EcoStruxure™ Augmented Operator Advisor

Presentation V2.3
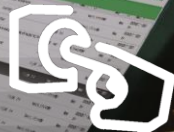
Arvin PITT
IIoT Offer Marketing Manager
IIoT Solutions – Digital Plant

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EcoStruxure™ Augmented Operator Advisor

Background

Maintain

Build

LIFECYCLE

Operate

Design and engineering	Startup and operation	Maintenance & Services
Optimizes time and costs	Efficiency and flexibility	Availability and durability

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EcoStruxure™ Augmented Operator Advisor
Introduction

"The Schneider Electric's solution on tablet, based on Augmented Reality technology, which gives operators the ability to **superimpose real-time data** and **virtual objects** on to the **real plant environment**."

- **Find information faster** with immediate, relevant access in the field (user manuals, instructions, diagrams, etc.)

- **Avoid unnecessary downtime** with the ability to open the electrical cabinet doors virtually

- **Reduce operator errors** during operations and maintenance by locating the right equipment and guiding operators step-by-step to complete the procedures

Empowered workforce

Speed-up maintenance

Business enablers

''50% of time spent on maintenance involves finding information''

Really easy to use

Builder

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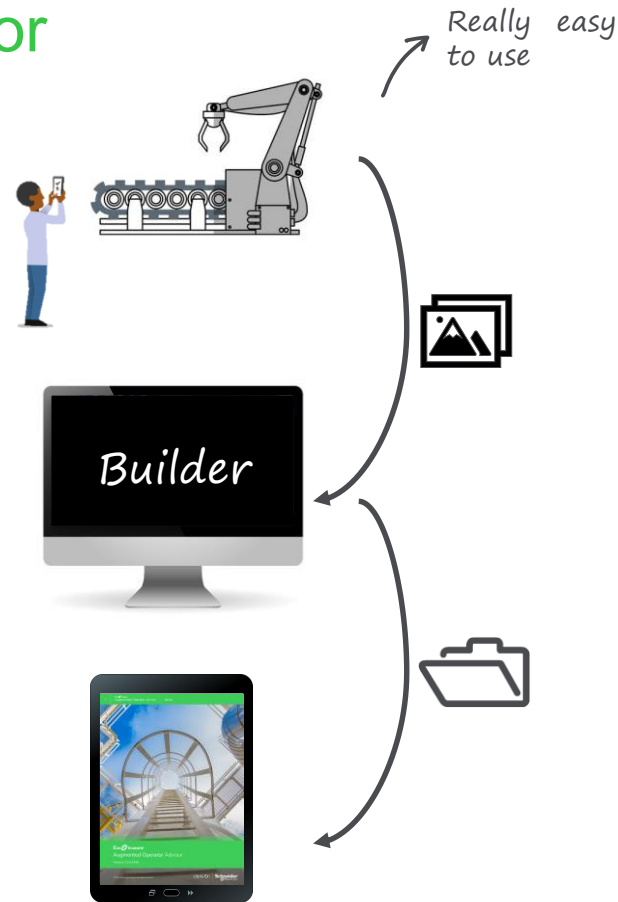
EcoStruxure™ Augmented Operator Advisor
Components

Builder

EcoStruxure™ Augmented Operator Advisor Builder

- Online tool to create custom projects improving operational efficiency with augmented reality

- Yearly license

http://s360pre-we-wa-frontend.s360pre-we-ase.p.azurewebsites.net/

Runtime

EcoStruxure™ Augmented Operator Advisor Runtime

- Software component to execute projects

- Magelis G5U, Box PC, Edge HMI BOX or Standard PC

- Permanent license for the Runtime

- One per machine

App

EcoStruxure™ Augmented Operator Advisor App

- Free on Stores

- Android, iOS and Windows

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EcoStruxure™ Augmented Operator Advisor Builder

Procedure: set of instruction to follow with or without POI displayed (Point Of Interest)

