BroadLeaf

KAIZEN SOFTWARE

OTRS IO®

OPERATION TIME RESEARCH SOFTWARE

6,000+ Installations Across
20+ Countries

DAe
Detailed Analysis engine
Latest Video Engine

Multi-Language Support

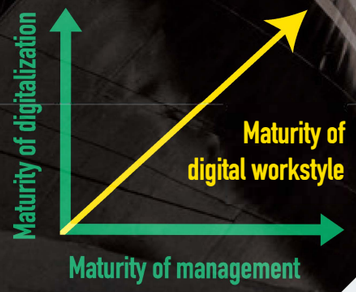
Patent Pending

Pursuing absolute KAIZEN in every field

BroadLeaf

Digital Workstyle for All

By presenting new ways to work that fuses digitization with the concept of KAIZEN, we create a world filled with joy.



OTRS IO

concept

A software designed to accelerate the implementation of Industrial Engineering best-practice techniques to drive operational excellence into businesses of all kinds.

1

Eliminate Muri (overburden), **Muda** (waste),and **Mura** (unevenness),and **improve QCD** (Quality, Cost, Delivery)

2

Create standardized work practices to establish a fair evaluation system

3

Stimulate your workplace by improving the “motion mind”

Implementation case 01 Automobile manufacturer

Want to reduce the labor, time, and costs associated with work analysis.

RESULT

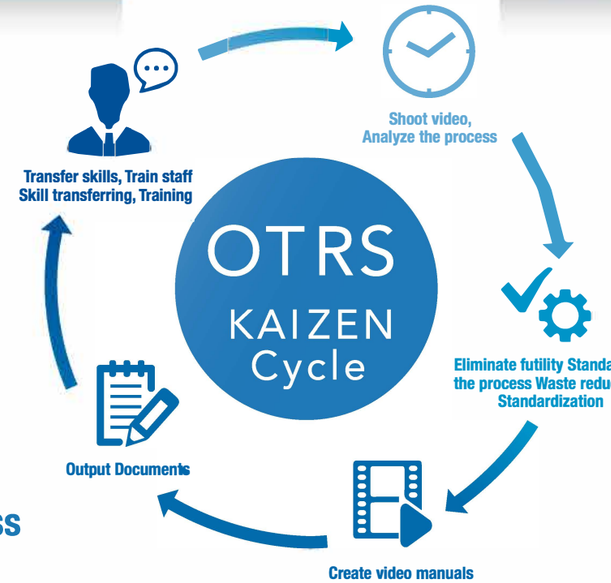
Time spent on task analysis

Reduced by 50%

SOLUTION

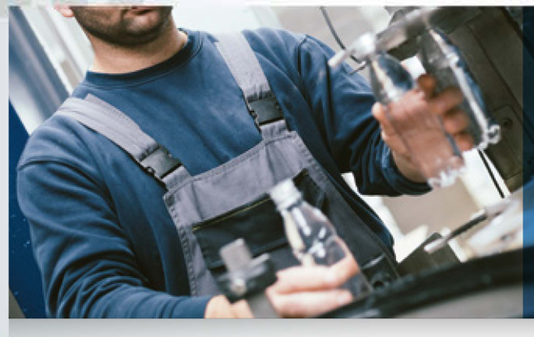
Typically, work observation is conducted using a stopwatch, but this method makes it difficult to get accurate measurements, resulting in the need to repeat the process many times. With OTRS, an intuitive user interface and “fast-forward” and “frame advance” video control functions enable rapid on-site motion analysis.

The OTRS10 user interface is a registered design.



Implementation case 02 Construction material manufacturer

Want to create the optimum production process matching our new production efforts.



RESULT

Production output per day

108 → 150

SOLUTION

Identified multiple work flows and bottlenecks using the OTRS side-by-side video and operation structure simulation functions. Then performed work recombination/work rearrangement simulations to create new processes and applied them to actual production lines, enabling drastic improvements to daily production output.

