

Log in

Find

Bootstrap 3 to 4 transition

[Bootstrap 4.0.0](#) has now been released. Tiki, since version 13, has been integrating Bootstrap 3 for a layout and styling framework. On April 21, the Bootstrap 4 experimental branch (of the Tiki development files) was merged into trunk; branching of branch 19 is scheduled for September, with Tiki 19 set for release in October).

At [TikiFestJapan2017](#), a Bootstrap 4 experimental branch was branched from trunk:
<https://sourceforge.net/p/tikiwiki/code/HEAD/tree/branches/experimental/bootstrap4/>.

Recent Progress (post branch 19 fork)

The Bootstrap 4 experimental branch has been merged into trunk, and branch 19 has been created and is running on the "pre-dogfood" servers such as [nextthemes.tiki.org](#). Themes.tiki.org is scheduled to be the first of the live project sites to be updated to branch 19 for testing. Issues to be dealt with that show up in this testing or local testing are listed on [Theme and config issues at pre-dogfood servers](#).

Bootstrap 4 experimental branch

I've started going through the themes directory making the necessary changes. The first goal was to get a completed SCSS compile, for the base files (tiki_base.css) initially. Of course even after updating many variable names, etc., there were still errors due to the many differences between the Bootstrap versions. Update: All of the themes in the Tiki package now compile without errors and most styling details are implemented; in other words, the themes are mostly updated from Bootstrap 3 to Bootstrap 4 compatibility.

Scout-App

The PHP SCSS compiler that can be accessed from the terminal in PhpStorm, etc. doesn't give much information about compile errors — sometimes just a line number, but we don't know in what file or the nature of the error. Maybe the author can be approached to improve this. For now, I downloaded a free application called Scout-App (<http://scout-app.io>, available for all OSs) that gives explicit information about compile errors; it watches for file changes and runs a compile process after each change. So I use this to identify places to fix and then use the

compiler in PhpStorm for the compiling.

Browser Support

As Bootstrap 4 states "Dropped IE8, IE9, and iOS 6 support. v4 is now only IE10+ and iOS 7+. For sites needing either of those, use v3." since Tiki 19.x we are dropping the support for these too.

See <https://getbootstrap.com/docs/4.0/migration/#browser-support>

Updating a Tiki theme from Bootstrap 3 to 4

Please see [Updating a Tiki theme from Bootstrap 3 to 4](#) for a description of the process that I () have used to update the themes in the Tiki package, as well as the [Zukathemes](#) files.

Tiki code migration

Generic Bootstrap changes

For a summary of Bootstrap changes between 3 and 4, please read

<https://getbootstrap.com/docs/4.0/migration/> .

Some main points for Tiki (my quick check):

- Dropped [panels](#), thumbnails, and wells for a new all-encompassing component, [cards](#). So all instances of these in templates, etc. and references in CSS will need to be updated.
- Dropped the Glyphicons icon font. So the related files should be removed from themes/icons.
- Dropped `.page-header` - class. The use of this in Tiki needs to be checked.
- Renamed `.img-responsive` to `.img-fluid`. - This needs to be updated in the img plugin and other locations.
- [Forms](#) - multiple changes that'll need updating in Tiki tpls, etc.
- Buttons: Removed `.btn-default` and added `.btn-secondary`. - Instances of `btn-default` in tpls, etc. will need to be updated so (in this order):

1. Change instances of `btn-primary` to `btn-secondary`.
2. Change instances of `btn-default` to `btn-primary`.

- Dropdowns: Dropdown items now require the `.dropdown-item` class, so this needs updating.
- [Modals](#) - multiple changes to deal with. Update: thanks to Jonny for making modals work in the experimental branch.
- [Navs](#) and [navbars](#) - Totally rewritten using flexbox. Also, `.navbar-inverse` and `.navbar-default` are renamed to `.*-dark` and `.*-light`, matching color schemes used elsewhere. Also `.navbar-primary` is supported, so I think Tiki's Admin Look & Feel should have a checkbox to choose which navbar color scheme to use per site. Themes should support all three variants.
- [Pagination](#) - Totally rewritten using flexbox.
- [Carousel](#): "Overhauled the entire component to simplify design and styling. We have fewer styles for you to override, new indicators, and new icons."

