Year 3 Review
Brussels, February 24th, 2011

Achievements and Perspectives :

Spreading Excellence

leader : Bruno Bouyssounouse

UJF/Verimag Laboratory

Main Highlights in Y3

ARTIST Summer School in Europe 2010 - 6th edition

- high quality technical programme, excellent feedback from participants
- 100 selected participants and 14 invited speakers.

International ARTIST Summer School in China 2010 – 5th edition

International ARTIST Summer School in South America 2010 – 4th edition

International Summer School in Rabat, Morocco 2010

Graduate Schools:

- **ARTIST Graduate School on RT Kernels for Microcontrollers**
  June 14-18, 2010 Scuola Superiore Sant'Anna - Pisa, Italy
- **ARTIST Graduate Course: Automated Formal Methods for Embedded Systems – 2010**
  June 14-22, 2010 DTU - Lyngby, Denmark
- **Quantitative Model Checking 2010**
  March 2-5, 2010 IT University Copenhagen, Denmark

Conferences support for CPS Week, ES Week, FORMATS, MEMOCODE, DATE, EuroSys

ARTIST Workshops

Synchron, UML&FM, WSS, WESE, WFCD, FIT, WCET, OSPERT, HW Platforms and MPSoC Technical Meeting, Mapping Applications to MPSoCs, SCOPES, GREEMBED, FESA, WARM

ARTIST web portal

Recurring Events

red = recurring in Y4

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International Collaboration

blue = international collaboration

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ARTIST web portal

Education

Green = education

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International ARTIST Summer School in South America 2010 – 4th edition

International Summer School in Rabat, Morocco 2010

- **ARTIST Summer School on Energy Efficiency**
  July 25-29, 2011 Povo, Trento, Italy

Graduate Schools:

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- **Quantitative Model Checking 2010**
  March 2-5, 2010 IT University Copenhagen, Denmark

Special Issues and Publications : eg: "Embedded Systems Design" 2nd edition – Peter Marwedel

Common Technical Baseline

Education: WESE Workshops

ArtistDesign:

- ***WESE'10: WS on Embedded Systems Education*** *October 28th, 2010 Scottsdale, USA (in ESWEEK)*
- ***WESE'09: WS on Embedded Systems Education*** *October 15th, 2009 Grenoble, France (in ESWEEK)*
- ***WESE'08: WS on Embedded Systems Education*** *October 23rd, 2008 Atlanta, Georgia - USA (in ESWEEK)*

Artist2:

- ***WESE'07: WS on Embedded Systems Education*** *October 4-5, 2007 Salzburg, Austria (within ES Week)*
- ***WESE'06 - Embedded Systems Education*** *October 26th, 2006 Seoul, Korea*
- ***WESE'05 - WS on Embedded Systems Education*** *September 22nd, 2005 Jersey City – USA*
- **ACM - Special Issue on Education**

and back in Artist FP5:

- ***Artist International Collaboration Days 2003 - Education*** *October 11th 2003 – Philadelphia*
- **Artist FP5 Guidelines for a Graduate Curriculum on Embedded (publication)**

Workshops organized and funded in Y3 (1/5)

- **Synchron 2010**
  November 29th - December 3rd 2010 Villa Clythia, Fréjus – France
  http://www.artist-embedded.org/artist/-Synchron-2010,1198-.html

  Synchronous languages form a distinctive branch of Concurrency Theory. They are based on simple ideas of discrete logical time, explicit parallelism/concurrency and joint discrete reactions as operational behaviours. Their striking features is that such notions are provided to the plain designer him/herself, so that precise timing and time handling is seen as an integral part of functional design, not an extra-functional analysis and simulation afterthought addendum.

- **UML&FM'2010**
  November 16th, 2010 Shanghai, China
  http://www.artist-embedded.org/artist/-UML-FM-2010-.html

  The UML and formal methods communities have been working for a number of years to produce a practical (via UML) and rigorous (via formal methods) approach to software engineering.

  UML is the de facto standard for modelling various aspects of software systems in both industry and academia, despite the inconvenience that its current specification is complex and its syntax imprecise. This third workshop will encourage new initiatives of building bridges between informal, semi-formal and formal notations.

