



Strategic Developer Report

IBM

December 2008
San Francisco

December 2008

Leveraging Eclipse



- **IBM Rational Jazz Project**
 - IBM Rational Team Concert, IBM Rational Requirements Composer, IBM Rational Quality Manager
 - There will be others
 - Open Services
- **IBM Software Development Platform (SDP)**
 - Leverages Eclipse as an integration framework
 - Offerings across WebSphere, Lotus, Rational, Tivoli and Information Management
- **IBM Lotus Expeditor/Notes/Sametime/...**
 - Equinox based RCP for open, collaborative, cross platform desktop and embedded applications
 - Base for Lotus Notes and Lotus Sametime
- **IBM WebSphere Application Server**
 - J2EE tools, J2EE Deploy
 - Equinox as a base for WAS implementation
- **On-line documentation**
 - On-line documentation standardized on the Eclipse help system
- **Base for “Ready for Rational” partner program**
- **Many Research and AlphaWorks projects**
 - Contribution to Eclipse Open Healthcare Framework
- **Many internal IBM applications**

Eclipse Usage in IBM



- **IBM products using Eclipse**
 - Eclipse 3.4 Ganymede → 54 IBM Products and Components, to date and growing
 - Eclipse 3.3 Europa → 78 IBM Products and Components
 - Eclipse 3.2 Callisto → 137 IBM Products and Components
 - Eclipse 3.1.x & prior → 280 IBM Products and Components
- **To date, over 350 unique IBM products or components use Eclipse**



IBM Major Products using Eclipse technology

- **Rational Tools**
 - IBM Rational Web Developer / WebSphere Studio Site Developer
 - IBM Rational Application Developer / WebSphere Studio Application Dev.
 - IBM Rational Software Modeler
 - IBM Rational Software Architect
 - IBM Rational Team Concert
 - IBM Rational Quality Manager
 - IBM Rational Functional Tester
 - IBM Rational Performance Tester
 - IBM Rational Manual Tester
 - Rational ClearCase
 - Rational ClearQuest
 - Rational Problem Determination
 - Rational Method Manager
 - Rational Data Architect
 - Rational Systems Developer
 - IBM Debugger
 - Rational Enterprise Suite
- **WebSphere and Foundation Tools**
 - WebSphere Developer for zSeries / WebSphere Studio Enterprise Developer
 - WebSphere Studio Device Developer
 - WebSphere Application Server (various editions, including Express, Embedded)
 - Rules Designer Toolkit for IBM WebSphere Studio
 - Autonomic Computing Tools (including Solution Installation)
 - Integrated Solutions Console (AC)
 - Generic Maintenance Installer (AC)
 - Business Process Choreographer
 - Visual Configuration Explorer
 - WebSphere Studio Asset Analyzer
- **Core and Enterprise Tools**
 - WebSphere Development Studio Suite for iSeries
 - WebSphere Development Studio Client for iSeries
 - POWER Programming Advantage for eServer iSeries
 - WebSphere Studio Performance Monitor for zOS
 - WebSphere Studio Workload Simulator for zOS
 - XL Fortran Enterprise
 - XL C Enterprise
 - Information Management System
 - TXSeries for Multiplatforms
 - IBM TPF Product (various editions)
 - WebSphere Developer Debugger for System z
- **Integration & Middleware Tools**
 - IBM Crossworlds Toolset
 - WebSphere MQ Integrator Toolkit
 - WebSphere Host Integration
 - WebSphere Host Access Transformation Toolkit
 - CICS Transaction Server
- WBI/ WebSphere Studio AD – Integration Edition (various products)
- WebSphere Business Integration Modeler
- WebSphere Enterprise Service Bus
- WebSphere Process Server
- **Lotus**
 - Lotus Notes
 - Lotus Sametime
 - Lotus Domino (various)
 - Lotus Workplace (various)
 - WebSphere Portal (various editions)
 - Content Publisher
 - Lotus Learning Management System (various editions)
 - Integrated Runtime for Desktop (and Express)
- **Tivoli**
 - Tivoli Monitoring
 - Tivoli Enterprise Console Graphical Rule Builder
 - Tivoli Storage Manager (various editions)
 - Tivoli Director (various editions)
 - Various Tivoli management products
 - Active Correlation Technology
 - Tivoli Composite Application Mgr (various products)
 - Content Delivery System
 - Common Event Infrastructure
- **Database Tools**
 - DB2 Everyplace
 - DB2 (various products)
 - IBM Cloudscape
 - Query Management Facility
 - Websphere Information Integrator OmniFind Edition
- **Reach and User Experience**
 - WebSphere Voice Toolkit
 - WebSphere Commerce (various editions)
 - WebSphere Everyplace (various editions)
 - Portal Toolkit
 - Multi-modal Toolkit
 - Voice Portal (Fuji) Toolkit
- **Other**
 - AIX Toolkit
 - Integrated Solutions Console
 - Total Storage (various products)
 - SCLM Workbench (various editions)
 - Enterprise aDesigner
 - LanguageWare
 - Eclipse distributions through the Standalone Help System

