

# **HPE Propel**

Software version 2.20.p1

Theming Customization

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# **Propel Theming Customization**

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# **Expectations**

Theming is a part of HPE Propel Jumpstart capability, and tutorial videos are available on HPE Live Network (HPLN) to explain what Jumpstart is and how to use it.

The current theming capability as described in this document should be considered as phase 1. It is needed to get the infrastructure in place for a dedicated theming service (UI & backend) to help push changes to Jumpstart apps. In later phases we'll focus on a dedicated UI to help with theming and branding.

Currently, each theme needs to be distributed to each application's bower\_components. This document explains how to configure a theme for the Launchpad application. The same steps can be used for other HPE Propel applications, such as Shop, Support, or Search.

Additionally, since each application relies on a different set of components and versions, each theme needs to be compiled per application.

This means that each application can use different versions of both components and the propel-foundation-theme without any issues.

# **Overview**

HPE Propel supports theme customization via the Jumpstart framework that is used throughout its applications. More information about Jumpstart can be found on HPLN.

Mainly, style customizations are driven through theming modules. These theme modules can (and should) be generated through the Jumpstart Generator.

Once a theme module is made, it should be placed within a Jumpstart application and used to compile a theme that is available to the UI.

This document describes all manual steps required to apply a theme to the Launchpad application. In *Automated Procedure*, instructions are provided for how you can use Ansible automation to deploy your theme to all HPE Propel UI services.

# Requirements

At a minimum, you need to have HPE Propel 2.20.p1 (2.20 Patch 1) installed.

The following products must be available, installed, and configured before you can customize themes in Jumpstart applications:

(Essentially everything that is referenced in the *Jumpstart Overview* documentation)

- Install node.js platform (for all Jumpstart libraries)
- Install npm NodeJS library dependency manager

- Install bower UI library dependency manager
- Install gulp building library
- Install the Jumpstart Generator scaffolding tool

# **Theme Module**

A theme module is a supported UI module in Jumpstart that helps define a new theme the application can build and use.

This module has a single file that allows changes to the styling of the application.

# **Theme Module Structure**

A theme module must consist of two files:

- 1. bower.json file
- 2. single \*.scss file

The bower.json file should look as follows:

```
"name": "my-theme",
  "version": "0.1.0",
  "keywords": [
   "jumpstart-theme-extended"
                                            // *** helps Jumpstart apps recognize that
it's a theme module
  "dependencies": {
    "propel-foundation-theme": "^1.3.0" // *** dependencies that are being
customized by this "my-theme"
  "devDependencies": {},
  "ignore": [
    "**/.*",
    "node_modules",
    "bower_components",
    "test",
    "tests"
  "main": "**/*.scss"
                                            // *** identifies what scss files to use
for customization
```

If you used the generator, you should see a public.api.scss file that is similar to the listing below.

```
/* Propel Foundation Theme supported, public variables and their default values */
/* body */
/* ---- */
$propel-body-bg-color: #ffffff !default;
$propel-body-text-color: #666666 !default;
$propel-primary-font-color: #333333 !default;
/* header */
/* ----- */
$propel-header-bg-color: #ffffff !default;
$propel-header-text-color: #666666 !default;
/* footer */
/* ----- */
$propel-footer-bg-color: #333333 !default;
$propel-footer-text-color: #999999 !default;
/* panel */
/* ----- */
$propel-panel-bg-color: #ffffff !default;
$propel-panel-text-color: #666666 !default;
$propel-panel-secondary-bg-color: #f2f4f5 !default;
$propel-panel-secondary-text-color: #666666 !default;
$propel-panel-footer-bg-color: #dldldl !default;
$propel-panel-footer-text-color: #666666 !default;
/* colors */
/* ----- */
                                    #01A982 !default;
#999999 !default;
#01A982 !default;
#FF8D6D !default;
#FF454F !default;
$propel-primary:
$propel-secondary:
$propel-success:
$propel-warning:
$propel-alert:
$propel-info: #2AD2C9 !default;
```

# **Manual Procedure**

# **Theme Module Preparation**

### **Action user**

All activities described below must be run as the propel user (or switch from root to propel with the following command: # su - propel).

### **Internet Access**

The binaries and HPE Propel components must be downloaded from the online Internet-based HPE Propel npm repositories; therefore, access to the HPE Propel server via the Internet is temporarily needed.

### **Proxy Settings**

Create or modify two environment files. Make sure to check the proxy settings because you need to connect to the Internet.

