# The evolution of the Tclers Wiki

Jos Decoster - jos.decoster@gmail.com

Steve Landers - steve@digitalsmarties.com

# 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

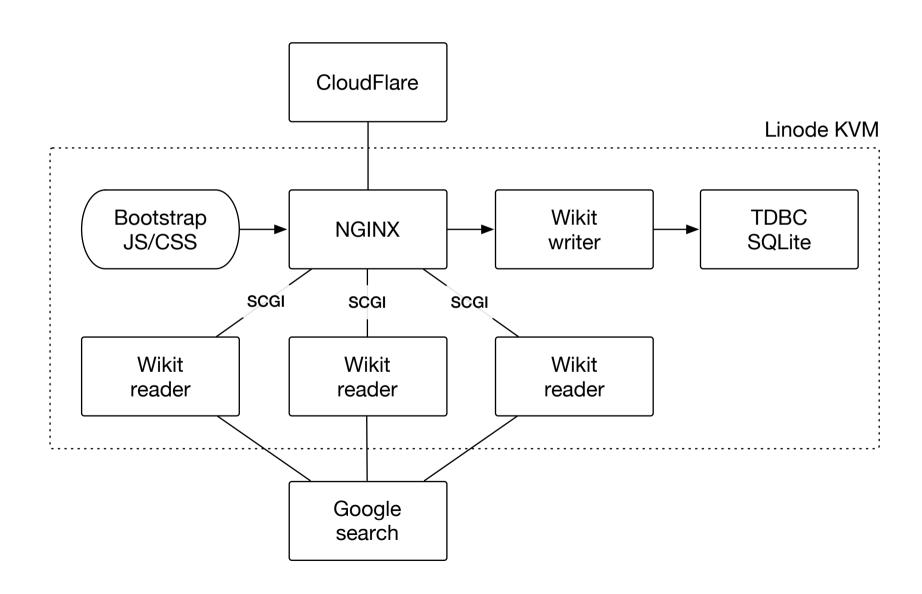
# Opportunities

- 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

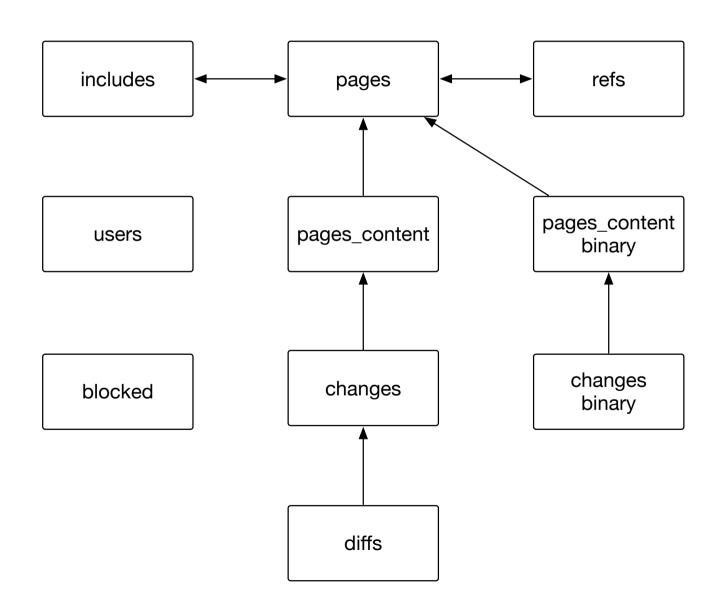
#### Nikit Architecture



#### 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

## Schema



#### 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

total number of pages	44385
text pages with date	13396
binary pages with date	1634
pages without date	27442
text pages without content	1891
missing	22
skipped	28

### SCGI

- single thread programming
- multiprocessing
- pool of pre-started scripts
- load balancing by nginx
- based on Tcllib's cgi and <a href="http://wiki.tcl.tk/19760">http://wiki.tcl.tk/19760</a>

