



# Release Review: AJDT 1.5.1 and AspectJ 1.5.4

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# Introduction

- Co-ordinated release of:
  - AJDT 1.5.1 for Eclipse 3.3
  - AspectJ 1.5.4
- AJDT includes AspectJ
- AspectJ also made available separately for command-line and build system use (Ant)



## 2.1 Features

- Both releases are basically service refreshes
  - AspectJ1.5.3 was a while ago, 1.5.4 is a service refresh of fixes over the last 12months
  - AJDT 1.5.1 is an Eclipse 3.3 release that will offer AspectJ 1.5.4 to our users
  
- AspectJ bug fixes that have gone in:
  - **Bugzilla Query: <http://tinyurl.com/3cxfa5>**
  - Notable areas that received a number of fixes:
    - Generics handling, Annotation style syntax support, load-time weaving



## 2.1 Features

- Community are keen to get hold of a Java6 compliant AspectJ since Eclipse has been there for a while
    - Moving to a new Compiler level (as AspectJ is based on the Eclipse compiler) is no small task
      - AspectJ currently based on a 3.1 JDT Compiler
      - Jumping to a 3.3 compiler level likely to introduce regressions and a whole new set of bugs
- ⇒ ***hence one final solid 1.5 release before starting on 1.6.0***



## 2.2 Non-Code aspects

- No documentation changes in this release
- Examples and tutorials are still correct and up-to-date



## 2.3 APIs

- No change since previous release
- AJDT/AspectJ interfaces provided for other tools to work with:
  - Compilation invocation, feedback on weaving, Ast manipulation, AspectJ code parsing
- Our wiki provides guidance on extending AJDT and AspectJ:
  - [http://wiki.eclipse.org/index.php/Developer's\\_guide\\_to\\_building\\_tools\\_on\\_top\\_of\\_AJDT\\_and\\_AspectJ](http://wiki.eclipse.org/index.php/Developer's_guide_to_building_tools_on_top_of_AJDT_and_AspectJ)



## 2.4 Architectural Issues

- AspectJ/AJDT – no changes to the architecture in this release
- AspectJ is a well thought out series of extensions made to the JDT core compiler
  - Not specific to Aspect Oriented Programming (AOP) concepts
  - Extensions must be well designed to avoid fragility when moving to a new compiler level
- The AspectJ weaver is still rather heavy on memory usage
  - Was not really a problem until load-time weaving became popular, since one weaver is created per classloader and some application server environments have 100s of classloader instances
    - ⇒ Aim to spend more resource on this problem during 1.6.0 timeframe



## 2.5 Tool Usability

- The tools are mature and have been used in a number of production environments already





## 2.6 End-of-Life

- No APIs or significant user features from previous releases are being end-of-life'd in this release



## 2.7 Bugzilla

- Both AJDT/AspectJ had limited part time resource applied during most of 2007
  - That has now changed with SpringSource (formerly Interface21) having recruited one full time developer and looking to add another 2 in the coming months
  - ⇒ Affected the bug situation, only the critical ones have received focus
- AspectJ since previous 1.5.3 release:
  - 161 Bugs raised (and 20 enhancements)
  - 44 Bugs and enhancements fixed
  - Current state: No priority 1s
- AJDT since previous 1.5.0 release:
  - 16 Bugs raised
  - 6 Bugs resolved
  - Current state: No priority 1s or 2s
- Some open bugs are just not worth addressing whilst AspectJ is based on Eclipse 3.1 JDT Compiler – as they are already fixed in a later Eclipse compiler version. For example:
  - [https://bugs.eclipse.org/bugs/show\\_bug.cgi?id=156965](https://bugs.eclipse.org/bugs/show_bug.cgi?id=156965) “Can't compile under Java 6”



## 2.7 Standards

- J2SE
  - AJDT runs on J2SE 1.4 and 1.5
  - The AspectJ compiler will run on JS2E 1.3 and higher
  - The code created by the AspectJ compiler will run on J2SE 1.1 and higher



## 2.8 UI Usability

- Accessibility:
  - No review for this release, but a previous major version was given an accessibility review and all issues found then have been resolved since ([http://www.eclipse.org/ajdt/accessibility1\\_3.html](http://www.eclipse.org/ajdt/accessibility1_3.html))
- We follow the User Interface Guidelines



## 2.9 Schedule

- Until recently, when real resource was committed to the project, no hard release date was set for 1.5.4
  - However, the plan was always one last 1.5 release before the big change in moving to a Java6 based compiler
  - Moving forward, now we have full time resource on the project, the 1.6.0 plan is set and is looking good:
    - ⇒ [http://www.eclipse.org/aspectj/plans\\_new.php](http://www.eclipse.org/aspectj/plans_new.php)



# Process

- These releases been developed using open, transparent, permeable, and inclusive processes
- Use of Bugzilla, the AJDT newsgroup, the AspectJ users mailing list, and the developer mailing lists



## 2.10 Communities

- Continuing to foster active community:
  - Regular monitoring of AJDT newsgroup, AspectJ users mailing list, and Bugzilla
  - Heavily used by Spring – we regularly monitor the Spring AOP related forums too
- During summer 2007 the mailing list was a little quiet, with the team only able to keep an eye on it part time. That has now changed in 4Q07 and there is now an up-turn in active traffic on the list



## 2.11 IP Issues

- IP process followed
- IP logs:
  - **AJDT**: <http://www.eclipse.org/ajdt/project-info/ip-log.txt>
  - **AspectJ**: <http://www.eclipse.org/aspectj/project-info/ip-log.txt>
- Released under EPL
- No new external components included in these releases





## 2.13 Project Plan

- Future releases:
  - AspectJ 1.6.0 + AJDT 1.6.0 (for Eclipse 3.3)
  - Unable to determine if future AspectJ1.6.0 based AJDT releases on Eclipse3.2 will be viable until AspectJ1.6.0 is complete
    - ⇒ Rebasing AspectJ on a 3.3 JDT Compiler may preclude deployment back into a 3.2 eclipse
  - AJDT for Eclipse 3.4
  - AspectJ plan is as per documented at:
    - [http://www.eclipse.org/aspectj/plans\\_new.php](http://www.eclipse.org/aspectj/plans_new.php)
    - Expectation is 2 milestones and a final release



# Release Review Version

- These slides are based on the following version of the Release Review document:
  - [http://www.eclipse.org/projects/dev\\_process/release-review.php](http://www.eclipse.org/projects/dev_process/release-review.php)  
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