- **WSS'10**
  October 29th, 2010 Scottsdale, Arizona (USA), within ESWeek 2010
  http://www.artist-embedded.org/artist/-WSS-10-.html

  An increasing amount of software is not written manually any more. Rather, software is synthesized from abstract models of the required functionality. As a result, the effort of generating software is reduced and software verification typically becomes easier.
  Software synthesis has been implemented in various disperse communities. The workshop aims at bringing the software generation and software synthesis communities together and at identifying research problems which should be addressed by the scientific community.

Workshops organized and funded in Y3 (2/5)

- **WESE'10**
  October 28th, 2010 Scottsdale, Arizona (USA), within ESWeek 2010
  http://www.artist-embedded.org/artist/-WESE-10-.html
  As embedded system designs grow more complex and the time to market diminishes, quality embedded systems education becomes more and more important. This fifth workshop on the subject aims to bring researchers, educators, and industrial representatives together to assess needs and share design, research, and experiences in embedded systems education.

- **WFCD – 2010**
  October 24th, 2010 Scottsdale, Arizona (USA), within ESWeek 2010
  http://www.artist-embedded.org/artist/-WFCD-2010-.html
  The workshop aims to discuss recent results on component-based design with emphasis on design frameworks for real-time systems encompassing heterogeneous composition and models of computation. The focus is not only on fundamental results but also on their implementation in methods and tools and their concrete application in areas such as automotive, avionics, consumer electronics and automation.

- **FIT 2010**
  August 30th, 2010 Paris, France (associated with CONCUR 2010)
  http://www.artist-embedded.org/artist/-FIT-2010-.html
  FIT stands for Foundations of Interface Technologies. Component-based design is widely considered as a major approach to developing systems in a time and cost effective way. Central in this approach is the notion of an interface. Interfaces summarize the externally visible properties of a component and are seen as a key to achieving component interoperability and to predict global system behavior based on the component behavior. To capture the intricacy of complex software products, rich interfaces have been proposed. These interfaces do not only specify syntactic properties, such as the signatures of methods and operations, but also take into account behavioral and extra-functional properties, such as quality of service, security and dependability. Rich interfaces have been proposed for describing, e.g., the legal sequences of messages or method calls accepted by components, or the resource and timing constraints in embedded software. The development of a rigorous framework for the specification and analysis of rich interfaces is challenging. The aim of this workshop is to bring together researchers who are interested in the formal underpinnings of interface technologies.

Workshops organized and funded in Y3 (3/5)

- **WCET 2010**
  July 6th, 2010 Brussels, Belgium (in conjunction with the 22nd Euromicro Conference on Real-Time Systems)
  http://www.artist-embedded.org/artist/-WCET-2010-.html
  Reliable WCET bounds are a necessary component for the construction and verification of dependable real-time systems. They are an input for doing task CPU allocation, creating task schedules, and performing schedulability analysis.

- **OSPERT 2010**
  July 6th, 2010 Brussels, Belgum (in conjunction with ECRTS10)
  http://www.artist-embedded.org/artist/-OSPERT-2010-.html
  Developers of Real-Time Operating Systems (RTOS) are faced with many challenges arising from two opposing needs: extreme optimisation of resource usage (processor, energy, network bandwidth, etc.) and dynamic configuration, flexible scheduling, component-based development and deployment, etc. While real-time systems continue to be used in many small embedded applications, real-time services are being introduced and used in general-purpose operating systems. Notable examples are the various flavours of Linux that provide support to time-sensitive applications.

- **ARTIST HW Platforms and MPSoC Technical Meeting**
  July 6-7, 2010 IMEC, Leuven, Belgium
  http://www.artist-embedded.org/artist/-ARTIST-HW-Platforms-and-MPSoC-.html

- **Mapping Applications to MPSoCs 2010**
  June 29-30, 2010 St. Goar, Germany
  http://www.artist-embedded.org/artist/-map2mpsoc-2010-.html
  The aim of the workshop is to provide a forum for brainstorming and road-mapping the future of mapping applications to MPSoCs. Knowledge about constraints and directions for future MPSoC architectures should be collected. Existing mapping techniques should be briefly presented and analyzed. Directions for future research should be proposed and evaluated.

