

Facilities Business Applications

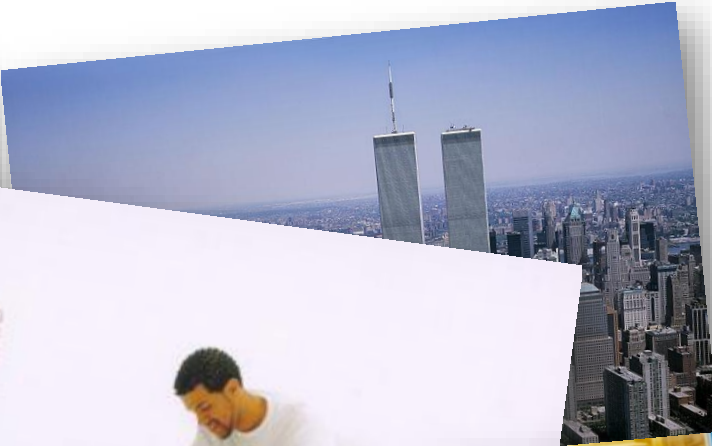
Hannah Griffin

- a software engineer moonlighting as a group leader
(or maybe vice versa)



Science & Technology Facilities Council

ISIS



And there was a guy over in the America
doing some cooking.....



....And he had a blog.



Science & Technology Facilities Council

ISIS



Joel Spolsky, co-founder
of [Trello](#) and [Fog Creek Software](#),
and CEO of [Stack Overflow](#).

The Joel Test: 12 Steps to Better Code

<https://www.joelonsoftware.com/2000/08/09/the-joel-test-12-steps-to-better-code/>

* Joel includes a disclaimer that you “*really shouldn’t*” use it to make sure that your nuclear power plant software is safe” however I think that risks some people thinking their safety critical software is above this – it isn’t. I think it is more appropriate to say “do all this and then *do more stuff* that is safety critical specific”



Science & Technology Facilities Council

ISIS

The Joel Test

1. Do you use source control?
2. Can you make a build in one step?
3. Do you make daily builds?
4. Do you have a bug database?
5. Do you fix bugs before writing new code?
6. Do you have an up-to-date schedule?
7. Do you have a spec?
8. Do programmers have quiet working conditions?
9. Do you use the best tools money can buy?
10. Do you have testers?
11. Do new candidates write code during their interview?
12. Do you do hallway usability testing?



2004



Science & Technology Facilities Council

ISIS

2004



2004

The Joel Test

1. Do you use source control? ✗
2. Can you make a build in one step? ✗
3. Do you make daily builds? ✗
4. Do you have a bug database? ✗
5. Do you fix bugs before writing new code? ✗
6. Do you have an up-to-date schedule? ✗
7. Do you have a spec? ✗
8. Do programmers have quiet working conditions? ✗
9. Do you use the best tools money can buy? ✗
10. Do you have testers? ✗
11. Do new candidates write code during their interview? ✗
12. Do you do hallway usability testing? ✗

2004

The Joel Test

1. Do you use source control? ✗
2. Can you make a build in one step? ✗
3. Do you make daily builds? ✗
4. **Do you have a bug database?** ✓
5. Do you fix bugs before writing new code? ✗
6. Do you have an up-to-date schedule? ✗
7. Do you have a spec? ✗
8. Do programmers have...
conditi

Date	Title	Description	Priority

2006



Google

2006

The Joel Test

1. Do you use source control? ✗
2. Can you make a build in one step? ✗
3. Do you make daily builds? ✗
4. Do you have a bug database? ✗
5. Do you fix bugs before writing new code? ✗
6. Do you have an up-to-date schedule? ✗
7. Do you have a spec?
8. Do programmers have quiet working conditions?
9. Do you use the best tools money can buy? ✗
10. Do you have testers? ✗
11. Do new candidates write code during their interview? ✗
12. Do you do hallway usability testing?

