

Request Tracker 3.8

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Request Tracker

- Bugtracking System for Perl / CPAN
- Trouble Ticket System
 - Companies
 - Organizations

Request Tracker

- Introduction
 - Basics
 - Customizations
 - Interfaces
- New Features
- Plugins
- Installation and upgrades from 3.6

Basics

- Ticket System
 - Tasks, Projects, Times, Teamwork
 - Queues
 - Tickets
 - Transactions
 - Status
 - Dates
 - Attachments
 - Users
 - Groups, Rights
-
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Customizations

- Custom Fields
- Scripts
- Extensions (Plugins)



Interfaces

- Web
 - View and manipulate tickets
 - Convenient but not lazy
 - Email
 - Create, correspond, comment on tickets
 - Manipulate tickets through plugins
 - Commandline
 - View and manipulate tickets
 - REST
 - View and manipulate tickets with Perl scripts
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CLI

New Queue:

```
$ rt create -t queue set name='Perl-Workshop'  
# Queue 4 created.
```

New Ticket:

```
$ rt create -t ticket set subject='Presentation  
Slides' \  
    set queue='Perl-Workshop'  
# Ticket 11 created.
```

CLI

Display ticket:

```
$ rt show ticket/11 -f
  id,subject,queue,requestors,owner
id: ticket/11
Subject: Presentation Slides
Queue: Perl-Workshop
Requestors: racke@linuxia.de
Owner: Nobody
```

Playground

URL: <http://support.linuxia.de/rt>

Login: oslo/oslo6

Queue: Nordic Perl Workshop

Email: npw@support.linuxia.de

RT 3.8 Features

- Ticket Bookmarks
 - Dashboards
 - Richtext email
 - Email signatures and encryption
 - Charts of Ticket Relationships
 - Email digests
 - Session expiration
 - Plugins
 - Visual Style
 - Bug Fixes
-
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Ticket Bookmarks

- Add/remove bookmarks
 - * at upper right corner of ticket display
- List bookmarks
 - RT at a Glance/Edit

Dashboards

- Contents
 - Saved Searches
 - Saved Graphs
 - Ticket Relationship Graphs
- Location
 - Tools/Dashboards

Dashboard Rights I

- Create
 - CreateDashboard, CreateGroupDashboard, CreateOwnDashboard
 - Delete
 - DeleteDashboard, DeleteGroupDashboard, DeleteOwnDashboard
 - Modify
 - ModifyDashboard, ModifyGroupDashboard, ModifyOwnDashboard
 - See
 - SeeDashboard, SeeGroupDashboard, SeeOwnDashboard
 - Subscribe
 - SubscribeDashboard
-
-

Dashboard Rights II

- Saved Searches
 - CreateSavedSearch
 - ShowSavedSearch
 - LoadSavedSearch
- <http://wiki.bestpractical.com/view/Rights>

Richtext Email

- WYSIWYG editor for HTML emails
 - FCKeditor
 - Excellent cross-platform support
 - Local copy in html/NoAuth/RichText
 - Just plain text
 - Set(\$MessageBoxRichText, 0);
 - Preferences/General (ModifySelf)
 - Display improvements
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Richtext Email

The screenshot displays the Request Tracker 3.8 web interface in a browser window. The address bar shows the URL: `http://support.linuxia.de/rt/Ticket/Update.html?Action=Respond&id=1159`. The browser's toolbar includes various icons for navigation and editing. The page header shows the site name "RT for support.linuxia.de" and the user is logged in as "vienna".

The main content area is titled "Update ticket #1159 (Request Tracker 3.8)". It features a sidebar on the left with navigation links: Home, Simple Search, Tickets, New Search, Edit Search, Advanced, Show Results, Bulk Update, #1159, Tools, and Approval. The main form includes fields for Status (open (Unchanged)), Owner (bratislava (Unchanged)), Worked (Minutes), Update Type (Reply to requestors), Subject (Request Tracker 3.8), One-time Cc, and One-time Bcc. There is an "Attach" section with a "Browse..." button and an "Add More Files" button. Below these is a rich text editor with a toolbar containing various icons for text formatting and insertion. The text in the editor reads: "Request Tracker is *written* in Perl, a cool and colorful language." The word "written" is italicized, and "colorful" is split into "color" (blue) and "ful" (red). A "Update Ticket" button is located at the bottom right of the form.

The footer of the page includes a search bar with the text "Find: vienn", navigation links "Previous" and "Next", and checkboxes for "Highlight all" and "Match case". The bottom status bar shows "Transferring data from support.linuxia.de..." and a "FoxTrick" icon.

In the bottom right corner, there is a logo for "BEST PRACTICAL" and the text "RT 3.8.1 Copyright 1996-2008 Best Practical Solutions, LLC."