Workshops organized and funded in Y3 (4/5)

- **SCOPES 2010**
  June 28-30, 2010 Schloss Rheinfels, St. Goar, Germany
  http://www.artist-embedded.org/artist/-SCOPES-2010-.html

  13th International Workshop on Software and Compilers for Embedded Systems SCOPES focuses on the software generation process for modern embedded systems. Topics of interest include all aspects of the compilation process, starting with suitable modeling and specification techniques and programming languages for embedded systems. The emphasis of the workshop lies on code generation techniques for embedded processors. The exploitation of specialized instruction set characteristics is as important as the development of new optimizations for embedded application domains. Cost criteria for the entire code generation and optimization process include runtime, timing predictability, energy dissipation, code size and others. Since today's embedded devices frequently consist of a multi-processor system-on-chip, the scope of this workshop is not limited to single-processor systems but particularly covers compilation techniques for MPSoC architectures.

- **GREEMBED 2010**
  April 12th, 2010 Stockholm, Sweden, (in conjunction with CPSWEEK 2010)
  http://www.artist-embedded.org/artist/-GREEMBED-2010-.html

  Second Workshop on Green and Smart Embedded System Technology: Infrastructures, Methods and Tools.

  Efficient production, transmission, distribution and use of energy is a fundamental requirement for our modern society and its economy. Most systems for monitoring and control of energy production, distribution and use are today interconnected and controlled by embedded devices. This offers the opportunity for the creation of new integrated systems offering new products, processes and services with greater efficiency and better situation awareness to end-users and service and infrastructure owners.

- **FESA 2010**
  April 12th, 2010 KTH, Stockholm (Sweden) (within CPS Week)
  http://www.artist-embedded.org/artist/-FESA-2010-.html

  Formalisms for Embedded Systems Architecture description & visualization:
  - What key formalisms, ADL's and visual languages, for design of embedded systems are there and what are the trends?
  - What is the maturity (languages, tools) and industrial adoption of such formalisms?
  - What are the key outstanding research issues to pave way for larger scale industrial adoption?

Workshops organized and funded in Y3 (5/5)

- **WARM 2010**
  April 12th, 2010 *Stockholm, Sweden (within CPS Week)*
  http://www.artist-embedded.org/artist/-WARM-2010-.html

- The focus of WARM is software-based approaches to adaptive resource management for soft or adaptive embedded real-time applications, e.g., multimedia applications or non-safety critical control applications. Special emphasis will be given to multi-resource management, in particular including CPU time and power consumption. Special emphasis will also be given to multi-core platforms.

ARTIST Summer School in Europe 2010

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday
9:00	**Rajeev Alur** *Interfaces for Control Components*	**Rolf Ernst** *Formal Performance Analysis and Optimization of Safety-related Embedded Systems*	**Juergen Teich** *Invasive Computing - Basic Concepts and Foreseen Benefits*	**David Atienza** *Thermal-Aware Design of 2D and 3D Multi-Processor System-on-Chip Architectures*	**Wang Yi** *Towards Real-time Applications on Multi-core Platforms: the Timing Problem and Possible Solutions*	**Alberto Sangiovanni Vincentelli** *Distributed Embedded System Challenges: Communication, Communication, and Communication!*
10:00	*break*	*break*	*break*	*break*	*break*	
11:00	*(continued)*	**Luca Benini** *Programming Heterogeneous Many-core Platforms in Nanometer Technology*	**Round Table** *topic tbd*	**Giovanni De Micheli** *Nano-systems: Devices, Circuits, Architectures and Applications*	**Nikil Dutt** *Integrating End-to-End and Cross-Layer Optimizations for Cyber-Physical Systems*	
11:30						
12:00	**Barbecue Lunch** *on-site*	*lunch*	*lunch*	*lunch*	*lunch*	*lunch* <u>Chartered buses</u> *will leave just after lunch with stops in:* • *Grenoble Train Station*
12:30						
14:00						
15:00	**Hiroaki Takada** *Challenges of Hard Real-Time Operating Systems*	*break*	*Informal discussions / Afernoon in Grenoble (optional) / Sports activities on-site (optional)*	*break*	*break*	
15:30		**Jorn Janneck** *Dataflow Programming*		**Hermann Haertig** *The L4 Microkernel*	**Sanjoy Bar** *Scheduling Iss Mixed-criticality*	
17:30						
19:30	*regular dinner on-site*	*Dinner in 2 groups:* **Auberge de la Ferme** *within walking distance, locally grown produce* **L'auberge du banc de l'Ours** *by bus - great view of Autrans*	**Dinner in Grenoble** *or* **Dinner on-site**	*Gala Dinner:* **Château de Sassenage** *17th century*	**Farewell buffet dinner** *with live jazz* on-site	

Online videos !

