International Workshop on **Challenges in methodology, representation, and tooling for automotive embedded systems** - Organized by the projects AMALTHEA, MAENAD, SAFE, TIMMO-2-USE

Berlin (Germany)
24.09.2012 – 25.09.2012

Workshop Goals

The goal of the workshop is to present results and plans from the projects AMALTHEA, MAENAD, SAFE and TIMMO-2-USE to an interested audience. The projects will explain the challenges addressed and the solutions provided in the areas of methodology, representation and tooling.
At the end of the workshop the views of the projects should be aligned and possible cooperation's be defined.

The projects

AMALTHEA's topic is "Development of an open source tool platform for model based development of automotive multi core system". AMALTHEA is an ITEA2 project with 15 partners from Finland, Germany, and Turkey. The project is funded by the national agencies (http://www.itea2.org/project/index/view/?project=10015).

MAENAD is the abbreviation for "Model-based Analysis & Engineering of Novel Architectures for Dependable Electric Vehicles". MAENAD is an FP7 project funded by the European Commission with participants from Finland, France, Germany, Italy, Sweden and the UK (www.maenad.eu).

SAFE stands for "Safe Automotive software architecture". It is an ITEA2 project with 18 partners from France, Germany, and Austria. The project is funded by the national agencies (www.safe-project.eu).

TIMMO-2-USE means "TIMing MOdel – TOols, algorithms, languages, methodology, and USE cases" which summarizes the main objectives of the project. TIMMO-2-USE is an ITEA2 project with 17 partners from France, Germany, Sweden and the UK. The project is funded by the national agencies (timmo-2-use.org).

Organizational Data

The workshop takes place in Berlin in the hotel:

Angleterrre Hotel,
Friedrichstrasse 31, 10969 Berlin

Registration by E-mail at
amstregistration@maenad.eu
is mandatory before 31.07.2012.

The participation fee for each participant is
76 .50€,
to be paid directly at the hotel reception. The participation fee includes

- Participation at the workshop presentations and the tool demonstration session for the two days.
- Drinks and coffee break on the 24.09 afternoon; drinks, coffee breaks and an international lunch buffet on the 25.09.

The hotel reserved a room contingent with an overnight price of 99€. The contingent is reserved until 24.08.2012. Please use the keyword "autoWS" in your reservation at

- Central Reservation; Tel.: +49 30 20213-300; E-Mail: Angleterre@gold-inn.de

Workshop Contacts

Registration: amstregistration@maenad.eu

AMALTHEA: Karlheinz Topp, Robert Bosch; karlheinz.topp@de.bosch.com

MEANAD: Henrik Lönn, Volvo Technology; henrik.lonn@volvo.com

SAFE: Stefan Voget, Continental; stefan.voget@continental-corporation.com

TIMMO-2-USE: Daniel Karlsson, Volvo Technology; daniel.b.karlsson@volvo.com

Program Monday, 24.09.2012

Time	Topic	Presenter
13.00	Welcome and introduction	Karlheinz Topp
13.15	MAENAD	Henrik Lönn
13.45	TIMMO-2-USE	Daniel Karlsson
14.15	SAFE	Stefan Voget
14.45	AMALTHEA	Karlheinz Topp Harald Mackamul
15.15	Tool demo introduction	Daniel Karlsson
15.30	Tool demos and coffee	
	MetaEdit+ EAST-ADL Editor	Metacase
	AutoFocus3	Fortiss
	PREEVision	Vector /Aquintos
	Pure Variants	Pure Systems
	Brake By Wire validator	Volvo
	Timing-aware AUTOSAR system design	DSpace
	Typical case Analysis in TIMMO-2-USE	TU Braunschweig
	Timing Modelling and Analysis	TimingArchitects
	Requirements Engineering	Itemis
	SystemWeaver EAST-ADL Editor	Systemite
	SymTA/S	Symtavision
	aiT Worst-Case Execution Time Analysis	AbsInt
	INCHRON Tool-Suite	INCHRON
	TimeAnalyzer Presenter	TimeCriticalNetworks
	Restbus Simulation with SystemC	University of Paderborn
	Papyrus EAST-ADL Editor and AR Gateway	CEA
17:00	Wrap Up	Daniel Karlsson
17.15	End day 1	

Program Tuesday, 25.09.2012

Time	Topic	Presenter
09.00	Welcome	Henrik Lönn
09:10 10:00	Methodology 1. Introduction 2. Generic Methodology Pattern – Theory and application to timing and safety use cases 3. Requirements Management in the Design Flow	1. H. Lönn (Volvo) 2. S. Kuntz (Continental) 3. M. Kelanti (University of Oulu)
10.30	Break	
11.00 11:15 11:40 12:05	Representation 1. Introduction 2. EAST-ADL Meta-model 3. Model based development for functional safety 4. Modeling timing constraints, parameterized and multi clock systems in TADL2	1. H. Blom (Volvo) 2. M.-O. Reiser (TU Berlin) 3. P. Cuenot (Continental), T. Peikenkamp (OFFIS) 4. Johan Nordlander (Chalmers), M.A. Peraldi-Frati (INRIA)
12.30	Lunch	
14.00 14:20 14:40 15:10	Tooling 1. AMALTHEA Tool Platform Architecture 2. EAST-ADL tool platform - EATOP 3. Target Mapping in a multi-core environment 4. TIMMO-2-USE tool-map: algorithms and tools in use	1. H. Mackamul (Bosch) 2. M.-O. Reiser (TU Berlin), S. Voget (Continental) 3. B. Igel, E. Kamsties (University of Dortmund) 4. A. Monot (INRIA)
15.30	Future Cafe Phase 1: Group work	Stefan Voget
16.15	Future Café Phase 2: Collect results	D. Karlsson, H. Lönn, K. Topp, S. Voget
17.00	End of workshop	