

# Comprehensive Project Intelligence

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# Outline

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- **m2eclipse**
  - Never leave the IDE for your Maven-related work!
- **Nexus**
  - The ultimate in Maven Repository management and beyond!
- **Hudson**
  - The future of Continuous Integration, on-demand builds, and release management!
- **Maven**
  - The best is yet to come (and we'll fix a bunch of stuff)!



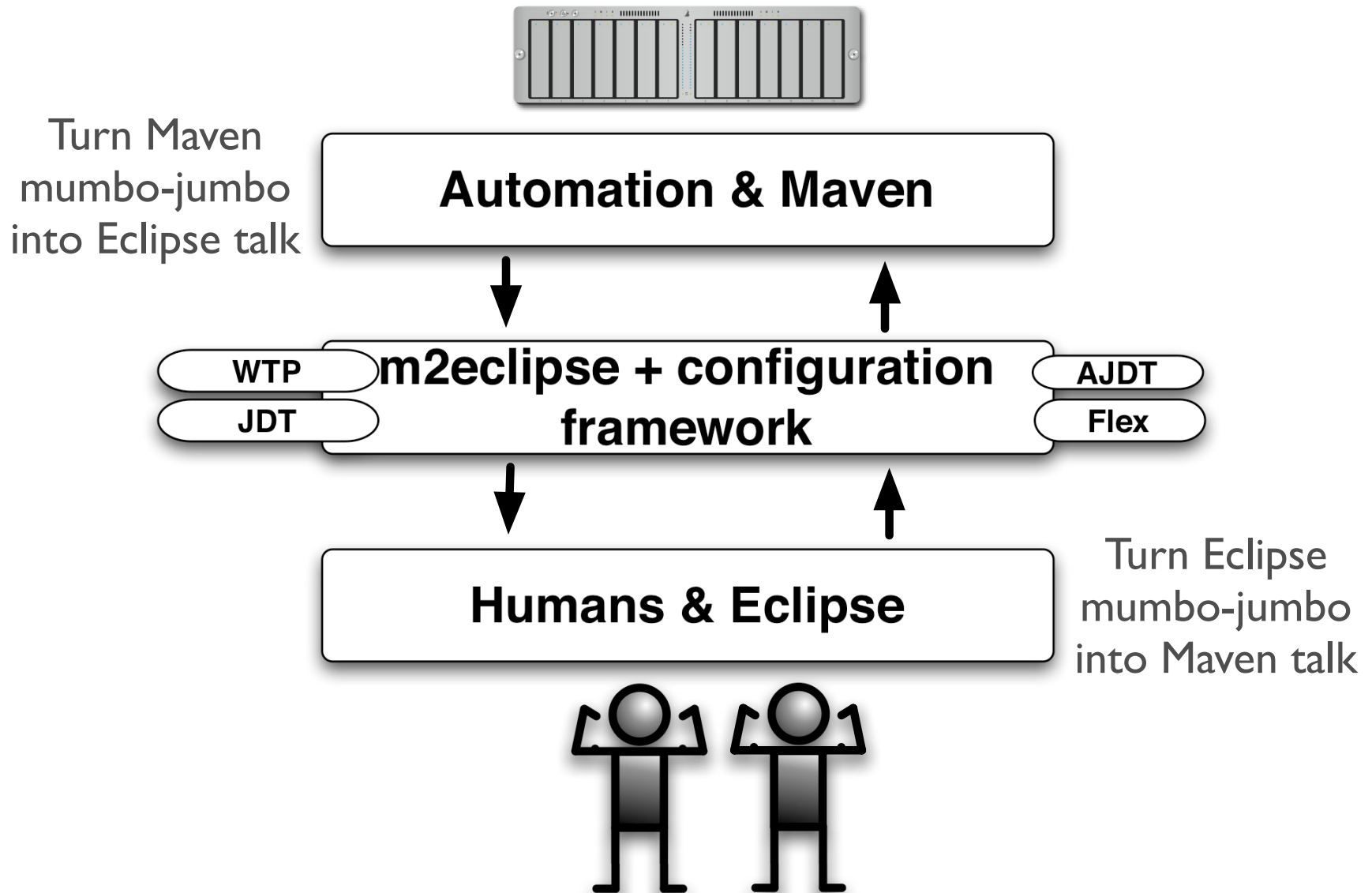
The logo for m2eclipse features a stylized 'm' composed of overlapping colored squares (yellow, red, blue) and a vertical black line. To the right of this graphic, the text 'm2eclipse' is written in a blue, sans-serif font.

