The JFE Group's RPA initiatives

As one way to reform work styles, the JFE Group has been studying the introduction of Robotics Process Automation (RPA) at JFE Steel, JFE Engineering, and JFE Shoji Trade since fiscal 2017.

Currently (as of March 31, 2019), we have introduced RPA for approximately 400 operations groupwide and to date have eliminated approximately 40,000 working hours, making a significant contribution to enhanced productivity.

We are applying RPA in a wide range of sectors, from common administrative operations for finance, accounting, general affairs, and human resources to engineering support for manufacturing and design.

Going forward, we will continue to introduce RPA across the Group, to promote further innovation in business processes and operational efficiency.
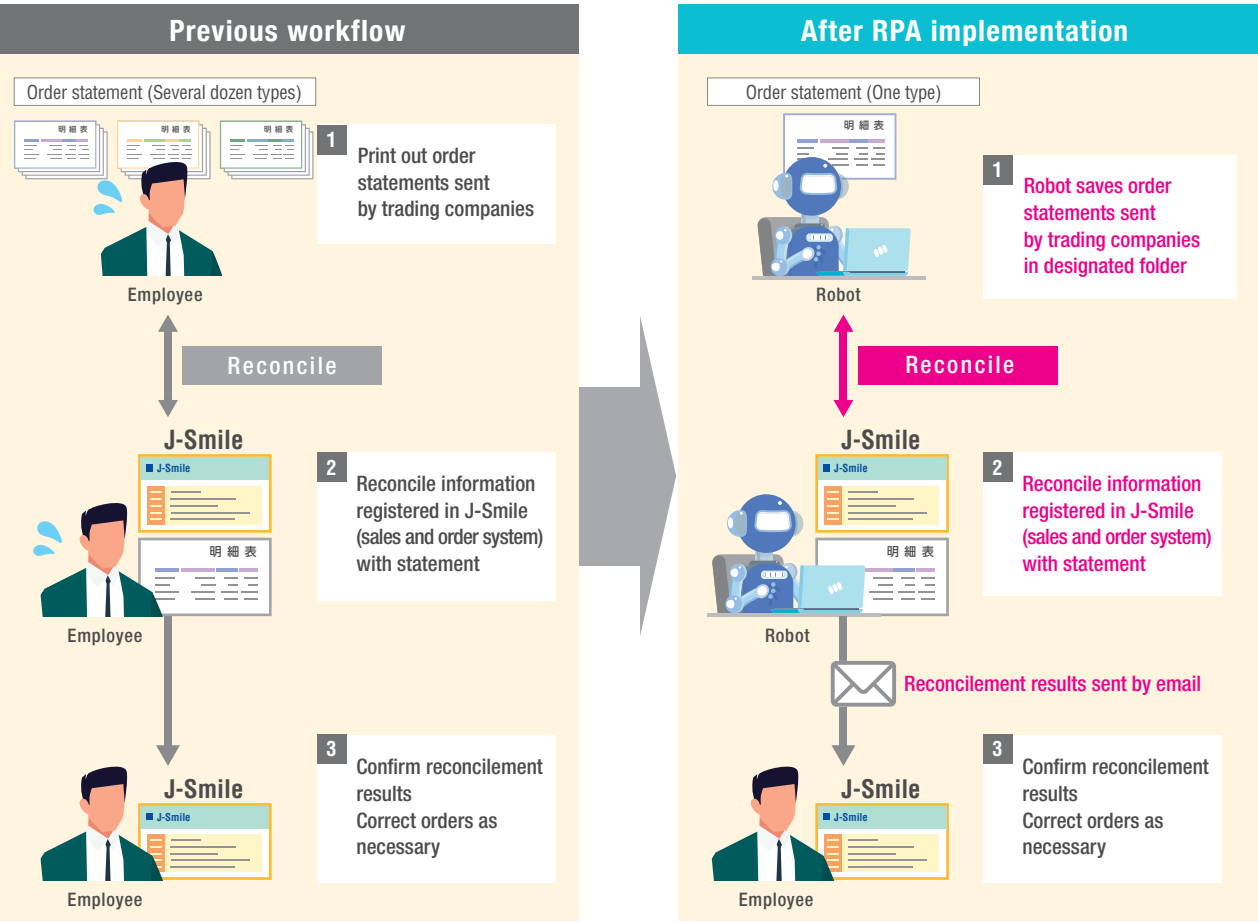
Operations with RPA introduced
Approx. **400**

Work hours eliminated
Approx. **40,000** hours

Introducing RPA–Example 1

JFE Steel **Using RPA for reconcilement of order statements for steel sheet products for export**

Operational revision: Standardized order statement formats that had previously differed by trading company
Operational efficiency: Using RPA to reconcile order statements with order information registered in the system

Previous workflow

Order statement (Several dozen types)

1. Print out order statements sent by trading companies
Employee

Reconcile

J-Smile

2. Reconcile information registered in J-Smile (sales and order system) with statement
Employee

3. Confirm reconcilement results Correct orders as necessary
Employee

After RPA implementation

Order statement (One type)