*OTRS10 is capable of performing simulations linked to analyzed video.

Implementation case 03 Electronic component manufacturer

Want to rearrange working environment for better technological training and skills transfer.

RESULT

Pre-line production Training hours

Reduced by 50%

SOLUTION

Pre-line production training for new workers used to be "OJT"*1. But with OTRS, new workers shot video and analyzed by themselves, comparing work flow/motions of new workers against experienced workers*2, which resulted in reducing a great amount of training time.

*1 On the Job Training. Training conducted on actual production floor through performing actual tasks.

*2 OTRS10 features “Rating” function that allows replay of time change simulation.

Implementation case 04 Electrical equipment

Want to save on production line labor by optimizing production process

RESULT

Save production line labor

26 Per. → 19 Per.

SOLUTION

Conducted simulation to reduce non-value adding tasks using OTRS.
Conducted pre-production line training in preparation of implementing simulated process.
Able to significantly reduce non-value adding activities, such as migration and standing by to reduce production line labor.

*OTRS10 is capable of measuring non-value adding time included in working time.

Voice of researcher

OTRS is an essential tool
For IE in the age of IoT

Dr. Shuhei Inada
Associate Professor
Faculty of Science and Technology, Department of Administration Engineering, Faculty of Science and Technology
Keio University (Tokyo, Japan)

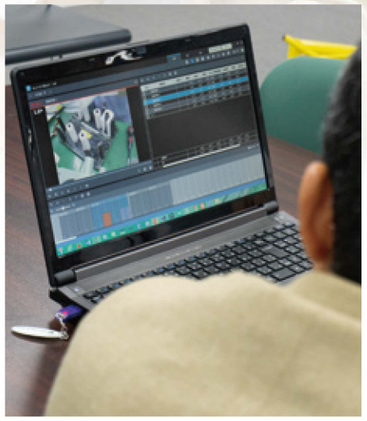
In my laboratory, we apply “IE (Industrial Engineering)”, basic theory for designing or improving various production systems, as well as Economy Engineering, a discipline to analyze and evaluate economy of production process, to improve systems and facilitate future investment decisions.

OTRS reduces analysis load

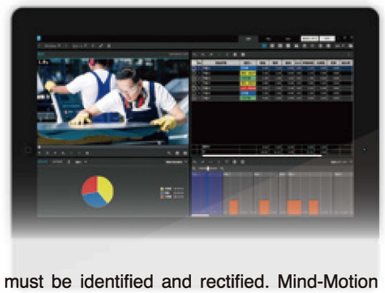
Our research lab conducts research concerning improving efficiency and convenience in a wide range of service and other systems, with a special focus on production systems.

To give a concrete example, we have students create a computer image of a production line and assemble loose parts on their own. They then analyze their work based on videos taken of what they did. By using OTRS to perform this usually extremely time and labor intensive analysis, they are able to efficiently identify waste in the process and make improvements.

I wanted their analysis to be done in a way that seems as little like analysis as possible, but rather just focusing on using their heads to observe the things in front of them, and I introduced OTRS with the notion of putting the things they have to think about right in front of their eyes. It has been very popular with my students and has produced tremendous results.



“Standard Time” and “Mind-Motion Mindset”



There are very few companies that have the ability to properly perform time analysis on the actual production floor. The companies are very much aware that time analysis is very labor intensive and time consuming, so it is understandable that time analysis tends to be put on the back burner.

“Standard Time” and “Mind-Motion Mindset” are the key elements in advancing KAIZEN. Standard Time is the core element in production management and serves as an index. If an operation is being performed quicker than its standard time, it is time to review standard operation and standard time. On the other hand, if an operation cannot be performed within the standard time, the cause must be identified and rectified. Mind-Motion mindset, is the mindset to be always be on the lookout for more efficient ways. A company that has the correct understanding of IE is aware of the importance of having this Mind-Motion mindset and conducts detailed time analysis to return concrete results. It is said that you cannot achieve such results unless time analysis is properly conducted.

