

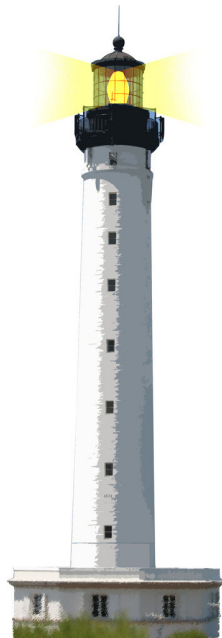
Seaside: A Glance at MetaData and REST

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W4S10



<http://www.pharo.org>

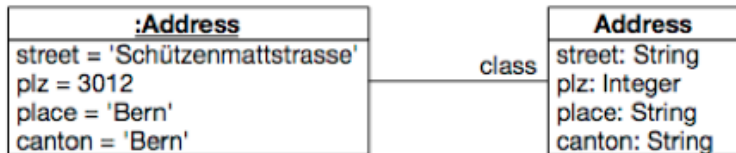


Magritte: Taking Advantages of MetaData

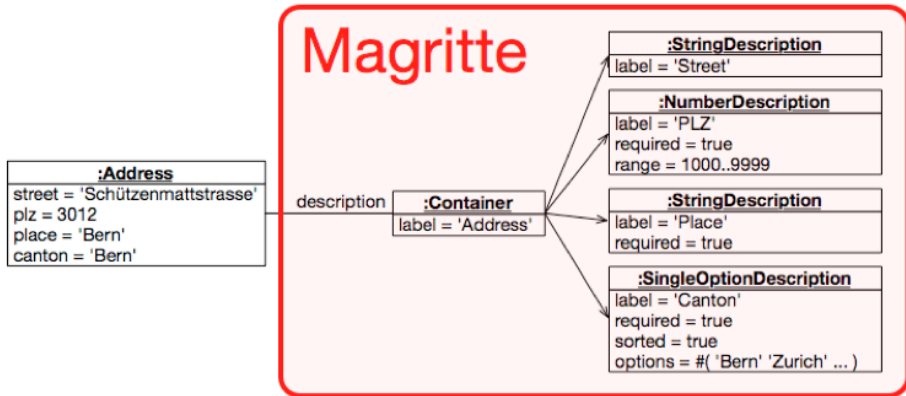
- Describe once
- Generate many times
- No more manually created forms
- Seaside component automatic generation



Address



Address Description



Describe

```
Address >> descriptionStreet  
  ^ MAStringDescription new  
    autoAccessor: #street;  
    label: 'Street';  
    priority: 100
```

```
Address >> descriptionPlz  
  ^ MANumberDescription new  
    autoAccessor: #plz;  
    priority: 200; label: 'PLZ';  
    beRequired;  
    min: 1000;  
    max: 9999
```



Interpret

```
anAddress description do: [ :description |
```

```
  Transcript
```

```
    show: description label; show: ':'; tab;
```

```
    show: (description toString: (anAddress readUsing:  
      description));
```

```
  cr ]
```

Street: Schutzenmattstrasse

PLZ: 3012

Place: Bern

Canton: Bern

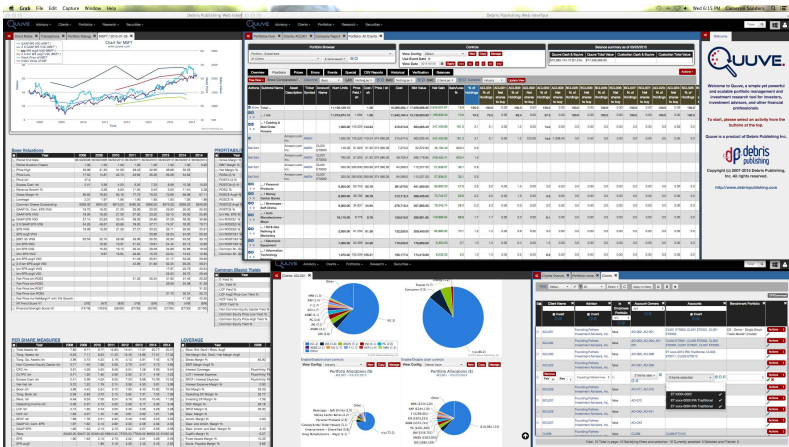


Generate Forms

self call: (anAddress asComponent addValidatedForm; yourself)

Street:	Schutzenmattstrasse
PLZ:	3012 *
Place:	Bern *
Canton:	Bern * 
Save Cancel	

Generate Automatic Reports



Seaside-REST

- Smooth and easy integration
- Annotation of domain objects
- Natural conversion



