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WEB SERVICE LAYER
THE NEXT GENERATION DIGITAL FRONTIER

FEELING OVERWHELMED BY TECH BUZZWORDS? OUR WEB-ORIENTED SERVICE SUITE BRINGS TOGETHER THE LATEST TECHNOLOGIES AND KEEPS OUR INDUSTRY PARTNERS AHEAD OF COMPETITION.

Web, 6G, IoT, cloud computing, big data, autonomous robotics, machine learning… they are heard over and over again. Although they seem complicated and mysterious at first sight, we strive to deliver their benefits to end-users in a human-friendly and natural way.

INDUSTRY 4.0 MADE SIMPLE

The Web Service Layer provided by Fraunhofer CML is designed to deal with complex robotic systems. Even when there are multiple operators simultaneously controlling multiple robotic systems remotely, the integrity and traceability of data are guaranteed through the authentication and access control mechanism. For safety critical components such as unmanned vehicles, our live monitoring and control overriding capabilities provide managers with more options in handling potentially hazardous situations.

YOUR DATA, YOUR FATE

Sensoric data is a key aspect of any system. Besides the traceability and integrity during data generation and transmission, we also support the visualization and postprocessing of your valuable data.

For example, interactive maps and mission replay help users intuitively understand the big picture of an ongoing mission instantly; graph and report generators help managers to communicate the results in a succinct and informative manner.

ANYWHERE, ANYTIME

Being web-oriented implies the Web Service Layer is accessible by virtually any device. Save yourself the future hassle and contact us for a more comprehensive view today!
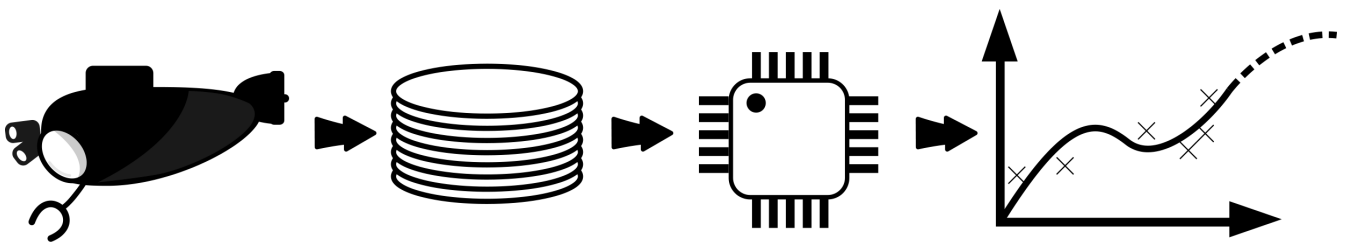
FEATURES
OF WEB SERVICE LAYER

WE OFFER AN EXTENSIVE RANGE OF MODULES AND SERVICES THAT CAN BE CUSTOMIZED TO SUIT YOUR EMERGING NEEDS.

- Data Processing and Analytics
- Media Streaming and Content Delivery
- Traffic Monitoring System

- End-to-End Encryption
- Web-based Remote Control
- Browser-oriented Interface

- Mission System
- User Management System

and many more...

USE CASES

See how our web services turn visions into realities:

WWW.RAPID2020.EU

The RAPID project deploys aerial drones carried by surface vessels in remote areas for inspections. We provide a mission control center and traffic management system.

The project leading to this application has received funding from European Union's Horizon 2020 research and innovation programme under grant agreement No. 861211.

WWW.SCIPPERPROJECT.EU

The SCIPPER project focuses on air emissions data collection, monitoring, and detection system. We provide live monitoring, emission violation detection system, and data analytics based on machine learning.

The project leading to this application has received funding from European Union's Horizon 2020 research and innovation programme under grant agreement No. 814893.

WWW.MARTERA.EU/PROJECTS/ROBOVAAS

The RoboVaaS project utilizes underwater and surface vehicles for surveying operations. We provide a user management system and mission management.

RoboVaaS is funded by the MarTERA partners German Federal Ministry of Economic Affairs and Energy (BMWi), Italian Ministry of Education, Universities and Research (MIUR) and Irish Marine Institue (MI) and co-funded by the European Union.

WWW.SEACLEAR-PROJECT.EU

The SeaClear project collects debris from oceans through collaborative efforts of underwater, surface, and aerial robots. We provide live monitoring, mission control, and robotic remote control.

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 871295.

TECH STACK

Our work leverages mature open-source software, providing long term stability and excellent support.

- NodeJS
- Nginx
- Janus Gateway
- ReactJS
- Linux
- Gstreamer
- HTML5
- Selenium
- RabbitMQ
- PostgreSQL

The WebUI is part of our efforts to realize the potential of Robots as a Service (RaaS). To know more, check out our brochures on "Robots as a Service" and on our modular hardware development platform "SeaML".