CIMTOPS

7 Stages and Considerations
for Sucessfully Deploying
i-Reporter

Preparing and **Planning** Before **Digitizing On-site Forms**

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Preface

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Currently, efforts are being made around the world by companies to implement digital tools and improve the use of IT solutions to promote remote work, better collaboration, and reduce costs.

i-Reporter is one of those products that enable a company to begin the process of deploying digital tools on-site. Introducing a tool to make their paper-based forms digital brings improved efficiency and reduction of man hours of post-processing of the information recorded on the paper forms.

However, the end goal is not only to make paper forms available as digital versions, but also to reduce costs, standardize the data recording process, promote communication, and make data available whenever or wherever it's needed.
Additionally, the end goal is not to only collect results from work and other data on-site, but also to use data to improve products, productivity, and give deeper insight into a facility.

In this document, we will go over the seven steps to deploying a digital form system and the items to consider within those steps to ensure a smooth deployment and increase benefits to your organization.

STAGE 1

Checking the paper-based forms that are used on-site

▶ Have discussions with on-site workers and management to gather information about paper form usage.

| Types of Paper forms | Daily reports / logs | Inspection reports | Warehouse inventory management | Inventory checklist |

Make sure to check with various departments, not just one.

NOTE Data from forms that are transferred to a system or spreadsheet, data that needs to be quickly analyzed, or shared among multiple people or departments should be prioritized since they are easy ways to lower costs.

Resulting Benefits

1 Makes converting paper forms to digital easier and planning for business improvements.

2 Because it is easy to see improvements on-site by removing the need to manually transfer data from paper forms to digital systems or spreadsheets, it allows the opportunity to expand improvements horizontally in other ways.

STAGE 2

Identify spots in the workflow where improvements can be made when filling out forms and after they are filled in.

▶ **Check with on-site workers and members of other departments for problemsrelated to tasks such as data entry on forms, tallying data from paper forms, data entry work, etc.**

Example problems

- Missing data or calculation errors when filling out paper forms.
- Collecting paper reports after they are filled out and tabulating the data from reports are time-consuming tasks.
- Having to manually transfer data from paper forms to a spreadsheet or other systems.
- Creating a clean copy of the report can be time-consuming when needing to embed/add photos to a report.

NOTE

Remember to gather information on how long tasks take to complete so they can be compared once i-Reporter is deployed to measure improvements.

Resulting Benefits

1. **Involving employees on-site to improve various aspects of work becomes easier**
(it is important to take the initiative to have employees involved in these activities).

2. **Improvements are made based on problem-driven activities rather than system-driven activities.**

3. **It becomes easier to see the effects of improvement.**

STAGE 3

Standardization of similar forms.

▶ Regardless of the department, standardization of forms across departments is important.

| Types of forms to standardize | Pre-work inspection sheet | Daily facility/equipment inspection checklist | Daily reports | Quality inspection checklist | Risk prediction activity sheet |

NOTE

If it is common for notes to be written on the edges of paper forms, it is advised to create additional space for the user to add notes. If the information from these handwritten notes is not vital, consider not having them recorded.

Resulting Benefits

1 **Easier to compile and analyze onsite data.**

2 **Quicker redesign of the forms in the event changes are needed.**

3 **Facilitate improved data recording across sites and departments.**

STAGE 4

Identify the purpose of data points recorded on the paper form

▶ Define the data points that will be inputted onto the form that will bring improvement and consider not collecting any data points which will not bring improvements.

Types of data to collect

In the scope of repeated tasks, mass production and displaying production dashboards

Improvement objectives

- Improve operating time
- Reduce the rate of defects
- Monitoring manufacturing time

Examples of input data

- **Basic information**
  (employee names, part numbers, process information, etc.)

- **Site operating hours and start/stop times**

- **Track shift start and end times, hours of high productivity, and breaks across multiple facilities**

- **Tracking defects and the reasons for the defects**

NOTE It is important to understand the reason for collecting data and how it will be used.

Resulting Benefits

1. Set targets and goals based on numerical targets

2. Collect the data that is needed for achieving goals and improving business.

3. Easier for business intelligence (BI) systems to use the data for analysis or visualization.

STAGE 5

Creating a common language to be used to fill out forms.

▶ Standardize words, terms, and abbreviations so that descriptions and other information are the same regardless of the person recording the data.

Examples of standardization

Standardization of types of defects during manufacturing ▶ Cracks | Chips | Paint Peeling | Contamination | etc...

