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## **Issue Tracking, Trac & Documentation**

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Advanced School on Scientific Software Development:  
Concepts and Tools

24/02/2011

# Bug and Issue Tracking



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- Need to capture bugs and feature requests as project/community develops
- For projects, things change, stuff happens
  - capturing these things, this stuff, in a ordered way will save lots of pain later
- Can use for issue tracking
  - Issue tracking is a simple yet powerful way to manage change
  - and it fits right on top of software bug-tracking tools
- Any changes to a development plan can be handled as issues

# Project Issues



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- An issue is any query or occurrence that might have an impact on a project
  - could be a software bug
  - could be a request for a change to something
  - could be something that just needs done
    - an action from a meeting
    - a task
- Whatever it is, following a simple process will help keep track of things

# Issue Workflow



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- A typical issue workflow process runs like this:
  - the issue is reported as “new”
  - someone is assigned ownership: it’s “assigned”
  - that someone accepts ownership: it’s “accepted”
    - or they refuse! The issue reverts to “new”
  - someone works on it
  - it gets resolved: it’s “closed”
    - resolution may be *do nothing*, but the decision is recorded
  - the issue may get reopened: it becomes “new” again

# FOSS Bugtrackers



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- Wikipedia offers a good selection:
  - [http://en.wikipedia.org/wiki/Bug\\_tracking\\_system](http://en.wikipedia.org/wiki/Bug_tracking_system)
- To note a few popular ones:
  - Bugzilla
    - venerable and comprehensive (and baroque?)
  - Trac
    - lightweight; powerful cross-referencing with wiki, svn
    - used internally by SSI 😊
  - JIRA (free for non-profit, oss projects)
    - powerful, popular, widely used
- Others integrated into web-based public solutions
  - GoogleCode, SourceForge, ...

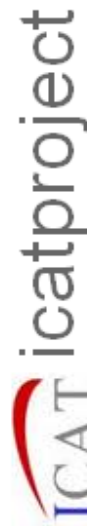


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# Issue Tracking



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ICAT metadata catalogue

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Project Home | Downloads | Wiki | Issues | Source

Summary | Updates | People

### Project Information

★ Starred by 9 users

Activity High

[Project feeds](#)

### Code license

[New BSD License](#)

### Labels

ICAT, STFC, Neutrons, ISIS, Muons, Nexus, X-rays, Diamond, SNS, ANSTO, ScientificData, APIs, Java

### Members

[tom.grif...@stfc.ac.uk](#), [crcami...@gmail.com](#)

31 committers

### Featured

### Wiki pages

[IcatMain](#)

[Show all >](#)

### Links



ICAT is a database with a well defined API that provides an interface to Large Facility experimental data and will provide a mechanism to link all aspects of the research chain from proposal through to publication. ICAT is in use or development at several large facilities. For a full list see [Facilities](#).

ICAT is developed as a collaboration between [STFC eScience](#), [STFC ISIS Facility](#), [Diamond Light Source](#) and the [ILL](#).

To browse the ICAT source code, visit the [Source](#) tab.

If you have isolated a problem or want a new feature to be included in ICAT, please [submit an issue](#).

Make sure to include all the relevant information when you submit the issue such as:



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**icatproject**  
ICAT metadata catalogue

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1 - 70 of 70

ID	Type	Summary + Labels	Icat	Status	Priority	Milestone	Owner	...
<a href="#">71</a>	Defect	BadParameterException_Exception on negative values	---	New	Medium	---	---	...
<a href="#">70</a>	Defect	UserDetails Missing in User Plugin	---	Fixed	Medium	---	srikanth...@gmail.com	...
<a href="#">69</a>	Defect	The square brackets notation in search does not appear to do anything in ICAT4 API	---	Invalid	Medium	---	crcami...@gmail.com	...
<a href="#">68</a>	Enhancement	ICAT usage logging	---	New	---	---	tom.grif...@stfc.ac.uk	...
<a href="#">67</a>	Defect	getICATAPIVersion in Icat4 returns 3.3.4	---	Fixed	Low	---	dr.s.m.f...@gmail.com	...
<a href="#">66</a>	Defect	DISTINCT Dataset name fails with "Attempt to read beyond end"	---	Invalid	Medium	---	crcami...@gmail.com	...
<a href="#">65</a>	Defect	Problem deploying icat.ear from icat3.3.5.zip on on Glassfish 3.1.1	---	Accepted	Medium	---	crcami...@gmail.com	...
<a href="#">64</a>	Defect	Datafile.file_size overflows somewhere when >2GB	---	New	Medium	---	tom.grif...@stfc.ac.uk	...
<a href="#">63</a>	Enhancement	API method for adding Facility Users needed	---	Fixed	---	---	kevin.ph...@stfc.ac.uk	...
<a href="#">62</a>	Defect	Inconsistent behaviour from THIS_ICAT table	---	New	Medium	---	---	...
<a href="#">61</a>	Enhancement	rename icat3-ansto project	---	New	Medium	ICAT4	tom.grif...@stfc.ac.uk	...
<a href="#">60</a>	Defect	XML Ingest changes	---	Accepted	Medium	ICAT4	jessica...@stfc.ac.uk	...





