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7

8 EXECUTIVE SUMMARY

9 The international Java community develops and evolves Java™ technology specifications using the
10 Java Community Process (JCP). The JCP produces high-quality specifications in "Internet time" using
11 an inclusive, consensus building approach that produces a specification, a reference implementation
12 (to prove the specification can be implemented), and a technology compatibility kit (a suite of tests,
13 tools, and documentation that is used to test implementations for compliance with the specification).

14 Experience has shown that the best way to produce a technology specification is to gather a group of
15 industry experts who have a deep understanding of the technology in question and then have a strong
16 technical lead work with that group to create a first draft. Consensus around the form and content of
17 the draft is then built using an iterative review process that allows an ever-widening audience to review
18 and comment on the document.

19 This version of the JCP was developed through the JCP by means of JSR XXX, led by Oracle and the
20 combined Executive Committees as the expert group.

21 An Executive Committee (EC) representing a cross-section of both major stakeholders and other
22 members of the Java community is responsible for approving the passage of specifications through
23 key points of the JCP and for reconciling discrepancies between specifications and their associated
24 test suites. There are two ECs: one to oversee the Java technologies for the desktop/server space
25 (with responsibility for the Java SE™ and Java EE™ specifications) and the other to oversee the Java
26 technologies for the consumer/embedded space (with responsibility for the Java ME™ specification).

27 There are four major steps in this version of the JCP:

- 28 1. **INITIATION**: A specification targeted at the desktop/server or consumer/embedded space is
29 initiated by community member(s) and approved for development by the responsible EC.
- 30 2. **EARLY DRAFT**: A group of experts is formed to develop a preliminary draft of the specification
31 that both the community and the public will then review. Anyone with an Internet connection

can read and comment on the draft. The expert group uses feedback from the review to revise and refine the draft.

3. **PUBLIC DRAFT:** The draft goes out again for review by the public. The expert group uses the feedback to further revise the document. At the end of this review, the EC decides if the draft should proceed. If approved by the EC, the leader of the expert group sees that the reference implementation and its associated technology compatibility kit are completed before sending the specification to the responsible EC for final approval.

4. **MAINTENANCE:** The completed specification, reference implementation, and technology compatibility kit are updated in response to ongoing requests for clarification, interpretation, enhancements, and revisions. The responsible EC can review all proposed changes to the specification and indicate which ones can be carried out immediately and which will require the specification to be revised by an expert group. Challenges to one or more tests in a specification's technology compatibility kit are ultimately decided by the responsible EC if they cannot be otherwise resolved.

FUNDAMENTAL DEFINITIONS

Java Community Process (JCP): The formal process described in this document for developing or revising Java technology specifications.

Java Community Process Member (Member): A company, organization, or individual that has signed the JSPA and is abiding by its terms.

Java Specification Participation Agreement (JSPA): A one-year renewable agreement between Oracle America and a company, organization or individual that allows the latter entities to participate in the Java Community Process.

Executive Committee (EC): The Members who guide the evolution of the Java technologies. The EC represents a cross-section of both major stakeholders and other Members of the Java Community. Members must have signed the EC acceptance letter in order to serve on the EC. The EC Policies and Procedures are in Section 5. The EC Standing Rules are found in a separate document.

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

Java Specification (Specification): A written specification for some aspect of the Java technology. This includes the language, virtual machine, Platform Editions, Profiles, and application programming interfaces.

Platform Edition Specification (Platform Edition): A Specification that defines a baseline API set that provides a foundation upon which applications, other APIs, and Profiles can be built. There are currently three Platform Edition Specifications: Java SE, Java EE, and Java ME.

Profile Specification (Profile): A Specification that references one of the Platform Edition Specifications and zero or more other JCP Specifications (that are not already a part of a Platform Edition Specification). APIs from the referenced Platform Edition must be included according to the referencing rules set out in that Platform Edition Specification. Other referenced specifications must be referenced in their entirety.

Reference Implementation (RI): The prototype or "proof of concept" implementation of a Specification.

Technology Compatibility Kit (TCK): The suite of tests, tools, and documentation that allows an organization to determine if its implementation is compliant with the Specification.

JCP Web Site: The web site where anyone with an Internet connection can stay informed about JCP activities, download draft and final Specifications, and follow the progress of Specifications through the

77 JCP.

78 **JCP Specification Page (Spec Page):** Each Specification approved for development or revision will
79 have a dedicated public web page established on the JCP Web Site to contain a history of the
80 passage of the Specification through the JCP, including a record of the decisions, actions, and votes
81 taken by the EC with respect to the draft Specification.

82 The use of the term “day” or “days” in this document refers to calendar days unless otherwise
83 specified.

84 THE JAVA COMMUNITY PROCESS SM PROGRAM

85 1. INITIATE A NEW OR REVISED SPECIFICATION

86 1.1 INITIATE A JAVA SPECIFICATION REQUEST

87 **definition - Java Specification Request (JSR):** The document submitted to the PMO by
88 one or more Members to propose the development of a new Specification or significant
89 revision to an existing Specification.

90 **definition - Umbrella Java Specification Request (UJSR):** A JSR that defines or revises a
91 Platform Edition or Profile Specification. A UJSR proceeds through the JCP like any other
92 JSR.

93 **definition - Expert:** A Member representative who has expert knowledge and is an active
94 practitioner in the technology covered by the JSR.

95 **definition - Expert Group:** The group of Experts who develop or make significant
96 revisions to a Specification.

