

Getting to one button deploy using ***KANBAN***

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Management Solutions for Knowledge Workers

“So – just when **can** we
upgrade SQLServer
on the DB servers?”

Off-the-shelf software customized to
the point of no return



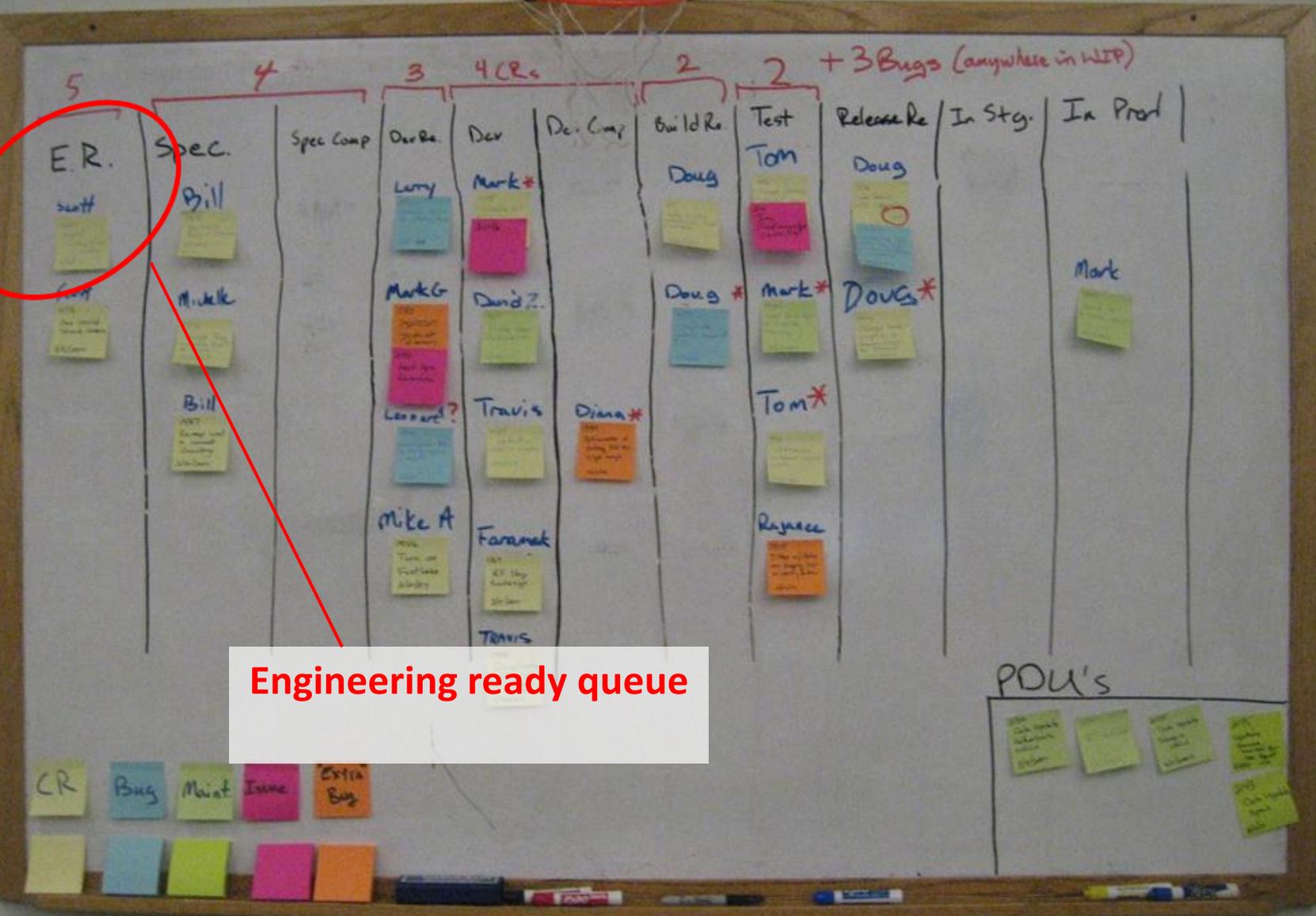
“What does it take to get recent data in test?”

“Don’t hate me, but...
the data is out of sync in test!”





"Actually, mine should go next!"



Engineering ready queue

New intangible work item type created called "Maintenance"

SUBJECT
TO KANBAN
LIMITS

* = Item is over the SLA

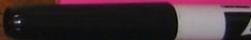
CR
BUG-PROD

BUG
- DEV
- SQA
- STG

Maint.

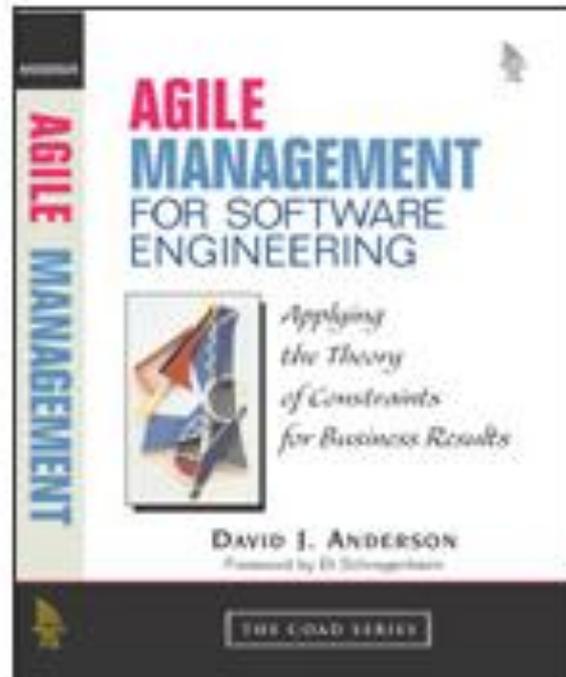
Expedite
"Silver Bullet"
corbismotion
www.corbismotion.com

Blocked



“Dude, It’s really not a configuration issue.”

