▼ Tiki software components

# The power of Tiki is the smart interaction of its components in an all-in-one-model.

Tiki is arguably the web application with the most built-in features because an important motivation in the project is to provide a solution with the most-needed components already included rather than having to be added on with third-party plugins and extensions.

Tiki's configurability enables straightforward creation of a website of any one of the website structure types:

- Hierarchical model, like CNN.com and BBC.co.uk
- Sequential model, like wikiHow.org
- Matrix model, like Wikipedia.org
- Database model, like Medium.com

This, as well as the creation of solutions more properly classified as data and document and process-flow management systems with a web interface.

Here is a list of some of the most significant Tiki features, included based on comparisons with other software and divided by category, with short descriptions and relevant links.

### **Content Features**

#### For communication and data management Wiki/Web Pages

Tiki can be used for a full-featured wiki, or for a standard website that looks and functions like a design portfolio, a business, nonprofit, magazine, or personal website, or any other kind of web presentation, communication or collaboration platform. Tiki's wiki component in conjunction with other features easily make all of these and more possible.

With Tiki's wiki you can:

- Fully control layout and text formatting using wiki syntax, HTML, WYSIWYG editor, or Markdown syntax
- Upload and display graphics and images
- Embed or attach files
- Easily link to other pages or external sites, with backlinks automatically maintained even if the page name changes
- Have a complete page revision history and no-data-loss page version rollbacks

- Create Bootstrap-based responsive, mobile-compatible pages that are printer-friendly
- Organize pages by category and tag
- Easily structure a group of pages into a hierarchy with navigation controls
- Have the security and usefulness of fine-grained permissions control
- Extend/enhance page content and functionality using "wiki plugin" syntax and modules
- Much more information is available at doc.tiki.org/wiki.

In the descriptions below, "wiki page" and "web page" can be used interchangeably, because visually and functionally they can take either form. The editing features of wiki pages – preferred syntax or editor, image display, "wiki plugins" and "Tiki modules", etc. – are also available in all text areas of the website, including blog and forum posts, news articles, comments, tracker content, and so on, so the methods can be learned once and applied everywhere.

## Software Model and Ecosystem

The "Tiki model" consists of:

- An open wiki-like community project ("do-ocracy") (like Wikipedia but for software instead of content)
- Wiki Way participation in the coding (500+ with full write access to the complete code base cumulatively, as of 2012 now over 600)
- A regular release schedule with major releases every eight months, with Long Term Support versions Scheduled releases
  - Inherent synchronized releases all features must be ready at the same time, but features not fully developed at time of introduction are marked Experimental.
- All-in-one codebase 1,000,000+ lines of code, with everything bundled. Each feature is optional.
  - Half the code comes from other projects such as Zend Framework, jQuery, Smarty, etc.
- Many features, but no duplication (in a wiki, similar/related content is merged, so the same is applied to Tiki's features).
- Tiki is the Free/Open Source Web Application with the most built-in features.
- Tiki is a community recursively developing a community management system see Dogfood.

More information is available at Model.

### Ecosystem

Tiki Development Environment

- GitLab project
- Local IDE (PhpStorm, etc.)
- Developer requirements
- Developer coordination via
  - Project mailing lists
  - GitLab (see above)
  - Chat (https://gitter.im/tiki-org/community))

Tiki Composition - Upstream libraries

- Currently over 100 dependencies
  - $\circ\,$  Some required for global functions
  - $\circ\,$  Some required for specific feature functions

Tiki Operation - Installation requirements

- HTTP server
- Database

• PHP

Tiki Functionality/Extendibility

- Standard feature configuration
- Standard content creation
- No-code/low-code apps/functionality
  - For example, PluginListExecute

#### Trackers

Trackers© are the "database" component of Tiki. Using Trackers, you can create forms for collecting data and make reports and other content displays from that data. Trackers can combine structured information collected from users; the feature is a powerful, flexible tool. Originally, Trackers were used to collect and manage software bugs. They evolved into an open-ended system for tracking any kind of user input in a customizable form. The output can be anything from a typical data table to a design portfolio. Each tracker essentially has its own mini database. Trackers can be used apart from other site features, utilizing their own interface forms and output tables, etc., and can be used in combination with website pages for even more flexibility and visual enhancement. Combining Trackers and the wiki makes Tiki a Structured Wiki.

