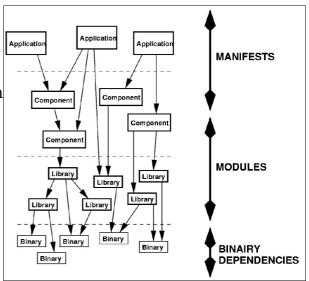
## Toolforge's KARMA - component and release management

Divide (your source code) and Conquer (your release problems)

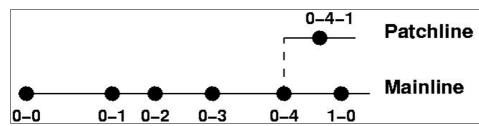
# **Component management**

Divide the source code of your applications in components by storing it in multiple modules. Modules are combined into a component or application by listing them in a manifest. Once a manifest is loaded into Karma it offers functionality to retrieve the modules from your version control system, change them, promote the version and making packages from them.



#### **Version management**

By applying version management to your modules, Karma adds another level of configuration management to your source code. Secondly, it generates a more stable development environment by allowing developers to only use tested code instead of all checked in code.



The manifest specifies which version is used of a module: the latest version or an earlier, fixed, version.

# Release management

Create a release manifest from a development manifest. This release manifest contains fixed versions of modules, which together form a releaseable component or application.

Easily go back to a previous release by selecting the corresponding release manifest. Karma automatically checks out the correct versions of modules.

Make bugfixes to your release. Karma creates a pathline in which to make the bugfix.

## **Build support**

Karma offers support for building Java source code to an application (either stand-alone or J2EE). Deploy, run or distribute your packaged application.