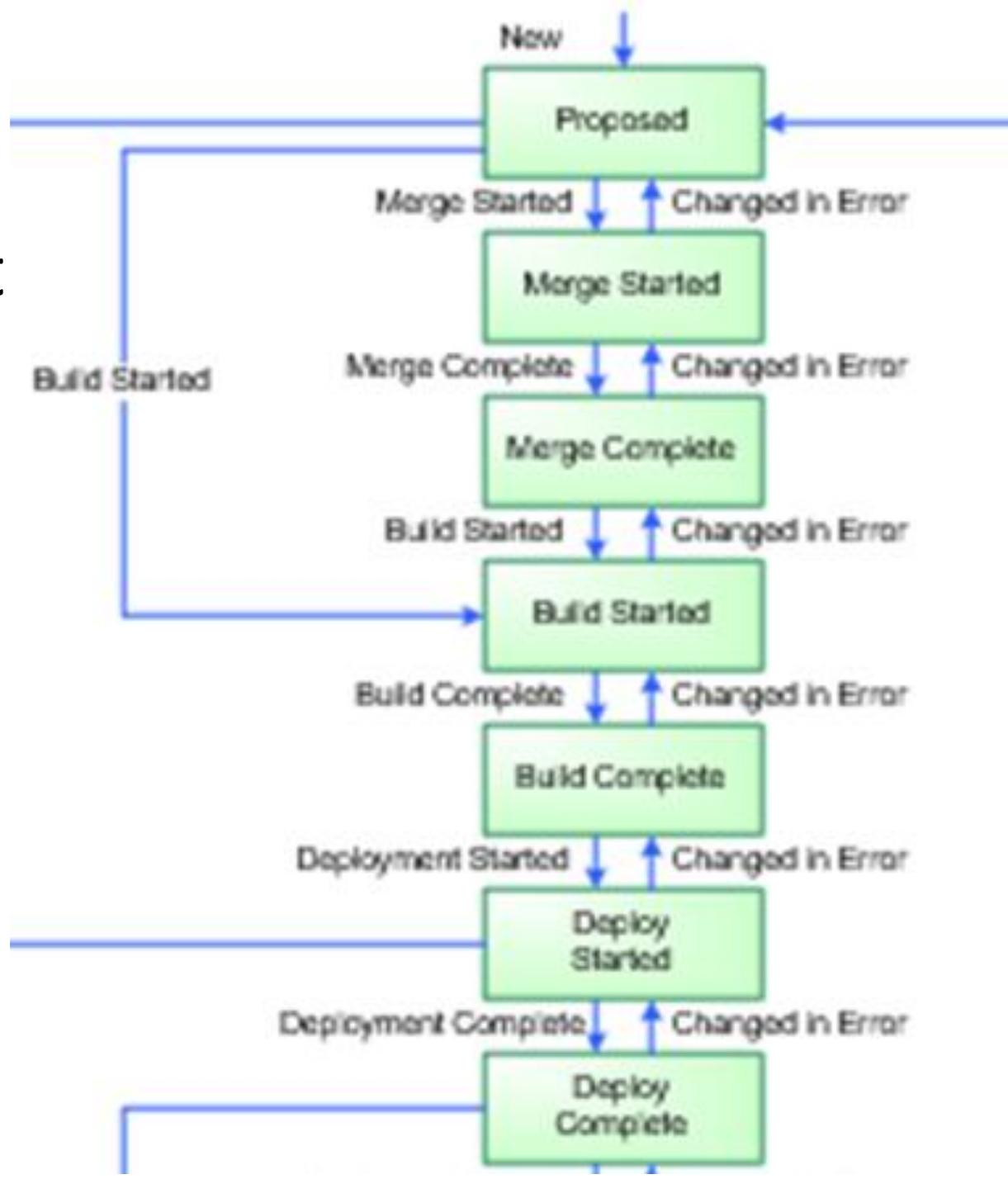
David Anderson comes to Corbis



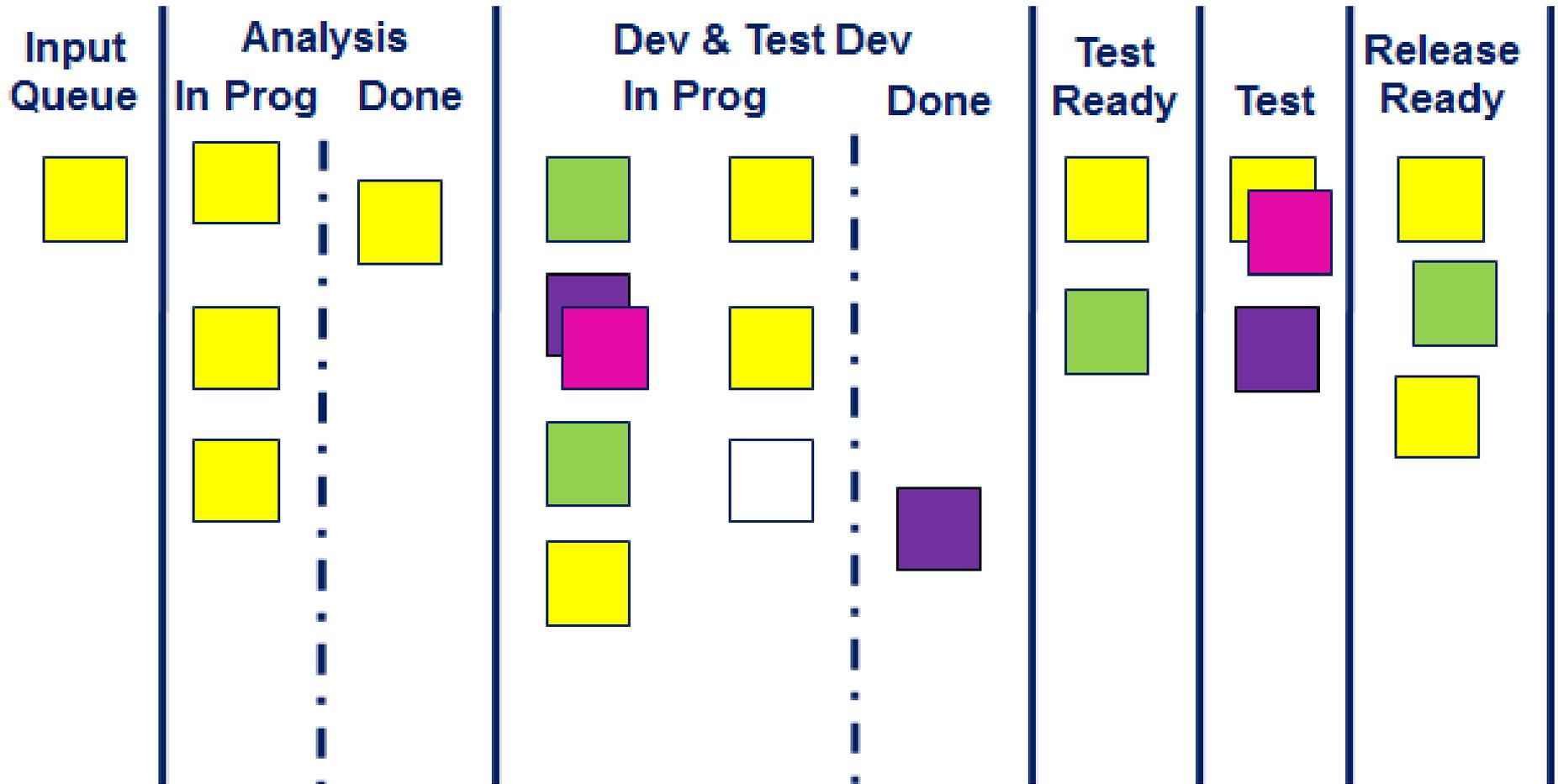
Featured Driven Development (FDD)

