

Analog solutions with RECO-View that achieve circulatory systems

Solutions tools that support utilization of RECO-View (currently for use in Japan only)



RFID-supporting rewritable printers

A variety of printers that support RECO-View are available to match customer worksite uses and requested specs.



KANBAN Tag size sheet model
(On-demand small-lot output)



KANBAN Tag size sheet model
(Volume output)



Card size sheet model



A4/A5 sheet model

Assistance: Shinko Electric Co., Ltd. and Panasonic Communications Co., Ltd.

Handling tools for rewritable media

Handling tools are available that match various applicable items. Those tools are effective in protecting rewritable media and allowing for their long-term use, as well as for helping media utilization in work environments.



Assistance: YKK Fastening Products Sales Inc. and Kuraray Fastening Co., Ltd.

Circulatory system

Sheet cleaner (initializing device)

Sheet cleaners are essential for the worksite. Matching perfectly with RECO-View, they allow for continuous reuse of sheets.



Sheet cleaner with erasing function

Assistance: Shachihata Inc.

Erasable touch-up pen

Special pens for RECO-View allow worksite staff to write on the sheets. Sheets written on can also be erased with a sheet cleaner.



Assistance: Shachihata Inc.

Main specifications of RECO-View RF tag series

Material	White PET film
Color	Black
Color density	Optical density of 1.1 or higher (*supporting barcode recognition)

Supported media size	Card through A4 sizes
Supported RF standard	HF band (ISO 18000-3 MODE 1), UHF band (ISO18000-6 TYPE B, C)
Printable/erasable area	All areas except RF tag section (with A5 or A4 sheets)

* Please contact Ricoh for information about products in other sizes or supporting other IC standards.

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For your safety

- Read the user's manual carefully before using, and use according to instructions.
- Do not use power sources or voltages other than those shown.
- Do not use or install in places with large amounts of water, humidity, steam, dust, fumes, etc.
- Please ground equipment. Failing to do so may result in electrification if damaged or short-circuited.

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Ricoh was the recipient of the 1999 Japan Quality Award.
Ricoh will continue to aim for further improvement in customer satisfaction and share its management quality program and its successes with the public.

Ricoh has earned ISO 14001 certification.
The Ricoh Group has earned the ISO 14001 environmental management system international standard certification for production sites in Japan and around the world. The company is now aiming to earn that certification for office operations.

<http://www.ricoh.co.jp/thermal/product/tr/>

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Inquires and assistance

Information in this catalog is current as of January 2008.

RECO-View™ RF Tag Series



This rewritable RF tag series is your key to workflow reform.

* RF... Radio Frequency

- ◎ Visualization of digital data allows you to visually check the information you need.
- ◎ Consistency of information means you can simultaneously rewrite digital and displayed information.
- ◎ **Reduced cost and environmental burden** are achieved through a circulatory system.

* RECO-View is the unified brand for Ricoh thermal rewritable products. It stands for REwritable, REcyclable, REusable, ECOlogy, and ECONomy, where those are made Viewable.

Digital data on RF tags can now be displayed and rewritten on sheets to contribute to work process reform in a variety of fields.

The RECO-View RF tag series is a new product line combining RF tags with rewriting capability. It features visualization of RF tag data, rewriting capability at any time, and reusability for reduced costs and environmental burden. It can even be used readily with existing bar code systems. This automatic recognition and visualization enables efficient and reliable real-time management and supports improved work processes.



[Advantages from introducing the RECO-View RF tag series]

① Visualization of digital data

RF tag digital data is printed on sheets so it can be checked with the human eye as well as be processed digitally, greatly contributing to improved work efficiency. Visualization also avoids the risk of work stop if the RF tag is damaged.

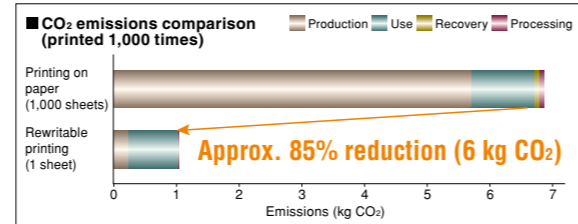
② Consistency of information

Digital data as well as displayed information can be rewritten simultaneously without having to be manually handled. Status of work progress can also be identified quickly in real time.

