COMMUNITY REVIEW DRAFT Eclipse RoadMap v6

Introduction

As required by the Eclipse Development Process, this document describes the 2011 Eclipse Roadmap.

There are three main sections to this document:

1. This Preamble provides some background on Eclipse and the Foundation, and identifies the strategic goals of Eclipse. It also provides a brief overview of the scope of future projects
2. The Themes and Priorities which has been developed by the Eclipse Councils.
3. The Platform Release Plan which has been developed by the Eclipse Planning Council.

The Roadmap is intended to be an ongoing document which undergoes incremental iterations. This document is the sixth version of the Eclipse Roadmap, and is labeled as version 6.0. In order to preserve this document while the underlying information evolves, the pages have been frozen by copying them from their original project hosted locations.

The goal of the Roadmap is to provide the Eclipse ecosystem with guidance and visibility on the future directions of the Eclipse open source community. An important element in this visibility is that the Roadmap help the EMO and the Board of Directors in determining which projects will be accepted by Eclipse during the life of this revision of the Roadmap. In other words, new projects must be consistent with the Roadmap. This does not mean that every new project must be explicitly envisaged by the Roadmap. It does mean that new projects cannot be inconsistent with the stated directions of Eclipse. In particular, Eclipse expects that incubator projects created in the Technology PMC will cover areas not explicitly described in the Roadmap.

Background

As defined on our website, the role of the Eclipse Foundation is:

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.

As defined in our Bylaws the Purposes of the Eclipse Foundation are:

The Eclipse technology is a vendor-neutral, open development platform supplying frameworks and exemplary, extensible tools (the "Eclipse Platform)". Eclipse Platform tools are exemplary in that they verify the utility of the Eclipse frameworks, illustrate the appropriate use of those frameworks, and support the development and maintenance of the Eclipse Platform itself; Eclipse Platform tools are extensible in that their functionality is accessible via documented programmatic interfaces. The purpose of Eclipse Foundation Inc., (the "Eclipse Foundation)", is to advance the creation, evolution, promotion, and support of the Eclipse Platform and to cultivate both an open source community and an ecosystem of complementary products, capabilities, and services.

Strategic Goals

The following are the strategic goals of the Eclipse Foundation.

1. Establish Eclipse as a leading provider of open source runtime technologies. At least since 2004, Eclipse projects have been shipping innovative runtime technologies such as Equinox and the Rich Client Platform. The last several years have seen steady growth in runtime technologies at Eclipse. At the same time, there has been rapid growth in interest in OSGi, which is the standard upon which the Eclipse plug-in model is based. Moving forward, we expect to see rapid growth in both the projects building and the adoption of Eclipse runtime technologies.

2. Maintain global leadership in open source tools platforms. As an open development platform, Eclipse provides support for multiple operating environments and multiple programming languages. The goal of Eclipse is to define for the industry a development platform which is freely licensed, open source and provides support for the full breadth of the application lifecycle, in many disparate problem domains, across the development and deployment platforms of choice. In particular, as Rich Internet Application development becomes more mainstream, we anticipate new projects at Eclipse to address the needs of that community.
3. Create value for all its membership classes. The Eclipse Foundation serves many members whose primary interest in leveraging Eclipse technologies in commercial offerings such as products and services. The Eclipse Foundation will focus its energies to ensure that commercial opportunity exists within the Eclipse ecosystem. Look for continuous improvements to Eclipse Marketplace, and other initiatives for the benefits of members.

   Committers are also members of the Eclipse Foundation and are in many ways its backbone. The Eclipse Foundation and its staff will continue to look for opportunities to continually improve services to its project community throughout 2010. Look for enhancements to our web, download, code management, build and other key components of project infrastructure in 2010.
4. Foster growth of the ecosystem, particularly in verticals. The creation of a large community of commercial and open source organizations which rely on and/or complement Eclipse technology has been a major factor in the success of Eclipse. Each time Eclipse technology is used in the development of a product, service or application the Eclipse community is strengthened. Our goal in 2010 is to focus our attention on the creation of industry working groups and new Eclipse projects which focus on particular industry segments such as mobile, automotive, insurance and finance.