97 **definition - Specification Lead (Spec Lead):** The Expert responsible for leading the effort
98 to develop or make significant revisions to a Specification and for completing the
99 associated Reference Implementation and Technology Compatibility Kit. A Spec Lead (or
100 the Spec Lead's host company or organization) must be a Java Community Process
101 Member.

102 One or more Members can initiate a request to develop a new Specification, or carry out a significant
103 revision to an existing one, by sending a JSR to the PMO. The JSR must use the template available at
104 the JCP Web Site. Any JSR under consideration can be withdrawn by its submitter(s) without
105 explanation at any time prior to the completion of the JSR approval vote (see section 1.3) upon
106 request by the submitter(s) to the PMO.

107 The following is some of the information required to be included with each JSR:

- 108 • the Members making the request (the submitters), a Specification Lead, and the initial
- 109 members of the Expert Group.
- 110 • a description of the proposed specification.
- 111 • the reason(s) for developing or revising it.
- 112 • the primary Platform Edition, as well as any consideration given to other Platform Editions.
- 113 • an estimated development schedule.
- 114 • any preexisting documents, technology descriptions, or implementations that might be used as

- 115 a starting point.
- 116 • a transparency plan, which outlines the tools and techniques that the Spec Lead will use,
- 117 during the creation and development of the specification, and for communicating the progress
- 118 within the Expert Group to Community Members, EC Members and the public. The EC will
- 119 expect the Spec Lead to operate the JSR in accordance with this plan.

120 **1.1.1 REVISE EXISTING SPECIFICATIONS**

121 Existing Specifications, along with their associated RIs and TCKs, are maintained by a designated

122 Maintenance Lead using the processes described in section 4 of this document. Maintenance Leads

123 (and their host companies or organizations) are expected to assume long term ownership of their

124 Specifications, RIs, and TCKs with due respect of the will of the Java Community Members with

125 regard to evolution. This means that Maintenance Leads will automatically be the Spec Leads for all

126 significant revisions to their Specifications going forward but they will not have the exclusive right to

127 decide when a significant revision will take place. That will be decided by the EC in response to a

128 revision JSR that can be initiated by any Java Community Member (or Members). The only provision

129 is that the submitter(s) should make a reasonable effort to get some of the members of the previous

130 Expert Group to join the revision effort.

131 **1.1.2 PROTECT THE INSTALLED BASE AND GUARD AGAINST FRAGMENTATION**

132 Changes to the Java programming language, the Java virtual machine (JVM), the Java Native

133 Interface (JNI), packages in the "java.*" space, or other packages delivered as part of Java SE, have

134 the potential to seriously disrupt the installed base if carried out inconsistently across the Platform

135 Editions. In order to protect the installed base, any such changes can only be accepted and carried

136 out within a UJSR for Java SE.

137 In order to guard against fragmentation, new Platform Edition Specifications will not substantially

138 duplicate existing Platform Editions or Profiles.

139 **1.1.3 PROFILES AND API SPECIFICATIONS TARGET CURRENT PLATFORM EDITIONS**

140 All new or revised Specifications must be compatible with the most recent versions of the targeted

141 Platform Edition Specifications. In order to achieve this, all UJSRs to define new Profile Specifications

142 or revise existing Profile Specifications must reference the latest version of the Platform Edition

143 Specification they are based upon.

144 **1.1.5 CONTINUED AVAILABILITY**

145 The technology that a JSR defines can be delivered as part of a Profile or Platform Edition, it can be

146 delivered stand-alone or both. Future versions of the technology may be integrated into a Profile or a

147 Platform Edition while previous versions were not. The submitter of a JSR will be required, via the JSR

148 submission form, to indicate if it is the submitter's goal to deliver the JSR's RI and TCK as part of a

149 Profile or Platform Edition, stand-alone or both. When delivering the JSR's RI and TCK integrated into

150 a Profile or Platform Edition and not delivering these separately and where the RI and TCK of previous

151 versions were available separately, the submitter must state the rationale. Also in this case the JSR

152 Review (see section 1.2) will be 4 weeks instead of 14 days.

153 A JSR for a new version of an API that proposes to become part of a Profile or Platform Edition and is

154 considering discontinuing stand-alone availability where the previous JSR for this API did not indicate

155 this plan, must make that proposal to discontinue stand-alone availability one version ahead.

156 **1.1.6 PLATFORM INCLUSION**

157 JSRs that want to be considered to be included in the definition of a Platform Edition or a Profile

158 should describe this intent in the JSR's submission. The final decision whether a specific JSR is
159 included in a Profile or a Platform Edition is made by the Spec Lead and Expert Group of that Platform
160 Edition JSR or Profile JSR, and confirmed by the EC ballots on those JSRs. If the Platform Edition or
161 Profile JSR turns down the request for inclusion, then the JSR for the API will be required to deliver a
162 stand-alone RI and TCK.

163 1.2 JSR REVIEW

164 **definition - JSR Review:** A 4 week period when anyone with an Internet connection can
165 review and comment on a new JSR.

166 **definition - JSR Page:** Each initiated JSR will be published on a public area of the JCP
167 Web Site.

168 When a JSR is received, the PMO will give it a tracking number, assign the JSR to the appropriate EC
169 (or both ECs if so requested by the submitter), create its JSR Page, announce the proposed JSR to
170 the public, and begin JSR Review. Comments on the JSR should be sent to the e-mail address listed
171 on the JSR Page. All comments received will be made available from the JSR Page (similar comments
172 may be consolidated) and forwarded to the EC for its consideration. Members who are interested in
173 joining the Expert Group (should the JSR be approved) should identify themselves by submitting a
174 nomination form to the PMO.

