
















1. Home	2
1.1 Kepler Custom Fields Documentation	2
1.1.1 Installation	3
1.1.1.1 Installation via Atlassian Universal Plugin Manager	4
1.1.1.2 Install notes for JIRA 7	4
1.1.1.2.1 What should I do if I installed an incompatible version?	4
1.1.1.3 Manual Install	4
1.1.1.4 Uninstall	5
1.1.1.4.1 Manual Uninstall	5
1.1.1.4.2 Uninstall via Atlassian Universal Plugin Manager	5
1.1.2 User Guide	6
1.1.2.1 Introduction	7
1.1.2.2 Requirements	7
1.1.2.3 Interval Custom Field	8
1.1.2.4 Regular Expression Custom Field	8
1.1.2.5 SIL Script Custom Field	9
1.1.2.6 Log Custom Field	14
1.1.3 Backup and restore	15

# Home

This is the home of the Kepler Custom Fields space.

To help you on your way, we've inserted some of our favourite macros on this home page. As you start creating pages, blogging and commenting you'll see the macros below fill up with all the activity in your space.

## Recently Updated

-  [KCF30](#)  
Feb 28, 2017 • attached by [Alexandru Geageac](#)
-  [Kepler Custom Fields 3.0](#)  
Feb 24, 2017 • created by [Confluence Administrator](#)
-  [What should I do if I installed an incompatible version?](#)  
Dec 02, 2015 • created by [Alexandra Topoloaga](#)
-  [Install notes for JIRA 7](#)  
Nov 16, 2015 • created by [Alexandra Topoloaga](#)
-  [Requirements](#)  
Nov 16, 2015 • created by [Alexandra Topoloaga](#)
-  [Backup and restore](#)  
Feb 19, 2015 • created by [Alexandru Geageac](#)
-  [Log Custom Field](#)  
Nov 25, 2014 • created by [Confluence Administrator](#)
-  [User Guide](#)  
Sep 12, 2014 • created by [Maria Cirtog](#)
-  [Manual Uninstall](#)  
Sep 12, 2014 • created by [Maria Cirtog](#)
-  [Uninstall via Atlassian Universal Plugin Manager](#)  
Sep 12, 2014 • created by [Maria Cirtog](#)
-  [uninstallKcf\\_success.png](#)  
Sep 12, 2014 • attached by [Maria Cirtog](#)
-  [uninstallKcf\\_2.png](#)  
Sep 12, 2014 • attached by [Maria Cirtog](#)
-  [uninstallKcf.png](#)  
Sep 12, 2014 • attached by [Maria Cirtog](#)
-  [plugins admin menu.PNG](#)  
Sep 12, 2014 • attached by [Maria Cirtog](#)
-  [Manual Install](#)  
Sep 12, 2014 • created by [Adrian Iasinschi](#)

