

# What is left...?

## **Offline Cocoon**

## **Performance**

## **Server Modes**

Alexander Schatten

Institut für Softwaretechnik und Interaktive Systeme  
TU - Wien

# Content

- **Performance: Is Cocoon slow?**
  - Abstraction (XML) vs. “native” Code
  - History of Cocoon
  - Performance Tuning
  - Webserver Integration
- **Operation Modes**
  - Standalone (integrated Server: jetty)
  - Servlet (e.g., in Tomcat)
  - Command Line Interface
  - Java Application

# History

- **1.8 → 2.x**
  - XML DOM --> SAX Streams
  - Reactor Pattern --> Sitemap
- **2.0 → 2.1**
  - New Sitemap Engine
    - Tree Processor instead of compiled Sitemap
    - Faster Development
    - Faster Processing

# Performance Tuning 1

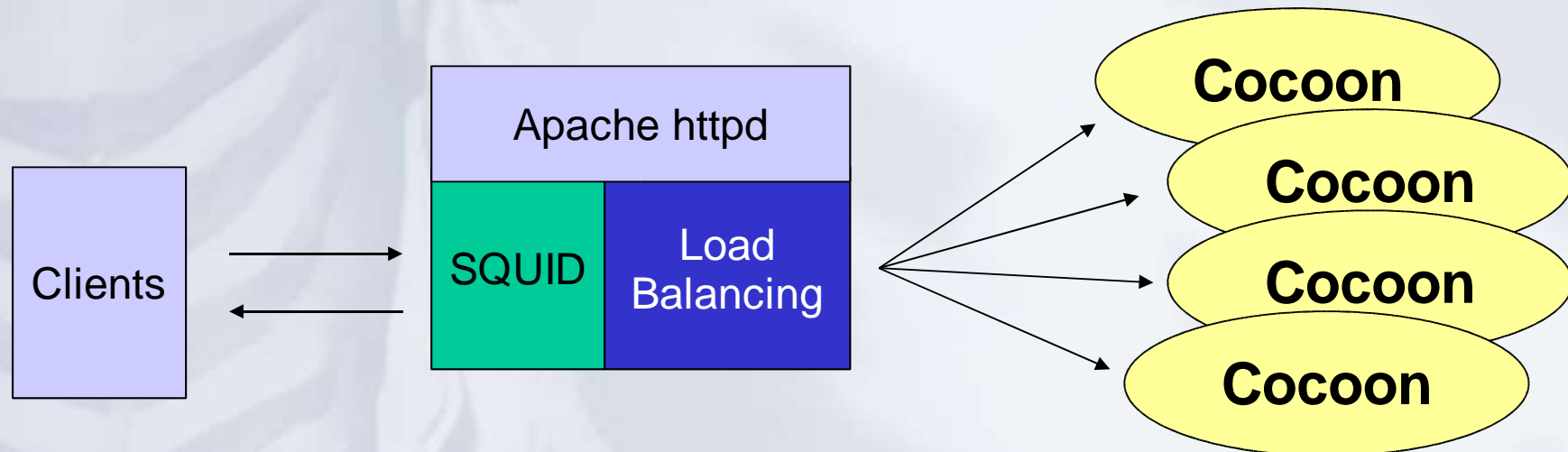
- **Cocoon Documentation offers specific help particularly concerning:**
  - Logging issues
  - Use of transparent proxy
  - Static Content
  - Pool Sizes
  - Pipeline Complexity
  - XSLT

# Performance Tuning 2

- **Caching and Pooling**
- **Servlet Environment**
- **JVM, Operating System**
- **XSPs <--> Generators**
- **JXTemplateGenerator (caching of SAX Events)**
- **Memory Handling (StoraJanitor, Memory Defaults...)**
- **XSLT Engine can be Exchanged (e.g., to STX Implementation—  
Streaming Mode)**
- **Pipeline Expiration (→ SQUID)**
- **Sitemap Complexity**
- **Batch Processing --> Offline Content**

# Webserver Integration

- **Cocoon with Apache**
- **Use of Proxy (Squid)**
  - No difference in providing statical content between conventional Webserver and Cocoon
- **Load Balancing**



# Cocoon Operation Modes

- **„Standalone“**
  - Jetty Webserver/Servlet Engine included in Distr.
- **Build as war → “standard” Servlet**
  - Use in other Servlet Engine e.g., in Tomcat
- **Usage within other (Java) Applications**
- **“Command Line” Batch Usage**
  - Cocoon CLI
  - Apache Forrest

