Jobsworth Project Management 4.0

jw40doc.140127

Jobsworth Project Management 4.0: Installation and Manual

jw40doc.140127

Contents

Preface

Welcome to the jobsworth project management, support ticketing and CRM system. This software is licensed under the AGPLv3.

Jobsworth can be used for helpdesk support ticketing, customer liasion, resource management (eg. systems and password tracking) and has a range of CRM type functionality. Plan your projects, see your schedule, know if you're slipping behind and why. Time Tracking and extensive reports help you show your clients exactly what you've done and for how long.

- no restrictions or limits
- interactive gantt chart & scheduling
- flexible reporting
- tracks and indexes all changes
- notifications via email, rss & ical
- ldap integration
- acounting / billing system integration
- custom attributes
- inbound and outbound email integration
- sophisticated access control
- services (SLA)
- resources
- .. much much more

Further project details can be seen at Ohloh (https://www.ohloh.net/p/jobsworth) .

Support

The primary support is through the mailing list (https://groups.google.com/forum/#!forum/jobsworth) or if you have a bug report, create an issue (https://github.com/ari/jobsworth/issues) in the tracker. If you want to write up details of a new feature you'd like to see, please use the wiki wiki (https://github.com/ari/jobsworth/wiki) .

Contributing

Code contributions are welcome to this project and the best way to go about it is to fork the git repository:

```
https://github.com/ari/jobsworth
```

Please read the DEVELOPMENT.md file in this directory for more information. Join the [developer mailing list (https://groups.google.com/forum/#!forum/jobsworth-dev)](https://groups.google.com/forum/#!forum/jobsworth-dev) ↗ to discuss ideas or ask questions.

I Installation

1 base OS installation

The base installation of Jobsworth 4.0 is very easy (big improvement to previous releases), once a server with some SQL-database and a servlet container has been set up. For those of you not setting up such servers frequently, I have added some more screenshots and commands, that might help you speeding up the installation process.

Note

The following installation instructions are based on FreeBSD® 9.2 (10.0). Other Unix-like operating systems may also work, once a LAMP server has been set up. Especially pathes to configuration files differ in various distributions from FreeBSD® and have to be adapted individually.

Tip

Excellent information about FreeBSD installation and configuration you find in the FreeBSD Handbook (http://www.freebsd.org/doc/en_US.ISO8859-1/ books/handbook/)

First of all get the base operating system running on a dedicated machine. FreeBSD 10.0 does not support old *pkg_add* commands anymore. This mechanism has been replaced by *pkgng*. You have to initialize this packet manager by invoking the following command:

```
pkg
```

Add the hostname (e.g. jwserver.example.com) to /etc/hosts.

2 Graphical User Interface (KDE)

For a typical server environment like Jobsworth a graphical user interface is not necessary and way to much overhead. Nevertheless for testing and configuring the server it could be helpful to install a GUI. Therefore some basic installation of KDE4 is described here.

Install X11 and KDE4:

```
pkg install xorg
pkg install kde
```

Add the following lines to /etc/rc.conf :

```
hald_enable="YES"
dbus_enable="YES"
local_startup="${local_startup} -/usr/local/kde4/etc/rc.d"
kdm4_enable="YES"
```

Add the following line to /etc/fstab :

```
proc -/proc procfs rw 0 0
```

In your home-directory create (edit) the .xinitrc file containing:

```
exec -/usr/local/kde4/bin/startkde
```

On next reboot of your machine KDE4 will be executed.

> 💡 **Tip**
>
> Now is a good point of time to update your DHCP-server and DNS-server to provide a unique IP-address and server-name.

3 Database

Install the database-server package. You can either use mysql or postgresql. The following example shows the setup of *mysql* . After invoking mysql from the command-line you should see a screen like this:

```
$ mysql
Welcome to the MySQL monitor. Commands end with -; or \g.
Your MySQL connection id is 6
Server version: 5.5.33 Source distribution


Copyright (c) 2000, 2013, Oracle and/or its affiliates. All rigths reserved.
Oracle is a registered trademark of Oracle Corporation and/or its
affiliates. Other names may be trademarks of their respective
owners.


Type -'help;' or -'\h' for help. Type -'\c' to clear current input statement.

mysql>
```

> ⚠️ **Important**
>
> If you see any minus-signs in the screenshot above: This is some unresolved rendering error problem (for PDFs only?). Be aware that those minus-signs shall NOT be typed as part of the configuration scripts that will follow.

Now type in the following commands to create the jobsworth database and a database-user. Feel free to adjust database-name, user-id and password and note it for later configuration. Then quit mysql-console.

```
CREATE DATABASE jwsqldb DEFAULT CHARACTER SET utf8;
CREATE USER -'jwsqluser'@'localhost' IDENTIFIED BY -'jwsqlpass';
GRANT ALL PRIVILEGES ON *.* TO -'jwsqluser'@'localhost' WITH GRANT OPTION;
quit
```

> **Note**
>
> At a later stage in this installation process Jobsworth will setup all tables and initial data on its first call.

To enable the start of mysql during start of your server, the following entry has to be inserted into your startup configuration file (e.g. /etc/rc.conf)

```
mysql_enable="YES"
```

4 Apache

Installation of Apache Web-Server on most OS distributions is pretty straightforward. Just install the packages delivered with your distribution. For this example I have installed Apache V2.2.

To enable the start of Apache Web-Server during start of your server, the following entry (depending on your OS and apache version) has to be inserted into your startup configuration file (e.g. /etc/rc.conf)

```
apache22_enable="YES"
```

In any browser type in the URL of your Jobsworth server. For example:

```
http://172.20.50.4
```

A simple screen shows, that Apache is running.
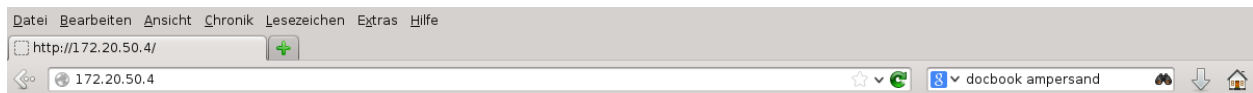
FIGURE 4.1: APACHE WORKS

5 Servlet container

Install Apache Tomcat (or another java servlet container) and make sure you can get to the default installation home page. How to install Tomcat or some other servlet container is beyond the scope of these instructions (still, some more details will follow here) but the basic details can be found in the documentation (http://tomcat.apache.org/tomcat-7.0-doc/) ↗ . Don't be afraid of all those XML configuration files in Tomcat; mostly they can be left to default values.

There is one file you will need to edit and that is context.xml. This file defines all the configuration for your application. Copy the example (https://github.com/ari/jobsworth/blob/master/config/context.example.xml) ↗ into the tomcat configuration folder and set all the variables to reasonable choices for your system.

> ⚠️ **Important**
>
> Please note that line-breaks in the following listing might be confusing. Always load actual context.example.xml (https://github.com/ari/jobsworth/blob/master/config/context.example.xml) ↗ file for your reference!

```xml
<?xml version="1.0" encoding="UTF-8"?>
<!--
This file is an example. You will need to customise it for your own needs, and
rename it
to context.xml. In Apache Tomcat is belongs inside a folder called -"config".  ❶


You can change the mysql driver to postgresql and you will need to replace all the
variables
which look like this ${VARIABLE} either at runtime using a script, or by editing
this file
directly.
-->


<Context swallowOutput="true">
  <Resource name="jdbc/jobsworth"
           removeAbandoned="true"
```

```
            auth="Container" type="javax.sql.DataSource"
            maxActive="100" maxIdle="30" maxWait="10000"
            username="${DBUSER}" password="${DBPASS}" ❷
            driverClassName="com.mysql.jdbc.Driver" batchSize="-1"
            url="jdbc:mysql://${DBSERVER}:3306/${DBNAME}? ❸
autoReconnect=true&zeroDateTimeBehavior=convertToNull&useUnicode=true&characterEncoding=utf8"
            validationQuery="select 1"/>


  <!-- The base domain of the running application. The actual URL you use to
access the system is the name of the tenant followed by this. So you might
have -'company1.acme.com' and -'company2.acme.com' -->
  <Parameter name="config.domain" value="acme.com" override="false"/>


  <!-- Jobsworth can be branded as something else -->
  <Parameter name="config.productName" value="jobsworth" override="false"/>


  <!-- SSL is good. But you may want to turn it off while you are first setting
this up -->
  <Parameter name="config.ssl" value="true" override="false"/>


   <!-- A path to a folder on disk where jobsworth will store task attachments -->
  <Parameter name="config.storeroot" value="/var/jobsworth/assets" override="false"/
>


  <!-- What domain will mail from jobsworth come from? -->
  <Parameter name="config.email_domain" value="acme.com" override="false"/>


  <!-- Some emails like password resets will come from this user name. So in this
example, it will be jobsworth@acme.com -->
  <Parameter name="config.email_replyto" value="jobsworth" override="false"/>


  <!-- The from user name. This is usually the same as the reply-to username -->
  <Parameter name="config.email_from" value="jobsworth" override="false"/>


  <!-- Something to put at the start of every subject on emails from jobsworth -->
  <Parameter name="config.email_prefix" value="'[jobsworth]'" override="false"/>
```

```
  <!-- Jobsworth SMTP settings ---> ❹
  <Parameter name="config.smtp_host" value="mail.acme.com" override="false"/>
  <Parameter name="config.smtp_port" value="25" override="false"/>
  <Parameter name="config.smtp_domain" value="acme.com" override="false"/>


  <!-- This value is used for integration with your incoming mail server. Change
it! --->
  <Parameter name="config.secret" value="changeThisValueToSomethingRandom"
override="false"/>


  <!-- Jobsworth email notification of errors --->
  <Parameter name="config.error_email_prefix" value="'[jobsworth error]'"
override="false"/>
  <Parameter name="config.error_sender_address" value="jobsworth@acme.com"
override="false"/>
  <Parameter name="config.error_exception_recipients"
value="['support@example.com','sysadmin@example.com']" override="false"/>


</Context>
```