### Navigate space

## Kepler Custom Fields Documentation

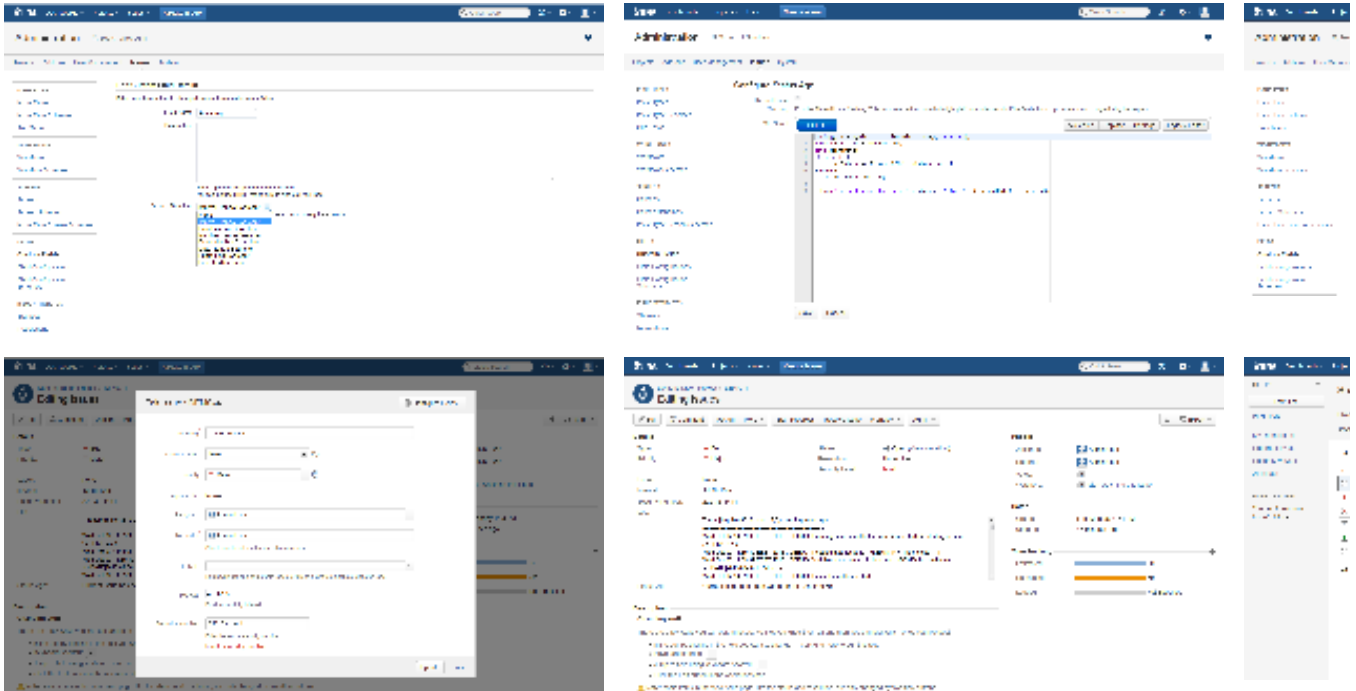


# Kepler Custom Fields

## Useful Custom Fields for JIRA

- Interval Custom Field
- SIL Script Custom Field
- Regex Custom Field

### Gallery



### Available Custom Fields

A suite of useful custom fields developed by Kepler-Rominfo.

#### New Features in version 1.1.1 and 2.1.1

- Log Custom Field

#### New Features in version 1.1 and 2.1

- Regex Custom Field
- SIL Script Custom Field

#### Custom Fields in version 1.0 and 2.0

- Interval Custom Field

### Installation

## Installation via Atlassian Universal Plugin Manager

This page points the simple steps to follow for installing the plugin using the Universal Plugin Manager. This method requires an internet connection.

### Manual Install

It may seem more complicated, but a manual install is quite easy to do. After all, all you have to do is to copy some files. Here's how.

#### Good practice

If you are already using a previous version of this plugin and you are installing a new one, please clear the cache of your browser after the installation to avoid errors due to the javascript changes.

## Installation via Atlassian Universal Plugin Manager

### Installation via Atlassian Universal Plugin Manager

If you are not familiar with Universal Plugin Manager (UPM), please read [this document](#) before we begin.

Steps are simple:

1. Enter the administration screen and go to *Plugins->Install* tab.
2. Search for **katl-commons** plugin and install it. This is a required dependency for Kepler Custom Fields.
3. Search for **keplerpcf** plugin and install it.

That's all.

### Install notes for JIRA 7

When upgrading from an older version of JIRA to JIRA 7, you must update all our plugins as well.

As you can see on this [page](#), the versions compatible with JIRA 7 are the 3.1.x versions.

### What should I do if I installed an incompatible version?

As we have said before, **3.0.x** versions are compatible with **JIRA 6.x** and **3.1.x** versions are compatible with **JIRA 7.x**.

If you have installed KCF 3.0.x on JIRA 7.x or KCF 3.1.x on JIRA 6.x, you should do the next steps :

1. Uninstall katl-commons
2. Uninstall KCF
3. Install the right version of KCF (the one compatible with your JIRA)
4. katl-commons should now have the right version as well

After you uninstall katl-commons, some plugins may remain disabled, so you may need to re-enable them manually.

