



show.tiki.org

**The new Tiki infrastructure
for improving bug reporting and solving**



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*Jean-Marc Libs (Jyhem) → [jyhem \(at\) tiki.org](mailto:jyhem@tiki.org)
Tiki Wiki CMS Groupware admin team member, developer
Open-source and Tiki consultant : [jean-marc.libs \(at\) alsawiki.com](mailto:jean-marc.libs@alsawiki.com)*



Table of contents

- Short overview of Tiki Wiki CMS Groupware
- Why we started this
- Objectives
- Early requirements
 - For developers
 - For bug reporters
- Walkthrough
- Technical infrastructure
- Future plans
- Conclusion

Document also available at: <http://tiki.org/Presentations>



Tiki Wiki CMS Groupware

1/3 the wiki way of writing software

The wiki way of writing software

- Combination CMS + Wiki + Groupware +++
- All-in-one codebase
- **The Wiki way of writing software**
- Lots of features, but no duplication
- 274 code committers since 2002.
“This is one of the largest open-source teams in the world, and is in the top 2% of all project teams on Ohloh.”
source: <http://www.ohloh.net/p/tikiwiki/factoids/>
- Scheduled releases (twice per year)
 - LTS every 3 releases
- 1 million+ downloads so far
- Translated into 40+ languages
- 1000+ pages of documentation
- Runs on standard PHP/MySQL making web hosting **easy and inexpensive**
- Over a **million** lines of code (including 3rd party libraries such as jQuery, Smarty and Zend Framework)
- Open Source (LGPL)
- A new code commit **every two hours**
- **But mostly...**



Tiki Wiki CMS Groupware

2/3 hundreds of built-in features

Action log Alert Articles & Submissions Backlinks Backup Banner
Blog Bookmark Browser Compatibility Cache Calendar Category
Charts Chat Comment Communication Center Compression (gzip)
Contact Address book Contact us Content template Contribution
Cookie Copyright Custom Home (and Group Home Page) Date and
Time Debugger Console Directory (of hyperlinks) Documentation (Help
System) DogFood Drawing Dynamic Content Dynamic Variable
External Authentication FAQ Featured links File Gallery Forum
Friendship Network (Community) Game Gmap Google maps Group
Help System Hotword HTML Page i18n (Multilingual, l10n, Babelfish)
Image Gallery Install Integrator Interaction Inter-User Messages
InterTiki JS Calendar Karma Live Support Login Lost edit protection
Mail-in Map with Mapserver Menu Meta Tag Mini-Calendar Mobile Tiki
and Voice Tiki Mods Module Mootools Multimedia MultiTiki MyTiki
Newsletter Newsreader Notepad OS independence (Non-Linux,
Windows/IIS, Mac, BSD) PDF Performance Speed / Load Permission
Poll Profile Manager Quicktags Quiz Rating Registration RSS
Score Search Engine Friendly Search Security Semantic links
Shadowbox Shoutbox Site Identity Slideshow Smarty Template
Smiley Spam protection (Anti-bot CATPCHA) Spellcheck Spreadsheet
Stats Survey System log Tags Task Tell a Friend + Social
Bookmarking TikiTests Theme Trackers TRIM User Administration
User Files User Menu Watch WebHelp Webmail Wiki 3D Wiki
History, page rename, etc Wiki plugins extends basic syntax Wiki syntax
text area, parser, etc Wiki structure (book and table of content) Workflow
(Galaxia Workflow engine) WYSIWYCA WYSIWYG XMLRPC

•Over 1000 settings/options in the admin panel!

**The Open Source
Web application
with the most
built-in features.
There are so many,
we had to add a
search engine!**

**Other popular apps
have a different
model: small core +
loads of
functionality in 3rd
party add-ons.**



Tiki Wiki CMS Groupware

3/3 Benefits & challenges

- Offers **benefits**

- Tons of features, without duplication, excellent code re-use and code review, more collaboration, tight integration, easy upgrades, excellent interaction between features, etc.
- Permits huge changes between versions **because** we don't have to worry about breaking 3rd party extensions.