Think of Tiki Trackers as an open source version of Microsoft Access or FileMaker Pro, that's an integral component of your website. See also: doc.tiki.org/tracker and https://tikitrackers.org.

#### **File Galleries**

The file galleries feature functions as a site repository and download manager for all types of files: images, video, audio, podcasts, text, software (releases, patches, docs), etc. Files uploaded into file galleries can easily be displayed in or linked to from wiki pages, articles, blog posts, and other content features. Statistics are kept of each download. Statistics are recorded for the most-downloaded files, most-visited file galleries and most recently uploaded files. A files can be replaced with a new version, with archived versions still available. These are some of the file gallery features; please see https://doc.tiki.org/File Gallery for more information.

#### Key Features:

- Virtual folders and sub-folders with permissions
- Archives are kept (previous versions of a file can still be accessed).
- Check-in / check-out / lock
- Files can be in one or many categories.
- Support for workflows with category transitions
- WebDAV access
- Drafts
- Search within files
- Web-based editing of SVG and ODF files
- Watch function enables email notification of changes
- Provide a secret link via e-mail for a read-only access to a normally restricted file
- OCR indexing
- Universal Office Converter (unoconv) support

#### Blogs

Tiki's blog feature has all the expected functionalities found in stand-alone blog platforms. The feature enables administrators to set up as many blogs as they like, or administrators can give users permission to create their own blogs. Blogs are highly configurable, with 22 global preference options and 18 per-blog options that can be set, including choosing to use a specified blog as the homepage of the website.

#### Articles

The articles publishing feature, sometimes thought of as the core of a conventional content management system, like all Tiki features, has many configuration options -48 global options and 10 article type options by default (custom options can be added). Of course the usual content composition toolset is available. Specific to articles are article type, such as *News* or *Announcement*, which can be set for each article, along with 25 other per-article options.

#### Forums

Still advantageous for asynchronous short- to long-form discussions, again the implementation of forums in a Tiki website generally matches standalone forum software and, as one component of a full-featured web platform, forums it Tiki can also take advantage of and work with file galleries, versatile editing tools, the site's category and tag system, the wiki plugins and modules, and so on. As an example of how Tiki components can be combined, there is an option to create a forum thread per wiki page in place of the standard simple page-bottom comments, in situations where stronger threading of discussions is beneficial.

#### Calendars and Event Listings

Tiki has several calendar-related features. These enable creating, viewing and editing multiple event calendars that can display as a full page or in a module (configurable content container), and can also show tracker data and site content activity.

## **Content-editing Features**

Tools for creativity and organization Content Editor

The editor for content -- meaning text along with various media -- is common across all content-creation features but can be configured separately for each, so wiki pages can have a more elaborate toolbar and forum posts can have a simple one, for example. But all areas can make use of the same editing features, as configured by the site administrators. Some important features are described here.

#### Wiki Plugins

Tiki's wiki plugins are a way to quickly insert wiki syntax, HTML, and so on to powerfully extend basic wiki syntax. Wiki plugins are used for something as simple as applying a font style, to embedding features and interactive data and functions, to making a complex tracker query and displaying the results in any wiki text area in the website, including in wiki pages, blogs, articles, forums, and so on. Importantly, although they are called "plugins", they are not third-party or aftermarket additions to Tiki -- they are included with the Tiki installation so do not have the issues described at https://pluginproblems.com/. For more information, see https://doc.tiki.org/Wiki-Plugins.