❶ If you are unsure, which "config" folder: search for a folder containing a subfolder "ROOT".
    It most probably is close to this. On my FreeBSD installation the config folder is located at:

```
/usr/local/apache-tomcat-7.0/conf
```

❷ Do not use variables ($ and {} chars) but enter UID and Password enclosed in parenthesis
    (except you have external scripts defining those variables), e.g.:

```
username: -"uid" password: -"pw"
```

❸ Example:

```
url="jdbc:mysql://172.20.50.4:3306/mydb?
```

Remarks above are mandatory for getting Jobsworth running. All remarks below will add e-
mail capabilities and may be configured later.

❹ Please fill in host, port and domain as given from your e-mail provider.

To enable the start of Tomcat Servlet container during start of your server, the following entry has to be inserted into your startup configuration file (e.g. /etc/rc.conf)

```
tomcat7_enable="YES"
```

In any browser type in the URL of your Jobsworth server followed by port 8080. For example:

```
http://172.20.50.4:8080
```

If you see the following screen, your Tomcat installation has been successfull.

FIGURE 5.1: **TOMCAT WORKS**

6 E-Mail

When jobsworth sends outgoing emails for task updates, they will have a reply address which looks like this:

```
task-1234@acme.domain.com.au
```

If a user hits reply to that email, you want it to be appended to the task comments. Here's how to set this up for sendmail; adapt the script for your own mail server. Mail can be running on a different server to jobsworth because we use HTTP to push the mail from your mail server to jobsworth.

Sendmail: Add an entry to /etc/mail/local-host-names for your hostname:

```
acme.domain.com.au
```

Add an entry to /etc/mail/aliases to create an alias that will hand off emails to a script:

```
jobsworth: -"|/usr/local/share/jobsworth/mail_script.sh"
```

Add an entry to /etc/mail/virtusertable to redirect all emails to your domain to the above alias

```
@acme.domain.com.au          jobsworth
```

run

```
make; make restart
```

in /etc/mail to rebuild the sendmail databases. Now create a script at /usr/local/share/jobsworth/mail_script.sh with the following contents

```
#!/bin/sh
SECRET=password1234
URL=https://acme.domain.com.au/emails
cat $2 -| -/usr/local/bin/curl --s --k ---data-urlencode secret=${SECRET} ---data-
urlencode email@- ${URL}
```

Make sure you change the password and you make it the same as the password in the context.xml file.

7 Jobsworth

Stop tomcat. With FreeBSD use the following command:

```
service tomcat7 stop
```

Enter Tomcat web-directory e.g.

```
/usr/local/apache-tomcat-7.0/webapps
```

and delete (or better rename) the subdirectory ROOT. Now copy the latest version of Jobsworth installation file ROOT.war (https://github.com/ari/jobsworth/releases) ↗ into the Tomcat web-directory. Finally enable Tomcat again with

```
service tomcat7 start
```

The ROOT.war-file will now be extracted into a ROOT subdirectory. Give it a few seconds to complete before you continue.

> 💡 **Tip**
>
> For the installation of any new version of Jobsworth you only have to replace the ROOT.war file.

8 Additional Tasks

9 Other Operating Systems / Distributions

This chapter covers Jobsworth 4.0 installation for other operation systems / distributions. It only will handle differences to the descriptions above.

9.1 openSuSE 13.1

> ⚠️ **Important**
>
> openSuSE 13.1 installation could not be finished due to some errors. Stay tuned for an update, once we got this running.

9.1.1 Base Installation

9.1.2 Database Installation

- *MariaDB* server is installed by default as a replacement of mysql. MariaDB is a fork of mysql and should work for Jobsworth as well.

- Enable MariaDB server: yast2, Services Manager. Enable and start the *mysql* entry.

9.1.3 Apache Installation

- Install *apache2* package via Yast.

- Install *yast2-http-server* package via Yast.

- Within Yast run the HTTP-Server configuration wizard.

- Test, your HTTP-Server is running by opening a browser with *localhost* URL. If you get *access forbidden* message, check if there is an *index.html* File in */srv/www/htdocs*. If there is no such file, copy a simple valid index.html file to this position and it "should" work.

9.1.4 Tomcat Installation

- Install *tomcat* package via Yast.

- Optionally install *tomcat-webapps* package via Yast. This gives you visual feedback, that installation of tomcat was successful.

- Enable Tomcat: yast2, Services Manager. Enable and start the *tomcat* entry.

- Test, Tomcat is running by opening a browser with *localhost:8080* URL.

9.1.5 Jobsworth Installation

> ⚠ **Important**
>
> Jobsworth Installation did not succeed. Still investigating.

II Administration

10 Login

After you have successfully managed the installation part, it's time to login and start exploring Jobsworth 4.0.

Open the browser of your choice (currently supported are: Internet Explorer, Firefox, Chrome) and type in the URL of your Jobsworth server followed by port 8080. For example:

```
http://172.20.50.4:8080
```

This will lead you to the following login screen.
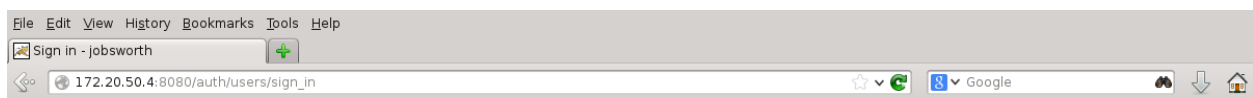
Important

The default user after installation is *admin/password* . During first login all database tables will be generated and filled with some initial content. This may take a while. Please stay patient. For security reasons change the password as soon as possible.

11 Menu Items

Jobsworth needs some basic preparation (e.g. project and company setup), before each function can be used. Nevertheless the Author decided to describe the menu in the order it appears on the screen. A kind of workflow may be added later.

11.1 Overview

11.1.1 Dashboard

The Dashboard is a pretty powerful information overview that can be customized both for administrator and individually per user. Lots of options allow to individually select the information for your individual needs. The Dashboard is preconfigured with most important widgets. Enter the *Create* menu to add more widgets.

All widgets will get described later in this document

> ⚠ **Important**
>
> Currently there are some issues maintaining widgets. This should be eliminated in one of the later releases. Until then Widgets cannot be deleted. Using firefox (compared to Internet Explorer) Widgets cannot get configured. Some more problems currently occur.
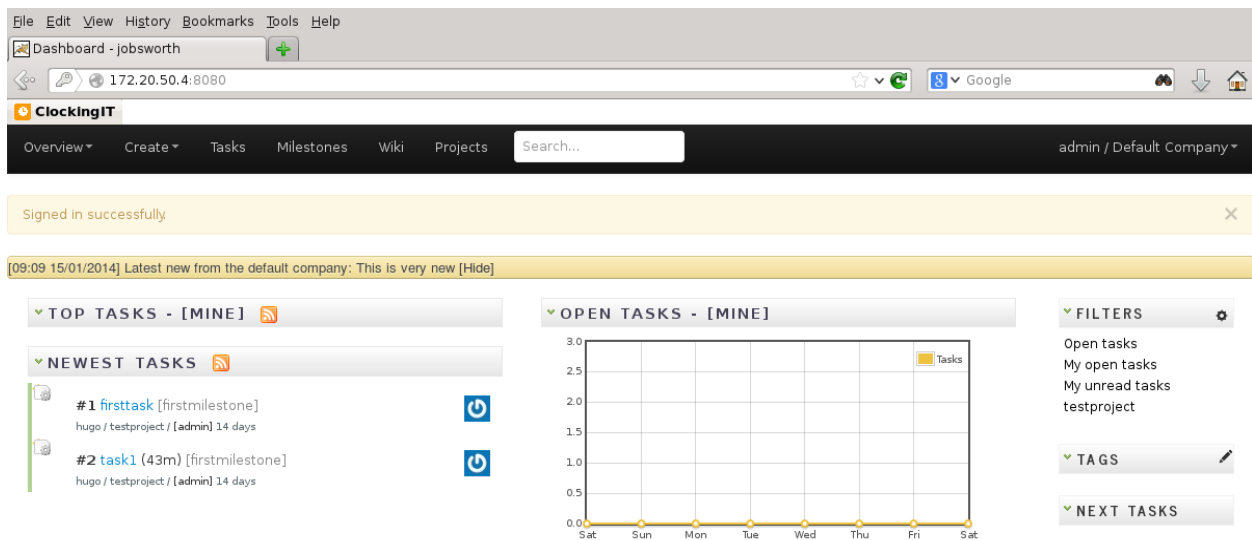
FIGURE 11.1: DASHBOARD

11.1.2 Planning

This screen will allow you to plan your tasks.

