

# Coding Koans: Best (and Worst) Practices in Software Engineering

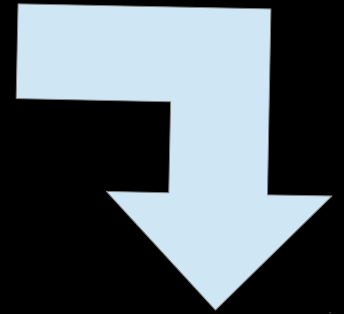
Richard Wareham,  
University of Cambridge, Department of Engineering,  
rjw57@cam.ac.uk, <http://gplus.to/richwareham>

The remote works!

# **An Apology**



Hypocrite





Pictures

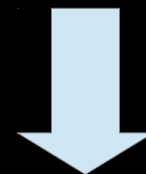
Words





Context

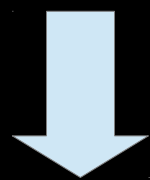
Wisdom





Distraction

Noise





About Me



# Geomerics

[News](#)[Media](#)[Enlighten](#)[Company](#)[Support](#)

## Enlighten overview

Lighting a virtual world involves computing the results of a complex series of inter-reflections. This was once the domain of high-end offline renderers.

Enlighten brings global illumination to real-time gaming. Enlighten's revolutionary technology ensures that, for the first time, lighting can be

## SALES

To arrange an evaluation please contact Geomerics.

Home > Respiratory Assessment

### Product & Clinical Information

- PneumaScan™**
  - Clinical Data
  - Product Specification
- Thora-3DI™**
  - Clinical Data
  - Product Specification

### Case Studies



VIEW ▶

### Contact PneumaCare



VIEW ▶

### Latest News

With the successful CE marking of the Thora-3DI™, PneumaCare Limited has launched another innovative device in its family of award-winning medical products.

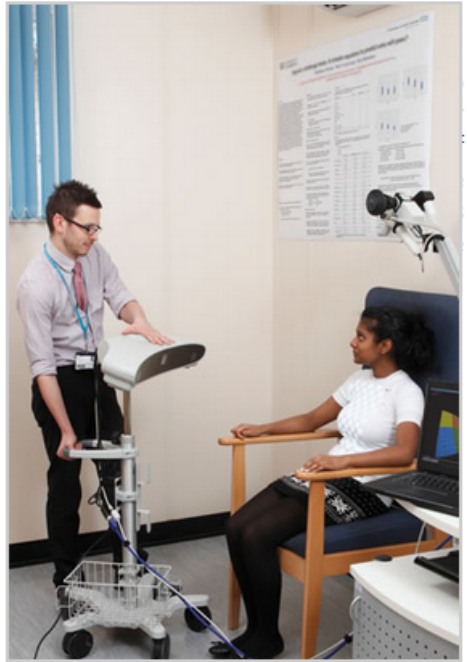
View All



# Respiratory Assessment

In today's current lung function assessment environment, many patients are never referred to the lab for analysis due to their inability to comply with the demands of traditional measurement equipment. Many respiratory doctors and consultants are frustrated by the inability of conventional technology to provide them with the vital data needed in the assessment and early diagnosis of disease for such patients. These limitations impact on the clinician's ability to provide timely and appropriate preventative care for many sufferers of respiratory ailments.

The PneumaCare family of products were designed by clinicians to help resolve these limitations. The PneumaScan™ and Thora-3DI™ measure lung function in a non-contact non-invasive way and because there is no requirement to form a seal on a mouthpiece, patient compliance is not restricted to those with these cognitive skills. There is no need for disposables or daily calibration, and the imaging can be done in a lung function lab, at the patient's bedside or even in hospital admissions points.



