Savane functionality :

A guide to user account and project configuration

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by Irene Fernández Monsalve

Revision History

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About this document

The aim of this document is to provide an overview of what savane is, what features it has, and how they can be configured by users and project administrators. It has two types of content: generic description of the application, features, and basic concepts, and more practical sections, focusing on how to configure a user account, and a project, at a savane powered site. This second part can be used as a configuration guide, although, inevitably, it is also a description of savane functionality, providing a complementary insight to the first part.

In chosing what to include or exclude from this document, I took into account the existing documentation on savane. My objective was to "fill holes" and avoid repetition. As a result this guide:

- Does not provide *technical descriptions* of how things work, or configuration instructions for site administrators (you can refer to the *savane installation guide* for that).
- Does not explain how to *use* savane project services: how to upload files to download area, how to commit changes to the repository, etc. (implementing platforms, such as Gna! (http://gna.org) and Savannah (http://savannah.gnu.org) offer useful and concise *FAQs* on these topics).

Chapter 1. Introduction to Savane

1.1. What it is

Free software has a particular engineering process, involving decentralized collaboration of many people. Special tools to allow collabortaive work are needed to canalize these decentralized efforts, and provide communication channels, such as mail lists, version control and bug tracking systems. Web platforms, offering these services without the need for client installation, have become central points for free software development.

Savane is such a web-based free software hosting system. Through a web interface, and without the need of client installation, it provides an environment for collaborative work. It powers free software development platforms such as Gna! (http://gna.org) and Savannah (http://savannah.gnu.org). However, its project management tools, and high levels of customization, make it an interesting general project hosting and management system, having been chosen by CERN's LCG software process and infrastructure project (http://savannah.cern.ch).

It integrates functionalities and artifacts implemented by the own platform (account management, trackers, news system...) as well as different external applications installed in the system running savane (Mailman for mail lists, and CVS/Subversion/Arch for version control). In addition, system disk space can be provided, for download area, repositories, or home page hosting.

As a result, through a mere web browser anywhere, access to a full set of collaborative work and project management tools is provided:

1.1.1. Communication tools

- Mail Lists (through Mailman)

  Savane takes advantegae of Mailman's web interface, providing easy access to administration and user functions.

- News system
- Support tracker

  Savane offers several different kinds of fully customizable trackers. They are explained in detail in the last chapter.

- Mail notification system.

  Savane implements a customizable mail notification system, making sure that users keep up to date with information that affects them, without the need of visiting the site. It is customizable at different levels: system admin, project admin, personal account configuration.

1.1.2. Development

- Bug tracker
- Version control systems

  Through a savane platform, users can potentially access different kinds of source code managers installed in the system: CVS, Subversion, Arch. In addition, repository and change browsing is provided through viewcvs

1.1.3. Visibility

Through http download area, and the possiblity to host or link with project homepages.

1.1.4. Project management

1. Fast project setup

   Default values for project type will be predefined by the site administrator, so that the project pages will be ready for use with almost no additional configuration. In addition, savane offers the possiblity to copy tracker configuration from other projects hosted at the site.

2. Task tracker

   The savane trackers offer a series of additional functionalities (see next chapters), useful for project management:

   - Dependency system between tracker items (across tracker kinds and projects)
   - Reassignation of items (to other trackers, to other projects)
   - Automatic fields update

     For example, if an item's severity field is set to "security", it could automatically be set to "private", and be assigned to a specific technician.

   - Item digest

     Can be used to generate release notes.

3. Request for inclusion

   Users can request to be included in a certain group, which might save project admin's time in searching for users in the database.

1.2. How a savane powered platform works

In such a pltaform, we will have different kinds of users: platform maintainers, project members, generic users. Each of them will have different access level to various services and artifacts. Savane provides the following pre-defined role scheme to control access and use:

1. Anonymous user

   Anyone visiting the platform web pages. Will be able to read public information, and depending on project configuration, post items on certain trackers.

2. Authentified user

   Anyone who has registered a user account at the platform. Will be able to request project registration, as well as posting items on certain trackers (depending on project configuration).