> **Note**
>
> This screen looks pretty empty after install and will make sense, once some tasks have been generated.
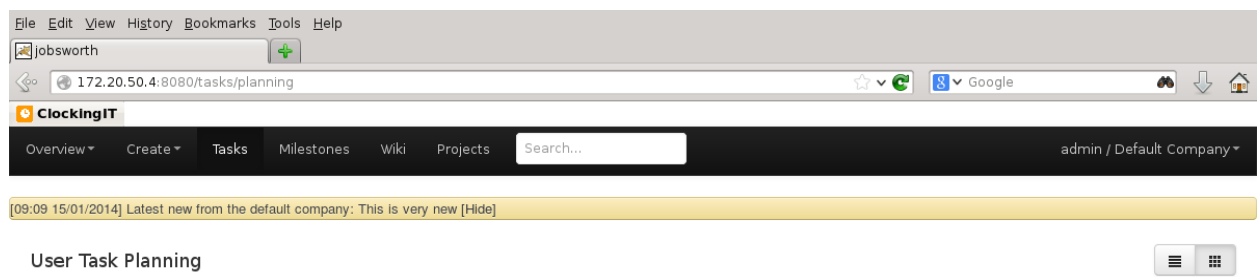
FIGURE 11.2: PLANNING

11.1.3   Billing

FIGURE 11.3: BILLING

11.1.4   History
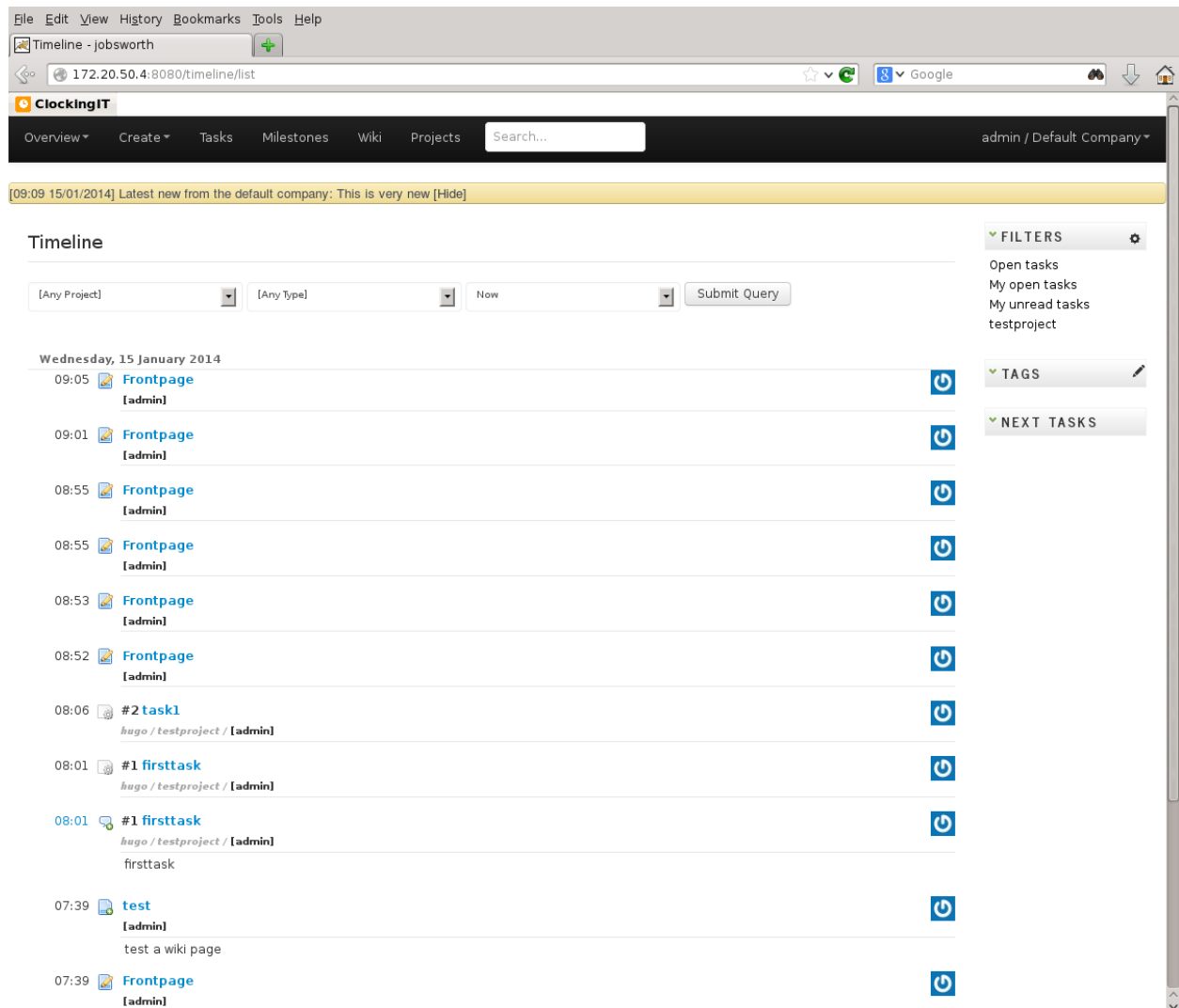
FIGURE 11.4: HISTORY

11.2   Create

Many screens within this section contain additional widgets on the right. Please refer to the linked sections for more information about widgets used in various screens:

- *Section 12.1, "Filters"*

- *Section 12.3, "Tags"*

- *Section 12.2.2, "Next Tasks"*

11.2.1   Create Task

FIGURE 11.5: CREATE TASK

💡 **Tip**

Task dependencies are described here: Task dependencies (https://github.com/ari/jobsworth/wiki/Dependencies) ⬈ . Needs some work to get included here.

11.2.2   Create Project

FIGURE 11.6: CREATE PROJECT

11.2.3　Create Milestone

FIGURE 11.7: CREATE MILESTONE

11.2.4   Create Person

FIGURE 11.8: CREATE PERSON

11.2.5   Create Company

FIGURE 11.9: CREATE COMPANY

> ⚠️ **Important**
>
> You might get confused by terms *company* and *customer* that are not used consistently. The admin is assigned to one company (e.g. default_company) and creates multiple instances of customers he is working for or people are employed by. Be aware that people always can see all customers (important for running multiple projects on one jobsworth server).

TABLE 11.1: CREATE COMPANY INPUT FIELDS

Field	Purpose
Name	Enter a new customer name. People, Projects and Tasks are assigned to customers.
Contact Name	Enter the user's name of a previously defined person or leave the field empty for now.
Active	Select this customer to be active or inactive.

Once you have created the new customer, type in the name in the search button on the top. A new (extended) customer view will open which in addition contains multiple tabs.

TABLE 11.2: EDIT COMPANY TABS

Tab	Purpose
Active Users	Shows all active users belonging to the customer.
Inactive Users	Shows all inactive users belonging to the customer.
Current Projects	Shows assigned projects and associated milestones. From here you can enter those by just clicking the names.
Completed Projects	Shows completed projects.
Score Rules	Lets you create, edit and delete companies (customer's) score rules.
Sites	Shows all business units or locations of the customer.
Resources	Shows all defined resources of this customer. Click on an item to enter the detail page
Services	??? unclear to me

11.2.6   Create Resource

FIGURE 11.10: CREATE RESOURCE

Resource is a generic term for anything that you want to be relevant in planning a project. I could be for example:

- Websites

- Computers

- Rooms

- Whiteboards

- Projectors

- ... and more

Be sure to define appropriate resource-types prior to defining the individual resources.

> 💡 **Tip**
>
> More information on resource-management can be found here: Resource Management (https://github.com/ari/jobsworth/wiki/Resource-management) ↗ . Needs some work to get included here.