The highest hurdle one often encounters in trying to seriously improve task performance is Time Analysis. I believe that OTRS is not only a useful tool in resolving this issue, but it is also a software that can contribute towards raising awareness of KAIZEN in industries as a whole.

Select from complete range of OTRS for detailed analysis with simple operations

Product line-up

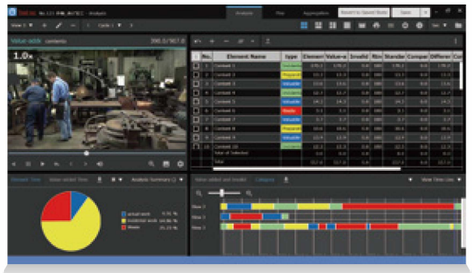
Product		Version	Main functions					
			Replay analyzed video (including comparison replay)	Various kinds of tabulation and output	Motion analysis, comparative Analysis	Element reclassification	Task formation (Combination chart, work load chart)	Multi-axial analysis
Model 501	Software	501-V10	○	○	○	○	○	○
	System maintenance support	501-V10-HS						
Model 401	Software	401-V10	○	○	○	○	○	
	System maintenance support	401-V10-HS						
Model 301	Software	301-V10	○	○	○	○		
	System maintenance support	301-V10-HS						
Model 101	Software	101-V10	○	○				

*OTRS and system maintenance service are available at open prices. Please contact our sales partners for detailed information.
*One-year free support is available after purchase. Chargeable support from the second year and thereafter is available.
*Model 101 is a viewer license. This may be purchased by customers having “Motion analysis/comparative analysis” capable products.

OTRS Screen Collection

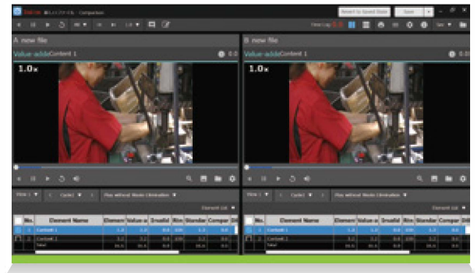
Motion Analysis and Playback

Make conducting detailed motion analysis easy with our User interface tailor-made for video motion analysis.
Create visualizations of work imbalances using cycle analysis.



Comparative Playback

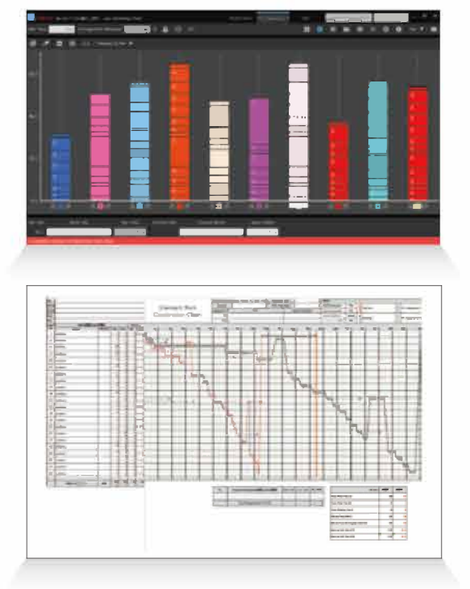
Visualizations of work disparities.
Output results of analysis as a manual with comparative videos.



OTRS analysis interface is copyrighted.