Specific Tiki code tasks/bugs

- Side column show/hide anchors don't work properly.
 - 🍷 Fixed in r66950 for basic layout; implement in other layouts and test.
- Card (formerly "panel") background and foreground colors aren't set by card classes, but by separate text

and background color classes, like `bg-primary` and `text-dark`. Discussion is needed about how to replace our previously used `panel-default` coloring for former panels coded directly in .tpl files. For modules, the color classes can be input as parameters.

- This is being resolved, with standard (no particular coloring) cards plus alert colors where needed.

Maybe remaining instances to convert.

- Navbars, instead of having `*-default` and `*-inverse` classes for coloring, now use `*navbar-light` and `*-dark`, and `bg-light` and `bg-dark` classes can also be used, and other background color possibilities possible. So themes should support at least light and dark. The color of the navbar itself (as a menu) can be set in admin-modules (so works already for the "social" fixed-top layout's top).
 - ! But there should be an admin L&F selector for the top and topbar divs beyond the navbar, for the site.
- ! (CMS) Article display will need revising to accommodate FB link image specs. The BS4 equivalent of what is being used now for Tiki's CMS articles is very simple and has no CSS opportunities for modifying the displayed image size.
- ! Hopefully the article layout revising can also enable positioning the article image / featured image either to the side or above the article text
(<https://dev.tiki.org/item6596-Wish-enable-post-article-layout-that-has-large-image-above>).
- ~~The new drag-and-drop menu admin doesn't seem to work.~~ 🍌 Ok now.
- ~~Popovers containing links disappear too quickly on hover so the links can't be clicked. Fixed.~~
 - ~~Was fixed but now unfixed again. Discussion started about open on click vs. open on hover. High priority to fix because it's hard to admin a test site with this broken. Fixed again~~ 🍌.
- ! Tour doesn't work, in a quick test of an existing tour. The first popup appears but the second doesn't. But according to [the Bootstrap Tour site](#) it should work so we need to be sure we're linking to the latest master and that our implementation is ok.

Other possible related changes

- ~~Consolidate layout templates to reduce redundancy. Maybe the two fixed-navbar layouts could be reduced to one, and maybe the "classic" and "wide side column" layouts could be reduced to one. Or maybe all could be reduced to one if there is a checkbox in L&F admin for "Fixed top navbar".~~ 🍌
Reduction to three layout templates is done other than renaming and maybe other details.
- Consolidate menu types ("Bootstrap" and "CSS/suckerfish" and Tiki legacy) and add Smartmenus (<http://smartmenus.org/>) to enhance default Bootstrap menus.
 - Pluses:
 - Simpler menu backend construction
 - Simpler CSS to maintain (and learn, for new theme authors)
 - Minuses:
 - Bootstrap menus natively have only parent and child levels (but this can be overcome with Smartmenus)
 - Bootstrap parent link only opens dropdown and isn't for navigation (but <https://stackoverflow.com/questions/25692514/bootstrap-how-do-i-make-dropdown-navigation-parent-links-an-active-link>, etc.).
- Related to these, maybe a good time to implement [Off-canvas menus and sidebars](#).
- Put wiki page elements (like wiki topline, pagebar, action icons for print, etc.) in modules for more flexibility in page layout.
- Make the meaning of button colors intuitive and consistent: See [Organization of button colors in Tiki](#).
 - 🍌 Mostly done.
- Add second horizontal scroll bar at the top of scrollable tables and other wide content -

<https://github.com/sniku/jquery-doubleScroll> or equivalent (the Github link to the demo site, etc. is now broken) but there's a demo at <https://codepen.io/hellokatili/pen/yegxjP>.

[-] Commits to branch outside of the themes directory:

At Jonny's suggestion, the commits to the experimental branch that aren't in the themes directory are being recorded here. This should smooth the merge of the branch back to trunk.

