founded : January, 1914)
Business lineup	Industrial chainstitching machines manufacturing and sales Factory Improvement Software sales Aluminum die casting parts manufacturing and sales
Head Office	5-7-2, Sagisu, Fukushima-ku, Osaka 553-0002, Japan
Production Base	Japan (Shiga, Tokushima) , China, Vietnam, Mexico
Japan sales offices	Osaka, Akita
Overseas sales offices	Singapore, India, Bangladesh, Indonesia, Vietnam, China, the U.S.A., Honduras, Peru, Columbia, Mexico, Germany, Turkey
Successful Implimentation	Garment factories, apparel makers, sporting goods manufacturers, car / aircraft parts manufacturers, machine and machine parts makers, precision equipment makers, die and mold manufacturers, food manufacturers ect. Around 200 companies in total.

Digital Process Analysis System

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