### Manual Install

#### Manual Install

Do not worry, it's a simple task to install it manually:

1. Download the correct kepler custom fields obr file from [Atlassian Marketplace](#) or from our site: [Kepler Products](#).
2. Go to Administration->Add-ons->Manage add-ons. Install the previously downloaded obr file by using 'Upload add-on' link.
3. [\[Optional, but highly recommended\]](#): Enable logging on our modules. Open with a text editor of your choice the JIRA log4j configuration file *JIR*

`A_INSTALL_DIR/atlassian-jira/WEB-INF/classes/log4j.properties` and add these 2 lines at the end of it. Restart JIRA.

```
log4j.logger.com.keplerrominfo=INFO, filelog
log4j.additivity.com.keplerrominfo=false
```

## Uninstall

### Uninstall via Atlassian Universal Plugin Manager

This page shows the steps to uninstall the plugin using the Universal Plugin Manager.

#### Manual Uninstall

At first sight, this seem a little bit complicated but actually it isn't. All it has to be done is to remove the plugin manually and delete its tables from the internal database.

- [Manual Uninstall](#)
- [Uninstall via Atlassian Universal Plugin Manager](#)

#### Manual Uninstall

##### *Uninstall manually*

You need to have access where the Jira server has been installed.

Goto the folder where Jira server has been installed.

Access `<JIRA_APPLICATION_DATA>/plugins/installed-plugins` and manually delete `Kepler Custom Fields` plugin.

##### *Restart the server*

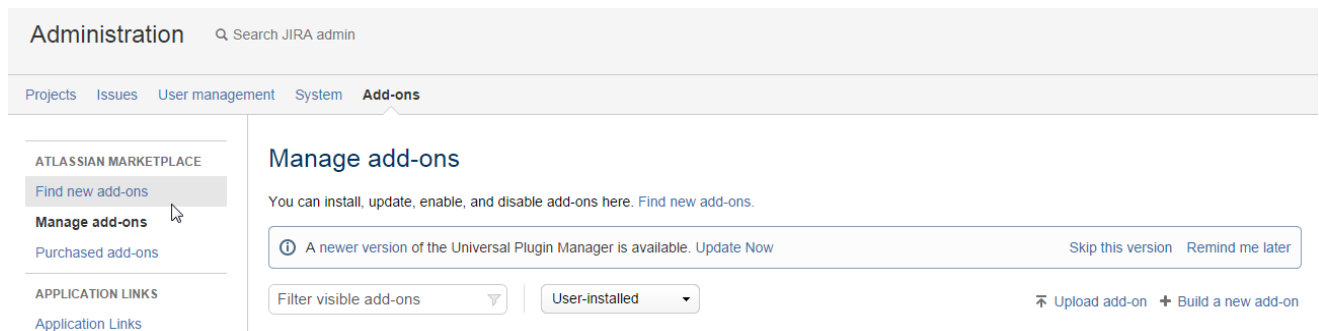
Now you can restart Jira server

### Uninstall via Atlassian Universal Plugin Manager

#### *Uninstall via Atlassian Universal Plugin Manager*

If you are not familiar with Universal Plugin Manager (UPM), please read [this document](#) before we begin.

- 1) Log in as administrator and go to Administration->Add-ons->Manage add-ons



The screenshot shows the Jira Administration console. The top navigation bar includes 'Administration' and a search field 'Search JIRA admin'. Below the navigation bar, there are tabs for 'Projects', 'Issues', 'User management', 'System', and 'Add-ons'. The 'Add-ons' tab is active, and the 'Manage add-ons' page is displayed. On the left side, there is a sidebar with 'ATLASSIAN MARKETPLACE' and 'APPLICATION LINKS'. Under 'ATLASSIAN MARKETPLACE', there are links for 'Find new add-ons', 'Manage add-ons' (which is highlighted with a mouse cursor), and 'Purchased add-ons'. The main content area of the 'Manage add-ons' page has a heading 'Manage add-ons' and a sub-heading 'You can install, update, enable, and disable add-ons here. Find new add-ons.' Below this, there is a notification banner: 'A newer version of the Universal Plugin Manager is available. Update Now' with buttons for 'Skip this version' and 'Remind me later'. At the bottom, there are filters for 'Filter visible add-ons' and 'User-installed', and buttons for 'Upload add-on' and 'Build a new add-on'.


