The evolution of the Tclers Wiki

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Origins

- 1999 - second oldest Wiki still going
- wikit - written by Jean-Claude Wippler
- minimal markup
- Web + Tk renderer
- self-contained
- Metakit database
Transitions

- used for embedded documentation
- Metakit to TDBC + SQLite
- embedded web server to Wub
- searching from internal to Google to internal
- added markup
- styling

Issues

- page numbers
- searching
- curation
- spam
- look and feel
- code maintenance
Opportunities

- modern look
- developer support
- 3rd party solutions for web, cache, security, search
- spam mitigation
- curation support
- improved markup

Nikit

- modern look based on Bootstrap
- NGINX load balancing, proxying web server
- Wikit running as an SCGI
- SQLite for database
- CloudFlare for cache, security, acceleration
- Google search
Database

- SQLite3
- schema based on 2007 rewrite by Kevin and Colin
- primary key is now page name (not integer)
- writes serialized via single writer process
- multiple readers
Database conversion

- page name as primary key
- removed empty pages
- old page-ids retained to support existing links
- new pages not created until first edit
## Page stats

<table>
<thead>
<tr>
<th>Type</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total number of pages</td>
<td>44385</td>
</tr>
<tr>
<td>Text pages with date</td>
<td>13396</td>
</tr>
<tr>
<td>Binary pages with date</td>
<td>1634</td>
</tr>
<tr>
<td>Pages without date</td>
<td>27442</td>
</tr>
<tr>
<td>Text pages without content</td>
<td>1891</td>
</tr>
<tr>
<td>Missing</td>
<td>22</td>
</tr>
<tr>
<td>Skipped</td>
<td>28</td>
</tr>
</tbody>
</table>

## SCGI

- single thread programming
- multiprocessing
- pool of pre-started scripts
- load balancing by nginx
- based on Tcllib's cgi and [http://wiki.tcl.tk/19760](http://wiki.tcl.tk/19760)
NGINX

- scalable and performant
- easy to configure
- large and growing user base
- lots of info/help available

CloudFlare

- performance
  - distributed cache + CDN
  - content optimization
  - DNS
- security
  - DDoS protection
  - web application firewall
  - SSL + IPV6
- analytics
Styling

• bootstrap based
• responsive layout
• adaptive menu on top

**yield**

`yield`, a [Tcl Commands][4] built-in Tcl command, exits the current coroutine without destroying it, returning a value in the process.

**Synopsis**

`yield ?value?`

**See Also**

`yieldto`

instead of yielding a value directly, execute a command in place of the current coroutine context, which then returns a value.

`tclunsupported:yielddm`

an experiment in passing multiple values to a coroutine. `yield:` turned out to be trivial to implement in terms of `yieldto`.

**Description**

`yield` arranges for the associated coroutine command of the current coroutine to return value if it is provided, or the empty string otherwise. The current coroutine context continues to exist. The next time the associated coroutine context command is executed, any argument passed to it becomes the return value of the `yield` that previously exited the coroutine context. If the associated coroutine context command is not given an argument, the return value of `yield` is the empty string.

DKF: Can also be thought of as a magical form of `return`. That itself returns (possibly).

**Example: Basic**

```tcl
proc onetwo {} {
    yield [info coroutine]
    yield 1
    return 2
}
```
yield

yield, a [Tcl Commands/][%built-in] Tcl command, exits the current coroutine without destroying it, returning a value in the process.

Synopsis

yield ?value?

See Also

yieldto
instead of yielding a value directly, execute a command in place of the current coroutine context, which then returns a value.

tcl:unsupported:yieldm
an experiment in passing multiple values to a coroutine. yieldm turned out to be trivial to implement in terms of yieldto.