3. Group member

   Any registered user member of a group. Will be able to post on trackers, as well having access to system services, via the web pages or via shell (user accounts are provided at the system running savane). Access to tracker item handling will depend on specific group member roles (we'll see this in more detail in the last chapter):

   - Technician
   - Manager
   - Manager and Technician

4. Project administrators

   A user that registers a project becomes project administrator. Will be able to configure project's services and set access level for trackers and news.

5. System (server) admininistrators: superuser

   Controls the whole platform, configuring services offered for different kinds of projects.

1.2.1. Levels of configuration

Configuration of a savane site is therefore done at three different levels:

1. Site administration

   Will define what services to implement in general, and will configure different group types with different default values and services.

   Can manage platform users and projects. (Delete, accept, assign to a group)

2. Project administration

   Will inherit defaults and service settings from the group type it belongs to, but will be able to deactivate certain services, and customize certain artifacts. (If site administrators allow it, it will be possible to configure many of the project's links)

   Can accept users to the group, and manage roles of project members.

3. Indiviudal user account

   Personal information management, configuration of personal notifications.

1.2.2. Administration of a savane powered site

A savane powered site will be administered through a special kind of project, hosted at the own site, thus benefiting from all the tools provided for projects.

For example, site administrators' responsability for approving/rejecting projects seeking hosting at the site is handled via the administration project's task tracker (new project request will appear as a new opened task).

The services that will be offered to projects are totally customizable by site administrators, who can chose to offer/deactivate different features or artifacts. One important feature of savane is the "Group type" (=project type). Different types of projects can be defined by site administrators, setting different services and default values according to project nature. In this way, through a unique platform and application, administrators have the possibility to offer quite different services, and different levels of system access and customization, depending on project type.

Chapter 2. Users

2.1. Registration process

User registration is a simple, automatic process. It only requires the introduction of user name, password, e-mail address, and real name. A confirmation mail is automatically sent to the given address, with an URL that must be visited to activate the registration.

It is very important to provide a valid, frequently visited email address, since in addition to registration activation, it will be used to send notifications of all events that might affect, or be of interest to the user.

2.2. Functionalities and configuration

Once registered, a user will be able to use the web interface to keep track of issues of interest to her/him, as well as editing personal information and configuring preferences regarding site appearance and notification handling. This is done through to the following personal sections:

2.2.1. My Incoming Items

Provides a list of recent items (< 16 days) the user should have a look at. These include:

- Items recently posted on trackers managed by the user that are still unassigned
- Items that have been recently assigned to the user (by someone else)
- News posted on projects the user is a member of

2.2.2. My Items

List of items assigned to or submitted by the user.

2.2.3. My Groups

Shows a list of groups (projects) the user is a member of (as administrator, and as contributor), as well as a form for asking for inclusion in a new group.

This section also shows partners being watched. Watching a partner (receiving a copy of all the notification sent to him/her) permits to act as backup when the partner is away from the office, or to do QA to all his/her activities on a project.

2.2.4. My Account Conf

Divided into three subsections, this area provides:

1. Personal information edition.

   Includes GPG key addition (allowing message encription and origin certification), as well as a resume and skills section to post details about user’s experience and skills.

2. Authentication handling

   Two authentication methods are used: password to gain access to the web interface, and SSH key pair to gain access to the remote system via shell (be it secure shell access, or to run **`rsync`** or **`cvs`** commands). Through this interface, a public key must be registered by a user member of a group wishing to access sub-systems.

Preferences

Through this section, the user can customize certain aspects (theme/colour scheme, integrated bookmarks use, email address visibiliy, order in which items are displayed), and edit personal notification settings. The user can customize which of the following item events will trigger notifications, depending on user’s role in the item (submitter, assignee, cc, commenter):

- Addition/removal from the role
- Addition of new follow-up comment
- Addtion of new file attachment
- Inclusion/removal of new CC address
- Item closing
- Priority, status, severity changes
- Any other change
- Submission of new item

In addition, this subsection allows reminder configuration: users can receive reminders about opened items assigned to them, when their priority is higher than 5; as well as subject line configuration of notifications.

Chapter 3. Projects

3.1. Registration process

Project registration is not an automatic process. Approval from site administrators is needed, and will be granted if the submission includes sufficient detail in project description, and if the nature of the project is concordant with site's philosophy and goals. A user wanting to register a project, thus benefiting from site's services, will need to undergo five steps:

1. Hosting services and requirements

   The user is informed of services provided (aimed at software development, docuementation, event organization, system administration of machines etc.), and the conditions of use.