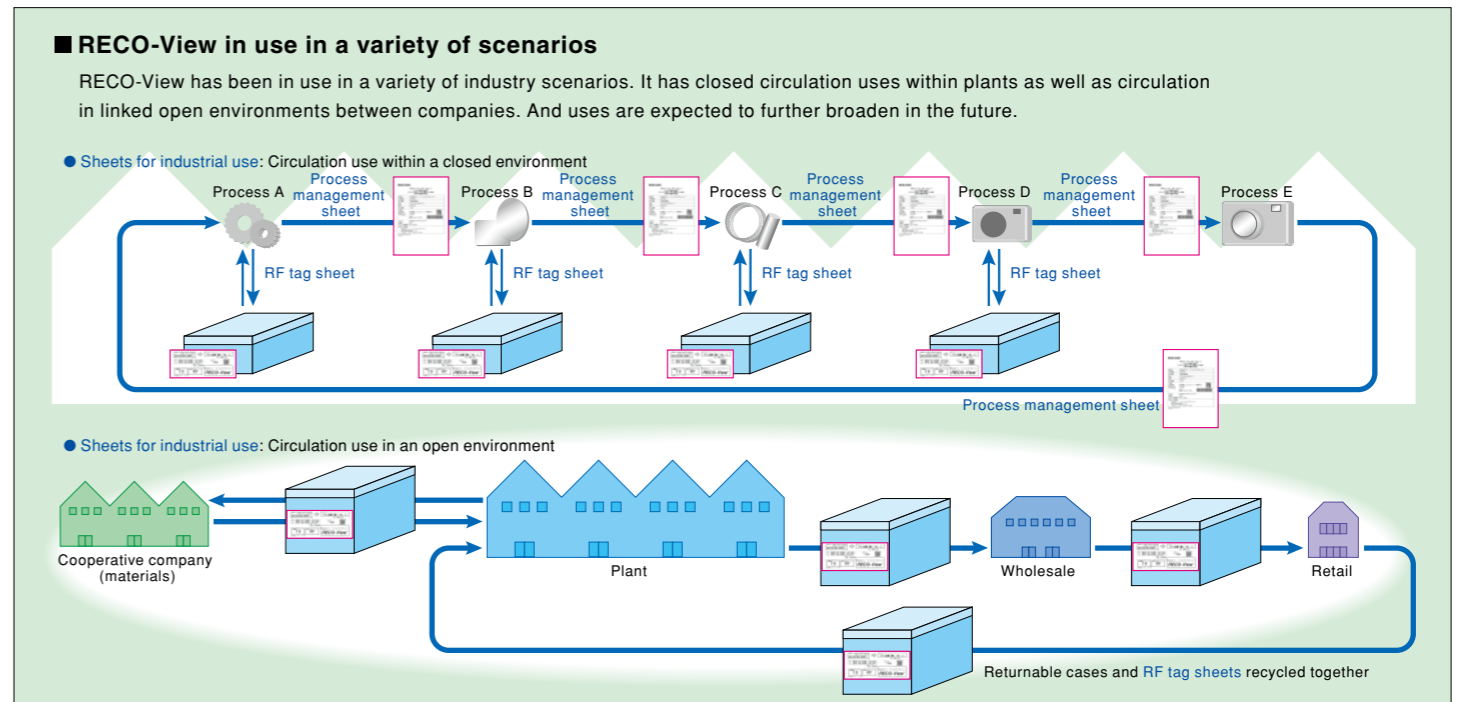
③ Reduced cost and environmental burden

RF tag sheets can be reused 500 to 1,000 times, depending on how they are used. That reduces running cost and controls waste paper emission. Ricoh's exclusive thermal rewritable technology also eliminates the need for ink and toner. The result is a dramatic reduction in CO₂ emissions compared to that of conventional work by means of regular paper, contributing to your acquiring ISO 14001 environmental management system certification.

