

# Folder Structure & Content of GPars Documentation Website

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## Goals

- To convert original **GPars** documentation from **mark-down** syntax to **Asciidoctor**
- To create a new look
- To combine a variety of **GPars** information into a single place (guides, references, tutorials, etc.)
- To re-arrange file structures as found in [gpars.github.io](https://gpars.github.io) and dis-continue **Jekyll**
- To maintain the static nature of the website; only a few dynamic parts were needed, but more later as features grow



For our documents, we use the **Asciidoctor** tool and **Gradle** plugin for **Asciidoctor**

For hosting, this implementation uses a **CloudFoundry PaaS** provider like **IBM BlueMix**, **Pivotal**, **CloudBees**, **Anynines.com**

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## Introduction

A knowledge of **Gradle**, **GitHub**, and both static and dynamic **web servlets** is assumed as are a familiarity with website folder structure, html, etc.

The groovy-based build tool called **Gradle** is used to construct this website. Several different build scripts are used to implement this website. Each script is plain text UTF-8 encoded. Each script serves a different purpose.

Original **GPars** documents were stored as text files using the **mark-down** syntax. These files have been translated into a more robust **Asciidoctor** syntax. Each text file is plain text UTF-8 encoded and resides in the `./Website/src/docs/asciidoc` folder plus sub-folders for each topic.

All translated files retain the original mark-down filename but now sport an **.adoc** suffix.



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## Gradle Build Tool Overview

## Gradle Components

| Name                | Date Modified         |
|---------------------|-----------------------|
| Website             | Yesterday 11:28 PM    |
| build.gradle        | Dec 17, 2015 11:57 PM |
| deploy.gradle       | Dec 17, 2015 11:57 PM |
| gradlew             | Dec 17, 2015 11:57 PM |
| gradlew.bat         | Dec 17, 2015 11:57 PM |
| gretty.gradle       | Dec 17, 2015 11:57 PM |
| pdf.gradle          | Dec 17, 2015 11:57 PM |
| pdfcore.gradle      | Dec 17, 2015 11:57 PM |
| pdfreference.gradle | Dec 17, 2015 11:57 PM |
| gradle              | Dec 17, 2015 10:36 AM |
| gradle.properties   | Dec 17, 2015 7:49 AM  |
| src                 | Nov 13, 2015 2:18 PM  |
| main                | Yesterday 9:47 PM     |
| webapp              | Yesterday 11:12 PM    |
| docs                | Dec 2, 2015 6:53 PM   |
| asciidoc            | Yesterday 11:04 PM    |
| images              | Dec 19, 2015 9:04 AM  |
| archive             | Dec 19, 2015 9:04 AM  |
| css                 | Dec 2, 2015 6:54 PM   |
| markdown            | Nov 5, 2015 12:20 PM  |
| resources           | Nov 5, 2015 12:20 PM  |
| txt                 | Nov 5, 2015 12:19 PM  |

This build tool allows us to include a *wrapper* holding components used by **Gradle**.

After cloning this repository, these components are all you need to build and manage this app, even if **Gradle** is not installed on your system. This avoids installing **Gradle** on your system.

1. **gradlew** - a Linux/Apple bash *wrapper* script to execute the build tool
  2. **gradlew.bat** - the windows equivalent of the prior script
  3. **gradle/** - a folder of build tool components
  4. **gradle.properties** - settings to influence the execution of this build tool
- 
1. **build.gradle** - executes `defaultTasks` to setup the job, run the **Asciidoctor** task, then builds a servlet war file.
  2. **gretty.gradle** - used for internal purposes to run this site as a local webservice; useful to review changes prior to server upload; from a command line, do this :  
`cd ./Website`  
`./gradlew -b gretty.gradle appRun`  
then from a browser address line, use: <http://localhost:8080> - *NOTE: may not work on Java JVM9*
  3. **deploy.gradle** - uploads our servlet war file to target CloudFoundry (or jetty or tomcat ) service; see notes within this script for more details; *NOTE: enter credentials prior to first use*; to run this script,

try :

```
cd ./Website
```

```
./gradlew -b deploy.gradle
```

Default tasks in this script run several steps to login to the remote CloudFoundry API, and push an existing **.war** file to it. This script posts the **.war** file that was built in the **build.gradle** script from **./build/libs** folder to the target.



## Root Folder Layout

*Input / Output Folder Designations of Website Root and Sub-Folders - see **build.gradle***

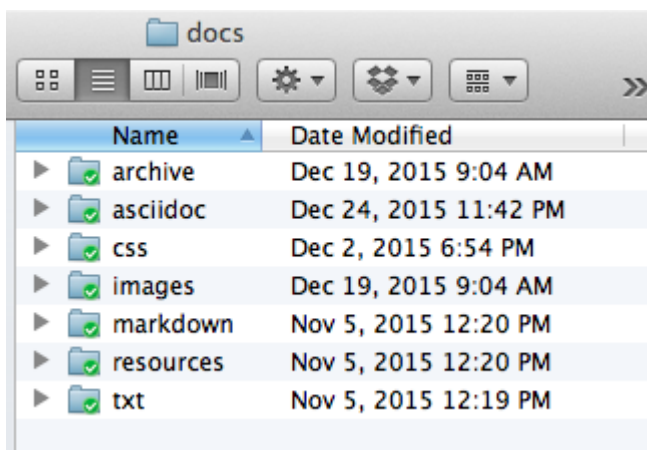
```
asciidoctor {  
    sourceDir = file('src/docs/asciidoc') ①  
    outputDir = file('src/main/webapp') ②  
}
```

① declares the root input folder of all \*.adoc files

② declares the output folder for generated HTML documents

## Input Source

For input, **Asciidoctor** reads each \*.adoc file in the **./Website/src/docs/asciidoc** folder and any sub-folders.