2006

The Joel Test

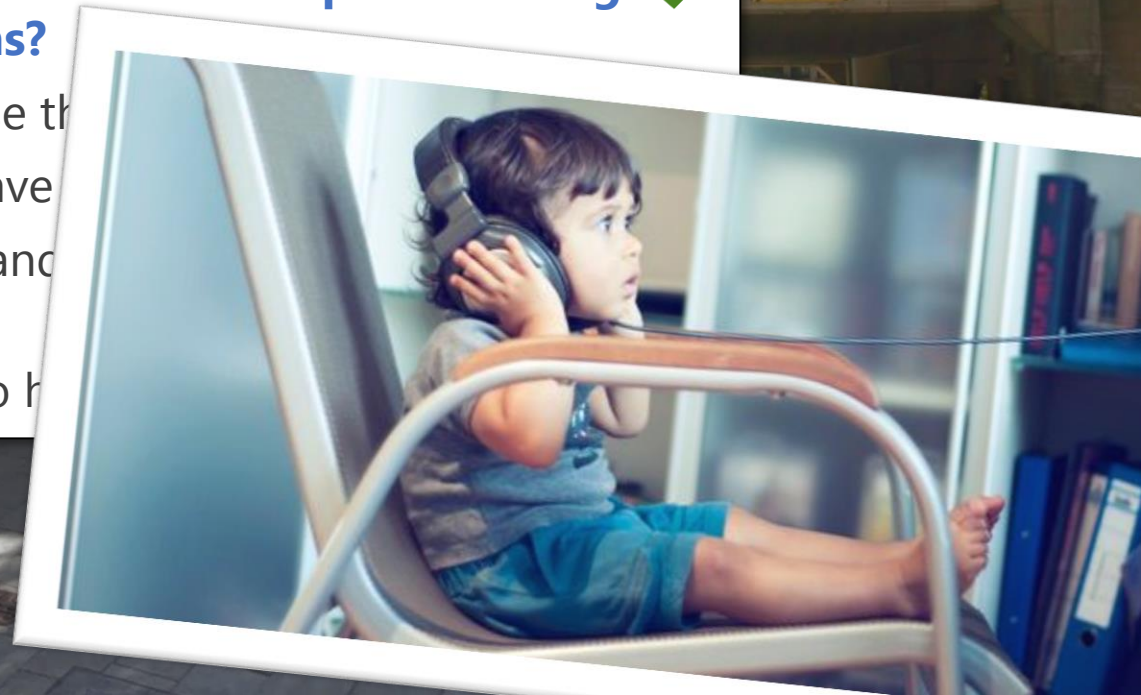
1. Do you use source control? ✗
2. Can you make a build in one step? ✗
3. Do you make daily builds? ✗
4. Do you have a bug database? ✗
5. Do you fix bugs before writing new code? ✗
6. Do you have an up-to-date schedule? ✗
- 7. Do you have a spec? ✓**
8. Do programmers have quiet working conditions?
9. Do you use the best tools money can buy? ✗
10. Do you have testers? ✗
11. Do new candidates write code during their interview? ✗
12. Do you do hallway usability testing?



2006

The Joel Test

1. Do you use source control? ✘
2. Can you make a build in one step? ✘
3. Do you make daily builds? ✘
4. Do you have a bug database? ✘
5. Do you fix bugs before writing new code? ✘
6. Do you have an up-to-date schedule? ✘
7. **Do you have a spec? ✓**
8. **Do programmers have quiet working conditions? ✓**
9. Do you use the right tools?
10. Do you have a good development environment?
11. Do new candidates have a phone interview?
12. Do you do hiring on-site?



2006

The Joel Test



12. Do you do hallway usability testing? ✓

2006

The Joel Test

1. Do you use source control? ✗
2. Can you make a build in one step? ✗
3. Do you make daily builds? ✗
4. Do you have a bug database? ✗
5. Do you fix bugs before writing new code? ✗
6. Do you have an up-to-date schedule? ✗
7. **Do you have a spec?** ✓
8. **Do programmers have quiet working conditions?** ✓
9. Do you use the best tools money can buy? ✗
10. Do you have testers? ✗
11. Do new candidates write code during their interview? ✗
12. **Do you do hallway usability testing?** ✓

2007-10



2007-10

The Joel Test

1. **Do you use source control?** ✓
2. Can you make a build in one step? ✗
3. Do you make daily builds? ✗
4. **Do you have a bug database?** ✓
5. Do you fix bugs before writing new code? ✗
6. Do you have an up-to-date schedule? ✗
7. Do you have a spec? ✗
8. **Do programmers have quiet working conditions?** ✓
9. Do you use the best tools money can buy? ✗
10. Do you have testers? ✗
11. Do new candidates write code during their interview? ✗
12. Do you do hallway usability testing? ✗