<http://sourceforge.net/p/tikiwiki/code/65126>

```
Revision: 65126
          http://sourceforge.net/p/tikiwiki/code/65126
Author:   chibaguy
Date:    2018-01-08 06:14:25 +0000 (Mon, 08 Jan 2018)
Log Message:
-----
[UPD] Update Classic layout's module.tpl (has shadow div) relative to default modoule.tpl,
and to Bootstrap 4 beta 3.

Modified Paths:
-----
    branches/experimental/bootstrap4/templates/layouts/classic/module.tpl
```

<http://sourceforge.net/p/tikiwiki/code/65112>

```
Revision: 65112
          http://sourceforge.net/p/tikiwiki/code/65112
Author:   chibaguy
Date:    2018-01-07 12:26:15 +0000 (Sun, 07 Jan 2018)
Log Message:
-----
[FIX] Update navbar class for fixed-top position (.navbar-fixed-top -> .fixed-top).

Modified Paths:
-----
    branches/experimental/bootstrap4/templates/layouts/fixed_top_modules/layout_view.tpl
```

<http://sourceforge.net/p/tikiwiki/code/65093>

```
Revision: 65093
          http://sourceforge.net/p/tikiwiki/code/65093
Author:   chibaguy
Date:    2018-01-05 17:53:05 +0000 (Fri, 05 Jan 2018)
Log Message:
-----
[FIX] Adjust grid classes on center, left and right columns for correct size and order in
various display sizes.
```

Modified Paths:

branches/experimental/bootstrap4/templates/layouts/fixe_top_modules/layout_view.tpl

<http://sourceforge.net/p/tikiwiki/code/65092>

Revision: 65092

<http://sourceforge.net/p/tikiwiki/code/65092>

Author: chibaguy

Date: 2018-01-05 17:47:55 +0000 (Fri, 05 Jan 2018)

Log Message:

[FIX] Adjust grid classes on center, left and right columns for correct size and order in various display sizes.

Modified Paths:

branches/experimental/bootstrap4/templates/layouts/header_middle_footer_containers_3-6-3/layout_view.tpl

<http://sourceforge.net/p/tikiwiki/code/65091>

Revision: 65091

<http://sourceforge.net/p/tikiwiki/code/65091>

Author: chibaguy

Date: 2018-01-05 17:03:14 +0000 (Fri, 05 Jan 2018)

Log Message:

[FIX] Adjust grid classes on center, left and right columns for correct size and order in various display sizes.

Modified Paths:

branches/experimental/bootstrap4/templates/layouts/basic/layout_view.tpl
branches/experimental/bootstrap4/templates/layouts/classic/layout_view.tpl
branches/experimental/bootstrap4/templates/layouts/social/layout_view.tpl

<http://sourceforge.net/p/tikiwiki/code/65089>

Revision: 65089

<http://sourceforge.net/p/tikiwiki/code/65089>

Author: chibaguy

Date: 2018-01-05 14:06:02 +0000 (Fri, 05 Jan 2018)

Log Message:

[FIX] Put side-col-toggle divs in a row div to prevent interference with content columns. (Todo: find out why flex widths aren't working.)

Modified Paths:

branches/experimental/bootstrap4/templates/layouts/social/layout_view.tpl

<http://sourceforge.net/p/tikiwiki/code/65088>

Revision: 65088

<http://sourceforge.net/p/tikiwiki/code/65088>

Author: chibaguy

Date: 2018-01-05 12:48:15 +0000 (Fri, 05 Jan 2018)

Log Message:

[FIX] Adjust grid classes on center, left and right columns for correct size and order in various display sizes.

Modified Paths:

branches/experimental/bootstrap4/templates/layouts/social/layout_view.tpl

<http://sourceforge.net/p/tikiwiki/code/65033>

Revision: 65033

<http://sourceforge.net/p/tikiwiki/code/65033>

Author: chibaguy

Date: 2017-12-31 09:36:39 +0000 (Sun, 31 Dec 2017)

Log Message:

[UX] Don't display side-column toggles in narrow screens; adjust grid classes.

Modified Paths:

branches/experimental/bootstrap4/templates/layouts/basic/layout_view.tpl

<http://sourceforge.net/p/tikiwiki/code/64411>

Revision: 64411

<http://sourceforge.net/p/tikiwiki/code/64411>

Author: chibaguy

Date: 2017-10-28 10:07:43 +0000 (Sat, 28 Oct 2017)

Log Message:

[UPD] Add dropdown-link classes in Page actions dropdown.

Modified Paths:

branches/experimental/bootstrap4/templates/tiki-wiki_toplevel.tpl

Modified: branches/experimental/bootstrap4/templates/tiki-wiki_topline.tpl

<http://sourceforge.net/p/tikiwiki/code/64410>

Revision: 64410
http://sourceforge.net/p/tikiwiki/code/64410
Author: chibaguy
Date: 2017-10-28 08:48:26 +0000 (Sat, 28 Oct 2017)

Log Message:

[UPD] Add Bootstrap 4 classes to navbar ul item and a .

