Galileo Release Train 2009

6 Years in a Row

33 Projects

24 million LOC

23 Projects

18 million LOC

21 Projects

17 million LOC

10 Projects

WTP

BIRT

TPTP

EMF

VE

CDT

TPTP

CDT

Eclipse 3.0

Eclipse 3.1

Callisto

Europa

Ganymede

Galileo

June 28 2004   **June 28 2005**   **June 30 2006**   **June 29, 2007**   **June 25, 2008**   **June 24, 2008**
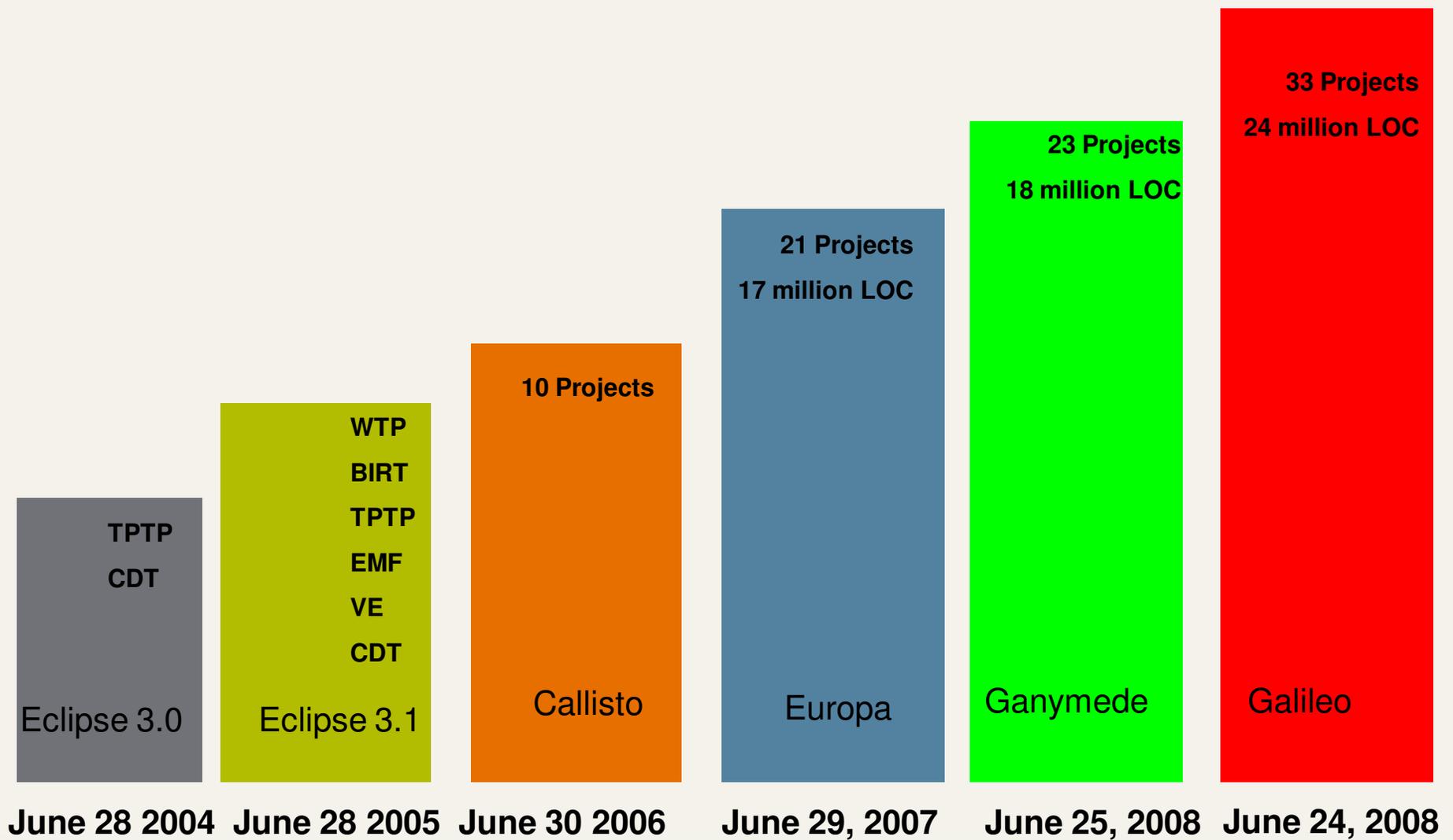
Galileo Stats

- 33 project teams
- 24+ million LOC
- 44 companies providing committers

Why a release train?