Graduate Courses in Y3

recurring in Y4

- **ARTIST Graduate School on RT Kernels for Microcontrollers**
  June 14-18, 2010 Scuola Superiore Sant'Anna - Pisa, Italy
  http://www.artist-embedded.org/artist/-ARTIST-Graduate-School-on-RT-.html

  The course had two main objectives:

  - Introducing the most important concepts and methodologies used to develop a real-time embedded system, including fundamentals of real-time scheduling, control and distributed systems;
  - Showing how to apply these concepts in practice, using an embedded platform and a real-time operating system to developed simple control applications and make experience with wireless sensor networks.

Graduate Courses in Y3

recurring in Y4

- **ARTIST Graduate Course: Automated Formal Methods for Embedded Systems – 2010**
  June 14-22, 2010 DTU - Lyngby, Denmark
  http://www.artist-embedded.org/artist/-ARTIST-Graduate-Course-Automated,1182-.html
- In the lectures, we introduced a comprehensive set of state-based models as well as automatic procedures for their analysis. The exercise classes complemented this by providing hands-on experience with appropriate verification tools.

Graduate Courses in Y3

recurring in Y4

- **Quantitative Model Checking 2010**
  March 2-5, 2010 IT University Copenhagen, Denmark
  http://www.artist-embedded.org/artist/-Quantitative-Model-Checking-2010-.html
- The PhD school on quantivative model checking, QMC 2010, is organized by the European Network of Excellence ARTIST Design and the Danish VKR Center of Excellence MT-LAB and takes place at the IT University Copenhagen from 2 to 5 March 2010. It features lectures and other activities by world-renowned experts within the areas of real-time, probabilistic, and hybrid model checking.

ARTIST Workshops planned in 2011 (subset) (1/4)

- **PPES 2011**
  March 18th, 2011 Grenoble, France (within DATE)
  The PPES workshop is concerned with critical hard real-time systems that have to satisfy both efficiency and predictability requirements. For example, an electronic controller for a safety-critical system in an automobile needs to react not only correctly to external inputs such as rapid deceleration or loss of grip, but also provably within a given time-span. Although there exist techniques to accurately predict the worst-case execution time of critical embedded systems for complex microprocessors, the current approaches will not scale to future systems. The trend of integrating multiple functions on a single control unit or to use multi-core systems with shared resources saves costs, but introduces lots of interferences between tasks and components.

ARTIST Workshops planned in 2011 (subset) (2/4)

- **MoBE-RTES 2011**
  March 28th, 2011 Newport Beach, California
  The MoBE-RTES workshop is based on the premise that successful development of complex real-time and embedded systems necessarily requires careful architectural design and that this, in turn, involves the extensive use of models, modelling tools, and model-based development methods. Consequently, the focus of the workshop is on contributions that describe theoretical and/or empirical advances in model-based engineering of RTES.

- **Rigorous Embedded Design 2011**
  April 10th, 2011 Salzburg, Austria (within EuroSys 2011)April 10th, 2011
  The objective of the workshop is to discuss new methodologies for the rigorous design of embedded systems. Through a series of invited talks, the workshop will survey some of the challenges and emerging approaches in the area. A series of design flows will be presented. The workshop will mainly discuss performance analysis, correctness (high confidence and security), code generation, and modeling aspects (including timed scheduling and software/hardware interactions). Those concepts shall be illustrated with examples coming from the aeronautic, automotive, and robotic areas. Interactions between industrials and academic researchers will be facilitated through a series of open discussion sessions (maybe an interaction between theoretical and more practical presentations).

ARTIST Workshops planned in 2011 (subset) (3/4)

- **GREEMBED 2011**
  April 11th, 2011 Chicago, USA (within CPS Week 2011)

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ARTIST Workshops planned in 2011 (subset) (4/4)

- **IRTAW-15**
  September 14-16, 2011 *Liébana (Cantabria), Spain*
  The 15th International Real-Time Ada Workshop (IRTAW-15) will take place on September 14-16 of 2011 in Liébana (Cantabria), Spain, a nice mountain area by the "Picos de Europa" National Park.

- **JTRES – 2011**
  September 26-28, 2011 *Kings Manor, York, England*
  Interest in real-time Java in both the research community and industry has recently increased significantly, because of its challenges and its potential impact on the development of embedded and real-time applications. The goal of the proposed workshop is to gather researchers working on real-time and embedded Java to identify the challenging problems that still need to be solved in order to assure the success of real-time Java as a technology, and to report results and experiences gained by researchers.