2007-10

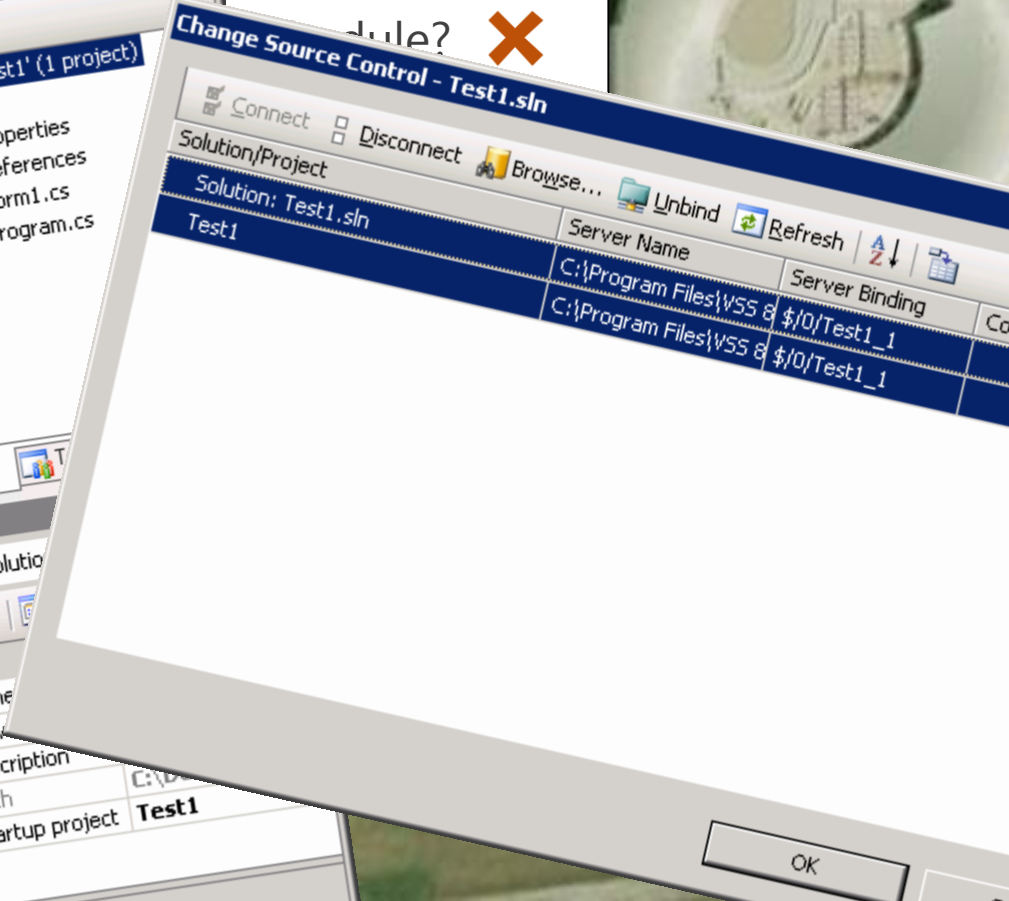
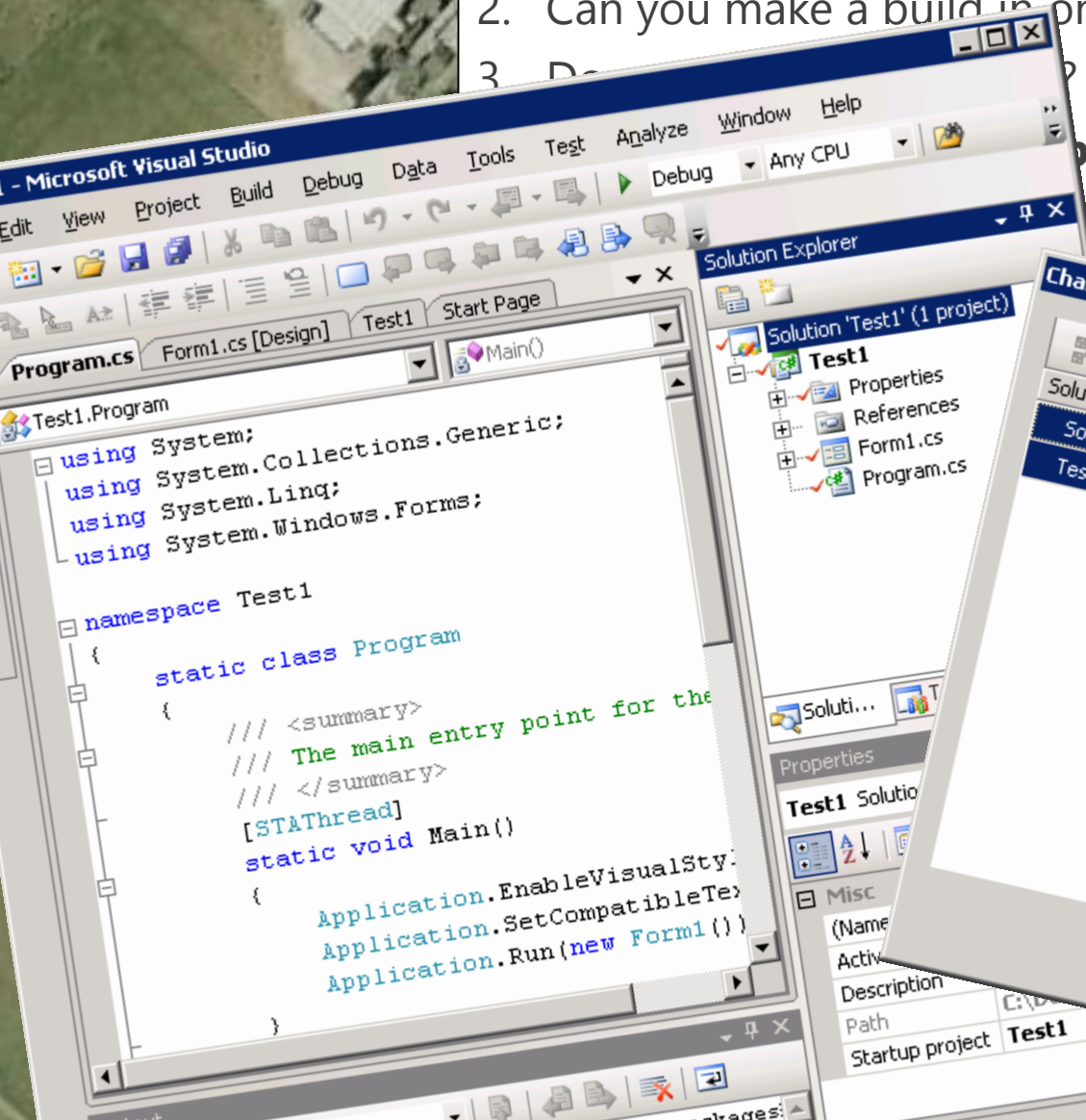
The Joel Test