Modified Paths:

branches/experimental/bootstrap4/lib/smarty_tiki/block.tabset.php

Modified: branches/experimental/bootstrap4/lib/smarty_tiki/block.tabset.php

<http://sourceforge.net/p/tikiwiki/code/64409>

Revision: 64409
http://sourceforge.net/p/tikiwiki/code/64409
Author: chibaguy
Date: 2017-10-28 08:22:36 +0000 (Sat, 28 Oct 2017)

Log Message:

[UPD] Increase thumbnail size.

Modified Paths:

branches/experimental/bootstrap4/templates/admin/include_look.tpl

Modified: branches/experimental/bootstrap4/templates/admin/include_look.tpl

<http://sourceforge.net/p/tikiwiki/code/64408>

Revision: 64408
http://sourceforge.net/p/tikiwiki/code/64408
Author: chibaguy
Date: 2017-10-28 08:17:16 +0000 (Sat, 28 Oct 2017)

Log Message:

[UPD] Update theme selector and thumbnail to Flexbox.

Modified Paths:

branches/experimental/bootstrap4/templates/admin/include_look.tpl

Modified: branches/experimental/bootstrap4/templates/admin/include_look.tpl

<http://sourceforge.net/p/tikiwiki/code/64407>

Revision: 64407
http://sourceforge.net/p/tikiwiki/code/64407
Author: chibaguy
Date: 2017-10-28 07:50:33 +0000 (Sat, 28 Oct 2017)

Log Message:

[UPD] Update remaining layout files to Flexbox.

Modified Paths:

branches/experimental/bootstrap4/templates/layouts/basic/layout_view.tpl
branches/experimental/bootstrap4/templates/layouts/classic/layout_view.tpl
branches/experimental/bootstrap4/templates/layouts/fixed_top_modules/layout_view.tpl
branches/experimental/bootstrap4/templates/layouts/header_middle_footer_containers_3-6-3/layout_view.tpl

<http://sourceforge.net/p/tikiwiki/code/64383>

Revision: 64383
http://sourceforge.net/p/tikiwiki/code/64383
Author: chibaguy
Date: 2017-10-26 16:09:30 +0000 (Thu, 26 Oct 2017)

Log Message:

[FIX] Fix content column order.

Modified Paths:

branches/experimental/bootstrap4/templates/layouts/basic/layout_view.tpl

Modified: branches/experimental/bootstrap4/templates/layouts/basic/layout_view.tpl

<http://sourceforge.net/p/tikiwiki/code/64381>

Revision: 64381
http://sourceforge.net/p/tikiwiki/code/64381
Author: chibaguy
Date: 2017-10-26 12:48:52 +0000 (Thu, 26 Oct 2017)

Log Message:

[UPD] Update following upgrade to Bootstrap 4 beta 2. Amelia compiles ok now also, but still working out a good arrangement of files, etc.

Modified Paths:

```
branches/experimental/bootstrap4/lib/smarty_tiki/block.accordion_group.php (Replaced
CSS selector "panel" with "card", only.)
```

```
...
```

<http://sourceforge.net/p/tikiwiki/code/64379>

```
Revision: 64379
```

```
      http://sourceforge.net/p/tikiwiki/code/64379
```

```
Author:  chibaguy
```

```
Date:    2017-10-26 05:45:26 +0000 (Thu, 26 Oct 2017)
```

```
Log Message:
```

```
-----
```

```
[UPD] Further update social layout navbar construction and styling.
```

```
Modified Paths:
```

```
-----
```

```
      branches/experimental/bootstrap4/templates/layouts/social/layout_view.tpl
```

<http://sourceforge.net/p/tikiwiki/code/64316>

```
Revision: 64316
```

```
      http://sourceforge.net/p/tikiwiki/code/64316
```

```
Author:  chibaguy
```

```
Date:    2017-10-18 16:58:00 +0000 (Wed, 18 Oct 2017)
```

```
Log Message:
```

```
-----
```

```
[FIX] Typo (heading should be header).
```

```
Modified Paths:
```

```
-----
```

```
      branches/experimental/bootstrap4/templates/module.tpl
```