Organized with ARTIST Partners in Y3

• **CRTS 2010**	November 30th, 2010
• **RoSym 2010**	October 5th, 2010
• **MPM'10**	October 3-8, 2010
• **Modeling Wizards 2010**	September 30th - October 2nd 2010
• **SIES 2010**	July 7-9, 2010
• **Waters 2010**	July 6th, 2010
• **SCOPES 2010**	June 28-29, 2010
• **COESD 2010**	June 15th, 2010
• **ICE'10**	June 10th, 2010
• **ECRTS'10**	June 6-9, 2010
• **MoBE-RTES 2010**	May 4th, 2010
• **EuroSys 2010**	April 13-16, 2010
• **CPS Week 2010**	April 12-16, 2010
• **UML&AADL'2010**	March 24th, 2010
• **1st AVACS Spring School**	March 15-19, 2010

About the ArtistDesign NoE

- Overview of the NoE
- Joint Programme of Activities (JPA)
- ArtistDesign Core Partners
- Workshops
- Education
- International Collaboration
- Related Projects
- Becoming an Affiliated Partner
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- Site Map

About the Artist2 NoE

- Strategic Objectives
- Approach
- Joint Programme of Activities (JPA)
- Artist2 Core Partners
- Research and Integration
- Workshops
- Education
- International Collaboration
- State of the Art
- Related Projects
- Conclusions from the Final Review

ArtistDesign Research Topics

- Modeling and Validation
- SW Synthesis, Code Generation and Timing Analysis
- Operating Systems and Networks
- Hardware Platforms and MPSoC Design
- Intercluster activity: Design for Adaptivity
- Intercluster activity: Design for Predictability and Performance

Upcoming Artist Events

- UML&AADL'2010 *March 24th, 2010*
- CPS Week 2010 *April 12-16, 2010*
- GREEMBED 2010 *April 12th, 2010*
- FESA 2010 *April 12th, 2010*
- WARM 2010 *April 12th, 2010*
- EuroSys 2010 *April 13-16, 2010*
- SCOPES 2010 *June 28-29, 2010*
- Mapping Applications to MPSoCs 2010 *June 29-30, 2010*
- WCET 2010 *July 6th, 2010*
- OSPERT 2010 *July 6th, 2010*

ARTEMIS / ARTEMISIA

- ARTEMIS European Technology Platform
- Strategic Research Agenda
- ARTEMISIA Industrial Association

Hot Topics

- Smart and Efficient Energy Council (SEEC'2009) PRESS RELEASE
- WCET Special Issue
- Guide to Embedded Systems Concepts
  Common Technical Baseline

ACM SIGBED

- ACM Special Interest Group on Embedded Systems
  - Publications
  - Events
  - Membership

Other ES Links

- Journals
- Conferences
- Hot Topics
- Standards
- Tools and Platforms
- Main Projects
- Position Papers
- Roadmaps
- Newsletters and Magazines
- Mainstream Press
- Announcements
- Publications

Schools & Seminars

- 1st AVACS Spring School *March 15-19, 2010*

WS & Conferences

- UML&AADL'2010 *March 24th, 2010*
- CPS Week 2010 *April 12-16, 2010*
- GREEMBED 2010 *April 12th, 2010*
- FESA 2010 *April 12th, 2010*
- WARM 2010 *April 12th, 2010*
- EuroSys 2010 *April 13-16, 2010*
- MoBE-RTES 2010 *May 4th, 2010*
- ECRTS'10 *June 6-9, 2010*
- ICE'10 *June 10th, 2010*
- SCOPES 2010 *June 28-29, 2010*
- Mapping Applications to MPSoCs 2010 *June 29-30, 2010*
- WCET 2010 *July 6th, 2010*
- OSPERT 2010 *July 6th, 2010*
- SIES 2010 *July 7-9, 2010*
- DSD 2010 - 13th Euromicro *September 1-3, 2010*
- ICT 2010 *September 27-29, 2010*