Email Signatures and Encryption

- verify PGP signatures on incoming messages
- decrypt encrypted messages
- sign and encrypt outgoing mail

Encryption: Setup

RT's GnuPG libraries couldn't successfully read your configured GnuPG home directory (/var/cache/request-tracker3.8/data/gpg). PGP support has been disabled

```
cd /var/cache/request-tracker3.8/  
mkdir -p data/gpg  
chown -R www-data data  
chmod -R o-rx data
```

```
su www-data  
GNUPGHOME=data/gpg gpg --gen-key
```

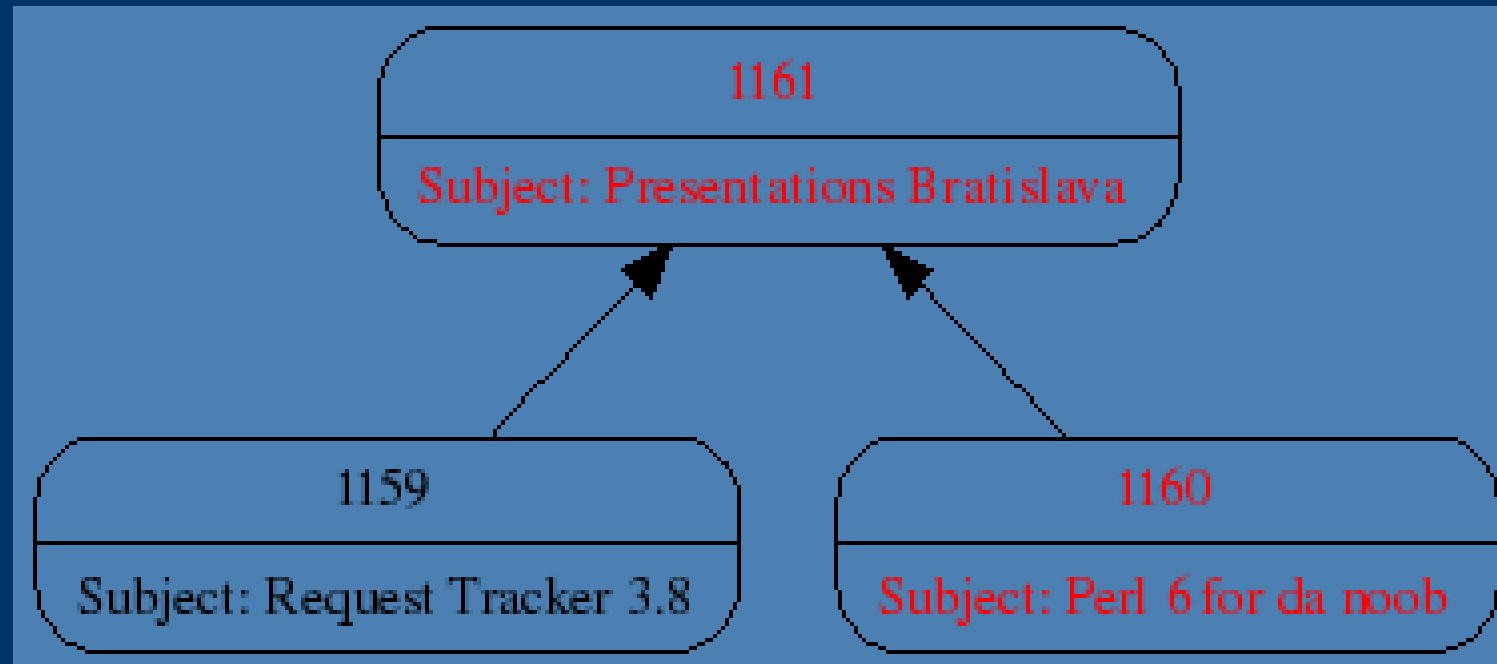
Encryption: Configuration

```
Set ( %GnuPG,  
Enable=>1,  
OutgoingMessagesFormat=>'RFC',  
AllowEncryptDataInDB=>0,  
);  
Set ( %GnuPGOptions,  
'passphrase'=>'foobar',  
'no-permission-warning'=>undef,  
'homedir'=>' /var/cache/request-  
tracker3.8/data/gpg'  
);  
Set (@MailPlugins, 'Auth::MailFrom',  
  'Auth::GnuPG',  
);
```

Encryption: Queues

- Create key for correspond and comment address
- Sign by default / Encrypt by default

Charts of Ticket Relationships



Charts of Ticket Relationships

- Ensure modules are installed, otherwise silent failure
- `./sbin/rt-test-dependencies`
`--with-GD --with-GRAPHVIZ`

Mail Delivery / Digests

- Preferences/Mail
 - Needs ModifySelf right
- Delivery Options
 - Individual
 - Daily
 - Weekly
 - Suspended
- Cronjob for Digests

Session Expiration

- No expiration save by closing the browser
- Now with rt-clean-sessions

Plugins

- Extensions for RT
 - Interface formalized in 3.8
- Download: CPAN
- Installation
 - Standard module installation
 - RTHOME environment variable
- Configuration: RT_SiteConfig.pm
 - @Plugins
 - @MailPlugins

