MITSUBISHI ELECTRIC
Changes for the Better

Proof of Concept

Manufacturing industry customer PoC co-creation partner

・ Projects / Problems

Let's create the next 100 years together.

Mitsubishi Electric Nagoya Works

・ Startup exploration / Co-creation laboratory
・ FA product / Global service etc.

FA ∞ ?

MITSUBISHI ELECTRIC

realtime ROBOTICS

Startup company Realtime Robotics, Inc.

・ Original advanced technology / Deep tech

Open Innovation Department of Mitsubishi Electric's Nagoya Works has been engaging in open innovation activities with customers in the manufacturing industry since 2024, aiming to create new value in Monozukuri.

Become a PoC Co-Creation Partner

Mitsubishi Electric's Nagoya Works is working towards the realization of **"virtual commissioning"** by integrating **"digital"** and **"hardware"**.
Join us in our open innovation activities.

Do you have any of these problems?

We are strongly pressured to use virtual commissioning to meet strict delivery deadlines.

ROI is too low because "verification work" takes more time and cost than "rework".

Solve these problems through open innovation activities.

About RTR

What is Realtime Robotics, Inc. (RTR)?

RTR is a U.S.-based startup established in 2016, which possesses motion planning technology for multi-robot workcells.
It received investments from Mitsubishi Electric in 2019, 2022, and 2024.

What is motion planning technology?

A technology that calculates obstacle-avoiding trajectories and generates routes.
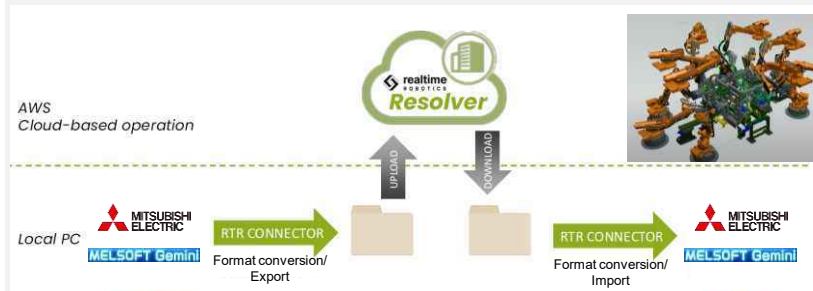
Existing problems/challenges

Industrial robot startup is inherently "highly difficult"

- Must meet collision-free and cycle time requirements
- Requires experts with experience and expertise
- Long startup time leads to high costs
- Potential bottlenecks for the overall production planning

Value provided by Resolver

Enables anyone to quickly create high-quality motion plans

- Interacts with existing SIM tools for easy operation
- Automatically performs calculations in the cloud during nights and weekends
- Optimizes various factors such as path and task order
- Achieves cycle times beyond expert capabilities

AWS Cloud-based operation

MITSUBISHI ELECTRIC — MELSOFT Gemini — RTR CONNECTOR — Format conversion/Export — Format conversion/Import — RTR CONNECTOR — MELSOFT Gemini — MITSUBISHI ELECTRIC

Local PC

Case example: Spot welding with 14 robots

|	Conventional: Expert technician	Resolver: Q2 2024	Resolver: Today
Method	Manual programming	Automatic calculation	Automatic calculation
Work hour	2 workers / 30 days	1 worker / 2 days	1 worker / Less than 1 day
Cycle time	53 sec	41 sec	35 sec or less

A case example of open innovation co-creation with RTR

HIRATA Corporation

We were astonished when "Resolver" instantly outperformed the C/T of an existing program optimized by skilled engineers.
Also, the training time was significantly reduced from four days to just two.

Mitsubishi Electric Gemini
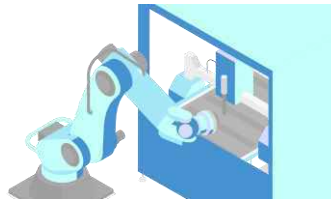**RTR Resolver**

Integrated solution
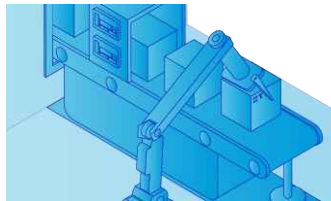
PoC co-creation: Improved by 10 % to 50 %

Before		After
Cycle time	Faster	Cycle time
15.1 sec		13.1 sec

Mitsubishi Electric CNC
RTR Resolver

Integrated solution

PoC co-creation: Improved by 10 % to 30 %

Before		After
Cycle time	Faster	Cycle time
41.3 sec		33.9 sec

Mitsubishi Electric PLC
RTR RapidPlan

Integrated solution
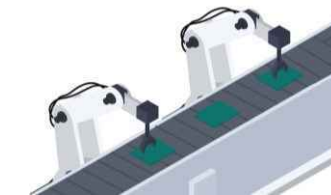
PoC co-creation: Certified CC-Link IE Field Basic

Before		After
Cycle time	Faster	Cycle time
●●sec		●●sec

If you are looking for a new business challenge or having any problems, please contact us.

Join us as we promote open innovation to solve your problems.

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Contact	Realtime Robotics, Inc.

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