SEVENTH FRAMEWORK PROGRAMME

Subscriptions

- ARTIST Mailing List

Past Events

Organised by Artist

- UML&FM'2009 *December 8th, 2009*
- WESH 2009 *December 7th, 2009*
- CRTS 2009 *December 1st, 2009*
- WSS'09 *October 16th, 2009*
- WESE'09 *October 15th, 2009*
- RePP 2009 *October 15th, 2009*
- WFCD - Foundations and Applications of Component-based Design 2009 *October 11th, 2009*
- APRES'09 *October 11th, 2009*
- SEEC'09 *October 8-9, 2009*
- IRTAW-14 *October 7-9, 2009*
- ACES^{MB} 2009 *October 6th, 2009*
- VVPS 2009 *September 19-20, 2009*
- ARTIST Summer School in Europe 2009 *September 7-11, 2009*
- ARTIST School in South America 2009: Embedded Systems Design *August 3-7, 2009*
- ARTIST Summer School in China 2009 *July 19-24, 2009*
- WCET 2009 *June 30th, 2009*
- OSPERT 2009 *June 30th, 2009*
- Mapping Applications to MPSoCs 2009 *June 29-30, 2009*
- Runtime Verification 2009 *June 26-28, 2009*
- ArtistDesign NoE - Embedded Systems Seminar *June 18-19, 2009*
- ARTIST Graduate Course: Automated Formal Methods for Embedded Systems - 2009 *June 17-25, 2009*
- ARTIST Graduate Course on Embedded Control Systems 2009 *June 8-12, 2009*
- DySCAS 2009 *February 18th, 2009*
- Mapping of Applications-to MPSoCs - ArtistDesign Working Meeting *November 27-28, 2008*
- Embedded Systems: Industrial Applications '08 *November 12-13, 2008*
- WS on Multicores: Theory and Practice *October 28th, 2008*
- UML&FM'08 *October 27th, 2008*
- WESE'08: WS on Embedded Systems Education

Sponsored by Artist

- NWPT '09 *October 14-16, 2009*
- ESWeek 2009 *October 11-16, 2009*
- CAV 2009 *June 26th - July 2nd 2009*
- UML&AADL'2009 *June 2nd, 2009*
- MDD for Distributed Real-time Embedded Systems (MDD4DRES) 2009 *April 20-24, 2009*
- DATE 2009 *April 20-24, 2009*
- FeBID 2009 *April 16th, 2009*
- HSCC 2009 *April 13-15, 2009*
- RNTS'08 *October 16-17, 2008*
- DATE'08 *March 10-14, 2008*
- EmSoft'07 *October 1-3, 2007*
- Embedded Systems Week 2007 *September 30th - October 5th 2007*
- EPSD 2007 *September 10-14, 2007*
- FOSAD 2007 *September 9-15, 2007*
- UML&AADL'2007 *July 14th, 2007*
- CAV 2007 *July 3-7, 2007*
- FMGALS'2007 *May 29th, 2007*
- SCOPES 2007 *April 20th, 2007*
- HSCC'07 *April 3-5, 2007*
- SLA++P 2007 *March 31st, 2007*
- ARCS 2007 *March 12-15, 2007*
- CASTNESS'07 Workshop and School *January 15-17, 2007*
- CASTNESS'07 Workshop and School *January 15-17, 2007*
- Synchron 2006 *November 27th - December 1st 2006*
- JTRES 2006 *October 11-13, 2006*
- MARTES 2006 *October 2nd, 2006*
- ADSD 2006: Advanced Digital Systems Design *September 25-29, 2006*
- FOSAD 2006: 6th International School on Foundations of Security Analysis and Design *September 10-16, 2006*
- Workshop: Distributed Embedded Systems *November 21-24, 2005*
- OSPERT 2005 *July 5th, 2005*
- HSCC '05 - Hybrid Systems: Computation and Control