### WYSIWYG Editing

The WYSIWYG (What You See Is What You Get) feature provides a more familiar environment editing environment as an alternative to using wiki syntax. This editor (Tiki uses CKEditor) can be specified as the default for the site. It's also possible to allow the page author to select the preferred editor on a per-page basis. And, if desired, via a WYSIWYG plugin, just one section of a page can be edited this way. When using the WYSIWYG editor, web content copied and pasted into a wiki page will retain most of its original formatting. See https://doc.tiki.org/WYSIWYG.

#### **Content Templates**

Content templates provide a way to ensure new content is created using a standardized style/layout, which is particularly important when the website has multiple authors/editors. Tiki's robust content templates facilitate the creation of complex new content quickly and consistently. They are created in the wiki page editor and then are available via a dropdown menu in the page editor toolbar. For more information, please see https://doc.tiki.org/Content%20Template.

(Regarding Smarty templates ("web templates"), which are used for caching and quick delivery of Tiki's pages, see <a href="https://doc.tiki.org/Smarty-Templates">https://doc.tiki.org/Smarty-Templates</a>.

#### **Content Translation Management**

Tiki was created with multilingual websites in mind. For a site where content is presented in multiple languages, the supported languages are selected and then, when a page is created in one language, the corresponding other-language page or pages can be indicated in the interface provided. Then Tiki keeps track of the state of translation of all pages involved, sending appropriate notifications and so on. This is an example of Tiki's content translation management (aka internationalization, i18n, localization, etc.). See https://doc.tiki.org/Multilingual-Wiki for more information.

#### Map Integration

Since the removal of MapServer-specific code in Tiki 15, there is no longer a map feature per se, but there are a number of map-specific configurations that can be set on the Maps administration page. With the use of the Map wiki plugin and other associated tools you can display interactive maps of any area in the world than can be panned and zoomed, as well as having editable objects placed on top of the map layer using complex programmable logic. With these tools activated, Tiki can be considered a Geospatial Content Management System (GeoCMS). See https://doc.tiki.org/Maps.

#### File Attachments

In Tiki, files can be attached to wiki pages, trackers, forum posts, etc. These can then be downloaded or linked to for display within the page (in the case of media files). As with other functionalities, to upload files, view attachments and so on, the user must be a member of a group that has the required permissions. See <a href="https://doc.tiki.org/Wiki-Attachments">https://doc.tiki.org/Wiki-Attachments</a> for details.

#### Media Display

Tiki supports the display of a wide range of media including image, audio, and video media as well as proprietary formats such as PDF, Microsoft Word, Excel, and PowerPoint files. See <a href="https://doc.tiki.org/PluginMediaPlayer">https://doc.tiki.org/PluginMediaPlayer</a> (this documentation is out of date and soon to be updated) and <a href="https://doc.tiki.org/PluginWebDocViewer">https://doc.tiki.org/PluginMediaPlayer</a> (this documentation is out of date and soon to be updated) and <a href="https://doc.tiki.org/PluginWebDocViewer">https://doc.tiki.org/PluginWebDocViewer</a>.

#### Video Player

Videos can be played from any source, either stored at the website (most likely in the file system but the database is an option) or remotely. All standard web video formats are supported. And there are specific wiki plugins for YouTube and Vimeo videos to greatly simplify embedding these in pages, modules, and so on.

#### Image Display

Of course, all standard web-compatible image types can be stored and displayed at a Tiki website. Various display methods and styles are possible, typically by using the appropriate wiki plugin: a single image, all images in a specified file gallery, a random image from a specified file gallery, a full-size or resized image or a thumbnail that, on hover or tap, shows the large version, and so on. Several image rotators (sliders/carousels) are available as well, with Swiper (https://doc.tiki.org/PluginSwiper) recommended. Please visit https://doc.tiki.org/PluginImg for details.

#### Slideshow

Creating a slideshow in Tiki is easy, with a single wiki page providing all the slides, separated by the page's headings, and powered by reveal.js so there are many options covering transitions and other aspects. See https://doc.tiki.org/Slideshows.

