



Digital Work Manual I.App Solution Introduction

**Advantech Industrial IoT / AI /
iFactory Smart Manufacturing Solution**





Outline

1. Product Introduction

Overview

Challenges & Solutions

2. Product Key Features

User Scenario

Features & Functions Introduction

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Services

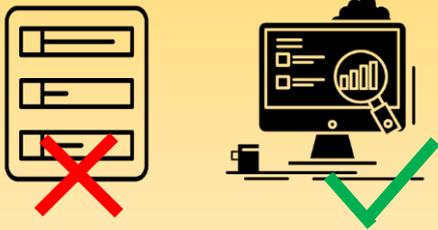
Software



Overview

In the factory, to ensure the quality of mass production, instructions have their own standard operating procedures (SOPs). SOPs are applied to production operations to improve quality inspections and maintenance. Traditional SOPs are printed on paper, however, traditional paper is wasteful and increases operating costs.

Advantech iFactory eManual I.App, provides a digital SOP which provides accurate product information and fast updates which shortens the learning curve for operators.



Sources Savings

With eManual, customers have no need to print mass paper instructions, which saves sources and money.



Reduce Maintenance and Management Time

With digital manual, the management and maintenance of SOP become flexible and convenient.



Accelerate Production efficiency

Operators can reduce time on finding and reading work instruction with eManual, which reduce production time and accelerate production efficiency.



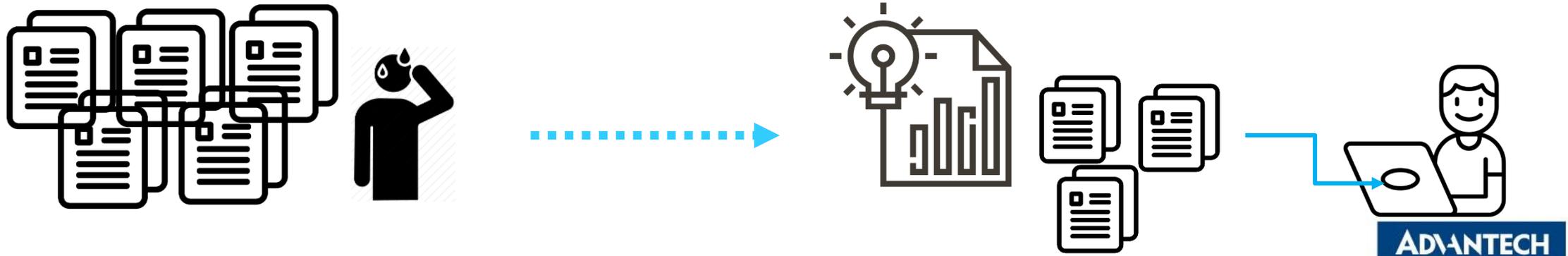
Challenges & Solutions

Challenges

1. Paper SOPs instruction are harder to update
2. Paper SOPs are easy to create and share
3. Risk of losing paper SOPs when changing shifts.
4. Paper SOPs less convenient and accurate to use.

Solutions

1. eManual provides a digital SOP, which is easy to find and trace
2. eManual effectively controls SOP usage rights to avoid outflows.
3. When shift lines end, eManual can quickly switch the SOPs on the production line, reducing the cost and time.
4. eManual allows operators to easily search for the correct SOP, increasing productivity.



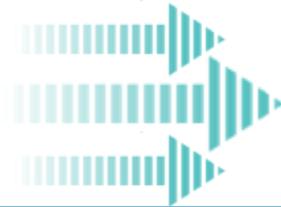
User Scenario

01

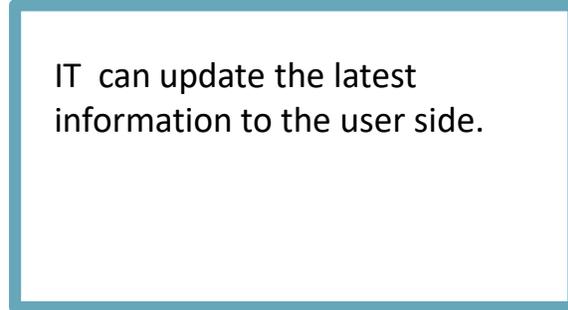
IT can easily maintain work instructions through the eManual editor.