Area: set of several scenes to cover a production line or a machine

Project: set of several areas to cover a part of, or a complete factory

Scene: set of images* to ensure the recognition in all environmental situation and operator position
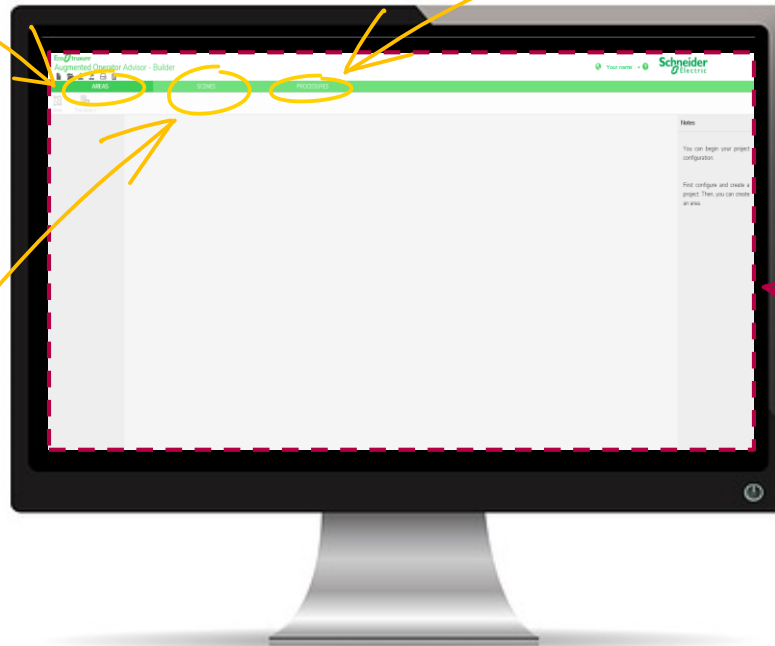
*Image: picture of the scene to be recognized

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EcoStruxure™ Augmented Operator Advisor
Different levels of Runtime

Depending of the complexity of the projects

	EcoStruxure™ Augmented Operator Advisor **Builder** **Annual fees**	EcoStruxure™ Augmented Operator Advisor **Runtime** for 1 machine **Permanent License**	EcoStruxure™ Augmented Operator Advisor **Runtime** multi-area **Permanent License**
Essential offer: 3 different levels /machine	To build an **unlimited** number of projects	• Essential Level 1: 1 area and 20 POIs • Essential Level 2: 1 area and 50 POIs • Essential Level 3: 1 area and **unlimited** information	For a project managing several machines or production lines: **unlimited** number of information and procedures
Essential offer and AR Procedures /machine	To build an **unlimited** number of projects	The 3 different Levels of the Essential offer + 10, 20 or **unlimited** procedures	

Why not try it for free during 42 days?

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EcoStruxure™ Augmented Operator Advisor
42 Day Free Trial

- Test AR with your equipment in your environment

- Same features as the full version

- 42 Days Access to:

    - Builder: Web tool, can be used during 42 days after the customer account creation without activation, projects created aren't lost

    - Runtime (for one machine): Software PC, can be used 42 days without activation code

    - App: available on Store for FREE, can be used permanently after download without limitation

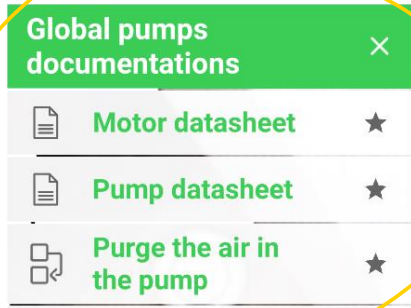*"Industry 4.0 movement is underway, are you going to be part of it?"*

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EcoStruxure™ Augmented Operator Advisor
App interface

Information banner

Point of interest (POI)*

*POI opportunities: **list** (Label, Images, Process variable, Data from a SQL database, Documents: pdf files, Electrical diagrams, Web pages, Videos), **image**, **variable** or **text** to display directly on the screen

Global pumps documentations ✕

📄 **Motor datasheet** ★

📄 **Pump datasheet** ★

🗂 **Purge the air in the pump** ★

Augmented Operator Advisor | Scenes - Water plant

PUMP STATION

ⓘ Pump 1: ON ★

ⓘ Pump 2: ON ★

ⓘ Pump 3: OFF ★

〰 Flow: 4 m3/h

Point of interest List (up to 5 information)