175 1.2.1 EARLY WARNING AND FEEDBACK ON LICENSING TERMS FOR THE RI AND TCK

176 The Spec Lead's company or organization is responsible for the Reference Implementation (RI) and
177 Technology Compatibility Kit (TCK) and its licensing under terms compatible with the licensing
178 guidelines established for use within the JCP. The Spec Lead will provide the EC with the terms under
179 which the RI and TCK will be licensed no later than the start of JSR Review. The Spec Lead must
180 provide complete copies of the licenses that they intend to use, not simply a summary of some of the
181 terms. The licenses will be published for public access with links on the public JSR page. If the Spec
182 Lead subsequently determines that circumstances require a change to one or more of the licenses it
183 provided, the Spec Lead shall provide both the revised licenses and the reasons for the changes to
184 the EC. EC members will provide feedback on the terms as an indication of how the community might
185 react as a whole to the terms.

186 If Expert Group members are required to enter into an agreement (other than the JSPA) for access to
187 Expert Group infrastructure (such as Expert Group mail lists, document or code repositories, etc.), the
188 Spec Lead must include references to the licenses for use of these services in the Java Specification
189 Request. Since hosting services may impose licensing requirements on Expert Group members, this
190 information may be considered by the EC during the JSR Approval Ballot. If the Expert Group switches
191 to a different hosting service after the JSR Approval Ballot, the Spec Lead must obtain EC approval
192 and update the public Spec Page on the JCP Web site.

193 1.3 JSR APPROVAL BALLOT

194 **definition - JSR Approval Ballot:** The EC ballot to determine if the JSR should be
195 approved.

196 After the JSR Review, EC members will review the JSR (with its proposed Spec Lead and initial
197 Expert Group), any comments and nominations received, and cast their ballot as per Section 6. below
198 to decide if the JSR should be approved.

199 **definition - JSR Reconsideration Ballot:** The EC ballot to determine if a revised JSR

200 should be approved.

201 If the JSR Approval Ballot fails, the PMO will send all EC comments to the JSR submitter(s) who will
202 have the option of revising the JSR and resubmitting it to the PMO within 14 days. If a revised JSR is
203 not received in that time, the original EC decision will stand and the JSR will be closed. If a revised
204 JSR is received, the PMO will post it to the JSR Page, announce the revised JSR to the public, and
205 send it to all EC members for a JSR Reconsideration Ballot. If that ballot fails, the JSR will be closed.

206 **2. CREATE THE EARLY DRAFT**

207 **2.1 FORM THE EXPERT GROUP**

208 Within 14 days of a JSR being approved, the PMO will notify the identified Spec Lead to form the
209 Expert Group. If the Member contributing the Spec Lead withdraws from the Community before the
210 JSR is approved, the PMO will request the initial Expert Group to choose a replacement from among
211 themselves who is willing to take on the duties defined in this document (including taking responsibility
212 for the RI and TCK, working towards the estimated schedule given in the JSR, and assuming the
213 position of Maintenance Lead as described in section 4).

214 There is no size limit on the Expert Group. The Spec Lead may add additional Experts at any time
215 provided the existing Expert Group is consulted first. New members may be added, for example, to
216 increase diversity of opinion. A Spec Lead recruits new Experts by approaching other Members
217 directly and working with them to identify an expert and bring him or her into the Expert Group.

218 **2.1.1 FREEDOM OF WORKING STYLE**

219 Each Expert Group is free to define and follow whatever working style it finds most productive and
220 appropriate as long as it is compatible with the JCP. Use of the Internet is encouraged. E-mail
221 exchanges on mailing lists established for the use by the Expert Group, along with conference calls
222 and group meetings, have been used by past Expert Groups to discuss and resolve issues raised as
223 the draft evolves. In-person group meetings are useful but they tend to slow down work considerably
224 due to the need to coordinate schedules.

225 Spec Leads are encouraged to choose a style that provides maximal transparency to the Expert
226 Group, community, the EC members and the public. The PMO provides Spec Leads with tools and
227 techniques for making the actions of their Expert Groups transparent, and the EC members expect
228 Spec Leads to carefully choose which tools are best for their Expert Groups and commit to using
229 them. Transparency is valuable to everyone in the community, especially the Expert Group, because it
230 offers broader feedback to the group and helps build broader support for the final spec. The public
231 JSR page must contain information on what transparency techniques are being used by the Expert
232 Group and this information must be current before any JSR Ballot.

233 The use of JSPA Confidential materials (as defined in the JSPA) by Expert Groups limits transparency
234 and is strongly discouraged. If the Spec Lead intends to permit the use of JSPA Confidential materials
235 (such as emails, drafts or submissions marked as Confidential), this must be specified in the initial
236 Java Specification Request before the JSR Approval Ballot. ¹

237 **2.1.2 WITHDRAWAL OF AN EXPERT FROM THE EXPERT GROUP**

238 An Expert may withdraw from the Expert Group at any time. When this happens, the Spec Lead may
239 approach the Member who originally contributed the Expert and work with that organization to find a
240 replacement. If no replacement is offered, the Spec Lead may recruit a replacement from another

1 The EC intends to remove the confidentiality language from the JSPA in the near future.

241 Member if desired. If the departing Expert is the Spec Lead, the Expert Group should choose one of
242 its members as the new Spec Lead provided he or she is willing to take on all of the responsibilities
243 defined in this document.

