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).
- 場合かいの文章をパラメーターで埋め込む

- 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/sniki/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

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


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

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


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


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


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


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


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


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


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

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


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


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


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


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 &quot;panel&quot; with &quot;card&quot;, only.) ...

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


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

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


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


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


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


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


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


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


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

(updating variable name syntax). Modified Paths: --------------
branches/experimental/bootstrap4/templates/styleguide/sections/navbars.tpl (plus theme files)

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

Modified Paths: --------------
branches/experimental/bootstrap4/lib/core/Tiki/Command/ScssCompileCommand.php

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

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

Modified Paths: --------------
branches/experimental/bootstrap4/lib/core/Tiki/Command/ConsoleApplicationBuilder.php

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

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

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

Modified Paths: --------------
branches/experimental/bootstrap4/lib/setup/theme.php

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

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

http://sourceforge.net/p/tikiwiki/code/64174
[+] 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](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.
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/
http://bootstrapbay.com/bootstrap4/ (Bootstrap 4 Cheatsheet)
https://medium.com/wdstack/bootstrap-4-whats-new-visual-guide-c84dd81d8387#.b2sxbfsf6
http://www.hongkiat.com/blog/bootstrap-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&amp;limit=all&amp;depth=everything&amp;show_forks=false

SCSS (Sass)/Less
https://gist.github.com/chrispeppstein/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