The Eclipse Foundation

Ralph Müller
Eclipse Foundation
History

2001 - Eclipse Project by IBM
2004 - Rich Client Platform
2004 – Independent Organization: Eclipse Foundation
2006 - Callisto Release Train
2008 - Top Level Runtime Project
2009 - Industry Working Groups
About the Eclipse Foundation

- What is Eclipse and the Eclipse Foundation?
- Services of the Foundation
  1. IT Infrastructure
  2. Intellectual Property (IP) Management
  3. Development Community Support
  4. Ecosystem Development
- A Unique Model for Open Source Development
- What is the history of Eclipse?

What is Eclipse and the Eclipse Foundation?

Eclipse is an open source community, whose projects are focused on building an open development platform comprised of extensible frameworks, tools and runtimes for building, deploying and managing software across the lifecycle. The Eclipse Foundation is a not-for-profit, member supported corporation that hosts the Eclipse projects and helps cultivate both an open source community and an ecosystem of complementary products and services.
Members
Members By Category

175 members
- 11 Strategic Members
- 1 Enterprise Member

1017 committers, representing 75+ organizations

**Strategic Members**

- Actuate
- Talend
- SAP
- CA
- Innoopract
- BreDEX
- Oracle
- BEO
- Sonatype

**Enterprise Members**

- BlackBerry
Eclipse Governance Structure

- Board of Directors
  Approves Strategy, Plans, Policies

- Eclipse Management Organization
  Establishes the Roadmap, Builds the Platform, Delivers the Vision

- Membership at Large
  Approves Vision, Bylaws
  Builds the Ecosystem

- Planning Council
  Establishes Platform
  Release Plan

- Architecture Council
  Defines & Maintains Architecture

- PMC 1
- PMC 2
- PMC 3
- PMC 4

- IWG A
- IWG B
World Class Reliability

Indigo
62 Projects
46 Million Lines of Code
400+ committers
49 companies
18 countries
Industry Orientation

2010 – Automotive IWG

2011 – Long Term Support IWG

2012 – Polarsys IWG

2013 - openETCS
Polarsys

Gaël Blondelle
Obeo
OPEES project leader
Long Term Availability

AIRBUS A300 Life Cycle
Program began in 1972, production stopped in 2007
2007-1972 = 35 years...
Support will last until 2050
2050-1972 = 78 years!!

On board software development for very long lifecycle products
Tools Users Requirements

Master tools
Ensure tools durability in line with product lifecycle
Adapt tools easily to the specific internal processes
Use Open Standards for interoperability and data mgmt
Lower vendor lock-in
Lower license deployment costs in extended enterprise
Optimize Evolution & Maintenance costs
Deploy Training & Knowledge
Ensure continuous innovation
From Topcased to Polarsys

2004:
- First ideas
- Partnership
- Project kickOff
- Aerospace Valley proposition

2005:
- Model editors (UML, SysML,...)
- v 1.0 collaborative work
- Start of experimentations
- v 2.0 improvements + first documentation generator + verification (simulation and rules checkers)

2006:
- First steering committee
- 1st open source delivery
- National funding
- Users feedback
- Full model process + model requirement

2007:
- v 3.0 traceability

2008:
- Start of Industrial Improvements for A350 Deployment

2009:
- OPEES
OPEES

Open Platform for the Engineering of (Critical) Embedded Systems

Create a sustainable ecosystem to ensure the long term availability of tools for the development of Critical systems
OPEES ITEA2 project
Open Source Software as an enabler

Open code and open formats facilitate

- Migration
- Interoperability
- Extensibility

Create de facto standards

Clarify Intellectual Property

Enable long term support

Share common platforms

Combination of make or buy depending on feature

(*) As defined by the Free Software Foundation
Towards a User Centric Strategy

Tools are adapted to user needs

User share solutions and efforts on common parts

Goal:

- At least **80%** Features Requests implemented as generic features
- **20%** implemented as user extensions
Polarsys
Industry Working Group
inside
eclipse
OSS collaboration infrastructure

- Collaboration infrastructure
  - Source code repositories, forum, mailing list, wiki, ...
  - Development process, meritocracy, ...
- Intellectual Property Management
  - License management
  - Copyright
  - Contribution traceability & ownership
  - Manage licenses compatibility
Long Term Support

- Vendor neutral approach for
  - Long Term Availability
  - Ensure shared best practices
  - No vendor lock-in on build processes
- Not an intermediary between Providers and Users
- Common infrastructure (CBI) operated by the Eclipse Foundation
- Provides VLTS
- Foster the Long Term Support Ecosystem
Qualification kits

- Qualification Kits are Polarsys private documents
- Provide base documents to be adapted for specific certification process
  - Component development plan
  - Component test plan
  - ...

Labeling Process

- Structures the Providers eco-system
- Labeling process identifies
  - Committed service providers
  - Skilled service providers
- Label recognize a proven expertise and investment in the technology
- Complements the OSS meritocracy
Change Control Boards for OSS projects

- Change Control Board
  - Manage the change process
  - Users prioritize new developments and fixes
- Complements Project Management Committees
  - PMC are driven by developers and committers
- Balancing innovation and industrial quality
TRL & Polarsys

System Test, Launch & Operations

System/Subsystem Development

Technology Demonstration

Technology Development

Research to Prove Feasibility

Basic Technology Research

TRL 9
TRL 8
TRL 7
TRL 6
TRL 5
TRL 4
TRL 3
TRL 2
TRL 1

Services and Maintenance / Change control board

Techno Transfer and Maturity

Mentoring OSS

R&T Roadmap

Catalog / Assessment
New generation of OSS ecosystems

User Benefits

Ecosystem Maturity

OSS

Apache, FSF

OSS + Community

Eclipse, OW2

OSS + Community + Business Ecosystem

OSS + Community + User Centric Ecosystem

Polarsys, Eclipse Auto IWG, Linux foundation
Polarsys pillars

Open Source and Open innovation,
Maturity Assessment,
Long term availability,

For tools for the development of critical embedded systems
Join us!