# m2eclipse

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- Never leave the IDE for your Maven-related work
  - Configuration framework
  - Searching for POMs
  - Creating projects from Archetypes
  - Amazing POM editor – XML (with full auto completion), Dependency Analysis, Form-based, and graphical view
  - Searching for dependencies
  - Source materialization
  - Searching for plugins – and even goals in plugins
  - Debugging Maven plugins from within Eclipse
  - m2eclipse Configuration Framework – keeping IDEs and automated builds in sync!
  - Project materialization – how long does it take a new developer to become effective?

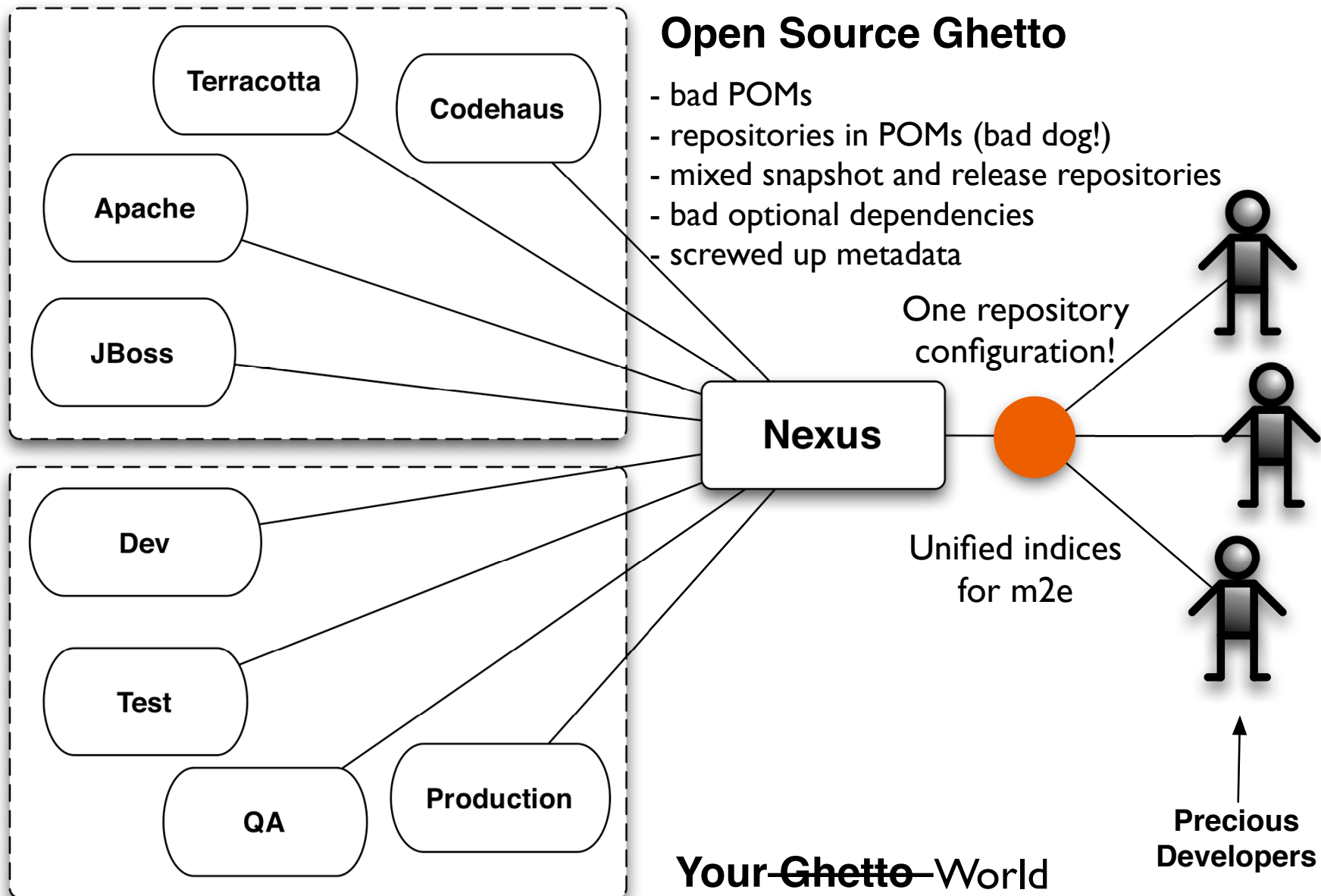
# m2eclipse Configuration Framework



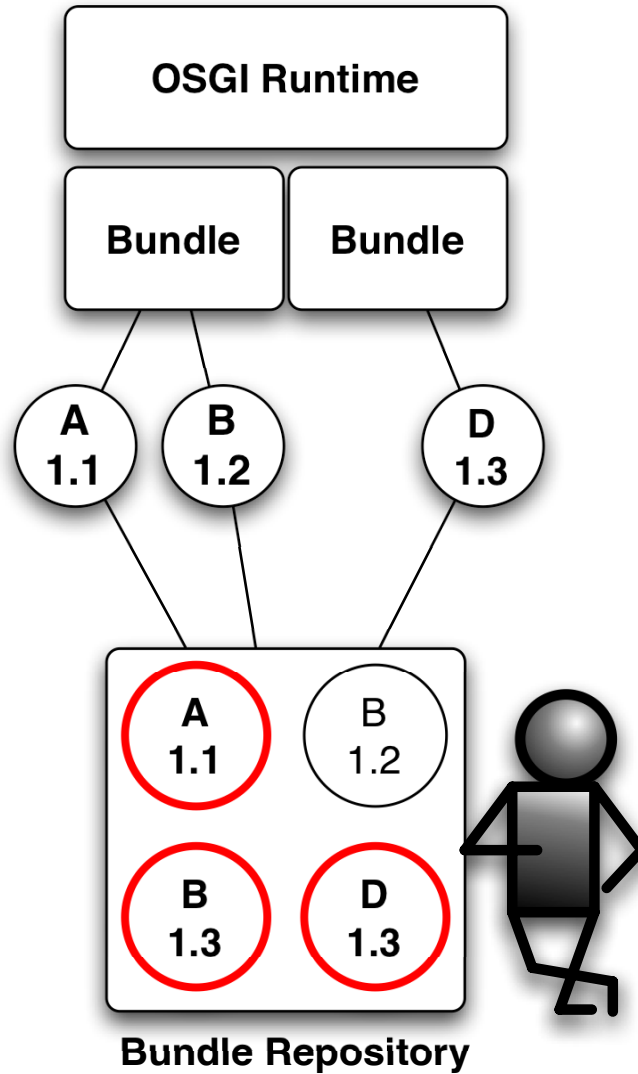
# Nexus

- The ultimate in Maven Repository management and beyond!
  - Repository & Configuration Management
  - Fine grained security providing for authentication and authorization
  - Virtual repositories – What are those? A savior for you OSGi lovers
  - UI using EXTJS which is simply another REST client for Nexus
  - Full REST API using Restlet