Life = Interpret( Vision( Picture ) )

Picture = Render( Model( Death ) )  
Life = Interpret( Vision( Picture ) )

Render( Model( Death ) )

=

Vision<sup>-1</sup>( Interpret<sup>-1</sup>( Death<sup>-1</sup> ) )

# Things I love too much

- Software quality engineering
- Anglo-Saxon poetry
- Bacon
- Amy Pond

# MONK

ALL NEW CASES  
FRIDAYS 9/8C

characters welcome.   
network

the real OCD.



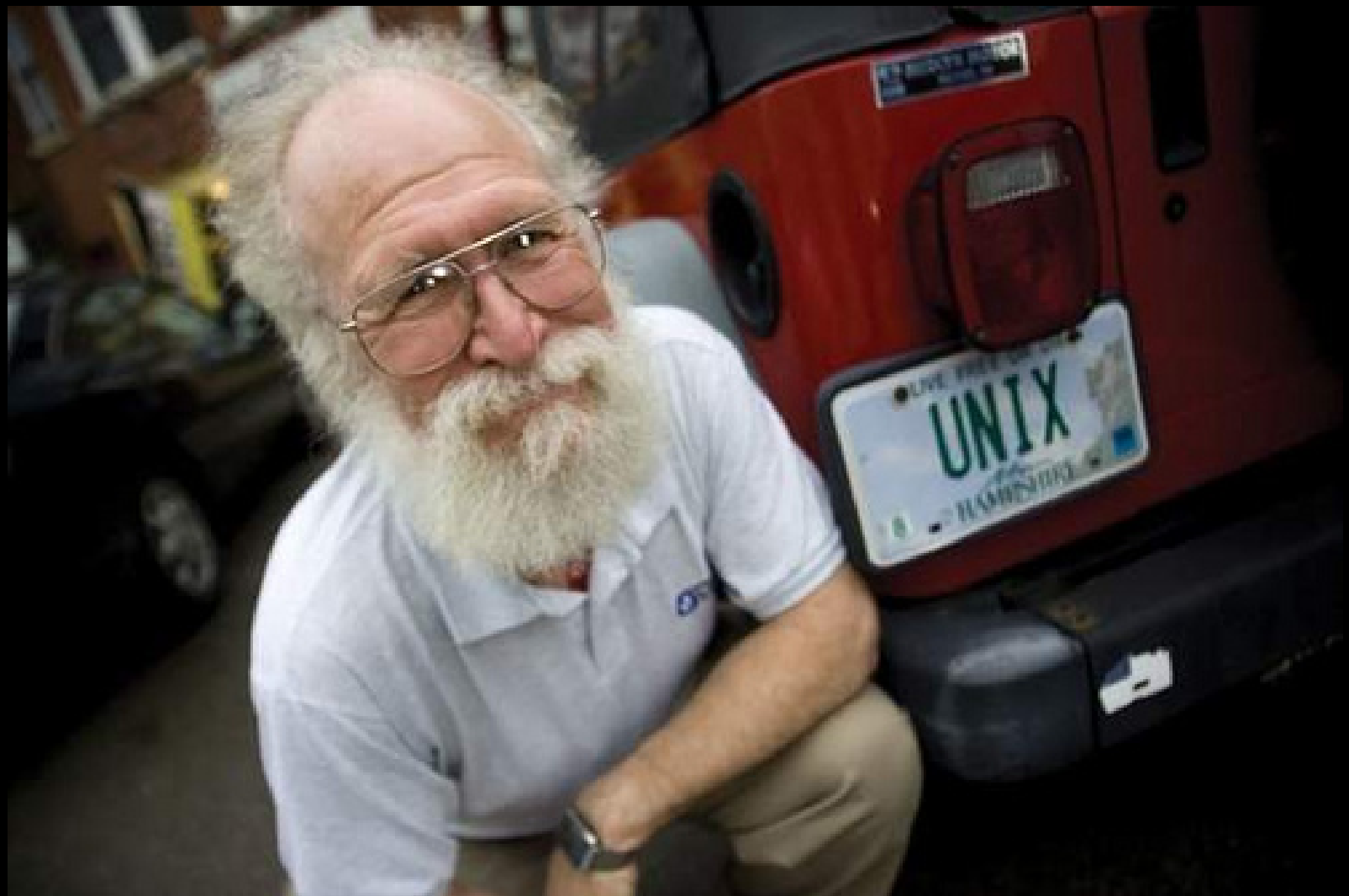




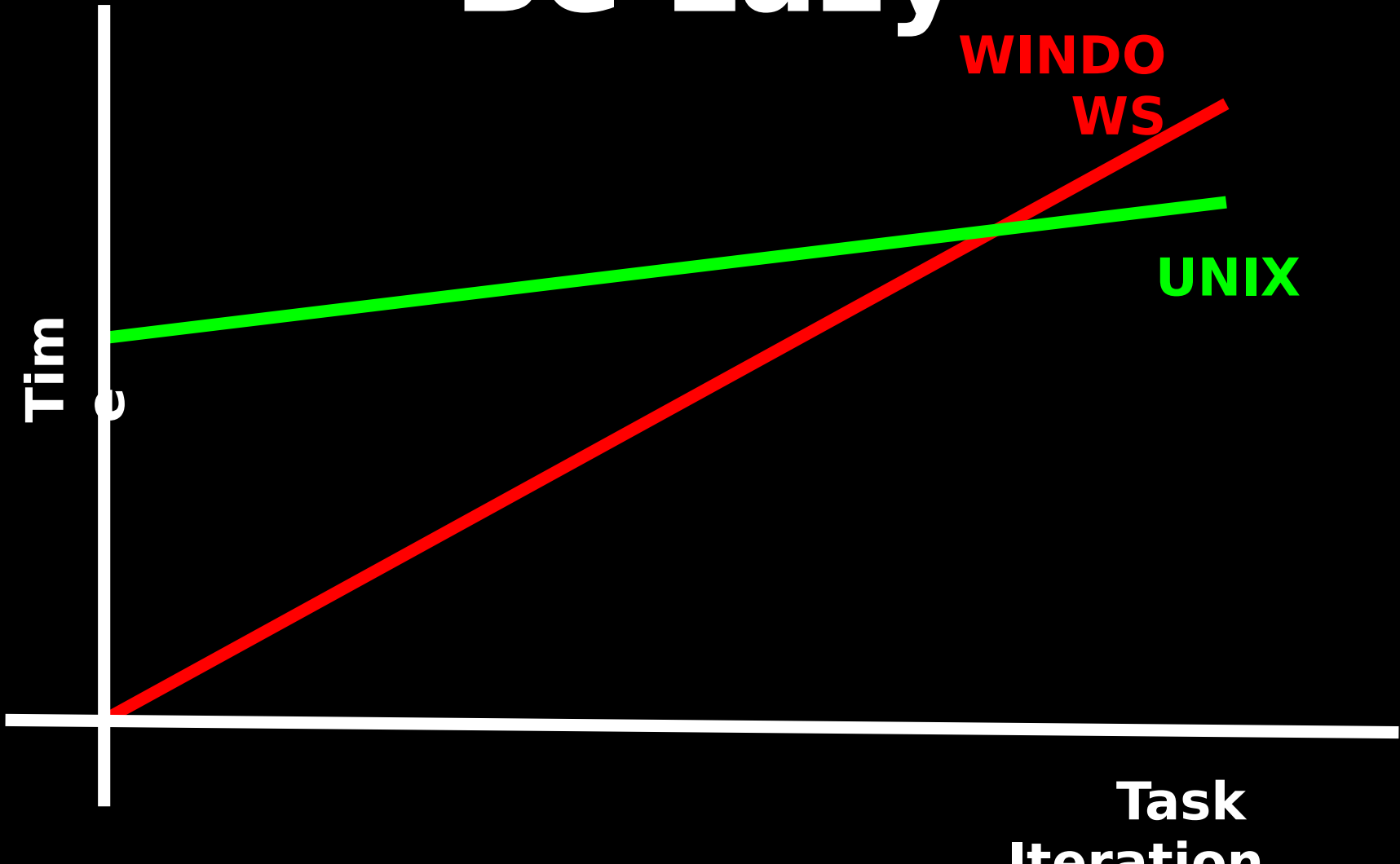
**Use Source Control**

**(i.e. *git*)**

**Be lazy**



# Be Lazy



**Steal**

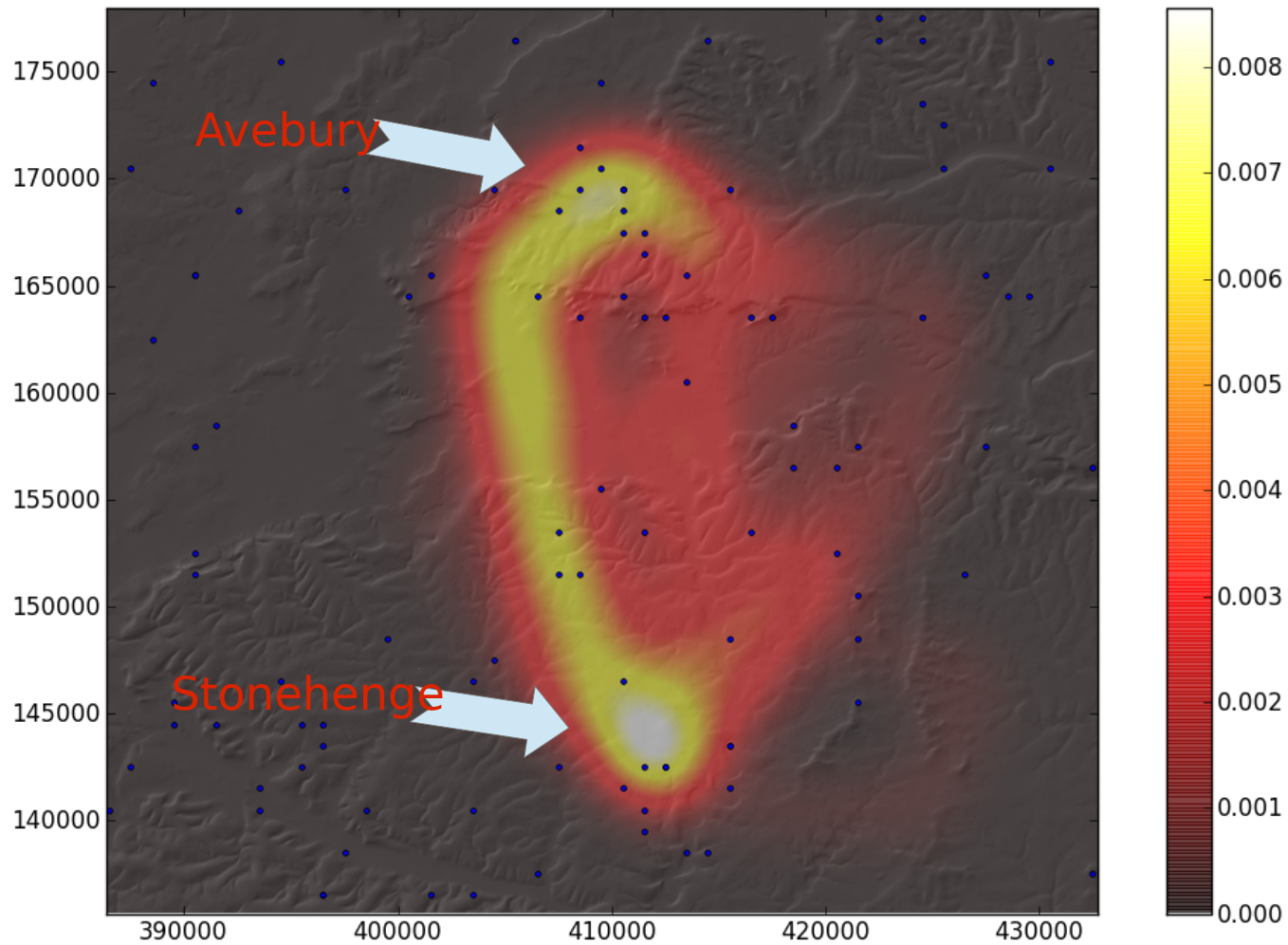