## Input Sub-Folder Layout

Topical areas of discussion are often broken into pieces, typically segregated physically as folders-within-folders (i.e. sub-folders).

Our website follows this pattern. Here's a list of our current input sub-folders and their purpose as of

Dec.2015. Note others maybe added later.

1. **archive** - original stuff no longer needed but saved 'just-in-case'
2. **asciidoc** - contains the converted markdown documents as **.adoc** files plus sub-folders by topic
3. **css** - styling components;
4. **images** - variety of stuff, some current, some obsolete and due for a tidy-up
5. **markdown** - original markdown files saved here from the github repo - keep or delete ? No harm for the moment
6. **resources** - to be used for zips of older releases
7. **txt** - by-products of search for stale/obsolete URLs



## HTML Generation Process

HTML generation is provided by a single task within the **build.gradle** script. The **Asciidoctor** task has this privilege.

All document files have their original *mark-down* filename plus an **.adoc** suffix.

The **Asciidoctor** plugin in **build.gradle** reads each **.adoc** file from the `./Website/src/docs/asciidoc` folder. It renders an **.html** equivalent and writes this to the `./Website/src/main/webapp` folder, or sub-folder.

Folder structure is preserved from the source folder.

## Root HTML Generation Commands

- Manual - when used manually from a command line to run a single task in **build.gradle**, do this :  
`cd ./Website`  
`./gradlew asciidoctor`
- Automatic - runs tasks in this script declared as default tasks. These are `'clean','asciidoctor','build','war'`.  
Do this without any task names after gradlew:  
`cd ./Website`  
`./gradlew`



# PDF Generation Scripts

PDF generation is provided by identical gradle scripts. The only difference between them is the declarations for input and output folders. These appear around lines 50-55 in each script. They look like the following logic that produces a PDF document in our **core** folder for each \*.adoc file :

*Sample Input / Output Folder Designations for Core PDFs*

```
sourceDir = file('src/docs/asciidoc/core') ①  
outputDir = file('src/main/webapp/core')    ②
```

① declares the input folder of \*.adoc files

② declares the output folder for the generated PDF

1. **pdf.gradle** - generates a single page PDF for the full user guide as defined in **index.adoc**; this index uses the **include** syntax to insert pieces of text from the \*.txt files.
2. **pdfcore.gradle** - generates a single page PDF for each ./core topic file ending with **.adoc**
3. **pdfreference.gradle** - generates a single page PDF for the reference manual defined in **index.adoc**; this index uses the **include** syntax to insert pieces of text from the \*.txt files.
4. **pdfstructure.gradle** - generates a single page PDF describing the workings of this website, it's folders, scripts,etc.



# Output Generation

The `./Website/src/main/webapp` folder is used as the output capture folder for our website. [AsciiDoctor](#) writes `.html` (or `.PDF`) output here. Sub-folders are duplicated, if necessary, to preserve the integrity of the source.

## Output Sub-Folder Layout

Topical areas of discussion are often broken into pieces, typically segregated physically as folders-within-folders (i.e. sub-folders).

Our website follows this pattern. Here's a list of our current output sub-folders and their purpose as of Dec.2015. Note others maybe added later.

1. **api** - groovydoc and javadoc compiler output copied over from latest release; **groovy-overview-summary.html** and **java-overview-summary.html** are re-built by build.gradle logic
2. **core** - describes the primary mechanisms of **GPars**
3. **css** - styling components; `css3menu1` sub-dir is for the site navigation bar
4. **font-awesome** - used by asciidoctor to generate admonition icons
5. **fonts** - [AsciiDoctor](#) usage
6. **guide** - everything to construct our `.html` user guide and companion `.pdf`
7. **images** - variety of stuff, some current, some obsolete and due for a tidy-up
8. **img** - used in landing page ( **index.html** )
9. **JonKerridgeBook** - chapters from his material and his PDF series
10. **js** - for landing page and JQuery support
11. **quickstart** - the short reference manual for both `.html` and it's one-page PDF version



Our landing page **index.html** is not an [AsciiDoctor](#) artifact, and must **NOT** be lost or deleted



# WEB-INF Review

**WEB-INF** is our deployment folder for java servlets. It holds traditional support and configuration files.

Here's a list of components, sub-folders and their purpose as of Dec.2015.

1. **groovy** - dynamic components written as groovy scripts (plus a lot of obsolete stuff)
2. **includes** - fragments of html stored as groovy templates for **include** targets
3. **lib** - jars of runtime logic to support
  - 1) additional servlet processing in `caelyf-1.3.3.jar` and
  - 2) live **AsciiDoctor** translation from any \*.adoc file directly to servlet response stream in `Doctor-all-1.0.jar`
4. **pages** - groovy templates (**.gtpl**) add further text to a servlet response
5. **logging.properties** - adjust log level as needed
6. **routes.groovy** - adds additional mappings to our own code for browser addresses. For example :  
`get "/datetime",forward:"/datetime.groovy", cache:2.minutes`  
where **get**, **post**, etc HTTP requests go to a specific groovy script; if **Redis** service is running, response is copied to cache for 2 min.s before reconstructing it

In this example, a request from browser address: <http://localhost:8080/datetime> forwards to `datetime.groovy` script in `/Website/src/main/webapp/WEB-INF/groovy` folder. It gets system date then forwards request to a template at `/Website/src/main/webapp/WEB-INF/pages` for final response resolution.

7. **web.xml** - configures servlet container (jetty,tomcat,etc.) by mapping file suffixes to servlets; rarely changes.



## Sample Workflow



To be added soon