**For all „Modes“ chosen → it is always „the same“ Cocoon Application Working**

# CLI Commandline

- **Offline (batch) Generation of Websites**
- **Comparable to Tools like wget**
- **Various Configuration Options**
  - User Agents
  - Filters
  - Follow Links
  - Broken Link handling
- **Generate Multiple Sites in One Generation Step**



# CLI Typical Parameters

```
usage: cocoon cli [options] [targets]
```

```
-----  
-e,--confirmExtensions    confirm that file extensions match mime-type of  
                           pages and amend filename accordingly (default is true)  
-C,--configFile           specify alternate location of the configuration  
                           file (default is ${contextDir}/cocoon.xconf)  
-c,--contextDir          use given dir as context  
-d,--destDir             use given dir as destination  
-f,--uriFile             use a text file with uris to process (one URI  
-r,--followLinks         process pages linked from starting page or not  
                           (boolean argument is expected, default is true)  
-x,--xconf               specify a file containing XML configuration  
                           details for the command line interface
```

# CLI CocoonDay Site

```
./cocoon.sh cli  
-c build/webapp  
-e false  
-d out  
-C build/webapp/WEB-INF/cocoon.xconf  
cocoon-day/index.html
```

→ Demonstration

# Apache Forrest

- **Framework using Cocoon**
- **Specific Designed to create (Software) Project Documentation Websites**
- **Offline and**
- **Online Mode**

# Forrest 1

apache > cocoon > 2.1



## The Apache Cocoon Project

<http://cocoon.apache.org/>

COCOOON

Home

- ◆ About
  - [Index](#)
  - News
  - License
  - Download
- ◆ Documentation
  - Introduction
  - Tracks
  - Installing
  - Overview
  - User Guide
  - Dev Guide
  - Tutorials
  - FAQs
  - How-Tos
  - Performance
  - Snippets
  - Wiki Docs
- ◆ Status
  - Changes
  - Todo