1. Do you use source control? ✓
2. Can you make a build in one step? ✗
3. Do you have a build script? ✗

base? ✓

adding new code? ✗

module? ✗



2007-10

The Joel Test

1. **Do you use source control?** ✓
2. Can you make a build in one step? ✗
3. Do you make daily builds? ✗
4. **Do you have a bug database?** ✓
5. Do you fix bugs before writing new code? ✗
6. Do you have a...

The screenshot shows a 'Issues - New Item' dialog box with a ribbon-style menu. The ribbon includes 'Edit' (Save, Cancel, Paste, Cut, Copy, Attach File, Spelling) and 'Commit'. Below the ribbon are several input fields: 'Title', 'Assigned To', 'Issue Status' (set to 'Active'), 'Priority' (set to '(2) Normal'), 'Description', and 'Category' (set to '(2) Category2'). A link for help on HTML formatting is visible at the bottom.

Issues - New Item

Edit

Save Cancel Paste Cut Copy Attach File Spelling

Commit Clipboard Actions Spelling

Title

Assigned To

Issue Status Active

Priority (2) Normal

Description

Category (2) Category2

[Click for help about adding basic HTML formatting.](#)

2007-10

The Joel Test

1. **Do you use source control?** ✓
2. Can you make a build in one step? ✗
3. Do you make daily builds? ✗
4. **Do you have a bug database?** ✓
5. Do you fix bugs before writing new code? ✗
6. Do you have an up-to-date schedule? ✗
7. **Do you have a spec?** ✓
8. **Do programmers have quiet working conditions?** ✓

Do you use the best tools money can buy? ✗

Do you have testers? ✗

Do new candidates write code during their interview? ✗

Do you do hallway usability testing? ✗



2011

Software Development Skills Evaluation (50 minutes)

Preamble

To help us understand your skills we have set a short task.

Make use of the pens/pencils and paper for making notes and designing your solution.

Make use of the computer and your choice of software to implement your solution.

We are interested in the **quality of your designs and choices** and **quality of your implementation**. This is not a test of how much you can complete in the short time available. It does not matter if you do not complete all aspects of the task. You may be asked to justify your design / architecture choices.

If you get stuck at any stage, please implement a stub (possibly returning 'false' data) and move on to other areas of your implementation.