<http://sourceforge.net/p/tikiwiki/code/64308>

```
Revision: 64308
```

```
      http://sourceforge.net/p/tikiwiki/code/64308
```

```
Author:  chibaguy
```

```
Date:    2017-10-18 10:20:21 +0000 (Wed, 18 Oct 2017)
```

```
Log Message:
```

```
-----
```

```
[UPD] Plugin warning updated to BS4 (more class changes, etc.).
```

```
Modified Paths:
```

```
-----
```

```
      branches/experimental/bootstrap4/templates/tiki-plugin_blocked.tpl
```

<http://sourceforge.net/p/tikiwiki/code/64307>

Revision: 64307

<http://sourceforge.net/p/tikiwiki/code/64307>

Author: chibaguy

Date: 2017-10-18 10:18:43 +0000 (Wed, 18 Oct 2017)

Log Message:

[UPD] Updated button types (classes) for Bootstrap 4 (no more "default"; now "primary, secondary, etc.")

Modified Paths:

branches/experimental/bootstrap4/lib/smarty_tiki/function.button.php

<http://sourceforge.net/p/tikiwiki/code/64306>

Revision: 64306

<http://sourceforge.net/p/tikiwiki/code/64306>

Author: chibaguy

Date: 2017-10-18 09:41:05 +0000 (Wed, 18 Oct 2017)

Log Message:

[UPD] Plugin warning updated to BS4. Todo: find (or wait for from Bootstrap) method for auto-inverse text color against dark background.

Modified Paths:

branches/experimental/bootstrap4/templates/tiki-plugin_blocked.tpl

<http://sourceforge.net/p/tikiwiki/code/64302>

Revision: 64302

<http://sourceforge.net/p/tikiwiki/code/64302>

Author: chibaguy

Date: 2017-10-17 15:55:08 +0000 (Tue, 17 Oct 2017)

Log Message:

[UPD] Update basic and social layout files to flexbox (social navbar not right yet).

Modified Paths:

branches/experimental/bootstrap4/templates/layouts/basic/layout_view.tpl
branches/experimental/bootstrap4/templates/layouts/social/layout_view.tpl

<http://sourceforge.net/p/tikiwiki/code/64301>

Revision: 64301

<http://sourceforge.net/p/tikiwiki/code/64301>
Author: chibaguy
Date: 2017-10-17 11:55:22 +0000 (Tue, 17 Oct 2017)
Log Message:

[UPD] Update to flexbox layout classes.

Modified Paths:

branches/experimental/bootstrap4/templates/layouts/basic/layout_view.tpl

<http://sourceforge.net/p/tikiwiki/code/64297>

Revision: 64297
<http://sourceforge.net/p/tikiwiki/code/64297>
Author: jonnybradley
Date: 2017-10-17 10:37:26 +0000 (Tue, 17 Oct 2017)
Log Message:

[FIX] bootstrap4: popper.js was removed from BS4, replace temporarily with the CDN version for a quick fix (thanks chibaguy)

Modified Paths:

branches/experimental/bootstrap4/lib/setup/theme.php

<http://sourceforge.net/p/tikiwiki/code/64296>

Revision: 64296
<http://sourceforge.net/p/tikiwiki/code/64296>
Author: chibaguy
Date: 2017-10-17 10:02:07 +0000 (Tue, 17 Oct 2017)
Log Message:

[UPD] Less to SCSS transition (update file names, variables, etc.). Also (so far) made a simple replacement of "panel" with "card" in module.tpl.

Modified Paths:

branches/experimental/bootstrap4/templates/module.tpl
(plus theme files)

<http://sourceforge.net/p/tikiwiki/code/64190>

Revision: 64190
<http://sourceforge.net/p/tikiwiki/code/64190>
Author: chibaguy
Date: 2017-10-10 04:10:27 +0000 (Tue, 10 Oct 2017)

Log Message:

[UPD] Beginning Less to SCSS transition (updating variable name syntax).

