Dependency Management Tools - Feature Comparisons (from Web Archive)

- Brett Porter 11 16, 2005
  This is a workspace for doing feature comparisons with other products. If you'd like to adjust or add a product here, please comment on the page.

Maven

Each of Maven's features needs to be compared against different products as it encompasses a number of pieces of functionality. It's also worth noting that some of these tools could be integrated into Maven via plugins. (*For completeness, Maven 3/Aether and Maven Artifact Resolver Ant Tasks/Aether Ant Tasks must be added to the comparison.*)

Build Tools

Should compare Ant, Maven 1.x, Maven 2.x, make

Dependency Management

	Maven 2.x	Maven 2.x Ant Tasks	Ivy	Maven 1.x
Transitive dependencies	✅	✅	✅	❌
Dependency ranges	✅ bounded, unbounded, multiple ranges	✅	✅ up to next major version (2.0+)	❌
Version comparison	✅ defined order (eg 0.10 > 0.9), pluggable version syntax planned, falls back to string comparison	✅	✅ defined order (eg 0.10 > 0.9), pluggable version syntax planned, falls back to string comparison	❌
Conflict Resolution	✅ nearest, latest-time (snapshots), fixed. planned: newest (latest-revision), oldest, fail	✅	✅ all, latest-time, latest-revision, fixed	❌
Snapshots	✅ configurable timestamping, build numbering, update frequency	✅	✅ can publish continuous integration build	✅ auto-updated timestamped build
Profiles	✅ pluggable activators, as well as by id, jdk, OS, sys property for whole build process including deps	✅ no manual activation	✅ single id configuration (must be defined consistently across all ivy configurations)	❌
Scope	✅ defines known scopes for sensible build defaults, combined during transitivity	✅	❌ can use configurations in a limited way for this	❌
Non-java dependencies	✅ pluggable	✅	✅	✅
Filtering	✅ can exclude dependencies from tree, apply a version globally	✅ when using POM	✅ can exclude dependencies from tree, apply a version globally	N/A
Multiproject	✅ order determined by dependencies, and build outputs can be used as the dependencies (even if not built to a jar)	❌	✅ ordering and reuse of build artifacts as dependencies	❌
System scoped (tools.jar)	✅ can be used transitively	✅	❌	✅ jar overrides
Dependency reports	✅ currently basic tabulated report	❌	✅ multi-page tabulated report	✅
Eclipse plugin	ℹ️ in progress	❌	✅	✅ Mevenide
IDEA plugin	ℹ️ in progress	❌	❌	✅ Mevenide
NetBeans plugin	ℹ️ in progress	❌	❌	✅ Mevenide
Eclipse .classpath generation	✅	❌	✅	✅
IDEA .iml generation	✅	❌	❌	✅
NetBeans project generation	✅	❌	❌	❌
Deployment	✅ pluggable: file, scp, scpexe, http, ftp, sftp, scm	✅	✅ file only. planned: vfs based	✅ file, scp, scpexe, ftp, sftp

Mirrors	✅ can use mirror for any repository, automatic mirroring planned	❌ planned	❌	❌
Maven 1.x Repository (non-transitive)	✅	✅	✅	✅
Maven 2.x Repository (transitive)	✅	✅	❌	❌
Ivyrep (transitive)	❌	❌	✅	❌
Multiple repository support	✅ separate snapshot and release repository, per project repository	✅	✅ per project repository	✅ can list multiple repositories from build
Configurable repository layout	✅	✅	✅	❌

	Maven 1.x Repository	Maven 2.x Repository	Ivyrep
Size	8000+	8000+	30
Immediate Synchronize of OSS Releases	✅	✅	❌
Artifacts	✅	✅	❌
User uploads to central repository	✅	✅	❌
Open sandbox repository	❌	❌	✅

Site Management

	Maven 2.x	Maven 1.x	Anakia
Plain text input	✅	❌	❌
XDoc input	✅	✅	✅
Docbook input	✅	✅	❌
XHTML input	✅	✅	❌
FAQ input	✅	✅	❌
Confluence input	ℹ️ in progress	❌	❌
XHTML output	✅	✅	✅
PDF output	❌ planned	✅	❌
Reporting integration	✅	✅	❌
Streaming	✅	❌	❌
Skinnable	✅ Velocity	✅ JSL	❓
Furniture customisation	✅	✅	✅
Breadcrumbs	❌	✅	❌

3 comments

1. blocked URL

   Xavier Hanin
   A very detailed comparison, interesting to see.

   But the few corrections/details about ivy where finally too long to be posted as a comment, so they can finally be found on my weblog: http://jroller.com/comments/xavierhanin?anchor=maven_features_comparison
   - 11 16, 2005
2. blocked URL

Brett Porter

Incorporated all these changes.

- 11 16, 2005

3. blocked URL

Gilles Scokart

The comparaison is rather old, but still mostly valid, except about the scope : Ivy has a very flexible way to define scopes (called configurations). You can define yourself the transitvity, whe scope that includes each other, etc. You can define compile, runtime, test scope, or any kind of scope you can imagine.

Also, Ivyrep doesn't exist anymore.

- 7 08, 2009