Description of the task

Using the provided database (see below for details) you should **design** and **implement** an n-tier system to:

- Connect to the database in an appropriate technology and framework
- Provide a web GUI to enable a user to:
 - o View all experiments, showing associated experimenters and samples in a single page
 - o Delete a sample (interface should be a single text box which accepts a sample id)
 - o Update a sample (interface should be a collection of editable controls)

1. Do you

2. Can you

3. Do you

4. Do you

5. Do you

6. Do you

7. Do you

8. Do you

9. Do you

10. Do you have testers?

11. Do new candidates write code during their interview? 

12. Do you do hallway usability testing? 

2011

The Joel Test

- 1. Do you use source control? ✓
- 2. Can you make a build in one step? ✗
- 3. Do you make daily builds? ✗
- 4. Do you have a bug database? ✓

- Revision 7643: /RELEASE/

[Support Tools/](#)
[sitsView/](#)
[atabase schema/](#)
[ck/](#)
[del/](#)

[Apache Subversion vers](#)

it: STFC

The screenshot shows the Trac web interface for 'Integrated SCM & Project Management'. The main content area displays a list of tickets under the heading '{1} All Active Tickets (1083 matches)'. A pagination bar shows 'Results (1 - 100 of 1083)' with a sequence of numbered buttons from 1 to 11. Below this is a table of tickets with columns for Ticket ID, Summary, Component, Version, Milestone, Type, and Severity.

Ticket	Summary	Component	Version	Milestone	Type	Severity
#8813	next_rev is slow, particularly in the direct-svnfs case	version control	0.11	next-dev-1.3.x	defect	major
#4431	wiki_to_wikidom	wiki system	0.10.3	topic-wikiengine	enhancement	critical
#886	Add support for Master tickets	ticket system	devel	next-major-releases	enhancement	major
#12681	Restore the t.e.o specific customization after the switch to Jinja2	project	1.3dev	1.4	defect	normal
#11719	Auto-preview breaks TicketExt plugin, possibly others	ticket system	1.0.1	next-dev-1.3.x	defect	major

2013

The Joel Test

1. Do you use source control? ✓
2. Can you make a build in one step? ✓
3. Can you build all builds? ✓



2013

The Joel Test

1. Do you use source control? ✓
2. Can you make a build in one step? ✓
3. Do you make daily builds? ✓
4. Do you have a build database? ✓