Organised with Artist Partners

- CODES+ISSS 2009 *October 15-16, 2009*
- RePP 2009 *October 15th, 2009*
- NWPT '09 *October 14-16, 2009*
- ESWeek 2009 *October 11-16, 2009*
- Multiparadigm Modeling 2009 *October 4-9, 2009*
- SAMOS IX *July 20th - January 23rd 2009*
- SIES 2009 *July 8-10, 2009*
- ECRTS 2009 *July 1-3, 2009*
- LCTES'09 *June 19-20, 2009*
- UML&AADL'2009 *June 2nd, 2009*
- SCOPES 2009 *April 23-24, 2009*
- MDD for Distributed Real-time Embedded Systems (MDD4DRES) 2009 *April 20-24, 2009*
- DATE 2009 *April 20-24, 2009*
- FeBID 2009 *April 16th, 2009*
- Cyber Physical Systems Week 2009 *April 13-16, 2009*
- HSCC 2009 *April 13-15, 2009*
- CiberMouse@RTSS2008 *November 30th, 2008*
- ESWEEK 2008 *October 19-24, 2008*
- RNTS'08 *October 16-17, 2008*
- ECRTS 2008 *July 2-4, 2008*
- Ada-Europe'08 *June 16-20, 2008*
- Cyber Physical Systems Week 2008 *April 21-24, 2008*
- DATE'08 *March 10-14, 2008*
- CASTNESS 2008 *January 15-18, 2008*
- RTSS 2007 *December 3-6, 2007*
- FORMATS'07 *October 3-5, 2007*
- EmSoft'07 *October 1-3, 2007*
- CODES-ISSS 2007 *September 30th - October 5th 2007*
- RTCSA 2007 *August 21-24, 2007*
- UML&AADL'2007 *July 14th, 2007*
- ECRTS 2007 *July 4-6, 2007*
- WCET'07 *July 3rd, 2007*

Web Portal - Features

Objective

The ARTIST Web Portal is a major tool for Spreading Excellence within the Embedded Systems Community.

- The web portal disseminates information about ***contacts*** (core and affiliated partners), and ***web links*** about:
  - the JPA events and activities,
  - a fairly thorough set of links to sites of interest to the embedded systems community
- We regularly receive spontaneous requests for:
  - adding information to the site
  - subscriptions to the Artist Mailing List
- Authorised users (principally, the ArtistDesign partners) can access the back end of the site to modify and update information directly. The changes are immediately visible on the site, which greatly streamlines the updating process.
- Ergonomics are set for the entire site. The “look and feel” of the site is always homogeneous throughout the site. It’s possible to change these ergonomics, and these changes are applied homogeneously throughout the site, via automated mechanisms.

SEVENTH FRAMEWORK PROGRAMME

Common Technical Baseline

CTB Embedded Systems

Embedded Systems Guide

Free in-depth, easy to understand diagrams, texts and references.

Welcome!
Sign in or Register

Overview
- Introduction
- Partners
- Site Map
- Index of Terms
- References

Baseline
- ES Definition
- ES History
- View: System
- View: Lifecycle
- View: Methods
- View: Tools
- Architecture Examples

Contributors
- Initial Expert Committee

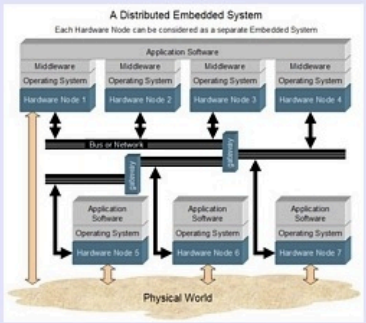
Other Information
- Background Documents
- Contact

Overview

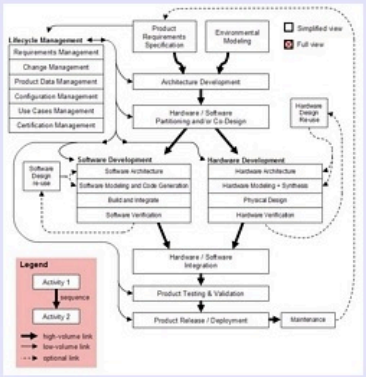
The aim for this Common Technical Baseline is to become a **common language** shared by the stakeholders (systems, software and service providers, system integrators, and public authorities).

Level 1 Views

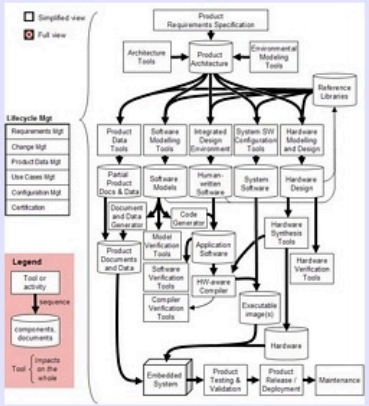
System View
This provides a lego-like decomposition of what actually composes an embedded system, both hardware and software.



Lifecycle View
This covers the different steps in the lifecycle of an embedded system.



Tools View
This shows the different types of tools, including both their main inputs and outputs.



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