#### .npmrc

Add the following lines to the ~/.npmrc file. (Create the file if it does not exist.)

```
proxy = http://web-proxy.example.com:8080
https-proxy = http://web-proxy.example.com:8080
@propel:registry = https://propelrepo.com:443/artifactory/api/npm/jumpstart
```

Note 1: This will download the NPM module @propel/rss-msvc from the Internet.

**Note 2**: This tells npm to go to HPE Propel's private npm repository for all npm modules name spaced with @propel.propelrepo.com = [52.36.185.154]

Note 3: Modify the proxy and https-proxy parameters to use your company's proxy server.

#### .bowerrc

Add the following lines to the ~/.bowerrc file. (Create the file if it does not exist.)

```
{
"resolvers": [
"bower-art-resolver"
],
"registry": "https://propelrepo.com:443/artifactory/api/bower/jumpstart-bower-virt",
"proxy": "http://web-proxy.eu.hpecorp.net:8080/",
"https-proxy": "http://web-proxy.eu.hpecorp.net:8080/"
}
```

**Note**: Modify the proxy and https-proxy parameters to use your company's proxy server.

Exit your session and log in again as the propel user to make sure the two environment files are loaded.

### **Prepare installation directory**

### Make a directory for global installations

```
# mkdir ~/.npm-global
```

### Configure npm to use the new directory path

```
# npm config set prefix '~/.npm-global'
```

### **Update \$PATH**

Edit the '~/.bashrc' file, add the following line.

```
export PATH=~/.npm-global/bin:$PATH
```

Make the changes on the .bashrc file effective. Or, you can log in again as the propel user.

```
# source ~/.bashrc
```

# Get the Latest npm, yo, bower and gulp Components

```
# npm install -g npm
# npm install -g yo
# npm install -g bower bower-art-resolver
```

```
# npm install -g gulp
```

### **Install Propel Jumpstart Yeoman Generator**

This will download the latest generator from the HPE Propel npm repository. This update can take a while to complete.

```
# npm install -g @propel/generator-jumpstart
```

# **Theme Module Generator**

An initial theme module can easily be scaffolded through the Jumpstart Generator.

- 1. On the HPE Propel server, log in as the propel user (or switch from root to propel with the following command: # su propel).
- 2. Create a directory within HPE Propel's home directory (/home/propel) for your theme and navigate to it:

```
# cd
# mkdir my-theme
# cd my-theme
```

3. Run the yeoman Jumpstart Generator

```
# yo @propel/jumpstart
```

Note: Reply "no" to the usage statistics:

4. You should see a command-line Interface for creating the Jumpstart servers, modules, and servers. (See below for a screenshot.)

- 5. Select "Jumpstart Theme" and press Enter.
- 6. Provide a name (defaults to name of directory).

```
Loading existing project info...

? What kind of project would you like to create? Jumpstart Theme
? Please choose a name for your project (my-theme)
```

- 7. The generator will then scaffold your theme module and trigger a bower install within the directory.
- 8. That's It! The file/directory structure should look similar to below:

```
Note: The generated module is expected to work with Propel version >= 2.20p1
create bower.json
create .editorconfig
create .jshintrc
create .jsbeautifyrc
create .jsbeautifyrc
create .gitignore
create public.api.scss
You can now customize your theme by editing the scss variables on public.api.scss file
[propel@propel220bxl my-theme]$ 11
total 8
-rw-rw-r--. 1 propel propel 333 Oct 24 10:42 bower.json
-rw-r---. 1 propel propel 1429 Oct 24 10:42 public.api.scss
[propel@propel220bxl my-theme]$ [
```

# **Customize the New HPE Propel Theme**

Edit the my-theme/public.api.scss file and you can change the colors of the parameters that have been exposed. For example, you can change the background color and the text color. See the examples in *Color Mapping in the HPE Propel Launchpad Interface*.

# **Build the New HPE Propel Theme**

Copy the my-theme module into your target HPE Propel Jumpstart application. This example describes how theming is applied to the Launchpad application. For example, you can copy it into /opt/hp/propel/launchpad/bower\_components if you want to apply this theme to the Launchpad application.

**Note:** You have to do this for all HPE Propel Jumpstart applications where you want to apply the theme.

```
# cp -rf /home/propel/my-theme /opt/hp/propel/launchpad/bower_components
```

The following instructions are for repackaging the web content for the HPE Propel Jumpstart application (for example, Launchpad).

```
# cd /opt/hp/propel/launchpad
# npm install @propel/gulp-jumpstart-web-packager
# npm install gulp
# mv dist dist.bak
```

**Note**: For details about repackaging the web content using the @propel/gulp-jumpstart-web-packager, please refer to the HPE Propel Jumpstart tutorial on HPLN.

