

Biweekly architecture coordination meeting

Productive4.0, Arrowhead Framework

Agenda

1. Arrowhead Framework summer school
2. Productive4.0 WP1 working site
3. Calendar for WP1
4. Porto workshop
5. AoB

Arrowhead Framework summer school

Aug 16 - Aug 24

Objective

Provide the foundations for IoT automation and introduction to the Arrowhead Framework properties and core systems. Leading to capabilities of designing and implementing Arrowhead Framework compliant service.

Format

6 x 2-3 hour lectures: Aug 16 - Aug 24

location Luleå, LTU premises

Assignments (mostly intended for students wanting ECTS points)

Design - documentation

Implementation - working code

Test - passing Arrowhead Framework compliance test

Teachers

Prof. Jerker Delsing, Lulea University of Technology

Fredrik Blomstedt, BnearIT

Literature

IoT Automation - Arrowhead Framework Ed Jerker Delsing
CRC Press 2017:

[https://www.crcpress.com/IoT-Automation-Arrowhead-Framework/
Delsing/p/book/9781498756754](https://www.crcpress.com/IoT-Automation-Arrowhead-Framework/Delsing/p/book/9781498756754)

Lectures will cover chapter 1-6 of the book

Arrowhead Framework wiki:

[https://forge.soa4d.org/plugins/mediawiki/wiki/arrowhead-f/
index.php/Main_Page](https://forge.soa4d.org/plugins/mediawiki/wiki/arrowhead-f/index.php/Main_Page)

For code and examples

Schedule

Wednesday Aug 16, 13.00-16:

Lecture: Introduction to IoT automation and outlook

Thursday Aug 17, 9-12: Local clouds

Monday Aug 21, 9-12:

Arrowhead Framework architecture

Tuesday Aug 22, 9-12:

Arrowhead Framework core systems and services

Wednesday Aug 23, 9-12:

Application system and services: Design and implementation: A cookbook

Thursday Aug 24, 9-12: Engineering of IoT automation

For those attending remotely the webex link is:

Wednesday Aug 16 13-16: <https://meetings.webex.com/collabs/#/meetings/detail?uuid=M5UKK75E0Y0D5Z0VD7E0TPUSRL-6CWH&rnd=316779.69459>

Thursday Aug 17, 9-12: <https://meetings.webex.com/collabs/#/meetings/detail?uuid=ICEMF5GVT0JR8QJ0R567WBLIVQ-6CWH&rnd=37535.561073>

Monday Aug 21, 9-12: <https://meetings.webex.com/collabs/#/meetings/detail?uuid=I52JBU5GKFPPC3NKGQ3K1Z6ZLA-6CWH&rnd=501989.41295>

Tuesday Aug 22, 9-12: <https://meetings.webex.com/collabs/#/meetings/detail?uuid=I42NDRLB13NAZR7NG7A8SCJ2X5-6CWH&rnd=479075.81320>

Wednesday Aug 23, 9-12 <https://meetings.webex.com/collabs/#/meetings/detail?uuid=IA5QIWD44C4P73TEFMQSS6N53A-6CWH&rnd=724154.92793>

Thursday Aug 24, 9-12 <https://meetings.webex.com/collabs/#/meetings/detail?uuid=I4U2WPTNB8Q55KU0DOPKETZ4HZ-6CWH&rnd=746697.77105>

Lecture material is currently made available in the WP1 development site

<https://forge.soa4d.org/projects/p40wp1/>

WP1/T1.1_Other WP Interaction/Summer_school/2017/Lectures/

Development site for Productive4.0 WP1

Basic user start instructions

The project receives grants from the European H2020 research and innovation programme,
ECSEL Joint Undertaking, and National Funding Authorities from 19 involved countries under
grant agreement no. GAP-737459 - 999978918.



WP1 project tool

1. The Fusion Forge tool

Productive4.0 WP1 uses <https://forge.soa4d.org/>. It is a tool containing a GIT repository for file storing and code development, e-mailing lists, forums, tracker etc. which are used by the project. How to access the tool, including e-mail lists, is described in the following slides.

1.1.Document repository

The common GIT document repository is located in the Fusion Forge tool.

1.2.E-mailing lists


E-mailing lists are located in https://forge.soa4d.org/mail/?group_id=64. All persons working in WP1 shall subscribe to the list p40wp1-general@forge.soa4d.org and all other applicable lists.