#### **Content Review**

In addition to the standard wiki editing, categorizing, and group permissions functions, Tiki has a "Flagged Revisions" feature to control the visibility of unapproved page revisions. See <a href="https://doc.tiki.org/Flagged%20Revisions">https://doc.tiki.org/Flagged%20Revisions</a> for more information.

#### Content Repurposing

Content repurposing within the website can be done using the wiki plugin PluginInclude, which enables including all or part(s) of one wiki page in one or more other pages (or other editable text areas of the website). This is useful when multiple documents must be produced that have some common content, or to separate content per se from page layout syntax, such as to facilitate multiple language versions of a complex page. This is also known as dynamic creation of pages, which Tiki enables not only via the Include plugin as described but also by displaying tracker data dynamically in web pages. Content repurposing in regard to social media is also supported. - See https://doc.tiki.org/PluginInclude and https://doc.tiki.org/Front-ends-to-Tracker-data.

#### Content Meta Tags

Tiki enables custom meta elements to be specified for the website that are global, for all pages, and specific per page. For example, the page description field can provide the content for the description meta element, the tags feature (see below), when activated, can provide per-page tags for the meta tag element, and so on. There is also a PluginMetaTag to enable providing this information on a per-page basis. See https://doc.tiki.org/Meta Elements and https://doc.tiki.org/PluginMetaTag for more information.

### **Navigation Features**

#### Finding website content Categories

A category is a means of classifying the objects of a Tiki website. Any Tiki object including wiki pages, blog posts, forum topics, calendars, trackers tracker items, and so on can be added to one or more categories for content organization, object access, visual styling, and other purposes. See <a href="https://doc.tiki.org/Categories">https://doc.tiki.org/Categories</a>

#### Menus

Menus can be created with a drag-and-drop menu editor, or can be made in a wiki page, or in a structure (of wiki pages). Tiki supports standard Bootstrap menus (by default, two levels, dropdowns open on click) and CSS "Suckerfish" menus (multiple levels, dropdowns open on hover). Extended Smartmenus functionality was recently added to Tiki to enable Bootstrap menus to have multiple levels, open on click or hover, feature a megamenu dropdown, and have superior display characteristics in small screens. For more information, see https://doc.tiki.org/Menus.

#### Structures

In Tiki terminology, a structure is a set of wiki pages that can be navigated as a hierarchy. Existing pages

can be brought into a structure, or the structure tree (outline) can be created and blank pages will be made where they do not already exist. Creating a structure is the fastest method for creating multiple pages at once. Navigation aids are automatically created to help users move through the structure. Please visit https://doc.tiki.org/Structure for more information.

### **Transversal Features**

Functionalities that work across content features

The main content features of the Tiki website work together in parallel but not in isolation. Encompassing, spanning across, or intertwined with the content components are global functionalities that work with all of them.

#### Modules

Modules are essentially containers for content or functionality and are assigned to module zones or can be inserted in any text area. Tiki comes with nearly 150 pre-made modules, and custom modules can be made easily to meet the site's needs.

#### Module Zones

Module zones are areas of the page for containing modules and include the page header, side columns, center section top and bottom, and page footer. There are eight module zones by default and more can be added.

#### **Multilingual Support**

Tiki was designed to be multilingual from the beginning and the interface has been partially or completely translated to over 35 languages. The standard out-of-the-box Tiki installation is designed to work in a multilingual environment. As an administrator, you can create a monolingual site other than an English one or a multilingual site. As a user, you can view a multilingual site in your preferred language, and there are tools to facilitate and track the translation of pages into other languages. See https://doc.tiki.org/i18n.

#### Search

Tiki provides a full-featured search capability that is powerful out of the box, or can be enhanced by adding Elasticsearch via Packages (see below). See https://doc.tiki.org/Search for full details.

#### Federated Search

When Elasticsearch is installed via Packages (see below), federated search becomes available, which means indexing and searches also include subdomains. This is the system used by Tiki.org and the sister sites doc.tiki.org, dev.tiki.org, and themes.tiki.org. See https://doc.tiki.org/Federated-Search.