244 **2.1.3 UNCOOPERATIVE OR UNRESPONSIVE EXPERT GROUP MEMBERS**

245 There may be rare instances when members of the Expert Group feel that one of their fellow Experts
246 is not acting in ways that advance the work of the Expert Group. These concerns should be brought to
247 the attention of the Spec Lead and/or the EC as quickly as possible so they may be proactively
248 addressed and resolved. The Expert Group members are expected to make a reasonable effort to
249 resolve any such issues among themselves. If a 2/3 majority of the members of the Expert Group find
250 that a Spec Lead is being unresponsive, or if a 2/3 majority of the EC determines that the Expert
251 Group is no longer capable of carrying out a vote, and the Spec Lead does not work to resolve the
252 situation in a timely manner, the EC may direct the PMO to ask the Member who provided the Spec
253 Lead to provide a replacement or may direct the PMO to ask a different Member to provide a
254 replacement.

255 **2.2 WRITE THE FIRST DRAFT OF THE SPECIFICATION**

256 The Expert Group should begin work by considering the requirements set forth in the JSR, any
257 contributed documents or technology descriptions, comments received during JSR Review and, if this
258 is a revision of an existing Specification, the Change Log kept by the Maintenance Lead (see section
259 4). Additional input can be obtained from discussions with other Members, industry groups, software
260 developers, end-users, and academics. The goal is to define requirements and then write a draft
261 specification suitable for review by the Community and the public.

262 When the Expert Group decides that the first draft is ready for review, the Specification Lead will send
263 the draft, along with any additional files required for review, to the PMO. The Specification Lead should
264 also suggest the length of the Early Draft Review period if the Expert Group feels it should go beyond
265 the minimum 30 days.

266 **2.2.1 CONFIRMATION OF LICENSING TERMS FOR RI AND TCK**

267 The Spec Lead's company or organization is responsible for the Reference Implementation (RI) and
268 Technology Compatibility Kit (TCK) and its licensing under terms compatible with the licensing
269 guidelines established for use within the JCP. The Spec Lead will provide the EC with confirmation of
270 the terms under which the RI and TCK will be licensed at each review period. EC members will
271 provide feedback on the terms as an indication of how the community might react as a whole to the
272 terms. The Spec Lead must provide complete copies of the licenses that they intend to use, not simply
273 a summary of some of the terms. The licenses will be published for public access with links on the
274 public JSR page. If the Spec Lead subsequently determines that circumstances require a change to
275 one or more of the licenses it provided, the Spec Lead shall provide both the revised licenses and the
276 reasons for the changes to the EC.

277 **2.3 EARLY DRAFT REVIEW**

278

279 **definition – Early Draft Review:** A 30 to 90 day period when the public review and
280 comment on the draft Specification.

281 Refinement of the draft Specification begins when the PMO posts it to the JCP Web Site and
282 announces the start of Early Draft Review to all the Members and the public. Anyone with access to

283 the Internet can download and comment on the draft. The goal of Early Draft Review is to get the draft
284 Specification into a form suitable for Public Review as quickly as possible by uncovering and
285 correcting major problems with the draft. Early Draft Review is an early access review, designed to
286 ideally take place when the specification still has some unresolved issues. The public's participation in
287 Early Draft Review is an important part of the JCP. In the past, comments from the public have raised
288 fundamental architectural and technological issues that have considerably improved some
289 Specifications.

290 All comments from Members and the public should be sent to the e-mail feedback address listed in the
291 draft. The Spec Lead is responsible for ensuring that all comments are read and considered.
292 Commenters have a right to receive a response to their comments within 30 [or 60?] days after the
293 close of the Early Draft Review period. For simplicity, similar comments may be combined and
294 responded to as one. All comments received must be made available from the JSR Page . Before the
295 Public Review, a brief Expert Group response to each of the Early Draft Review comments must be
296 made available from the JSR page.²

297 **2.3.1 UPDATING THE DRAFT DURING EARLY DRAFT REVIEW**

298 If the Expert Group makes major revisions to the draft during Early Draft Review, the Spec Lead
299 should send the revised draft, along with a synopsis of the changes, to the PMO. The PMO will
300 immediately notify Members and the public of any updated drafts and change synopses received and
301 make them available for download by Members and the public.

302 During Early Draft Review, EC members are strongly encouraged to have one or more technical
303 members of their organizations carry out a review of the draft in order to uncover possible duplication
304 of features or services between the draft and other Specifications. EC members should inform the
305 Expert Group of any such discoveries using the Member e-mail feedback address listed in the draft so
306 they can be considered and responded to like all Member comments. EC member feedback is
307 important to the Expert Group, and EC members are encouraged not to wait until ballot periods to
308 voice concerns and issues.

309 After the Early Draft Review period has ended, the Expert Group can make any additional changes to
310 the draft it deems necessary in response to comments before submitting the draft to the PMO for
311 Public Review.

312 **3. COMPLETE THE SPECIFICATION**

313 **3.1 PUBLIC REVIEW**

314 **definition - Public Review:** A 30 to 90 day period when the public can review and
315 comment on the draft Specification.

316 Public Review begins when the PMO posts a new draft Specification on the JCP Web Site and
317 announces it to both Members and the public. Anyone with access to the Internet can download and
318 comment on the draft.

319 All comments from Members and the public should be sent to the e-mail feedback address listed in the
320 draft. The Spec Lead is responsible for ensuring that all comments are read and considered. If those
321 comments result in revisions to the draft, and those revisions result in major changes (in the opinion of
322 the Expert Group), then the Specification Lead will send an updated draft (with synopsis of the
323 changes) to the PMO at any time up until the last day of the review period. The PMO will post both the
324 new draft and the change synopsis to the JCP Web Site and notify both Members and the public. All

2 The requirement to respond publicly to comments will be tightened up in a future draft of this document, via a new
General Requirements section

325 comments received must be made available from the JSR Page before the end of the Review so that
326 they can be considered by the EC during the ballot (similar comments may be consolidated). Before
327 the Proposed Final Draft, a brief Expert Group response to each of the Public Review comments must
328 be made available from the JSR page.