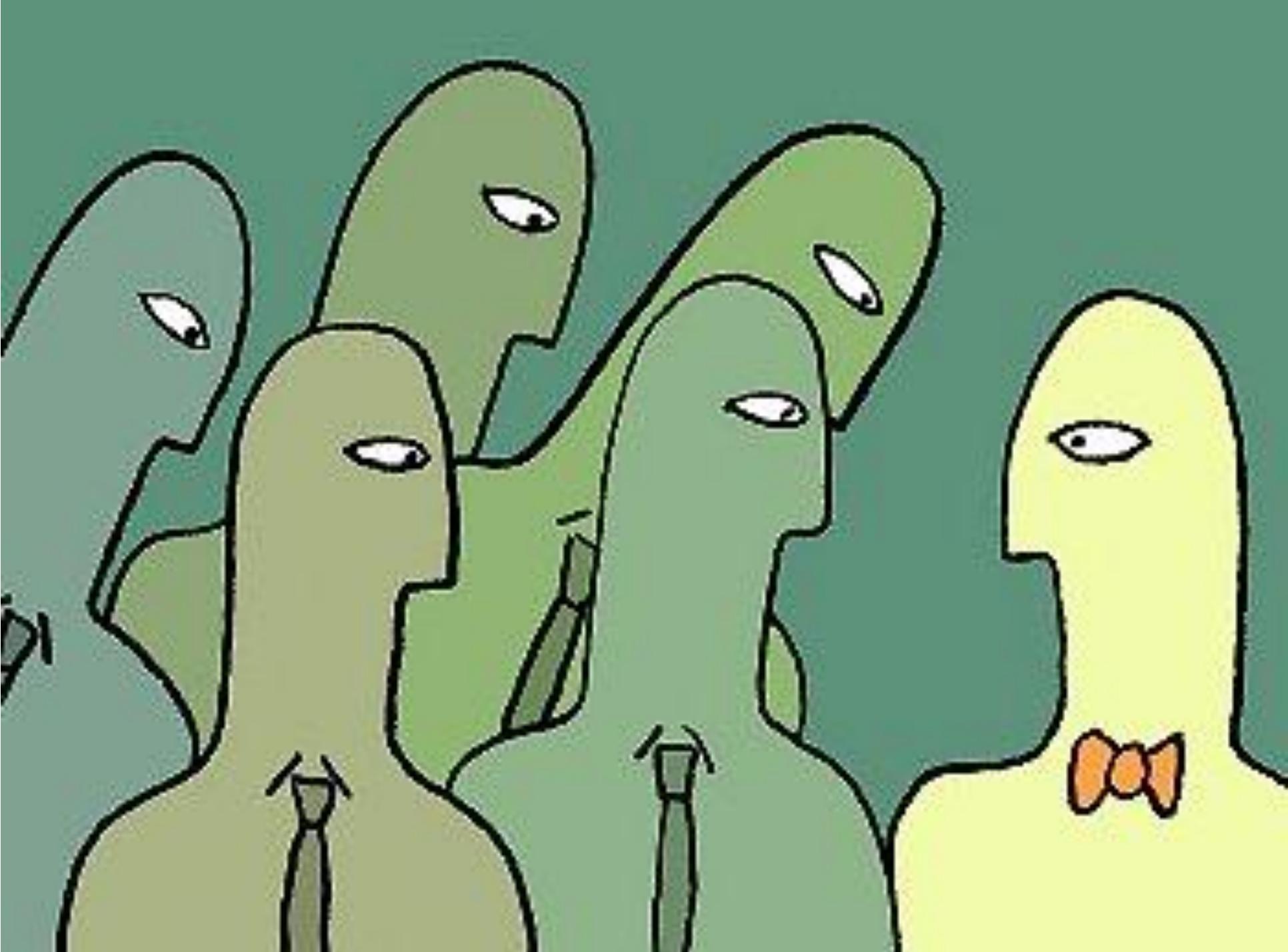
Eli Goldratt's "Theory of Constraints"