02

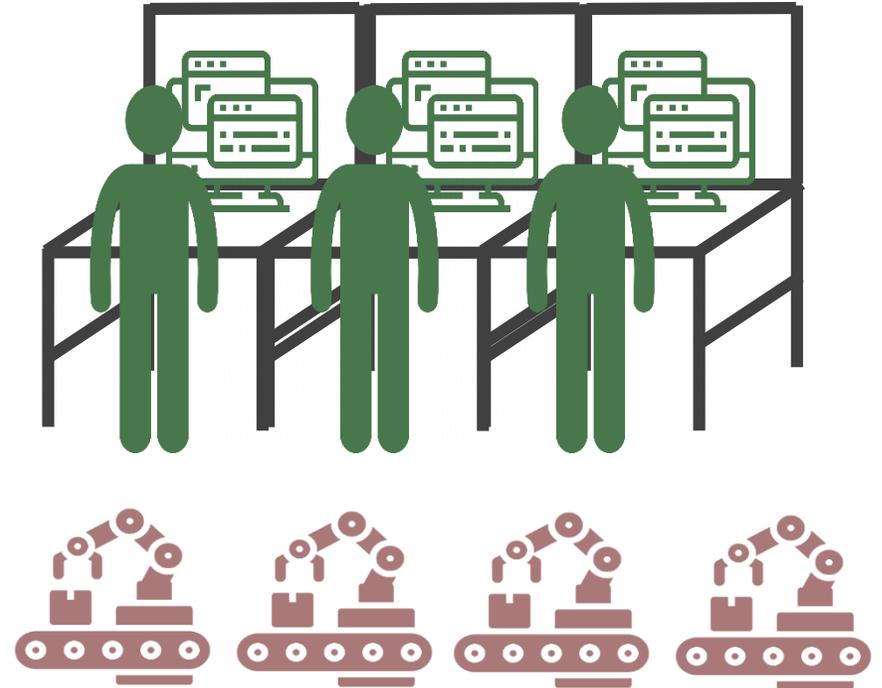


IT can update the latest information to the user side.



03

iFactory/eManual provide users (operators) with digital work instructions on a simple UI.





Key Features of eManual

01

Easy Set-Up

Simple set-up task steps and categories with built-in work instruction editor and drag-and-drop functionality - no programming needed.

03

Collect Cycle Times to Make Data-Driven Decisions

Capture meta data for every step such as speed and process cycle times for continuous improvement.

05

Web-Based Application

No additional software to install. Works on any device such as tablets, mobiles, laptops etc.



Bar-Code & QR-Code Entry

Users can scan bar-codes or QR-codes for rapid entry to any procedure or instruction.

02

Integrated Interface

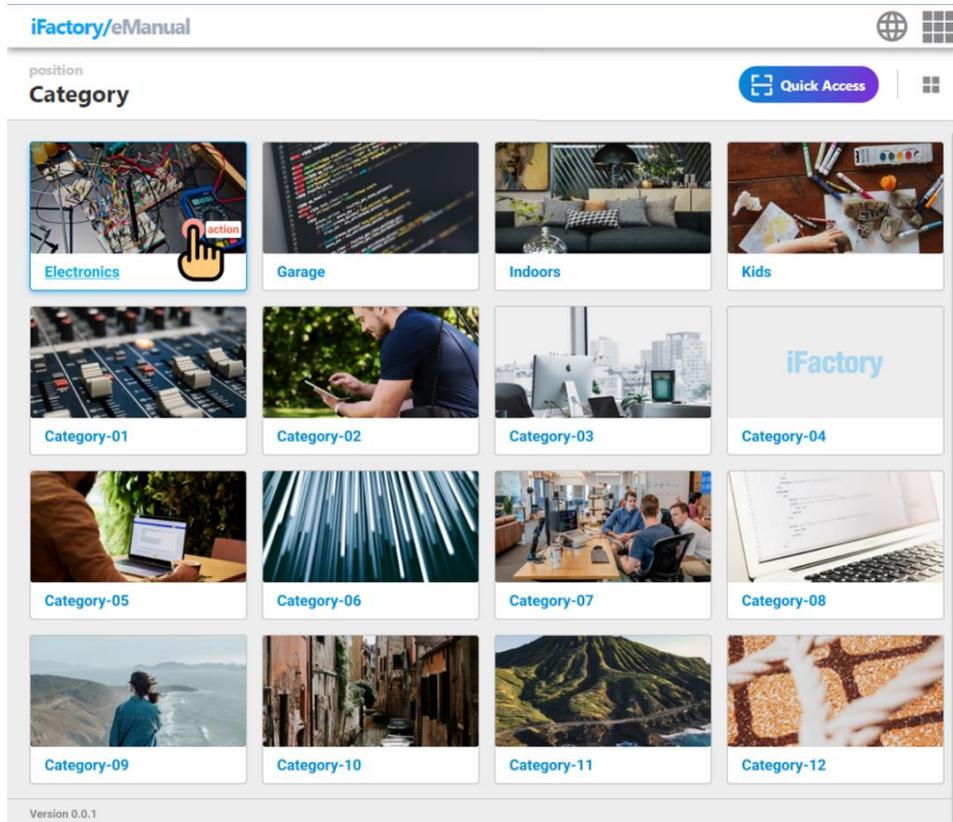
Provides APIs for other I.Apps or upper lever systems such as MES, ERP, and Shop Floor