#### Indexing

A unified search index is enabled by default in Tiki. The unified index provides many underlying features for Tiki, including object selectors for translations among other things. On the topic of indexing, Specific file gallery indexing is also available, as is OCR document indexing. See <a href="https://doc.tiki.org/Search-General-Settings">https://doc.tiki.org/Search-General-Settings</a>, etc.

#### Comments

Providing for feedback and discussion, comments are a central component of a Tiki website, and available

subject to the required permissions. There is a global switch for the feature, and they can also be activated or not on a per-feature basis (blog posts, articles, tracker items, etc.). Comments of course support the full set of wiki syntax and plugins. See https://doc.tiki.org/Comments.

#### Newsfeeds (RSS)

Outgoing content syndication is enabled through RSS newsfeeds, and upcoming external feeds can also be displayed from other websites -- https://doc.tiki.org/Feeds.

#### Social Media Integration

This feature adds a degree of integration of popular social networks (such as Facebook,Twitter, and Linkedin) into Tiki. It enables Tiki to engage and interact with members in these networks. The social networks feature in Tiki enables not only sending emails/internal messages, but also tweeting them and liking those pages on the Facebook wall. See https://doc.tiki.org/Social-Networks.

#### Web Monetization

Web monetization is the process of receiving payments from traffic coming to the website. Content creators are able to implement it by adding a line of code to their website. Website monetization using Coil is easy to set up -- all you need is a tag, it's simple to use, it's secure, and no action required from users. Traffic equals payment so quality content is rewarded. Please see https://doc.tiki.org/Web Monetization.

#### Security

Numerous options to enhance the security of the Tiki website are available. These include things like protecting all sessions with HTTPS, preventing common passwords, requiring admin users to enter their password for some critical actions, validating uploaded file content, and verifying HTTPS certificates of remote servers. Spam protection is available through CAPTCHA. There is a banning system for coping with abusive site users, as well as comment moderation, among other things.

### Website Structure and Display

Controlling the appearance and usability of the pages Responsive Web Design

Since version 13, Tiki has integrated the Bootstrap layout framework to ensure attractive and usable page displays regardless of the device and screen size being used to access the website. This assures that all site visitors see the same content, with no separate "mobile versions" of content necessary, as the same HTML is served to all, formatted dynamically to fit the viewing screen. Transitioning to a layout framework also has the benefits of rendering all pages more consistently and, because it's the Bootstrap framework, providing a familiar work environment for coders and designers. Please see <a href="https://doc.tiki.org/Bootstrap">https://doc.tiki.org/Bootstrap</a> for more details.

#### Accessibility

Tiki websites are currently reasonably accessible but still fall short of being fully compliant with WCAG 2.1 guidelines. Full compliance with WCAG 2.1 guidelines is a top priority for Tiki code development and on the roadmap for Tiki 25, to be released in October 2022. Any web accessibility issues in the meantime could be minimized or remedied on the project level, to ensure a fully compliant web platform.

#### Versatile Theme Application

Tiki includes 42 visual themes (as of Tiki 23), and several of these have multiple child themes or variants. Themes can be assigned in various ways: One theme can be used for everything, including admin pages, or an admin theme can be assigned separately. Themes can also be assigned (via Theme Control) according to site section (wiki, blog, etc.) or category, or object (a specific wiki page, for example), all of these choices on the admin site. On the site user side, if the option is activated, each site user can choose a personal theme from a list of options selected by the administrators. A parent theme and preferred child theme are considered a theme choice in all the above preference selections.

#### **Custom Themes**

Custom themes are supported and encouraged. For a new custom theme, the simplest method is just to input the URL of a compatible Bootstrap.css file on the Look and Feel admin page. The styles defined in that file will have priority to determine the appearance of the website. More conventionally, a set of theme files can be uploaded to the site and placed in the file system alongside the included themes. With the files in the proper locations, the new theme name will appear automatically in the theme selector dropdown. Any method to produce a theme stylesheet, which is essentially a bootstrap.css variant compiled from SCSS files, may be used. To be most complete (because a Tiki stylesheet contains more CSS rules than a standard Bootstrap.css file), the theme should be compiled within the context of Tiki's themes directory in order to have the necessary SCSS partials and Bootstrap variables available.

