

# Custom Ticket Fields

Trac supports adding custom, user-defined fields to the ticket module. With custom fields you can add typed, site-specific properties to tickets.

## Configuration

Configuring custom ticket fields is done in the `trac.ini` file. All field definitions should be under a section named `[ticket-custom]`.

The syntax of each field definition is:

```
FIELD_NAME = TYPE
(FIELD_NAME.OPTION = VALUE)
...
```

The example below should help to explain the syntax.

## Field Names

A field name can only contain lowercase letters a-z, uppercase letters A-Z or digits 0-9, and must not start with a leading digit.

The following field names are reserved and can not be used for custom fields:

- cc
- changetime
- col
- comment
- component
- desc
- description
- format
- group
- groupdesc
- id
- keywords
- max
- milestone
- or
- order
- owner
- page
- priority
- report
- reporter
- resolution
- row
- severity

- status
- summary
- time
- type
- verbose
- version

## Available Field Types and Options

- **text**: A simple (one line) text field.
  - ◆ label: Descriptive label.
  - ◆ value: Default value.
  - ◆ order: Sort order placement; this determines relative placement in forms with respect to other custom fields.
  - ◆ format: One of:
    - ◇ plain for plain text
    - ◇ wiki to interpret the content as WikiFormatting
    - ◇ reference to treat the content as a queryable value (*since 1.0*)
    - ◇ list to interpret the content as a list of queryable values, separated by whitespace (*since 1.0*)
- **checkbox**: A boolean value check box.
  - ◆ label: Descriptive label.
  - ◆ value: Default value, 0 or 1.
  - ◆ order: Sort order placement.
- **select**: Drop-down select box. Uses a list of values.
  - ◆ label: Descriptive label.
  - ◆ options: List of values, separated by | (vertical pipe).
  - ◆ value: Default value (one of the values from options).
  - ◆ order: Sort order placement.
- **radio**: Radio buttons. Essentially the same as **select**.
  - ◆ label: Descriptive label.
  - ◆ options: List of values, separated by | (vertical pipe).
  - ◆ value: Default value, one of the values from options.
  - ◆ order: Sort order placement.
- **textarea**: Multi-line text area.
  - ◆ label: Descriptive label.
  - ◆ value: Default text.
  - ◆ cols: Width in columns. (*Removed in 1.1.2*)
  - ◆ rows: Height in lines.
  - ◆ order: Sort order placement.
  - ◆ format: Either plain for plain text or wiki to interpret the content as WikiFormatting.
- **time**: Date and time picker. (*Since 1.1.1.*)
  - ◆ label: Descriptive label.
  - ◆ value: Default date.
  - ◆ order: Sort order placement.
  - ◆ format: One of:
    - ◇ relative for relative dates.
    - ◇ date for absolute dates.
    - ◇ datetime for absolute date and time values.

If the `label` is not specified, it will be created by capitalizing the custom field name and replacing underscores with whitespaces.

Macros will be expanded when rendering `textarea` fields with `format wiki`, but not when rendering `text` fields with `format wiki`.

## Sample Configuration

```
[ticket-custom]

test_one = text
test_one.label = Just a text box

test_two = text
test_two.label = Another text-box
test_two.value = Default [mailto:joe@nospam.com owner]
test_two.format = wiki

test_three = checkbox
test_three.label = Some checkbox
test_three.value = 1

test_four = select
test_four.label = My selectbox
test_four.options = one|two|third option|four
test_four.value = two

test_five = radio
test_five.label = Radio buttons are fun
test_five.options = uno|dos|tres|cuatro|cinco
test_five.value = dos

test_six = textarea
test_six.label = This is a large textarea
test_six.value = Default text
test_six.cols = 60
test_six.rows = 30

test_seven = time
test_seven.label = A relative date
test_seven.format = relative
test_seven.value = now

test_eight = time
test_eight.label = An absolute date
test_eight.format = date
test_eight.value = yesterday

test_nine = time
test_nine.label = A date and time
test_nine.format = datetime
test_nine.value = in 2 hours
```

**Note:** To make a `select` type field optional, specify a leading `|` in the `fieldname.options` option.

## Reports Involving Custom Fields

Custom ticket fields are stored in the `ticket_custom` table, not in the `ticket` table. So to display the values from custom fields in a report, you will need a join on the 2 tables. Let's use an example with a custom ticket field called `progress`.

```
SELECT p.value AS __color__,
       id AS ticket, summary, owner, c.value AS progress
FROM ticket t, enum p, ticket_custom c
WHERE status IN ('assigned') AND t.id = c.ticket AND c.name = 'progress'
AND p.name = t.priority AND p.type = 'priority'
ORDER BY p.value
```

**Note:** This will only show tickets that have progress set in them. This is **not the same as showing all tickets**. If you created this custom ticket field *after* you have already created some tickets, they will not have that field defined, and thus they will never show up on this ticket query. If you go back and modify those tickets, the field will be defined, and they will appear in the query.

However, if you want to show all ticket entries (with progress defined and without), you need to use a JOIN for every custom field that is in the query:

```
SELECT p.value AS __color__,
       id AS ticket, summary, component, version, milestone, severity,
       (CASE status WHEN 'assigned' THEN owner||' *' ELSE owner END) AS owner,
       time AS created,
       changetime AS _changetime, description AS _description,
       reporter AS _reporter,
       (CASE WHEN c.value = '0' THEN 'None' ELSE c.value END) AS progress
FROM ticket t
     LEFT OUTER JOIN ticket_custom c ON (t.id = c.ticket AND c.name = 'progress')
     JOIN enum p ON p.name = t.priority AND p.type='priority'
WHERE status IN ('new', 'assigned', 'reopened')
ORDER BY p.value, milestone, severity, time
```

Note in particular the LEFT OUTER JOIN statement here.

Note that if your config file uses an **uppercase** name:

```
[ticket-custom]

Progress_Type = text
```

you would use **lowercase** in the SQL: `AND c.name = 'progress_type'`.

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See also: [TracTickets](#), [TracIni](#)