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New issue Search All issues for Search Advanced search Search tips

### ★ Issue 70: UserDetails Missing in User Plugin

1 person starred this issue and may be notified of changes.

Reported by [sriranth...@gmail.com](#), Dec 19, 2011

**Status:** Fixed

**Owner:** [sriranth...@gmail.com](#)

**Closed:** Dec 19

**Type-Defect**

**Priority-Medium**

[Add a comment below](#)

**What steps will reproduce the problem?**

1. getUserDetails returns empty UserDetails.

**What is the expected output? What do you see instead?**

Atleast the UserId field set.

**Please use labels and text to provide additional information.**

Comment 1 by [sriranth...@gmail.com](#), Dec 19, 2011

This issue was closed by revision [r1576](#).

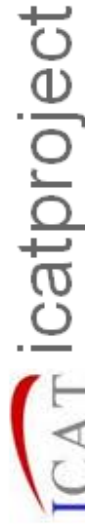
**Status:** Fixed

**Issue Linked to Revision**

[Vote for this issue and get email change notifications](#)



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Checkout Browse Changes  Search Trunk

★ **Revision: r1576**

**Author:** srikanthnag

**Date:** Dec 19, 2011

**Review scores:** *No one has yet scored this revision.*

**Log message**

Fixes ~~issue-70~~ for useransto and user1dap

**Affected files** [expand all](#) [collapse all](#)

- ⊕ [Modify /icat3\\_api/trunk/icat3-user-ansto/src/main/java/uk/icat3/useransto/facility/AnstoUser.java](#) [diff](#)
- ⊕ [Modify /icat3\\_api/trunk/icat3-user-ldap/src/main/java/uk/icat3/userldap/facility/LdapUser.java](#) [diff](#)

◀ [r1575](#) **r1576** [r1577](#) ▶

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# ICAT icatproject

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## Committed Changes

Rev	Scores	Commit log message	Date	Author
<a href="#">r1717</a>		Edited wiki page IcatInstallation through web user interface.	Yesterday (18 hours ago)	crcamills
<a href="#">r1716</a>		Edited wiki page IcatMain through web user interface.	Yesterday (19 hours ago)	crcamills
<a href="#">r1715</a>		Schema description	Yesterday (23 hours ago)	dr. s. m. fisher
<a href="#">r1714</a>		Edited wiki page MeetingActionsRecord through web user interface.	Yesterday (25 hours ago)	crcamills
<a href="#">r1713</a>		Edited wiki page WorkshopGrenoble2012 through web user interface.	Yesterday (25 hours ago)	crcamills
<a href="#">r1712</a>		Edited wiki page UseOffCAT through web user interface.	Yesterday (25 hours ago)	crcamills
<a href="#">r1711</a>		Edited wiki page UseOffCAT through web user interface.	Feb 19 (41 hours ago)	crcamills
<a href="#">r1710</a>		Edited wiki page WorkshopGrenoble2012 through web user interface.	Feb 17 (4 days ago)	tom.grif...@stfc.ac.uk
<a href="#">r1709</a>		Fix unit tests and start work on ICATCompat	Feb 15 (5 days ago)	dr. s. m. fisher
<a href="#">r1708</a>		Clean core	Feb 14, 2012	dr. s. m. fisher
<a href="#">r1707</a>		Clean core	Feb 14, 2012	dr. s. m. fisher
<a href="#">r1706</a>		Clean core	Feb 14, 2012	dr. s. m. fisher
<a href="#">r1705</a>		Clean core	Feb 14, 2012	dr. s. m. fisher

code.google.com/p/icatproject/source/detail?r=1714



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**Template:** Defect report from user

**Summary:** Defect report from user  
Feature Request

**Description:** What steps will reproduce the problem?

- 1.
- 2.
- 3.

What is the expected output? What do you see instead?

What version of the product are you using? On what operating system?

