Java Community Process Program Overview

The Java Community Process (JCP) program is the formalization of the open, inclusive process that has been used since 1998 to develop and revise Java technology specifications, reference implementations (RI), and technology compatibility kits (TCK). Java technology continues to evolve with the support of the international Java community, thanks to our members’ involvement and guidance of the Executive Committee (EC).

Priviliges of Membership

Over 1300 organizations and individuals participate in the JCP program. While there are no obligatory duties, members have the opportunity to influence the evolution of Java technology through the development of Java Specification Requests (JSR).

Members can license their Java specifications under a variety of licenses, including open source options. Anyone must be able to create an independent implementation as long as they license and pass the TCK to ensure compatibility. Members must also make the option available to license the TCK and RI separately. In addition, individuals, educational organizations, and qualified nonprofits must have access to the TCKs free of charge.

Successful Members:

• Review proposed JSRs and drafts
• Submit JSRs
• Nominate themselves or others to serve on Expert Groups, which create or revise specifications
• Build independent implementations
• Vote on EC membership ballots
• Nominate themselves for an EC seat

Members of an Expert Group may also:

• Serve as the Specification Lead of an Expert Group
• Select others to join their Expert Group
• Use feedback from members and the public to improve the quality of a specification
• Complete a specification, its RI, and its associated TCK
• Maintain a specification after it is written

How to Become a Member

A person or organization can become a member by signing the Java Specification Participation Agreement (JSPA). This agreement between an organization or individual and Oracle establishes each member’s rights and obligations when participating in the JCP program. To cover costs, the JSPA charges a nominal fee for commercial entities, but it is free for Java User Groups and individuals.

The Java Specification Review Process

Currently, over 350 JSRs are in development. A specification follows four major steps as it progresses through the process, as shown in the timeline.

1. INITIATION: A specification is initiated by one or more members and approved for development by the Executive Committee.

2. EARLY DRAFT: A group of experts is formed to draft the specification for the public, community and the Executive Committee to review. The Expert Group uses feedback from the review to revise the specification.

3. PUBLIC DRAFT: The draft is posted on the Internet for a second review by the public. The Expert Group uses the feedback to refine the document. The Executive Committee decides if the draft should proceed to the next step. The Specification Lead ensures that the RI and its associated TCK are completed before sending the specification to the Executive Committee for final approval.
4. MAINTENANCE: The completed specification, RI, and TCK are updated in response to ongoing requests for clarification, interpretation, enhancements, and revisions. The Executive Committee reviews proposed changes to the specification and indicates a course of action.

Glossary

Executive Committee (EC): The group of members who guide the evolution of Java technologies, ensuring that specifications do not overlap or conflict with one another, and that specifications meet the needs of the industry segment for which they are being written. Executive Committee members are elected by JCP members. The Committee represents major stakeholders and a representative cross section of the international Java technology community. There are two Executive Committees. One oversees the Java technologies for the desktop and server markets, with responsibility for specifications related to the Java Standard Edition™ and Java Enterprise Edition™. The other oversees the Java technologies for the consumer and embedded markets, with responsibility for the Java Micro Edition™.

Expert Group (EG): The group of experts who develop or revise a specification. Experts are members who are active, knowledgeable practitioners in the technology covered by the Java Specification Request.

Independent Implementation: An implementation of a specification that does not incorporate or otherwise make any use of the specification’s RI.

Java Community Process (JCP): The process for developing or revising written specifications for some aspect of the Java technology, including the language, virtual machine, platform editions, profiles, and application programming interfaces.

Java Specification Participation Agreement (JSPA): A one-year renewable agreement between Oracle and an organization or individual that enables participation in the JCP program. JSPA2 requires all Java specifications to allow for the development and distribution of compatible independent implementations, make the RI & TCK available separately, and offer technology compatibility kits (TCKs) free of charge to qualified nonprofits, educational organizations, and individuals.

Java Specification Request (JSR): The document submitted to the Program Management Office by one or more members to propose development of a new specification or significant revision of an existing one. When a JSR is first submitted, the submitter must state their intention either to continue offering the specification separately if it becomes part of a Platform Specification or to offer it only as a part of the Platform Specification.

JCP Member: An organization or individual that signs the JSPA and complies with its terms.

JCP Site (http://jcp.org): Where anyone can learn about JCP activities, download draft and final specifications, and follow a specification’s progress through the process.

JSR Specification Page: Each specification approved for development or revision has a public web page on the JCP site containing a history of the specification’s progress through the process.

Platform Specification: A specification defining a baseline Application Programming Interface (API) set that provides a foundation upon which other APIs, applications, and profiles can be built. There are currently three Platform Specifications.

Program Management Office (PMO): The group within Oracle that is responsible for administering the JCP and chairing the Executive Committee.

Reference Implementation (RI): The prototype or proof-of-concept implementation of a specification.

Specification Lead (SL): The expert who drives the effort to develop or significantly revise a specification and its associated RI and TCK. Specification Leads (or their host organizations) must be JCP members.

Technology Compatibility Kit (TCK): The suite of tests, tools, and documentation that determines whether an implementation is compatible with a specification.

For More Information

To learn more about the JCP program, please visit http://jcp.org.

To stay informed about the JCP program and follow progress of specifications, check out our blog at http://blogs.oracle.com/jcp. We are also on Facebook and Twitter.