329 EC members are strongly encouraged to have one or more technical members of their organizations
330 carry out a review of the draft early on in Public Review, in order to uncover possible negative changes
331 since Early Draft Review. EC members should inform the Expert Group of any such discoveries using
332 the Member e-mail feedback address listed in the draft so they can be considered and responded to
333 during the review period, like all Member comments. EC member feedback is important to the Expert
334 Group, and EC members are encouraged not to wait until ballot periods to voice concerns and issues.

335 **3.2 PUBLIC DRAFT SPECIFICATION APPROVAL BALLOT**

336 **definition - Public Draft Specification Approval Ballot** : The EC ballot to determine if a
337 draft should proceed after Public Review.

338 The Public Draft Specification Approval Ballot starts when the Public Review closes. At the close of
339 balloting, all comments submitted by EC members with their ballots will be circulated to the Expert
340 Group by the PMO.

341 **definition - Public Draft Specification Reconsideration Ballot** : The EC ballot to
342 determine if a revised draft should proceed after Public Review.

343 If the Public Draft Specification Ballot fails, the Expert Group will have 30 days to update the draft in
344 response to the concerns raised by the EC and submit a revised version to the PMO. If a revised draft
345 is not received by the end of the 30 days, the original decision by the EC will stand and the JSR will be
346 closed. If a revision is received, the PMO will forward it to the EC and initiate a Public Draft
347 Specification Reconsideration Ballot. At the close of balloting, all comments submitted by EC members
348 with their ballots will be circulated to the Expert Group by the PMO. If this ballot fails, the JSR will be
349 closed and the Expert Group will disband. If the JSR was a revision to an existing Specification, the
350 Spec Lead will resume the role of Maintenance Lead of the current Specification (see section 4).

351 **3.3 PROPOSED FINAL DRAFT**

352 **definition - Proposed Final Draft**: The version of the draft Specification that will be used
353 as the basis for the RI and TCK.

354 If the Public Draft Specification Approval Ballot (or Reconsideration Ballot) is successful, the Expert
355 Group will prepare the Proposed Final Draft of the Specification by completing any revisions it deems
356 necessary in response to comments received. The Spec Lead will then send the Proposed Final Draft
357 to the PMO, who will announce it to both Members and the public and post it on the JCP Web Site for
358 public download within seven days of receipt.

359 **3.3.1 COMPLETE THE RI AND TCK**

360 The Spec Lead is responsible for the completion of both the Reference Implementation (RI) and
361 Technology Compatibility Kit (TCK). JSRs which are assigned to both ECs are required to deliver an
362 RI and TCK that are applicable to the Java ME environment and to the Java SE or Java EE
363 environment. This may require a separate RI and TCK for each environment. If the RI and TCK
364 uncover areas of the Specification that were under-defined, incomplete, or ambiguous, the Spec Lead
365 will work with the Expert Group to correct those deficiencies and then send a revised Specification
366 (with synopsis of the changes) to the PMO. All such revisions and change synopses received will be

367 posted to the JCP Web Site and announced to both Members and the public. The Expert Group will
368 continue to consider any further comments received during this time.

369 **3.3.2 ESTABLISH A FIRST-LEVEL TCK APPEALS PROCESS**

370 **definition - First-Level TCK Appeals Process :** The process defined by the Spec Lead
371 that allows implementers of the Specification to appeal one or more tests defined by the
372 Specification's TCK.

373 The Spec Lead is also responsible for establishing a clearly defined First Level TCK Appeals Process
374 to address challenges to the tests contained in the TCK. This process must be described in the
375 documentation included in the TCK (see Section 4.3 for information on the full TCK Appeals Process).
376 Examples of First Level TCK Appeals Process applicable to situations ranging from simple API
377 Specifications all the way up to Platform Edition Specifications can be found in the TCK section of the
378 JCP Web Site.

379 **3.4 FINAL APPROVAL BALLOT**

380 **definition - Final Draft:** The final draft of the Specification that will be put forward for EC
381 approval.

382 **definition - Final Approval Ballot:** The 14-day EC ballot to approve the Final Draft along
383 with its associated RI and TCK.

384 When the Expert Group is satisfied that the TCK provides adequate test coverage, the RI adequately
385 implements the Specification, and the RI passes the TCK, the Spec Lead will send the Final Draft of
386 the Specification to the PMO along with instructions on how EC members can obtain the RI and TCK
387 for evaluation. The PMO will circulate the materials to the EC and initiate the Final Approval Ballot. At
388 the close of balloting, all EC comments will be sent to the Expert Group by the PMO.

389 Each TCK submitted as part of the Final Draft must meet the following requirements:

- 390 • Include all TCK documentation covering configuration and execution of the TCK, definition and
391 explanation of the First-level TCK Appeals Process, and any other information needed to use
392 the TCK (e.g. Tools documentation).
- 393 • Be accompanied by a test harness, scripts or other means to automate the test execution and
394 recording of results.
- 395 • Include a TCK Coverage Document for the EC members to use in evaluating the sufficiency of
396 the TCK. This executive summary of the TCK should include an overview of the documentation
397 included in the TCK, description of means used to validate the quality of the TCK, criteria used
398 to measure TCK test coverage of the Specification, test coverage numbers achieved, and
399 justification for the adequacy of TCK quality and its test coverage.
- 400 • Provide 100% signature test coverage. These tests must ensure that all of the required API
401 signatures of the spec are completely implemented.