11.2.7   Add New Widget

This menu option only will show up, when the Dashboard is displayed. You will be guided to add a new widget for the Dashboard. After specifying a name and the type of the widget additional information is requested. The different types of widgets are described here: *Chapter 12, Widgets*

11.3   Tasks
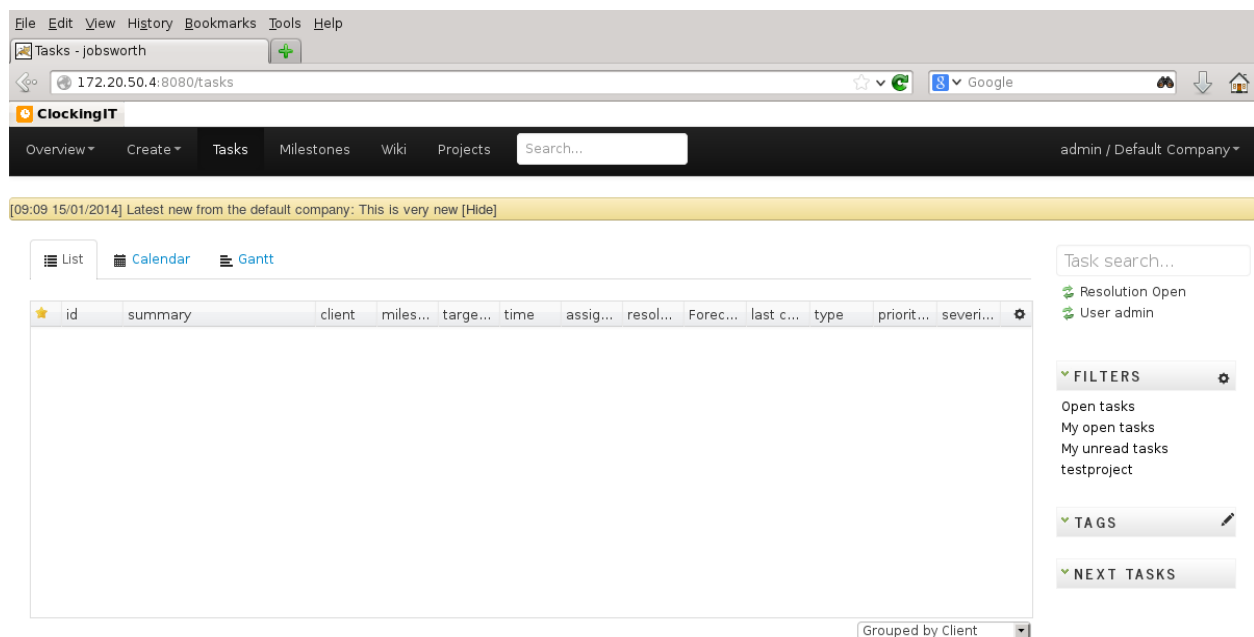
FIGURE 11.11: TASKS

11.4   Milestones
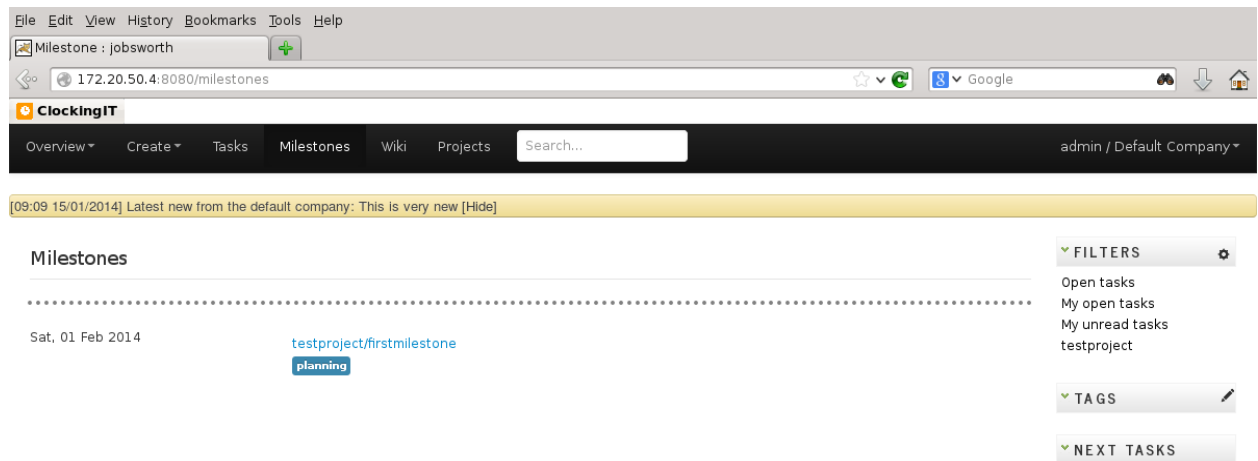
FIGURE 11.12: MILESTONES

11.5   Wiki
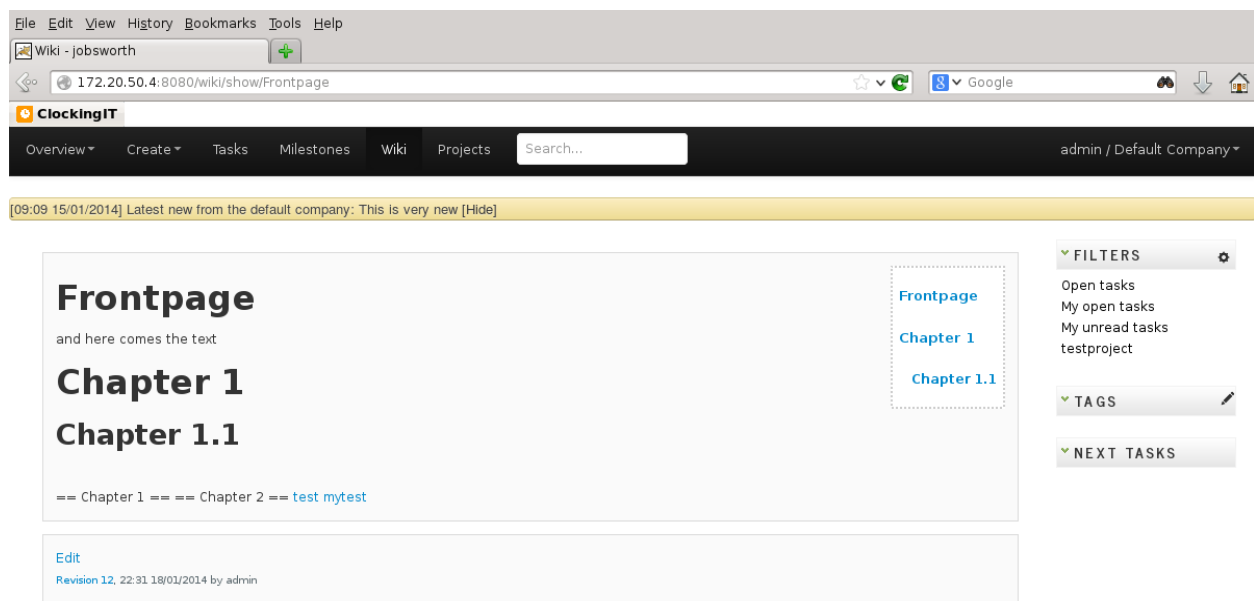
FIGURE 11.13: WIKI

11.6   Projects
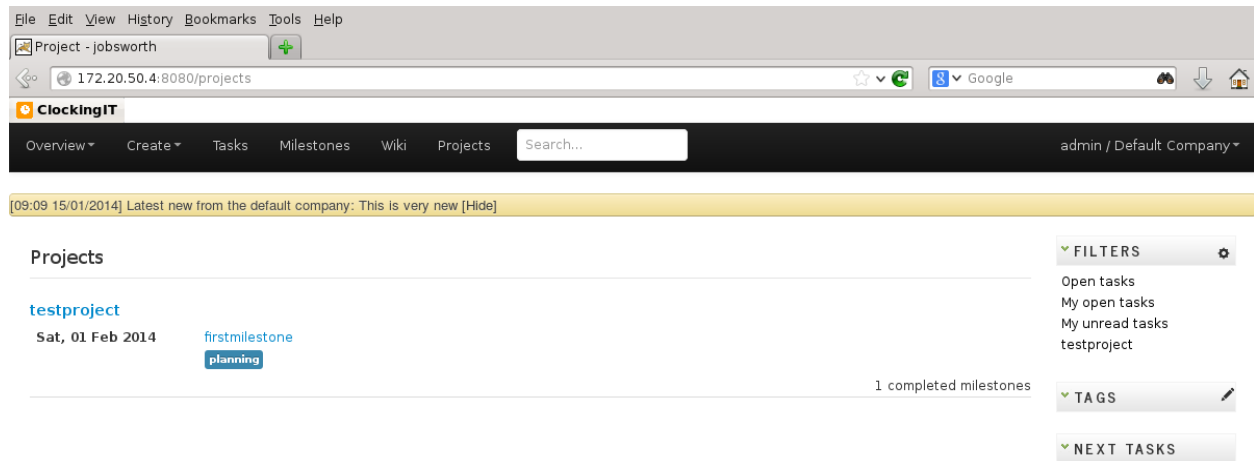
FIGURE 11.14: PROJECTS

11.7   Search

The search field allows you to find items in different categories. Type in at least three consecutive characters (the underline character will act as a wildcard-char) and depending on the context you will be prompted with a result list containing items of following catgories:

- Company / Customers

- Milestones

- People

- Projects

- Resources

- Tasks

After selection you will be led to the items detail page.

