

Arrowhead Framework development coordination: 181113

Agenda

- 1) Productive workshop Bilbao
Agenda
 - 2) Interoperability BaSys
 - 3) Service naming convention, Cristina
 - 4) Security analysis, Adi
 - 5) Interoperability with FiWare, Jens
 - 6) Documentation system, Michelle
 - 7) SysML modelling of Arrowhead Framework
 - 8) Workflow execution, Felix
 - 9) Conferences
 - 10) Walk through of Core services
ServiceRegistry, v4.1 Csaba
Orchestration, v4.1 Csaba
Authorisation, v4.1 Csaba
CredentialAuthority, v4.0 Csaba
- DataManager, v4.0 Jens
EventHandler, v4.1 Csaba
Translation, v4.0 Hasan/Jaime
QoS, v4.1 Michele/Luis
Gatekeeper, v4.1 Csaba
Gateway, v4.1 Csaba
PlantDescription, Jaime
Configuration, Emanuel
WorkflowManager v4.0 Jaime
Choreography, Csaba
SystemRegistry, DeviceRegistry, On-boarding
procedure, v4.1 Ani/Silia
SmartServiceAgreement, Ulf/Emanuel
Safety Manager, Mirren/Daniela
Self Adaptability security, Markus
Integration to legacy systems, Mario
Consumer code generation, Cristina
Autonomic orchestration/configuration, An
Modbus TCP, Nadin/Cristian
PLC 61499 integration, Jose,
Docker containers, Haris

Agenda

11) Application
Energy forecast, Thomas
Semiconductior equipment integration, Francois + Agileo
Smart parking, Haris

12) SoS integration of core systems: verification, Hans

13) AoB

MoM

In Arrowhead Framework wiki, git repository

[10_Meetings/Core_system_development/181002/
AF_development_coordination.xlsx](#)

A photograph of a modern industrial factory floor. Several large, articulated yellow robotic arms are positioned at various stations along a conveyor belt system. The ceiling is filled with an intricate network of white steel beams, pipes, and overhead lighting fixtures. In the background, there are tall white walls with windows and some industrial equipment. The overall atmosphere is clean and high-tech.

Productive 4.0

WP1 architecture workshop - draft v0.5

Bilbao, 27-29/11 2018

Mondragon Univeristy

Workshop objective

Specifications and implementations of ICT architecture addressing Productive4.0 requirements regarding optimised supply chain management covering the entire product lifecycle

Arrowhead Framework v4.0 core services, v4.2 developments

Architecture integration hands-on WS with WP2, 3, 8 and 9

Standardisation, Governance, Dissemination

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Agenda - draft v0.3

- Dag 1: Architecture developments
- Day 2: Architecture usage - use case implementations hands-on workshop
- Day 3: Dissemination, Security, Governance, Standardisation

Day 1

9.00 Welcome and introduction, Jerker and Mirren

9.10 WP1-WP9 interaction

- Use case presentation and usage of architecture

10.00 Core systems at v4.0 - 4.2 - 10min per core sys

- ServiceRegistry, Csaba (AITIA), Jens (LTU)
- Authorisation, Csaba (AITIA), Kiran/Jan (LTU)
- Orchestration, Csaba (AITIA)
- Gatekeeper, Csaba (AITIA)
- Gateway, Csaba (AITIA)
- Translation, Jaime/Jerker (LTU)
- DataManager, Jens (LTU)
- EventHandler, Csaba (AITIA)
- QoS, Michele/Luis (ISEP)

Coffe 30 min

12.45 Core system candidates - 15min per core sys

- WorkflowManager and WorkflowExecutor, Jaime (LTU)
- SmartServiceBroker, Emanuel (LTU)
- On-boarding procedure, Silia/Ani (FHB)
- SystemRegistry and DeviceRegistry, Silia/Ani (FHB)

13.00 - 14.00 Lunch

- Configuration, Jamie, Emanuel (LTU)

▪ PlantDescription, Jaime, (LTU)

▪ Translation - semantics, Jacob (LTU)

▪ Re-orchestration, An (HIOF)

▪ Self Adaptability security, Markus/Ani/Silia (FHB)

▪ CredentialAuthority, Gabor/Csaba

▪ OPC-UA translation, Jerker

▪ FiWare translation, Jens/Jerker

▪ 5G integration, Ericsson?

15.30 Tools - 15 min per tool

- Docker containers, Harris
- Debian installation, Thomas
- Consumercode Generation, Cristina (LTU)
- Test tool, Fredrik (BnearIT)
- Sandboxing tool, Fredrik (BnearIT)
- SecurityManagement, Kiran/Jan
- Modus TCP integration, TWT????
- PLC integration, Jose (Fortis)

18.00 Closing

Evening - Joint social event - Guggenheim

Day 2

- 9.00 Hands on workshop - Training
 - Local cloud installation, Harris and Thomas, (30 min)
 - Application producer system design and implementation, Csaba (1.5h)
 - Application consumer system design and implementation, Cristina, (1h)
 - Usage of Translation system, Jaime (30 min)
- 12.30 - 13.30 Lunch
 - Concept for legacy system integration and first software implementations, Mario, (45 min)
 - Development tools - Fredrik/Hans BnearIT, (45 min)
- 15.30 Break-out sessions - 1 or 2h
 - SafetyManager, Daniela, Mirren
 - System modeling and documentation, Jan/Michelle/Oystein
- SmartServiceBroker, Emanuel and Ulf
- WorkflowManagement, Felix
- Semantics interoperability, Jacob/Fredrik
- ??
- 17.30 Feedback from break outs
- 18.00 Closing of the day
- Joint Social event - dinner

Day 3

9.00 Governance

- Arrowhead Framework -> Eclipse project, Jerker

9.30 Architecture security report, Adi

10.30 Standardisation, Erwin/Oystein

11.00 Dissemination, Jerker

- 2019
 - Productive4.0 conference March 12-14, Budapest
 - IEEE ICPS Taiwan, SS, Tutorial
 - IEEE INDIN, SS
 - IEEE EFTA,
 - IEEE IECON, SS
- HIPEAC
- Special issue: IEEE Industrial Informatics?, mdpi/
- 2020
 - IEEE ICPS Tampere - June Final project conference
 - SS, Tutorial, Sommerschool (EIT ICT/ Manufacturing-KICK project?)
- 12.00 Next WP1 workshop,
 - Gothenburg, June 11-13, 2019
 - Location TBD, Sept 17-19, 2019
- 12.30 Closing WP1 workshop
- 14.30 PMT meeting