- But does bring **challenges**

- Huge code base to maintain.
- Admin panels
 - hundreds of features
 - with a total of over 1000 settings/options! (we had to add a search!)
- **How do you reproduce a user's precise configuration?**



Where we started this

This project was started during the April 2013 Ottawa TikiFest.

Alexander Mette

Pascal St-Jean

Jean-Marc Libs

Nelson Ko





Why we started this

This project was started during the April 2013 Ottawa TikiFest.

We pondered ways of improving Tiki

- **Improve code quality**

- Code source quality

This is handled through a continuous integration server running jenkins which has been running for years (off topic)

- Better coders & more coders

We are as open as we can possibly be (off topic)

- **Catch regressions**

- Unit testing and selenium infrastructure

This is another ongoing project (work in progress, off topic)


- **Improve debugging**

- We already have had a bug tracker for ages, but too many bugs stay unresolved because they are not understood or not reproduced by the volunteer developers.

- So we started this new project ...



demo.tiki.org (ancestor)

 demo.tiki.org

Welcome to the Tiki demo server

Here are the latest Tiki versions running. You can test Tiki with the following login:
User: **admin**
Password: **12345**

Simple, he! :-)

[More info at tiki.org](#)









Have fun!
The Tiki community

Turn to the Tiki way of life!

HINT! If you try several tiki versions and run into trouble, check your demo.tiki.org cookies and delete them!

If the login box is not visible, just visit /tiki-login_scr.php for the appropriate domain.

There are other demo sites at [info.tiki.org/Demo](#)

Name	Last modified	Size	Description
 6x/	09-Jul-2013 00:15	-	
 9x/	01-Apr-2012 17:48	-	
 11x/	28-Apr-2013 20:02	-	
 12x/	29-Jan-2014 17:14	-	
 last_update.txt	29-Jan-2014 18:14	583	
 last_update_bootstrap.txt	30-Jan-2014 01:04	126	
 showcases and experiments/	20-Jan-2014 20:21	-	
 trunk/	29-Jan-2014 17:20	-	



Objectives

- **To facilitate bug reporting and solving**

It can be quite time consuming to read and understand some of the bug reports (They are often edge cases). Experience shows that if you can demonstrate a bug (and for a regression, pinpoint which commit introduces it), things can get fixed quickly. Even better is to demonstrate the issue with data & all on a server which offers SSH (ideally with debug tools). Or that devs can easily dump the data.

- **Help with Bug triages**

Being able tell users that bugs that can be repeated on show will have a higher chance of being resolved. If the user takes the time to help us, then we will take the time to thank them by evaluating the bug clearly demonstrated by the user

- **Releases**

Not only will show.tiki.org help external users but can become a valuable tool for the community especially during release times.



Early requirements

- We could not be sure that it would be useful enough that the time spent on it would not be wasted, and we did not have a lot of workforce dedicated to the project.
- So we have started with minimal requirements to get version v1 running as soon as possible.
- The "simplest thing that could possibly work".



For developers

- Installation reports
- Availability of dumps. Possibility of reproducing a local copy
- Communication with end-users



For bug reporters

We drafted a whole user story for user john :

http://dev.tiki.org/show.tiki.org+Overview#User_story

Summary

- John starts on a page in the existing development community server
- John fills in the details of his bug report
- John fills a Tiki instance creation form (Tiki version)
- John is notified when the instance is created
- John can create snapshots and upgrade the instance
- Buttons allow developers to dump source and database
- The bug tracker item has a link to the Tiki instance

walkthrough 2/7

Spaces

☐ Stay on this page

Default

[Edit perspectives](#)

Main Menu



[My Profile](#)

Mailing lists

- [Developers](#)
- [Users](#)
- [SVN commits](#)

Wishes

1. [Make a Wish](#)
(report bug, suggest a feature enhancement, etc.)
2. [Search Bugs & Wishes](#)
3. [List Yours](#)
4. [Developer Dashboard](#)

About Development

- [Tiki12](#)
- [Tiki13](#)
- [3 Rules](#)
- [Create an IDE](#)
- [DevTips](#)
- [Submit a Patch](#)

Make a wish - thank you

Click on the icon to stay up to date on the progress of your bug



Don't forget to click on the watch icon. This will help you stay up to date on the progress of your bug