Writing new code? ✗

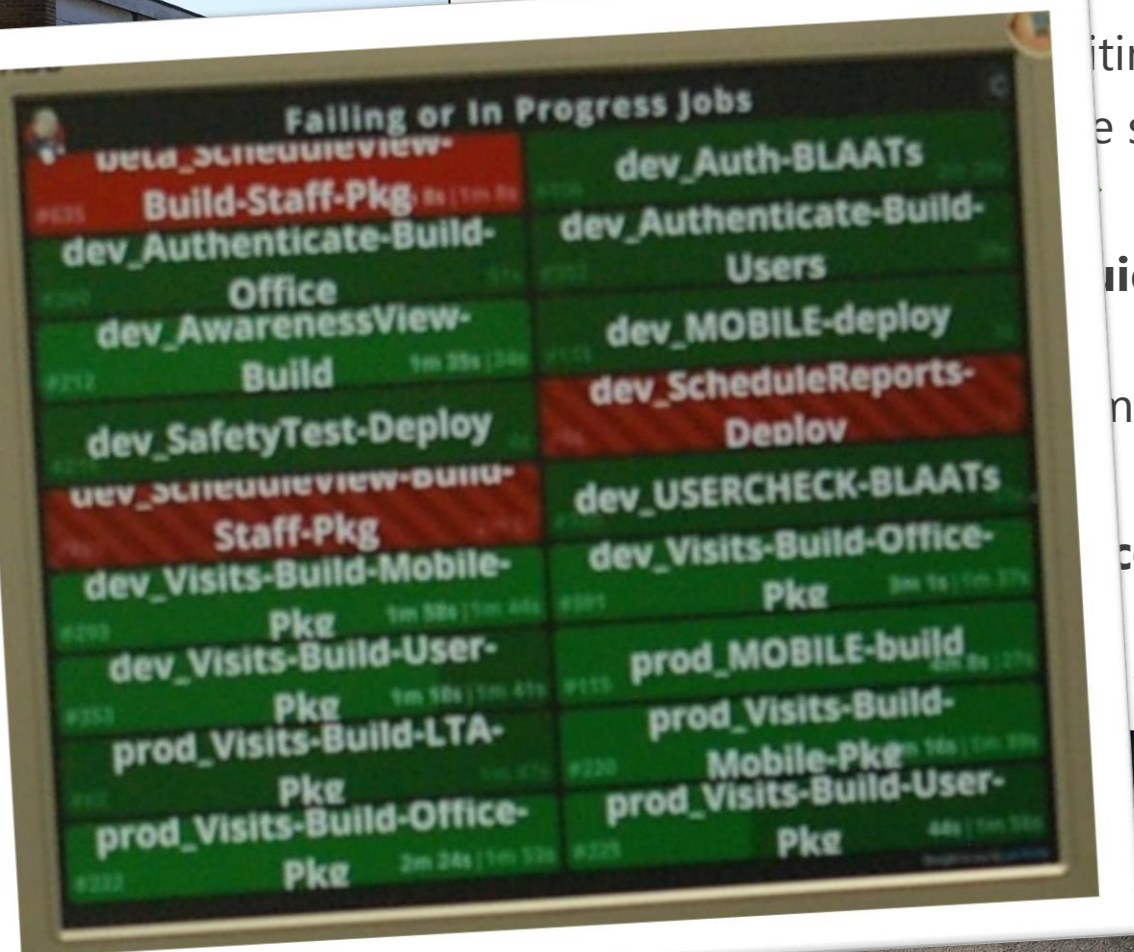
On the schedule? ✗

Quiet working ✓

Money can buy? ✗

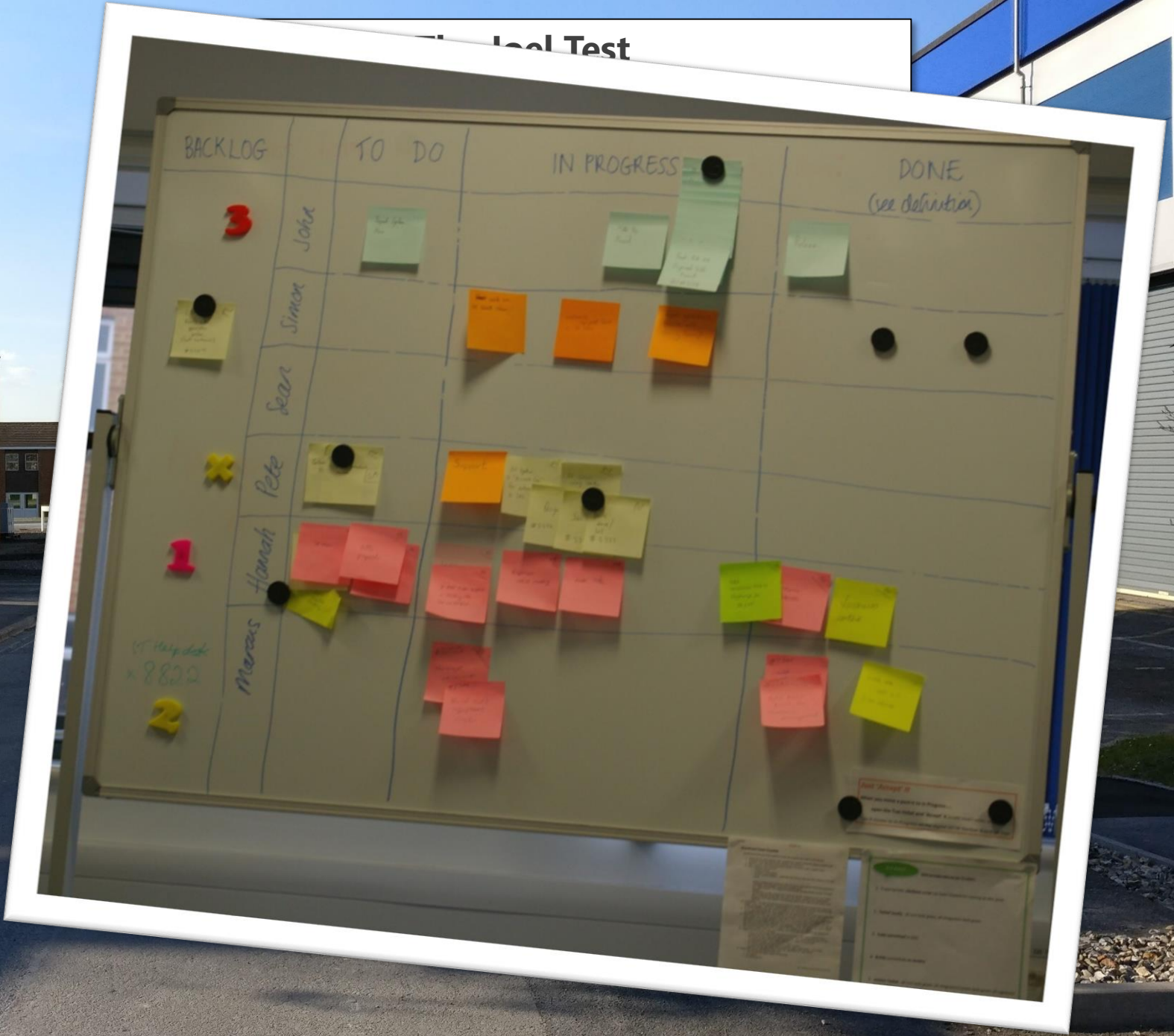
Code during ✓

Testing? ✗



2013

Final Test



BACKLOG

TO DO

IN PROGRESS

DONE
(see definition)