Configuration Management state model

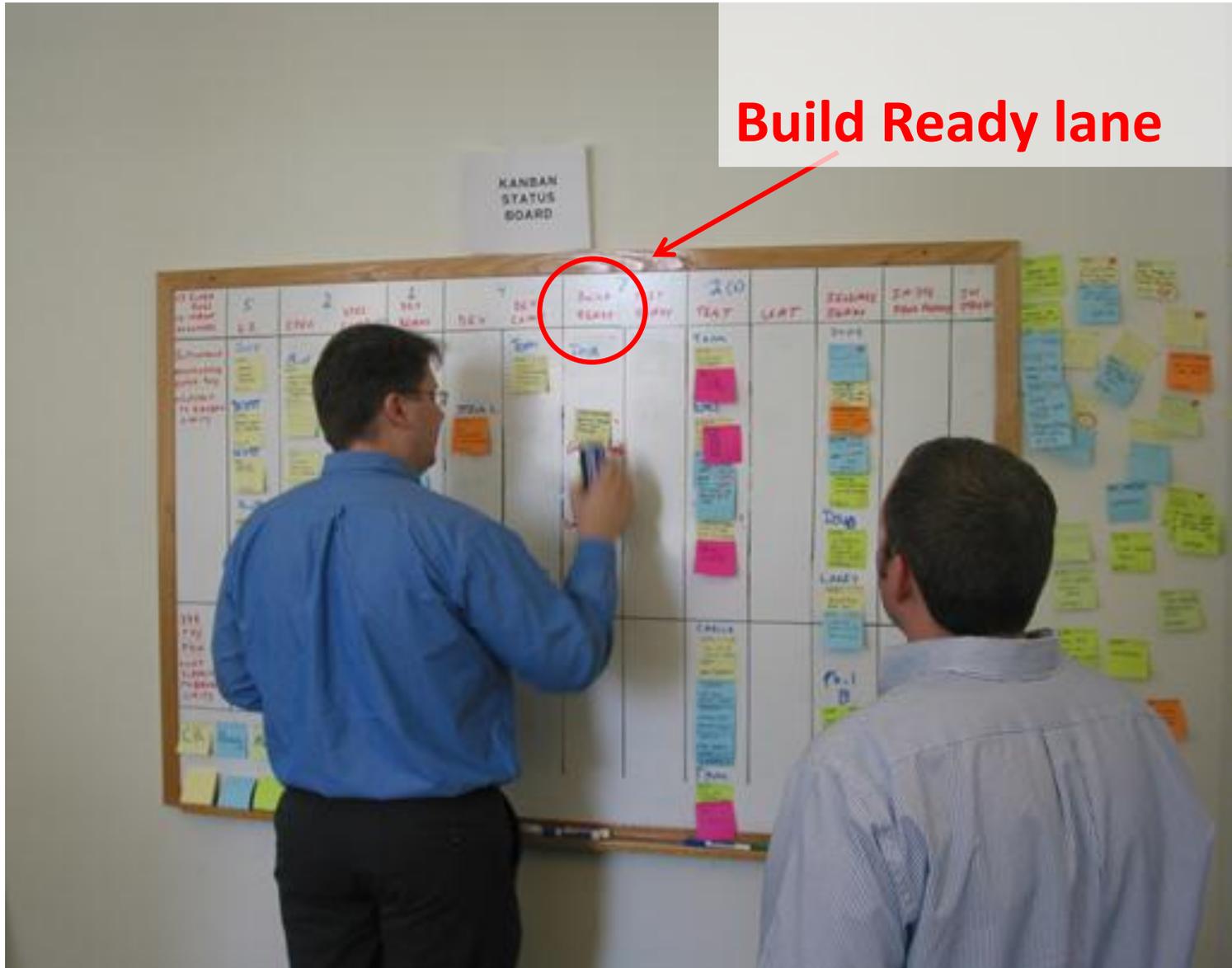


Um, where is Configuration Management?





