## The Traditional Eclipse Technology Stack

Where are we heading?

## The Rich Client Platform Stack Basis

- RCP Platform + Equinox +
  - Eclipse Modeling Framework (for e4)
  - Eclipse Communications Framework for (p2)
  - Jetty (for help)
- Additional "Platform" Projects
  - JDT
  - PDE
  - Team
- Key deliverables
  - Eclipse project p2 repository
  - Eclipse SDK packages

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   b Equinox Bundles [rt.equinox.bundles master]
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   fa Equinox Framework [rt.equinox.framework master]
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   Equinox p2 [rt.equinox.p2 master]
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   Equinox p2 Tests [rt.equinox.p2 master]
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   Equinox p2 Examples [rt.equinox.p2 master]
- JDT Features [eclipse.jdt master]
- JDT Core [eclipse.jdt.core master]
- JDT Debug [eclipse.jdt.debug master]
- 🛛 b 🎝 JDT UI [eclipse.jdt.ui master]
- JDT Core Tests [eclipse.jdt.core master]
- JDT Core Test Binaries [eclipse.jdt.core.binaries master]
- JDT Debug Tests [eclipse.jdt.debug master]
- JDT UI Tests [eclipse.jdt.ui master]
- JDT UI Examples [eclipse.jdt.ui master]
- PDE UI [eclipse.pde.ui master]
- PDE API Tools [eclipse.pde.ui master]
- PDE Tests [eclipse.pde.ui master]
- PDE Build [eclipse.pde.build master]
- Platform Base [eclipse.platform master]
- Platform Ant [eclipse.platform master]
- Platform Ant Tests [eclipse.platform master]
- Platform Update [eclipse.platform master]
- Platform Debug [eclipse.platform.debug master]
- Platform Debug Tests [eclipse.platform.debug master]
- Platform Debug Examples [eclipse.platform.debug master]
- Platform Dependency ECF [org.eclipse.ecf master]
- Platform Dependency EMF [org.eclipse.emf master]
- Platform Documentation [eclipse.platform.common master]
- Blatform News [news master]
- B Platform Resources [eclipse.platform.resources master]
- b b Platform Resources Tests [eclipse.platform.resources master]
- Platform Runtime [eclipse.platform.runtime master]
- Platform Runtime Tests [eclipse.platform.runtime master]
- SWT Tools [eclipse.platform.swt master]
- SWT Tests [eclipse.platform.swt master]
- SWT Examples [eclipse.platform.swt master]
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- Kernel SWT Binaries [eclipse.platform.swt.binaries master]
- Platform Team [eclipse.platform.team master]
- Platform Team Examples [eclipse.platform.team master]
- Platform Team Tests [eclipse.platform.team master]
- Platform Text [eclipse.platform.text master]
- Platform Text Tests [eclipse.platform.text master]
- Platform Text Examples [eclipse.platform.text master]
- Platform UA [eclipse.platform.ua master]
- Platform UA Tests [eclipse.platform.ua master]
- Platform UA Examples [eclipse.platform.ua master]
- Platform UI [eclipse.platform.ui master]
- Platform UI Tests [eclipse.platform.ui master]
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- Platform Releng Tests [eclipse platform releng master]
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- Platform Releng Aggregator [eclipse.platform.releng.aggregator master]

## The Full IDE Technology Stack

- The > 70 SimRel projects
  - <u>https://download.eclipse.org/oomph/archive/simrel/</u>
- Key deliverables
  - The release repository, composes
    - The SimRel train repository
    - The EPP repository
  - The EPP packages
  - The Eclipse Installers
    - Updated catalogs based
      - the release repositories
      - the Eclipse project repositories

Eclipse Buildship 1 Eclipse CDT 44 Eclipse Collections 2 Eclipse DLTK 7 Eclipse Data Tools Platform 36 Eclipse EGit 5 Eclipse EclEmma 1 Eclipse Embedded CDT 16 Eclipse Equinox Project 9 Contraction Contractico Con Eclipse Git 8 Eclipse LSP4] 1 Eclipse Linux Tools 37 Eclipse Marketplace Client 2 Eclipse Memory Analyzer 2 Solution States And Eclipse Mylyn 32 Eclipse OCL 28 Eclipse Oomph Project 21 Eclipse PDT 6 Eclipse PTP 27 Eclipse Passage 17 Eclipse QVTd 6 Eclipse RCP Testing Tool Project 16 Eclipse SOA 3 Eclipse Scout Project 1 Eclipse TM Project 8 Eclipse TM4E 2 Eclipse Trace Compass 8 Eclipse VIATRA Project 28 Eclipse Web Tools Platform 55 Eclipse Wild Web Developer project 3 Eclipse WindowBuilder 13 ▷ ▲ Eclipse XWT 2 Eclipse Xtend 1 Eclipse Xtext 20 ▷ Eclipse.org 28 Eclipse.org - ECF 45 ▷ 🌢 Eclipse.org - Equinox 9 Eclipse.org - RAP 5 Eclipse.org - RedDeer 7 ▷ 💩 Eclipse.org - SWTBot 6 ▷ ▲ Eclipse.org - TCF 3 Eclipse.org - Target Explorer 4 Eclipse.org - m2e 6 Eclipse.org - m2e-wtp 8 Sonatype, Inc. 1

## Problems and Risks

- Project starvation and extinction
  - Damages reputation: Eclipse is not a reliable source of technology
- Poor quality deliverables
  - Blocks adoption
  - Damages reputation: Eclipse is buggy
- Contributing factors
  - Poor quality tracking, poor testing, and poor reporting
    - It's too much work, so it doesn't get done properly, and isn't automated
  - Frequent full releases
    - Helps to deliver new features quickly and reduces develop overhead, but...
    - Contributes to disruptive changes and regressions in every release, moving the cost downstream
  - Unstable "APIs" in up stream components create work for downstream components
    - Many things are not possible using purely APIs
    - Lack of respect for consumers
      - If you don't like it, come and fix it yourself
      - Open source principles are used as a weapon