Please provide any additional information below.

[Attach a file](#) [Notify me of issue changes, if enabled in settings](#)

Submit issue Discard

**Tip:** Please search for an existing issue before reporting a problem as a new issue.

**Remember:** This report will be publicly visible. So, don't include passwords or other confidential information.



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# **Issue Tracking for Project Management and Community Wikis in Trac**

# The Trac System



[www.software.ac.uk](http://www.software.ac.uk)

- Trac is “an enhanced wiki and issue tracking system for software development projects”
- Good support for links and references
- Inbuilt concepts such as timelines, tasks and milestones



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- Various pictures to take through the use of Trac and its reporting and linking



SSI

Software Sustainability Institute

Wiki | Timeline | Roadmap | Browse Source | View Tickets | New Ticket | Search | Admin | Gantt Ticket

logged in as rmb | Logout | Preferences | Help/Guide | About Trac

Start Page | Index | History | Last Change

Search

## Welcome to the SSI internal Trac website

This is the landing page for the SSI internal Trac system, comprising wiki (here), [ticket system](#), [roadmap](#) etc. In due course we'll edit this stuff away into other pages, but for now we can just dump ideas on processes etc. here :-).

---

### Project Prospects

The [ProjectProspects](#) page lists current possible areas for significant effort investment - this is the list of things that could become full-blown development projects.

---

### Development Projects

The main [DevProjects](#) page has details of current and past projects.

[RunningDevProjects](#) describes the lightweight process for Project Leads to follow.

---

### Developer Services and Resources

[DevServicesResources](#) is the internal hub for developing SSI dissemination content for developer-related services and resources.

Done



# Available Reports



Available Reports – SSI

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Search

Available Reports | Custom Query

Wiki | Timeline | Roadmap | Browse Source | View Tickets | New Ticket | Search | Admin | Gantt Ticket

## Available Reports

This is a list of available reports:

Report	Title
{1}	Active Tickets by Milestone
{2}	Active Tickets by Component
{3}	Active Tickets by Milestone
{4}	Accepted, Active Tickets by Owner
{5}	Accepted, Active Tickets by Owner (Full Description)
{6}	All Tickets By Milestone (Including closed)
{7}	My Tickets
{8}	Active Tickets, Mine first
{9}	Active Tickets by Activity Type ("Component")
{10}	Active Tickets by Owner
{11}	All Project Checkpoint Tickets
{12}	All Tickets by Owner
{13}	Active Tickets by Owner (lite version)

Create new report

Note: See [TracReports](#) for help on using and creating reports.

Done

# View: Tickets by Milestone



{3} Active Tickets by Milestone – SSI

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Available Reports | Custom Query

Wiki | Timeline | Roadmap | Browse Source | View Tickets | New Ticket | Search | Admin | Gantt Ticket

### {3} Active Tickets by Milestone (36 matches)

This report shows how to color results by priority, while grouping results by milestone. Last modification time, description and reporter are included in the RSS export.

Edit report | Copy report | Delete report

Milestone	Ticket	Summary	Activity	Type	Owner	Who_else	Status	Created
	#73	SSI "Developer Resources"	SSI-Operations	task	stevec	mikej,dscott	accepted	29/06/10
	#44	Project report: DPM-I	DPM-I	checkpoint	rmb			
	#72	Project report: DMACRYS-I	DMACRYS-I	checkpoint				
	#46	Exploitation casestudy from Blackford Analysis	Website	task	rmb			
	#51	MESSAGE code review	Consultancy	task	mike			
	#52	Bruno Silva: investigate possibilities of working with research computing at UCL	Consultancy	task	simon			
	#53	ERA project - further work after meeting at JISC RI (May 2010)	Consultancy	task	simon		assigned	17/05/10
	#54	JournalTOCs - further work after meeting at JISC RI (May 2010)	Consultancy	task	simon		new	17/05/10
	#64	Consultancy casestudy from GridQLT projects	Website	task	simon		new	01/06/10

**Activities:**  
Consultancy  
SSI Operations  
Projects  
...

**'Activity' customised from 'Component'**

**Types:**  
Task  
Checkpoint (custom)

# Available Reports



Available Reports – SSI

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Search

Available Reports | Custom Query

Wiki | Timeline | Roadmap | Browse Source | View Tickets | New Ticket | Search | Admin | Gantt Ticket

## Available Reports

This is a list of available reports.