## Apache Cocoon

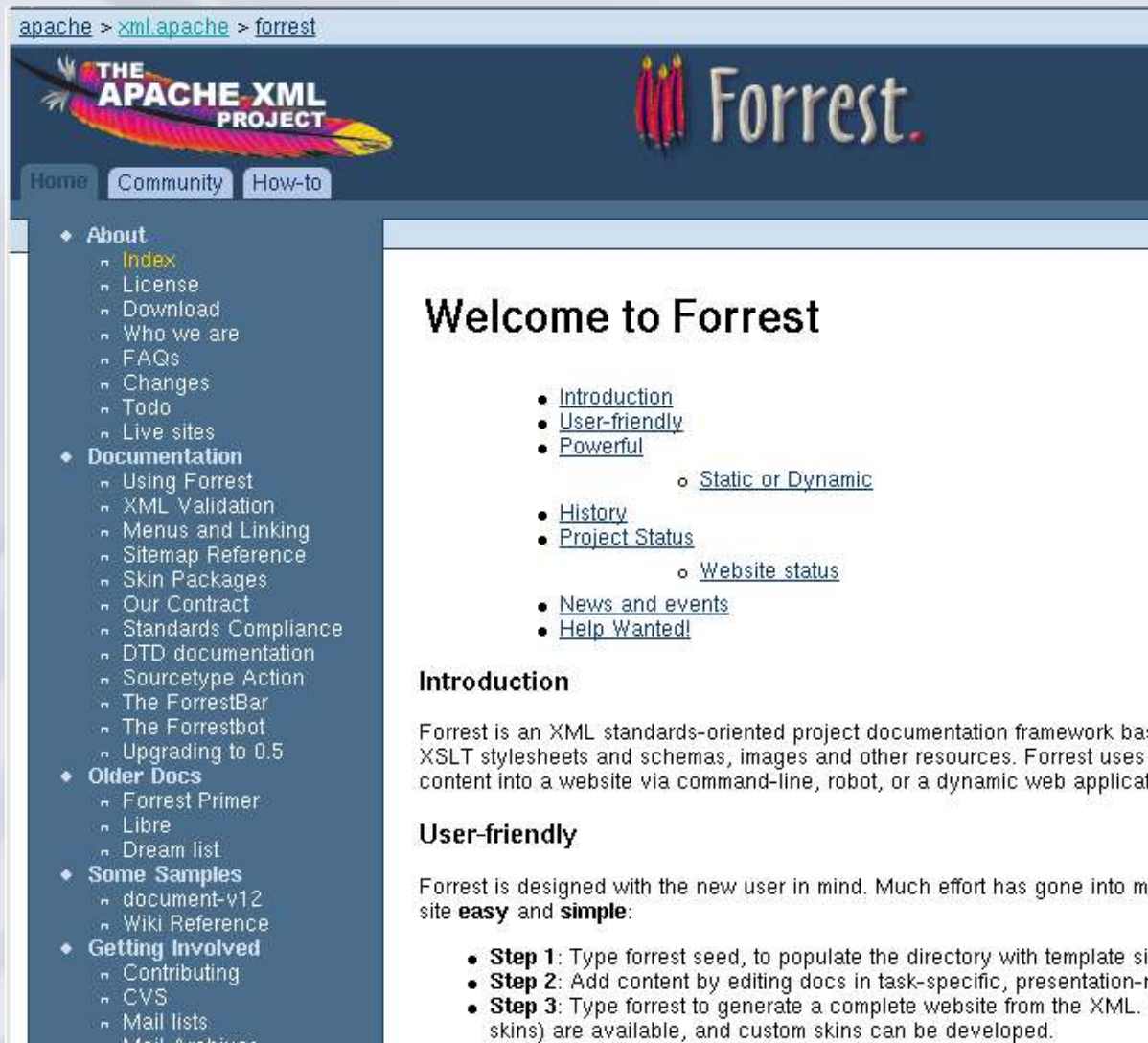
### XML Web Development Framework

- [News](#)
- [What is Cocoon?](#)
- [Where can I find it?](#)
- [Where to start?](#)
- [More News about Cocoon](#)



News

# Forrest – Forrest Site



The screenshot shows the Apache Forrest website. At the top, there is a navigation bar with the Apache XML Project logo on the left and the 'Forrest.' logo on the right. Below the navigation bar, there are three tabs: 'Home', 'Community', and 'How-to'. A left sidebar contains a tree view of the site's structure, including sections for 'About', 'Documentation', 'Older Docs', 'Some Samples', and 'Getting Involved'. The main content area features a 'Welcome to Forrest' heading, followed by a list of links: 'Introduction', 'User-friendly', 'Powerful', 'History', 'Project Status', 'News and events', and 'Help Wanted!'. Below this, there are three sections: 'Introduction', 'User-friendly', and 'Getting Involved', each with a brief description and a list of steps.

apache > [xml.apache](#) > [forrest](#)

**THE APACHE XML PROJECT**

**Forrest.**

Home Community How-to

- ◆ **About**
  - [Index](#)
  - [License](#)
  - [Download](#)
  - [Who we are](#)
  - [FAQs](#)
  - [Changes](#)
  - [Todo](#)
  - [Live sites](#)
- ◆ **Documentation**
  - [Using Forrest](#)
  - [XML Validation](#)
  - [Menus and Linking](#)
  - [Sitemap Reference](#)
  - [Skin Packages](#)
  - [Our Contract](#)
  - [Standards Compliance](#)
  - [DTD documentation](#)
  - [Sourcetype Action](#)
  - [The ForrestBar](#)
  - [The Forrestbot](#)
  - [Upgrading to 0.5](#)
- ◆ **Older Docs**
  - [Forrest Primer](#)
  - [Libre](#)
  - [Dream list](#)
- ◆ **Some Samples**
  - [document-v12](#)
  - [Wiki Reference](#)
- ◆ **Getting Involved**
  - [Contributing](#)
  - [CVS](#)
  - [Mail lists](#)
  - [Mail Archives](#)

## Welcome to Forrest

- [Introduction](#)
- [User-friendly](#)
- [Powerful](#)
  - [Static or Dynamic](#)
- [History](#)
- [Project Status](#)
  - [Website status](#)
- [News and events](#)
- [Help Wanted!](#)

### Introduction

Forrest is an XML standards-oriented project documentation framework base XSLT stylesheets and schemas, images and other resources. Forrest uses th content into a website via command-line, robot, or a dynamic web applicati

### User-friendly

Forrest is designed with the new user in mind. Much effort has gone into mal site **easy** and **simple**:

- **Step 1:** Type forrest seed, to populate the directory with template site
- **Step 2:** Add content by editing docs in task-specific, presentation-ne
- **Step 3:** Type forrest to generate a complete website from the XML. V skins) are available, and custom skins can be developed.

# URLs

- **Cocoon**

- <http://cocoon.apache.org/2.1/performance/tips.html>
- <http://cocoon.apache.org/2.1/userdocs/offline/index.html>

- **Forrest**

- <http://xml.apache.org/forrest/index.html>