402 **definition - Final Approval Reconsideration Ballot:** The 14-day EC ballot to reconsider
403 an initial rejection of a Final Draft, RI, and TCK.

404 If the Final Approval Ballot fails, the Spec Lead will have 30 days to revise the RI and/or TCK in
405 response to any EC concerns. At the same time, the Expert Group will have 30 days to revise the
406 Final Draft in response to any EC concerns and send it to the PMO.

407 If no responses are received by the end of the 30 days, the original decision of the EC will stand, the
408 PMO will close the JSR, and the Expert Group will disband. If the JSR was a revision to an existing
409 Specification, the Spec Lead will resume the role of Maintenance Lead of the current Specification
410 (see section 4).

411 If a response is received, the PMO will circulate it to all EC members for a Final Approval
412 Reconsideration Ballot. At the close of balloting, all ballot comments submitted by EC members will be
413 circulated to the Expert Group by the PMO. If the reconsideration ballot fails, the JSR will be closed
414 and the Expert Group will disband. If the JSR was a revision to an existing Specification, the Spec
415 Lead will resume the role of Maintenance Lead of the current Specification.

416

417 **3.5 FINAL RELEASE**

418 Within 14 days of a successful Final Approval Ballot (or a Reconsideration Ballot), the PMO will
419 publish the Specification and links to information on how to obtain the RI and TCK on the JCP Web
420 Site and an announcement will be made to both Members and the public. Upon Final Release, the
421 Expert Group will have completed its work and disbands. The Spec Lead will typically be the
422 Maintenance Lead and may call upon Expert Group members and others for aid in that role.

423 **4. MAINTENANCE**

424 **4.1 KEEP THE SPECIFICATION UP TO DATE**

425 **definition - Maintenance Lead (ML)** : The Expert responsible for maintaining the
426 Specification.

427 The Maintenance Lead is responsible for carrying out maintenance on the Specification and dealing
428 with errata by fielding requests for clarification, interpretation, and enhancements to the Specification
429 from both Members and the public via an e-mail address listed in the Specification. The ML will
430 consider all requests and will decide how and if the Specification should be updated in response. The
431 ML will typically be the Spec Lead from the Expert Group that developed the Specification. The ML is
432 not required to do all these tasks alone. The ML may find it very helpful to recruit members of the
433 Expert Group that helped to develop the Specification to assist with the Maintenance duties.

434 **4.1.1 THE MAINTENANCE LEAD MAKES A LONG TERM COMMITMENT**

435 The Maintenance Lead (and his or her host company or organization) is expected to assume long
436 term ownership of the Specification, RI, and TCK with due respect of the will of the Java Community
437 Members with regard to evolution. This means that a Maintenance Lead will automatically be the Spec
438 Lead for all significant revisions to their Specification going forward but he or she will not have the
439 exclusive right to decide when a significant revision will take place (see section 1.1.1).

440 **4.1.2 RELINQUISHING OWNERSHIP**

441 **definition - Dormant Specification (Dormant)** : A Specification that does not have an
442 identified Maintenance Lead. All Specifications become Dormant at the end of their life
443 cycles.

444 **definition - Transfer Ballot**: The EC ballot to approve transfer of ownership of a

445 Specification, RI, and TCK from one Member to another Member.³

446 If the ML decides to discontinue his or her work for whatever reason (including discontinuing
447 maintenance activities or declining to take on the role of Spec Lead during a significant revision
448 initiated by a JSR) the ML should make a reasonable effort to locate another Member who is willing to
449 take on the task. If the ML fails to find a replacement, the PMO will declare the Specification to be
450 Dormant. No further maintenance will be carried out on it until a new ML is identified and ownership of
451 the Specification, RI, and TCK is transferred to the new ML's organization (subject to a successful
452 Transfer ballot by the EC).

453 4.2 THE MAINTENANCE CYCLE

454 The PMO will provide a publicly archived Maintenance feedback email address for requests for
455 Specification clarifications, corrections or changes from the public. The ML will review all comments,
456 identify common themes, and arrange with the PMO to make a list of frequently raised issues
457 available from the document's Spec Page. The ML is free to consult with the former members of the
458 Expert Group, or any other sources, for advice on how to revise the Specification. All change items
459 proposed by the ML will make their way into the Specification by either the Minor Revision process
460 (described in section 4.2.1) or by a JSR.

461 4.2.1 MINOR REVISION PROCESS

462 **definition - Minor Revision:** Minor changes made to a Specification by the ML.

463 **definition - Change Log:** An area accessible from the Spec Page that lists all changes
464 made to the Specification after Final Release. There are three sections: PROPOSED
465 (changes not yet made to the Specification), ACCEPTED (changes made), and
466 DEFERRED (change items to be considered in a new JSR).

467 **definition - Maintenance Review :** A period of at least 30 days prior to finalization of a
468 Minor Revision when Members and the public consider and comment on the change items
469 listed in the PROPOSED section of the Change Log.

470 The ML will arrange to have all change items placed into the PROPOSED section of the Change Log
471 and then send a request to the PMO to initiate a Maintenance Review. Before the Maintenance
472 Review begins, the ML must summarize comments received at the Maintenance feedback email
473 address (similar comments may be consolidated) and indicate the disposition for each comment (e.g.
474 deferred with a brief explanation, rejected with a brief explanation, included in Change Log proposal).
475 This will be posted along with the Change Log on the Spec Page. The PMO will make a public
476 announcement and begin the review within 14 days of receipt of the request.