Report	Title
{1}	Active Tickets
{2}	Active Tickets by Changetime
{3}	Active Tickets by Milestone
{4}	Active Tickets by Owner
{5}	Active Tickets by Activity Type (Full Description)
{6}	Active Tickets by Activity Type (Closed)
{7}	Active Tickets by Component
{8}	Active Tickets by Activity Type ("Component")
{9}	Active Tickets by Owner
{10}	All Project Checkpoint Tickets
{11}	All Tickets by Owner
{12}	Active Tickets by Owner (lite version)
{13}	

Create new report

Note: See [TracReports](#) for help on using and creating reports.

# Using a View as an Agenda



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Available Reports | Custom Query

Wiki | Timeline | Roadmap | Browse Source | View Tickets | New Ticket | Search | Admin | Gantt Ticket

## {10} Active Tickets by Owner (36 matches)

List active tickets, group by ticket owner, sorted by priority.

Edit report | Copy report | Delete report

Who_else	Dates	Milestones
----------	-------	------------

Ticket	Summary	Activity	Type	Who_else	Status	Created	Modified	Milestone
#56	Project report: Culham-CCFE-I	Culham-CCFE-I	checkpoint		accepted	18/05/10	10/09/10	M06

Who_else	Status
	accepted
	accepted
	accepted

Who_else	Status
	accepted
	accepted
	accepted

Ticket	Summary	Activity	Type	Who_else	Status	Created	Modified	Milestone
#45	Project report: SBIRC-I							
#51	MESSAGE code review							
#74	GeoTOD-II technical review							

Who_else	Status
	accepted
	accepted
	accepted

Ticket	Summary	Activity	Type	Who_else	Status	Created	Modified	Milestone

Used as agenda for weekly Development Meeting!

# Checkpoint Example



#56 (Project report: Culham-CCFE-I)...

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← Previous Ticket | Back to Query | Next Ticket →

Wiki | Timeline | Roadmap | Browse Source | View Tickets | New Ticket | Search | Admin | Gantt Ticket

## Ticket #56 (accepted checkpoint)

Project report: Culham-CCFE-I

Opened 4 months ago  
Last modified 42 minutes ago

Owned by: dscott  
Priority: normal  
Milestone: MD6  
Component: Culham-CCFE-I  
Keywords:  
Cc:  
Blocked By:  
Blocking: 2010/12/01  
Start (YYYY/MM/DD): 2010/07/01  
% Complete: 30

Description (last modified by rmb) (diff)

Project Lead:	Dave S
Collaborators:	Culham Centre for Fusion Energy Colin Roach <Colin.M.Roach@ccfe.ac.uk>
SSI Effort:	4 s-m initially
Collaborator Effort:	-
Start/Finish:	01/07/10 - 12/31/10
Project Page:	wiki:DevProjects/Culham-CCFE-I
Project def:	source:projects/Culham-CCFE-I/ccfe-i-projdef.doc

**This is active**

**Basic contact info & metadata  
Links to Wiki page, SVN repos**

Done

# Completion of Checkpoint



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Changed 10 months ago by rmb

- **due\_close** changed from 2011/04/20 to 2011/04/30

[Reply](#)

Changed 10 months ago by jamesp

I have updated the movie script so it removes a wedge shaped section of the data set to show what's happening inside, as requested by Colin R. I have also tested importing and rendering the full annulus rather than just a single flux tube - this appears to work but quickly exhausts the memory on my machine so I couldn't test conclusively.

[Reply](#)

Rob: I think we need to discuss all those questions with CCFE. None of the answers are obvious to me at present.

Changed 10 months ago by jamesp

[Reply](#)

I have updated the importer plugin so that it provides a GUI field for setting the ntube parameter, removing the need to edit the script file to do this. It would be easy to add further fields for other parameters if desired.

Changed 8 months ago by rmb

- **status** changed from *accepted* to *closed*
- **resolution** set to *complete*
- **complete** changed from 90 to 100
- **due\_close** changed from 2011/04/30 to 2011/05/30

[Reply](#)

Changed 8 months ago by rmb

- **blocking 218** added

Added follow-on ticket as dependency

[Reply](#)

Add/Change #56 (Project report: Culham-CCFE-I)

# View: Active Tickets by Owner



{10} Active Tickets by Owner – SSI

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Search

Wiki | Timeline | Roadmap | Browse Source | View Tickets | New Ticket | Search | Admin | Gantt Ticket

[Available Reports](#) | [Custom Query](#)

## {10} Active Tickets by Owner (36 matches)

List active tickets, group by ticket owner, sorted by priority.