Description

yield ?value?
Changes Page

- last edit per page
- minor edits hidden by default
- minor edit / spam flags
- geo-located region

Minor Edits

- “Save as minor edit” button
- not listed in default Changes page
- listed in page history
Access Rules

- based on roles
- per page
- per area (e.g. admin pages, CSS templates)

Roles

- read
- write (username supplied)
- trusted (authenticated via username / password)
- gnome (edit not shown in default Changes)
- admin
Introspection

- user activity
- page history
- spam

Maintenance

- rename pages
- delete pages (no trace left)
Robot / Spam Detection

- reCAPTCHA
- bayesian filter
- spam hidden by default
- posting prevented from “spammy” IP addresses
- trusted users can mark as spam or ham
Markup

- full rewrite
- compatible with Wikit markup
- optional
  - HTML
  - Markdown
  - TCL (in safe interp with CPU limit)

Markup

- document types
- special pages
- page templates
- directives
- tables
- special characters
Document Types

<!DOCTYPE WIKIT>    page content written in wikit markup
<!DOCTYPE MARKDOWN> page content written in markdown
<!DOCTYPE HTMLPART> page content written in HTML
<!DOCTYPE TCL>      page generated by Tcl script
<!DOCTYPE HTML>     page written in HTML

Special Pages

ADMIN:WELCOME    Welcome page, in wikit markup
ADMIN:MOTD       Message of the day, in HTML
ADMIN:ACCESSRULES Access rules
ADMIN:PRIVACY    Privacy statement
Page Templates

<table>
<thead>
<tr>
<th>Template</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>TEMPLATE:page</td>
<td>Default page template</td>
</tr>
<tr>
<td>TEMPLATE:preview</td>
<td>Page preview template</td>
</tr>
<tr>
<td>TEMPLATE:gsearch</td>
<td>Google custom search template</td>
</tr>
<tr>
<td>TEMPLATE:content</td>
<td>HTML page template</td>
</tr>
<tr>
<td>TEMPLATE:CSS</td>
<td>Nikit specific CSS</td>
</tr>
<tr>
<td>TEMPLATE:JS</td>
<td>Nikit specific JS</td>
</tr>
</tbody>
</table>

Directives

<table>
<thead>
<tr>
<th>Directive</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;&lt;<a href="">include:page</a>&gt;&gt;</td>
<td>include another page</td>
</tr>
<tr>
<td>&lt;&lt;&lt;redirect ?reason?&gt;&gt; page</td>
<td>redirect to another page</td>
</tr>
<tr>
<td>&lt;&lt;&lt;motd&gt;&gt;</td>
<td>display message of the day</td>
</tr>
<tr>
<td>&lt;&lt;&lt;changes&gt;&gt;</td>
<td>include 10 most recent changes</td>
</tr>
<tr>
<td>&lt;&lt;&lt;categories&gt;&gt;</td>
<td>page categories</td>
</tr>
<tr>
<td>&lt;&lt;&lt;discussion&gt;&gt;</td>
<td>show/hide part of page</td>
</tr>
<tr>
<td>&lt;&lt;&lt;inlinehtml&gt;&gt;</td>
<td>insert HTML within Wiki markup</td>
</tr>
<tr>
<td>&lt;&lt;&lt;backrefs?:name?&gt;&gt;</td>
<td>include page references for this or specified page</td>
</tr>
</tbody>
</table>
**Include: name**

- Include contents of another page in current page

```xml
<include: tcl child>
</include: tcl child>

This is HTML included from [html child]

```xml
<include: html child>
```

```xml
<idocType TCL>
puts "<ul>
foreach t {today tomorrow yesterday} {
    puts "<li>$t : [clock format [clock scan $t]]</li>"
}
puts "</ul>"
</idocType TCL>
```

```xml
<idocType HTMLPART>
<div class='alert alert-danger'>This page is considered <strong>HTML</strong></div>
</idocType HTMLPART>
```

**Redirect: name**

- Redirect current page to another page

- Known reasons:
  - redundant
  - duplicate
  - merged
  - inaccurate

- Redirect headers

```xml
<Tcl's Wiki>  Page  jdc  
Search... Help
```

```
jdc
This page has become redundant. It now redirects to: Jos Decoster
```

```
<Tcl's Wiki>  Page  jdc  
Search... Help
```

```
Jos Decoster
You were redirected to this page because the redirecting page is redundant.
```
Tables

- one row per line
  - header  % | ... | ... | %
  - row      | ... | ... | or & | ... | ... | &

- one field per line
  - start header row | %
  - start row + or     | &
  - start field     |
Cookie Consent

- complies with EU cookie regulations
- shows contents of ADMIN:PRIVACY