#### The MediaWiki bot API

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Wikimania 2009



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#### About me

- Roan Kattouw (nickname Catrope)
- In second year of BSc Computer Science
- Volunteer MediaWiki developer since July 2007
- API maintainer since September 2007
- Hired as a part-time contractor by the Usability Initiative in May 2009
  - The Usability Initiative, Naoko Komura, Thursday, Room 3



#### What the bot API is

- Communication layer between MediaWiki and client applications
- Eliminates the need for screenscraping HTML
- Returns results in a variety of formats (XML, JSON, PHP, ...)

#### How to use the API

- Send HTTP requests to en.wikipedia.org/w/api.php
- Both GET and POST requests accepted; write modules require POST
- Pass parameters in query string or POST data
  - Separate values with | (pipe)
- Keep the number of reqs/s down to a sane level

- Information about the wiki (meta)
  - Namespaces
  - Interwiki table
  - Database lag
  - ...
- Information about pages (prop)
- List of ... (list)
- Write operations



- Information about the wiki (meta)
- Information about pages (prop)
  - History
  - Content
  - Links, templates, categories, images
  - ...
- List of ... (list)
- Write operations



- Information about the wiki (meta)
- Information about pages (prop)
- List of ... (list)
  - all pages with a certain prefix
  - all pages using a certain template/image/category
  - all revisions (contributions) by a certain user
  - ...
- Write operations



- Information about the wiki (meta)
- Information about pages (prop)
- List of ... (list)
- Write operations
  - Editing pages (edit)
  - Moving pages (move)
  - Deleting pages (delete)
  - ..



#### What the API is used for

• AutoWikiBrowser, a wiki editor that automates tedious tasks

- AutoWikiBrowser
- Twinkle, a script that assists users in maintenance tasks

- AutoWikiBrowser
- Twinkle
- ClueBot, a vandalism fighting bot that automatically detects and reverts vandalism

- AutoWikiBrowser
- Twinkle
- ClueBot
- pywikipediabot, a generic framework for building wiki bots in Python

- AutoWikiBrowser
- Twinkle
- ClueBot
- pywikipediabot
- Search suggestions as you type, both on the search form and in the browser plugins

- AutoWikiBrowser
- Twinkle
- ClueBot
- pywikipediabot
- Search suggestions
- CodeReview, a tool MediaWiki developers use to keep track of code changes

- AutoWikiBrowser
- Twinkle
- ClueBot
- pywikipediabot
- Search suggestions
- CodeReview
- ... and many more, less well-known tools



## Extending the API

- Extensions can extend the API by:
  - Adding new modules
  - Overriding core modules
  - Hooking into core modules (limited support)
- Extensions that extend the API:
  - FlaggedRevs
  - AbuseFilter
  - CodeReview
  - ...



## The API of the future

- Uploading files
- Request throttling
- Changing preferences
- Auto-generated XML schema

# How you can contribute

- Use the API
- Report bugs
- Request features
- Submit patches
- Write documentation
- Become an API developer (we need you!)

#### Credits

#### Special thanks to:

- Yuri Astrakhan for writing most of the code
- All other volunteer developers who have contributed
- The Vodafone developers who helped develop the edit module

#### Useful links

- API help: en.wikipedia.org/w/api.php
- Documentation: mediawiki.org/wiki/API
- Bugs and feature requests: bugzilla.wikimedia.org
- Mailing list: mediawiki-api@lists.wikimedia.org
- Low-traffic announcement list: mediawiki-api-announce
- Me on IRC: RoanKattouw in #mediawiki on irc.freenode.net
- This presentation: mediawiki.org/wiki/User:Catrope/Wikimania



#### Demonstration