- 2) Search for `Kepler Custom Fields` plugin in `User-installed add-ons` section and click on `Uninstall` button

Kepler Custom Fields

Suite of custom fields developed by Kepler-Rominfo

Uninstall Disable

Uninstall



Screenshots (6)

Version: 2.6.5  
Vendor: Kepler Rominfo  
Add-on key: com.keplerrominfo.jira.plugins.keplercf

Watch add-on  
Marketplace listing  
Documentation  
Support and issues  
16 of 16 modules enabled

Rate and review

Rate add-on: ★★★★★

Review this add-on for other Atlassian Marketplace users.

Leave Review

3) Press `Uninstall add-on` when the uninstall confirmation dialog box appears

Uninstall add-on?

Uninstalling will permanently remove this version of the add-on from JIRA and your filesystem. Do you want to continue?

Uninstall add-on Cancel


4) A message "successfully uninstalled" should appear

Kepler Custom Fields

This add-on was successfully uninstalled.

Suite of custom fields developed by Kepler-Rominfo

Uninstall Disable



Screenshots (6)

Version: 2.6.5  
Vendor: Kepler Rominfo  
Add-on key: com.keplerrominfo.jira.plugins.keplercf

16 of 16 modules enabled

This documentation refers to Kepler Custom Fields, version 1.0 and above.

Step-by-step guides, previews, demo images and screenshots were made under JIRA 6.x.

### Table of Contents

- [Introduction](#)
- [Requirements](#)
- [Interval Custom Field](#)
- [Regular Expression Custom Field](#)
- [SIL Script Custom Field](#)
- [Log Custom Field](#)

## Introduction

### Kepler Custom Fields

The plugin offers a suite of custom fields that we think should be part of every JIRA installation.

These will improve the user experience and will allow you to customize JIRA to better suit your needs.

Included custom fields:

- Interval Custom Field
- SIL Script Custom Field
- Regex Custom Field

## Requirements

A fully installed Kepler Custom Fields consists of multiple jar files. The simplest way is to use the bundle installer when installing it. Please refer to the [Install Guide](#) for explanations and details.

Here is the list of available versions:

Version	JIRA	katl-commons	klogger
1.0	4.3.x, 4.4.x	1.1.9	-
1.1	4.3.x, 4.4.x	1.1.10	-
1.1.1	4.3.x, 4.4.x	1.1.12	1.0
1.1.2	4.3.x, 4.4.x	1.1.13	1.0
1.1.3	4.3.x, 4.4.x	1.1.15	1.0
1.1.4	4.3.x, 4.4.x	1.1.17	1.0
1.1.5	4.3.x, 4.4.x	1.1.18	1.0
2.0	5.0.x	2.0.2	-
2.1	5.0.x	2.0.3	-
2.1.1	5.0.x	2.0.5	1.0
2.1.2	5.0.x, 5.1.x	2.0.6	1.0
2.1.3	5.0.x, 5.1.x	2.0.8	1.0
2.1.4	5.0.x - 5.2.x	2.0.10	1.0
2.1.5	5.0.x - 5.2.x	2.5	1.0
3.0.0	6.x	3.0.0	1.0
3.0.1	6.x	3.0.4	1.0
3.0.2	6.x	3.0.5	1.0
3.0.3	6.x	3.0.7	1.0
3.1.0	7.x	3.1.0	1.0

## Interval Custom Field

### How to configure

Go to the Administration page, choose Custom Fields link and add an interval custom field.

**Interval Field**  
JIRA style interval field (e.g. 2h 1d 3w)

### How to use it

Go to an issue and try to edit the field:

Interval Field

Save the changes and value should appear on the issue.

Interval Field:

If the interval does not have the correct format (e.g. 2h 1d 3w), an error message should appear and the changes are not saved.

## Regular Expression Custom Field

### How to configure

Go to the **Administration** page, choose **Custom Fields** link and add regular expression custom fields.