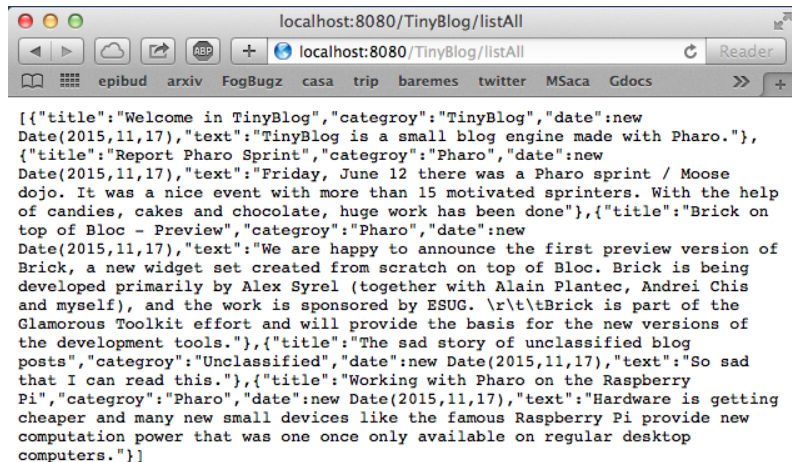
Filter Definition

```
WARestfulFilter subclass: #TBRestfulFilter  
instanceVariableNames: ''  
classVariableNames: ''  
package: 'TinyBlog-REST'
```

```
TBApplicationRootComponent class >> initialize  
"self initialize"  
| app |  
app := WAAdmin register: self asApplicationAt: 'TinyBlog'.  
app  
  addLibrary: JQDeploymentLibrary;  
  addLibrary: JQUIDeploymentLibrary;  
  addLibrary: TBSDeploymentLibrary.  
app addFilter: TBRestfulFilter new.
```



Getting All Blogs



The screenshot shows a web browser window with the address bar displaying `localhost:8080/TinyBlog/listAll`. The browser's address bar includes navigation buttons (back, forward, home, stop, reload), a search bar, and a "Reader" button. Below the address bar, there is a bookmark bar with links to `epibud`, `arxiv`, `FogBugz`, `casa`, `trip`, `baremes`, `twitter`, `MSaca`, and `Gdocs`. The main content area of the browser displays a JSON array of blog posts, each with a title, category, and date. The posts are as follows:

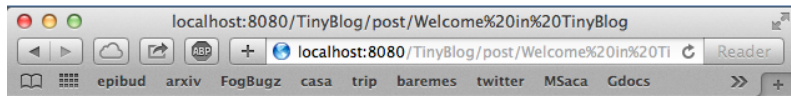
- `{ "title": "Welcome in TinyBlog", "category": "TinyBlog", "date": new Date(2015, 11, 17), "text": "TinyBlog is a small blog engine made with Pharo." },`
- `{ "title": "Report Pharo Sprint", "category": "Pharo", "date": new Date(2015, 11, 17), "text": "Friday, June 12 there was a Pharo sprint / Moose dojo. It was a nice event with more than 15 motivated sprinters. With the help of candies, cakes and chocolate, huge work has been done"},`
- `{ "title": "Brick on top of Bloc - Preview", "category": "Pharo", "date": new Date(2015, 11, 17), "text": "We are happy to announce the first preview version of Brick, a new widget set created from scratch on top of Bloc. Brick is being developed primarily by Alex Syrel (together with Alain Plantec, Andrei Chis and myself), and the work is sponsored by ESUG. \r\t\tBrick is part of the Glamorous Toolkit effort and will provide the basis for the new versions of the development tools."},`
- `{ "title": "The sad story of unclassified blog posts", "category": "Unclassified", "date": new Date(2015, 11, 17), "text": "So sad that I can read this."},`
- `{ "title": "Working with Pharo on the Raspberry Pi", "category": "Pharo", "date": new Date(2015, 11, 17), "text": "Hardware is getting cheaper and many new small devices like the famous Raspberry Pi provide new computation power that was one once only available on regular desktop computers." }`

Getting All blogs

```
TBRestfulFilter >> listAll  
<get>  
<produces: 'text/json'>  
  
^ String streamContents: [ :astream |  
  TBBlog current allBlogPosts  
  do: [ :each | each javascriptOn: stream ]  
  separatedBy: [ stream << ',' ] ]
```



Finding a Blog



```
{"title": "Welcome in TinyBlog", "date": new  
Date(2015, 11, 17), "category": "TinyBlog"}
```

Finding a Blog

```
TBRestfulFilter >> post: title
  <get>
  <path: 'post/{title}'>
  <produces: 'text/json'>
  | post |
  post := TBBlog current postWithTitle: title.
  post ifNil: [ ^ self notFound ].
  ^ String streamContents: [ :astream |
    post javascriptOn: astream ]
```



With Search

```
TBRestfulFilter >> search: title
  <get>
  <path: 'search?title={title}'>
  <produces: 'text/json'>
  | post |
  post := TBBlog current postWithTitle: title.
  post ifNil: [ ^ self notFound ].
  ^ String streamContents: [ :astream |
    post javascriptOn: astream attributes: #(title category date
      text) ]
```

```
http://localhost:8080/TinyBlog/search?title=Welcome%20
in%20TinyBlog
```



Conclusion

- Seaside supports the other REST API (Delete, Post, Get,...)
- Seaside coupled with Magritte offers a really powerful combination
- REST is nicely integrated in Seaside-REST
- Have a look at Teapot for another REST solution



A course by



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