Backup the existing gulpfile. js file:

```
# cd /opt/hp/propel/launchpad
# mv gulpfile.js gulpfile.js.bak
```

Create a new gulpfile.js under /opt/hp/propel/launchpad and add the following content:

```
'use strict';
require('@propel/gulp-jumpstart-web-packager')();
```

```
'use strict';
require('@propel/gulp-jumpstart-web-packager')();
```

#### Now link the theme:

```
# cd /home/propel/my-theme
# bower link
```

```
[propel@propel220bxl my-theme]$ bower link
                          invalid-meta The "main" field cannot contain globs (example: "*.js")
bower
                         link /home/propel/.local/share/bower/links/my-theme > /home/propel/my-theme
bower
```

# cd /opt/hp/propel/launchpad

# bower link my-theme

Repackage the web content (which will package the new my-theme theme) by running the following command from /opt/hp/propel/launchpad:

# gulp dist

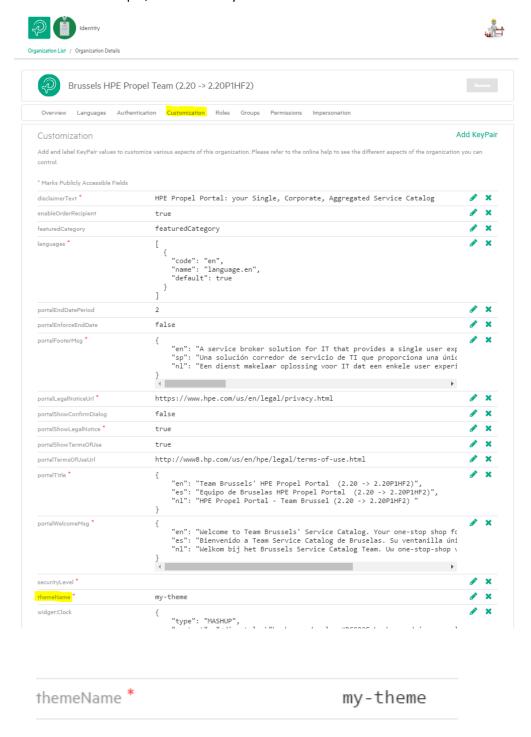
```
propel@propel220bxl launchpad]$ gulp dist
                                     spropelzzobxi laumenpadjs gprop
51] Using gulpfile /opt/hp/prop
51] Starting 'locales.dist'...
54] Starting 'assets.dist'...
54] Starting 'clean.dist.js'...
                                                   Starting 'clean.dist.styles'...
Finished 'clean.dist.styles' after 55 ms
                                              | Starting 'clean.dist.styles'...
| Finished 'clean.dist.styles' after 55 ms
| Starting 'styles.dist'...
| Finished 'clean.dist.'...
| Finished 'slean.dist.'...
| Finished 'assets.dist' after 1.94 s
| Starting 'scripts.dist'...
| Finished 'assets.dist' after 4.49 s
| Finished 'assets.dist' after 10 s
| gulp-inject 1 files into theme.scss.
| gulp-inject 1 files into theme.scss.
| gulp-inject 1 files into theme.scss.
| gulp-inject 8 files into theme.scss.
| gulp-inject 8 files into theme.scss.
| gulp-inject 8 files into theme.scss.
| gulp-inject 1 files into theme.scss.
| gulp-inject Nothing to inject into theme.scss.
| gulp-inject Nothing to inject into theme.scss.
| gulp-inject 1 files into theme.scss.
| gulp-inject 8 files into theme.scss.
                                                   gulp-inject 8 files into theme.scss.
gulp-inject 8 files into theme.scss.
gulp-inject 8 files into theme.scss.
gulp-inject 5 files into styles.html
Finished 'styles.dist' after 11 s
                                                    gulp-inject 274 files into scripts.
Finished 'scripts.dist' after 41 s
                                                    Starting 'build.dist'...
Finished 'build.dist' after 7.26 ms
                                                      Starting 'dist'...
Finished 'dist' after 11 µs
```

#### Restart Launchpad

# sudo systemctl restart launchpad

# **Apply the New HPE Propel Theme**

Use the HPE Propel Identity application to associate the new theme to an organization. Under the **Customization** tab (for a selected organization), set the themeName attribute to the new theme module name. In this example, it is set to "my-theme."