Modified Paths:

branches/experimental/bootstrap4/templates/styleguide/sections/navbars.tpl
(plus theme files)

<http://sourceforge.net/p/tikiwiki/code/64184>

Revision: 64184

<http://sourceforge.net/p/tikiwiki/code/64184>

Author: jonnybradley

Date: 2017-10-09 09:13:47 +0000 (Mon, 09 Oct 2017)

Log Message:

[FIX] bootstrap4: Catch all scss exceptions

Modified Paths:

branches/experimental/bootstrap4/lib/core/Tiki/Command/ScssCompileCommand.php

<http://sourceforge.net/p/tikiwiki/code/64183>

Revision: 64183

<http://sourceforge.net/p/tikiwiki/code/64183>

Author: jonnybradley

Date: 2017-10-09 08:40:01 +0000 (Mon, 09 Oct 2017)

Log Message:

[FIX] bootstrap4: Removed exceptions display by mistake - oops, back now

Modified Paths:

branches/experimental/bootstrap4/lib/core/Tiki/Command/ScssCompileCommand.php

<http://sourceforge.net/p/tikiwiki/code/64182>

Revision: 64182

<http://sourceforge.net/p/tikiwiki/code/64182>

Author: jonnybradley

Date: 2017-10-09 08:28:55 +0000 (Mon, 09 Oct 2017)

Log Message:

[ENH] bootstrap4: Use scss compile directly in the ScssPhp\Compiler, so we can handle exceptions and display the problem rather than outputting them to the css file

Modified Paths:

branches/experimental/bootstrap4/lib/core/Tiki/Command/ScssCompileCommand.php

<http://sourceforge.net/p/tikiwiki/code/64178>

Revision: 64178

<http://sourceforge.net/p/tikiwiki/code/64178>

Author: jonnybradley

Date: 2017-10-09 05:24:33 +0000 (Mon, 09 Oct 2017)

Log Message:

[ENH] bootstrap4: Add scss:compile command and remove less (untested, scss files coming soon)

Modified Paths:

branches/experimental/bootstrap4/lib/core/Tiki/Command/ConsoleApplicationBuilder.php

Added Paths:

branches/experimental/bootstrap4/lib/core/Tiki/Command/ScssCompileCommand.php

Removed Paths:

branches/experimental/bootstrap4/lib/core/Tiki/Command/LessCompileCommand.php

<http://sourceforge.net/p/tikiwiki/code/64177>

Revision: 64177

<http://sourceforge.net/p/tikiwiki/code/64177>

Author: jonnybradley

Date: 2017-10-09 04:43:29 +0000 (Mon, 09 Oct 2017)

Log Message:

[UPD] bootstrap4: Add leafo/scssphp and remove less.php

Modified Paths:

branches/experimental/bootstrap4/vendor_bundled/composer.json

branches/experimental/bootstrap4/vendor_bundled/composer.lock

<http://sourceforge.net/p/tikiwiki/code/64176>

Revision: 64176

<http://sourceforge.net/p/tikiwiki/code/64176>

Author: jonnybradley

Date: 2017-10-09 04:09:40 +0000 (Mon, 09 Oct 2017)

Log Message:

[FIX] bootstrap4: Add include for bundled popper.js now required for bootstrap4 dropdowns

Modified Paths:

branches/experimental/bootstrap4/lib/setup/theme.php

<http://sourceforge.net/p/tikiwiki/code/64175>

Revision: 64175

<http://sourceforge.net/p/tikiwiki/code/64175>

Author: chibaguy

Date: 2017-10-09 03:44:03 +0000 (Mon, 09 Oct 2017)

Log Message:

[FIX] Use correct Bootstrap 4 beta information.

Modified Paths:

branches/experimental/bootstrap4/vendor_bundled/composer.json

<http://sourceforge.net/p/tikiwiki/code/64174>

Revision: 64174

<http://sourceforge.net/p/tikiwiki/code/64174>

Author: chibaguy

Date: 2017-10-09 03:40:27 +0000 (Mon, 09 Oct 2017)

Log Message:

[FIX] Use correct Bootstrap 4 beta information.

Modified Paths:

branches/experimental/bootstrap4/vendor_bundled/composer.lock

<http://sourceforge.net/p/tikiwiki/code/64173>

Revision: 64173

<http://sourceforge.net/p/tikiwiki/code/64173>

Author: chibaguy

Date: 2017-10-09 02:10:06 +0000 (Mon, 09 Oct 2017)

Log Message:

[FIX] Use better Bootstrap 4 version number.