Thank you for submitting the following bug

- [I wish to demonstrate show.tiki.org for FOSDEM 2014](#)

Do you code? Maybe you could commit your fix directly? [How to get commit access](#)

Tips on getting your bug solved faster

- TIP - [Reproduce your bug using our feature called Tiki Show. Click here to reproduce your bug now](#)
- TIP - [Demonstrate your bug using Tiki jCapture. Click here to demo your bug now](#)
- TIP - Bookmark the following URL: <http://dev.tiki.org/item5119>. This will allow you to return and edit your bug report.
- TIP - Click on the EYE icon in the top right corner. Following your bug will help you stay up to date on progress.

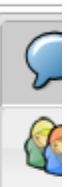


Submit a bug report Part 2 of 4 - Tips on getting your bug resolved faster (1min)

Search
only)

Go

Since



Mult
com

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.
- 9.
- 10.

Mobi

Switch

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that sh



Walkthrough 3/7

the progress of your bug

Don't forget to click on the watch icon. This will help you stay up to date on the progress of your bug

Create a Tiki Show Instance and reproduce the following bug:

- **I wish to demonstrate show.tiki.org for FOSDEM 2014**

Please demonstrate your bug on show.tiki.org

About show.tiki.org

To help developers solve the bug, we kindly request that you demonstrate your bug on a show.tiki.org instance. To start, simply select a version and click on "Create show.tiki.org instance". Once the instance is ready (in a minute or two), as indicated in the status window below, you can then access that instance, login (the initial admin username/password is "admin") and configure the Tiki to demonstrate your bug. Priority will be given to bugs that have been demonstrated on show.tiki.org.

Version: 12.x [Create show.tiki.org instance](#)

Tips on getting your bug solved faster

- **TIP - Reproduce your bug using our feature called Tiki Show. Click here to reproduce your bug now**
- **TIP - Demonstrate your bug using Tiki JCapture. Click here to demo your bug now**



walkthrough 4/7

enhancement, etc.)

2. **Search Bugs & Wishes**
3. **List Yours**
4. **Developer Dashboard**

About Development

- Tiki12
- Tiki13
- 3 Rules
- Create an IDE
- DevTips
- Submit a Patch
- Projects
- SVN Tips
- TikiDevNewbie

Teams

- Packaging
- Performance
- Quality
- Release
- Security
- Testing
- Wishlist

Create a Tiki Show Instance and reproduce the following bug:

- **I wish to demonstrate show.tiki.org for FOSDEM 2014**

This bug has been demonstrated on show.tiki.org

Accessing the Tiki instance that demonstrates this bug

The URL for the show.tiki.org instance that demonstrates this bug is at: <http://jyhem-9952-5119.show.tikiwiki.org>. **Note that if you get a popup asking for a username/password, please just enter "show" and "show". This is different from the initial login and password for a new Tiki which is "admin" and "admin".**

The install log is at <http://jyhem-9952-5119.show.tikiwiki.org/info.txt>

Snapshots

Snapshots are database dumps of the configuration that developers can download for debugging. Once you have reproduced your bug on the show.tiki.org instance, create a snapshot that can then be downloaded by developers for further investigation.

Snapshots can be accessed at: <http://jyhem-9952-5119.show.tikiwiki.org/snapshots/>. **Note that if you get a popup asking for a username/password, please just enter "show" and "show".**

Create new snapshot

Destroy this show.tiki.org instance

Reset password to 12345



Multiple new comments, including

1. Thank you
2. See the doc page
3. lucky man :-)
4. It works!!
5. How to update
6. how to update?
7. Is unified index on?
8. Thank you!
9. Idea for workaround
10. All for nought

