



Jenkins

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13. Customizing UI

- Introduction
- Steps in Modifying Jenkins Code
- Manual Modification
- Simple Theme Plugin
- Custom Job Icon plugin





Introduction



- The open source feature of Jenkins allows it to be extensively modified and used according to our needs
- Can modify things from wordings, color schemes & even the overall view of the different elements
- The UI in Jenkins build on ***jelly files*** similar coding as an html page & uses java to convert them to html
- ***Jelly files*** has a large amount of tags for particular UI features
- Can modify the overall theme of the Jenkins using Simple Theme Plugin



Steps in Modifying Jenkins Code



1. Fork the GitHub repo for Jenkins & clone it

<https://github.com/jenkinsci/jenkins>

2. Make the necessary changes in code

3. Build the source code using this command

`mvn clean package -pl war -am -DskipTests -Dfindbugs.skip`

4. Go to war/target in the source code and run

`java -jar jenkins.war`

5. Go to localhost:8080 to access the modified UI



Manual Modification from the Source Code



Steps in Manual modification of UI


- Select the UI component you want to modify
- Modify the corresponding jelly file & properties file
- Modify the styles based on requirement in the css files in
war/src/main/webapp/css folder



Example: Customizing the Login Page



Default

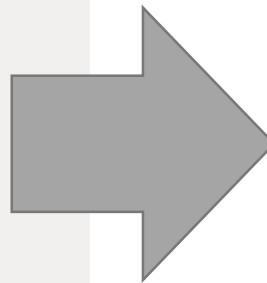


Welcome to Jenkins!


Username

Password

☐ Keep me signed in



Modified



Welcome to My Company!

Username

Password

☐ Keep me signed in



Cont'd...



Step 1.1 : Modify the words “My Company”

- Go to login.jelly file in core/src/main/resources/Jenkins/model/Jenkins
- Here you can see the part of the login screen between logo and input boxes
- The “simple-header.jelly” file is included

```
</j:when>
<j:otherwise>
  <div class="simple-page" role="main">
    <div class="modal login">
      <st:include it="${simpleDecorator}" page="simple-header.jelly"
        optional="true"/>
      <!-- login form -->
      <form name="login" action="${it.securityRealm.authenticationGatewayUrl}"
        method="post">
        <j:if test="${it.securityRealm.allowsSignup()}">
          <div class="signupTag">
            ${%signup}
          </div>
        </j:if>
```



Cont'd...


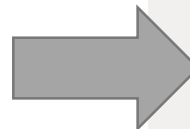


Step 1.2 : Find the file & modify it to “Welcome to My Company!”

- Go to

jenkins/core/src/main/resources/jenkins/model/DefaultSimplePageDecorator/simple-header.jelly

```
<?jelly escape-by-default='true'?>
<j:jelly xmlns:j="jelly:core">
  <div id="loginIntroDefault">
    <div class="logo"> </div>
    <h1>${%Welcome to Jenkins!}</h1>
  </div>
</j:jelly>
```



Welcome to My Company!

Username

Password

Sign in

☐ Keep me signed in



Cont'd...



Step 2: Change the colors of the sign in button

- Modify the css file in ***war/src/main/webapp/css/simple-page.theme.css***

```
...
main-bg-color-focus: #2171ce;
main-bg-color: #232E3A;
danger-color: #C4000A;

{
color: #100000;


simple-page .logo {
background-image: url('../images/jenkins.svg');
background-repeat: no-repeat;
background-position: 50% 0;
height: 130px;

simple-page form .submit input:focus {
background-color: #2171ce; /*var(--main-bg-color-focus);*/
border: solid 1px #2171ce; /*var(--main-bg-color-focus);*/

simple-page form .submit input {
background-color: #232E3A; /*var(--main-bg-color);*/
border: solid 1px #232E3A; /*var(--main-bg-color-focus);*/

simple-page input.normal:focus {
border: solid 1px #2171ce; /*var(--main-bg-color-focus);*/

simple-page .danger {
border: 1px solid #C4000A; /*var(--danger-color);*/
box-shadow: 0 0 1px #C4000A; /*var(--danger-color);*/
}
```



Welcome to My Company!

☐ Keep me signed in



Simple Theme Plugin



Step 1: Install the *Simple theme plugin*

- **Manage Jenkins → Manage Plugins → Search Simple Theme → Select Available → Install without Restart**

Jenkins

Jenkins >

- New Item
- People
- Build History
- Manage Jenkins**
- My Views
- Lockable Resources
- Credentials
- New View

Build Queue

No builds in the queue.