Edit report | Copy report | Delete report

### dscott (1 match)

Ticket	Summary	Activity	Type	Who_else	Status	Created	Modified	Milestone
#56	<a href="#">Project report: Culham-CCFE-I</a>	Culham-CCFE-I	checkpoint		accepted	18/05/10	10/09/10	M06

### mikej (3 matches)

Ticket	Summary	Activity	Type	Who_else	Status	Created	Modified	Milestone
#45	<a href="#">Project report: SBIRC-I</a>	SBIRC-I	checkpoint		accepted	13/05/10	09/09/10	M09
#51	<a href="#">MESSAGE code review</a>	Consultancy	task		accepted	14/05/10	06/08/10	
#74	<a href="#">GeoTOD-II technical review</a>	Consultancy	task		accepted	30/06/10	10/09/10	

### neilc (11 matches)

Ticket	Summary	Activity	Type	Who_else	Status	Created	Modified	Milestone
--------	---------	----------	------	----------	--------	---------	----------	-----------

Done

# Example Task



#87 (J.Omer: engineering software e...)

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← Previous Ticket | Back to Query | Next Ticket →

## Ticket #87 (assigned task)

### J.Omer: engineering software evalreview

Opened 2 weeks ago  
Last modified 0 seconds ago

Reported by:	rmb	Owned by:	rmb
Priority:	normal	Milestone:	
Component:	Consultancy	Keywords:	
Cc:		Blocked By:	
Blocking:		Start (YYYY/MM/DD):	
End (YYYY/MM/DD):		% Complete:	0

Description (last modified by rmb) (diff)

Contacts:	Joshua Omer <J.R.Omer@kingston.ac.uk>
Institution:	Kingston Uni
Projects:	-
Goal:	Link thru HPC Software Dev call. Possible small-scale SSI intervention to review code prior to commercialisation?

Reply

**Current owner can change But someone always owns interaction**

**Task has a defined goal**

### Attachments

Done



# Commentary as Record of Interaction



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Changed 11 months ago by jamesp

This week I have been mostly working on the data import plugin again - Colin Roach tested it and discovered a problem: Paraview does not remember the plugin even when the "autoload" checkbox is ticked, meaning that the plugin needs to be reloaded manually every time Paraview is started. This turns out to be a bug in Paraview; in the current version the checkbox only works for dynamic library plugins and not XML plugins. It can be worked around by wrapping the XML plugin description into a dynamic library. This is fairly straightforward but does require recompiling Paraview from source. I have written instructions for this and sent them to Colin, I'm now working on movie generation again.

[Reply](#)

Changed 11 months ago by rmb

RMB to arrange call w/b 04 April with CR, JP to discuss wrapup.

[Reply](#)

Changed 11 months ago by rmb

- **complete** changed from 70 to 90
- **due\_close** changed from 2011/04/01 to 2011/04/20

[Reply](#)

Call with Colin R, RMB, JP:

CR: "The working plugin is exactly what we wanted to achieve"

Remaining work:

- all agreed that a nice movie would be an excellent place to stop; should be achievable in a couple more weeks. RMB happy to sanction this;
- a visit to CCFE to give a short presentation would be a great way to complete the handover;
- it would be nice if there was a GUI way to edit certain parameters from the data file...

So, agreed final deliverables:

1. A final writeup including a "how to" on generating movies;
2. A movie, generated as above;
3. (If time) a parameter-editing GUI component.



Search

## Available Reports

This is a list of available reports.

Report	Title
{1}	Active Tickets
{2}	Active Tickets by Changetime
{3}	Active Tickets by Milestone
{4}	Accepted, Active Tickets by Owner
{5}	Accepted, Active Tickets by Owner (Full Description)
{6}	All Tickets By Milestone (Including closed)
{7}	My Tickets
{8}	Active Tickets, Mine first
{9}	Active Tickets by Activity Type ("Component")
{10}	Active Tickets by Owner
{11}	All Project Checkpoint Tickets
{12}	All Tickets by Owner
{13}	Active Tickets by Owner (lite version)

Create new report

Note: See [TracReports](#) for help on using and creating reports.

# View: Sort by Component



{9} Active Tickets by Activity Type (...)

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Available Reports | Custom Query

## {9} Active Tickets by Activity Type ("Component") (33 matches)

SSI "Activities" are general Consultancy, particular projects and so on.