Shortcut menu
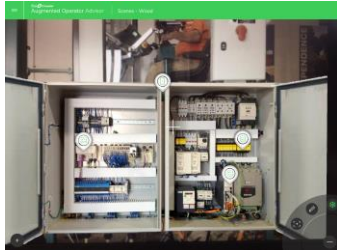
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Different examples of use
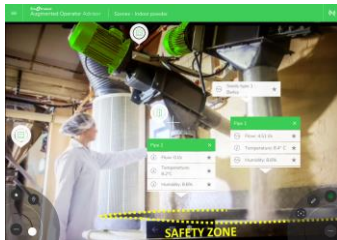
In front of a machine or a production line
Immediate access, in real time, to relevant information in the field for operations and maintenance: machine history, variables of process, documents (products, installations, instructions, electrical diagrams, etc.)

In front of an electrical cabinet or an hidden part of a Machine
Fast diagnosis without lockout or electrical qualifications, through the virtual doors opening the cabinet: device status, variable values (current, power, speed, etc.), documents (products, installations, manuals, electric diagrams, etc.)

For an overall view
Simultaneous view of reality and data. Safe and quick detection of anomalies (alarm display, significant process variables) and access to KPIs (display parameters and key information, production progress, performance indicators, etc.)

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EcoStruxure™ Augmented Operator Advisor
At a glance

Builder
• Web-based application

Business model
• Project Mode or Do It Yourself

Licensing
• BT through IDMS account, RT different levels

Notes
• Multi-user, pushed to RT, available via RT

User Management
• Multi-user RT from User Database on RT, modifiable online through web interface (RT)

Runtime Devices
• Server based Windows software, permanent license, 3 levels

Multi-language
• Builder and application available in 8 languages

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EcoStruxure™ Augmented Operator Advisor
At a glance

Multi-iOS
• IOS, Android and Windows

Triggers actions
• Change POI visibility (hide/show), POI background color or blinking POI, displayed text

Points of interest
• Real time data from PLC, documents, images, web pages, notes, labels

Access to document
• Technical documentation (PDF), diagrams, images, videos
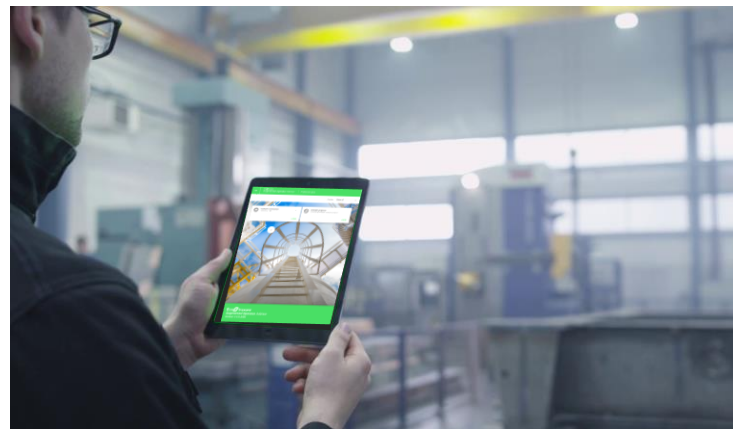
Access to hidden parts
• Example: open virtually an electrical cabinet