04

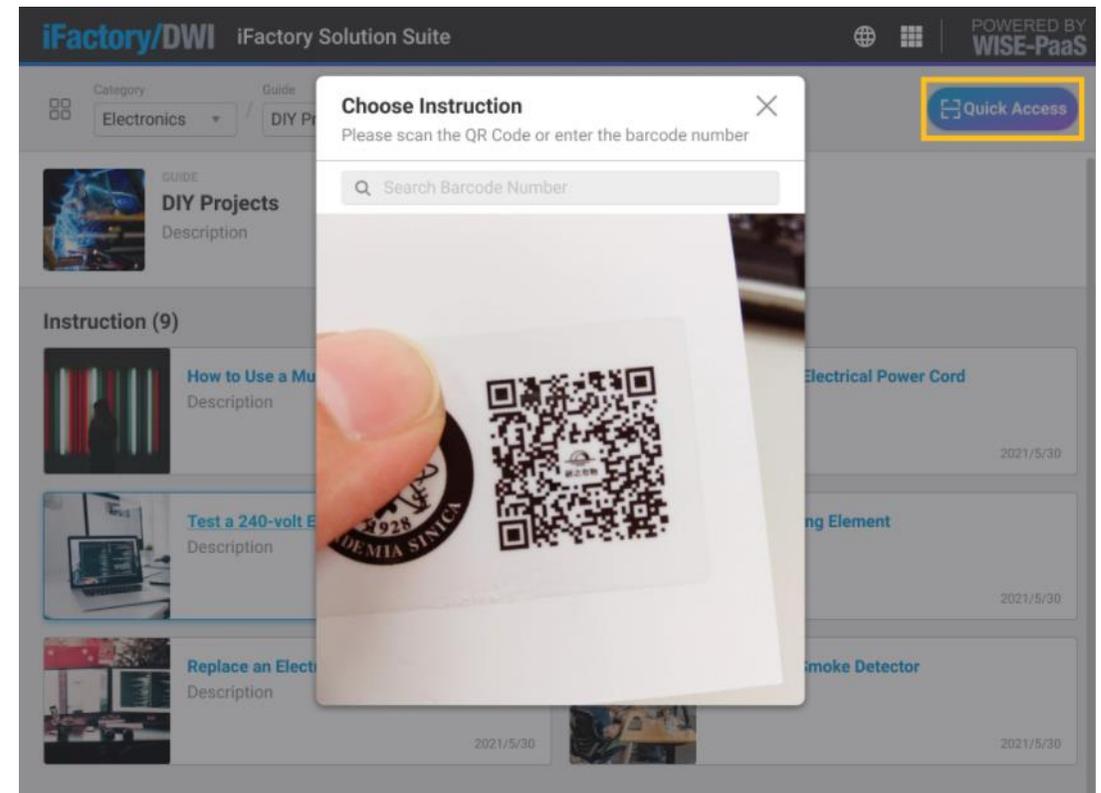


Accessing and Using eManual

- **A web-based software application.** Users can create work instructions or view reports anywhere, anytime via browser on any web-capable device, tablet, laptop, iPad etc.
- Quickly access information across all instructions using built-in **search functionality or Bar-Code and QR-Code Scan.**