Configuration Management part of the team

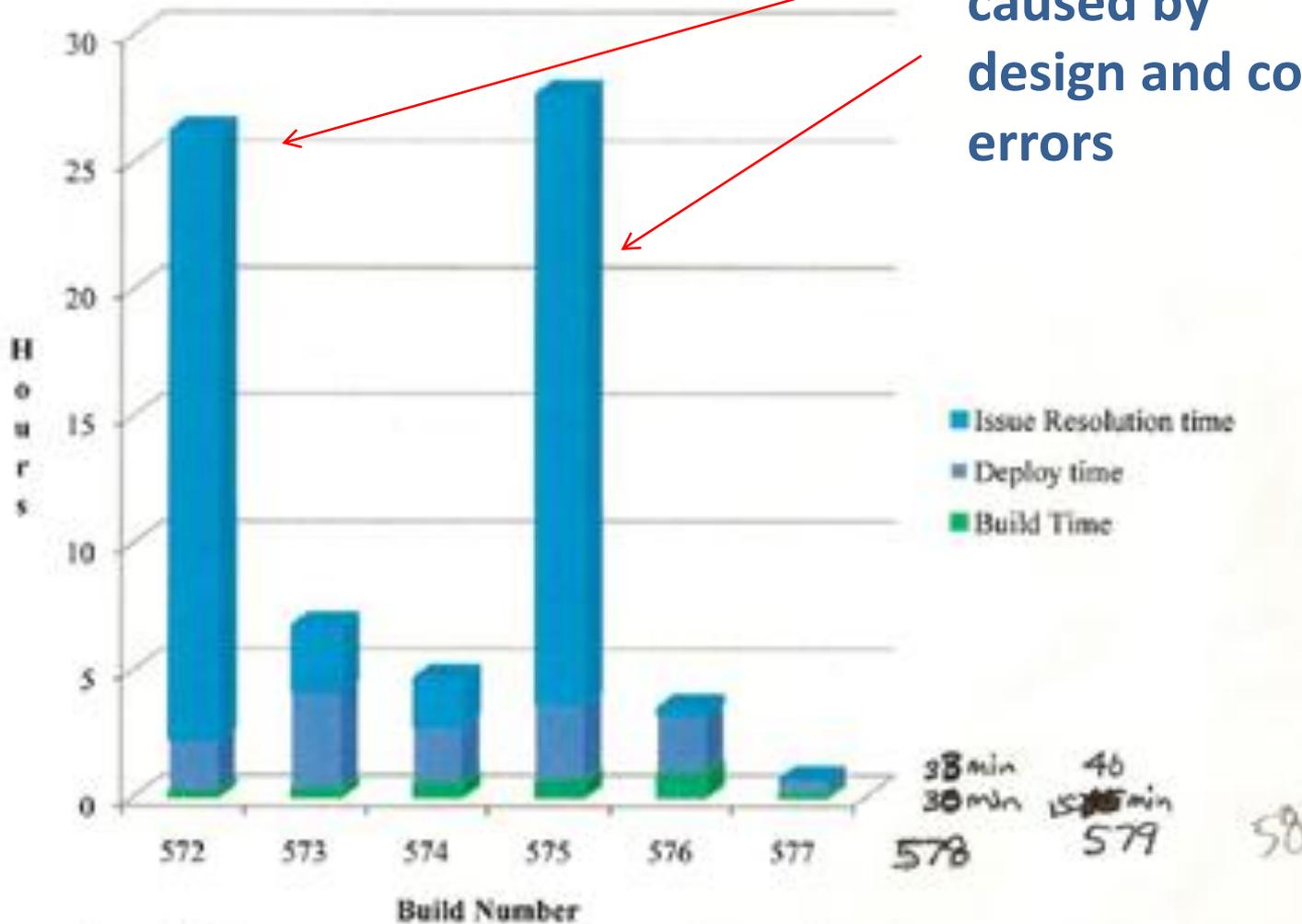


Configuration Management website



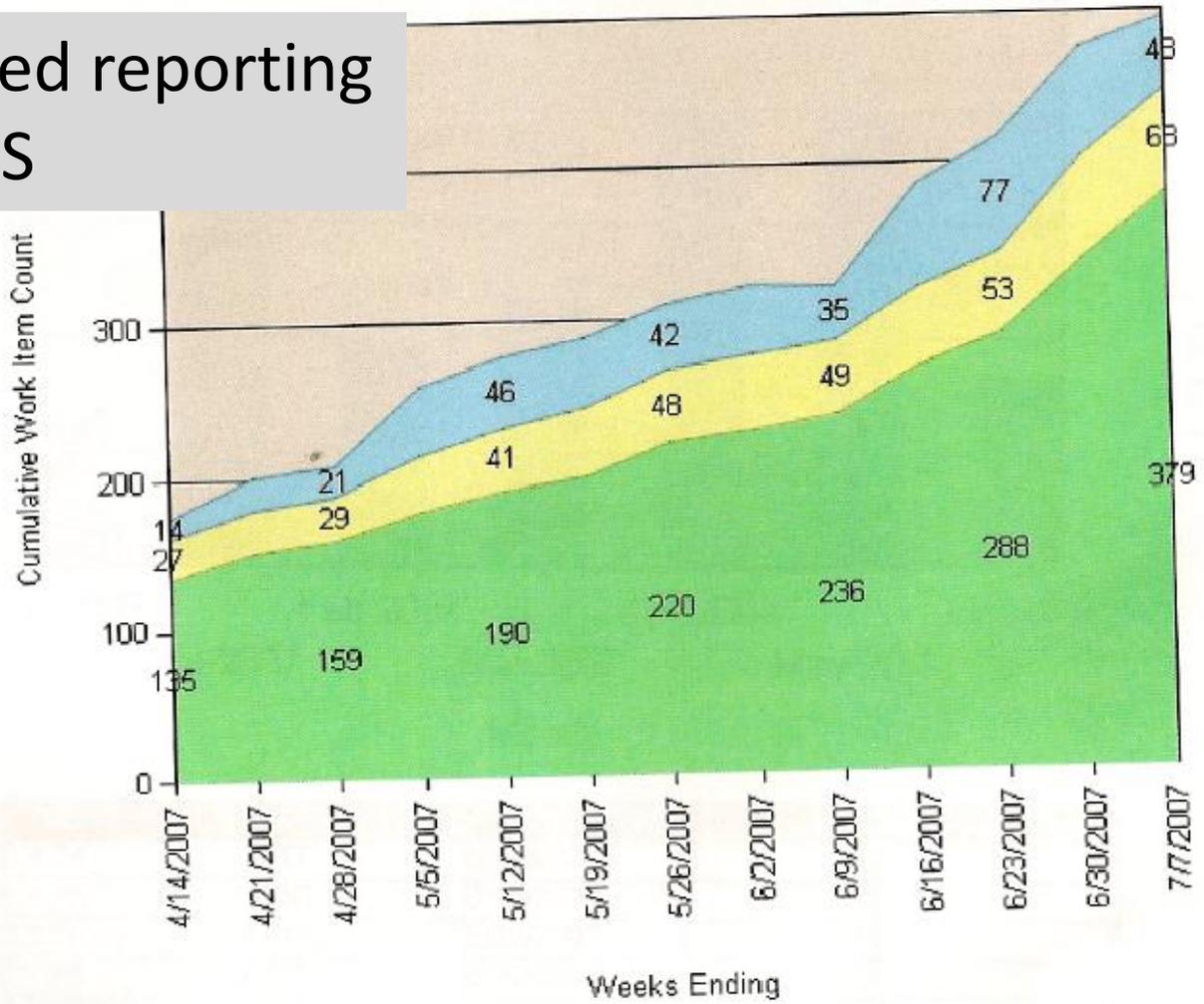
Builds don't take that long

Outliers
caused by
design and code
errors



Configuration Management: Work In Progress spiked up in June

Automated reporting out of TFS

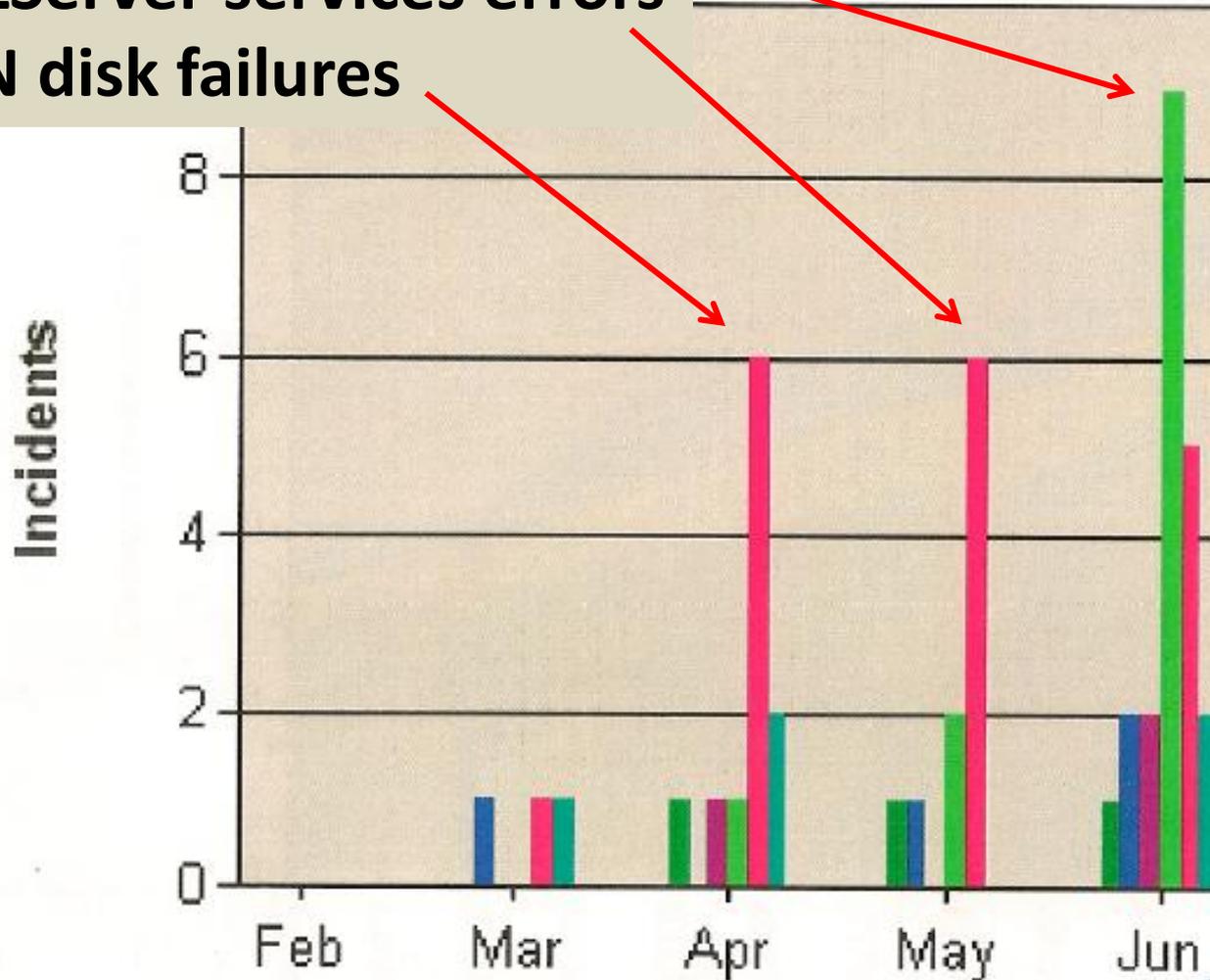


Proposed
Work In Progress
Closed

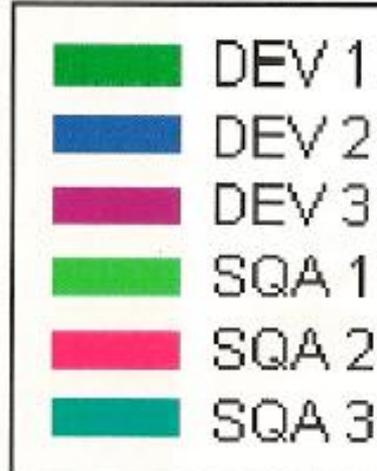
split in
susta
mona
Alche

Configuration Management: Environment Reliability

Data center outage
SQLServer services errors
SAN disk failures



SAN
Data Sgl
- all



Config

Configuration Management: Environment availability increased.

