Vector Congress 2010

eASEE/PREEvision Product Concept and Roadmap

1st of December 2010, Stuttgart
eASEE/PREEvision – Product Concept and Roadmap

Content

- eASEE Automotive Solution
  - Approach 2008 and experiences
  - New strategy

- eASEE and PREEvision - the perfect fit

- eASEE Automotive Solution New Generation
  - Product Concept
  - Product Description
  - Roadmap
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Disadvantages “One Solution”-approach:

- Process improvement projects of our customers usually focus on specific process areas.
- We believe in the integrated approach, but we must be able to manage entry scenarios for dedicated process areas and the eASEE integration in the customers tool landscape.

The “Big Bang”-approach reduces our market opportunities to a big projects like VSEM, DeepC, CoC, System42 or AIDA.

- These projects are rare and Vector normally is not seen as the natural product partner for this kind of projects.
- Good experiences we have with mid range solutions like CEDB, ELEKTRA and ECU-IDE.

With the eASEE Automotive Solution the eASEE product changed more and more from a generic process tool to a E/E-engineering tool with collaboration capabilities.

- Re-design of the tool architecture necessary.
- Usability improvements and graphical editors requested by the customers.
To address the need of change, Vector did the following main decisions:

> **Flexibility**
  > eASEE must be more flexible to address specific process needs of the customers – perfect fit by configuration.

> **Scalability**
  > Improve the scalability of our solution – ability to provide stand alone solutions and small team solutions in the same way, as the solution for the entire E/E-development.

> **Technology**
  > Migrate to a new technology, which allow fast and efficient feature and GUI development and the integration in customer specific IDE’s → Eclipse.

**Implementation Strategy**

> Vector decided to implement the new strategy by buying aquintos and integrate the products eASEE and PREEvision.
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eASEE and PREEvision – The Perfect Fit

- **eASEE Automotive solution**
  - Mature team environment for big user groups.
  - E/E specific, AUTOSAR compliant data model.
  - Integrated environment for the management of requirements, system data, test data and changes.
  - Special editors/GUIs for dedicated use cases.

- **PREEvision**
  - State of the art architecture design and optimization tool.
  - Advanced graphical editors and rich engineering functionality.
  - Configurability by a fine granular right concept.
  - Very detailed data model incl. wiring harness.
  - Eclipse Client.
The **PREEvision Client** is the basis for new eASEE Client.

- PREEvision is the full scope product beginning with architecture design up to a broad usable functional design tool for the series development.
- The existing PREEvision product is immediately available in the market.
- Therefore PREEvision is the natural starting point for the later use of the integrated product.
- Naturally, evolutionary growth from stand alone installation to a team environment is possible.

**eASEE** is the base for the new team collaboration platform

- Collaborate in globally distributed teams.
- Perform revision and branch management for all engineering artifacts.
- Administrate users, roles and rights.
- Manage defects and change requests for engineering artifacts.
- Perform change tracking and impact analysis.
Data model is already in place – this saves the customer a lot of time, costs and efforts for individual data model definitions.

The data model is AUTOSAR compatible, market-proven and has been designed in close collaboration of the following Automotive OEMs:
aquintos & Vector products – current landscape in the Customer market

PREEvision Architect & eASEE Automotive Solution

DAIMLER

TOYOTA

BOSCH

AIRBUS

MAGNA

carmeq

dräxlmaier

PSA PEUGEOT CITROËN

CHRYSLER

Continental

FIAT

GM

Ford

MAN

DENSO

MBtech

HYUNDAI

Continental

BMW

POCHERCE

Volvo

DELPHI

SAIC MOTOR

Great Wall

Audi

John Deere

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Slide: 10/24
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eASEE Automotive Solution New Generation – Product View

- ProSTEP iViP
- KBL, ELOG, ReqIF (RIF)
- PREEvision Architect
  - E/E-Architecture Solution
- PREEvision ADM
  - AUTOSAR Data Management
- PREEvision PRM
  - Product and Release Management
- PREEvision Function Designer
  - Requirements Management
  - System Data Management

Vector Tools
- AUTOSAR: DaVinci Developer
- Test:
  - CANoe
  - VT-System
  - Open Test

3rd Party Tools
- RetroTouch
- SYMTA VISION
- ETAS
- ASCET
- Matlab

Fibex

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Slide: 12
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PREEvision Architect

Architecture Design and Optimization

- Typical Users
  - E/E Architects
- Functionality
  - Graphical editors and table-based Editors for E/E architecture and system design
  - Architecture Evaluation and Optimization
  - Documentation of large E/E systems
  - Signal routing, frame synthesis, synthesis for circuits and wires
- Import / export
- Metric and report development
- Integrated requirements management
- Option
  - Optimizer
eASEE/PREEvision – Product Concept and Roadmap

PREEvision Function Designer

Functional System Design and System Data Management in the series development

- Users
  - Function developer, component developer, communication engineer.

- Functionality
  - see “Architect” without HW use cases

- Main use cases
  - Create supplier specifications.
  - Manage platform strategies.
  - Re-allocation of functions and ECU’s for optimization.
  - Integration of ECU’s from internal or external suppliers.
  - Develop functional and technical safety concept.

- Option
  - Integrated test data management

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PREEvision AUTOSAR Data Manager

**AUTOSAR Data Management** and authoring tool

- **Users**
  - Communication Engineer, SW-Developer, Component Developer

- **Functionality**
  - Graphical editors and table-based Editors for functional design
  - AUTOSAR import / export
  - Metric and report development

- **Use cases**
  - Authoring of ARXML-Files
  - AUTOSAR compliance checks

- **Option**
  - Integrated test data management

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Slide: 17/17
Project and Release Management

- **Users**
  - Product managers, project managers, system and component responsibles

- **Focus**
  - Graphical editors and table based editors for project planning and tracking.
  - Plan and monitor projects, work packages and resources in a product line setting.
  - Allows the user to set engineering artifacts under planning control.
  - Monitoring dependencies and resolve conflicts between projects and gates.
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**eASEE Automotive Solution New Generation – Roadmap**

*10/2010*

- **Start of Development**
  - eASEE Automotive Solution 5.0

- **Code Freeze**
  - PREEvision V3.0

- **Release**
  - eASEE Automotive Solution 5.0

- **Q4 2011**
  - Release
  - eASEE Automotive Solution 5.5

**PREEvision V3.0**

- Starting point for existing eASEE Automotive Solution customers to migrate to the eASEE Automotive Solution New Generation.

**eASEE Automotive Solution V5.0**

- Migration of interested PREEvision customers to the team collaboration platform.
- New customers with focus on architecture, function design, release management and team environment.
- Close collaboration with PND to provide an integrated AUTOSAR tooling.

**eASEE Automotive Solution V5.5**

- New customers with additional focus on change and test data management.
Thank you for your attention.

For detailed information about Vector and our products please have a look at:

www.vector.com

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