Standardization of events during a road inspection ▶ Fallen objects | Cracks in the road surface | Safety equipment needing to be repaired | Low drainage | etc...

NOTE Standardize frequently used terms and words, also consider options for the user to input additional words that may not be able to be standardized.

Resulting Benefits

1 Information is easier to tally and analyze from the collected data to use for displaying trends, analysis of defects, or creating graphs and charts for presentation

2 Eliminates additional people to review or need to interpret someone else's handwriting or writing

3 Forms are easier to fill out and complete

STAGE 6

Create a list of frequently used data to reference while filling out forms.

▶ Check various materials and data sources to create a list of static data to reference.

| Types of static data | Customer list | Project list | Part number / SKU list | Equipment list | Task list | etc... |

NOTE Be sure to consult with system administrators and other personnel when deciding on which data to add to these lists

Resulting Benefits

1 Automate and streamline input of static information

2 Reduce time spend on data management and maintenance

3 Easier integration between various systems

Determining if integration with external or other systems is possible

▶ **Check with in-house developers of internal information systems or with the vendor of external information systems to see if there is an API or other methods of integration.**

| Types of external / internal systems | Production management system | Mission-critical software for after-sales support | Gas inspection recording system | etc... |

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It is important to confirm that the external/internal systems that you want to connect have a way to import or export data since many systems do not have these features. If custom software is needed to be made to interconnect systems, note that it can be costly to develop a custom solution.

NOTE **Check for the ability of API access to external/internal systems, such as whether or not internal data can be exported in a compatible format and if external data can be imported into the system.**

Resulting Benefits

1 **Easier collaboration after the system is implemented.**

2 **Prevent deficiencies such as finding out the system cannot be linked after it has been implemented.**

3 **A budget plan can be prepared.**

Calculator for estimating savings for implementing an onsite digital form system

Enter information about your organization and needs

STEP 01
Select all the main issues that you are wanting to remedy

- ☐ I want to streamline the recording of on-site data
- ☐ I want to be able to search, store, and manage data recorded digitally
- ☐ I want to eliminate the need to manually transfer information on paper to the computer
- ☐ I want to speed up the sharing of information across the company

STEP 02
Types of records to keep pertaining to STEP 01

- ☐ Results and performance from work completed
- ☐ Defects and failure rates
- ☐ Quality inspections logs
- ☐ Maintenance and inspection logs
- ☐ Inventory, warehouse, and shipping logs
- ☐ Other ( )

STEP 03
Review the issues identified in STEP 02

- ☐ Transferring data from paper forms to the computer is time-consuming
- ☐ Many errors and omissions occur when collecting data
- ☐ Searching for data in past reports takes a long time
- ☐ Storing paper takes up a lot of space
- ☐ There is limited information sharing between employees and departments
- ☐ Filling out forms by hand is time consuming

STEP 04
Calculating the costs from each function

① + ② + ③ + ④ = _____ Yen / Month

🏁 **This is the results of deployment at your site!**

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① Data entry work

Transferring information recorded on forms to spreadsheets or other systems

Time spent		Hours / Day
Number of people	×	People
Hourly rate of pay	×	Yen / Hour
Days worked per month	×	Days
① **Total savings**	=	Yen / Month

② Tabulation / calculation work

Tabulation work using spreadsheets

Time spent		Hours / Day
Number of people	×	People
Hourly rate of pay	×	Yen / Hour
Days worked per month	×	Days
② **Total savings**	=	Yen / Month

③ Time spent creating reports

Personnel time spent transferring data from paper forms to spreadsheets or other systems

Time spent		Hours / Day
Number of people	×	People
Hourly rate of pay	×	Yen / Hour
Days worked per month	×	Days
③ **Total savings**	=	Yen / Month

④ Reduction of paper usage

Number of forms filled out	×	Sheets of paper / Day
Price per sheet of paper	×	Yen / Sheet
Days worked per month	×	Days
④ **Total savings**	=	Yen / Month

Thank you for taking the time to read this document and for your interest in i-Reporter.

These are the seven basic steps most customers take when evaluating deploying i-Reporter in their business.

Hopefully, this information will act as a guide for deploying a digital solution at your sites.

We are committed to supporting our customer's continuous improvements

by leveraging the experience and knowledge we have gained assisting our customers.

Feel free to contact us.

CIMTOPS

The number one on-site digital form system in Japan based on market share*

i-Reporter

More information

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