2. Project description and dependencies
3. Project full and unix names

   The "Full Name" is descriptive, not too restrictive (except from a 40 character limit) and can be changed later on. The "System Name" can only be changed by the site administrators, and has several restrictions because it is used in many places around server system, including directory names, CVS repository name, group names, etc.

4. Choice of license
5. Project type

   The site can host different types of project. The kind of project selected will pre-choose tools that will be available for that project.

After submitting the project registration request, the user must wait for approval, rejection, or further information requests. A mail notification is sent to the user, with an URL to visit in the case the submittal needs to be completed before approval can take place.

3.2. Functionalities and configuration

The public information and utilities your project will display to any kind of user include:

1. General project details:
   - Short project description and its license
   - Membership info: project admins, and project members (automatically generated).
   - Group identification: id, system name, name, and group type (automatically generated).

2. Latest news
3. Quick Overview
   - Project homepage

   - Filelist (download area)
   - Project memberlist

4. Communication Tools
   - Support Manager (tracker)
   - Mailing lists
   - Forum (this is a deprecated feature, which might not be available)

5. Development Tools
   - Source Code Manager and repository
   - Bug tracker
   - Task manager (tracker)
   - Patch manager (this tracker is a deprecated featrues, which might not be available)

Being logged in as administrator of the project you'll be able to access the administration interface, through which you can configure different kinds of features, that we will now examine.

3.2.1. Main

Through this area, you will define the general characteristics of your project:

- Project description

  Introduce a new project description, or edit an existing one. You can also set the stage your project is at (planning->...->mature).

- Active features

  Choose what features/services you want for your project. You can activate or deactivate a feature/artifact (homepage, download area, different trackers, mailing lists...), from the list available for your group type (previously defined by the site's administrator). In some cases, depending on the system administrator's choices, you can even change the URL for a feature/artifact. If the "alternative url" field is empty, the standard is used.

- Add/Remove group members
- Set tracker permissions and notification policy

  You will inherit posting and group permissions for trackers from your group type, but can modify them to suit your particular needs. You can also customize the list of addreses that will be notified of tracker events, with global and per category include/exclude lists. Another configuration option regarding trackers, if the defaults do not suit you, is to copy the configuration of other projects in the platform you are a member of. More on tracker configuration will be seen in the next chapter.

- Show history

  Keep track of all your project's modifications

- Post/edit jobs

  You can publicly offer jobs, that will appear in the "Help wanted" section at the platform's homepage. You must set a category for the job offer (translator, support manager, developer, ...) and submit a description of the tasks to accomplish.

3.2.2. Mailing lists

Mailing list feature is provided through Mailman. You can create a new public or private mailing list, with the naming restrictions set by the system administrator. Links for list administration are also provided, connecting with Mailman's list administration interface, having access to all its functionality.

3.2.3. News

From the Administration⟶News menu, you will be able to set news notification. However, news management (approval/deletion) is done through the Public⟶News menu. The News management link will only be visible if you are logged in as the project administrator. Before being published, news must be approved first by project admin.

3.2.4. Forum

This is a deprecated feature, for which support is no longer provided. The savane team disadvice its usage, and it is likely it won't be available for your project. If it is, through the forum administration menu you'll be able to create new forums, and set group members to monitor them.

3.2.5. Trackers (support, bugs, tasks, patches)

Tracker management and configuration is a large issue, so it will be handled on its own in the next chapter.

Chapter 4. Issue tracker configuration

Savane potentially offers four different issue trackers. They are highly customizable by project admins (as we'll see later), in what concerns both fields and values, and posting permissions. Their purpose and use will therefore largely depend on each project's configuration.

4.1. Kinds of trackers

Although they share the same working mechanisms and functionalities, they were created and predefined for different and distinct purposes, inheriting according default values. In savane's server administration area, we are informed of the purpose and use these trackers are supposed to have:

1. Support request manager

   Projects are supposed to use it as primary interface with end user.

