The Trac Ticket System

The Trac ticket database provides simple but effective tracking of issues and bugs within a project.

As the central project management element of Trac, tickets are used for project tasks, feature requests, bug reports and software support issues.

As with the <u>TracWiki</u>, this subsystem has been designed with the goal of making user contribution and participation as simple as possible. It should be as easy as possible to report bugs, ask questions and suggest improvements.

An issue is assigned to a person who must resolve it or reassign the ticket to someone else. All tickets can be edited, annotated, assigned, prioritized and discussed at any time.

Ticket Fields

A ticket contains the following information attributes:

- Reporter The author of the ticket.
- Type The nature of the ticket (for example, defect or enhancement request)
- Component The project module or subsystem this ticket concerns.
- Version Version of the project that this ticket pertains to.
- Keywords Keywords that a ticket is marked with. Useful for searching and report generation.
- Priority The importance of this issue, ranging from trivial to blocker.
- Milestone When this issue should be resolved at the latest.
- Assigned to/Owner Principal person responsible for handling the issue.
- Cc A comma-separated list of other users or E-Mail addresses to notify. Note that this does not imply responsibility or any other policy.
- Resolution Reason for why a ticket was closed. One of fixed, invalid, wontfix, duplicate, worksforme.
- Status What is the current status? One of new, assigned, closed, reopened.
- Summary A brief description summarizing the problem or issue.
- Description The body of the ticket. A good description should be specific, descriptive and to the point.

Note: Versions of Trac prior to 0.9 did not have the *type* field, but instead provided a *severity* field and different default values for the *priority* field. This change was done to simplify the ticket model by removing the somewhat blurry distinction between *priority* and *severity*. However, the old model is still available if you prefer it: just add/modify the default values of the *priority* and *severity*, and optionally hide the *type* field by removing all the possible values through trac-admin.

Note: the type, component, version, priority and severity fields can be managed with trac-admin or with the WebAdmin plugin.

Note: Description of the builtin *priority* values is available at ■TicketTypes

Changing and Commenting Tickets

Once a ticket has been entered into Trac, you can at any time change the information by **annotating** the bug. This means changes and comments to the ticket are logged as a part of the ticket itself.

When viewing a ticket, the history of changes will appear below the main ticket area.

In the Trac project, we use ticket comments to discuss issues and tasks. This makes understanding the motivation behind a design- or implementation choice easier, when returning to it later.

Note: An important feature is being able to use <u>TracLinks</u> and <u>WikiFormatting</u> in ticket descriptions and comments. Use <u>TracLinks</u> to refer to other issues, changesets or files to make your ticket more specific and easier to understand.

Note: See TracNotification for how to configure email notifications of ticket changes.

Note: See TracWorkflow for information about the state transitions (ticket lifecycle), and how this workflow can be customized.

Default Values for Drop-Down Fields

The option selected by default for the various drop-down fields can be set in trac.ini, in the [ticket] section:

- default_component: Name of the component selected by default
- default_milestone: Name of the default milestone
- default_priority: Default priority value
- default_severity: Default severity value
- default_type: Default ticket type
- default_version: Name of the default version
- default_owner: Name of the default owner, if no owner for the component has been set

If any of these options are omitted, the default value will either be the first in the list, or an empty value, depending on whether the field in question is required to be set. Some of these can be chosen through the WebAdmin plugin in the "Ticket System" section (others in the "trac.ini" section). The default owner for a ticket will be the component owner, if that is set, or default_owner, if not.

Hiding Fields and Adding Custom Fields

Many of the default ticket fields can be hidden from the ticket web interface simply by removing all the possible values through trac-admin. This of course only applies to drop-down fields, such as type, priority, severity, component, version and milestone.

Trac also lets you add your own custom ticket fields. See TracTicketsCustomFields for more information.

Assign-to as Drop-Down List

If the list of possible ticket owners is finite, you can change the assign-to ticket field from a text input to a drop-down list. This is done by setting the restrict_owner option of the [ticket] section in trac.ini to "true". In that case, Trac will use the list of all users who have accessed the project to populate the drop-down field.

To appear in the dropdown list, a user needs be registered with the project, *i.e.* a user session should exist in the database. Such an entry is automatically created in the database the first time the user submits a change in the project, for example when editing the user's details in the *Settings* page, or simply by authenticating if the user has a login. Also, the user must have TICKET_MODIFY permissions.

Note: See ■Populating Assign To Drop Down on how to add user entries at database level

Note 2: If you need serious flexibility and aren't afraid of a little plugin coding of your own, see FlexibleAssignTo (disclosure: I'm the author)

Note 3: Activating this option may cause some performance degradation, read more about this in the ■Trac performance page.

Preset Values for New Tickets

To create a link to the new-ticket form filled with preset values, you need to call the /newticket? URL with variable=value separated by &.

Possible variables are :

- type The type droplist
- reporter Name or email of the reporter
- **summary** Summary line for the ticket
- description Long description of the ticket
- **component** The component droplist
- version The version droplist
- severity The severity droplist
- keywords The keywords
- priority The priority droplist
- milestone The milestone droplist
- **owner** The person responsible for the ticket
- cc The list of emails for notifying about the ticket change

Example: /trac/newticket?summary=Compile%20Error&version=1.0&component=gui

See also: TracGuide, TracWiki, TracTicketsCustomFields, TracNotification, TracReports, TracQuery