Cybersecurity
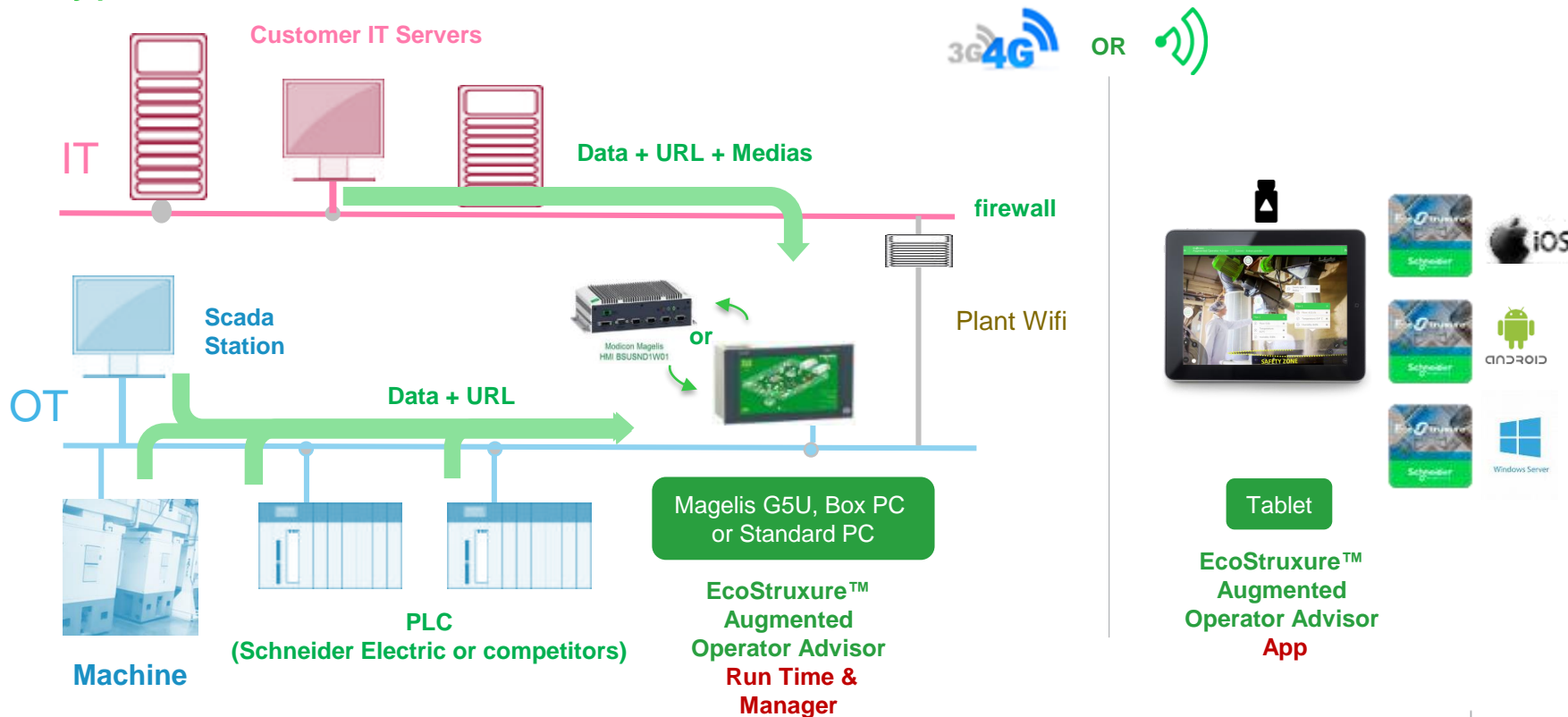• Different levels management, login and password access

Other feature: zoom a scene, freeze the image, favorites, highlight of defaults, demonstration mode, detection mode (tag or 2D image), procedures

"With **EcoStruxure™ Augmented Operator Advisor**, get ahead of your competitors"

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EcoStruxure™ Augmented Operator Advisor
Typical architecture

Customer IT Servers

3G 4G OR

IT

Data + URL + Medias

firewall

Plant Wifi

Scada Station

Modicon Magelis HMI BSUSND1W01

or

Data + URL

OT

Magelis G5U, Box PC or Standard PC

EcoStruxure™ Augmented Operator Advisor Run Time & Manager

PLC (Schneider Electric or competitors)

Machine

iOS

ANDROID

Windows Server

Tablet

EcoStruxure™ Augmented Operator Advisor App

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EcoStruxure™ Augmented Operator Advisor
Unique value proposition for end-user: customer benefits

This is my end-user, how can I improve the daily life of its plant?