477 The ML may choose to modify one or more of the proposed changes based on comments received
478 during review. All comments will be available from the Spec Page. At the end of Maintenance Review,
479 the ML will update the Specification, document all revisions in the ACCEPTED section of the Change
480 Log, and delete the corresponding entries in the PROPOSED section. All changes not incorporated
481 into the Specification may be either left in the PROPOSED section or moved to the DEFERRED
482 section.

³ Transfer of ownership does not mean transfer of IP rights, only transfer of the right to start again. The new Spec Lead can, however, negotiate a transfer of IP with the old Spec Lead.

483 4.2.2 THE EC MAY DEFER MINOR REVISION ITEMS

484 **definition - Item Exception Ballot** : The EC ballot to determine whether or not to include
485 specific change items in a Minor Revision.

486 During Maintenance Review an EC member may request that specific proposed change items be
487 deferred to the next JSR. Any such request must be made to the PMO no later than the close of
488 Maintenance Review. If requests are received, the PMO will circulate the requests to all EC members
489 and initiate a 7 day Item Exception Ballot within 2 weeks after the close of the Maintenance Review. At
490 the close of the Item Exception Ballot, the PMO will post the ballot results to the Change Log. The ML
491 will place all proposed changes that were disapproved into the DEFERRED section. The ML will need
492 to initiate a JSR to carry out any of those changes. The ML must post an updated version of the
493 Specification within one month of the completion of the Review and any Item Exception Ballot.

494 4.2.3 KEEPING THE RI AND TCK SYNCHRONIZED WITH THE SPECIFICATION

495 Whenever the Specification is updated, the ML is responsible for reviewing the current RI and TCK to
496 determine what revisions (if any) are needed to keep the RI and TCK synchronized with the
497 Specification. The ML must keep a Change Log for the RI and one for the TCK, recording all updates
498 to each of them, respectively. The maintenance changes will be considered final when the RI and TCK
499 are synchronized with the Specification.

500 4.3 THE TCK APPEALS PROCESS

501 As noted in section 3.2.2, the TCK documentation must identify and specify a First-Level TCK Appeals
502 Process by which challenges to the TCK will be addressed. An implementer of a Specification can
503 challenge a TCK test using the First-Level TCK Appeals Process. Implementers who are not satisfied
504 with a first level decision can appeal it to the EC.

505 4.3.1 APPEALING A FIRST-LEVEL DECISION TO THE EC

506 **definition - Appeal Ballot** : The EC ballot to override a first-level decision on a TCK test
507 challenge.

508 Implementers appeal a first-level decision to the EC by filing a written request with the PMO using the
509 online form available at the TCK section of the JCP Web Site. The PMO will circulate the request to
510 the EC, along with any information received from the ML concerning the rationale for the first-level
511 decision, and initiate a 7-day Appeal Ballot.

512 4.3.2 UPDATE THE RI TO MATCH THE TCK AND THE SPECIFICATION

513 If the Appeal Ballot is successful, the ML will, within one month of the close of Ballot, update the TCK
514 and/or the Specification in accordance with the EC decision, update the RI if necessary, and record
515 the changes in the RI and TCK Change Logs.

516 5. EXECUTIVE COMMITTEE POLICIES AND PROCEDURES

517 5.1 SCOPE

518 The Executive Committee (EC) oversees the development and evolution of the Java technologies
519 within the JCP.

520 **5.2 MEMBERSHIP**

521 The Executive Committee is composed of 16 Java Community Process Members plus a non-voting
522 Chair. The Chair of the EC will be a member of the Process Management Office. The 16 voting
523 members will be selected from Java Community Process Members. Oracle America, Inc. will have a
524 permanent voting seat on the EC. That Oracle representative will not be a member of the PMO.

525 No Member may hold more than one voting seat on the EC at any given time. For example, if a
526 Member has majority-ownership of one or more other Members, then that group of Members can have
527 only one seat on the EC at any given time.

528 **5.3 EC DUTIES AND RESPONSIBILITIES**

- 529 1. Select JSRs for development within the JCP.
530 2. Approve draft Specifications for Public Review.
531 3. Give final approval to completed Specifications and their associated RIs and TCKs.
532 4. Decide appeals of first-level TCK test challenges.
533 5. Review maintenance revisions and possibly require some to be carried out in a new JSR.
534 6. Approve transfer of maintenance duties between Members.
535 7. Provide guidance to the PMO and JCP Community to promote the efficient operations of the
536 organization and to guide the evolution of Java platforms and technologies. Such guidance
537 may be provided by mechanisms such as publishing white papers, reports, or comments as the
538 EC deems appropriate to express the opinions of one or both Executive Committees.
539 8. Members of the Executive Committees shall be dedicated to the principles of full and open
540 competition, in full compliance with all applicable laws, including all antitrust laws of the
541 United States and other nations and governmental bodies as appropriate.
542 4

543 **5.4 EC SELECTION PROCESS AND LENGTH OF TERM**

544 **definition - Ratified Seat :** An EC seat filled by the ratification process described in
545 section 5.4.2.

546 **definition - Elected Seat :** An EC seat filled by the election process described in section
547 5.4.3.

