

A faint, light orange world map is centered in the background of the slide, showing the continents of North America, South America, Europe, Africa, Asia, and Australia.

TropicalTech

Top Pleasure

Top Technology

ROBOTIC | ELECTRICAL | DIGITALIZATION |

CONTROL SYSTEM | INTEGRATION | AUTOMATION | SECURITY(C) |

CRITICAL INFRASTRUCTURE & INDUSTRIE 4.0 PROVIDER

SEED OF ORIGIN

TropicalTech Company Limited (TPT) had established on 2006 under expertise and passionate automation engineers, TPT is the leading System Integrator (SI) as

**The Critical Infrastructure &
Industrie 4.0 Provider**

As slogan

“Top Pleasure Top Technology”



**TPT Aims to GIVE Technical-Technology
Knowledge of | RED-CIAs | So-Call
| Robotic | Electrical | Digitalization |
Control System | Integration | Automation |
Security (Cyber) | from Global Mega
Projects through Regional Projects around
Tropical Zones.**

The Benefit of GIVE is

**Growth, Innovation, Valuable, Entrepreneurship
to our clients and all stakeholder**



AREA OF EXPERTISES

This is 15 Domain Areas as below



PLATFORM
INDUSTRIE4.0



HEALTH CARE4.0
- Health Care & Medical Device

“TPT'S CAPABILITY”

DIGITALIZATION 4.0

- Smart Signage
- IIoT Devices

- ◆ Project Management , Consulting.
- ◆ Turn-key and Control System Integration.
- ◆ Engineering Design , Software Developed.
- ◆ Testing & Commissioning , Implementation.
- ◆ Troubleshooting , System Networking.
- ◆ On Job Training Service.
- ◆ Special Equipment Supply.
- ◆ Electrical Drawing / Panel Fabrication.
- ◆ Maintenance Agreement Service.
- ◆ Control & Automation Business Unit or Outsource Department.

“ TRUST ”

To be “Integrated” & “Delivery” the Services to The End User.