Development site <https://forge.soa4d.org/>

1. Create account
2. E-mail your request to be a “User of the Arrowhead project “ including your real name and your chosen account username, to: jerker.delsing@itu.se
Needed since the project is private and only consortia member should have access.
3. You will be granted access to the development site, most often within 24 hours.
4. View through the browser, access through a client of your choice, e.g. “TortoiseSVN”. Suggestions for other git tools can be found at: <http://git-scm.com/>

Repository

1. Create Account (if not already done)



Log In | [New Account](#)

Projects

Search

Home

My Page

Projects

Code Snippets

Project Openings

The SOA4D Forge is the support site for both developers and users of the SOA4D technologies. SOA4D (Service-Oriented Architecture for Devices) is an open-source initiative aiming at fostering an ecosystem for the development of service-oriented software components (SOAP messaging, WS-* protocols, service orchestration...) adapted to the specific constraints of embedded devices. The forge is powered by the GForge package and provides access to Subversion repositories, mailing lists, bug tracking, message boards, etc., through an easy-to-use Web interface. The list of current hosted projects is available in the right panel of this page.

Registration

While the site can be browsed freely and anonymously, you will only be able to benefit fully as a user or developer if you [register](#). Becoming a registered site user will allow you for instance to post questions to message boards or

SOA4D Forge Statistics



Hosted Projects: **16**

Registered Users: **966**

Top Project Downloads

| | |
|-------|--|
| 4,200 | DPWS Core |
| 2,015 | DPWS Test Tools |
| 1,401 | DPWS4J Core |
| 832 | DPWS User Tools |
| 598 | WS-Management for DPWS |
| 475 | SOA4D Maven Repository |
| 267 | WS-Management for DPWS4J |
| 194 | OSGI DPWS Base Driver |

[All the ranking](#)

Development site

2. E-mail your request to be a “User of the Productive4.0 WP1 project “ including your real name and your chosen account username, to:
jerker.delsing@ltu.se
3. You will be granted access to the Productive4.0 WP1 project.

4.1 Login Chose the Productive4.0 WP1 project

The screenshot displays the FusionForge web interface. At the top, the FusionForge logo is on the left, and 'Log Out (Jerker Delsing) | My Account' is on the right. Below the header is a navigation bar with tabs: Home, My Page (selected), Projects, Code Snippets, Project Openings, Site Admin, and Reporting. A 'Quick Jump To...' dropdown and a 'Projects' dropdown with a search box are also present. Below the navigation bar, there are buttons for 'My Personal Page', 'My Trackers Dashboard', 'My Account', and 'Register Project'. The main content area is divided into two sections: 'My Projects' and 'My Artifacts'. The 'My Projects' section shows a list of projects with a trash icon next to each. The 'My Artifacts' section shows a message: 'You have no artifacts'.

FusionForge Log Out (Jerker Delsing) | My Account

Quick Jump To... Projects Search

Home My Page Projects Code Snippets Project Openings Site Admin Reporting

My Personal Page My Trackers Dashboard My Account Register Project

Add widgets Customize Layout

My Projects rss

- AESOP (Contributor) (*)
- Arrowhead [Admin] (Admin) (*)
- Arrowhead CAPTION [Admin] (Admin) (*)
- Arrowhead Framework [Admin] (admin)
- ECOLATS [Admin] (Admin) (*)
- P40_WP1 [Admin] (Admin) (*)
- Productive4.0 WP1 [Admin] (Admin) (*)**