On-site appearance customization is also supported. CSS rules may be entered in the Look and Feel admin Customization form, to override the selected theme(s) at the site. Tiki also provides a Theme Customizer for WYSIWYG modification of theme details such as colors and typography that is fully functional to produce custom CSS to apply at the site. See <a href="https://themes.tiki.org">https://themes.tiki.org</a> for more information about Tiki themes.

#### Multilingual Interface

As mentioned, Tiki was designed from the start to be multilingual. Each piece of text in the interface is bracketed in translation tags that make the text available for translation. Tiki currently has interface translations (at various levels of completeness) for 54 languages, and it's a simple task to add a new one. Custom language translations can also be added at the website level for individual words and phrases. See also Multilingual Support, above.

### Vue.js

Several popular front end JavaScript frameworks for building user interfaces were considered by Tiki developers and Vue.js was selected as the one to integrate into Tiki. So far the integration is just getting under way, but the plan is to replace some legacy page components with Vue.js alternatives, and of course this framework will be used for future interface enhancements and custom applications configured with Tiki. For more information, please see preliminary information at https://dev.tiki.org/VueJS-In-Tiki and the TikiFest Virtual 2020 Vue.js presentation notes at TFV2020 VueJS Notes.



## **Interactivity Features**

Facilitating user interaction Collaboration

Collaboration among Tiki website users (members) is facilitated in a number of ways. Of course the basic

features of the site themselves are opportunities for working together. This includes asynchronous collaboration such as contributing to wiki pages and forum threads, as well as synchronous collaboration such as by using PluginTogether to work on a wiki page simultaneously, or using XMPP chat or BigBlueButton, for which Tiki has a wiki plugin. For more information (asynchronous) see: https://doc.tiki.org/Wiki, etc. and (synchronous) see: https://doc.tiki.org/Real-Time-Collaboration, https://doc.tiki.org/PluginTogether, etc.

#### Notifications and Alerts

Registered website users can click on an icon to request to be notified of changes in a wiki page, for example. New forum posts, blog posts, articles, tracker items, and so on can also trigger a notification. See https://doc.tiki.org/Watch and https://doc.tiki.org/Notifications.

#### **Event Notifications**

Event calendars have an option to send notification to users regarding upcoming events. https://doc.tiki.org/Calendar

#### Activity Stream

Currently this has relatively basic functionality but is being steadily enhanced. All activities at the site are recorded in regard to when they occurred and who the actor was; the activity stream is a chronological listing of these events. Displaying in a wiki page, the activity steam is a table with the headings "Event," "Date," "User," and "Object" (such as wiki page or tracker item) and can be filtered by user or type of event (page update, etc.). See [].

#### Tags

Most objects at the site can be "tagged" by site users (as permitted) to help characterize the content and give an opportunity for users' input. These tags display on the respective object pages and can be searched through at a central tags interface. See https://doc.tiki.org/Tags for more information.

#### Contact Form

Used for issue reporting or feedback as well as general communication, this is available in two renditions, a standard version: https://doc.tiki.org/Contact-us; and a customized version via a tracker: https://doc.tiki.org/Trackers.

#### Personalization

Tiki website users can personalize their experience by making choices in what was originally known as "MyTiki" but now called "My Account," which is a multi-page interface for registered site users to set their personal preferences and see information about their activities at the site, including the pages they've authored and so on. Each user can also have their own exclusive page to use as they please, which no one else can edit. Users can also select the visual theme they want to use at the site, set notification requests for site changes, and so on. See <a href="https://doc.tiki.org/MyAccount">https://doc.tiki.org/MyAccount</a> and <a href="https://doc.tiki.org/User-Preferences">https://doc.tiki.org/MyAccount</a> and <a href="https://doc.tiki.org/User-Preferences">https://doc.tiki.org/User-Preferences</a> and other relevant documentation for more information.



