
## Motivation

The data exchange is a critical bottleneck in all phases of plant engineering which reduces the efficiency of the planning and the consistency of the planning data due to a lack of consistency. While the lossless neutral data exchange is already state of the art, it is still not established within plant engineering.

The AutomationML e.V. addresses this issue with the data exchange format AutomationML in order to reduce the expensive and error-prone multiple creation of planning data, to avoid redundancies of planning data, to merge related planning data, and to optimize the data exchange.

## Date

When: **October 14th/15th, 2015**
Where: **Fraunhofer IOSB, Karlsruhe**
Fraunhofer Straße 1
76131 Karlsruhe
Germany

Participation fee:
- 100 Euro (plus 19 % VAT)

Application deadline: September 18th, 2015


## Requirements

To make the developers workshop as effectively as possible we request the following requirements of the participants

You are:
- tool developer,
- have basic knowledge about the implemented or to be implemented interface,
- and bring your engineering tool to the PlugFest,
- which internal data interfaces are accessible for you?

You have installed the development environment MS Visual Studio (at least 2012) on your workstation.

In that case we are looking forward to your registration.

## Contact

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# Invitation to the 3rd AutomationML PlugFest 2015

The AutomationML e.V. invites you from October 14th to 15th, 2015 to the third PlugFest. The motto is:

**„Developers workshop – Tool test and integration“**

The aim of the PlugFest is to impart practical knowledge for a successful implementation of AutomationML interfaces and to improve the trust in existing implementations.

Currently, AutomationML is the comprehensive approach to establish a consistent data exchange between tools of the plant engineering with the aim to increase the planning efficiency and quality for discrete manufacturing industry as well as process industry.

The AutomationML e.V. consists of companies like Daimler, ABB, Siemens, KUKA und Volkswagen AG and a large number of further companies and leading research institutes.


## This awaits you:

At the third PlugFest you have the opportunity to test resp. to implement AutomationML interfaces among other tool developers.
Thereby, the program contains:

- specialized lectures to the concepts of and to the implementation with the data exchange format AutomationML,
- interface programming and test on site,
- support by the AutomationML experts,
- networking while having dinner together.

Form your own opinion. Use the direct contact to the members of the AutomationML e.V. as well as to the other participants. We guarantee enough time for contacts and conversations and ensure a pleasant atmosphere during the whole event.

We are looking forward to be able to welcome you in Karlsruhe and to address the subject data exchange in a heterogeneous tool landscape with you. Your feedback is always welcomed.

The program for both days is shown in the following figure.

**You can find further information on our web page: www.automationml.org**

## Day 1: October 14th, 2015; 9:00-18:00

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|---|---|---|---|---|
| 9:00-10:00 | Reception, presentation of the agenda | | Arndt Lüder, Otto-von-Guericke University Magdeburg | |
| **Track 1 – Lecture series** | | | **Track 2, 3 – Expert panel A, B** | |
| 10:00-12:00 | Introduction to the architecture | Rainer Drath, *ABB AG* | 10:00-12:00 | In two rooms developers can come together and share their experiences about CAEX, COLLADA, and PLCopen XML.<br>This means in detail:<br>• Exchange files<br>• Test interfaces<br>• Solve problems systematically (also together with the AutomationML experts)<br>• Discuss<br>• etc. |
| | Data modelling with AutomationML: Understand, structure, and classify data | Björn Grimm, *Daimler AG* | | |
| | Data modelling with AutomationML: Mapping of data into the data exchange format AutomationML | Arndt Lüder, *Otto-von-Guericke University Magdeburg* | | |
| | Admission ticket: What does an engineering tool need to have? Criteria for openness | Rainer Drath, *ABB AG* | | |
| 12:00 | Lunch | | | |
| **Track 1 – Guided programming workshop** | | | **Track 2, 3 – Expert panel A, B** | |
| 13:00-16:45 | Introduction to the programming of CAEX, programming with the AutomationML Engine 3.1 | Rainer Drath, *ABB AG*, Josef Prinz, *inpro mbH* | | |
| **Track 1 – Success stories** | | | 13:00-18:00 | Continuation of CAEX, COLLADA, and PLCopen XML discussions. |
| 16:45-18:00 | Smart Engineering Production 4.0 – AML in use as digital production description resp. as virtual prototype | Olaf Graeser, *Phoenix Contact GmbH & Co. KG* | | |
| | Secure Plug & Work | Miriam Schleipen, *Fraunhofer IOSB* | | |
| | MoMo – Mobile Monitoring and smart data analysis based on open standards | Miriam Schleipen, *Fraunhofer IOSB* | | |
| | PCFF (Plug&Control for flexible material handling) | Michael Okon, Robert Henßen, *Fraunhofer IOSB* | | |
| | Implementation of an AML interface in AVANTI project | Ender Yemenicioglu, *tarakos GmbH* | | |
| | Engineering data management with the AML Hub | Stefan Biffl, *TU Wien* | | |
| | Engineering data management with the NAMUR Container | Rainer Drath, *ABB AG* | | |
| 19:00 | Dinner | | | |

## Day 2: October 15th, 2015; 9:00-16:00

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|---|---|---|---|---|---|
| **Track 1 – Lecture series** | | | **Track 2, 3 - Expert panel A, B** | | |
| 09:00-11:00 | Plugin development for the AML Editor | Josef Prinz, *inpro mbH* | 09:00-15:00 | In two rooms developers can come together and share their experiences about CAEX, COLLADA, and PLCopen XML.<br>This means in detail:<br>• Exchange files<br>• Test interfaces<br>• Solve problems systematically (also together with the AutomationML experts)<br>• Discuss<br>• etc. | |
| | Creation of COLLADA files | Ender Yemenicioglu, *tarakos GmbH* | | | |
| | Presentation and programming with a Java Engine | Ronald Rosendahl, *Otto-von-Guericke University Magdeburg* | | | |
| | Dealing with semantics in a heterogenous tool landscape | Rainer Drath, *ABB AG* | | | |
| | Example: Creation of a role class library for material handling | Ender Yemenicioglu, *tarakos GmbH* | | | |
| **Track 1 – Guided programming workshop** | | | | **Track 4 – Interactive lectures** | |
| 11:00-15:00 | Continuation of the guided programming of Day 1 | Rainer Drath, *ABB AG*, Josef Prinz, *inpro mbH* | | 11:00-15:00 | Modelling and consistency check of multi-variant AML models with Eclipse — Sven Kägebein, *inpro mbH* |
| 12:00 | Lunch | | | | |
| | | | | | AMLHub - Data management in AutomationML projects — Stefan Biffl, Richard Mordinyi, Stefan Scheiber, *TU Wien* |
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| | | | | | AMLPedia: the AutomationML web data browser — Fajar Ekaputra, Olga Kovalenko, *TU Wien* |
| 15:00-16:00 | Discussion, feedback, conclusion | Arndt Lüder, Otto-von-Guericke University Magdeburg | | | |