5. Run a good ship. This Eclipse Foundation employs several staff and represents hundreds of stakeholders. It is important that the Foundation be a well run organization internally and externally.
6. Continue to grow a diversified revenue model. Reliance on a single source of revenue to fund the Foundation puts at greater risk of being negatively impacted by industry specific business cycles. It is a goal of the Eclipse Foundation to ensure revenue sources from multiple types of organizations, and seek other sources such as events and sponsorships.
7. Establish Eclipse web technology as a leading open source web application platform. There is no doubt that development in the web for the web (or in the cloud for the cloud) is becoming increasingly important. The recent launch of the Eclipse Orion initiative is a first step towards making the Eclipse Platform more relevant for web developers. The Eclipse Foundation will put its resources towards increasing adoption of and contributions to Orion.

Future Directions

The goal of the Roadmap is to provide the Eclipse ecosystem with guidance and visibility on the future directions of the Eclipse open source community, and to involve the Eclipse membership in a dialog about those future directions. In that vein, this section discusses our current vision of the future as a set of future projects that expand the value of the ecosystem for all of its members.

The Themes and Priorities document prepared by the Requirements Council describes a number of requirements and focus areas for the existing Eclipse projects.

In addition to the Themes and Priorities requirements on existing projects in Helios, we envision future growth in Eclipse projects in the following major areas. These are areas in which we envision further growth in 2011-2012, and Eclipse-quality standards-based frameworks and tooling in these areas begin to become a reality.

Eclipse 4.x

2011 will see another release of the Eclipse 4 stream, Eclipse 4.1. The major goals of this new release include:

- Making it easier to write plug-ins
- Allowing better control over the look of Eclipse based products
- Increasing diversity of contributors to the platform
- Maintaining backward compatibility for API-clean clients

The progress of Eclipse 4 has been very positive and in June, 2012 it may be the major version of Eclipse used in the distros hosted at the Eclipse downloads page.

Orion

Eclipse tools have historically had a very strong correlation with the Java language. However, with the rapid growth of Rich Internet Application languages and technologies such as JavaScript and Ajax, the Eclipse community must support the requirements of these developers as well. Eclipse will begin to invest in re-tooling the Eclipse platform with the needs of Web developers in mind.

Orion launched in early 2011 and continue to receive emphasis and promotion throughout the year. Orion is *not* targeted at the classic Eclipse Developer, but is instead targeted at Web and RIA developers. This new development model and target audience will even futher diversify and grow our community in new and exciting directions.

Modeling

The growing popularity of modeling and model-driven development has been an important driver for Eclipse projects for some time. We expect the momentum to grow even stronger in 2011. Eclipse-based modeling technologies such as Papyrus and Sphinx have become increasingly important for dealing with large, complex systems engineering and safety-critical systems. The Xtext project for supporting Domain Specific Languages has also generated enormous interest.

EclipseRT

The Indigo release train in 2011 will see for the first time an EclipseRT Package available, and we expect EclipseRT will continue to grow and evolve. The Gemini and Virgo projects at Eclipse continue to demonstrate the community is starting to associate Eclipse as a great place to do runtimes. The key uniter of the various runtime technologies at Eclipse continues to be the Equinox implementation of the OSGi standard.

Cloud

Projects such as Amazons AWS tooling and the Beanstalk product built on the Eclipse Platform give instant credibility to Eclipse as a important piece of the strategy for cloud tool providers. Eclipse has a role to play in the entire development lifecycle from development, deployment to testing and QA. In addition to tools, OSGi and Equinox will play an important role in the cloud. The ability to maintain configurations and deployments in large scale applications will be essential to scaling the cloud.

The Roadmap Process

The process of creating the Eclipse Roadmap is described in the Eclipse Development Process. The key pieces are:

- The Councils propose a set of Themes and Priorities that realize the purposes and that respond to requirements elicited from the Strategic Developers, Strategic Consumers, Sustaining Members, and other constituents of the ecosystem. The EMO ensures that the Planning Council and the Development teams have access to all requirements. Updates to the purposes are likely to require updates to the Roadmap and its associated themes and priorities; proposed Roadmap updates may also be motivated by new technologies or opportunities.
- The process of producing or updating the Roadmap is expected to be iterative. An initial set of Themes and Priorities may be infeasible to implement in the desired time frame; subsequent consideration may reveal new implementation alternatives or critical requirements that alter the team's perspective on priorities. The EMO orchestrates interaction among and within the three Councils to drive the Roadmap to convergence.

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