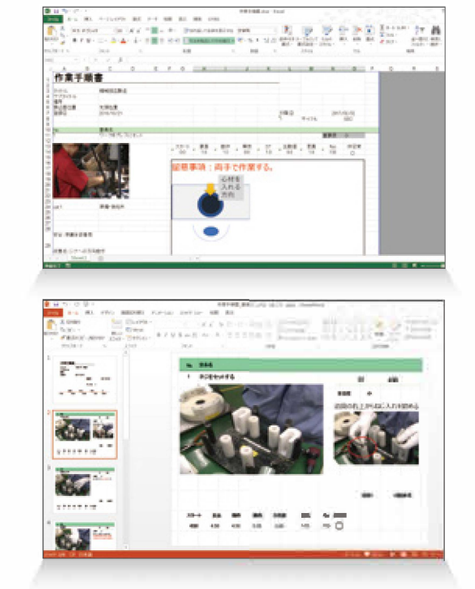
Line Balancing

Create a high precision structure simulation using analysis results.
Output the results of simulations as standardized work combination tables.



Varied Reporting

Analysis results can be output as a work process document or video manual.
You can also customize the output format to match your company's procedure manuals.



Process from implementation to execution

1 Pre-introduction Meeting
Select suitable OTRS product model
Decide license quantity

2 Implementation
Registration support
Product installation

3 Practical Training
Tutorial training
Practice learning

4 Operation
Shoot video
Analyze / Standardize

OTRS Support Service

*Free Support provided for the initial year

OTRS Contact Center
Operators are on hand to answer questions regarding the product and its operation via a toll-free number* and e-mail.
*Only available in Japan.

OTRS Support Web
In addition to operation and setting manuals, video manuals are also available.

Latest version upgrades (Updated twice a year)
The latest program upgrades can be downloaded from the OTRS support web site.

System requirements

OS	Windows 10 Pro / 8.1 Pro / 7 Pro (SP1 or later)	**USB Port**	1 for protection key *USB authentication key
CPU	Intel Core i5 series 2nd generation or later 2.6 GHz		
Memory	4GB or more	**Simultaneously installed bundled software**	MS Visual C++ 2010 Runtime MS .NET Framework 4.6.1 MS Speech Platform 11
HDD	2.2 - 6 GB of disk space (Required disk space will vary according to functions required.)		
Display	1024 x 768 dots (XGA) or higher		
Video format	MPEG1, MPEG2, AVI (Motion JPEG), MOV, MP4, AVCHD, WMV *Dolby audio playback non-compliant *WMV is usable only with video output from OTRS10.	**Language**	Japanese, English (Language registration required for other languages.)

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- Other names of companies and products mentioned herein are trademarks of the respective companies or of this company.
- Please be advised that design and / or specifications of the products may be changed for improvements without prior notice.
- The contents, figures and specifications listed herein are as of August 2018.
- To output documents in Excel / PowerPoint / PDF, Excel (2010, 2013 or 2016), PowerPoint (2010, 2013 or 2016), Acrobat DC are required.
- DVD Drive is required to install OTRS from DVD. ●Operating OTRS may become slow depending on PC performance and data volume of video used.
- For your greater convenience and comfort in using OTRS, we recommend you use PC with high-spec CPU and large RAM.

BroadLeaf
http://www.broadleaf.co.jp

About us

Corporate Name	Broadleaf Co., Ltd.
Head Office	Floor 8, Glass Cube Shinagawa, 4-13-14 Higashi-Shinagawa, Shinagawa-ku, Tokyo 140-0002
Representative	Kenji Oyama
Founded / Established	December 2005 / September 2009
Capital Stock	JPY 7,147 million (as of December 31, 2017)
Listed on	Listed on the First Section of the Tokyo Stock Exchange in March 2013 (Securities code: 3673)
Employee	Consolidated 928 (as of December 31, 2017)
Business Outline	Provision software, IT solutions and services that support the field services of the players in the automotive after market and various other business sectors and industries (e.g. development of business applications, platform for collaboration between different business sectors, marketplace for recycled auto parts, and automobile-related content)
Business Offices	Sales / support network: 30 offices in Japan 3 Technology development centers in Japan (Sapporo, Tokyo, and Fukuoka)

For more information or request for brochure ▶ shinkamanagement.com/otrs

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Shinka MANAGEMENT

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