2. Bug tracker

   Unlike the support tracker, it is supposed to be used mainly to organize the workflow amongst project members related to bugs. Projects with large audience should probably not accept item posting by people that are not member of the project on this tracker, and instead redirect end user to the support tracker (and only real bugs would be reassigned to this tracker). But that's only a suggestion.

3. Task tracker

   Unlike the support tracker, it is supposed to be used mainly to organize the workflow amongst project members related to planned tasks. It's the counterpart of the bug tracker for regular and planned activities.

4. Patch manager

   This is a deprecated issue tracker. As a result, your project might not have the choice to use it. However, it might evolve in the future to a "namaless" issue tracker, leaving up to server or project admins the definition of its purpose.

Through such a tracker scheme, therefore, communication tools (and filters) are provided to direct information from end-users to project managers: end users-->SUPPORT TRACKER-->team members-->BUG TRACKER-->project management-->TASK MANAGER.

4.2. Tracker configuration

Savane's trackers can be finely configured to fit your needs. Through the project's Administration menu, you'll be able to:

4.2.1. Manage field usage and values

You can define which fields you want to use with a particular tracker for your project. (remark: some of the fields are mandatory and cannot be removed). There are more than 25 standard pre-defined fields to chose from, in addition to custom text field, text area, select box and date fields you can use to incorporate your own fields, tailored to your needs.

You can also define and modify a series of field properties, including:

- Visible field size and maximum length
- Allow empty value
- Keep change history
- Display properties: you can assign a rank on screen (will determine the position of the field in the form: lower number ranks have a higher priority, and will appear first), and which submission forms it will be displayed on: those used by project members, logged in users, non-logged in users.
- Define field values and transitions. You can add/edit values for a given field, in addition to creating transitions. By creating transitions from one field value to another, you'll be able to define if it is allowed or not, and, in addition, set other fields automatic update when the defined transition takes place. For example, if the Status field suffers a transition from 'none'->'done', you might want the Open/Closed field to change automatically to 'closed'.

> If you set an automatic update of the field Open/Closed, technicians will be able to close items by changing the value of the field Status.

4.2.2. Manage Query Forms

New query forms for the trackers can be defined. You can chose which fields will be used as a search criteria, and as an output column, in addition to setting ranks on search and ouptut. Each query must be given a name, and a short description, so that a given user will be able to chose which query to use when searching for a given item. Two query forms are pre-defined, available for all projects, and cannot be edited: "basic" and "advanced".

4.2.3. Other settings

Again, you'll encounter the possibility of setting permissions (authentication level required to post messages) and managing notifications for the particular tracker, as well as copying the tracker's configuration from another project (thus overriding any configuration changes you might have done). Finally, you can also define a "submission form preamble", an introductory message showing at the top of the item submission form. It can be used to give a description of how you intend to use that particular tracker in your project.

4.3. Item handling

Once an item has been posted to a tracker, several actions can be taken:

- Follow up comments can be posted. Canned responses can be defined, giving generic answers to common problems, and thus saving a lot of time. No default canned responses are available, and must be defined for each particular project. Attached files can also be included.
- Mail notification CC list. List of email addresses to be notified upon updates of the item.
- Dependencies. A search facility is provided to find other items to set dependency relationships with. These can be established across tracker kinds (support to bug, etc) and across projects.
- Item reassignation. An item can be moved from one tracker to another, for example a support request can be moved into the bug tracker. It can also be reassingned to a different project.
- Finally, a history of item changes is provided.

However, not all these possibilites will be open to any project member, since there are different predefined roles for tracker and item handling. When a user becomes part of a group, he/she will inherit a default role, defined by savane server administrators for the group type, or by the own project administrator. Through Administration⟶Set Member Permissions menu, project admin will be able to edit default role values for new members, as well as assign roles to members on an individual basis (an editable list of group members and their roles is displayed).

4.3.1. Tracker roles

Below are the different roles group members can play regarding trackers:

- Technicians:

  Only technicians can be assigned tracker's items. They cannot reassign items, change their status or priority.
- Managers:

  Managers can fully manage tracker items, including assigning items to technicians, reassigning items over trackers and projects, changing priority and status of items - but they cannot configure the trackers.
- Project admins:

  Can manage members, configure the trackers, post jobs, and add mailing-list. They actually also have manager rights on every tracker and are allowed to read private items.

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