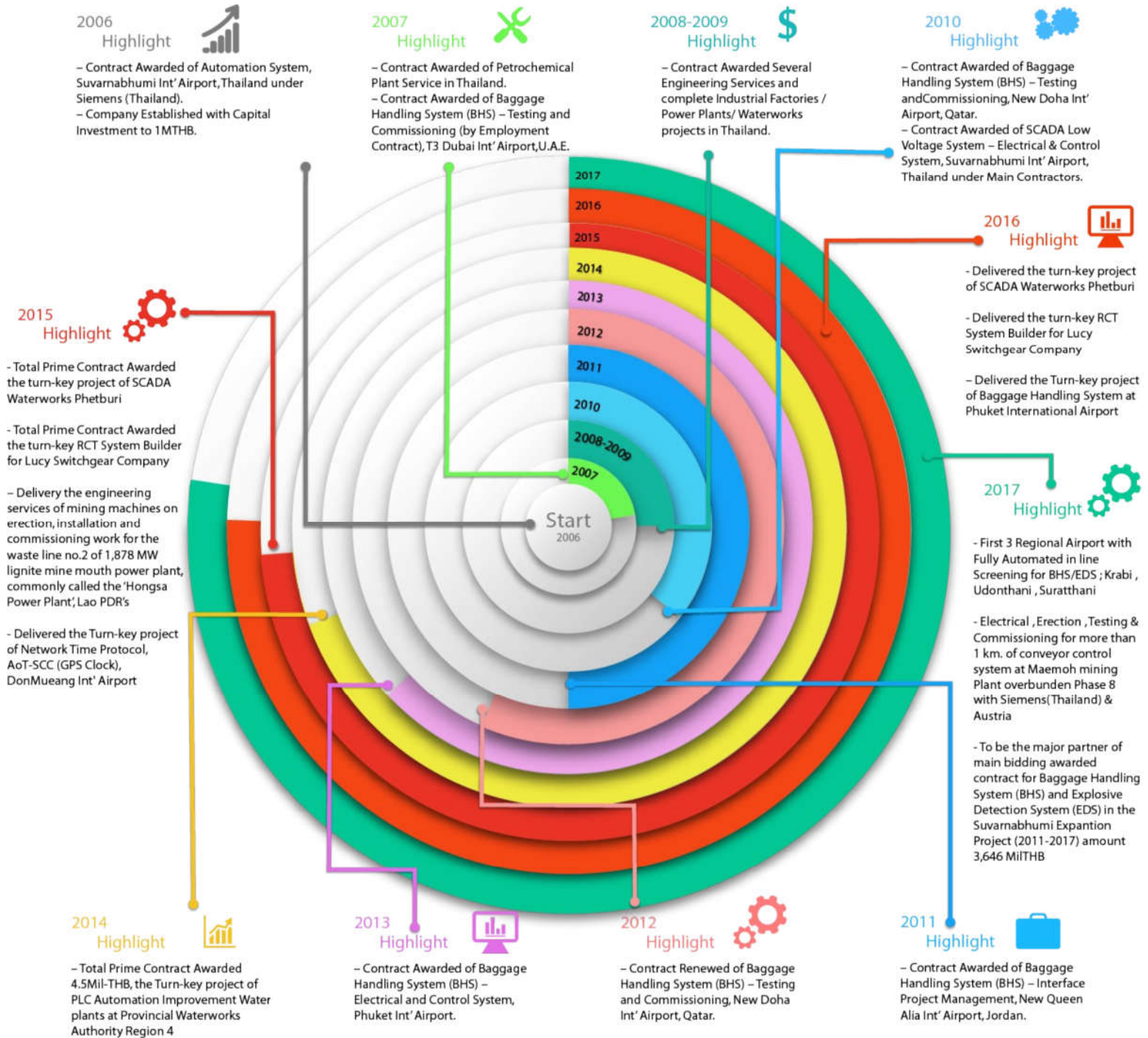


“ FREEDOM ”

To Integrate all products for your Machine's Brain.



Company Milestone



GLOBAL REFERENCES



Global References

1. Germany 
2. Romania 
3. Amman, Jordan 
4. Doha, Qatar 
5. Dubai, U.A.E. 
6. China 
7. Lao PDR 
8. Vietnam 
9. Malaysia 
10. Singapore 
11. Korea 
12. Sri Lanka 
13. Austria 
14. Ukraine 
15. Russia 

REGIONAL REFERENCES (THAILAND)

Region	Service Area
CENTRAL	
NORTHERN	
NORTH EAST	
EASTERN	
WESTERN	
SOUTHERN	





PROJECT REFERENCES

AIRPORT TECHNOLOGY



► Donmuang International Airport
Supply & Install Self Corrective
Clock System.

► Donmuang International Airport
Supply & Install Airfield Lighting
Control System



► Phuket International Airport
Installed LED-Board System.

► Hatyai International Airport
Installed LED-Board System.

► Chiangrai International Airport
Installed LED-Board System.



PROJECT REFERENCES

BAGGAGE HANDLING SYSTEM / CATERING.



► **Supply & Installation Electrical & Automation System included Interface & Integration**

- Phuket International Airport, Phuket, Thailand
- Dubai International Airport, Dubai, U.A.E.
- Doha International Airport, Doha, Qatar
- Queen Alia International Airport,
Amman, Jordan



► **Full Inline Screening BHS/EDS**

- Suratthani International Airport , Thailand
- Udonthani International Airport , Thailand
- Krabi International Airport , Thailand





PROJECT REFERENCES

WATER TREATMENT TECHNOLOGY

► Supply & Installation Electrical & Automation System

Metropolitan Waterworks Authority,

MWA: Bangkok, Thailand

Provincial Waterworks Authority,

PWA: All areas, Thailand

Royal Irrigation Department

RID: Flooding Solution, Thailand

Siemens Limited

Waterworks project, Bangkok and in Thailand.



PROJECT REFERENCES

WASTE WATER TREATMENT TECHNOLOGY

► Supply & Installation Electrical & Automation System

► Software Generator and Graphic User Interface work

Metropolitan Waterworks Authority,

WastWater - MWA: Bangkok, Thailand

Siemens Water Technology

WasteWater & Biogas : SMPC-Rayong,

DoubleA Ethanol – Prachinburi, Siam Michelin - Songkla

Ranhill – Malaysia Wastewater Treatment Company

Recovery Plant from Flood : AmataNakorn ,Chonburi.





PROJECT REFERENCES

ENERGY MANAGEMENT SYSTEM



► Supply & Installation Electrical & Automation System

Project References :

- EnCo : Energy Complex with Advance Building Automation System (A-BAS)
- Thai Health Promotion Organization : A-BAS
- Nongjok Futsal Stadium : Lighting Control System.
- Imperial Big C Ladprao : Energy Management System.
- Mit Phol Plant : Power Management System.