(*) Private project

My Artifacts Preferences

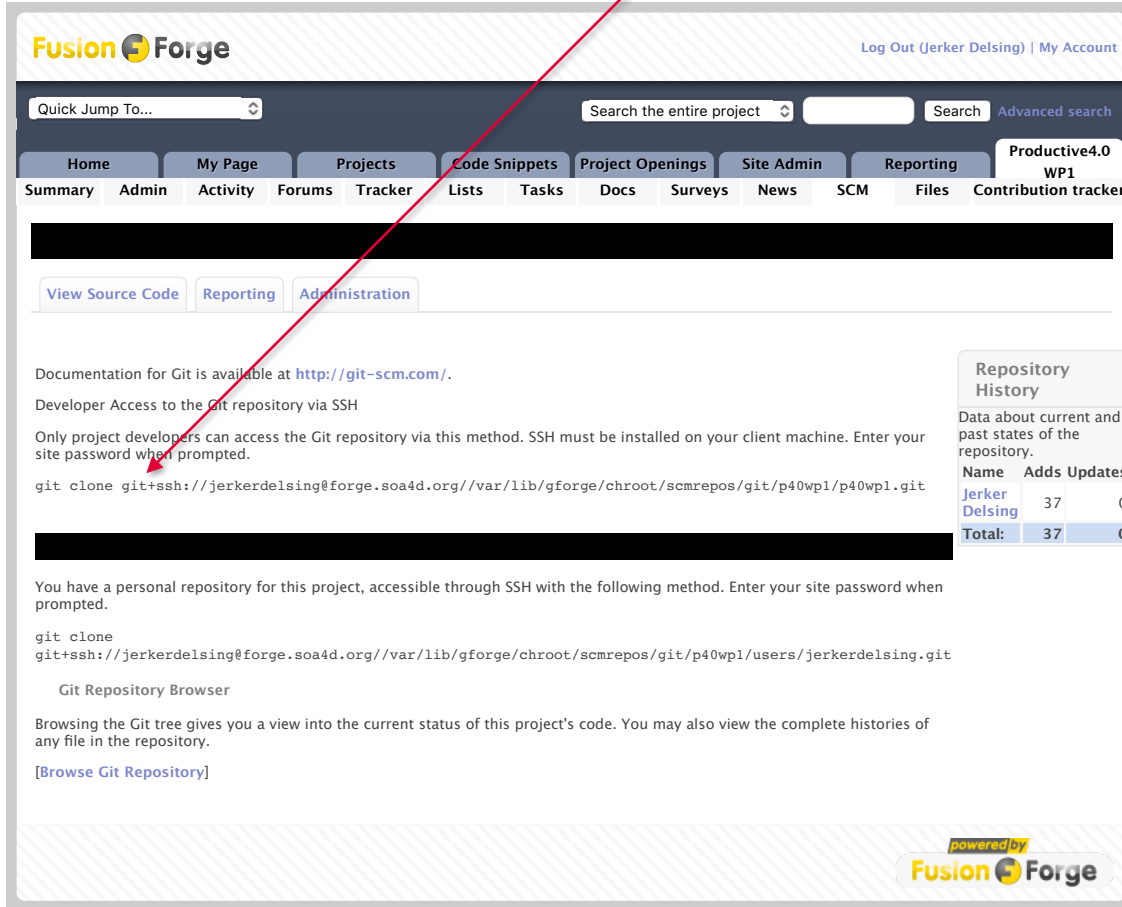
You have no artifacts

Repository

4.2 View GIT repository

Productive 4.0

The screenshot shows the FusionForge web interface for the 'Productive4.0 WP1' project. The top navigation bar includes links for 'Home', 'My Page', 'Projects', 'Code', 'Project', 'Site Admin', 'Reporting', and 'Productive4.0 WP1'. Below this, a secondary navigation bar contains tabs for 'Summary', 'Admin', 'Activity', 'Forums', 'Tracker', 'Lists', 'Tasks', 'Docs', 'Surveys', 'News', 'SCM', 'Files', and 'Contribution tracker'. A red arrow points from the section header '4.2 View GIT repository' to the 'SCM' tab. The main content area displays the 'Project description' and 'Project Information' sections. The 'Project description' section states: 'Developers site for Productive4.0 WP1. Will host activities on architecture and core component developments.' The 'Project Information' section states: 'This project has not yet categorized itself in the [Trove Software Map](#)'. It also shows the registration date '2017-06-21 10:21', activity ranking '1', and links to 'View project [Statistics](#) or [Activity](#)'. At the bottom, there is a link to 'View list of [RSS feeds](#) available for this project.' with an RSS icon. On the right side, the 'Project Members' section lists 'Project Admins' with usernames [jerkerdelsing](#), [bitfbt](#), and [andreasnilsson](#), and a link to 'View the 3 Member(s)'. The bottom right corner features logos for 'ECSEL JU' and the European Union flag.



FusionForge Log Out (Jerker Delsing) | My Account

Quick Jump To... Search the entire project Search Advanced search

Home My Page Projects Code Snippets Project Openings Site Admin Reporting **Productive4.0 WP1**

Summary Admin Activity Forums Tracker Lists Tasks Docs Surveys News SCM Files Contribution tracker

View Source Code Reporting Administration

Documentation for Git is available at <http://git-scm.com/>.

Developer Access to the Git repository via SSH

Only project developers can access the Git repository via this method. SSH must be installed on your client machine. Enter your site password when prompted.

```
git clone git+ssh://jerkerdelsing@forge.soa4d.org//var/lib/gforge/chroot/scmrepos/git/p40wp1/p40wp1.git
```

You have a personal repository for this project, accessible through SSH with the following method. Enter your site password when prompted.

```
git clone
git+ssh://jerkerdelsing@forge.soa4d.org//var/lib/gforge/chroot/scmrepos/git/p40wp1/users/jerkerdelsing.git
```

Git Repository Browser

Browsing the Git tree gives you a view into the current status of this project's code. You may also view the complete histories of any file in the repository.

