



Djagios for all!

Jochen Maes

Introduction

Who/What/Why

Goals

How I started the project

Djagios in depth!

non-code related

code General!

code in depth!

And now the end is near...

Djagios for all!

Jochen Maes

October 3, 2009



Outline

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Who am I

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code in depth!

And now the end is near...

- Nerd
- Inuits
- different projects and roles (sx,fn,FOSDEM)

To get me in your team, please contact
kris.kerremans@inuits.be



WTF?

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Djagios is a web based Nagios configuration tool written for Managers AND Developers!



Reasoning

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And now the end is near...

The most asked question is: "Why write Djagios if x,y or z already exist?"

- Too complicated
- Not easy to adapt/brand
- php was not welcome
- easy API



Reasoning

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Applied on existing projects:

- nconf:
 - config could not be imported/exported
 - no easy way to adapt
 - no API for integration
- lilac/fruity:
 - config could not be imported/exported
 - no easy way to adapt
 - irregular commits
 - depends on a company



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Djagios main goals

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And now the end is near...

- Fully working import for all supported objects
- Complete developer documentation
- Fully working export for all supported objects
- Theme able
- Easy adaptation (good framework)



Foundation goals

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And now the end is near...

- Ownership of copyrights
- Independent
- Full community possibility:
 - mailing lists
 - ticket system
 - source online browsable
 - distributed development possible
- easy site maintenance



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And now the end is near...

- defined the problem
- created the use cases for the problem
- searched existing options
- matched those options against use cases



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Choose your poison

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Each start of a project is filled with questions...

- language?
- database?
- version control?
- ...

(not necessarily in this order)



Choose your poison

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non-code? Important?

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And now the end is near...

- one-man project: limits!!!
- speed of setup/development
- feel at home
- least amount of distractions



infrastructure

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Questions:

- website: domain, hosting, design, logo,...
- email: how/where
- code: github? gitorious? self hosting?
- tickets?

Answers:

- Sphinx, logo: vanderpoten.com
- postfix/dovecot/dspam/mailman
- django-vcs
- roundup
- own server!



infrastructure

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Framework Django:

- knowledge/familiar
- database transparent
- very extendible
- automatic admin
- live community
- wide adoption → lot of possible support for client



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model!

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Simple modelling of objects:

```
class Command(NagiosObject, models.Model):  
    """Definition for the Nagios command object"""  
    FILE_NAME = 'command.cfg'  
    command_name = models.CharField(max_length=255,unique=True)  
    command_line = models.TextField()
```

Gives:

```
CREATE TABLE 'core_command' (  
    'id' integer AUTO_INCREMENT NOT NULL PRIMARY KEY,  
    'command_name' varchar(255) NOT NULL UNIQUE,  
    'command_line' longtext NOT NULL  
)  
;
```



model!!

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A bit more complex

```
class ServiceDependency(NagiosObject, models.Model):
    dependent_host_name = models.ManyToManyField('Host', related_name='SD_dh_H', \
        blank=True, null=True)
    dependent_hostgroup_name = models.ManyToManyField('HostGroup', \
        related_name='SD_dhg_HG', blank=True, null=True)
    dependent_service_description = models.ForeignKey('Service', related_name='SD_ds_S')
    host_name = models.ManyToManyField('Host', related_name='SD_hn_H', \
        blank=True, null=True)
    hostgroup_name = models.ManyToManyField('HostGroup', related_name='SD_hgn_HG', \
        blank=True, null=True)
    service_description = models.ForeignKey('Service', related_name='SD_s_S', \
        blank=True, null=True)
    inherits_parent = models.NullBooleanField(default=False)
    execution_failure_criteria = models.CharField(max_length=10)
    notification_failure_criteria = models.CharField(max_length=10)
    dependency_period = models.ForeignKey('TimePeriod', related_name='SD_dp_TP', \
        blank=True, null=True)
```



control!

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Object Manipulation is simple, example creation command:

```
c = Command()
c.command_name = 'check_http'
c.command_line = '$USER1$/check_http -I $HOSTADDRESS$ $ARG1$'
c.save()
```

Fetching object:

```
c = Command.get('check_http')
h = Host.get('Nagios Server')
```

modify object:

```
c = Command.get('check_http')
c.command_line = '$USER1$/check_http_new -I $HOSTADDRESS$ $ARG1$'
c.save()
```

remove:

```
Command.get('check_http').delete()
```



view!

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Add a host!

- form:

```
class HostForm(forms.Form):
    name = forms.CharField(label='Server Name', max_length=50)
    address = forms.CharField(label='Servers Address (dns or IP)', max_length=50)
    template = forms.ModelChoiceField(label='Template', \
        queryset=Host.objects.filter(register=False).order_by('name'))
```

- logic:

```
...
form = HostForm(request.POST)
if form.is_valid():
    h = Host()
    h.host_name = _sanitize_alias(form.cleaned_data['name'])
    h.alias = form.cleaned_data['name']
    h.address = form.cleaned_data['address']
    h.use = form.cleaned_data['template']
    h.save()
    return HttpResponseRedirect('/')
...
```



template!

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The templates follow the Jinja2 structures used by Django.
This makes extending, overriding super duper!

```
{% extends "default/index.html" %}
{% block content %}
<form method="POST" action="/host/add/">
  <table>
    {{ form }}
  </table>
  <input type='submit' value='add to nagios'>
</form>
{% endblock content %}
```



result!

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Djagios for all

staff menu

[admin](#)

sejo's menu

[add a host](#)

[add host to service](#)

[remove](#)

[logout](#)

Server Name:

Servers Address (dns or IP):

Template:

add to nagios

- fso-host
- generic-host
- generic-printer
- generic-switch
- linux-server
- lotus-host
- windows-server

ation. Using theme default

Ain't that a picture!



Q&A

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Whot?



thanks

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The



says Thanks!