

Rules

Leveraging rule based automation!

<http://drupal.org/project/rules>

About me



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- Studying "Information & Knowledge Management" and "Computational Intelligence" at the Vienna University of Technology
- Part-time drupal developer from Vienna, Austria working for Absolventen.at and Zites.net
- Joined the drupal community in 2006
(Google Summer of Code project "Node Profile")

Outline



- Rules!? - What is it
- Google Summer of Code
- Use case 1: React on user inactivity
- Use case 2: An basic editorial workflow
- What's next?

Rules !?



- <http://drupal.org/project/rules>
- define conditionally executed actions based on occurring events
- a replacement with more features for the trigger module in core
- the successor of the drupal 5 compatible workflow-ng module
- a tool for site automation and customization

Triggered Rules



- Triggered Rules / Reactive Rules
- Users surfing on your Drupal site generate events.
- When the event is triggered associated rules are evaluated.
- Event – Condition – Action
- Example:
 - React when a users posts something
 - Show him a custom message!

A screenshot...




Editing rule URL alias for sticky content

—▷ Rule settings

▽ Rule elements

ON event *Content is going to be saved*

IF

└ Saved content is sticky 

+ Add a condition

DO

└ Create URL alias

+ Add an action

Features



- Import / Export
- Group and reuse rules in “Rule Sets”
- Flexible scheduling system
- Modular input evaluation system (Tokens, PHP, ..)
- A well documented and solid API, which allows modules to
 - provide further conditions, actions and events
 - configure default rules and rule sets

Summer of Code 2009



- “Rules Monkey Project” by Klaus Purer (klausi)
- Enhancement and extension of Rules
- New Rules Forms module
- More possibilities for Rules scheduler
- Tutorials
- Many small fixes here and there ...

Rules Forms Support



- Manipulate/Customize any form on your Drupal site
- Events:
 - Form is being built
 - Form is being validated
 - Form is being submitted
- Condition:
 - Form element has value

Rules Forms Support (2)



- Actions:
 - Hide a form element
 - Disable a form element
 - Adjust weight of a form element
 - Set the default value of a form element
 - Set the redirect target of the form
 - Insert prefix/suffix HTML
 - Set a form error

Rules Tutorials



- Documentation on <http://drupal.org/node/298482>
- Tutorials for Rules Scheduler and Rules Forms support
- They provide a step-by-step guide and instructions
- Tutorial 1: On login redirect to the user's account page
- Tutorial 2: Publish content exactly 24 hours after it was created
- Tutorial 3: Publish content based on a CCK date field
- Tutorial 4: Publish and unpublish content regularly on some week days (scheduling loops)
- Tutorial 5: Editorial workflow with Rules

React on user inactivity



- Use event: “User has logged in”
- Rule Sets for:
 - Notify the user by e-mail
 - Blocking the user
- Upon login:
 - Schedule the notification and remove any previous scheduled tasks
- When notifying:
 - Schedule blocking the user

A basic editorial workflow (1)



- User roles:
 - “Editor”, “Publisher”
- Editor:
 - Creates and edits content, but is not able to publish it.
- Publisher:
 - Reviews content and publishes it.

A basic editorial workflow (2)



- CCK field “workflow (Draft | Published) for pages
- Content permissions
 - Only publisher may edit the workflow field
- Both roles may edit any pages.
- Simple View: Moderation queue for Publisher
- Pages are unpublished by default
 - Use a Rule to really publish them when the workflow field is set to “Published”.

Site building with Rules



- Quickly build new functionality or customize your site by adding some rules
- Import/Export helps staging your rules to production sites and allows you to share your rules with others!
- Easily execute custom short code snippets with rules!
- Write new functionality by exposing new conditions, actions, events, ...
- Exporting rules to a module
 - Do it manually
 - Use “Features” support (fresh!)

Developing with Rules



- Helps optimizing code reuse!
 - added events, conditions and actions can be used wherever possible!
- Eases and speeds up development!
 - Don't care where to get your variables from - just specify what you need and use it!
- Minimizes the need of custom code!
- Eases major release upgrades:
 - Just upgrade rules and any custom rules integration!

Hints & Suggestions (1)



- Use flags to trigger Rules
 - <http://drupal.org/project/flag>
- Test Rules with “Debugging” enabled
- Avoid token replacements in often evaluated conditions
 - Use separate conditions, if possible.
 - Move the condition using tokens down

Hints & Suggestions (2)



- When changing content prefer the event
“Content is going to be saved”
in contrast to
“After content has been updated”

→ Avoid saving content twice!
→ Use “Content is new” condition to distinguish
between creation and update.

What's next? (1)



- Working on Rules 2.0 as part of my master thesis
- Drupal 7 compatible + probably backport to Drupal 6
- Improved API (OOP, Better reuse, Extendable, ...)
- Support for Lists and Loops
- Overhauled UI + better reusable UI components
- Human readable Rules-Export
- Data selectors for specifying arguments similar to Yahoo! pipes

What's next? (2)



- Rule-based communication between web sites!
 - Add support for web services (services module?)
 - Use Rules to invoke remote services!
 - Provide services by configuring Rule-Sets
 - Let drupal sites talk to each other!
 - Key: Make remote data accessible!
 - RDF

Rules 2.0 Status



- Development for Drupal 7
 - Code: <http://github.com/fago/rules>
 - It will be ready once Drupal 7 is out!
- The rules engine is working and covered by tests!
- Next steps:
 - UI
 - Web Service Integration
 - Port Module Integration



Any questions?