Build Executor Status

- 1 Idle
- 2 Idle

Manage Jenkins

- Configure System**
Configure global settings and paths.
- Configure Global Security**
Secure Jenkins; define who is allowed to access/use the system.
- Configure Credentials**
Configure the credential providers and types.
- Global Tool Configuration**
Configure tools, their locations and automatic installers.
- Reload Configuration from Disk**
Discard all the loaded data in memory and reload everything from file sy
- Manage Plugins**
Add, remove, disable or enable plugins that can extend the functionality
- System Information**

search Amit | log out

Filter: simple theme

Updates Available Installed Advanced

Install

Name	Version
Simple Theme This plugin allows to customize Jenkins's appearance with custom CSS and JavaScript. It also allows to replace the Favicon.	0.5.1

Install without restart Download now and install after restart Update information obtained: 1 day 4 hr ago Check now



Cont'd...



- To give colors & generate a css file follow the given link:
- <http://afonsof.com/jenkins-material-theme/>

Build your own theme with a company logo!

1. Select your color

red	pink	purple	deep-purple	indigo	blue	light-blue
cyan	teal	green	light-green	lime	yellow	amber
orange	deep-orange	brown	grey	blue-grey		

2. Choose your company logo

- Minimum height: 40px
- Preferred type: Transparent PNG
- Preferred size: up to 10KB

↓ DOWNLOAD YOUR THEME!

So you love **Jenkins** but hate its ugly user interface and icons... Me too! Introducing **Jenkins Material Theme**. You can turn your favorite frog CI tool into a handsome prince in few steps! Install this Jenkins Theme!







- Manage Jenkins → Configure system → Theme → Paste the CSS file generated
- Apply → Save




Jenkins

Jenkins ▶

-  New Item
-  People
-  Build History
-  **Manage Jenkins**
-  My Views
-  Lockable Resources
-  Credentials
-  New View

Manage Jenkins

-  **Configure System**
Configure global settings and paths.
-  **Configure Global Security**
Secure Jenkins; define who is allowed to access
-  **Configure Credentials**
Configure the credential providers and types

Theme elements

Extra CSS

Extra CSS

@import url(https://fonts.googleapis.com/css?family=Roboto:400,700,500,300);@import url(https://fonts.googleapis.com/css?family=Roboto+Mono:400,700,500,300);@keyframes a{0%{transform:rotate(0deg)}to{transform:rotate(1turn)}}@keyframes b{0%{opacity:1}50%{opacity:0}to{opacity:1}}[src\$=".png"]{background-image:url(data:image/svg+xml;base64,PHN2ZyBoZWlnaHQ9IjE4IlB2aWV3Qm94PSlwIDAgMjQlHdpZHRoPSIxOCleG1sbnM9Imh0dHA6LzY3d3cudzMub3JnLzlwMDAvc3Znlj48cGF0aCBmaWxsPSljMDA5Ng4lIkBkPSJNMtIgMkM2LjQ4IDlgMiA2LjQ4IDlgMg==");}

DELETE

Favicon URL

URL of theme Favicon

DELETE

JavaScript URL

URL of theme JavaScript

DELETE



UI Output



The screenshot displays the Jenkins web interface. The top navigation bar is green with the Jenkins logo, a search bar, and user information (AFONSO F. | LOG OUT). The left sidebar contains navigation links: New Item, People, Build History, Manage Jenkins, Credentials, and My Views. The main content area shows a list of jobs. The 'getcompliance_webapp_dev' job is selected, and a context menu is open over it. The menu options are: Changes, Workspace, Build Now, Delete Project, Configure, Buildbucket Hook Log (highlighted), and Move. The job list table has columns for Status, View, Name, Last Success, Last Failure, and Last Duration. Below the table, there are links for 'RSS for all', 'RSS for failures', and 'RSS for just latest builds'. On the left, there are sections for 'Build Queue' (No builds in the queue) and 'Build Executor Status' (1 Idle, 2 Idle).

S	W	Name	Last Success	Last Failure	Last Duration
✓	⚙	getcompliance_webapp_dev	19 hr - #59	5 days 23 hr - #70	3 min 15 sec
✓	☁		13 hr - #238	1 day 14 hr - #234	2 min 7 sec

Icon: S M L

Build Queue: No builds in the queue.

Build Executor Status: 1 Idle, 2 Idle.

Footer: Help us localize this page | Page generated: Jun 4, 2016 6:11:59 PM UTC | REST API | Jenkins ver. 2.7 | afonsof.com/jenkins-material-theme v. 1.3.1



Custom Job Icon

Step 1: Install the *Simple theme plugin*

- **Manage Jenkins → Manage Plugins → Search Custom Job Icon → Select Available → Install without Restart**

The screenshot shows the Jenkins web interface. On the left, the 'Manage Jenkins' sidebar is visible with options like 'New Item', 'People', 'Build History', 'Manage Jenkins' (highlighted), 'My Views', 'Lockable Resources', 'Credentials', and 'New View'. Below this are sections for 'Build Queue' and 'Build Executor Status'. The main area is titled 'Manage Jenkins' and contains several configuration links: 'Configure System', 'Configure Global Security', 'Configure Credentials', 'Global Tool Configuration', 'Reload Configuration from Disk', 'Manage Plugins' (highlighted with a red box), and 'System Information'. A large grey arrow points from the 'Manage Plugins' link to the 'Manage Plugins' page. The 'Manage Plugins' page shows tabs for 'Updates', 'Available', 'Installed', and 'Advanced'. The 'Available' tab is selected, and a search filter 'Custom Job Icon' is entered in the top right. A table lists available plugins, with 'Custom Job Icon' (version 0.2) highlighted. Below the table, the 'Install without restart' button is highlighted with a red box. Other buttons include 'Download now and install after restart', 'Check now', and 'Update information obtained: 8 hr 9 min ago'.