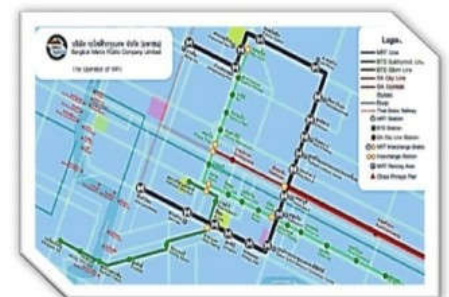


PROJECT REFERENCES

TRANSPORTATION & LOGISTICS

► Supply & Installation Electrical & Automation System

Coverage All Area of Expertise for this project
Tunnel Ventilation System (TVS)
Heating Ventilation Air Condition
HVAC Control System
Fire Alarm Fan Control System
Recovery /Upgrade Workstation Project
Advance Automation Training
Testing Commissioning and
Maintenance / Operation Supervision



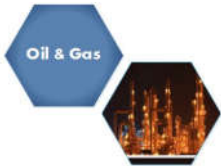


PROJECT REFERENCES

POWER PLANTS & MINING WORKS

➤ SCOPE OF WORK is

- To deliver the erection installation and commissioning work for mining waste line no.2 of 1,878 MW lignite mine mouth power plant, commonly called the 'Hongsa Power Plant'.
- Hongsa Power Plant will become Lao PDR's highest-capacity power plant, providing a sustainable source of energy for both Laos and Thailand.
- To deliver the erection installation and commissioning work for mining Mae Mo Power Plant at Lampang Thailand.



PROJECT REFERENCES

OIL & GAS TECHNOLOGY

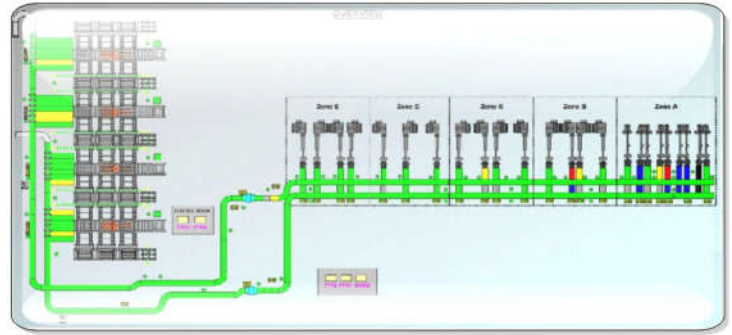


- **Oil & Gas Technology.**
 - ▶ PTT
 - ▶ Trans Thai Malaysia
- **Oil & Gas Technology.**
 - ▶ SIL Improvement Project.
 - ▶ Regeneration Station Chana, Songkla.
 - ▶ Well Trained on QAUDLOG.
- **Expertise for Thailand.**
 - ▶ Application: APAC+ /QUADLOG CONTROLLER.



PROJECT REFERENCES

FOODS & BEVERAGES



- ▶ **Automatic Robot Palletizer.**
- ▶ Turnkey : Electrical and Control system with fully automatic for common line project in Kraft foods (Modelez) , Khon Kaen Plant.
- ▶ Combine know transfer from Airport to Factory and Plant.
- ▶ Application



PROJECT REFERENCES

ROBOTICS & EMBEDDED SYSTEM



Project References :

MDLZ : Khonkaen

- ▶ Electrical , PLC Programing and HMI Programing

CPF : Bangkok

- ▶ Electrical , PLC Programing and HMI Programing





PROJECT REFERENCES

INDUSTRIAL SOLUTION



Project References :

RCT – Treatment Plant

- ▶ AEGIS Production Line, Lucy Electric, Rayong Thailand Turn-Key Project
- ▶ Fertilizer Production Line, ICP Fertilizer, Ayutthaya Thailand Design & Consultant



PROJECT REFERENCES

SAFETY SOLUTION

Scope of work :

- ▶ Install and Implement – TMSC
- ▶ Install and Implement – IAS
- ▶ Design System for PTT
- ▶ Design System for AGC
- ▶ Installation and Implement – TOCGC