Leadership at Eclipse

- Of the 103 (sub)projects at Eclipse, IBM contributes to 51 and leads 47
- Of the 11 PMC's at Eclipse, IBM has 14 employees on 10 of them



Eclipse Projects/Subprojects with IBM Contributions

Business Intelligence and Reporting Tools (BIRT)

Data Tools Platform

- Connectivity
- Enablement
- Model Base
- SQL Dev Tools

Device Software Development Platform

- ERCP - Embedded Rich Client Platform
- Target Management

Eclipse Project

- e4
- JDT - Java Development Tools
- PDE - Plugin Development Environment
- Eclipse Platform
- Eclipse Project Incubator

Eclipse Modeling Project

- Modeling
- Eclipse Modeling Framework (EMF)
- Graphical Modeling Framework
- Model To Text (M2T)
- Model Development Tools (MDT)

Eclipse RT

- Equinox

Eclipse Technology Project

- Accessibility Tools Framework
- Babel
- BPEL Designer Project
- Community-driven Systems Management in Open Source Project (COSMOS)
- Dash, Tools for Committers
- Eclipse Process Framework Project
- Higgins
- The IDE Meta-tooling Platform
- Supplemental Widgets for SWT (Nebula)

Tools Project

- C/C++ Development Tooling (CDT)
- GEF - Graphical Editor Framework
- Eclipse Orbit Project
- Parallel Tools Platform (PTP)
- PHP Development Tools

Test and Performance Tools Platform Project

- TPTP Platform
- Monitoring Tools
- Testing Tools
- Tracing & Profiling Tools

Eclipse Web Tools Platform Project

- AJAX Tools Framework
- Common
- Datatools
- WTP EJB Tools
- WTP Java EE Tools
- JavaServer Faces
- Webtools Releng
- Server Tools
- Source Editing
- Web Services Tools
- Webtools Website
- WTP Incubator

- **Blue** Projects indicate IBM on PMC
- **Blue** subprojects indicate IBM Lead or Co-lead

Investment in Eclipse



Number of Active Committers: 169

In addition, IBM contributes:

- 1 Active Board Members of the Eclipse Foundation
- Active participants in Compensation, IP Advisory, Finance Committees
- Active participants in Requirements, Architecture, and Planning Councils
- Dedicated marketing staff and programs to promote value of Eclipse
- Actively promotes Eclipse branding through ingredient branding of IBM offerings
- Recruits and supports ISV's & business partners building Eclipse-based plug-ins
- Research and ad tech at alphaWorks and developerWorks
- 7 books about Eclipse, including Amazon top seller
- Commercial Eclipse Education through IBM Global Campus
- EclipseCon Gold sponsor, many IBM attendees, major contributor to organization, program
- Eclipse evangelism – talks, interviews, podcasts, webinars, tutorials by IBM Eclipse leaders

Slide 6

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When I queried CVS on 10/8, I came up with 204 unique active IBM committers (made a change since 1/1/2007). Some committers were active on multiple projects

Jim Mickelson, 09/11/2007

Dash Reports (as of 11/21/08)



IBM 169 (28.55%) 153 (36.52%) 322 (31.85%) 52.48% 489,916 (41.99%) 14,198,495 (38.49%) 29

IBM: LOC & Committer Count for 51 Projects

[x]