Added SQA3

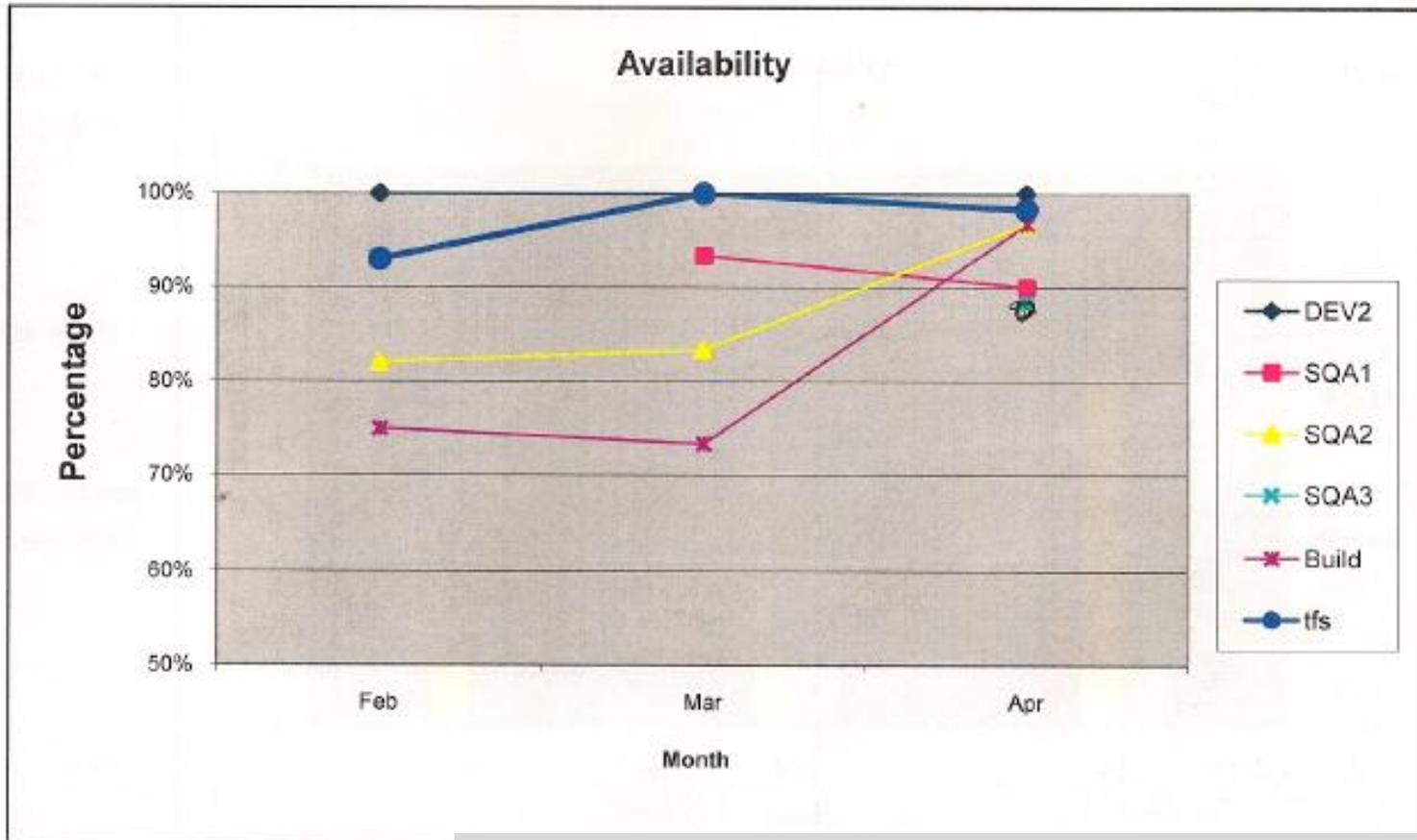
Insufficient disk space on sql servers.

DEV2 Insufficient disk space on sql server.

SQA1 – SQL server issues with failed replication and DBs not installed.

TFS – bad switch port caused connection issues for 90 min.