### **Administration Features**

Managing all aspects of the website

Tiki's management features are also transversal in the sense that they function across website content

components, to organize them, control access to them, and so on.

#### Users and Groups

A Tiki website has three user groups by default -- anonymous, registered, and admin -- and more can be added freely. User group members can be assigned by administrators, or the interface for a user to join a group can be activated. Organic groups are also an option. The idea of organic groups is that they can be created, grow and be ended without requiring the involvement of an administrator. A group can have its own homepage, and access to group pages can be controlled. See https://doc.tiki.org/Groups and https://doc.tiki.org/Organic-Groups

#### Permissions

Tiki currently has around 180 specific access and action permissions, which are assigned on the group level. If permissions on the individual user level are needed at the site, then the option to create a group for each user can be activated. The scope of permissions ranges from the entire site, to content features, to categories, down to individual objects, so are very flexible in their application. For more details, see <a href="https://doc.tiki.org/Permissions">https://doc.tiki.org/Permissions</a>.

Categories See Categories, above.

Tags

See Tags, above.

Profiles

Profiles (sets of content, etc.) See below.

#### Perspectives

In Tiki terminology, a perspective is a set of site preferences that can be switched to and from like a normal navigation action. For example, a visual theme demonstration site might need each theme to have a different number of columns, navigation bar location, fixed-width or fluid, menu, and so on in addition to a different theme. Perspectives allow gathering the relevant preferences into one set. The perspective can be "navigated to" with the Switch Perspective module, or will be activated when a page assigned to that perspective is accessed. For more information, see https://doc.tiki.org/Perspectives.

# **Configured Applications (Examples)**

Using tools to make more tools

The line between software features and use cases isn't precise and, when going beyond the more basic features, some web platform feature lists also include items like the ones below. In the case of Tiki, these are apps that can be created by activating and configuring standard features. For example, the wiki, tracker, file gallery, category, and search features can be configured in various ways to effectively match a single-purpose standalone software application. Note that the more complex examples might require a consultant, enterprise support services or equivalent in-house IT staff for implementation.

#### Form generator / Database web app

There are a number of software options in the area of form generators and database web apps. A web

platform powered by Tiki's Tracker, wiki, and user management components, etc. is certainly a contender as one of the most powerful and flexible. This is especially the case when not only form and database functionality but also supporting and tangential features are needed or would be useful.

#### Knowledge Base

A Tiki web platform has the essential tools for implementation of a knowledge base due to its ability to receive, store, and be queried for information. The architecture can be free-form (little to no formatting of content) or more highly structured (data is input via an "opinionated" interface). Tagging, categorizing, and other navigation features are available for browsing knowledge areas. The Rubix ML library was recently integrated into Tiki and has the potential to transform knowledge management for this level of organizations.

#### Case Management

For an effective case management system, Tiki provides these essential elements: a centralized database, which is at the core of each Tiki installation; multi-user, role-based access, again a basic feature, and highly configurable with granular permissions, inter-user communication, and functions to facilitate synchronous and asynchronous multi-user activity at the site; data analysis tools such as reporting dashboards, charts, maps, and graphs to clarify the metrics and data; workflow and scheduling capabilities, which can be implemented with the Tracker and Tracker calendar components, etc.; configurability and flexibility, which are hallmarks of the Tiki software and its approach to creating solutions via component selection, setup, and configuration; a web-based and accessible platform, for quick and easy access for all stakeholders; strong security, which Tiki maintains by, for example, quickly acting on security vulnerabilities and providing Tiki website administrators with the tools they need for regulatory compliance; and case-linkage capabilities, which can be implemented in Tiki manually now and soon to be possible automatically via Rubix machine learning.