Modified Paths:

```
branches/experimental/bootstrap4/vendor_bundled/composer.json
```

<http://sourceforge.net/p/tikiwiki/code/64172>

```
Revision: 64172
          http://sourceforge.net/p/tikiwiki/code/64172
Author:   chibaguy
Date:    2017-10-08 16:40:00 +0000 (Sun, 08 Oct 2017)
Log Message:
-----
[UPD] Switch to Bootstrap 4 beta.

Modified Paths:
-----
    branches/experimental/bootstrap4/vendor_bundled/composer.json
```

<http://sourceforge.net/p/tikiwiki/code/65853>

```
Revision: 65853
          http://sourceforge.net/p/tikiwiki/code/65853
Author:   jonnybradley
Date:    2018-04-01 07:47:12 +0000 (Sun, 01 Apr 2018)
Log Message:
-----
[FIX] bootstrap4: Fix three of the ways bs modals are opened for AJAX content use, buttons
with data attributes, openModal and clickModal (i.e. tracker fields) and plugin edit.
Some refactoring and convergence would be nice after we merge back to trunk...

Modified Paths:
-----
    branches/experimental/bootstrap4/lib/jquery_tiki/pluginedit.js
    branches/experimental/bootstrap4/lib/jquery_tiki/tiki-jquery.js
```

[+] Testing a quick and dirty BS4 integration (older information)

Two kinds of changes to deal with

Looks like there are basically two kinds of changes we'll need to cope with. One is the switch from Less to Sass. That's pretty straightforward as it mostly involves file names and variable names in those files (@variable to \$variable, etc.). Of course, there are some method differences but probably not many that will cause trouble for us (one I came across is a color function - Less uses "spin" and Sass uses "adjust_color"). Also, paths like the image path variable have slightly different syntax. But I adjusted these as I came across them and will post some docs.

The second kind of change is with the Bootstrap bits themselves. In my "trunk - bootstrap 4 alpha", I found the grid layout and typography worked nicely already (BS4 switches to `rem` for the grid and for the typography), but panels and wells have been replaced by the `card` class, so in the templates we're going to have to do those replacements. Forms, especially horizontal forms, have changed quite a bit and will need to be adjusted. Also, the navbar is being simplified, as apparently we're not alone in having trouble wrangling content into that area. Menus and tabs weren't working yet either in my installation or at the Bootstrap 4 demo so apparently, they're still being worked out.

There are also Sass-variable files for Chosen. And <https://github.com/haubek/bootstrap4c-chosen> can be added. It's MIT licensed but not at Packagist.com currently. But it works great, enabling theme colors nicely in Chosen selectors.

Interestingly, for [Bootstrap 5](#), they're planning to move from Sass to [PostCSS](#). ("Bootstrap 6" written originally in the previous sentence was a typo; thanks to Marc for correcting that.) PostCSS has a lot of momentum. Apparently, its power comes from the modules you add to it; it can do the standard Sass thing but can be configured to do custom things so you're not limited to the abilities of Sass or Less or whatever.

Useful links

Bootstrap 4

<http://blog.getbootstrap.com/2018/01/18/bootstrap-4/> - Bootstrap 4.0.0 release announcement

<https://getbootstrap.com> - Overview - Currently v4.0.0

<https://getbootstrap.com/docs/4.0/getting-started/introduction/> - Bootstrap 4 documentation

<https://github.com/twbs/bootstrap/milestones>

https://www.quackit.com/bootstrap/bootstrap_4/examples/

<https://scotch.io/bar-talk/whats-new-in-bootstrap-4>

<http://bootstrapbay.com/bootstrap4/> (Bootstrap 4 Cheatsheet)

<https://medium.com/wdstack/bootstrap-4-whats-new-visual-guide-c84dd81d8387#.b2sxbfsf6>

<http://www.hongkiat.com/blog/boostrap-4-best-features/>

<https://hackerthemes.com/bootstrap-cheatsheet/>

<https://bootstrapcreative.com/resources/bootstrap-4-css-classes-index/>

<https://www.udemy.com/bootstrap-4/>

http://codepen.io/search?q=bootstrap+cards&limit=all&depth=everything&show_forks=false

SCSS (Sass)/Less

<http://scout-app.io> - Scout-App - Easy/informative SCSS compiling

<https://gist.github.com/chrisepstein/674726> - Sass/Less Comparison

<https://css-tricks.com/sass-vs-less/>

<https://github.com/haubek/bootstrap4c-chosen>

Flexbox (Bootstrap 4 default layout method)

<https://css-tricks.com/snippets/css/a-guide-to-flexbox/>

Smashing Magazine: [What Happens When You Create A Flexbox Flex Container?](#)

Page Alias

[Bootstrap+3+to+4+transition](#)