**Note**: If you need to modify something in the SCSS file (other color scheme), just modify the SCSS file (in /home/propel/my-theme) and run gulp dist again from the Launchpad directory and restart the corresponding service.

# **Automated Procedure**

To simplify the use of theming, a large amount of the steps described in the manual procedure above have been automated in Ansible scripts.

The scripts can be used to deploy theming on both a single node HPE Propel and a distributed HPE Propel (DP) environment.

For DP environments all actions must be performed from the load balancer (LB) server unless stated otherwise. The assumption is made that all necessary configuration was done to allow SSH connections with the propel user between the LB and HPE Propel Cluster Nodes in the HPE Propel Cluster as described in the Distributed HPE Propel Deployment Guide.

# **Preparation**

### **Extract Scripts**

On the HPE Propel server, log in as the propel user (or switch from root to propel with the following command: # su - propel).

Copy theme.zip to the /opt/hp/propel/contrib folder. (Use an SCP program to move the zip container to your HPE Propel server.)

Extract the theme.zip archive:

```
# cd /opt/hp/propel/contrib
# unzip theme.zip
# cd /opt/hp/propel/contrib/theme
```

### Verify hosts File

Verify the content of the <code>/opt/hp/propel/contrib/theme/hosts.default</code> file. For HPE Propel single node environments the file should contain "localhost"; for DP environments. This file should contain the FQDN of all HPE Propel Cluster Nodes.

Example Single Node Propel:

```
[theme_hosts]
localhost
```

### Example DP:

```
[theme_hosts]
propel-cluster-nodel.example.net
```

```
propel-cluster-node2.example.net
```

### **Set Proxy**

Modify the proxy value in /opt/hp/propel/contrib/theme/group\_vars/theme\_hosts and apply your company's proxy server.

# **Running the scripts**

### **Execution of the First Script**

The 1\_theming\_install.yml script performs the following actions:

- Install all needed components.
- Make a backup named dist.bac of all the dist folders located in the application directories.
- Create a .bowerrc file.
- Create a .npmrc file.
- Create a /opt/hp/propel/custom-theme directory in which the new theme can be generated.

The script execution time is approximately 50 minutes.

- 1. Make sure you are logged in as the propel user.
- 2. Go to the location where the scripts were extracted:

```
# cd /opt/hp/propel/contrib/theme
```

Start the script with the appropriate command. (At the beginning of the script, it prompts for the propel user's password.)

#### Single Node:

```
# ansible-playbook -c local 1_theming_install.yml -u propel
--ask-become-pass

DP:
# ansible-playbook 1_theming_install.yml -u propel -c paramiko
--ask-become-pass
```

### **Generation of the New Theme Module**

Make sure you are logged in as the propel user.
 For DP these steps need to be executed with the propel user on each of the <u>Propel Cluster</u>

#### <u>Nodes</u>

2. Go to the custom-theme directory that was created by the 1\_theming\_install.yml script in the previous step:

```
# cd /opt/hp/propel/custom-theme
```

3. Follow the instructions described in *Theme Module Generator* starting from point 2.

Edit the custom-theme/public.api.scss file and you can change the colors of the parameters that have been exposed. For example, you can change the background color and the text color. See the examples in *Color Mapping in the HPE Propel Launchpad Interface*.

### **Execution of the Second Script**

The 2\_theming\_install\_part2.yml script performs following actions:

- Stop HPE Propel
- Copy the custom-theme folder to the application folders
- Generate bower links
- Rebuild web packages
- Start HPE Propel
- Make sure you are logged in as the propel user.
   For DP the these steps need to be executed with the propel user on the <u>load balancer</u>
- 2. Go to the location where the scripts were extracted:

```
# cd /opt/hp/propel/contrib/theme
```

3. Start the script with the appropriate command. (At the beginning, the script prompts for the propel user's password.)

### Single Node:

```
# ansible-playbook -c local 2_theming_install_part2.yml -u propel
--ask-become-pass
```

#### DP:

```
# ansible-playbook 2_theming_install_part2.yml -u propel -c paramiko
--ask-become-pass
```

4. Follow the instructions described in *Apply the New HPE Propel Theme* to associate the new theme to an organization.

# **Subsequent Theme Changes**

In case you need to adapt some of the colors at a later time, simply modify the /opt/hp/propel/custom-theme/public.api.scss file and execute the 3\_theming\_repackaging.yml script, per the steps below.

