

ROSCon2023

Intel® Robotics SDK for Industrial Applications

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Agenda

Intel® Robotics SDK Overview

Key Ingredients

Software Architecture

Demo videos

Call to Action

QnA

Intel® Robotics SDK Overview

01

Modular Software

02

E2E solution from
Robot to Edge

03

Implement once
& deploy across
various HW
configs

04

Flexible SW
releases variants

- Docker containers
- Debian packages

Key Ingredients

Foundational Software

- Complete Reference Stack based on Opensource SW
- ROS2 Humble
- Communication infrastructure
- IO-Drivers / Low Level

Optimized Libs & Algos

- Collaborative Visual-SLAM
- ADBSCAN
- Optimized modules for PCL
- Fast-Mapping
- ITS Planner

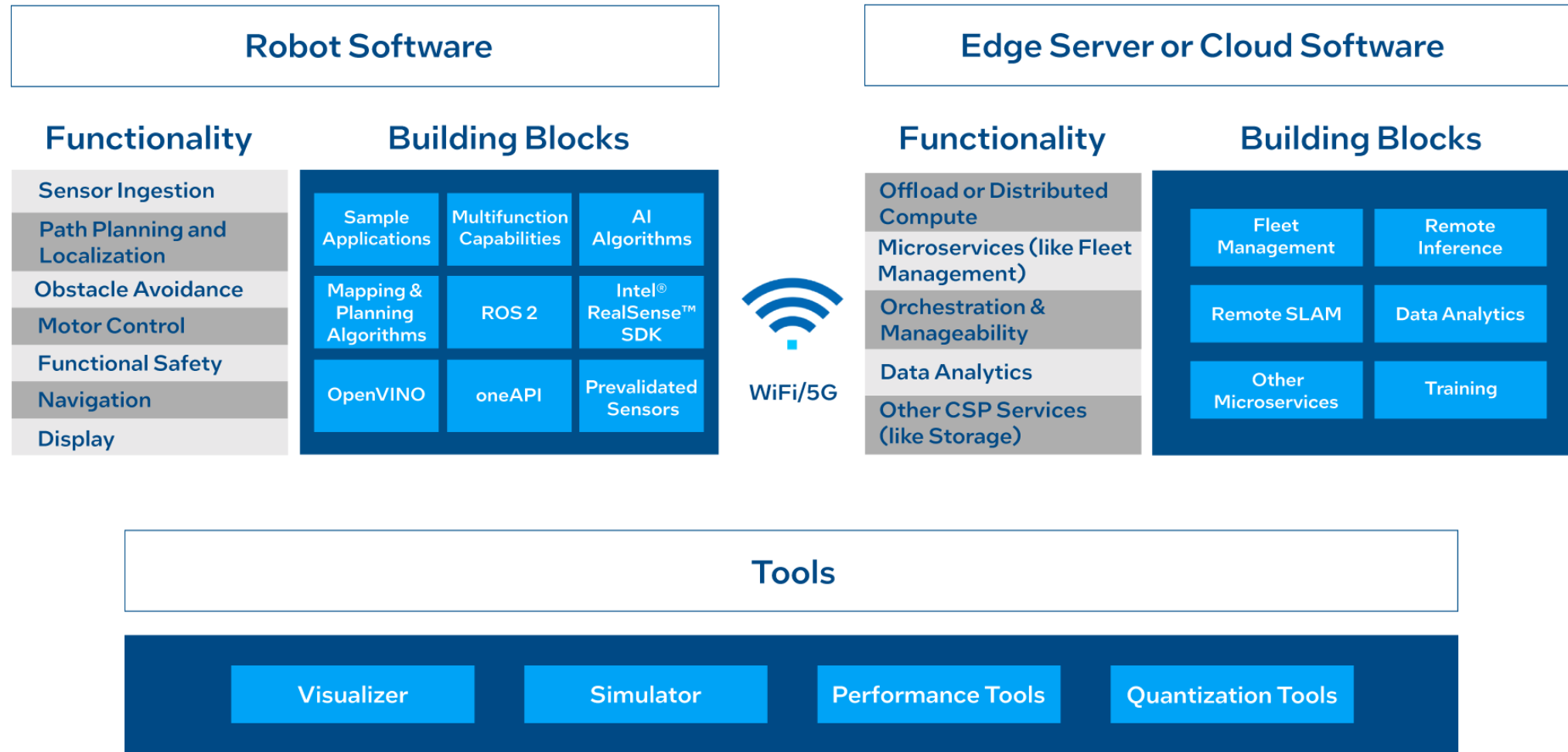
Development Tools

- Intel® OpenVINO™ Tools
- Intel® OneAPI™ Tools
- Visualization Tools

Sample Applications

- Wandering Application
- Object Detection AI application
- Follow-Me Application
- Secure Device Onboarding