Edit report | Copy report | Delete report

### Consultancy (3 matches)

Ticket	Summary	Type	Milestone	Owner	Who_else	Created
#52	Bruno Silva: investigate possibilities of working with research computing at UCL	task		simon		17/05/10
#53	ERA project - further work after meeting at JISC RI (May 2010)	task		simon		17/05/10
#74	GeoTOD-II technical review	task		mikej *		30/06/10
#87	J.Omer: engineering software eval/review	task		rmb		27/08/10
#54	JournalTOCs - further work after meeting at JISC RI (May 2010)	task		simon		17/05/10
#78	LifeGuide Sustainability Evaluation	task		stevec *		23/07/10
#51	MESSAGE code review	task		mikej *		14/05/10
#66	Santy Chumbe - collaborative project to spin-out JournalTOCs	task		neilc *	rmb, mikej	04/06/10
#86	Software Preservation Study	task		neilc *		20/08/10

### Culham-CCFE-I (1 match)

Ticket | Summary | Milestone | Owner | Who\_else | Created

https://trac.software.ac.uk/ssi/ticketgantt

Sort by component;  
good overview of  
types of activity

# Ease of Linkback



#73 (SSI "Developer Resources") - ...

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logged in as rmb | Logout | Preferences | Help/Guide | About Trac

← Previous Ticket | Back to Query | Next Ticket → | Depgraph

Wiki | Timeline | Roadmap | Browse Source | View Tickets | New Ticket | Search | Admin | Gantt Ticket

## Ticket #73 (accepted task)

Reported by:	rmb	Owned by:	stevec
Priority:	higher	Milestone:	
Component:	SSI-Operations	Keywords:	
Cc:	mikej, dscott	Blocked By:	#80
Blocking:		Start (YYYY/MM/DD):	
End (YYYY/MM/DD):		% Complete:	0

Description (last modified by rmb) (diff)

Wiki: [DevServicesResources](#)

Review and prioritise the lists of useful developer resources brainstormed at the kickoff meeting. Draw up a short plan to develop some of these into generically useful resources for academic software researcher/developers.

### Attachments

Stopped

Wiki page link

# Example Wiki Page



DevServicesResources – SSI

Software Sustainability Institute

logged in as rmb | Logout | Preferences | Help/Guide | About Trac

Search

Wiki | Timeline | Roadmap | Browse Source | View Tickets | New Ticket | Search | Admin | Gantt Ticket

Start Page | Index | History | Last Change

## Developer Services and Resources

This is the internal hub for developing SSI dissemination content for developer-related services and resources. Once developed and approved, content can migrate to the website or other dissemination material (e.g. event handouts).

Progress is tracked via [#73](#).

Status: WIP, Ready for review, Reviewed.

### Services

- [S1. Software evaluation service \(Related: OMII-UK SEP, journalTOCs review summary\)](#)
- [S2. Software development consultancy DMS](#). Ready for review.
- [S3. Match-making between users and developers MJ](#). Ready for review.
- [S4. Developer experience and expertise events MJ](#). Ready for review.

### Resources

- [D1. General best practice DMS](#). Ready for review.
- [D2. How to develop maintainable software – MJ](#). Ready for review.
- [How to write readable source code – MJ](#). Ready for review.
- [D3. How to do software testing – STC](#). Ready for review.
- [D4. Adopting an open source licence – STC](#). Ready for review.
- [D5. How to support open source software – MJ](#). Ready for review.
- [D6. How to do documentation – SJH](#) will add content when time permits.
- [D7. Migration guides for infrastructure – will evolve on an ad hoc basis.](#)
- [D8. Hosting of supporting materials – will evolve on an ad hoc basis.](#)
- [D9. Collaborative tools – will evolve on an ad hoc basis.](#)
- [How to use GSaC and MSc projects to improve your project MJ](#). Ready for review.

Done



- [D3. How to do software testing](#) - STC. Published: [↗ WWW](#)
- [D4. Adopting an open source licence](#) - STC. Published: [↗ WWW](#)
- [D5. How to support open source software](#) - MJ. Published: [↗ WWW](#)
- [D6. How to do documentation](#) - SJH will add content when time permits.
- [D7. Migration guides for infrastructure](#) - will evolve on an ad hoc basis.
- [D8. Hosting of supporting materials](#) - will evolve on an ad hoc basis.
- [D9. Collaborative tools](#) - will evolve on an ad hoc basis.
- [How to use GSoc and MSc projects to improve your project](#) MJ. Published: [↗ WWW](#)
- [How to identify project champions](#) MJ. Published: [↗ WWW](#)
- [Usability evaluation contacts](#) MJ. Ready for review.