Instruction Category



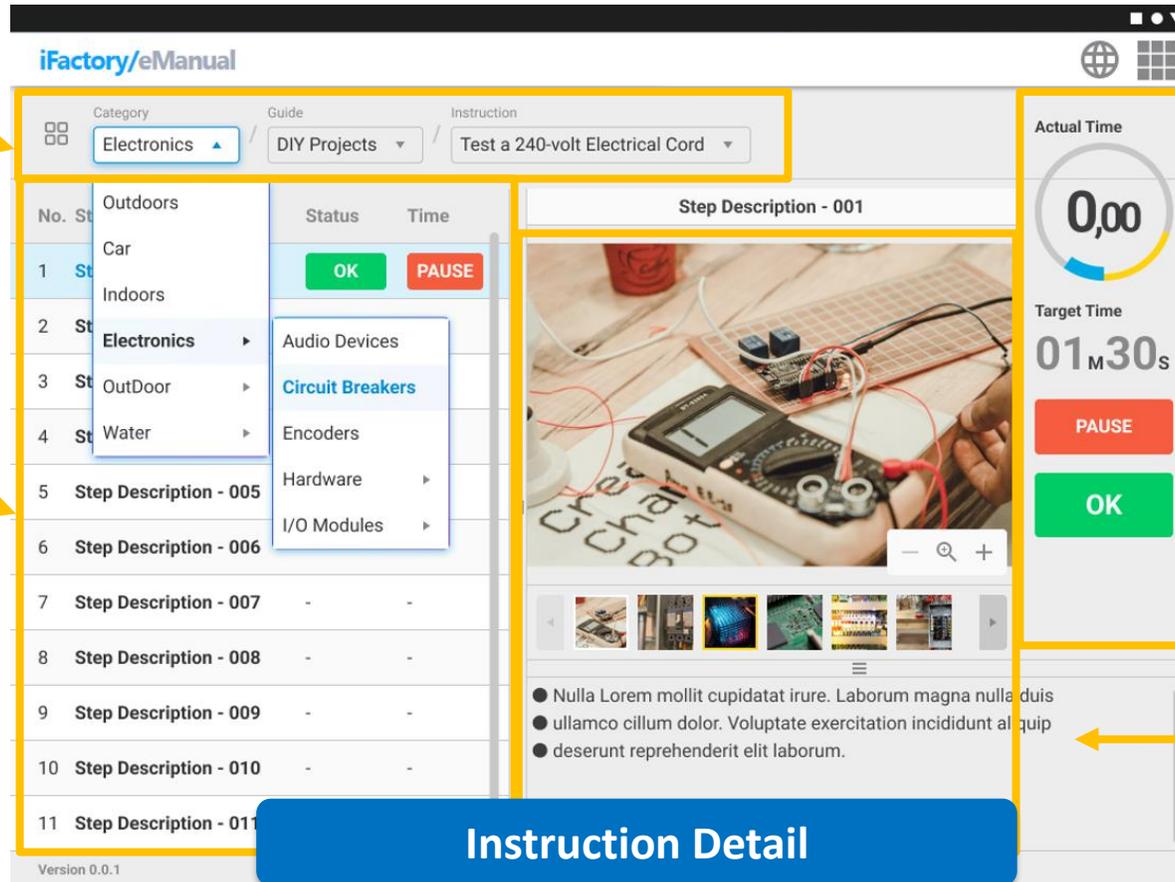
Quickly Access Instructions

Digital SOPs by Step

- Work instructions and steps are displayed in real-time.
- Capture times for each process task start / stop.
- Cycle time indicator shows targeted time for each station as well as actual time per station. Through eManual, Station data can be connected with iFactory/MOM and iFactory/KPI to give management the tools they need to make data-driven operational decisions.

Quickly instruction switch

Steps switch and time capture



The screenshot shows the iFactory/eManual interface. At the top, there are navigation menus for 'Category' (Electronics), 'Guide' (DIY Projects), and 'Instruction' (Test a 240-volt Electrical Cord). Below this is a table of steps with columns for 'No.', 'Step', 'Status', and 'Time'. A dropdown menu is open for step 3, showing sub-categories like 'Audio Devices', 'Circuit Breakers', 'Encoders', 'Hardware', and 'I/O Modules'. The main content area displays 'Step Description - 001' with a large image of a person using a multimeter on a breadboard. Below the image are several small thumbnail images and a block of placeholder text. On the right side, there is a 'Time' panel with a circular gauge for 'Actual Time' (0,00) and a 'Target Time' of 01 M 30 S. There are 'PAUSE' and 'OK' buttons in this panel. A blue banner at the bottom of the interface reads 'Instruction Detail'.