**A MARS a day helps you  
work, rest and play.**









# REST Anti-Patterns

Posted by [Stefan Tilkov](#) on Jul 02, 2008

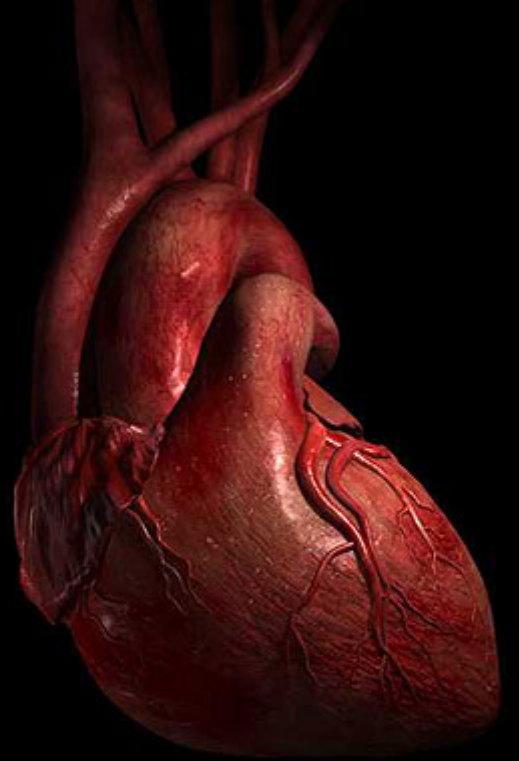
Sections [Enterprise Architecture](#), [Architecture & Design](#)

**FEATURED** [SOA](#), [Antipatterns](#), [Patterns and Practices](#), [Architecture](#), [Patterns](#), [Design](#)

<http://www.infoq.com/articles/rest-anti-patterns>







**Call on Captain Planet**

# Gerrit and Jenkins

<https://code.google.com/p/gerrit/>  
<http://jenkins-ci.org/>



Search input field with 'Search' button

logged in as bri46314 | [Logout](#) | [Preferences](#) | [Help/Guide](#) | [About Trac](#)

	Wiki	Timeline	Roadmap	<b>Browse Source</b>	View Tickets	New Ticket	Search
--	------	----------	---------	----------------------	--------------	------------	--------

[← Previous Changeset](#) | [Next Changeset →](#)

## Changeset 4155

**Timestamp:** ~~13/06/11~~ 15:56:46 (15 months ago)

**Author:** bri46314 ← **This is me**

**Message:** add missing file from [r4151](#)

[r4151](#) forgot to add the magic file which actually caused the lib [redacted] documentation packages to actually have documentation in them :).

**Files:** 1 added

[lib \[redacted\]/trunk/debian/lib \[redacted\] -doc.docs](#)

**Download in other formats:**  
[Unified Diff](#) | [Zip Archive](#)





- [Back to Dashboard](#)
- [Status](#)
- [Changes](#)
- [Workspace](#)
- [Build Now](#)
- [Delete Project](#)
- [Configure](#)
- [Trac](#)
- [Subversion Polling Log](#)

## Project [redacted]-trunk

Build [redacted] from SVN trunk on each checkin.