- Help spur commercial adoption of Eclipse technology

- Consumers use many projects not just the Platform

- Inter-dependency between projects
  - Eclipse project teams are independent BUT the project code is inter-dependent.

- Alignment of version compatibility

- Remove latency between project releases

How did we make it happen?

- Architecture
  - Modular & Extensible Architecture vs Monolithic Release

- Governance
  - Projects remain independent

- Process
  - Open source development process
  - Frequent milestone releases

Key Themes

- Advancement in Eclipse Runtime Technology

- Growth of Eclipse Modeling
  - Domain Specific Languages

- Expanding Enterprise Adoption

Eclipse Runtime Technology

- New Support for OSGi in Equinox
    - Implementation of the new OSGi 4.2 specification
    - Distributed OSGi services

- PDE Improvements
    - OSGI Declarative Services tooling
    - Publish to a p2 repository
    - API Analysis Tools

- Target platform support in PDE
    - Make it easier to develop software that runs on EclipseRT runtimes
    - EclipseRT runtime SDKs available in Galileo repository
    - PDE tooling

- P2 Provisioning Improvements
    - More flexible UI for RCP applications
    - New Publisher tool that make it easier to publish content to repositories

Modeling Domain Specific Languages

- Developers need to deal with a growing set of APIs
    - APIs for different infrastructure services, standards, business standards, etc.

- Domain Specific Languages (DSL) is a special purpose language for a specific problem domain
    - Allows developers to focus on APIs in the specific problem domain
    - Higher level of abstraction reduces amount of code created
    - Microsoft Oslo and M language also do DSL

- Eclipse Xtext allows for the creation of DSLs
    - Create specialized editors, code completion, etc based on the DSL
    - Allows for code generation based on the DSL
    - Eclipse tools become domain specific making it easier for developers to focus on small set of apis

Expanding Enterprise Adoption

- Support for Mac Cocoa 32/ 64 bit and Solaris 10

- Memory Analyzer
    - Helps find memory leaks and reduce memory consumption

- PDT 2.1
    - First PHP IDE to support new PHP 5.3 language release, including namespaces and anonymous functions.

- BIRT report design and performance improvements

- WikiText Editor
    - New editor that understand wiki markup language
    - Allows for help creation, Mylyn bug integration, updating wikis

Galileo Project

EclipseRT Runtime
- Eclipse Communication Framework (ECF)
- Equinox
- Rich Ajax Platform (RAP)
- Riena

Swordfish

Modeling
- Eclipse Modeling Framework (EMF)
- Eclipse Modeling Framework (EMFT)
- Eclipse Packaging Project (EPP)
- Graphical Editing Framework (GEF)
- Graphical Modeling Framework (GMF)
- Xtext
- Model Development Tools (MDT)
- Model-to-Model (M2M)
- Model to Text (M2T)

Enterprise
- Accessibilty Toolkit Framework (ACTF)
- Business Intelligence and Reporting Tool (BIRT)
- Buckminster
- C/C++ IDE (CDT)
- Dynamic Language Toolkit (DLTK)
- Data Tools Platform (DTP)
- EclipseLink
- Eclipse Project: (JDT, PDE, Platform)
- Java Workflow Tooling (JWT)
- Memory Analyzer (MAT)
- Mylyn
- PHP Development Tools (PDT)
- SOA Tools Platform (STP)
- Subversive
- Test and Performance Tools Platform (TPTP)
- Web Tools Platform (WTP)

Mobile
Device Software Development Platform
  - Target Management (TM)
  - Tools for Mobile Linux
  - Mobile Tools for Java

New Projects to the Release Train

- Accessibility Toolkit Framework
- DSDP Tools for Mobile Linux
- DSDP Mobile Tools for Java
- EclipseLink
- Java Workflow Toolkit
- Memory Analyzer
- PHP Development Tools
- Riena
- Swordfish
- Xtext

Projects Not On the Train
- DSDP Native Application Builder (not enough time)
- DSDP Device Debug (project merged into CDT)