Each Process task start & stop, shows targeted time

Images and written Instructions



eManual Video Work Instruction

- Include videos of how-to complete any procedure to turn complex concepts into simple visual instructions.
- Capture video on the floor or in the field and include it in your work instruction service. Remove the potential for confusion or misinterpretation.

iFactory/eManual

Category: Atest01 | Guide: Guide01 | Instruction: ins

No	Step Description	Status	Time
1	A01	-	
2	A02	-	
3	Step3	Pause	Start

Step3



Actual Time: 0,27

Target Time: 0 M 50 s

Start

Video Tool includes: Full screen display, Minelayer, Volume adjustment, Speed adjustment...etc.

Video Instruction



Digital Instruction Editor Tool

- Easily create work instructions in a simple, easy-to-use system with eManual built-in work instruction editor tool. Use images, written instructions, video or connect to current PDF files, supports files up to 5 GB in size.
- Quickly set-up task sequences by setting instruction management categories, uploading photos and videos, adding markups, and writing instructions with no programming needed.

File Format Types	Supported File Formats
Graphic file formats	JPG, JPEG, GIF (Recommended pixel size: 1920px wide, 1024px high)
Video import formats	MP4

File Format

Step Duration Configuration

Text Instruction Editor

Markup Key Points

Upload Image, PDF and Video

Create Work Instruction

Select multiple pages PDF to upload





Structured Instruction Management - Back Stage

Build a centralized library of standard work procedures. Consolidate Instructions with guide and arrange categories to fulfill various user demands for knowledge management.

Bar-Code & QR-Code generator helps the user to scan and rapid enter any instruction.

The screenshot shows the 'WISE-DataConnect' interface. At the top, there's a navigation bar with 'eManual - v2.0' and 'Manage my services'. Below that, a breadcrumb trail reads 'Electronics / Product A0415 Assembly Guidelines / Instruction'. A 'GUIDE' section for 'Product A0415 Assembly Guidelines' is visible, with a 'Move to' button highlighted in a blue box. Below this is a table of instructions:

Instruction Name	Step	Date Modified	Date Created	Action
Instruction - 003	14	2021/01/06 00:00:00	2021/01/06 00:00:00	[edit] [copy] [delete]
Instruction - 005	11	2021/01/06 00:00:00	2021/01/06 00:00:00	[edit] [copy] [delete]
Instruction - 006	8	2021/01/06 00:00:00	2021/01/06 00:00:00	[edit] [copy] [delete]
Instruction - 008	9	2021/01/06 00:00:00	2021/01/06 00:00:00	[edit] [copy] [delete]
Instruction - 002	20	2021/01/06 00:00:00	2021/01/06 00:00:00	[edit] [copy] [delete]
Instruction - 009	6	2021/01/06 00:00:00	2021/01/06 00:00:00	[edit] [copy] [delete]

Move or Copy Instruction to Other Category

The 'Select Instruction(s)' dialog box shows a tree view of instruction categories on the left and a list of selected instructions on the right. The tree view includes categories like KEIM, FunderMax, Tarkett Sports, Ceramiche Refin, Aparici, Gustafs, Skyfold, Focus, EQUITONE, Neolith, Kvadrat Soft Cells, Invisible, and Island Exterior Fabricators. The 'Selected Instructions (6)' list includes: panoramah! - FunderMax/Tarkett Sports/, ULMA Architectural Solutions - FunderMax/Tarkett Sports/, SilentLab - FunderMax/Tarkett Sports/, Libart - FunderMax/Tarkett Sports/, Sancal - FunderMax/Tarkett Sports/, and Cupa Pizzarras - FunderMax/Tarkett Sports/.

Instruction Structure

Export Instructions Bar-Code & QR-Code

The 'Export QR-Code or Barcode File(s)' dialog box offers two options: 'QR-Code Format' and 'Barcode Format'. Each option has a 'Download' button. The QR-Code format shows a QR code icon, and the Barcode format shows a barcode icon.

Guide List





Clone MOM Product Settings by “ONE-CLICK” - Back Stage

Build-in MOM Data Import feature, saves time by re-establishing all product information data in eManual, with no programming required by one click.