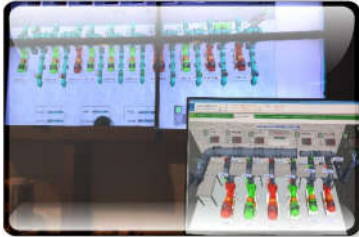


PROJECT REFERENCES

CENTRAL CONTROL ROOM / SCADA OPERATION CENTER

Project References :

- ▶ PWA2 : SCADA System Ayutthaya , Thailand
- ▶ PWA3 : Built new control room for SCADA System Phetburi , Thailand
- ▶ PWA4 : SCADA System in control room Chumporn , Thailand



PROJECT REFERENCES

EDUCATION & TRAINING COURSES

- ▶ Railway : Pilz demo railway
- ▶ Solar Lab : System Integrator and Software Analysis KMUTT University , Bangkok
- ▶ Pilz : Training product at Germany
- ▶ Vipa : Training new product





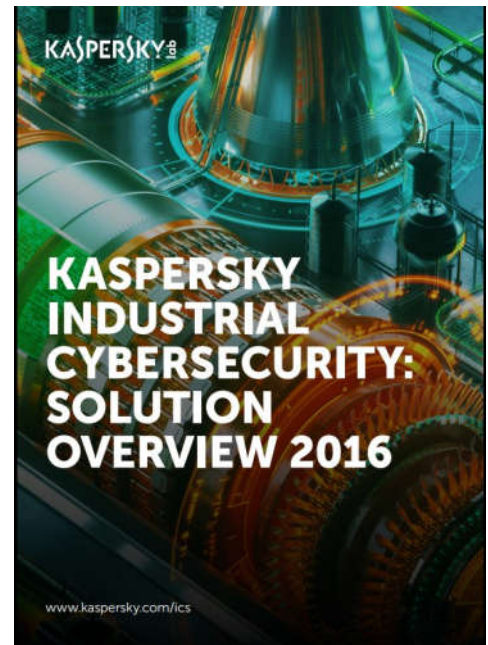
TOP TECHNOLOGY WITH KASPERSKY LAB



CRITICAL INFRASTRUCTURE &
INDUSTRIAL CYBERSECURITY
SOLUTION

As The APAC KICS Technology Partner

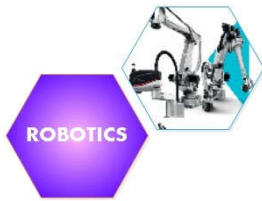
- ▶ APAC – Asia Pacific Kaspersky Industrial CyberSecurity (KICS) Leader for Critical ICS (Industrial Control System)
- ▶ Convergence of IT (Information Technology) & OT (Operational Technology)
- ▶ Advance Knowledge & Expertise from Global Player



THREAT LANDSCAPE

Privacy & data protection challenge
Increasing online commerce
Critical infrastructure at risk
Internet of Things
Big data
Fragmentation of the Internet
Consumerization & mobility
Cloud & virtualization

Merger of cybercrime and APTs
Supply chain attacks
Decreasing cost of APTs
Internet of Things
Targeting hotel networks
"Wipers" & cyber-sabotage
Financial phishing attacks
Targeted attacks
Malware for ATMs
Commercialization of APTs
Hacktivism
Massive data leaks
Cyber-mercenaries
Ransomware programs
Threats to Smart Cities
Online banking at risk