## Raw material

- [How to develop maintainable software](#) - excess content to be integrated into the above or new pages.
- [Maintainable software notes and references.](#)

## Form, content, tone

- Tone should be informal - I, we, you.
- Services
  - 50 word summary and up to 200 words of additional content.
- Resources
  - 50 word summary and up to 4 pages of additional content.
  - Links to external resources/pages/docs should be provided where possible.
  - Task-oriented.

[Edit this page](#)

[Attach file](#)

### Download in other formats:

Plain Text

# Example Editing



www.software.ac.uk

The screenshot shows a web browser window displaying a TracWiki page. At the top left is the Software Sustainability Institute logo. The page title is "Editing DevServicesResources". The main content area contains text about developer services and resources, followed by a list of links. The editing interface includes a toolbar with "B", "I", "A", and "U" icons, and a search box. The page footer contains a "Change information" link and a note about TracWiki.

Software Sustainability Institute

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Wiki | Timeline | Roadmap | Browse Source | View Tickets | New Ticket | Search | Admin | Gantt Ticket

[Start Page](#) | [Index](#) | [History](#) | [Last Change](#)

## Editing DevServicesResources

**B** **I** **A** **U** Adjust edit area height: 20

= Developer Services and Resources =

This is the internal hub for developing SSI dissemination content for developer-related services and resources. Once developed and approved, content can migrate to the website or other dissemination material (e.g. event handouts).

Progress is tracked via #73.

Status: WIP, Ready for review, Reviewed.

== Services ==

- \* S1. [wiki:SoftwareEvaluation Software evaluation service] (Related: [wiki:OMIISEP2SES OMII-UK SEP], [wiki:JournalTOCsSummary journalTOCs review summary])
- \* S2. [wiki:DevConsultancy Software development consultancy] DMS. Ready for review.
- \* S3. [wiki:MatchMakeService Match-making between users and developers] MJ. Ready for review.
- \* S4. [wiki:DeveloperExperienceService Developer experience and expertise events] MJ. Ready for review.

== Resources ==

- \* D1. [wiki:BestPractice General best practice] DMS. Published: [http://www.software.ac.uk/resources/guides/software-

[Change information](#)  
Comment about this change (optional).

Note: See [wikiFormatting](#) and [TracWiki](#) for help on editing wiki content.

software sustainability institute

# Create a New Ticket



New Ticket - SSI

## Create New Ticket

Properties

Summary:

Reporter:

Description: **B I A**

Type:

Milestone:

Keywords:

Blocked By:

Start (YYYY/MM/DD):

% Complete:

Assign to:

Priority:

Component:

Cc:

Blocking:

End (YYYY/MM/DD):

Done



# Administration



Administration: Basics - SSI

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Search

Wiki | Timeline | Roadmap | Browse Source | View Tickets | New Ticket | Search | Admin | Gantt Ticket

## Administration

- General
- Basic Settings**
- Logging
- Permissions
- Plugins
- Accounts
- Configuration
- Users
- Ticket System
- Components
- Milestones
- Priorities
- Resolutions
- Severities
- Ticket Types
- Versions
- trac.ini
- account-manager
- attachment
- browser
- changeset

## Basic Settings

Project

Name:

URL:

Description:

Done

# Managing Ticket Types



Administration: Ticket Types – SSI

Software Sustainability Institute

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Wiki | Timeline | Roadmap | Browse Source | View Tickets | New Ticket | Search | Admin | Calendar | Gantt Ticket

## Administration

- General
  - Basic Settings
  - Logging
  - Permissions
  - Plugins
- Accounts
  - Configuration
  - Users
- Ticket System
  - Components
  - Milestones
  - Priorities
  - Resolutions
  - Severities
- Ticket Types**
- Versions
  - trac.ini
  - account-manager
  - attachment
  - browser
  - changeset

## Manage Ticket Types

	Name	Default	Order
<input type="checkbox"/>	defect	<input type="radio"/>	1
<input type="checkbox"/>	enhancement	<input type="radio"/>	2
<input type="checkbox"/>	task	<input checked="" type="radio"/>	3
<input type="checkbox"/>	issue	<input type="radio"/>	4
<input type="checkbox"/>	checkpoint	<input type="radio"/>	5
<input type="checkbox"/>	milestoneReview	<input type="radio"/>	6

You can remove all items from this list to completely hide this field from the user interface.