**Regular Expression Custom Field**  
Allows you to validate a text custom field against a regular expression.

After you create the field, go to the corresponding **Configure** link. A page like in the image below will appear:

Applicable contexts for scheme: Global (all issues) [Edit Configuration](#)

Default Value: [Edit Default Value](#)

Regex: No regex [Edit Regex](#)

Click the **Edit Regex** link to configure the regular expression.

## Fields

**Custom Fields**

- Field Configurations
- Field Configuration Sch...

### Configure Social Security Number

Regular Expression

Insert the regular expression which will validate the custom field.

Click the **Save** button and the regular expression will be associated to the current custom field.



## Default Configuration Scheme for Regular Expression Custom Field



Default configuration scheme generated by JIRA

Applicable contexts for scheme: Global (all issues)

[Edit Configuration](#)

Default Value:

[Edit Default Value](#)

Regex: `^\d{3}-\d{2}-\d{4}$`

[Edit Regex](#)

### How to use it

Go to an issue and try to edit the field with a value that does not match the regex.

Social Security Number	<input type="text" value="SSN"/>	<b>Input SSN does not match regular expression <code>^\d{3}-\d{2}-\d{4}\$</code></b>
Phone Number	<input type="text" value="13-12-12"/>	<b>Input 13-12-12 does not match regular expression <code>^[2-9]\d{2}-\d{3}-\d{4}\$</code></b>
Zip Code	<input type="text" value="10"/>	<b>Input 10 does not match regular expression <code>^\d{5}\$</code></b>
Percentage	<input type="text" value="abc"/>	<b>Input abc does not match regular expression <code>^(0*100{1,1})\.\.?((?&lt;=\.)0*)??%?\$ (^0*\d{0,2})\.\.?((?&lt;=\.)\d*)??%?\$</code></b>
Fraction	<input type="text" value="1.3"/>	<b>Input 1.3 does not match regular expression <code>^\d*\d*\V{1}\d*\$ ^\d*\$</code></b>
Scientific	<input type="text" value="1"/>	<b>Input 1 does not match regular expression <code>\b-?[1-9](?:(\d+)?[Ee][+-]?\d+\b</code></b>
Currency	<input type="text" value="ac"/>	<b>Input ac does not match regular expression <code>^\\$?(0-9){1,3},([0-9]{3},)*[0-9]{3}[0-9]+(.[0-9]{0-9})?&amp;</code></b>

If you try to save the changes, an error message appears.

Otherwise, here are some usage examples for this type of custom field.

Social Security Number	<input type="text" value="111-11-1111"/>
Phone Number	<input type="text" value="500-111-1111"/>
Zip Code	<input type="text" value="11111"/>
Percentage	<input type="text" value="42.50%"/>
Fraction	<input type="text" value="2 10/12"/>
Scientific	<input type="text" value="5.1e15"/>
Currency	<input type="text" value="\$1,011,111.11"/>

For more regex examples use the search from [RegExLib](#).

That's it.

## SIL Script Custom Field

Before using SIL Script Custom Field check out the [Simple Issue Language documentation](#) for a better grasp of SIL usage and capabilities.

### How to configure

Go to the **Administration** page, choose **Custom Fields** link and add a SIL script custom field.

**SIL Script Custom Field**  
Custom field calculated using a SIL script.

After you create the field, go to the corresponding **Configure** link. A page like in the image below will appear:

Applicable contexts for scheme: Global (all issues) [Edit Configuration](#)  
SIL Script: **Thread Local Caching:** false [Edit SIL Script](#)  
No script

Click on the Edit SIL Script link to see the SIL editor.

**Configure SIL Script CF 2**

Thread Local Caching   
Enables Thread Local Caching. This improves performance but might yield unwanted results if the fields this script depends on change during the request.

SIL Script

```
1 return "You have logged " + getTimeSpent(key, currentUser()) + " of the total "+ spent +" work done on this issue.";
```

Click on the **Save** button and the script is associated to the current custom field.

SIL Script: [Edit SIL Script](#)  
**Thread Local Caching:** false  
return "You have logged " + getTimeSpent(key, currentUser()) + " of the total "+ spent +" work done on this issue.";

The value returned by the script will be the value of the custom field.