TOP TECHNOLOGY WITH COMAU ROBOTIC

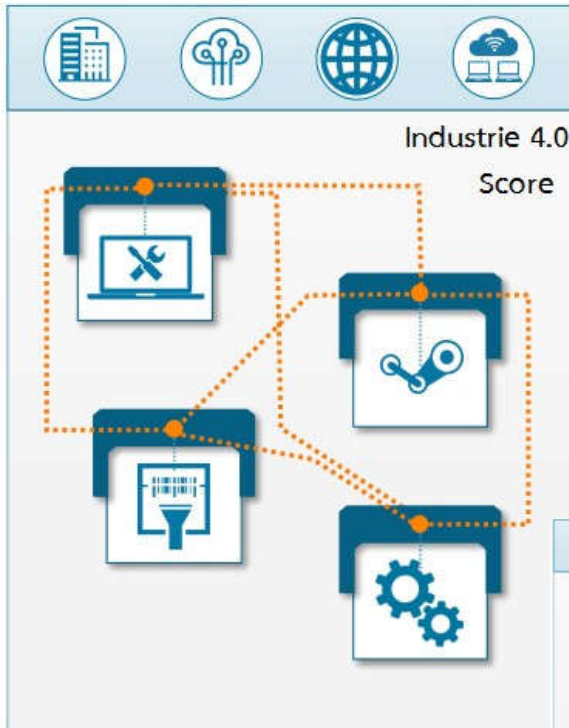
ROBOT DISTRIBUTOR : INDUSTRIALS – PROCESS – PALLETIZED SOLUTION



As The APAC Technology Partner

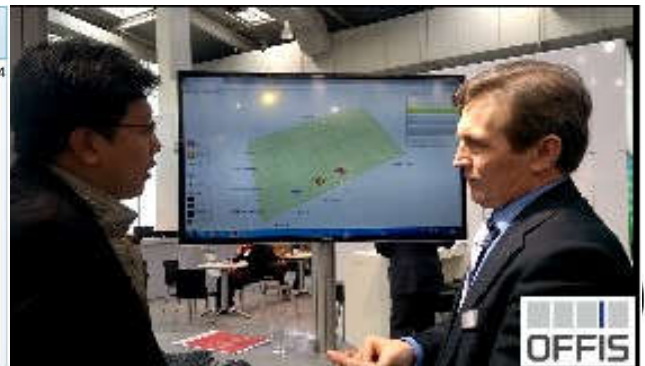
- ▶ APAC – Asia Pacific Leading Integrated Robotics for Automotive, Continuous Process & Industrial 4.0 Era
- ▶ Perfectly Synchronized with OpenROBOTICS Technology to your industrial control system





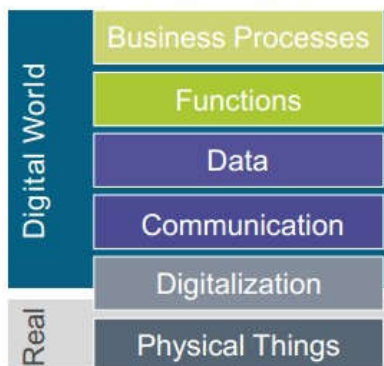
As is score I0.4 → To be score I4.0

- ▶ APAC – Asia Pacific Partner Industrie4.0 Platform (I4.0)
- ▶ Integrate RAMI4.0 Standard of Industrie4.0 Platform
- ▶ Advance Knowledge & Expertise RAMI4.0 tool for IIOT & Industrie4.0 Platform by R&D Division Offis, Germany
- ▶ Apply to be smart Factory & Plan Road Map with ROI

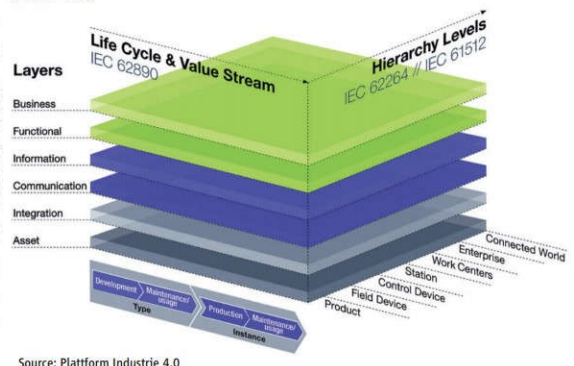


Reference Architectural Model Industrie 4.0 (RAMI 4.0)

Architecture



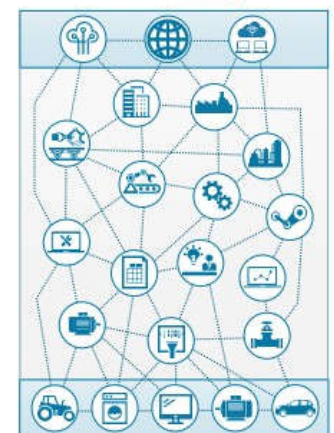
(RAMI 4.0)



Source: Plattform Industrie 4.0

Product Life Cycle

Hierarchy



Development, Production / Sales, Service

A Solution Space with a Coordinate System for Industrie 4.0

CLOUDCAST

SMART SIGNAGE SOLUTION

One-Stop Solution to find the Digital Signage Application



Ready in a flash

All your devices
share the same setting
Each new device
takes only minutes
to install.