Add Ticket Type

Name:

Done

# Generated Roadmap



Roadmap - SSI

Software Sustainability Institute

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[Wiki](#) | [Timeline](#) | **Roadmap** | [Browse Source](#) | [View Tickets](#) | [New Ticket](#) | [Search](#) | [Admin](#) | [Gantt Ticket](#)

Show already completed milestones

## Roadmap

**Milestone: JISC-RI mtg**  
Completed [4 months ago \(12/05/10\)](#)

[Closed tickets: 9](#) / [Active tickets: 0](#) / [Total tickets: 9](#)

100%

First "point of presence" for SSI with JISC Rapid Innovation projects. Should demonstrate intelligent working processes.

**Milestone: AHM 2010**  
[12 hours late \(10/09/10\)](#)

[Closed tickets: 0](#) / [Active tickets: 4](#) / [Total tickets: 4](#)

0%

**Milestone: M06**  
[Due in 3 months \(01/12/10\)](#)

[Closed tickets: 0](#) / [Active tickets: 4](#) / [Total tickets: 4](#)

0%

Done

# Example Milestone



Milestone M06 – SSI

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Search

Wiki | Timeline | Roadmap | Browse Source | View Tickets | New Ticket | Search | Admin | Gantt Ticket

## Milestone M06

Due in [3 months \(01/12/10\)](#)

Closed tickets: 0 / Active tickets: 4 / Total tickets: 4

0%

Six months. Review ongoing projects on the [Gantt](#)

[Edit milestone](#) | [Delete milestone](#) | [Attach file](#)

Ticket status by Component

Culham-CCFE-I	<input type="text"/>	0 / 1
ILDG-I	<input type="text"/>	0 / 1
Publicity	<input type="text"/>	0 / 1
SSI-Operations	<input type="text"/>	0 / 1

Note: See [TracRoadmap](#) for help on using the roadmap.

Powered by Trac 0.11.2.1  
By Edgewall Software.

Visit the Trac open source project at <http://trac.edgewall.org/>

Done

# Key Features of Trackers



[www.software.ac.uk](http://www.software.ac.uk)

- A tracker should be web-based for easy access
- Good trackers will store tickets in a db
  - reports can then be gen'd through queries
- Good trackers should make it easy to link to related information
  - code changesets, documents, web pages
- But like any tool, the most important feature is consistency of use
  - get everyone into the habit!



[www.software.ac.uk](http://www.software.ac.uk)

# Writing Good Software Documentation

# Before you Start...



[www.software.ac.uk](http://www.software.ac.uk)

- Know the software!
  - Build, install, use – on a variety of platforms
  - Experiment with it
- Gather information
- Identify target audience
  - Critical – who is the documentation for?
  - Different documentation for different user types?
    - e.g. end-user, administrator, developer
- Set aside time to do it – the dichotomy
  - Writing documentation is often boring
  - Documentation is invaluable for others

# High-level Considerations



[www.software.ac.uk](http://www.software.ac.uk)

- What problem does the software solve?
- How does the software solve the problem?
- How does the user/administrator install and configure (and optionally build) the software?
- How can a user quickly access the functionality of the software?
- How can a developer make use, or extend the functionality, of the software?
- What is the current release state, and how does the current release differ from earlier releases?



# General Guidance



[www.software.ac.uk](http://www.software.ac.uk)

- **Goal-oriented**
  - e.g. steps to build, steps to install, steps to configure
- **Keep it simple!**
  - Try to explain all the detail unnecessarily, e.g. all configuration options when installing
- **Include verification...**
  - Verify procedures for accomplishing each task where appropriate
  - Example trace output/screenshots for success and failure of a step
- **Decide what is most important for your software**
  - What does your (intended) community need/want?
  - Write the documentation the software needs now; prioritise

# General Guidance



[www.software.ac.uk](http://www.software.ac.uk)

- Develop a plan for the documentation in question!
- What is the level of expertise required?
- User should experience success within 30 *minutes*
- Reference material is no substitute for good documentation
- Get someone else to verify the documentation!!!
- Get something out soon; don't spend months on a monolithic piece of documentation
- Avoid proprietary formats e.g. Word, use e.g. PDF
- Be flexible in response to users' feedback

# Example Structure – Keeping it Simple



[www.software.ac.uk](http://www.software.ac.uk)

- Summary
  - Overview, origins (project name, software domain)
  - What the software does and its primary benefits
  - Project and technical contact information (inc. support)
- 3 sections: Building the Software, Installing the Software, Administrating the Software
  - Skill pre-requisites
  - Software pre-requisites & install/configure instructions
  - Step-based guide
- User Guide
  - Skill pre-requisites
  - Basic user guide
  - Advanced/developer user guide (API, configuration, etc.)
- If time is a factor – a less detailed quick start guide is a great place to start!