1. Robot saves order statements sent by trading companies in designated folder
Robot

Reconcile

J-Smile

2. Reconcile information registered in J-Smile (sales and order system) with statement
Robot

Reconcilement results sent by email

3. Confirm reconcilement results Correct orders as necessary
Employee

Estimated effect
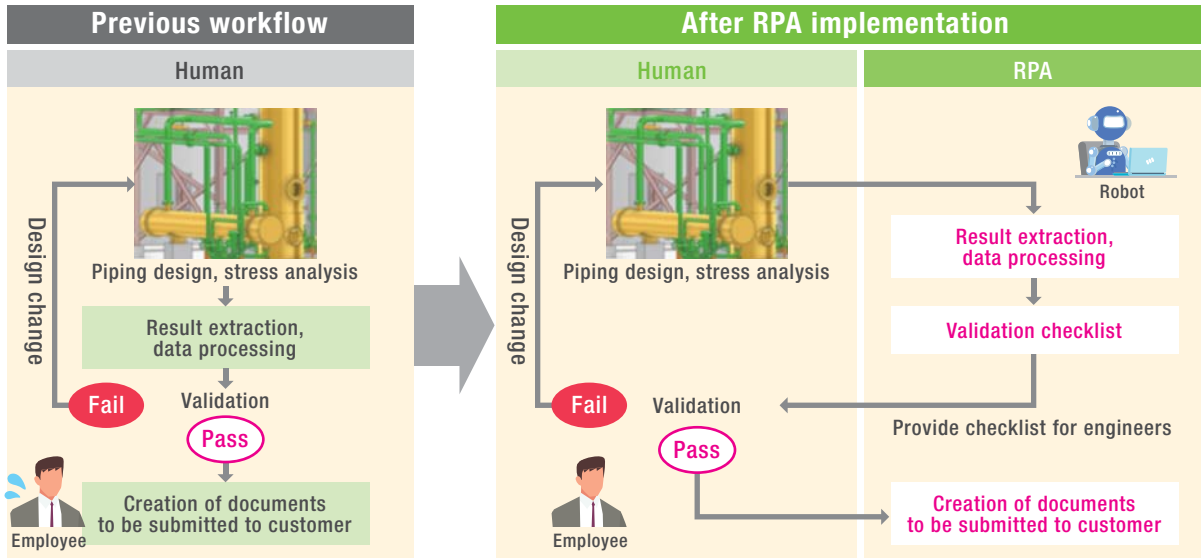Elimination of operational mistakes
Reduction in work hours = 800 hours/year made available for other tasks

Introducing RPA–Example 2

JFE Engineering **Using RPA for piping design**

Use RPA to extract, process, and list huge amounts of data from stress analysis in piping design
Listing up of information required by designers achieves more efficient validation

Previous workflow

Human

Design change

Piping design, stress analysis
Result extraction, data processing
Validation
Fail / Pass
Creation of documents to be submitted to customer
Employee

After RPA implementation

Human / RPA

Design change

Piping design, stress analysis
Robot
Result extraction, data processing
Validation checklist
Provide checklist for engineers
Validation
Fail / Pass
Creation of documents to be submitted to customer
Employee

Estimated effect
In addition to reduction in work hours, checking for transcription and calculation mistakes is unnecessary anymore
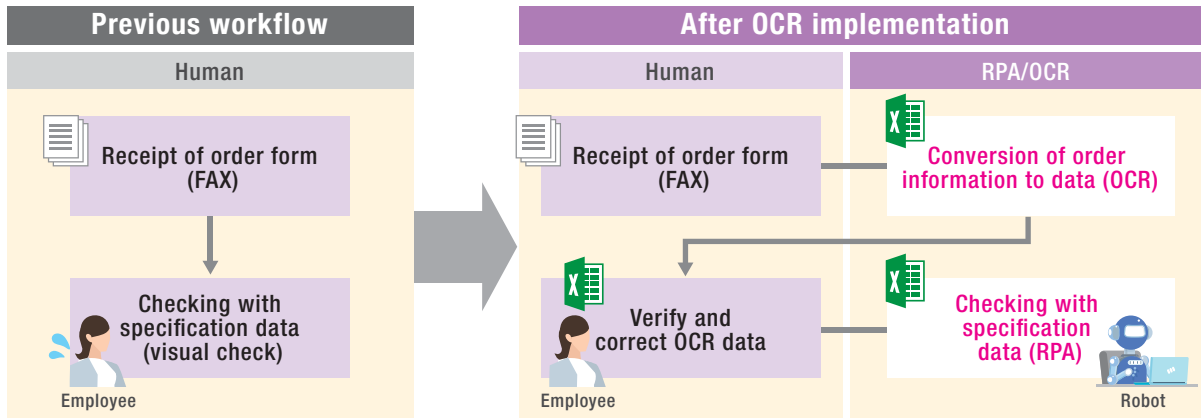Major reduction in work hours = 800 hours/year made available for other tasks

Introducing RPA–Example 3

JFE Shoji Trade **Using OCR + RPA for specification number checking**

Use OCR* to convert information to data for specification number checking (Fax order with control master), an operation that was previously done visually
Additionally, use RPA in subsequent processing to increase operational efficiency and quality

Previous workflow

Human

Receipt of order form (FAX)
Checking with specification data (visual check)
Employee

After OCR implementation

Human / RPA/OCR

Receipt of order form (FAX)
Conversion of order information to data (OCR)
Verify and correct OCR data
Checking with specification data (RPA)
Employee / Robot

Estimated effect
Improved accuracy: Automatic check using a robot instead of human eyes eliminates checking mistakes
Reduction in work hours = 100 hours/year made available for other tasks
(approx. 30 forms/500 statements/month)

* OCR (Optical Character Recognition/Reader): Technology that uses a scanner or camera to read printed or handwritten text on paper and convert it to an electronic text code.