The script is read-only. You must avoid changing any issue values in the script. In fact, you may change the issue variables BUT they **will not be changed** (issue will not be saved). However, routines may have side effects.

### Thread Local Caching

If you are not fully aware of what this implies, it is recommended that you leave the option off.

Because multiple calls to get the value of a SIL Script Custom Field for a certain issue are inevitable, we implemented an option to generate the value only once per HTTP request. This can improve performance, but might have some side effects.

For example, if the value is generated *before* some other values it depends on are modified, the result *might* not reflect latest updates.

### How to use it

Go to an issue and this is how the value of the field is the value returned by the script.

```
SIL Script CF 2:    You have logged 12h of the total 13h 30m work done on this issue.
```

That's it.

### Other Examples

#### Issue Age

```
interval age = currentDate() - created;
return "This issue is " + age + " old";
```

```
SIL Script CF 1:    This issue is 10w 1d 1h 5m 26s old
```

#### Number of subtasks

```
number noSubtasks = size(subtasks(key));
return "This issue has " + noSubtasks + " subtasks";
```

```
SIL Script CF 1:    This issue has 2 subtasks
```

#### Average Issue Age

```
date now = currentDate(); // just to make sure we use the same reference
date
string [] subtasks = subtasks(key);
interval age;
for(string task in subtasks){
  age = age + (now - %task%.created);
}
return "Average age of subtasks is " + (age / size(subtasks));
```

```
SIL Script CF 1:    Average age of subtasks is 8m 48s
```

#### Results from Database

```
//select the city from the specified region
return sql("TestSQL", "select city from cities c, district d, region r
where c.iddistrict=d.id and d.idregion=r.id and r.region='Bucharest'");
```

City from Region: Bucharest

#### Status Age

```
string field_name = "status";
string[] field_history = fieldHistory(key, field_name);
number n = arraySize(field_history);
date startDate;
if (n > 0) {
    startDate = arrayGetElement(field_history, n - 2);
    return "Current issue has been " + status + " for " + (currentDate() -
startDate);
}
return "Current issue has been " + status + " for " + (currentDate() -
created);
```

Status: Current issue is In Progress for 11m 56s

#### Issue Statuses Count

```
string[] statuses;
string[] statusHistory = fieldHistory(key, "status");
for(number i = 1; i < size(statusHistory); i = i + 2) {
    string statusStr = getElement(statusHistory, i);
    statuses = addElementIfNotExist(statuses, statusStr);
}
return size(statuses);
```

Issue Statuses Count: 4

#### Issue Assignees

```

string[] assignees;
assignees = addElementIfNotExist(assignees, userFullName(assignee));
string[] assigneeHistory = fieldHistory(key, "assignee");
for(number i = 1; i < size(assigneeHistory); i = i + 2) {
    string assigneeName = userFullName(getElement(assigneeHistory, i));
    assignees = addElementIfNotExist(assignees, assigneeName);
}
return assignees;

```

Issue Assignees: Admin User|Test User

## Search Issues

If you want a Sil Script Custom Field to be searchable you must select a Search Template for that custom field.

If the search template is changed, manual reindexing must follow

Field Name

Description

A description of this particular custom field.  
You can include HTML, make sure to close all your tags.

Search Template 

- None
- Interval range searcher
- Exact interval searcher
- Number range searcher
- Exact number searcher
- Date range searcher
- Exact Text Searcher
- Free Text Searcher

Exact number searcher may require a re-index.

If the custom field already exists, in **Administration->Custom fields**, click **Edit** for the desired custom field, and choose the proper Search Template for your custom field according the value type returned by it.

If you are about to add a new Sil script custom field, you can choose the Search Template at the step '**Create Custom Field - Details (Step 2 of 2)**'.

### Perform a re-index

After changing the Search Templates for all the custom field that you want, perform a re-index in JIRA for the search to work fine.

After a searcher has been set for the Sil Script custom field, you can perform a search for all issues containing the desired value for that custom field.

Query line: 1 character: 15 Syntax Help ?