#### Multi-website Management

Tiki has several options for multi-site management, depending on the scale of the arrangement. To have multiple domains/websites share a single Tiki installation and database, there is the MultiTiki feature. This is especially useful when the websites are relatively simple, such as a single-page site or small portfolio, blog, or other presentation site (https://doc.tiki.org/multitiki). To enable one user account to be used at multiple Tiki websites, the InterTiki feature is used. Then users register at one site, and can log in at any of the connected sites, bringing their user information with them (https://doc.tiki.org/intertiki).

On a larger scale, Tiki Manager can be used. Tiki Manager permits you to manage various instances of Tiki. You can install, upgrade, back up, clone, check file integrity and do various other things. This can be done on the same server or a remote server. Most actions can be run unattended on a cron job. It can be used via the command line or a web interface. Please see https://doc.tiki.org/Manager.

### Professional Services Automation (PSA)

Professional services automation (PSA) is software designed to assist professionals, such as lawyers, auditors, and IT consultants, with project management and resource management for client projects and utilization rate management for billable staff. This is accomplished by developing metrics to quantify and qualify basic business processes that can then be used to streamline and improve those processes (from https://en.wikipedia.org/wiki/Professional\_services\_automation). This capability has been demonstrated in

### Community Management System

Also referred to as a collaboration hub, this is a prime functionality of Tiki, by default. Tiki was designed from the beginning to support collaboration and has many tools to enable working together and enhancing communication and interaction among members. One example is that, when appropriate, a Score feature can be activated to help motivate contributions to the website. See https://doc.tiki.org/Score.

#### Document Management

Every Tiki website includes what is essentially a basic document management system. Creating a more sophisticated and full-featured document management system can be done through the appropriate configuration of the wiki, file gallery, Tracker, search, and category features, among others.

#### Noticeboard

This is also created with a tracker and wiki pages along with proper categories, group definitions, search, tags, and so on.

**Omni Channel Interactions** 

[More details coming.]

**Contact Directory** 

A contact directory can be made with, again, a tracker and wiki pages for the input forms, storage, queries, and data display, along with requisite search, categories, and other supplemental features.

### Managed Extensibility Features

Adding functionality without adding risk

Tiki has many features, with its all-in-one model, but doesn't have all possible features so can be extended in a secure manner.

#### Packages

To be extendable without relying on third-party plugins, which are prone to security and compatibility issues, Tiki has Packages, also known as the Composer Web Installer. Composer is used in the Tiki code development process to import and manage external software such as jQuery and Bootstrap. But some software cannot be packaged with Tiki due to an incompatible license, or shouldn't necessarily be packaged with Tiki by default because of the software's specialized nature or niche application. So it is a natural step for Tiki site administrators to be able to use Composer to install and manage external software specifically for their site after the site is installed.

Support for External Services



### Meta-Features

Characteristics of Tiki overall rather than specific component functionalities Open Source (LGPL license)

Tiki is Free / Libre / Open Source software, and so brings the associated benefits, including these:

• The software user has free access to the source code

- Customization by the user is permitted and encouraged.
- There are no license or user fees for the user of this software.
- The owner and users of the website created with this software maintain ownership of their content.

See License for more details.

#### Scalable Platform

A Tiki website is limited only by disk space where it is installed. There are no particular limits on the number of pages, files, users, and so on. Also related: see <a href="https://doc.tiki.org/Performance">https://doc.tiki.org/Performance</a> and Multi-website Management, above.

#### Standards Compliant

Tiki websites enable compliance with the data privacy protection standards of the European General Data Protection Regulation (GDPR). Regarding web accessibility, full compliance with WCAG 2.1 guidelines is a top priority for Tiki Wiki CMS Groupware code development. Until full compliance is reached (expected in Tiki 25), web accessibility issues could be fixed or at least minimized for a particular project by designing the visual theme without contrast issues, and appropriately editing the Smarty template files used in the features of the particular website as needed.

#### Software Comparisons

Please see Tiki vs for a list of links to comparisons of Tiki to alternative web software. For comparisons of Tiki specifically related to other wiki platforms, visit https://wikimatrix.org.

Features