### 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

Tcler's Wiki ▼ Page ▼ stevel ▼ Search... Help

#### 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.

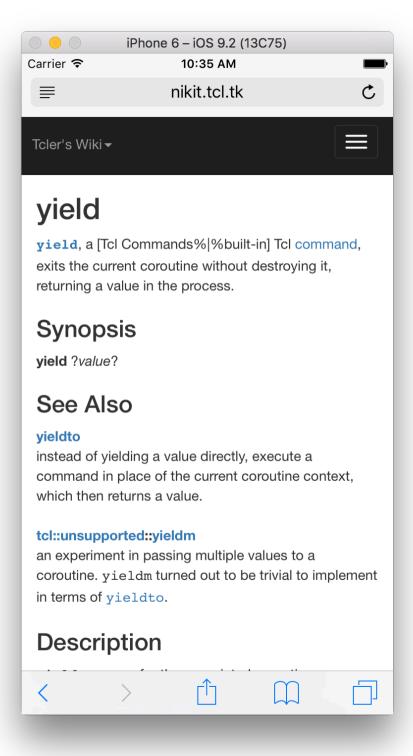
#### **Description**

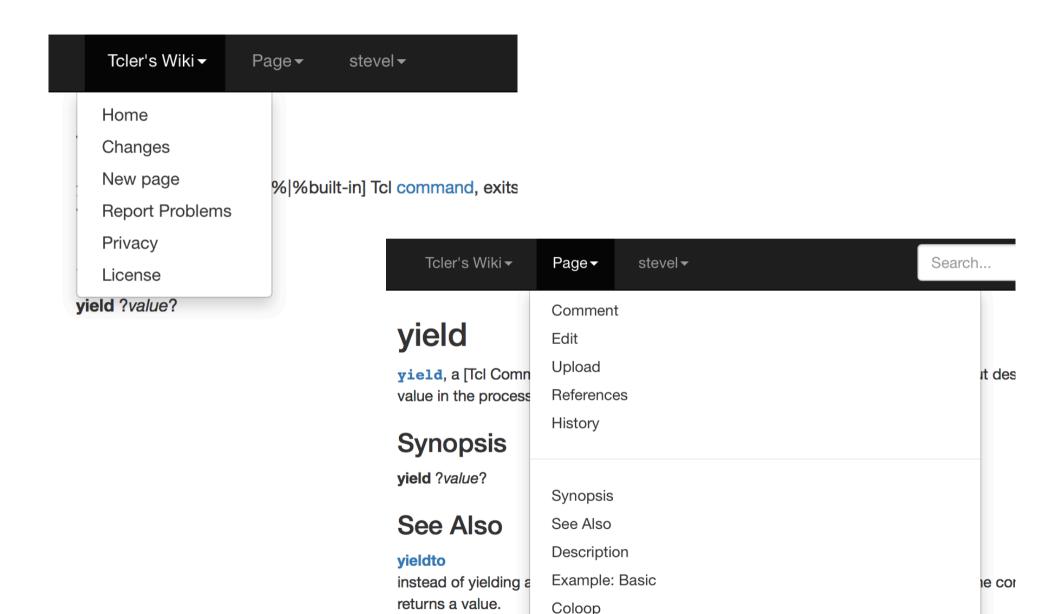
yield arranges for the associated coroutine command of the current coroutine to return value if it is provided, or the empty string otherwise. The current coroutine context continues to exist. The next time the associated coroutine context command is executed, any argument passed to it becomes the return 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

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





tcl::unsupported::y

an experiment in passing multiple values to a coroutine, vieldm turned out to be trivial to in

Example: 'yield' From Any Command in a Coroutine Context

# 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



#### Confirm edit for Learn to Program

Last edit 2016-06-17 13:46:03 by pooryorick@108.162.219.144

I'm not a robot	reCAPTCHA
Confirm Cancel	Privacy - Terms
Committee	

Tcler's Wiki ▼



#### Learn to Program

This page is considered SPAM!