[Disable Project](#)



[Workspace](#)



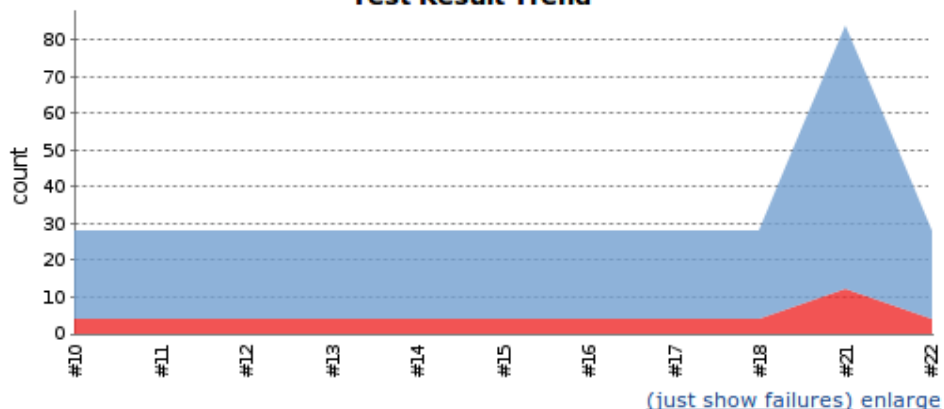
[Recent Changes](#)



[Latest Test Result](#) (4 failures / -8)

[edit description](#)

### Test Result Trend



### Build History [\(trend\)](#)

- [#22](#) [01-Sep-2012 00:25:15](#)
- [#21](#) [01-Sep-2012 00:16:44](#)
- [#20](#) [31-Aug-2012 15:00:57](#)
- [#19](#) [30-Aug-2012 10:01:18](#)
- [#18](#) [29-Aug-2012 18:01:18](#)
- [#17](#) [29-Aug-2012 17:01:19](#)
- [#16](#) [29-Aug-2012 13:01:19](#)

### Document links

- [Generated documentation](#)

### Upstream Projects

- [\[redacted\]-trunk](#)

### Permalinks

- [Last build \(#22\), 2 days 14 hr ago](#)

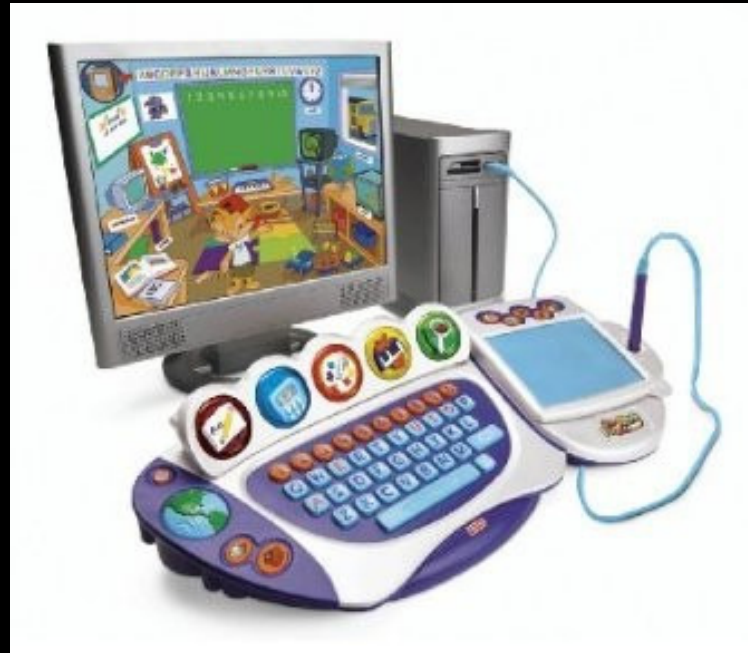


Let's just ignore these, shall we?