| Project | Committers | | | Commits | LOC | Project | Committers | | | Commits | LOC |
|------------------------|------------|----|-----|---------|-----------|------------------------|------------|----|----|---------|-----------|
| datatools | 4 | 5 | 9 | 1,607 | 307,625 | technology.higgins | 5 | 1 | 6 | 1,603 | 1,603 |
| datatools.connectivity | 2 | 2 | 4 | 458 | 10,532 | technology.imp | 2 | 0 | 2 | 1,867 | 1,867 |
| datatools.enablement | 2 | 1 | 3 | 242 | 3,555 | technology.nebula | 1 | 0 | 1 | 23 | 489 |
| datatools.modelbase | 3 | 2 | 5 | 544 | 249,113 | technology.ohf | 13 | 1 | 14 | 211,267 | 3,874,235 |
| datatools.sqltools | 2 | 2 | 4 | 165 | 43,935 | tools.cdt | 2 | 1 | 3 | 184 | 708 |
| dspd.ercp | 6 | 8 | 14 | 1,466 | 127,477 | tools.gef | 3 | 8 | 11 | 416 | 11,038 |
| dspd.tm | 4 | 0 | 4 | 2,300 | 49,204 | tools.orbit | 6 | 1 | 7 | 27,785 | 3,417,205 |
| eclipse | 2 | 1 | 3 | 11 | 32 | tools.pdt | 1 | 0 | 1 | 190 | 5,112 |
| eclipse.jdt | 17 | 31 | 48 | 15,840 | 880,418 | tools.ptp | 4 | 1 | 5 | 9,870 | 285,995 |
| eclipse.pde | 10 | 18 | 28 | 3,585 | 125,414 | tptp | 11 | 28 | 39 | 18,343 | 365,927 |
| eclipse.platform | 45 | 69 | 114 | 38,945 | 1,492,638 | tptp.monitoring | 6 | 9 | 15 | 4,980 | 34,690 |
| modeling | 1 | 0 | 1 | 6 | 17 | tptp.performance | 5 | 4 | 9 | 502 | 8,917 |
| modeling.emf | 2 | 2 | 4 | 673 | 33,367 | tptp.platform | 8 | 27 | 35 | 6,491 | 101,754 |
| modeling.emft | 1 | 0 | 1 | 671 | 0 | tptp.test | 6 | 6 | 12 | 2,286 | 33,352 |
| modeling.gmf | 4 | 2 | 6 | 2,129 | 54,246 | webtools.atf | 1 | 5 | 6 | 5 | 112 |
| modeling.m2t | 1 | 0 | 1 | 587 | 8,227 | webtools.common | 9 | 14 | 23 | 1,973 | 30,289 |
| modeling.mdt | 4 | 3 | 7 | 378 | 52,188 | webtools.datatools | 1 | 12 | 13 | 95 | 2,386 |
| rt | 14 | 5 | 19 | 14,131 | 286,049 | webtools.ejbtools | 5 | 8 | 13 | 275 | 6,800 |
| technology.actf | 6 | 0 | 6 | 11,259 | 152,976 | webtools.jeetools | 5 | 15 | 20 | 1,539 | 28,910 |
| technology.aperi | 3 | 9 | 12 | 456 | 5,343 | webtools.jsf | 1 | 0 | 1 | 14 | 56 |
| technology.babel | 1 | 0 | 1 | 63 | 1,337 | webtools.releng | 19 | 9 | 28 | 8,117 | 420,124 |
| technology.bpel | 1 | 1 | 2 | 294 | 5,258 | webtools.servertools | 4 | 9 | 13 | 1,688 | 17,278 |
| technology.cosmos | 10 | 1 | 11 | 21,142 | 408,062 | webtools.sourceediting | 9 | 14 | 23 | 26,048 | 600,453 |
| technology.dash | 2 | 0 | 2 | 10 | 212 | webtools.webservices | 7 | 10 | 17 | 2,957 | 33,227 |
| technology.epf | 11 | 4 | 15 | 20,674 | 234,282 | | | | | | |

IBM Reported Bugs/Enhancements (as of 11/5/08)



Severity

Classification

| | blocker | critical | major | normal | minor | trivial | enhancement | Total |
|--------------------|------------|------------|-------------|--------------|------------|------------|-------------|--------------|
| BIRT | <u>17</u> | <u>20</u> | <u>60</u> | <u>142</u> | <u>29</u> | <u>13</u> | <u>32</u> | <u>313</u> |
| DSDP | <u>1</u> | <u>20</u> | <u>69</u> | <u>551</u> | <u>77</u> | <u>20</u> | <u>74</u> | <u>812</u> |
| DataTools | <u>7</u> | <u>27</u> | <u>90</u> | <u>311</u> | <u>15</u> | <u>6</u> | <u>15</u> | <u>471</u> |
| Eclipse | <u>41</u> | <u>134</u> | <u>593</u> | <u>5830</u> | <u>338</u> | <u>182</u> | <u>983</u> | <u>8101</u> |
| Eclipse Foundation | <u>7</u> | <u>11</u> | <u>24</u> | <u>200</u> | <u>9</u> | <u>3</u> | <u>28</u> | <u>282</u> |
| Modeling | <u>31</u> | <u>68</u> | <u>284</u> | <u>1330</u> | <u>39</u> | <u>29</u> | <u>412</u> | <u>2193</u> |
| RT | <u>25</u> | <u>34</u> | <u>101</u> | <u>1735</u> | <u>39</u> | <u>7</u> | <u>157</u> | <u>2098</u> |
| STP | <u>.</u> | <u>.</u> | <u>1</u> | <u>1</u> | <u>.</u> | <u>.</u> | <u>.</u> | <u>2</u> |
| TPTP | <u>117</u> | <u>204</u> | <u>359</u> | <u>1099</u> | <u>32</u> | <u>2</u> | <u>348</u> | <u>2161</u> |
| Technology | <u>61</u> | <u>45</u> | <u>134</u> | <u>1219</u> | <u>97</u> | <u>15</u> | <u>310</u> | <u>1881</u> |
| Tools | <u>9</u> | <u>13</u> | <u>69</u> | <u>559</u> | <u>48</u> | <u>22</u> | <u>110</u> | <u>830</u> |
| WebTools | <u>37</u> | <u>86</u> | <u>475</u> | <u>2045</u> | <u>117</u> | <u>19</u> | <u>379</u> | <u>3158</u> |
| Total | <u>353</u> | <u>662</u> | <u>2259</u> | <u>15022</u> | <u>840</u> | <u>318</u> | <u>2848</u> | <u>22302</u> |