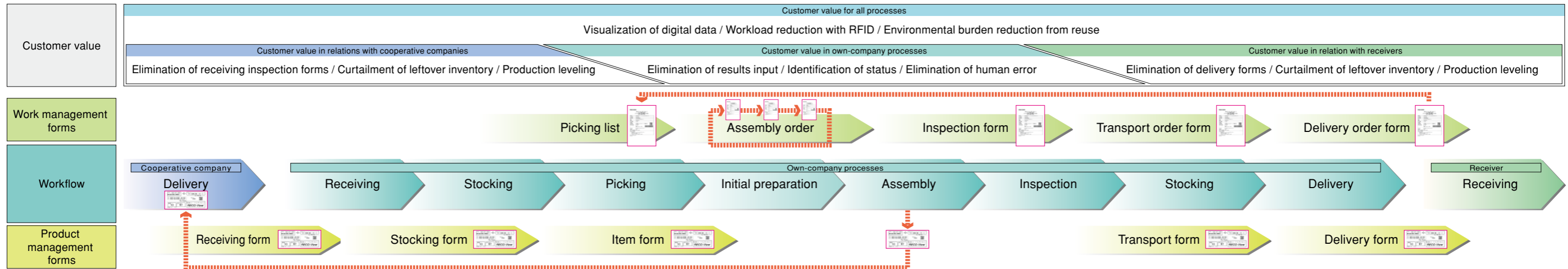
If 1.2 million sheets of forms are output annually (5,000 sheets/day (500 sheets per day per plant by 10 plants nationwide)), the amount of CO₂ absorbed by forest whose area corresponds approximately to 28 tennis courts is reduced!



[Scope] ● Production: Materials and production processes ● Use: Rewritable media printer (CO₂ from power use) laser printer (CO₂ from power use and toner) ● Recovery: Transporting 100 km from plant used at ● Processing: Disposal (with heat recovery)/disposal (without heat recovery)/landfill/paper recovery (applicable only for paper) [Sources] ● Paper: J-LCA database ● Rewritable sheets: National Institute for Materials Science Ecomaterials Center 4000ies ● Ministry of the Environment data for electricity and gas ● Printer: Ricoh black & white laser printer (equivalent to 45 sheets) data ● Recovery & processing: JAPAN TAPPI JOURNAL 55 (6) 838-852 (2001)



RECO-View RF tag workflow and form applications



Case studies on RF tag sheet introduction

Case 1 Work management forms (example for a manufacturer's production order forms)

Purpose for introducing RF tag sheets

- Reduce form expenses.

Previous system

- Dot-matrix printers: approx. 150
- Dedicated form issuing cost: approx. 13 Japanese yen each
- Ave. number output daily: approx. 100,000

Configuration of RECO-View system

- No. of RECO-View sheets required: approx. 40,000
- No. of printers required: approx. 150

Expected effects

- Recovery of investment in short time (a few months from active deployment).
- The more sheets are reused, the more costs are reduced.
- Easy process progress identification with RFID.

Image of utilization

Case 2 Item management forms (example for an electronics manufacturer part-issuing KANBAN tags)

Purpose for introducing RF tag sheets

- Make item inspection work highly accurate and labor saving.
- Prevent excess part inventory.
- Greatly improve efficiency in production process management.
- Reduce costs and protect the environment by reuse of RECO-View RF tag sheets.

Previous system and problem points

- Operates with bar codes on regular paper.
- Increased workload in stocking and shipping inspection and inspection mistakes.
- Increased stocking and shipping management work and increased parts inventory.

Configuration of RECO-View system

- Linkage with own-company ERP system.
- No. introduced: One per plant ● Sheets output: 1,000 (UHF band)
- Utilization: Circulation between two plants.

Expected effects

- Stocking / shipping / inspection work made highly accurate and efficient through batch reading.
- Improved management accuracy and curtailed unnecessary inventory through automation of part supply.
- Reduced usage costs through reuse of RFID tags and environmental protection through reduced volume of regular paper used.

Image of utilization