Category

Product Group

Product

Process

Instruction

Guide

eManual

MOM – Data Settings





Integrated Data & Process Traceability Interface

Gathers essential information from process operators directly within your work instruction. Easily export collected data via API to other I.Apps or your external systems.

WISE-DataConnect

Station : Machine_01

Machine_01 : Visual Inspection + Work Order

Open (1) Done (0) **All Orders (1)**

WO-202110200-01-1-1 New

Planned Start Time	Product Name	Product QTY	Actual QTY (OK/NG)
2021/10/20 12:15:08	ProductName-1	100	0 (0 / 0)

REPORT

Check it and enter eManual within MOM

iFactory/eManual

Category: Electronics Guide: DIY Projects Instruction: Test a 240-volt Electrical Cord

Actual Time: 0,00 Target Time: 01 M 30 S

No.	Step Description	Status	Time
1	Step Description - 001	OK PAUSE	
2	Step Description - 002	-	-
3	Step Description - 003	-	-
4	Step Description - 004	-	-
5	Step Description - 005	-	-
6	Step Description - 006	-	-
7	Step Description - 007	-	-
8	Step Description - 008	-	-
9	Step Description - 009	-	-
10	Step Description - 010	-	-
11	Step Description - 011	-	-

PAUSE

OK

Accomplished production step, dashboard displays records accordingly

MOM – Job Report

iFactory/MOM

2021/10/20 13:34:32 POWERED BY WISE-PaaS

Record of Step Duration

Work Order	Step Name	Standard Duration	Actual Duration	Report Time
WO-202110200-01-1-1	A01	10.02 min	3.00 s	2021-10-20 13:33

MOM – Step Record Dashboard

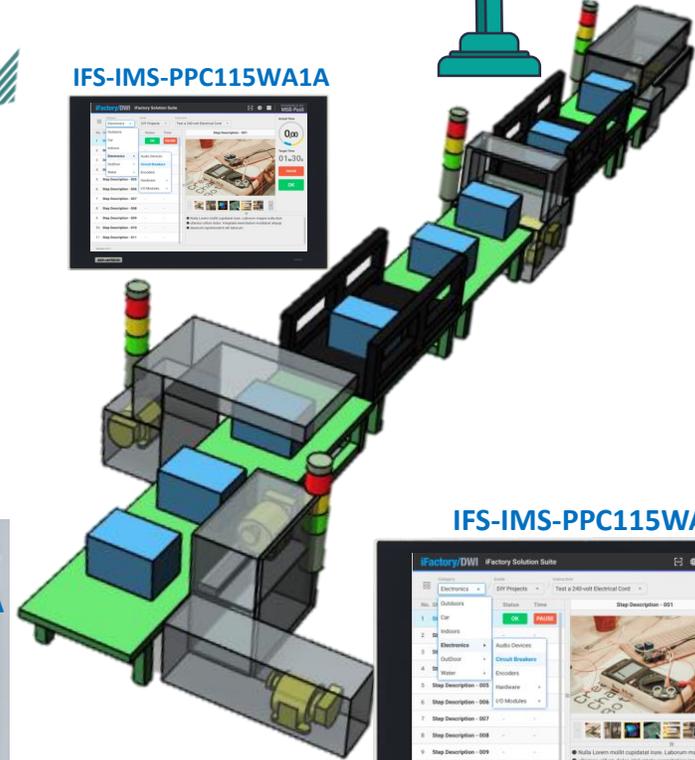
eManual – Work Order Instruction



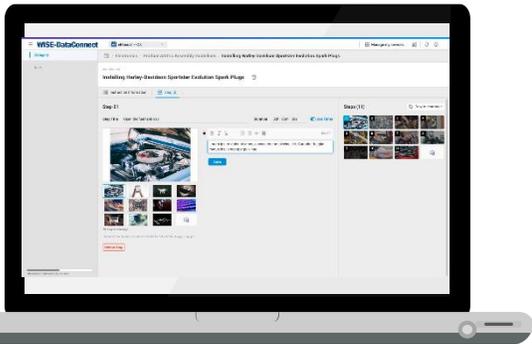
eManual Services Architecture



IFS-IMS-PPC115WA1A



IFS-IMS-PPC115WA1A



iFactory Desk- Instruction editor

Simple instruction creation and timely updates so operators will always have the most up-to-date instruction.