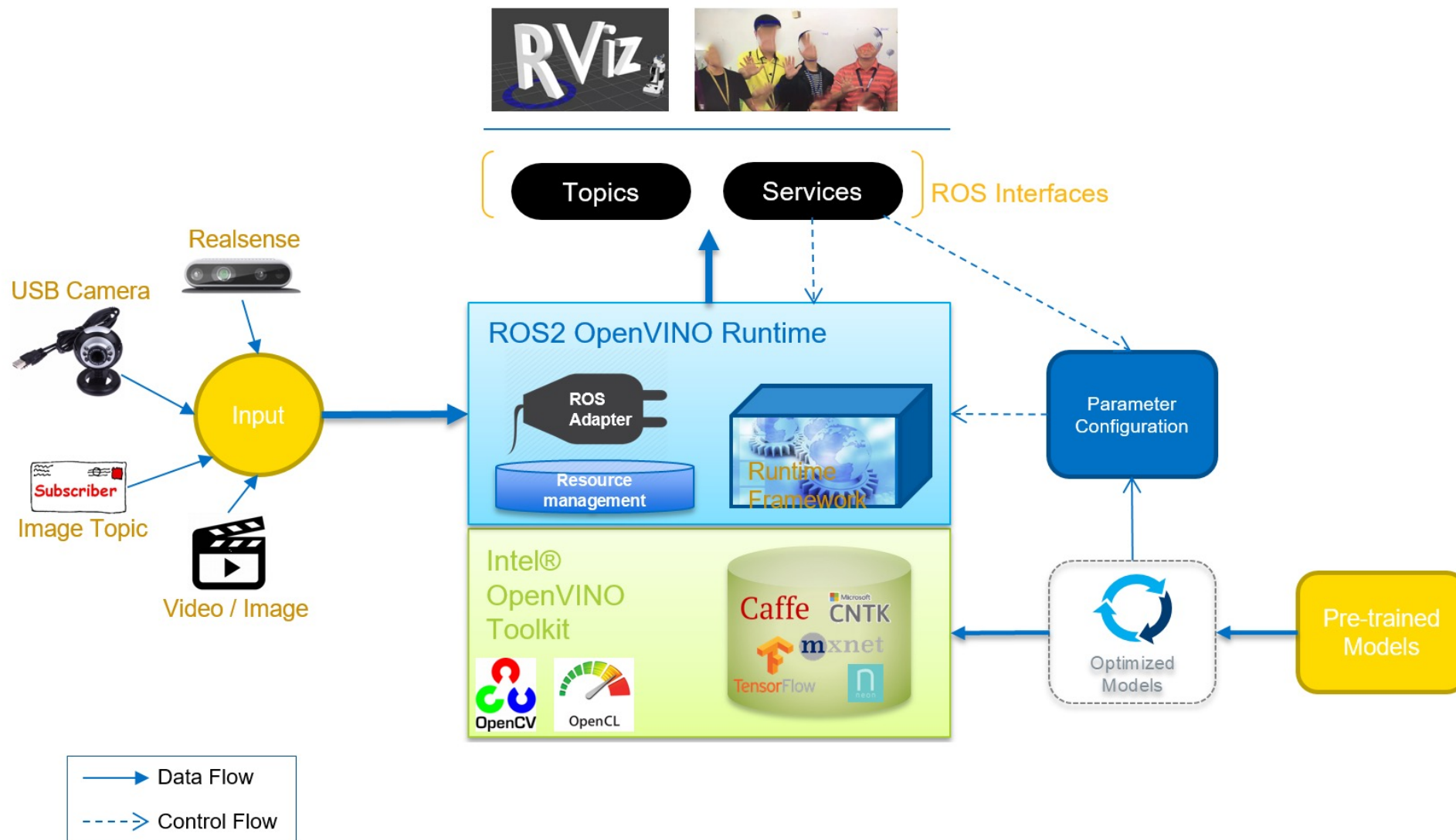
Software Architecture



CSP = Cloud Service Provider

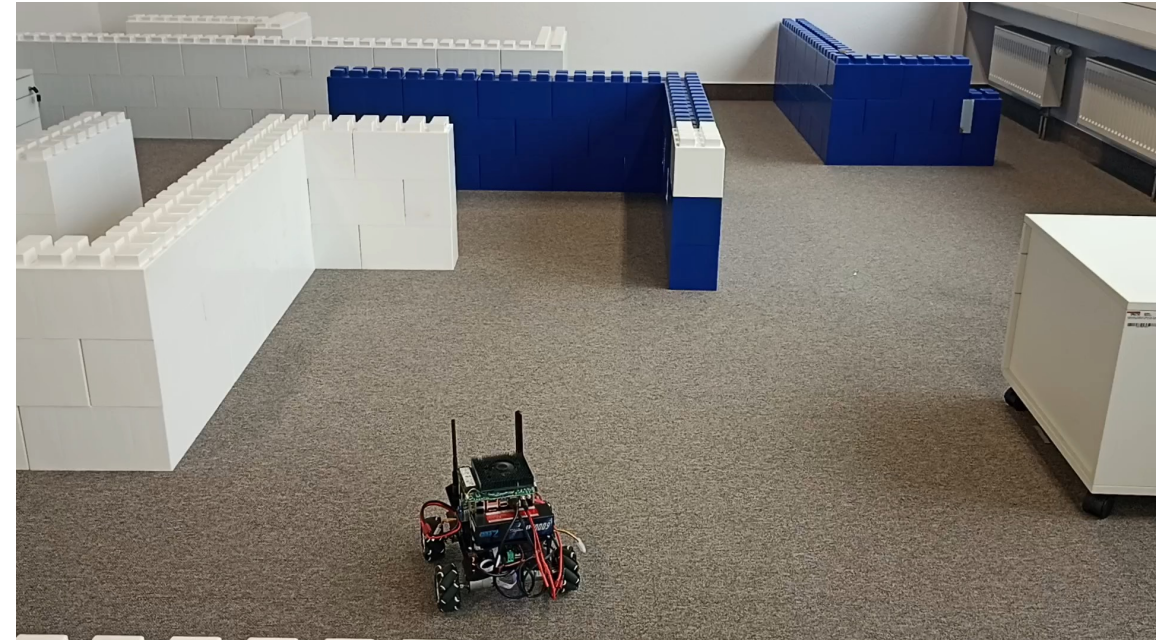
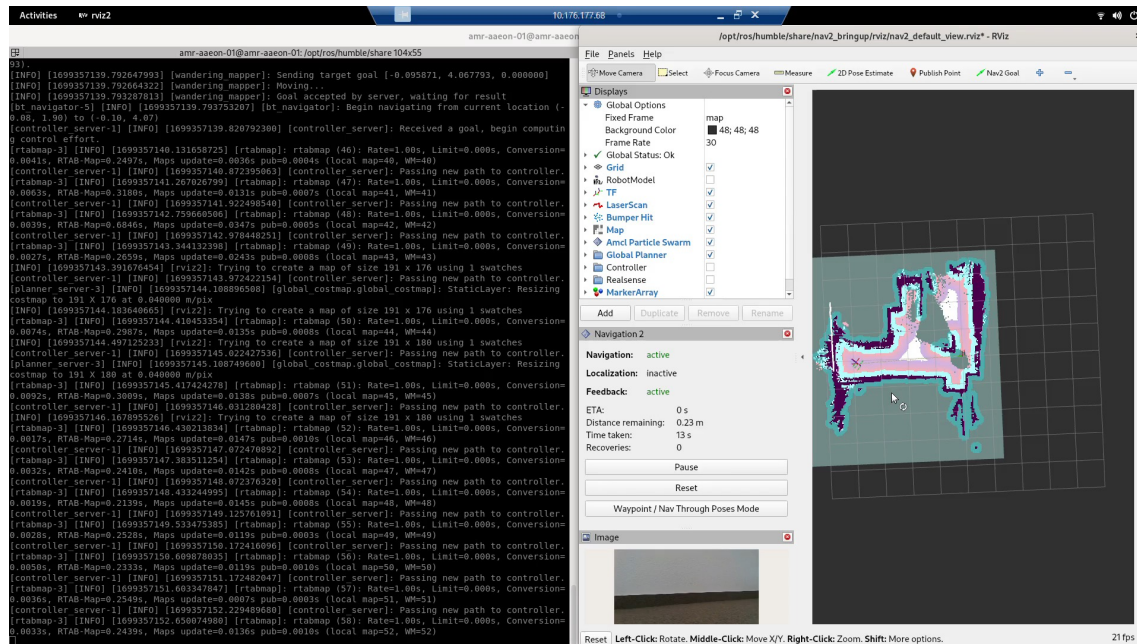
ROS2 OpenVINO™ Toolkit

https://github.com/intel/ros2_openvino_toolkit



Demo Videos

Wandering App – Autonomous Exploration & Mapping Application



Call to Action

- Download Intel® Robotics SDK
 - intel.com/robotics
- Intel® Edge Software Community
 - amrdocs.intel.com
- Intel® Robotics SDK offers easy-to-use building blocks for all kinds of industrial solutions

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