3

John

1.2

1.2

1.2

1.2

1.2

Simon

1.2

1.2

1.2

Sean

X

Pete

1.2

1.2

1.2

1.2

1

Hannah

1.2

1.2

1.2

1.2

1.2

1.2

1.2

1.2

Help desk # 2822

2

Marcus

1.2

1.2

1.2

1.2

1.2

1.2

2013-16

The Joel Test

1. Do you use source control? ✓
2. Can you make a build in one step? ✓
3. Do you make daily builds? ✓
4. Do you have a bug database? ✓
5. Do you fix bugs before writing new code? ✗
6. Do you have an up-to-date schedule? ✗
7. Do you have a spec? ✓
8. Do programmers have quiet working conditions? ✓
9. Do you use the best tools money can buy? ✗
10. Do you have testers?
11. Do new candidates write code during their interview? ✓
12. Do you do hallway usability testing? ✗

2013-16

The Joel Test

1. Do you use source control? ✓
2. Can you make a build in one step? ✓
3. Do you make daily builds? ✓
4. Do you have a bug database? ✓
5. Do you fix bugs before writing new code? ✗
6. Do you have an up-to-date schedule? ✓
7. Do you have a spec? ✓
8. Do programmers have quiet working conditions? ✓
9. Do you use the best tools money can buy? ✗
10. Do you have testers? ✗
11. Do new candidates write code during their interview? ✓
12. Do you do hallway usability testing? ✗

2013-16

The Joel Test

1. Do you use source control? ✓
2. Can you make a build in one step? ✓

Title	SP	Start Date	Target Date	Projected Date	Driving Tasks / Notes	Customer	Status
COMPLETE (4)							
Engin-X Xpress system					Done as part of SOTW. Development complete. Despite initial request for system "exactly like GEM" on demonstration there were Engin-X specific changes needed. These changes will be done in due course (i.e. when prioritised). See https://trac.isis.rl.ac.uk/J2EE/milestone/EnginX%20Xpress%201.0# for outstanding tickets.	AK	COMPLETE
Scheduling solution (v3.2)	#8 SCHED		30/07/2014	08/08/2014	https://trac.isis.rl.ac.uk/BIS/milestone/SCHEDULE%203.2		
Scheduling solution (v3.3)	#8 SCHED	09/08/2014	13/08/2014	13/08/2014	https://trac.isis.rl.ac.uk/BIS/milestone/SCHEDULE%203.3	PK, RC & CHG	COMPLETE
Scheduling Solution Rolled Out to ISIS	#8 SCHED	19/08/2014	26/11/2014	26/11/2014	https://trac.isis.rl.ac.uk/BIS/milestone/SCHEDULE%204.0	PK, RC & CHG	COMPLETE
IN PROGRESS (3)							
Release experimental outputs system	#9 EXPO	11/07/2011	30/06/2013				
MICE rollout		03/10/2013	11/10/2013	31/01/2014	TG and PK are looking at eVal (from ResearchFish). Feasibility should be complete by end of 2012 early 2013. Aim for system around June 2013.	PK	IN PROGRESS
					Includes suite set up so Rose Hayes can use software for MICE like Facilities User Office use it for ISIS & CLF. AK has informed HG that Ken Long has acknowledged he is responsible for this. See https://trac.isis.rl.ac.uk/BIS/milestone/MICE%20suite%20setup for comments and documented outstanding tickets so far.	Ken Long (AK)	IN PROGRESS
Scheduling solution for ISIS staff training (complete)	#8 SCHED		28/11/2014	28/11/2014	Completed initial training in Jan 2014. Created a user guide for Rose and Debbie. Waiting for Ken Long to arrange meeting to finalise T & C tick box. (May then need to do refresher training)		
					* user office staff training - DONE * ISIS scheduler training - DONE * ISIS local contact training - DONE * ISIS SE teams training - DONE	PK	IN PROGRESS