[\[Browse Git Repository\]](#)

Repository History

Data about current and past states of the repository.

| Name | Adds | Updates |
|----------------|------|---------|
| Jerker Delsing | 37 | 0 |
| Total: | 37 | 0 |

powered by **FusionForge**

Repository

- GIT desktop tools, please consult this page for suggestions <http://git-scm.com/>
 - Personally I use SourceTree or command line on my Mac.
 - Other tested tools are

Mailing lists

- There are 6 mailing lists for WP
 - WP1 general
 - Task 1.1
 - Task 1.2
 - Task 1.3
 - Task 1.4
 - Task 1.5
- Subscribe to those of interest to you. It is expected that all WP1 members subscribe to the WP1 general list.
- Subscribing instruction on next slides. Subscription will be granted most often within 24 hours.

5.1 Mail lists, subscribe




P40wp1-task11 -- Task 1.1 mailing list

About P40wp1-task11

English (USA)

To see the collection of prior postings to the list, visit the [P40wp1-task11 Archives](#). (The current archive is only available to the list members.)

Using P40wp1-task11

To post a message to all the list members, send email to p40wp1-task11@forge.soa4d.org.

You can subscribe to the list, or change your existing subscription, in the sections below.

Subscribing to P40wp1-task11

Subscribe to P40wp1-task11 by filling out the following form. You will be sent email requesting confirmation, to prevent others from gratuitously subscribing you. Once confirmation is received, your request will be held for approval by the list moderator. You will be notified of the moderator's decision by email. This is also a private list, which means that the list of members is not available to non-members.

Your email address:

Your name (optional):

You may enter a privacy password below. This provides only mild security, but should prevent others from messing with your subscription. **Do not use a valuable password** as it will occasionally be emailed back to you in cleartext.

If you choose not to enter a password, one will be automatically generated for you, and it will be sent to you once you've confirmed your subscription. You can always request a mail-back of your password when you edit your personal options.

Pick a password:

Reenter password to confirm:

Productive4.0 Calendar

WP Calender info
WP1/Common_WP1_info/Calender
owncloud (added by Infineon)

Porto workshop

The project receives grants from the European H2020 research and innovation programme,
ECSEL Joint Undertaking, and National Funding Authorities from 19 involved countries under
grant agreement no. GAP-737459 - 999978918.



WP1 Architecture workshop

170831-0901

Cister, Porto, Portugal

Author

Jerker Delsing, LTU

46706261931

jerker.delsing@ltu.se

The project receives grants from the European H2020 research and innovation programme,
ECSEL Joint Undertaking, and National Funding Authorities from 19 involved countries under
grant agreement no. GAP-737459 - 999978918.



Agenda draft v0.2

Thursday Aug 31

8.30 Welcome, Luis Ferreira and Jerker Delsing

8.45 Architecture requirements, Oystein Haugen
Current stated requirements and input from participants

9.45 Architecture base line: Arrowhead Framework, Jerker Delsing

10.30 Coffe

11.00 Architecture base line and v4.0 specifications, Jerker and Pal

13.00 Lunch

Agenda draft v0.2

Day 1 - Thursday Aug 31

14.00 Breakout sessions including afternoon coffee

1) Mandatory core services, v4.0 specifications: Jerker and Pal

ServiceRegistry: Jerker

Orchestration: Csaba

Authorisation: Jens

2) Support services, current status and upcoming services, Fredrik and Hasan

Historian, Jens (10min)

Translation, Hasan (10min)

QoS, Michelle (10min)

Eventhandler, Michelle (10min)

Gatekeeper, Csaba/Pal (10min)

PlantDescription, Hasan (10min)

Configuration, Hasan (10min)

SystemRegistry, Device Registry, Jerker/Hasan (10min)

Upcoming service, approx 15.30

Smart Service contracts, Ulf

Anomaly detection, Fredrik,

.....

27

18.00 Closure of day 1

Agenda draft v0.2

Friday Sept 1

8.30 Report from break out sessions, Jerker/Pal and Fredrik/Hasan

9.30 Next steps, open discussion, Jerker

10.30 Coffe

11.00 Compatibility of application services with core services, Fredrik

11.30 Standardisation efforts, Hasan

12.00 Closing of Workshop, Luis