Jenkins

Manage Jenkins

Manage Jenkins

Configure System
Configure global settings and paths.

Configure Global Security
Secure Jenkins; define who is allowed to access/use the system.

Configure Credentials
Configure the credential providers and types

Global Tool Configuration
Configure tools, their locations and automatic installers.

Reload Configuration from Disk
Discard all the loaded data in memory and reload everything from file sy

Manage Plugins
Add, remove, disable or enable plugins that can extend the functionality

System Information

Filter: Custom Job Icon

Updates Available Installed Advanced

Install ↓

Name	Version
Custom Job Icon	0.2

This plugin allows users to set a custom icon for the jobs.

Install without restart Download now and install after restart Check now

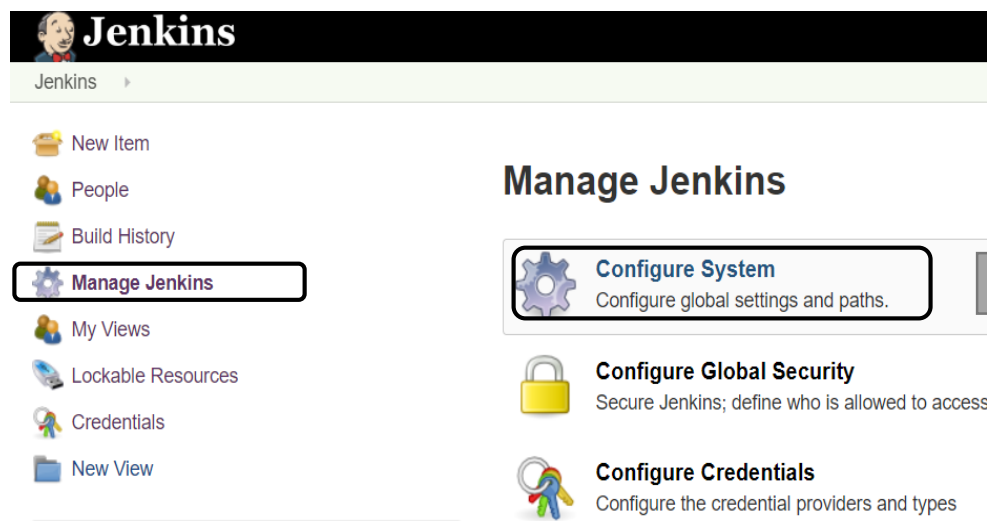
Update information obtained: 8 hr 9 min ago



Cont'd...

Step 2: Add icons to Jenkins

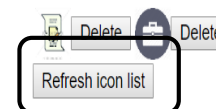
- **Manage Jenkins -> Configure System -> Custom icons -> Choose File -> Add -> Refresh icon list**



Custom icons

Upload an image file: jenkins_Custom_logo.png

Delete icons





Cont'd...



Step 3: Add icons to Job

- **Configure job -> Use custom icon -> Select an icon -> Apply -> Save**

The screenshot shows the Jenkins job configuration interface. At the top, there are tabs for 'General', 'Source Code Management', 'Build Triggers', 'Build Environment', 'Build', and 'Post-build Actions'. The 'General' tab is active. Below the tabs, there is a 'Description' field with a large text area and a '[Plain text] [Preview](#)' link. Below the description field, there is a checkbox labeled 'Use custom icon' which is checked. Below this checkbox, there is a 'Select an icon' label and a row of three icons: a default Jenkins icon, a custom icon (a briefcase), and a selected icon (a camera). The selected icon is highlighted with a black border. There are also two question mark icons on the right side of the icon selection row.



Cont'd...



- Go back to the Jenkins dashboard
- You can see the icon at the right end of the job view

Jenkins

New Item

People

Build History

Manage Jenkins

Credentials

New View

Build Queue

No builds in the queue.

Build Executor Status

1 Idle

2 Idle

AllView try+

S	W	Name ↓	Last Success	Last Failure	Last Duration	
		Job001	23 sec - #6	N/A	0.21 sec	
		Job002	46 sec - #3	1 min 18 sec - #2	0.14 sec	
		Job003	1 day 5 hr - #8	1 day 5 hr - #7	3 min 34 sec	

Icon: [S](#) [M](#) [L](#)

[add description](#)

Legend

[RSS for all](#)

[RSS for failures](#)

[RSS for just latest builds](#)