2013-16

The Joel Test

1. Do you use source control? ✓
2. Can you make a build in one step?
3. Do you have a build script?

	In Progress (expected – team member)	To be rolled out (expected)	Rollled out (actual)	Not Doing
Proposals & Outcomes Team				
		<u>RCaH Proposals</u>	Display grant files uploaded for a proposal (Q3 2017) Add submission date to proposals (Q2 2017)	
		<u>Reporting</u>	Update all reports used for mailing lists to reflect unsubscribes/deactivations (Q3 2017) Report for Schedulers and Local contacts (Q3 2017)	
Visitor and user details reports for MICE	Query CLF proposal data in SP (Q2 2017 - MW)			
OFFICIAL SENSITIVE flags on queries (Q1 2017)	CLF Annual Reports (Q2 2017)			
Regrouping queries by user story rather than data source	ISIS Annual Reports (Q2 2017)			
Trial options selected for STFC Business Intelligence solution (Delayed start)				
Create report for all fields required for laserlab (Q4 2017 - ?)				
		<u>ResearchFish</u>		
		<u>CLF Proposals</u>	Add submission date to	
Using ORCID as alternative identifier (Delayed start)				
Remove ability for submitter to				

2013-16

The Joel Test

1. Do you use source control? ✓
2. Can you make a build in one step? ✓
3. Do you make daily builds? ✓
4. Do you have a bug database? ✓
5. Do you fix bugs before writing new code? ✗
6. Do you have an up-to-date schedule? ✓
7. Do you have a spec? ✓
8. Do programmers have quiet working conditions? ✓
9. Do you use the best tools money can buy? ✓
10. Do you have testers? ✗
11. Do new candidates write code during their interview? ✓
12. Do you do hallway usability testing? ✗

2013-16

The Joel Test

This repository Search Pull requests Issues Marketplace Explore

isisbusapps / ISISBusApps Private

Code Issues 69 Pull requests 1 Projects

Proposals

ISIS CLF RCaH

1 Experimenters 2 Facility Access

Step 2 of 4:

Experiment title*

proposal falls under the following sections
 Chemistry Materials

ready spoken to the following instrument

Time (minutes)*

Type*

PLURALSIGHT

What do you want to learn?

Courses

ADMIN TOOLS Dashboard Accounts Organizations Applications Libraries

Announcements

Please find below the live status of the facilities at STFC.
Feel free to bookmark this page to see the

Uptime History

Status	Name	Rate
↑	users.facilities.rl.ac.uk	1m
↑	proposal.isis.rl.ac.uk	1m
↑	https://astec.stfc.ac.uk	1m

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Monitors

HTTP www.isis.s...

4000
3000
2000
1000
0

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2017

The Joel Test



2017

The Joel Test

1. Do you use source control? ✓
2. Can you make a build in one step? ✓
3. Do you make daily builds? ✓
4. Do you have a bug database? ✓
5. Do you fix bugs before writing new code? ✗
6. Do you have an up-to-date schedule? ✓
7. Do you have a spec? ✓
8. Do programmers have quiet working conditions? ✓
9. Do you use the best tools money can buy? ✓
10. Do you have testers? ✗
11. Do new candidates write code during their interview? ✓
12. Do you do hallway usability testing? ✗

The Joel Test

1. Do you use source control?
2. Can you make a build in one step?
3. Do you make daily builds?
4. Do you have a bug database?
- 5. Do you fix bugs before writing new code?**
6. Do you have an up-to-date schedule?
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9. Do you use the best tools money can buy?
- 10. Do you have testers?**
11. Do new candidates write code during their interview?
- 12. Do you do hallway usability testing?**



https://en.wikipedia.org/wiki/List_of_best-selling_mobile_phones
https://en.wikipedia.org/wiki/Human_Genome_Project
https://en.wikipedia.org/wiki/PlayStation_2
http://news.bbc.co.uk/1/hi/in_depth/business/2000/review/1069169.stm
<https://www.whatcar.com/news/every-what-car-car-of-the-year-winner/#24-expand>
https://en.wikipedia.org/wiki/List_of_Prime_Ministers_of_the_United_Kingdom
<https://www.macworld.com/article/3021418/os-x/revisiting-the-first-os-x-beta-kodiak.html>
[https://en.wikipedia.org/wiki/7_Days_\(Craig_David_song\)](https://en.wikipedia.org/wiki/7_Days_(Craig_David_song))
<https://web.archive.org/web/20000815230640/http://www.fogcreek.com:80/we.htm>
<https://www.isis.stfc.ac.uk/Pages/annual-review-2000.pdf>
<https://www.todaytranslations.com/news/three-reasons-stop-beating-geeks-team>
<http://www.codepool.biz/switching-visual-studio-projects-from-sourcesafe-to-other-scc-providers.html>
<https://trac.edgewall.org/report/1>
<https://msdn.microsoft.com/en-gb/benefits-overview.aspx>
<https://www.pluralsight.com>
<https://statuscake.com>
<https://balsamiq.com>
<https://www.monitis.com>
<https://github.com>