✓ Improve the efficiency of day to day **operations** and **maintenance** by offering immediate access to relevant information in the field

✓ Reduce **the time and cost of operations and maintenance** by making process information available in real time on site outside the control room

✓ **Reduce operator errors**

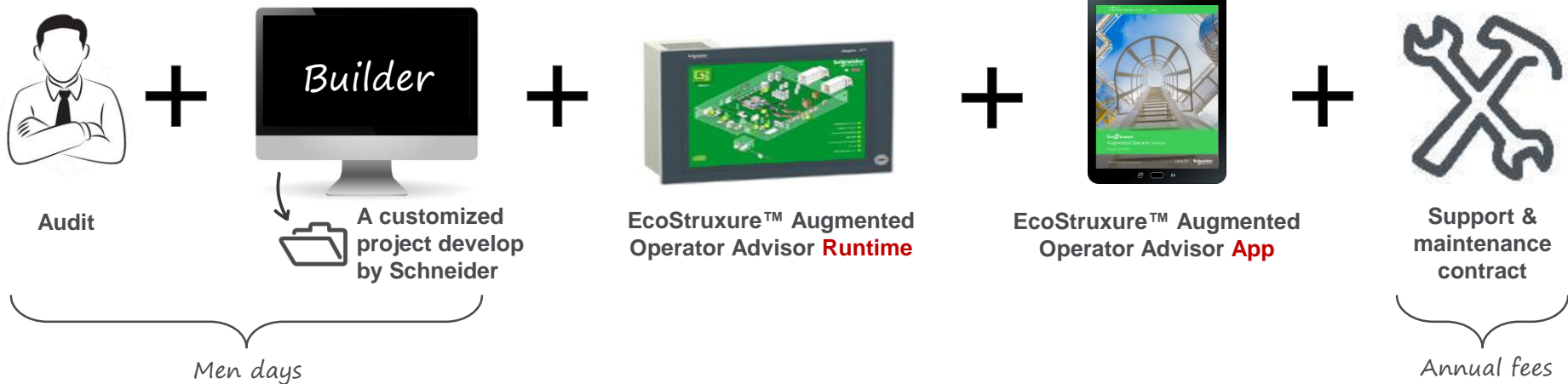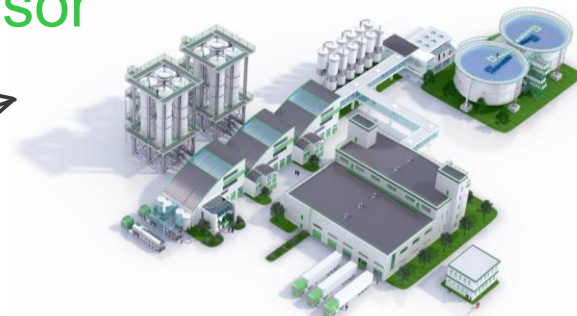**Reduce machine downtime**

Decrease search time information

Guided and facilitated interventions

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EcoStruxure™ Augmented Operator Advisor
Business model (x2)
Project Mode

Schneider Electric develops the customized projects for the customers

Audit

Builder

A customized project develop by Schneider

EcoStruxure™ Augmented Operator Advisor Runtime

EcoStruxure™ Augmented Operator Advisor App

Support & maintenance contract

Men days

Annual fees

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EcoStruxure™ Augmented Operator Advisor
Business model (x2)
Do It Yourself

Machine Builders subscribes to develop by themselves their projects
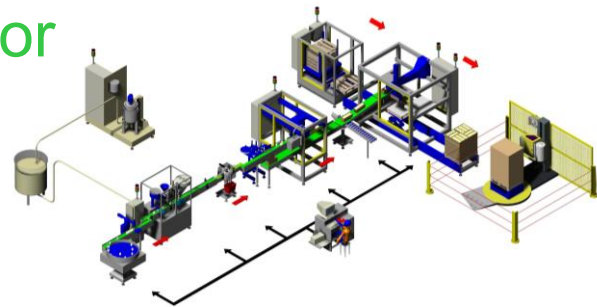
EcoStruxure™ Augmented Operator Advisor Builder

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Audit

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EcoStruxure™ Augmented Operator Advisor Runtime

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EcoStruxure™ Augmented Operator Advisor App

Training / Support for project development

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THANK YOU.

For more information please see:
https://www.schneider-electric.com/en/work/services/field-services/industrial-automation/performance-optimization-services/ecostruxure-augmented-operator-advisor.jsp

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