11.8   MyAccount

11.8.1   General

FIGURE 11.15: GENERAL

11.8.2   Access Control

FIGURE 11.16: ACCESS CONTROL

11.8.3   E-Mail Adresses

FIGURE 11.17: E-MAIL ADRESSES

11.8.4   Task Filters

FIGURE 11.18: TASK FILTERS

11.8.5   Projects Permissions

FIGURE 11.19: PROJECTS PERMISSIONS

11.8.6   Work Plan

FIGURE 11.20: WORK PLAN

11.9 Company Admin

11.9.1 General

FIGURE 11.21: GENERAL

11.9.2   Score Rules
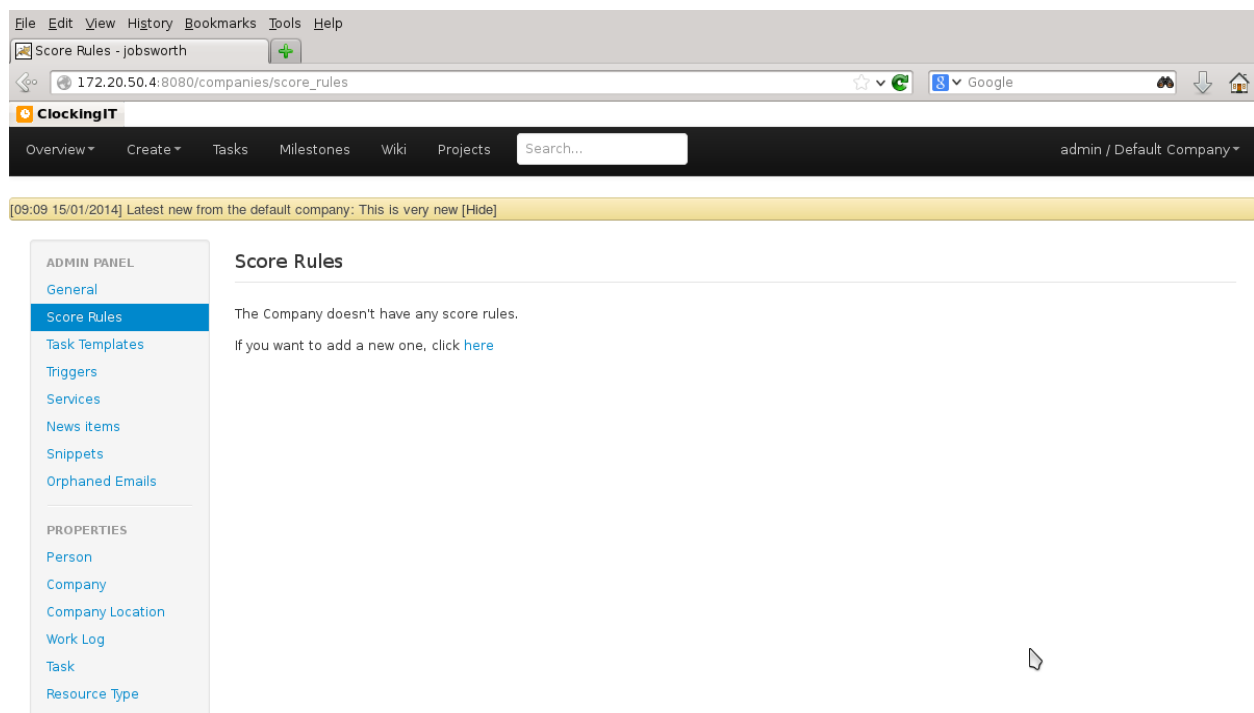