**Use Code Review**

# **Make Jenkins a Reviewer**

# Make it easy to play with





#### Navigation

[Main page](#)  
[ICAT News](#)  
[GoogleCode home](#)  
[ICAT review](#)  
[Recent changes](#)  
[Help](#)  
[About](#)

#### Discussion groups

[Icatgroup](#)  
[Icat-announcements](#)  
[Icat-developers](#)  
[Icat-support](#)

#### Demonstration system

[TopCat](#)  
[Glassfish console](#)  
[Oracle console](#)  
[Domain Index](#)

#### ICAT Software

[Jenkins](#)

Page [Discussion](#)

Read [View source](#) [View history](#)

Go

Search

## ICAT

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.

### Demonstration

ICAT:

- [ICAT End Point Wsdl](#)
- [ICAT End Point Tester](#)

TopCat using multiple ICATs:

- [TopCat web tool](#)

### Releases

- An index to the [documentation for the current release](#) is available.
- In general releases (from 4.1.0 onwards) may be found linked from [/mvn/site](#). Earlier releases may be found [here](#)
- [Experimental Data Server interface](#)

### Access to source code

- The code is available to view from our source code [repository](#)
- Instructions for checking out a copy of the source code are on this [page](#)

### Meet the team



**How-to:** Explore this project's source code by clicking the "Browse" and "Changes" links above. ✕

### Command-line access

Use this command to anonymously check out the latest project source code:

```
# Non-members may check out a read-only working copy anonymously over HTTP.  
svn checkout http://icatproject.googlecode.com/svn/ icatproject-read-only
```

### GUI and IDE access

This project's Subversion repository may be accessed using many different [client programs and plug-ins](#). See your client's documentation for more information.

[Terms](#) - [Privacy](#) - [Project Hosting Help](#)

Powered by [Google Project Hosting](#)

# ICATService Web Service Tester

This form will allow you to test your web service implementation ([WSDL File](#))

To invoke an operation, fill the method parameter(s) input boxes and click on the button labeled with the method name.

## Methods :

public abstract uk.icat3.client.EntityBaseBean uk.icat3.client.ICAT.get(java.lang.String,java.lang.String,java.lang.Object) throws uk.icat3.client.BadParameterException\_Exception,uk.icat3.client.IcatInternalException\_Exception,uk.icat3.client.InsufficientPrivilegesException\_Exception

(  ,  ,  )

public abstract void uk.icat3.client.ICAT.delete(java.lang.String,uk.icat3.client.EntityBaseBean) throws uk.icat3.client.IcatInternalException\_Exception,uk.icat3.client.InsufficientPrivilegesException\_Exception,uk.icat3.client.NoSuchObjectException\_Exception

(  ,  )

public abstract java.util.List uk.icat3.client.ICAT.search(java.lang.String,java.lang.String) throws uk.icat3.client.BadParameterException\_Exception,uk.icat3.client.IcatInternalException\_Exception,uk.icat3.client.InsufficientPrivilegesException\_Exception

(  ,  )

public abstract java.lang.Object uk.icat3.client.ICAT.create(java.lang.String,uk.icat3.client.EntityBaseBean) throws uk.icat3.client.IcatInternalException\_Exception,uk.icat3.client.InsufficientPrivilegesException\_Exception,uk.icat3.client.NoSuchObjectException\_Exception

(  ,  )

public abstract void uk.icat3.client.ICAT.update(java.lang.String,uk.icat3.client.EntityBaseBean) throws uk.icat3.client.IcatInternalException\_Exception,uk.icat3.client.InsufficientPrivilegesException\_Exception,uk.icat3.client.NoSuchObjectException\_Exception

(  ,  )

public abstract void



#### Navigation

- [Main page](#)
- [ICAT News](#)
- [GoogleCode home](#)
- [ICAT review](#)
- [Recent changes](#)
- [Help](#)
- [About](#)

#### Discussion groups

- [Icatgroup](#)
- [Icat-announcements](#)
- [Icat-developers](#)
- [Icat-support](#)