`silscript >= 3`

Search  Auto-complete Get more functions

Displaying issues 1 to 9 of 9 matching issues.

T	Key +	Summary	Assignee	Reporter	P	Status	Resolution	Updated	Project	silscript
	TST-8	testing	admin	admin		Resolved	Fixed	22/Oct/12	Test	3
	TST-6	testDBCF1	admin	admin		Reopened	Unresolved	19/Oct/12	Test	4
	TST-5	dbcfTest	admin	admin		Resolved	Fixed	24/Aug/12	Test	3

For a detailed explanation on searching issues in JIRA, you can check the [Searching for Issues](#) tutorial from the JIRA documentation.

## Log Custom Field

### How to configure

First of all, please download the klogger archive from our site: <http://www.keplerrominfo.com/static/downloads/com.keplerrominfo.jira.plugins.keplercf/resources/klogger-1.0.jar>

The jar archive should be copied in the `<JIRAHome>/atlassian-jira/WEB-INF/lib` folder of your JIRA installation folder.

### Log4j Configuration

Before adding a custom field in JIRA, please configure the `log4j.properties` file from: `<JIRAInstall>/atlassian-jira/WEB-INF/classes` folder and copy and paste the following code at the end of the file.

```
log4j.appender.klogger=com.keplerrominfo.jira.klogger.KeplerLogAppender
log4j.category.com.keplerrominfo = DEBUG, console, filelog, klogger
log4j.additivity.com.keplerrominfo = false
```

**log4j.category.com.keplerrominfo** and **log4j.additivity.com.keplerrominfo** properties should appear only once in the log file. If you have already enabled logging, all you need to do is add the appender.

### Custom Field

Go to the Administration page, choose Custom Fields link and add a log custom field.



Configure the field as any JIRA custom field.

### How to use it

On any issue, log messages should be visible in the new added custom field. It will show messages on **thread** that is serving the current page showing the issue (last 512 messages). While our primary purpose was to offer a simple CF to show the log on the current issue, be warned that it is not advisable to enable it in production systems and that the memory consumption is quite heavy (for each thread we need to store the last 512 messages).

The primary audience for this custom field was our SIL developers group. However, you can use it basically **for anything**, provided that your **Log4J** logger is configured to intercept those messages.

```
Log Custom Field:
Thread[http-8080-1,5,main] log messages
=====
Thu Jun 21 13:17:52 EEST 2012 : DEBUG -Initializing searcher
Thu Jun 21 13:17:52 EEST 2012 : DEBUG -related indexers: [com.keplerrominfo.jira.plugins.databasecf.customfields.datacolumn.DatabaseCFIndexer@11aa03e
Thu Jun 21 13:17:52 EEST 2012 : DEBUG -related indexers: [com.keplerrominfo.jira.plugins.databasecf.customfields.datacolumn.DatabaseCFIndexer@11aa03e
Thu Jun 21 13:17:52 EEST 2012 : DEBUG -related indexers: [com.keplerrominfo.jira.plugins.databasecf.customfields.datacolumn.DatabaseCFIndexer@11aa03e
Thu Jun 21 13:17:52 EEST 2012 : DEBUG -Initializing searcher
Thu Jun 21 13:17:52 EEST 2012 : DEBUG -related indexers: [com.keplerrominfo.jira.plugins.databasecf.customfields.datacolumn.DatabaseCFIndexer@12af545
```

That's it.

## Backup and restore

### At Restore: install first the plugins

Mundane operations as backup and restore may pose some problems to the unsuspecting JIRA administrator. Since all the Kepler plugins create some tables in the JIRA schema - we created this mechanism long before Active Objects was introduced into Atlassian's framework - you need to take some precautions at restore.

Specifically, at restore you need to create the tables used by our plugins. You do not need to copy schema from the previous JIRA or fill it with data, you just need to **simply install the plugins into JIRA before restoring** (enabling the plugins would create the needed tables).

Kepler Custom Fields has one dependency:

1. katl-commons (core support)

For reference, these are the tables created by each add-on

Plugin	Tables
katl-commons	kplugins kpluginscfg kissuestate kstatevalues