FIGURE 11.22: SCORE RULES

11.9.3   Task Templates
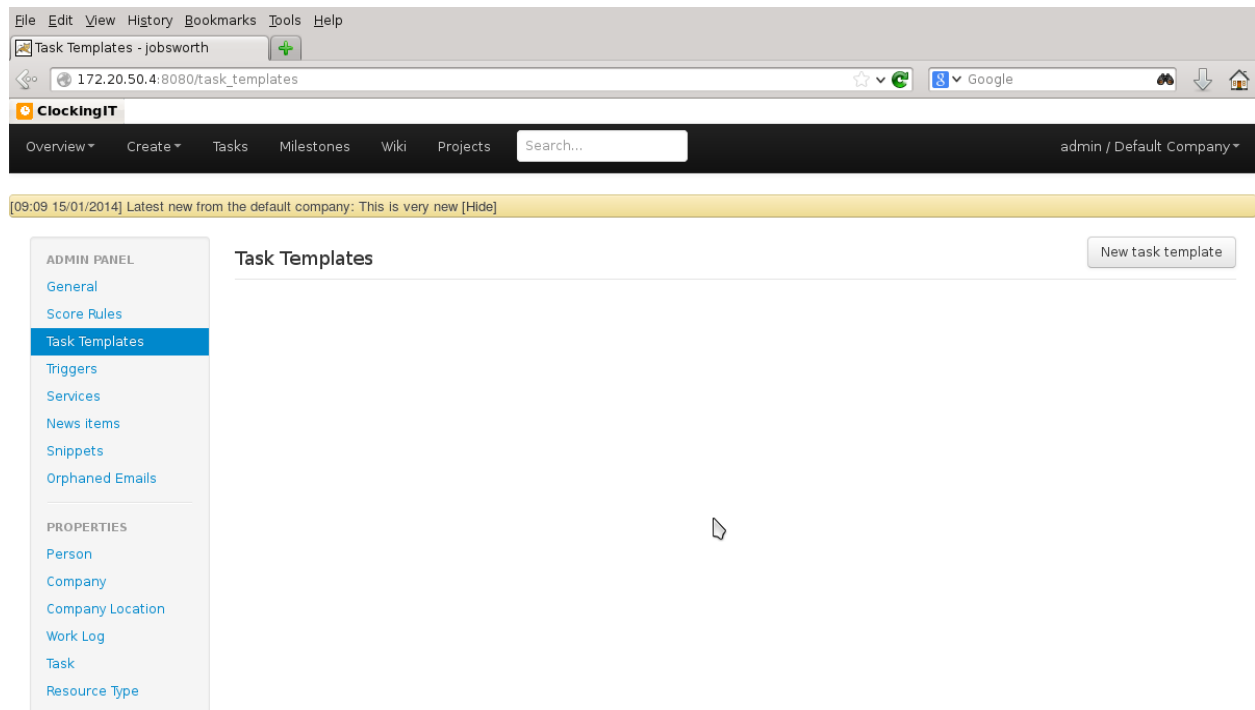
FIGURE 11.23: TASK TEMPLATES

FIGURE 11.24: NEW TASK TEMPLATE

11.9.4   Triggers
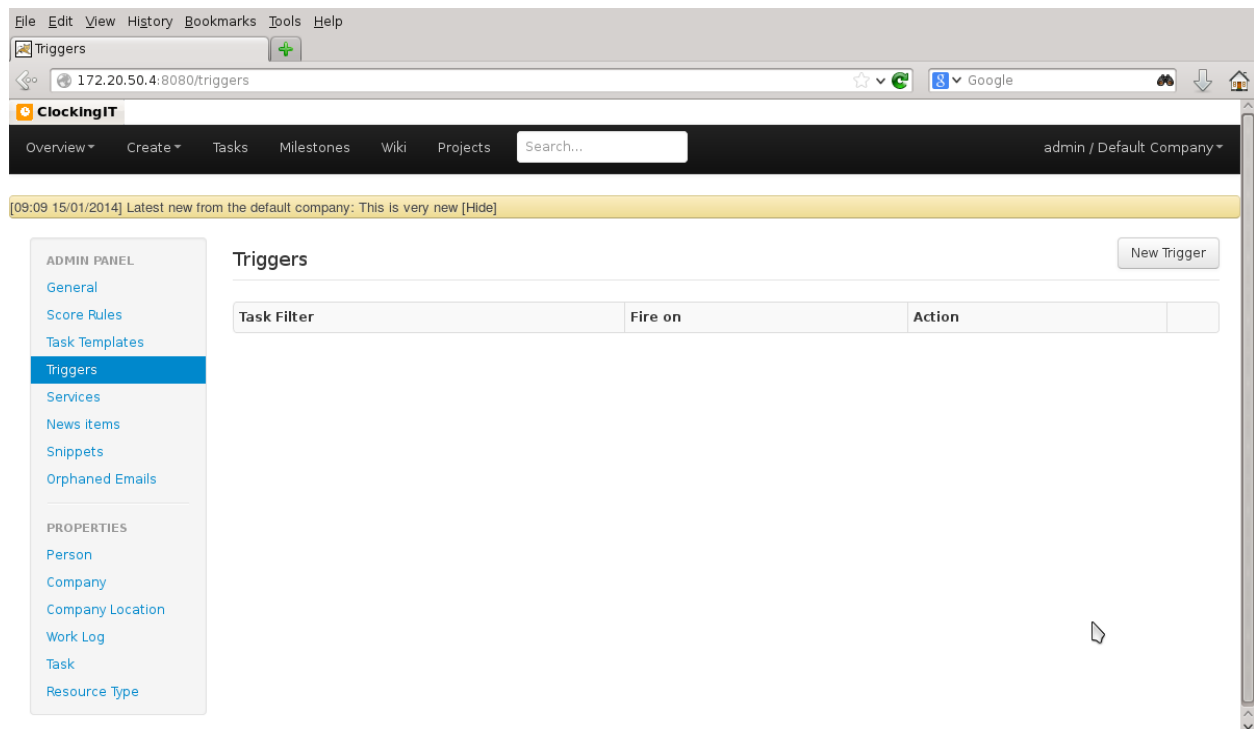
FIGURE 11.25: TRIGGERS
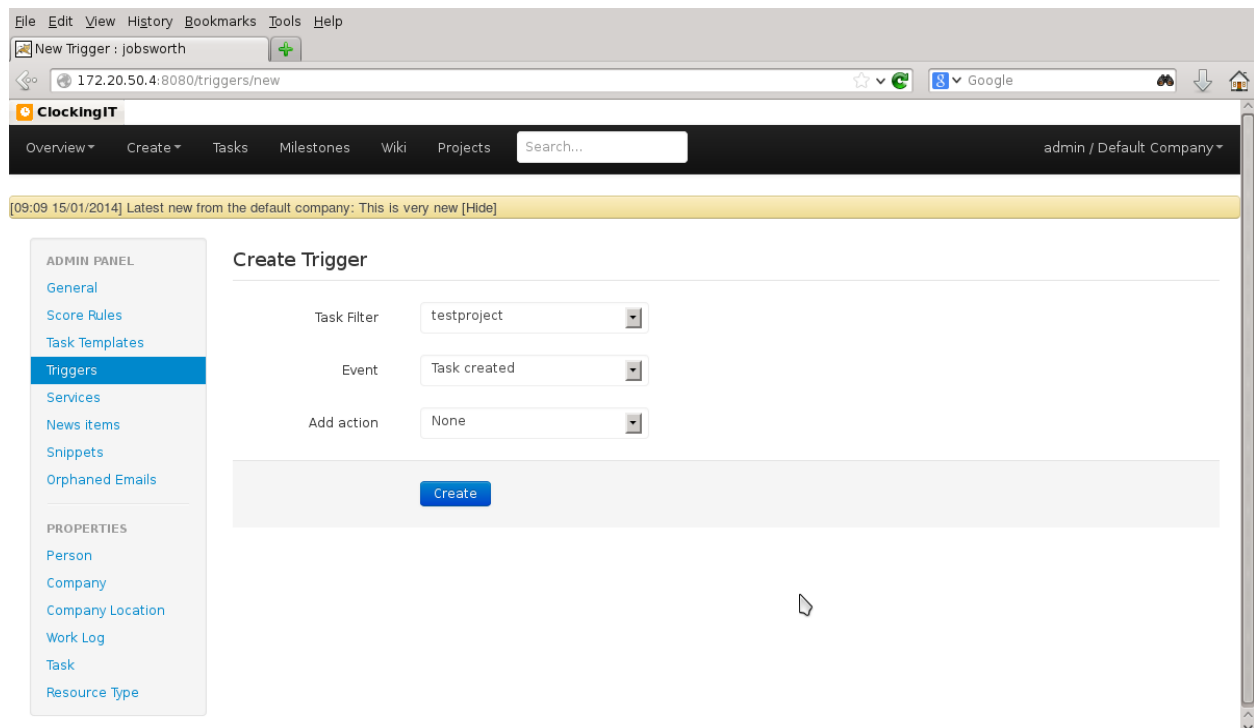
FIGURE 11.26: NEW TRIGGER

11.9.5   Services
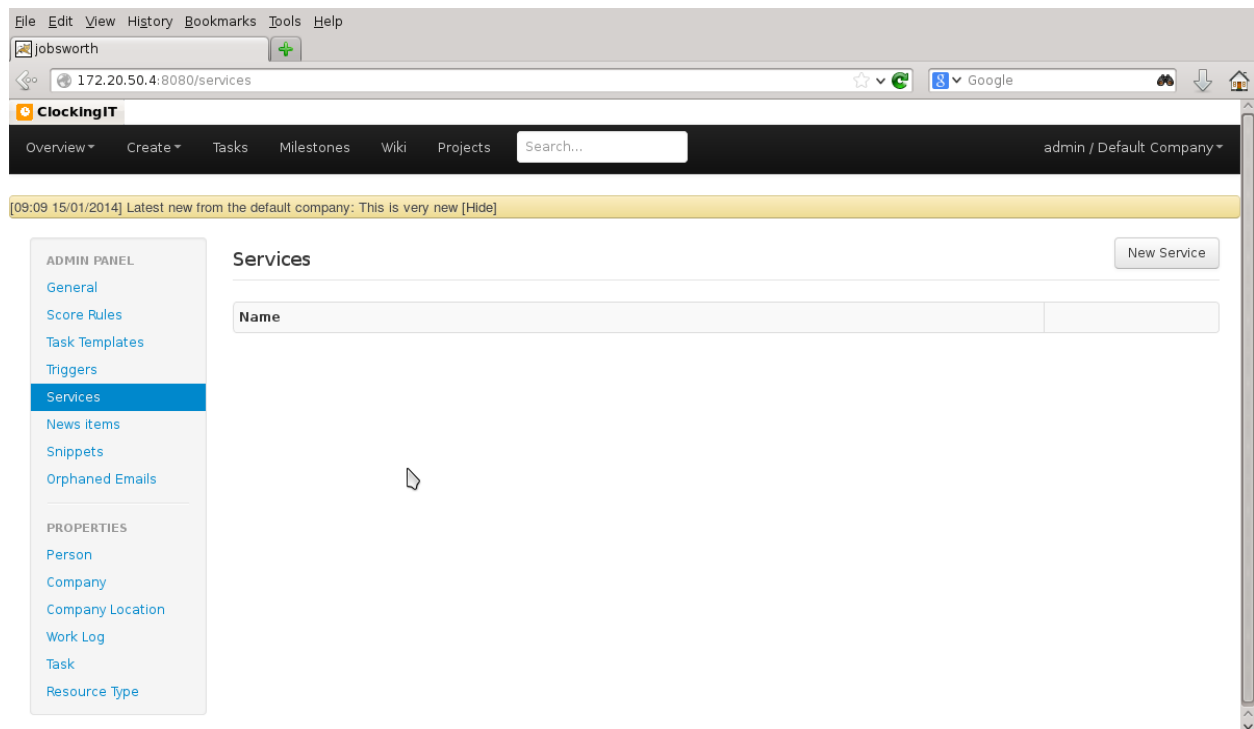
FIGURE 11.27: SERVICES
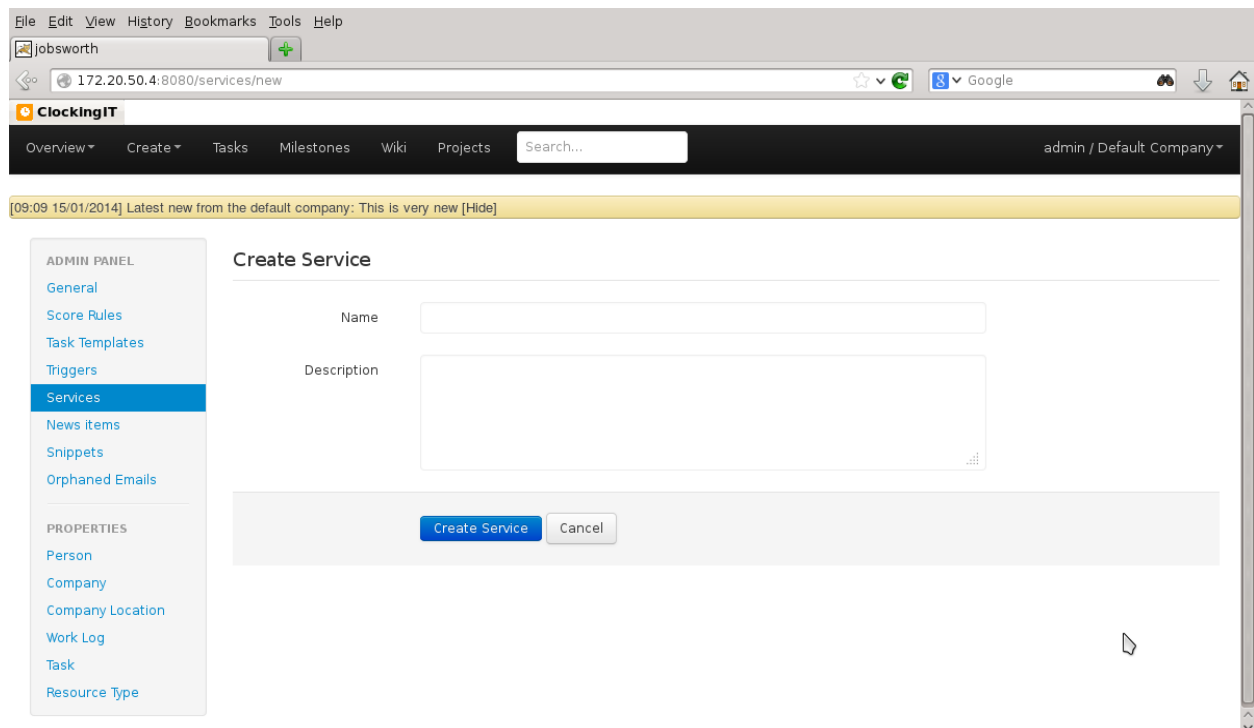
FIGURE 11.28: NEW SERVICE