548 Voting Members on the EC serve 3-year terms. There are 10 Ratified Seats, 5 Elected Seats, and one
549 permanent seat held by Oracle America, Inc. The 3-year terms are staggered so that 5 of the 15 seats
550 are normally up for ratification/election each year as follows:

	Ratified Seats Replaced	Elected Seats Replaced
Year 1	3	2
Year 2	3	2
Year 3	4	1

551 The cycle repeats every 3 years. Ratified or Elected Seats that are vacated prior to completion of the
552 term will be filled as described sections in 5.4.2 and 5.4.3.

4 There was more text here, it has been moved to Standing Rules

553 **5.4.1 RESIGNATION OF EC SEATS**

554 Members on the EC may resign their seats at any time during their term.

555 Should one Member on the EC acquire a majority ownership of another EC member, one of those
556 members must resign his or her seat by the effective date of the acquisition.

557 EC members who fail to remain Java Community Members forfeit their EC seat.

558 **5.4.2 SELECTION PROCESS FOR RATIFIED SEATS**

559 Members are selected for the 10 Ratified Seats using a ratification ballot. The table given at the end of
560 section 5.4 determines the number of Ratified Seats up for ratification each year of the 3-year cycle.

561 A Ratified Seat that was vacated by resignation will be filled for the remainder of its term by a
562 ratification ballot that will be held no later than two months after the resignation (unless the resignation
563 is less than six months before the next scheduled ratification ballot).

564 All JCP Members are eligible to vote in a ratification ballot subject to the provision that if a Member
565 has majority-ownership of one or more other Members, then that group of Members will collectively
566 have 1 vote.

567 The ratification ballot is carried out as follows:

- 568 • The PMO nominates Members to fill the vacant Ratified Seats with due regard for balanced
569 community and regional representation.
- 570 • Voting begins starting in the third week of October each year.
- 571 • Eligible Members will vote to ratify each nominee over a 14-day voting period.
- 572 • A nominee is ratified by a simple majority of those who cast a vote.
- 573 • If one or more of the nominees are not ratified by the vote, the PMO will nominate additional
574 Members as needed and hold additional ratification ballots until the vacant seats are filled.

575 **5.4.3 SELECTION PROCESS FOR ELECTED SEATS**

576 Members are selected for the 5 Elected Seats using an open election process. The table given at the
577 end of section 5.4 determines the number of Elected Seats up for election each year of the 3-year
578 cycle.

579 An Elected Seat that was vacated by resignation will be filled for the remainder of its term by an
580 election ballot that will be held no later than two months after the resignation (unless the resignation is
581 less than six months before the next yearly election).

582 All JCP Members are eligible to vote in an election ballot subject to the provision that if a Member has
583 majority-ownership of one or more other Members, then that group of Members will collectively have 1
584 vote.

585 The election ballot is carried out as follows:

- 586 • Four weeks before the voting period, the PMO will post on the public JCP site a complete
587 description of all materials that will be provided to voters from the JCP election pages and
588 ballot (e.g. any candidate statements, position papers, candidate forums, etc. that will be
589 posted during the election).
- 590 • Starting four weeks before the voting period, the PMO will accept nominations from the
591 Community for a period of 14 days. Any Member may be nominated.
- 592 • Voting begins starting in the third fourth week of October each year.
- 593 • Eligible Members may vote for as many nominees as there are vacant Elected Seats over a
594 14-day voting period.
- 595 • The nominees who receive the most votes will fill the vacant Elected Seats.

- Ties will be decided by following the procedure defined in <http://www.ietf.org/rfc/rfc2777.txt> and using the calculator provided by W3C in <http://www.w3.org/2001/05/rfc2777>.

6. EXECUTIVE COMMITTEE JSR VOTING RULES

1. All EC JSR votes will be conducted electronically and the results made public.
2. EC JSR balloting periods last 7 days except where noted in this document.
3. EC Members may cast three types of votes: "yes", "no" and "abstain". Explicit abstentions are strongly discouraged. In the extreme and most undesirable case, an EC Member may not vote at all.
4. Only "yes" and "no" votes count in determining the result of an EC ballot.
5. EC JSR ballots are approved if (a) a majority of the votes cast are "yes" votes, and (b) a minimum of 5 "yes" votes are cast. Ballots are otherwise rejected.
6. EC ballots to approve UJSRs for new Platform Edition Specifications or JSRs that propose changes to the Java language, are approved if (a) at least a two-thirds majority of the votes cast are "yes" votes, (b) a minimum of 5 "yes" votes are cast, and (c) Oracle casts one of the "yes" votes. Ballots are otherwise rejected.
7. "No" votes must be accompanied by an explanation along with changes (if any) that are necessary to change the vote to "yes".
8. It is highly recommended that abstentions be accompanied by comments.
9. When a failed EC JSR ballot results in the closing of a JSR, at least 1 month must pass before the JSR can be reinitiated.
10. EC ballots to override a first-level decision on a TCK challenge are approved if (a) at least a two-thirds majority of the votes cast are "yes" votes, and (b) a minimum of 5 "yes" votes are cast.
11. An item listed in an Item Exception Ballot will be deferred to the next JSR if at least one-third of the EC Members cast "no" votes for that item.
12. When more than one EC is voting on any of the above mentioned ballots, the ballot will be approved only if each EC approves it separately.

APPENDIX A: REVISING THE JCP AND THE JSPA

Revisions to the Java Community Process (this document) and the Java Specification Participation Agreement will be carried out using the Java Community Process with the following changes:

1. Only EC members can initiate a JSR to revise one of these documents.
2. Each EC must approve the JSR.
3. The Expert Group consists of both ECs with a member of the PMO as Specification Lead.
4. There is no Reference Implementation or Technology Compatibility Kit to be delivered and no TCK appeals process to be defined.