- 1. Make sure you are logged in as the propel user
- 2. Go to the location where the scripts were extracted:

```
# cd /opt/hp/propel/contrib/theme
```

3. Start the script with the appropriate command. (At the beginning, the script prompts for the propel user's password)

### Single Node:

```
# ansible-playbook -c local 3_theming_repackaging.yml -u propel
--ask-become-pass
```

#### DP:

```
# ansible-playbook 3_theming_repackaging.yml -u propel -c paramiko
--ask-become-pass
```

# **Color Mapping in the HPE Propel Launchpad Interface**

The following example shows the mapping of color codes that are defined in the CSS in the Launchpad interface. The example is based on the public.api.scss definition below:

```
/* Propel Foundation Theme supported, public variables and their default
values */
/* body */
/* ----- */
$propel-body-bg-color: #b4bee4 !default;
$propel-body-text-color: #ffcc33 !default;
$propel-primary-font-color: #fbf94d !default;
/* header */
/* ----- */
$propel-header-bg-color: #b4bee4 !default;
$propel-header-text-color: #7cbc57 !default;
/* footer */
/* ----- */
$propel-footer-bg-color: #3efac3 !default;
$propel-footer-text-color: #379d7f !default;
/* panel */
/* ----- */
$propel-panel-bg-color: #2ebbfb !default;
$propel-panel-text-color: #217ba3 !default;
$propel-panel-secondary-bg-color: #ff6033 !default;
$propel-panel-secondary-text-color: #5e6688 !default;
$propel-panel-footer-bg-color: #4f3af6 !default;
$propel-panel-footer-text-color: #c980f2 !default;
/* colors */
/* ----- */
                        #df4ae7 !default;
#d98880 !default;
#a6acaf !default;
#996633 !default;
#ff3366 !default;
$propel-primary:
$propel-secondary:
$propel-success:
$propel-warning:
$propel-alert:
$propel-info: #ff0000 !default;
```

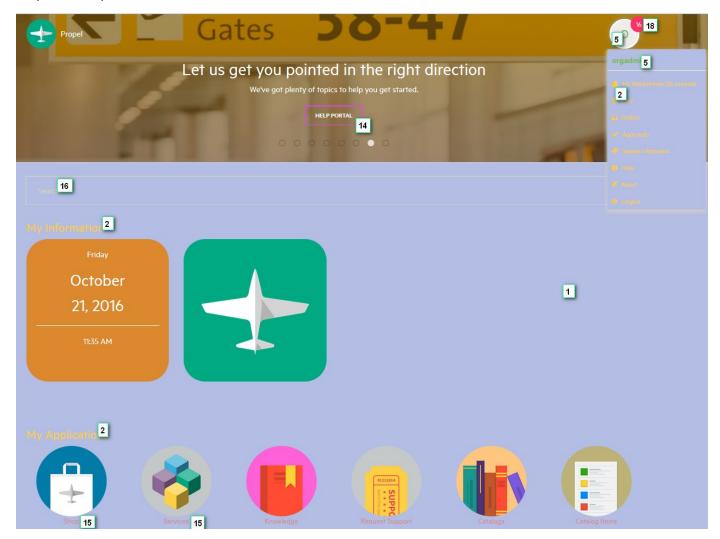
### Color correspondence:

```
/* Propel Foundation Theme supported, public variables and their default values */
/* body */
$propel-body-bg-color:
                              #b4bee4 !default;
      1
$propel-body-text-color:
                               #ffcc33 !default;
           2
$propel-primary-font-color:
                                #fbf94d !default;
/* header */
                                #cdfb4D !default;
$propel-header-bg-color:
            4
$propel-header-text-color:
                                #7cbc57 !default;
/* footer */
$propel-footer-bg-color:
                              #3efac3 !default;
             6
$propel-footer-text-color:
                               #379d7f !default;
/* panel */
                              #2ebbfb !default;
$propel-panel-bg-color:
           8
$propel-panel-text-color:
                             #217ba3 !default;
           9
$propel-panel-secondary-bg-color: #ff6033 !default;
            10
$propel-panel-secondary-text-color: #5e6688 !default;
            11
$propel-panel-footer-bg-color:
                                #4f3af6 !default;
$propel-panel-footer-text-color: #c980f2 !default;
/* colors */
$propel-primary:
                           #df4ae7 !default;
$propel-secondary:
                            #d98880 !default;
$propel-success:
                           #a6acaf !default;
 $propel-warning:
                           #996633 !default;
            17
                         #ff3366 !default;
$propel-alert:
$propel-info:
                         #ff0000 !default;
            19
```

# Propel welcome screen:



### Propel Launchpad:



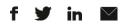
HPE Propel Theming Customization

My Workstream panel:



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