11.9.6   News Items
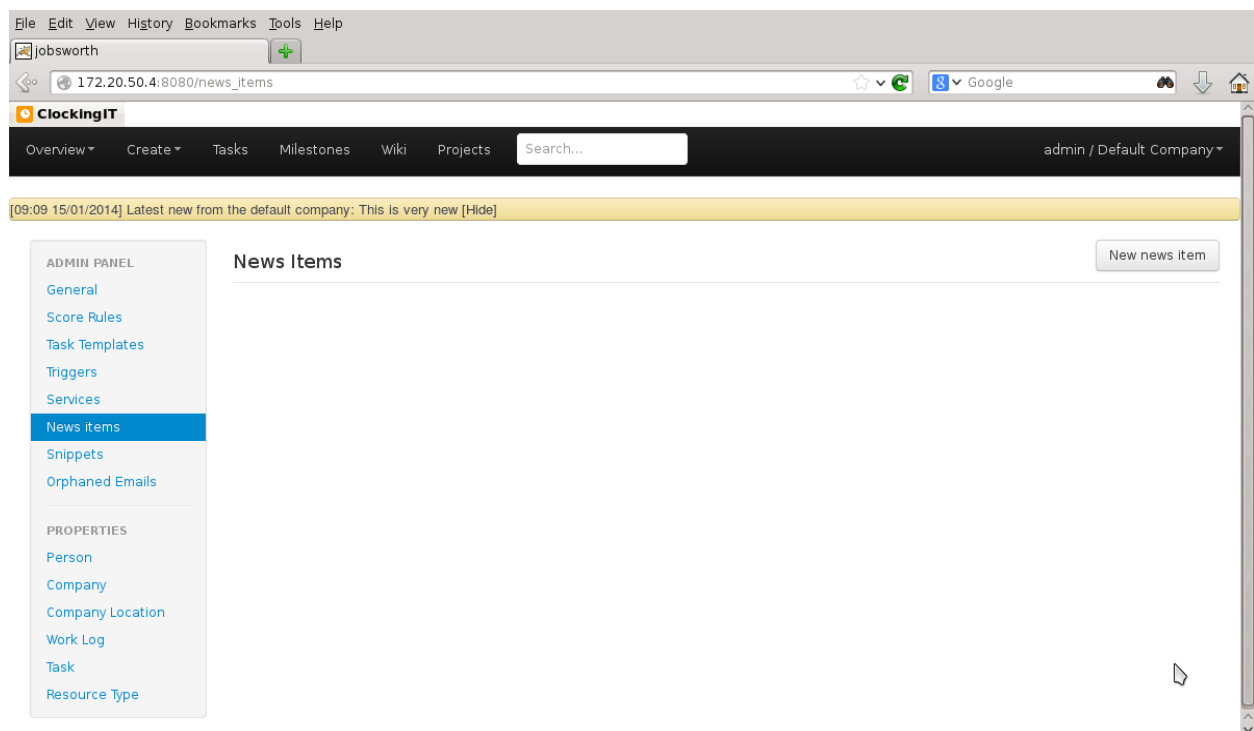
FIGURE 11.29: NEWS ITEMS
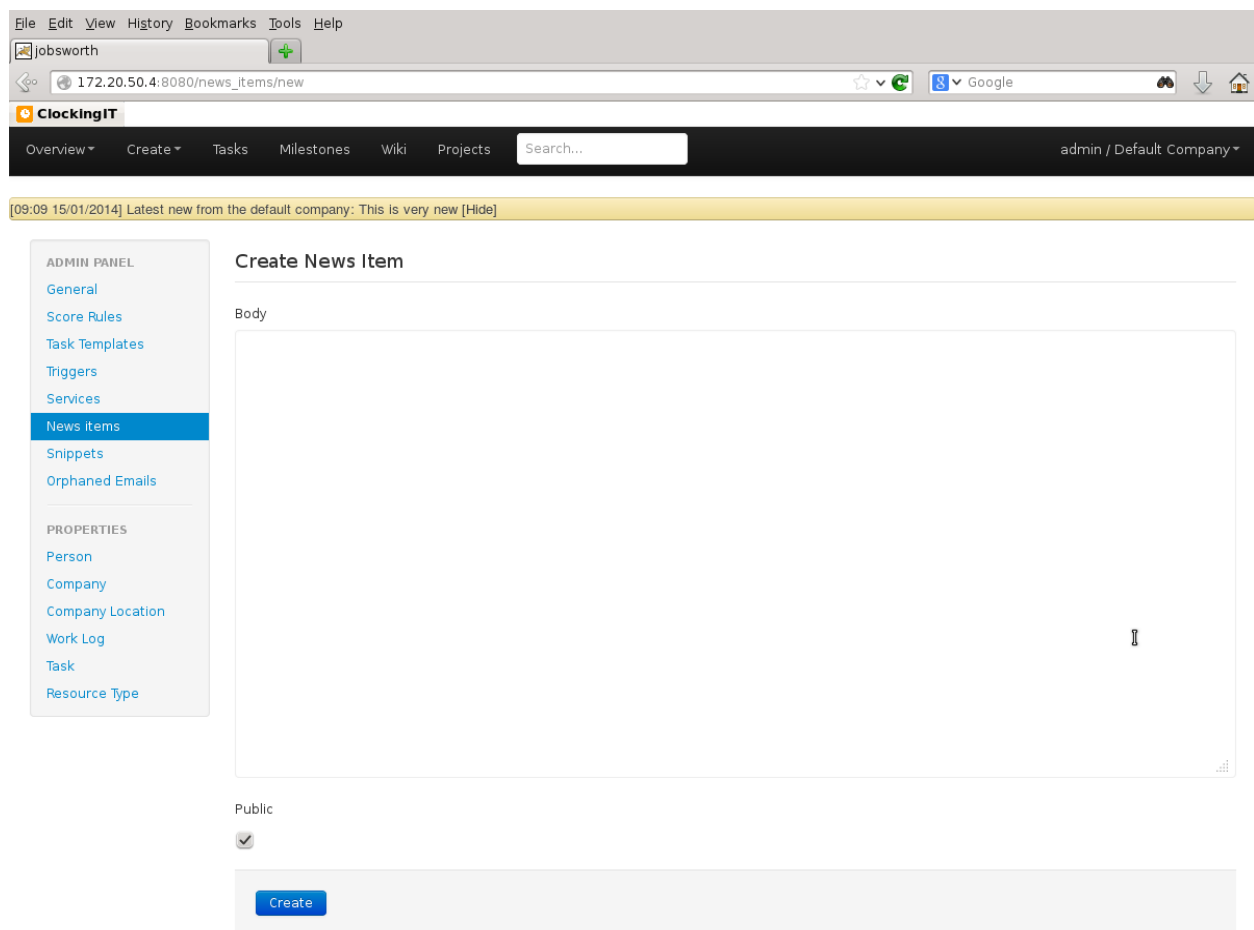
FIGURE 11.30: CREATE NEWS ITEM