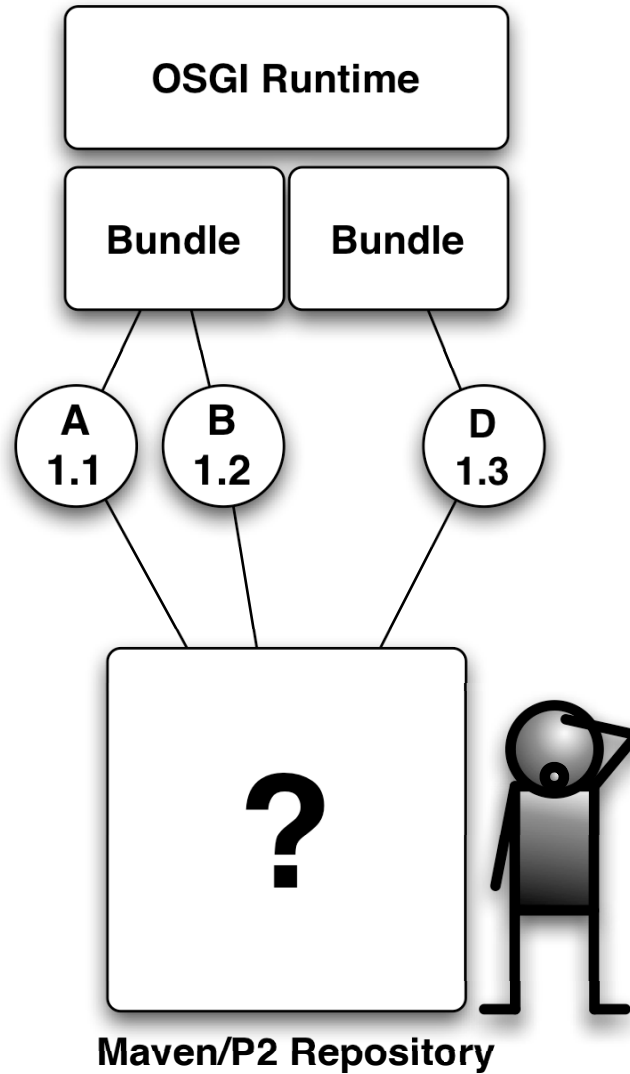
# Repository & Configuration Management



# Typical way people deal with OSGi runtimes – manually

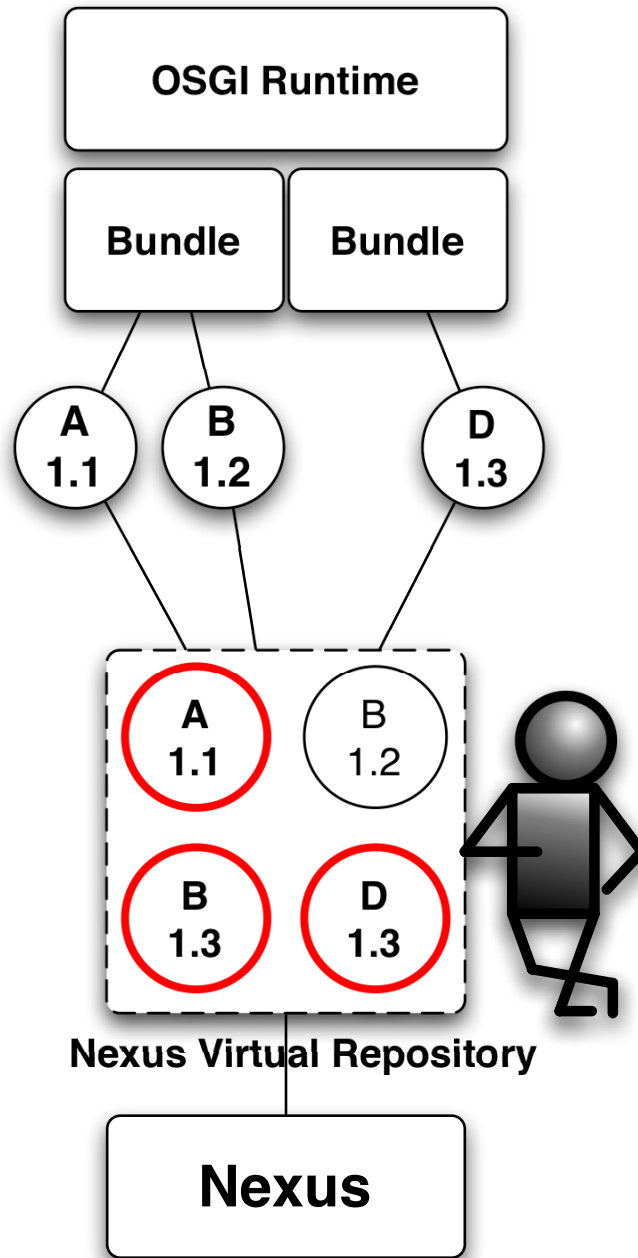


# OSGi runtimes resolving against Maven/P2 repositories – a problem





# OSGi runtimes resolving against a virtual Nexus repository – OK!



A graphic consisting of overlapping colored squares (yellow, red, blue) and a black crosshair.

# Hudson

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- The future of Continuous Integration, on-demand builds, and release management!
  - Writing all extension points in Hudson as Maven plugins and Plexus components (with the work we've done writing Spring components would also be possible)
  - Integration of JSecurity
  - Implementing a similar REST layer as Nexus and creating a UI using EXTJS
  - Automatic installation of external Maven installations
  - Drools Workflow integration

The logo for Maven, featuring a stylized mountain range in blue and yellow, with a red and blue square overlapping the base. The word "Maven" is written in a large, blue, sans-serif font to the right of the graphic.

# Maven

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- The best is yet to come (and we'll fix a bunch of stuff!)
  - Refactored Project Builder
    - A specification for building a project object model (POM)
    - Domain specific parsers – attribute-based XML, Groovy, Ruby
    - Mixins
  - Mercury – new repository and transport layer
    - Developed by Greg, Jan, and Jesse from Webtide (the Jetty people)
    - Super fast transport – async client with connection pooling and parallelization
    - Atomic downloads and deployments (with Nexus)
    - Full PGP support
    - WebDAV client built-in
    - Full support for ranges using a pseudo boolean solver – SAT4J
    - Designed, implemented and tested without POMs. Mercury can be embedded and will allow any domain specific application to retrieve, and deploy artifacts from any type of Repository: GEMs, P2, and Maven repositories are possible



## ➤ Maven Embedder



# Hands on Demo

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- Let's take a look at m2eclipse, Hudson, Nexus, and Maven!
- I bet I can get anyone setup with this project faster than they've ever been on-boarded with a project before!