Reports Fixed by IBM (as of 11/5/08)



| Classification | Severity | | | | | | | Total |
|--------------------|------------|------------|-------------|-------------|------------|------------|-------------|-------------|
| | blocker | critical | major | normal | minor | trivial | enhancement | |
| BIRT | 8 | 7 | 33 | 72 | 10 | 8 | 5 | 143 |
| DSDP | . | 8 | 33 | 201 | 22 | 10 | 23 | 297 |
| DataTools | 3 | 17 | 56 | 179 | 7 | 2 | 4 | 268 |
| Eclipse | 20 | 68 | 258 | 2496 | 123 | 127 | 213 | 3305 |
| Eclipse Foundation | 4 | 9 | 14 | 85 | 3 | 3 | 8 | 126 |
| Modeling | 3 | 9 | 30 | 223 | 7 | 13 | 66 | 351 |
| RT | 16 | 15 | 57 | 936 | 16 | 4 | 29 | 1073 |
| STP | . | . | 1 | . | . | . | . | 1 |
| TPTP | 64 | 118 | 126 | 390 | 4 | 2 | 13 | 717 |
| Technology | 59 | 38 | 94 | 831 | 46 | 6 | 145 | 1219 |
| Tools | 7 | 6 | 26 | 303 | 25 | 17 | 35 | 419 |
| WebTools | 31 | 59 | 277 | 974 | 39 | 5 | 69 | 1454 |
| Total | 215 | 354 | 1005 | 6690 | 302 | 197 | 610 | 9373 |

Note: This is a lower bound. Actual numbers are much higher

Bug Comments by IBM (as of 11/5/08)



Severity

Classification

| | blocker | critical | major | normal | minor | trivial | enhancement | Total |
|--------------------|---------------------|----------------------|----------------------|-----------------------|----------------------|---------------------|----------------------|-----------------------|
| BIRT | 17 | 20 | 62 | 169 | 29 | 13 | 36 | 346 |
| DSDP | 4 | 44 | 142 | 887 | 151 | 34 | 217 | 1479 |
| DataTools | 13 | 34 | 106 | 401 | 19 | 8 | 48 | 629 |
| Eclipse | 116 | 321 | 1147 | 9746 | 690 | 289 | 2521 | 14830 |
| Eclipse Foundation | 9 | 14 | 29 | 303 | 11 | 4 | 49 | 419 |
| Modeling | 44 | 86 | 349 | 1678 | 72 | 33 | 623 | 2885 |
| RT | 44 | 66 | 177 | 2324 | 61 | 15 | 267 | 2954 |
| STP | . | . | 1 | 2 | . | . | 2 | 5 |
| TPTP | 148 | 243 | 432 | 1322 | 37 | 4 | 424 | 2610 |
| Technology | 82 | 66 | 173 | 1564 | 111 | 19 | 406 | 2421 |
| Tools | 14 | 23 | 112 | 879 | 76 | 26 | 234 | 1364 |
| WebTools | 60 | 121 | 746 | 2992 | 182 | 35 | 683 | 4819 |
| Total | 551 | 1038 | 3476 | 22267 | 1439 | 480 | 5510 | 34761 |

Looking Ahead



- Our work on the Platform project will be primarily driven by e4 and Jazz
- We continue to seek to increase diversity in the platform
 - Eclipse Platform is the foundation of Eclipse. Benefits all members
 - Investment imbalance – IBM is still carrying too much of the load
- e4 - An opportunity to get involved
 - Incubator for the technology for Eclipse 4.0
 - Unblock the desktop evolution
 - Create opportunity for others to get involved - 25 non-IBM committers on e4 work already
- Babel
 - Need co-lead
 - Welcome participation