Plugins

- RTx::Calendar
 - RT::Authen::ExternalAuth
 - External lookup of authentication and information
 - RTx::EmailCompletion
 - Auto completion on email fields
 - RT::Extension::EmailByCommand
 - RT::Extension::ExtractCustomFieldValues
 - Extract custom values from emails
 - RT::Extension::ActivityReports
 - Reporting tools to analyze activity
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New Features: Conclusion

- Documentation missing
- Bugs in new features



Installation, Upgrade and Configuration

- Installation
- Upgrades from RT 3.6 to RT 3.8
- Configuration

Installation: Debian vs RedHat

- Debian
 - Tons of packaged Perl modules
 - Debian Perl Group
 - Perl used for many system/packaging tools
 - RT 3.8 packages missing :-(
- RedHat
 - notoriously breaking Perl (modules)
 - Scalar::Util from CPAN

Installation: Prerequisites

- Perl 5.8.3
 - SQL database
 - MySQL (4.0.13 or later with InnoDB support)
 - PostgreSQL (7.2 or later)
 - Oracle (9iR2 or later)
 - SQLite (3.0 or later)
 - Webserver
 - Apache 1.3.x or 2.x
 - mod_perl
 - FastCGI
 - Other
 - FastCGI
 - Perl modules
-
-

Installation

- Download and unpack tarball
 - <http://download.bestpractical.com/pub/rt/release/rt.tar.gz>
- Read README
- `./configure`
 - `/opt/rt3`
- `make testdeps`
- `make fixdeps`
- `make install` (as root)
- edit configuration
 - `/opt/rt3/etc/RT_SiteConfig.pm`

Edit Configuration

```
# THE BASICS:
```

```
Set($rtname, 'support.linuxia.de');  
Set($Organization, 'support.linuxia.de');
```

```
Set($CorrespondAddress ,  
'rt@support.linuxia.de');  
Set($CommentAddress ,  
'rt-comment@support.linuxia.de');
```

```
# THE WEBSERVER:
```

```
Set($WebPath , "/rt");  
Set($WebBaseURL , "http://support.linuxia.de");
```

Database Configuration and Setup

Configuration

```
Set ($DatabaseType, 'mysql');  
Set ($DatabaseHost, 'localhost');  
Set ($DatabaseName, 'support');  
Set ($DatabaseUser , 'support');  
Set ($DatabasePassword , 'mysecret');
```

Setup

```
make initialize-database
```

Edit Configuration: Database

```
Set ($DatabaseType, 'mysql');
```

```
Set ($DatabaseHost, 'localhost');
```

```
Set ($DatabaseUser , 'support');
```

```
Set ($DatabasePassword ,  
    'mysecret');
```



Webserver Configuration

```
<VirtualHost 85.10.244.99:80>
    ServerName support.linuxia.de
    DocumentRoot /opt/rt3/share/html
    AddDefaultCharset UTF-8

    PerlRequire "/opt/rt3/bin/webmux.pl"

    <Location /NoAuth/images>
        SetHandler default
    </Location>
    <Location />
        SetHandler perl-script
        PerlResponseHandler RT::Mason
    </Location>
</VirtualHost>
```

Installation: Finish

- Change password for RT root user
 - Default is password
- Create
 - Queues
 - Users
 - Groups
 - Rights
 - Mail aliases

Email Gateway: Aliases for Queues

```
tcpw@support.linuxia.de:  
/usr/bin/rt-mailgate --queue 'Twincity  
Perl Workshop' --action correspond --url  
http://support.linuxia.de/rt
```

```
tcpw-comment@support.linuxia.de:  
/usr/bin/rt-mailgate --queue 'Twincity  
Perl Workshop' --action comment --url  
http://support.linuxia.de/rt
```

Upgrading 3.6 => 3.8: Preparations

- Take RT offline
- Backup database
 - `mysqldump support > support.dmp`

Upgrading 3.6 => 3.8: MySQL

- Apply schema upgrade
 - perl etc/upgrade/schema.mysql-4.0-4.1.pl db user pass
> sql.queries
 - Check queries
 - mysql < sql.queries
- Consequences
 - Repeated logins
 - Corrupted attachments

Upgrading 3.6 => 3.8

Update files and binaries

```
make upgrade
```

Update database

```
/opt/rt3/sbin/rt-setup-database --dba  
root --prompt-for-dba-password --action  
upgrade
```

Clear mason cache

```
rm -fr /opt/rt3/var/mason_data/obj
```

Restart webserver

Cronjobs: Mail Digest

```
/etc/cron.daily/request-tracker3.8  
# Send daily RT emails.  
/usr/sbin/rt-email-digest -m daily
```

```
/etc/cron.weekly/request-tracker3.8  
# Send weekly RT emails  
/usr/sbin/rt-email-digest -m weekly
```

Cronjobs: Mail Dashboards

```
/etc/cron.hourly/request-tracker3.8  
# Send RT dashboard emails  
/usr/sbin/rt-email-dashboards
```



Conclusion

- Use RT and report bugs
- Get slides
 - <http://www.linuxia.de/talks/npw2009/>
- Contact me
 - racke@linuxia.de
 - IRC #rt