11.9.7   Snippets
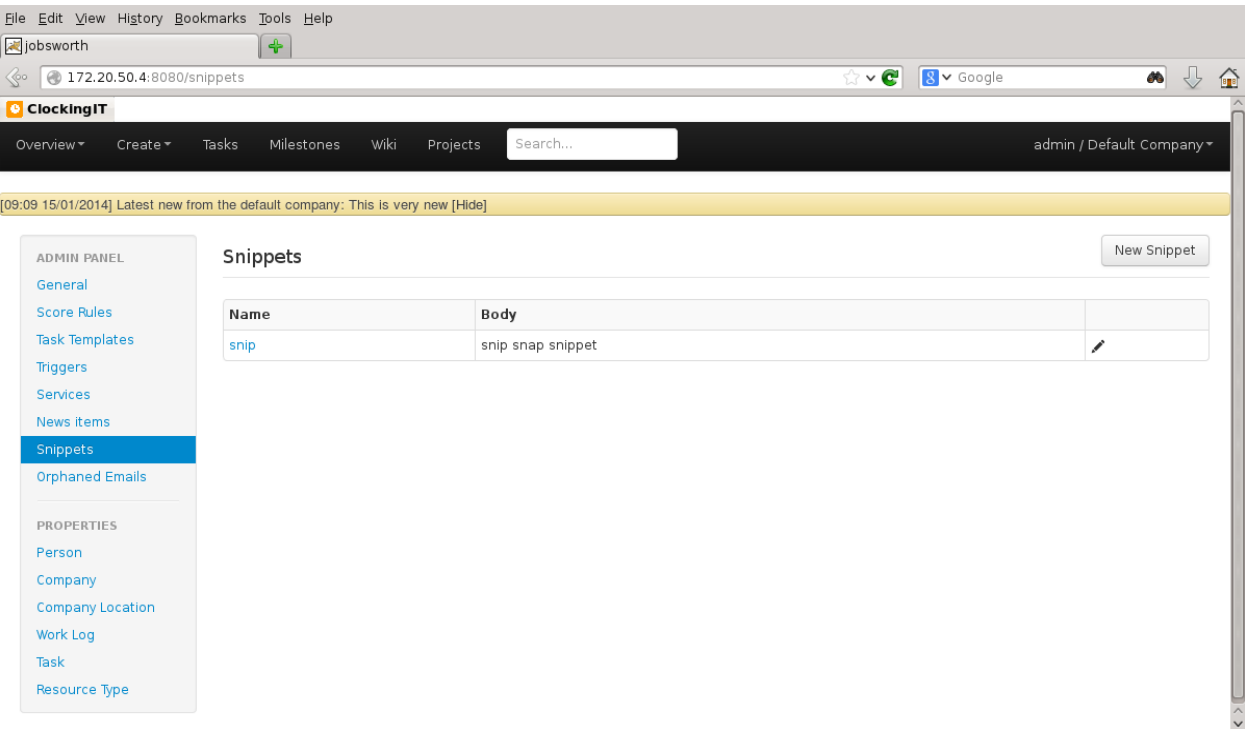
FIGURE 11.31: SNIPPETS

FIGURE 11.32: CREATE SNIPPET

11.9.8   Orphaned E-Mails
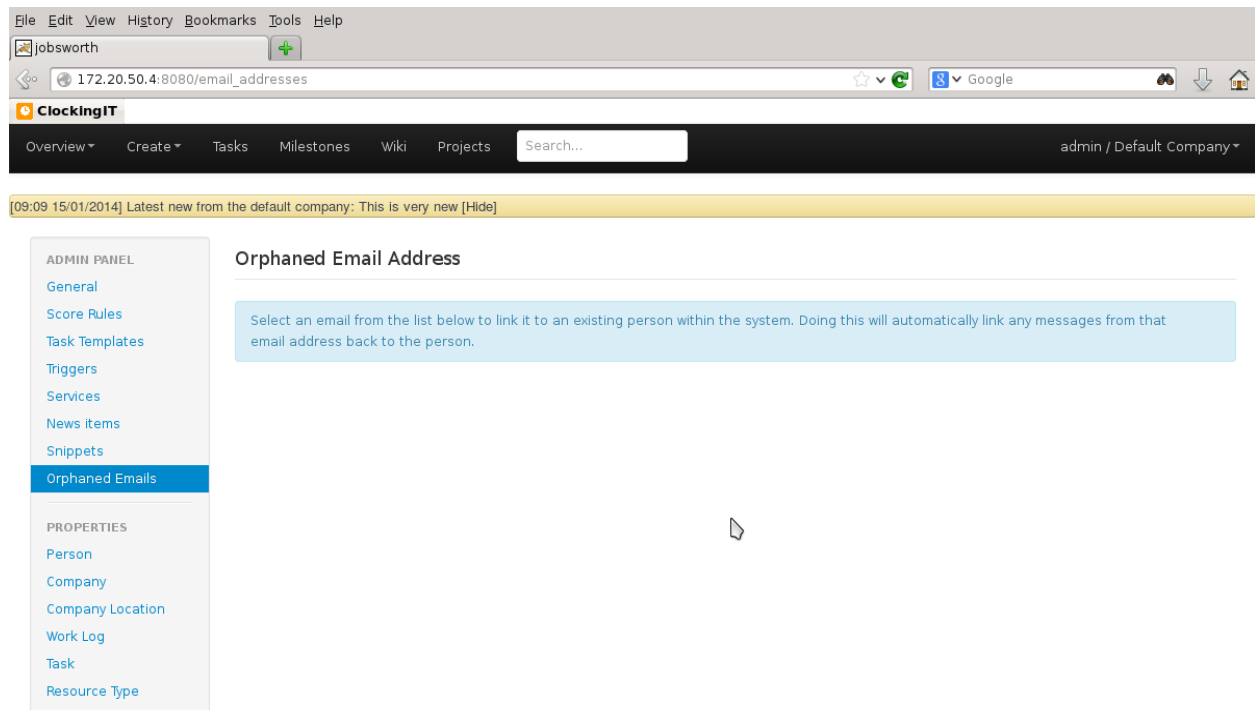
FIGURE 11.33: ORPHANED E-MAILS

11.10 Company Properties

11.10.1 Person

FIGURE 11.34: PERSON

11.10.2   Company
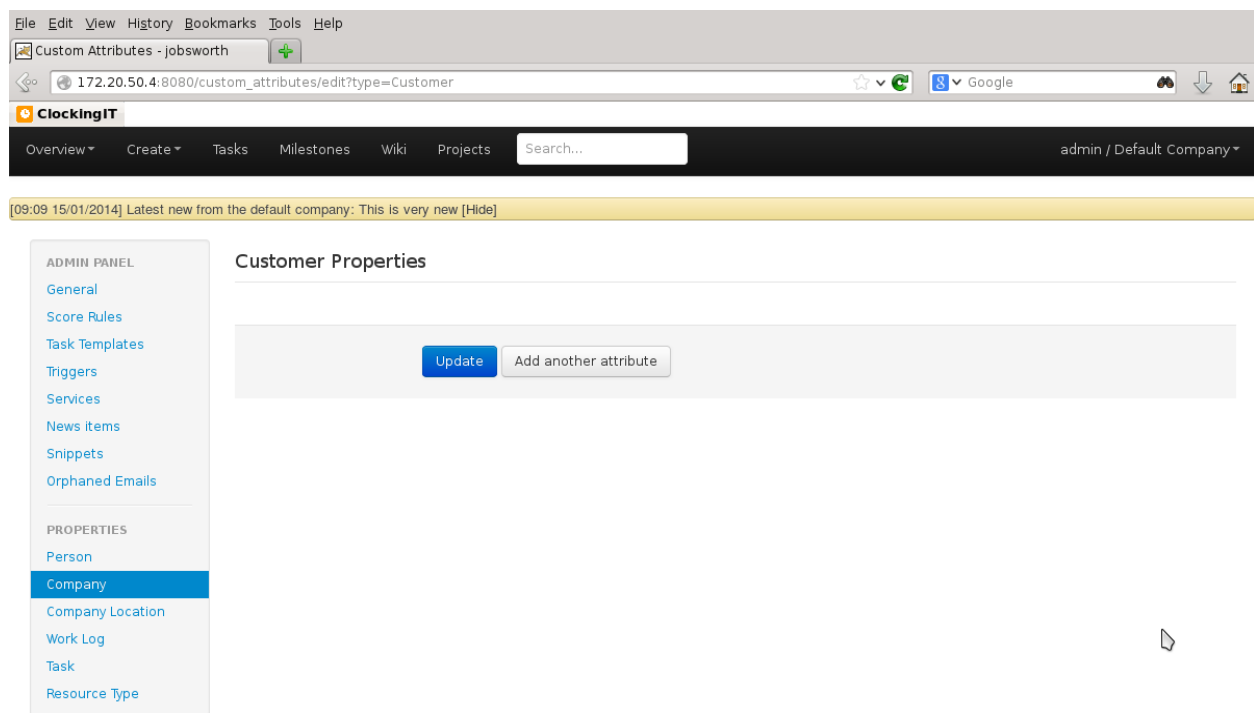
FIGURE 11.35: COMPANY

11.10.3   Company Location

FIGURE 11.36: COMPANY LOCATION

11.10.4   Work Log

FIGURE 11.37: WORKLOG

11.10.5   Task Properties

FIGURE 11.38: TASK PROPERTIES

11.10.6 Resource Type

FIGURE 11.39: RESOURCE TYPE

FIGURE 11.40: CREATE RESOURCE TYPE

12 Widgets

12.1 Filters

You will find the filter widget on many screens. It allows you to filter displayed content and therefore only show relevant information. Just select one of the predefined filters and it will appear within the task search widget (for more information see *Section 12.2.4, "Task Search"*).

12.2 Tasks

12.2.1 Newest Tasks

12.2.2 Next Tasks

12.2.3 Top Tasks

12.2.4 Task Search

12.3 Tags

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