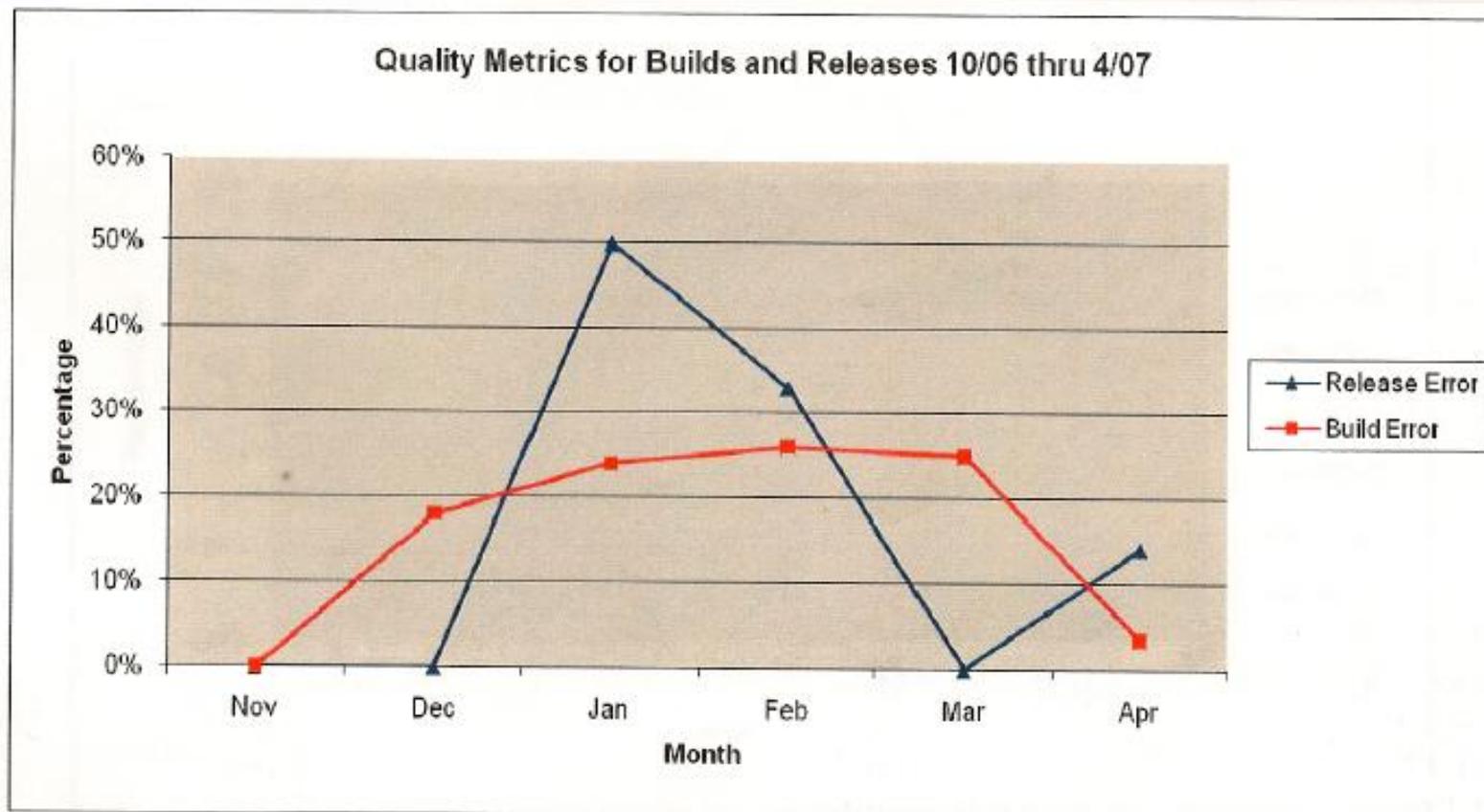
Build box – insufficient disk space



Manually created slides may seem like a burden, but resulted in us getting help and budget.

Configuration Management: Build Quality is improving but Release quality is not.

- **Production release error:** ExternalUI step missing in base install doc causing website to not run http compressn.
- **Merge issues** Shelvesets in wrong codeline, missing shelvesets unresolved conflicts

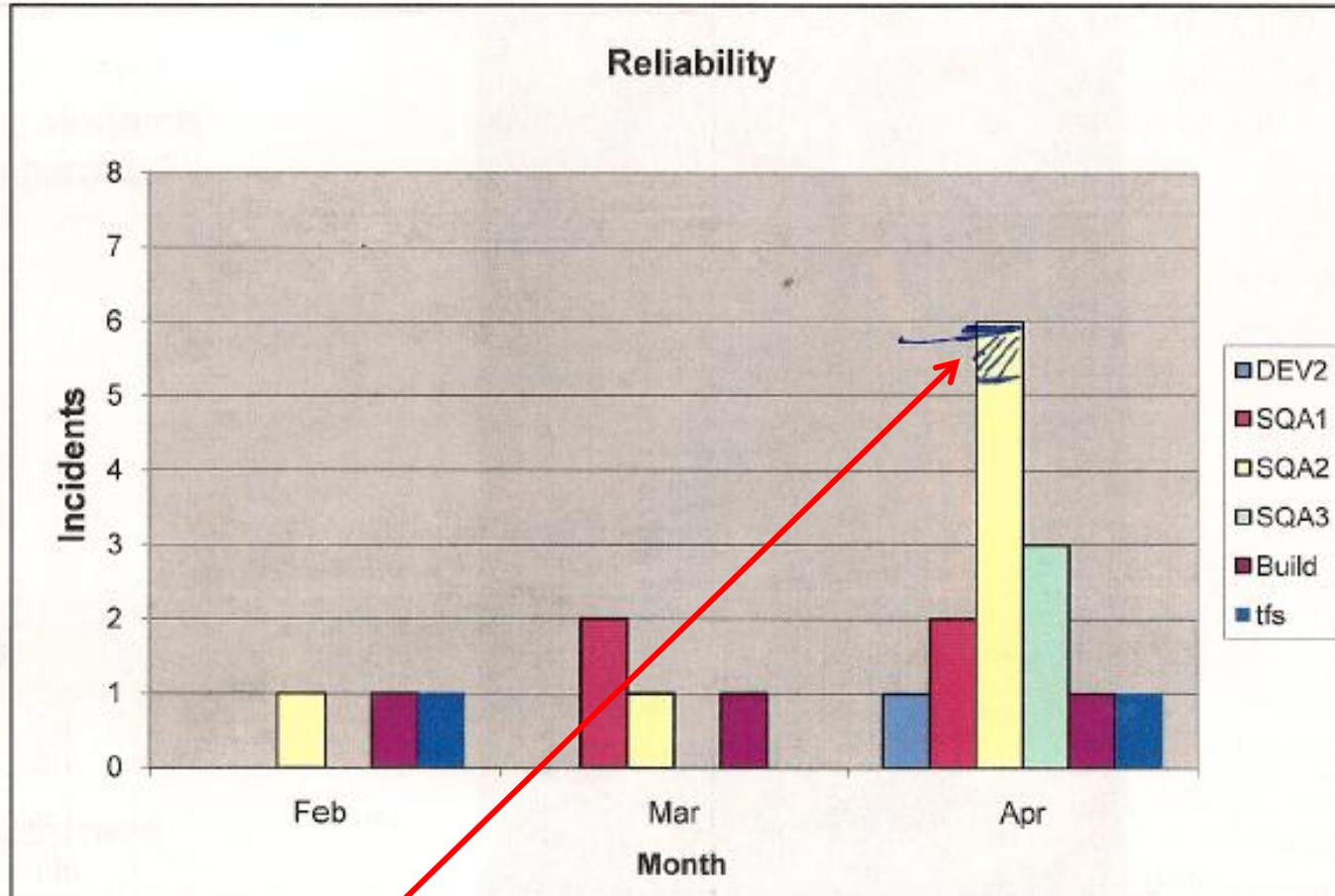


Configuration Management: The number of environment incidents increased.

Increased incidents due to capturing data from sqa3 and the team actually logging issues in TFS.

SQA3 – Server issues with disk space

SQA2 – Environment issues with pools, permissions and config settings.



Configuration issue in web.config

“um, It’s Thanksgiving Eve
and you want me
to do what?”

“We would be
hosed without **you**”

The Night Owl

Positive
Punishment?

Quality doesn't
happen on
5 hours of sleep.



Bi-weekly release cadence

Overtime decreased

Heroic efforts not needed anymore.

Production deployments over time
evolved into a non-event.

Other contributors:

Development standards included backwards compatibility.

The test team began to accept latent code patterns (“feature switches”).