Save Time and Energy

Why Setting
Thousands of Signage?
CLOUDCAST Controls
All Signage with
Simple Set-Ups
Wherever You Are



Quality Apps

Quickly add the
functions you need
from our ever-growing
library of apps



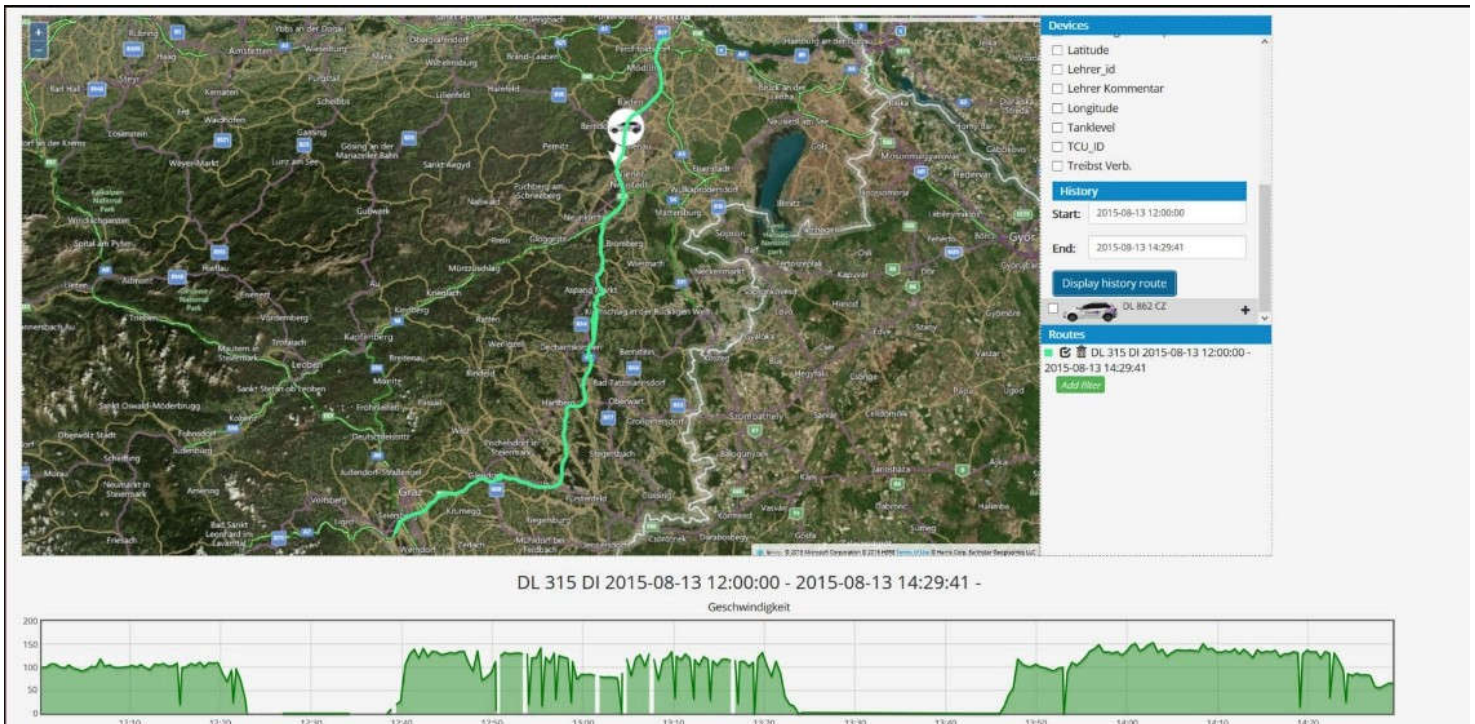
Don't Buy New Devices

CLOUDCAST works
with any display
with an HDMI port.
There's no need
to replace your
existing display.



Simple Connect with your Machines

- ▶ APAC – Asia Pacific Partner Industrial IoT Platform
- ▶ Integrate on Cloud, In-house Kit, Mobile App.
- ▶ No invest IoT licenses, be managed by monthly fee.
- ▶ Optional with Hardware IoT Control Units
- ▶ For smart Factory & Automated is embedded



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- Khon Kaen Province
- Phuket Province



—————| **ROBOTIC | ELECTRICAL | DIGITALIZATION |** ————
—————| **CONTROL SYSTEM | INTEGRATION | AUTOMATION | SECURITY(C) |** ————
—————| **CRITICAL INFRASTRUCTURE & INDUSTRIAL 4.0 PROVIDER** ————
—————| ————| ————| ————