

The Fractal OW2 Project

F4E is an Eclipse based environment for developing Fractal applications.

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Fractal Distribution provides a ready to use package containing a collection of Fractal tutorials, and the whole libraries needed to develop Fractal applications.

Fractlet
Java annotations for the Fractal component model.

FScript/ FPath
Domain-Specific Language (DSL) to program dynamic reconfigurations of Fractal architectures.

Fractal Explorer
Generic graphical console for managing Fractal based applications. It allows to discover, introspect, manage, monitor and reconfigure Fractal applications at runtime.

Fractal RMI
provides a set of components to create distributed bindings between Fractal components.

Fractal JMX allows the JMX management of Fractal applications through automatic exposition in JMX agents.

Binding Factory provides support for establishing remote bindings between Fractal components using diverse protocols.

Behaviour Protocols Checker allows to define, validate behavior protocols associated to Fractal interfaces.

Cecilia is a development environment for programming Fractal components with the C programming language

Fractal ADL is the base architecture description language of the Fractal component model. It provides a XML DTD for describing (for instance) component types, component implementations, component hierarchies and component bindings.

Java Implementations

- Julia** is the reference implementation of the Fractal component model. Using Julia it is possible to deploy a Fractal application relying on Julia runtime code generation of classes, interfaces, controllers. These tasks are accomplished internally using the ASM bytecode manipulation framework.
- AOKell** it is an implementation where controllers are implemented with a component-based approach. The glue between the application and the control levels are done using AOP (aspect-oriented programming). This glue can be created with Spoon or AspectJ.
- JuliaC** It allows generating and compiling the source code of the infrastructure (so called membranes) which is needed to run a Fractal/Java application. The application can then be run without having to use ASM to generate on-the-fly classes for interfaces, controllers and merge strategies.

Fractal Java API
A language and message format that the implementations rely to provide interoperability between Java components and that Fractal programs use to communicate with the implementations.

Fractal C API