

Pragmatach Proposal

Abstract

Pragmatch is a web development framework focussed on simplicity and modularity

Proposal

Pragmatach can be used as a framework quickly developing web-based applications. The framework is designed to be used to implement simple back-end support for world facing sites that are primarily developed using client-side CSS and JS code.

Pragmatach provides:

- Minimum client-side requirements; browser programmers should be free of restrictions
- Automatic generation of project skeletons via Maven Archetype
- Automatic population of controller fields from Form, JSON, XML or YAML POST
- Grails-like routing via Java annotations
- Built-in support for monitoring and runtime debugging via a secure web-based console, and JMX
- Pluggable template processors; Freemarker, Thymeleaf and Velocity
- Support for Session and Request scoped controllers, via Annotations
- Projects built via Maven, with Jetty8, Jetty7, JBoss-AS 7, GlassFish, TomEE, Tomcat6 and Tomcat7 profiles included
- Built-in support for i8n
- Modular design allowing features such as Freemarker, Velocity, XStream and Gson to be configured via maven dependencies
- Cache control headers specified via Annotations and generated automatically
- Support for JPA 1.0 relational persistence via EBean, OpenJPA or Hibernate

Background

Web frameworks such as Struts2, JSF, Grails and Play have been very successful. Pragmatach, however is not intended to be a general purpose web framework. Pragmatach is intended to provide back-end support for consumer facing sites. These sites have a number of characteristics which make them unique including:

- The need for simple back-end support that can be outsourced for maintenance or maintained by junior staff
- The need to operate and monitor the site in real time
- The need to support a JS-CSS UI using technologies which are familiar to front-end

programmers such as RESTful URLs and JSON

- The need to support a broad variety of development and deployment technologies, in light of the fact that sites are often deployed into existing environments with existing technology standards

Therefore, these design criteria were set:

- The framework must make it possible to set up a simple site in a matter of minutes, via an archetype
- The framework must use standard technologies which are accessible by a large community of programmers, such as MVC architecture, and Maven
- The framework must not provide, or depend upon any specific front-end technologies
- The framework must be able to produce a war file which can run in any arbitrary J2EE container
- The framework must be able to support a variety of templating engines and ORM frameworks
- The framework must support operation on real-world sites via a built-in operations console and built-in support for monitoring.
- The framework must support simple GET and POST operations, using REST-like URLs and with automatic population of controllers via JSON and XML

Initial Goals

The initial goals for Pragmatach are:

- Donate the initial code base
- Enter the Apache process, via the Incubator
- Set up the incubator for Pragmatach, including automated builds, svn, and a web site.
- Set up continuous integration
- Focus on a version 1 release and bulding a community.

Current Status

The current status is that Pragmatach is quite new, and has not yet formed a community. The source code

Known Risks

There is a clear risk that Pragmatach will be unable to build a community. However, Pragmatach may be able to build a community based on serving a niche need. There is a clear need for simple, maintainable server-side support for complex client-side site implementations. While existing frameworks, such as Struts2, can be used to provide that support, Pragmatach provides a simpler, easier to implement solution. Pragmatach is certainly less capable than broader frameworks, but has the advantage of being simple to set up and capable enough to

support its audience.

Documentation

The current documentation is at:

<http://pragmatach.com/pragmatach-documentation/pragmatach-documentation.xhtml>

There is also an introductory presentation at:

<http://pragmatach.com/slideshow/index.html>

Initial Source

The source tree is currently at <https://github.com/teverett/Pragmatach>

Source and Intellectual Property Submission

Plan

The Pragmatach code base is owned by Tom Everett. There is a legal exemption in place with Tom's employer which allows him to contribute to the code base and to open-source the code base. The Pragmatach code can therefore be donated to the Apache Foundation.

External Dependencies

Pragmatach is divided into a framework, and optional plugins. The plugins are generally focussed on support for specific technologies such as ORM frameworks or templating engines. The dependencies for the core framework are:

Pragmatach-Framework

- commons-lang
- commons-beanutils
- commons-io
- commons-fileupload
- commons-codec
- scannotation (<http://scannotation.sourceforge.net/>). Apache 2.0 License.
- antlr (<http://www.antlr.org/>). BSD License.
- cglib (<http://cglib.sourceforge.net/>) Apache License.
- logback (<http://logback.qos.ch/>). EPL 1.0, LGPL 2.1.

Required Resources

Currently unknown

Initial Committers

Tom Everett

Sponsors

No Sponsors have yet been identified

Champion:

No Champion has yet been identified