#### Demonstration system

- [TopCat](#)
- [Glassfish console](#)
- [Oracle console](#)
- [Domain Index](#)

#### ICAT Software

- [Jenkins](#)

Page

[Discussion](#)

Read

[View source](#)

[View history](#)

Go

Search

[Log in / create account](#)

## Documentation for current release

### Contents [\[hide\]](#)

- [1 Introduction](#)
- [2 Miscellaneous](#)
- [3 Top page for each component](#)
- [4 Installation](#)
- [5 User documentation](#)
- [6 Developer documentation](#)
- [7 Issues with this release](#)

### Introduction

ICAT 4.2 makes use of authentication plugins. These have their own version numbers and are maintained separately from the main ICAT. This document exists to tie them together and to provide useful pointers inside the generated documentation. Two authentication plugins are provided: `authn_ldap` which makes use of an LDAP server and `auth_db` which uses a database table holding (username, password) pairs. You may also write your own plugin. You will need at least one authentication plugin. If defects are found in this release, a note of it will be made at the bottom of this page.

### Miscellaneous

- [• ICAT Release notes](#)
- [• authn\\_db Release notes](#)
- [• authn\\_ldap Release notes](#)
- [• FAQ](#)
- [• Issue tracker](#) Please make use of this to report bugs.

### Top page for each component

- [• ICAT version 4.2.1](#)




# ICAT Server ".ear"

Last Published: 2012-09-11 | Version: 4.2.1 | ICAT > ICAT Server ".ear" > ICAT Server Installation

**Contents**

- Server Installation
- Project Documentation
  - Project Information
- Parent Project
  - ICAT

Built by: 

## Installation

To deploy an ICAT you need:

1. a suitable container to support EJBs,
2. databases on a system supported by eclipselink,
3. to configure glassfish,
4. to install and configure suitable authentication plugins,
5. to install a copy of icat.properties and log4j.properties in the correct place,
6. to deploy the .ear file,
7. and see if it works.

If you already have ICAT 4.2.0 deployed then skip on to [installing the .ear file](#) .

## EJB Container

In principle you can use any EJB container. Testing has been performed with glassfish 3.1.2 and these notes refer to that version.

You must already have a Java SE installed (i.e. the command "java" is known), then you can get Java EE 6 SDK Update 4 with JDK 6 Update 31 or later from <http://www.oracle.com/technetwork/java/javasee/downloads/index.html> and execute the script.

Request custom installation, install and configure, and enter proxy details if necessary on your site. Request a server domain, set the domain name and set the admin password. For a secure deployment of glassfish you should obtain a trusted certificate rather than using the self-signed one in the distribution.

## Databases

*The database schema is almost identical to that used for ICAT 4.1 (the only difference is that some text columns are wider) and is identical to that used for ICAT 4.2.0. So if you already have a 4.1 or 4.2 database installed there is no need to start with an empty schema, and you can skip this section.*

 Search projects[Project Home](#) [Downloads](#) [Wiki](#) [Issues](#) **Source**Checkout **Browse** Changes  Search TrunkSource path: [svn/](#) ops[r1834](#) [r2123](#)

Directories	Filename	Size	Rev	Date	Author
▼ ops	<a href="#">Installation.txt</a>	603 bytes	r1662	Jan 27, 2012	crcamills
▶ etc	<a href="#">create_icat.sql</a>	76.5 KB	r1662	Jan 27, 2012	crcamills
▼ icat40	<a href="#">create_users.sql</a>	1.7 KB	r1663	Jan 27, 2012	harj1991
orainit					
test_icat					
usertable_init					
topcat40					

```
$ java -jar jenkins.war
```

```
$ xdg-open http://localhost:9080
```

```
$ java -jar gerrit.war init -d dir
```

```
$ dir/bin/gerrit.sh start
```

```
$ xdg-open http://localhost:9090
```

# Finished rant!

See more at  
<http://gplus.to/richwareham>