# 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

TEMPLATE:page Default page template

TEMPLATE:preview Page preview template

TEMPLATE: gsearch Google custom search template

TEMPLATE:content HTML page template

TEMPLATE: CSS Nikit specific CSS

TEMPLATE: JS Nikit specific JS

### Directives

<<include:page>> include another page

<<redirect ?reason?>> page redirect to another page

<<motd>> display message of the day

<<changes>> include 10 most recent changes

<<categories>> page categories

<<discussion>> show/hide part of page

<<inlinehtml>> insert HTML within Wiki markup

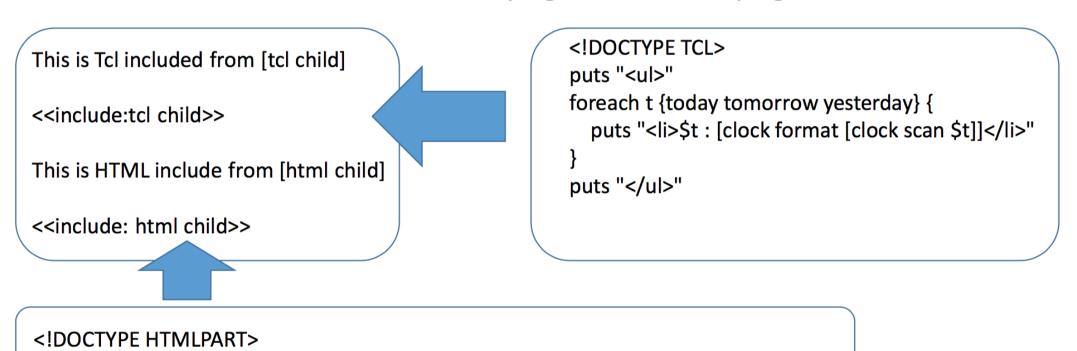
<<backrefs?:name?>> include page references for this or

specified page

#### <<include:name>>

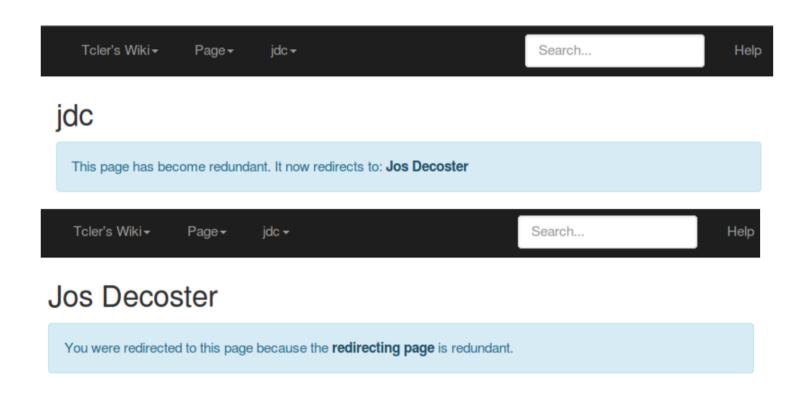
Include contents of another page in current page

<div class='alert alert-danger'>This page is considered <strong>HTML!</strong></div>



#### <<redirect ?reason?>> name

- Redirect current page to another page
- Known reasons:
  - redundant
  - duplicate
  - merged
  - inaccurate
- Redirect headers



### Tables

```
응 | 1 | 2 | 3 | 응
                                                      +%

    one row per line

                                    |4|5|6|
  - header % | ... | %
                                    |7|8|9|
                                                       | 3
  - row |... or & |... | &

    one field per line

                                                       | 5
                                                       | 6
  - start header row | %
  - start row + or &
                                                       8 |
                                                       | 9
  - start field
```

# Special Characters

<<br/>br>>

<<nbsp>>

<<pipe>>

### Cookie Consent

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

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Got it!