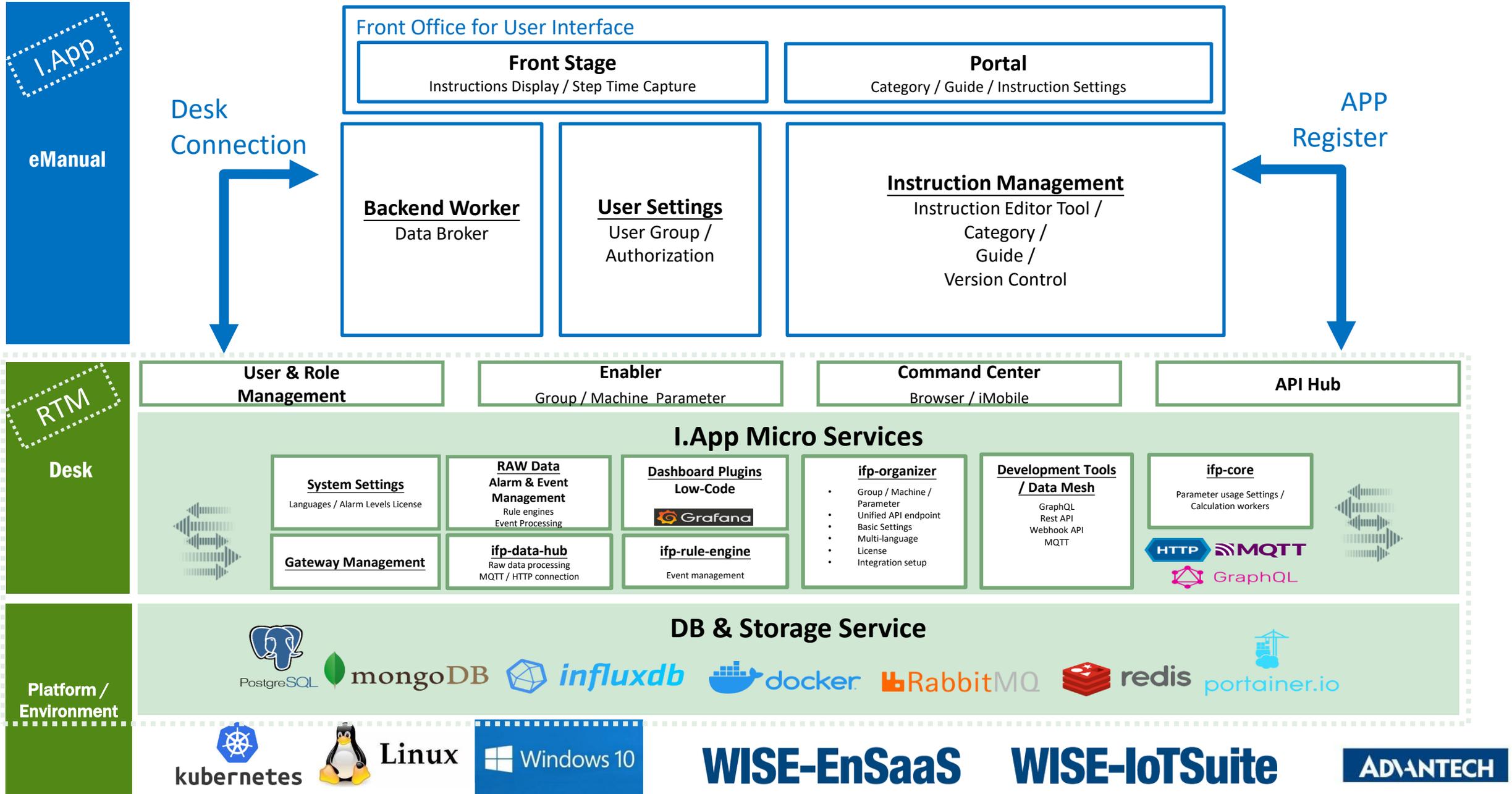
On-Site Device Work Instruction

Clear and concise procedures for on-site operators of any skill level can follow.

Handheld Tablet Work Instruction

Handheld device instruction for repair and maintenance to enforce standard procedures everywhere.

iFactory eManual Architecture



I.App
eManual

RTM
Desk

Platform/
Environment

WISE-EnSaaS

WISE-IoTSuite

ADVANTECH

Co-Creating the Future of the IoT World