Mobile

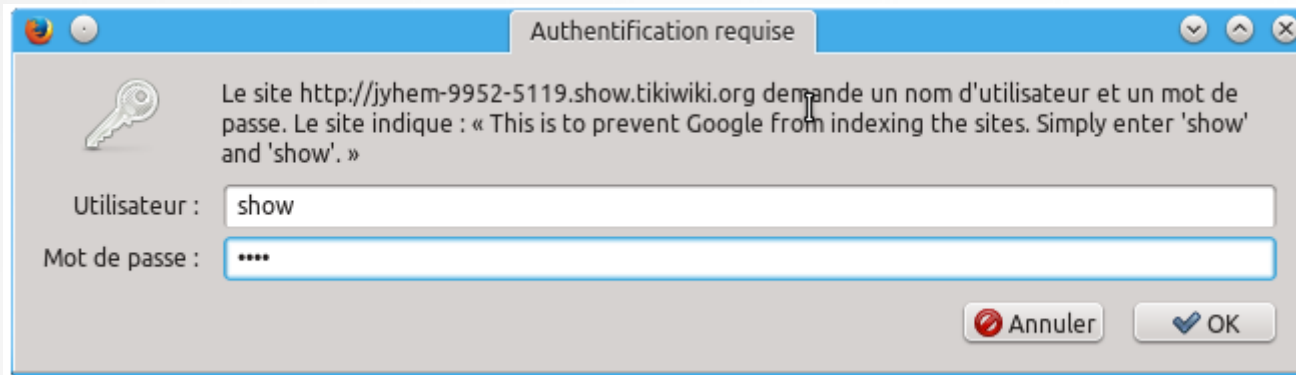
[Switch to mobile site](#)

Keywords

The following is a list of keywords that should serve as hubs for navigation within the Tiki development and should



walkthrough 5/7



This seemingly pointless step serves to make the whole setup useless to spammers



walkthrough 6/7



LOG IN

HomePage

Congratulations

This is the default homepage for your Tiki. If you are seeing this page, your installation was successful.

You can change this page after logging in. Please review the [wiki syntax](#) for editing details.

★ Get started.

To begin configuring your site:

1. Log in with your newly created password.
2. Manually [Enable specific Tiki features](#) that you didn't enable with the Admin wizard.
3. Run [Tiki Profiles](#) to quickly get up and running.
4. Run the [User Wizard](#) to set up the main preferences for your user.

🔗 Need help?

For more information:

- [Learn more about Tiki](#).
- [Get help](#), including the [official documentation](#) and [support forums](#).
- [Join the Tiki community](#).



walkthrough 7/7

```
← → ↻ S jyhem-9952-5119.show.tikiwiki.org/info.txt

This Tiki instance was created on the Tiki show community website
Creation date: 2014-01-30_02-53-15
Version: 12.x
Related to Wish: http://dev.tiki.org/item5119
Created as http://jyhem-9952-5119.show.tikiwiki.org/
Installation log: http://jyhem-9952-5119.show.tikiwiki.org/install_log.txt
This information is also kept here: http://jyhem-9952-5119.show.tikiwiki.org/info.txt

===== Instance History =====
== Thu Jan 30 03:53:15 CET 2014 TIM action: CREATE
Path: .
URL: https://svn.code.sf.net/p/tikiwiki/code/branches/12.x
Repository Root: https://svn.code.sf.net/p/tikiwiki/code
Repository UUID: b456876b-0849-0410-b77d-98878d47e9d5
Revision: 49632
Node Kind: directory
Schedule: normal
Last Changed Author: jonnybradley
Last Changed Rev: 49628
Last Changed Date: 2014-01-29 18:45:46 +0100 (Wed, 29 Jan 2014)
```



Technical infrastructure communication

- Secure communication between the bug tracker on the Tiki community server and the show.tiki.org server
- The show.tiki.org server is remotely piloted from dev.tiki.org.
- We pass arguments to a restricted shell account

```
/etc/passwd → ctrl:x:1000:1000::/home/ctrl:/usr/local/sbin/tim-ssh
```

 - Disable MOTD

```
sudo touch /home/ctrl/.hushlogin
```
- RSA key pair

```
ssh-keygen -t rsa -b 4096
ssh-copy-id -i ~/.ssh/id_rsa.pub someone@show.tiki.org
```
- Parameters
- Set of instructions

```
ssh ctrl@show.tiki.org <command> -u <user> -t <svn tag> -i <instance id>
Command (one of: create, destroy, snapshot, debug, info, update, reset)
-h    Show this message
-i    id of instance
-u    username on Tiki.org
-U    userid on Tiki.org
-t    SVN Tag (Tiki version)
-p    admin password (simple passwords only)
-P    Subdirectory path
```




