Snap4City/Industry a FIWARE based platform for Industry-City Integration

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Industry Plant Supervision and Maintenance

Aims

○ **Control Room**: Higher level supervision and monitoring (since 2020)
  - Management of Production Plan *Optimization*
  - Control of Perimeter with drone and sensors

○ **Maintenance ticketing** (since 2017)
  - *predictive* (in deploy)
  - 3D Digital Twin (in development)
Snap4City/Industry IoT Apps

- Integration
  - Connection with Brokers, GWs, External services
- Data Driven Processing
- Data Analytics Management
- Smart City API
  - Search, discovering
  - Routing, Picking
- Dashboard Business logic
- Workflow, Digital Twin
- Management
- Scheduling
- ...etc...
Snap4City Libraries of MicroServices on Node-RED
Real Time Dashboard with Synoptics

Snap4City Dashboard Builder
Digital Twin Local, 3D vs Real Time Data
Digital Twin Local, 3D vs Real Time Data

BIM Integration for Digital Twin

Device List:
- ALTAIR Admin Office
- Altair Production Line

Selector: Map

BIM View

Valve 786 with trend

Last Value
- 17557.00
- 10k
- 17k

Time Trend Chart: total_read - 6 months

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FIWARE

SNAP4CITY
Snap4City is a FIWARE enabled solution as

- **ORION Context Broker** is central on Snap4City/Industry Solutions.

- **ORION** enables the interoperability of the ingestion of data coming from the:
  - Field: robots, sensors/actuators
  - Control Systems: DCS, SCADA, ..
  - IoT App:
    - on IoT Edge and on Cloud/containers
    - on user interface as decisions taken
    - Taking results from Data Analytics
Snap4City is a FIWARE enabled solution as

- **Snap4City/Industry** solution has been used in a number of installations
  - With ORION FIWARE in all cases
  - on premise/on cloud
  - OnLine development environment with low or No-coding

- **Snap4City/Industry** provides an easy way to develop complex smart solutions including
  - Interoperability with almost any protocol and format
  - Dashboards: widgets data driven, Synoptics, visual analytics
  - Uniform visual programming language for ingestion, data transformation, integration, business logic:
    - IoT App = Node-RED + Snap4City Libraries
    - Smart data transformation in real time, even driven
  - Data Analytics in Python, Rstudio, etc.
To know more: the training course

https://www.snap4city.org/577

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FIWARE

SNAP4CITY
THANK YOU!

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