Technical infrastructure show.tiki.org

show.tiki.org configuration

- Linux, DNS and apache configuration
 - we need tiki.org on a registrar which allows catch-all entries such as *.show.tiki.org
 - apache configuration :

```
<VirtualHost *:80>  
    ServerName *.show.tiki.org  
    VirtualDocumentRoot /var/www/%1
```
- Dedicated scripts
 - what they do :
 - We have a repository of tarballs of all available Tiki versions, which we extract in /var/www/<username>-<userid>-<bugld>, then we create the empty database and run our standard setup script.
 - The calling server gets back information on correct execution or error messages
 - Scripts output is logged in the install_log.txt and info.txt files
 - Where to find them?
 - In the Tiki source! (doc/devtools/tim)

<http://sourceforge.net/p/tikiwiki/code/HEAD/tree/trunk/doc/devtools/tim/>



Technical infrastructure community server

- It is all integrated with the existing Bug tracker
- It is an improvement of Tiki's database feature (Tiki Trackers)

- General principle

```
$fullstring = "$command -t $svntag -u $username -i $id -U $userid ";  
$conn = ssh2_connect('show.tiki.org', 22);  
$conntry = ssh2_auth_pubkey_file(  
    $conn,  
    'ctrl',  
    '/home/ctrl/.ssh/id_rsa.pub',  
    '/home/ctrl/.ssh/id_rsa'  
);  
$stream = ssh2_exec($conn, $fullstring);  
stream_set_blocking( $stream, TRUE );  
$output = stream_get_contents( $stream );  
fclose( $stream );  
echo "<p>Feedback stream (stdout and stderr)</p><pre>\n";  
echo htmlspecialchars($output) ;  
echo "</pre>\n";
```



Result

- This is a very successful project which brought many benefits to the Tiki community.
- Both users and coders appreciate it.
- 200 live sites after 4 months of existence
- There will definitely be a version 2.

«show is superb and has made things so much more efficient.»

-- Marc Laporte, Tiki project admin



Future plans

- «What was postponed/is planned for version 2»
 - Revision-level granularity
 - Virtual Machines instead of Virtual Hosts
 - Other php versions
 - Other webservers (nginx, etc.)
 - ssh access
 - 3rd party software (htmlpdf, curl, crypto...)
 - Clones and upgrades (change Tiki versions)
- We feel it could be of benefit to other web-based projects.
 - It might be either reproduced from general principles by rewriting or adapting our code
 - or, if there is interest, it could be branched off Tiki and expanded as a more generic solution for any wiki (or web-based) application.



Conclusion

- Shall we keep it a Tiki project?
- Shall we make it a project for any wiki software?
- Shall we all make our own?

I'm available for discussing in this wikis devroom today, or in town tonight :)



Questions?

- More documentations:
 - <http://dev.tiki.org/show.tiki.org>
 - <http://dev.tiki.org/show.tiki.org+Overview>
- Source code
 - Any Tiki source version > 12.x, in the dev/devtools/tim/ directory
- Tiki devs and sysadmins involved:
 - Jean-Marc Libs: [jyhem \(at\) tiki.org](mailto:jyhem@tiki.org) - [jean-marc.libs \(at\) alsawiki.com](mailto:jean-marc.libs@alsawiki.com)
 - Alexander Mette: [amette \(at\) tiki.org](mailto:amette@tiki.org)
 - Nelson Ko: [nelson \(at\) tiki.org](mailto:nelson@tiki.org)
 - Pascal St-Jean: [pstjean \(at\) tiki.org](mailto:pstjean@tiki.org)





Thank you

<http://tiki.org>



Bonus slide

- Bonus slide below...



Scripts : tim-ssh

•tim-ssh

```
#!/bin/bash
# This is the login shell you use in /etc/passwd
# It is a wrapper around tim, because otherwise all
# arguments passed by SSH will be quoted and
# interpreted as a single argument only by getopts

setup()
{
    export LC_ALL=C
    MY_PATH=""dirname \"$0\"""
    MY_PATH="( cd \"$MY_PATH\" && pwd )"
    . $MY_PATH/tim-common
}

setup

$MY_PATH/tim $@
```