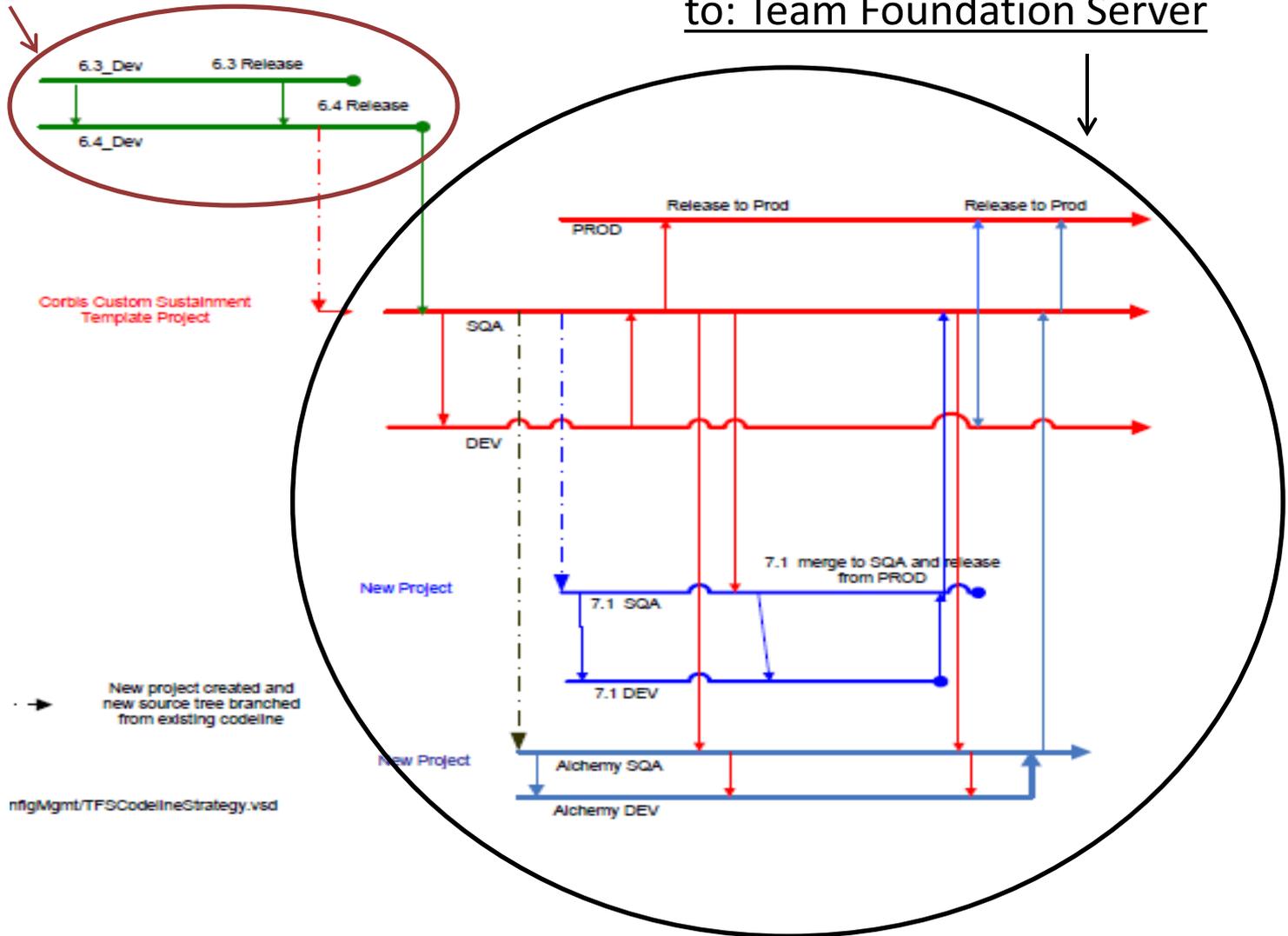
Merge issues became less frequent.

“M” is for Merge

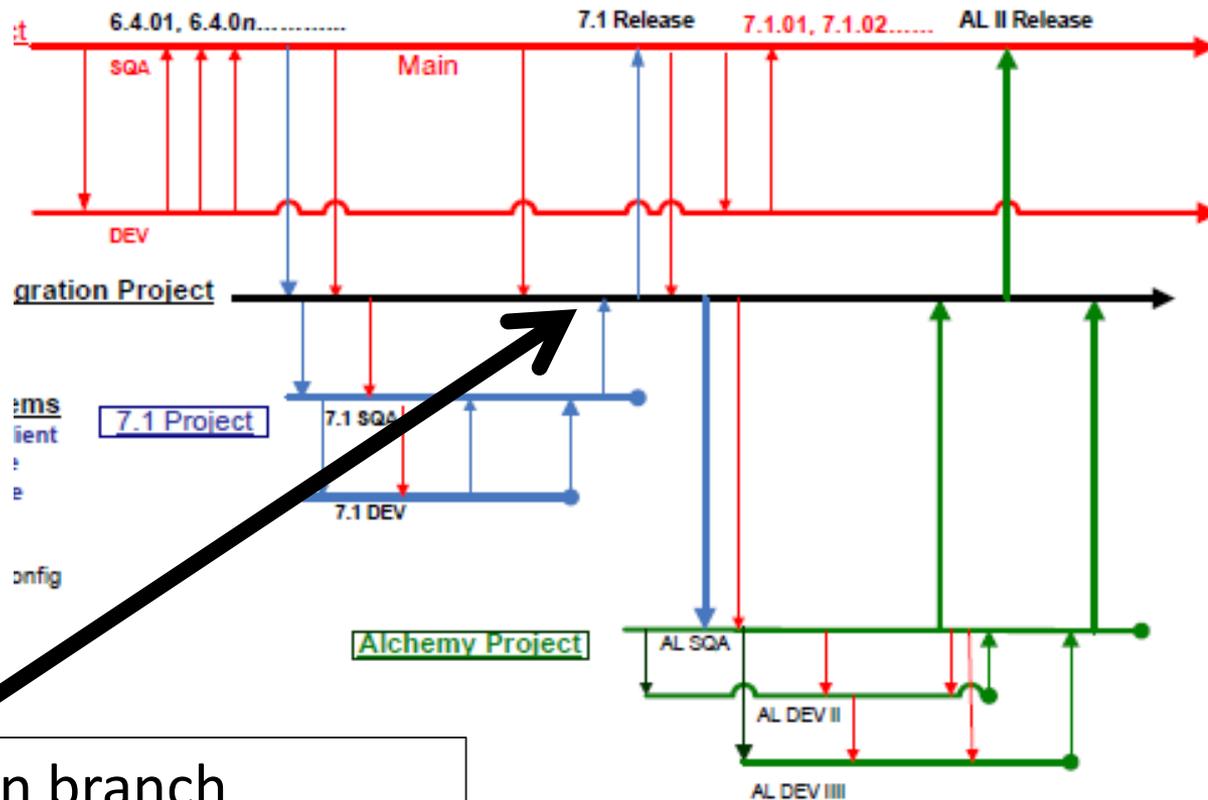
Codeline Migration Strategy - Oct 2006

from: SourceGear Vault

to: Team Foundation Server



Codeline strategy - Dec 2006



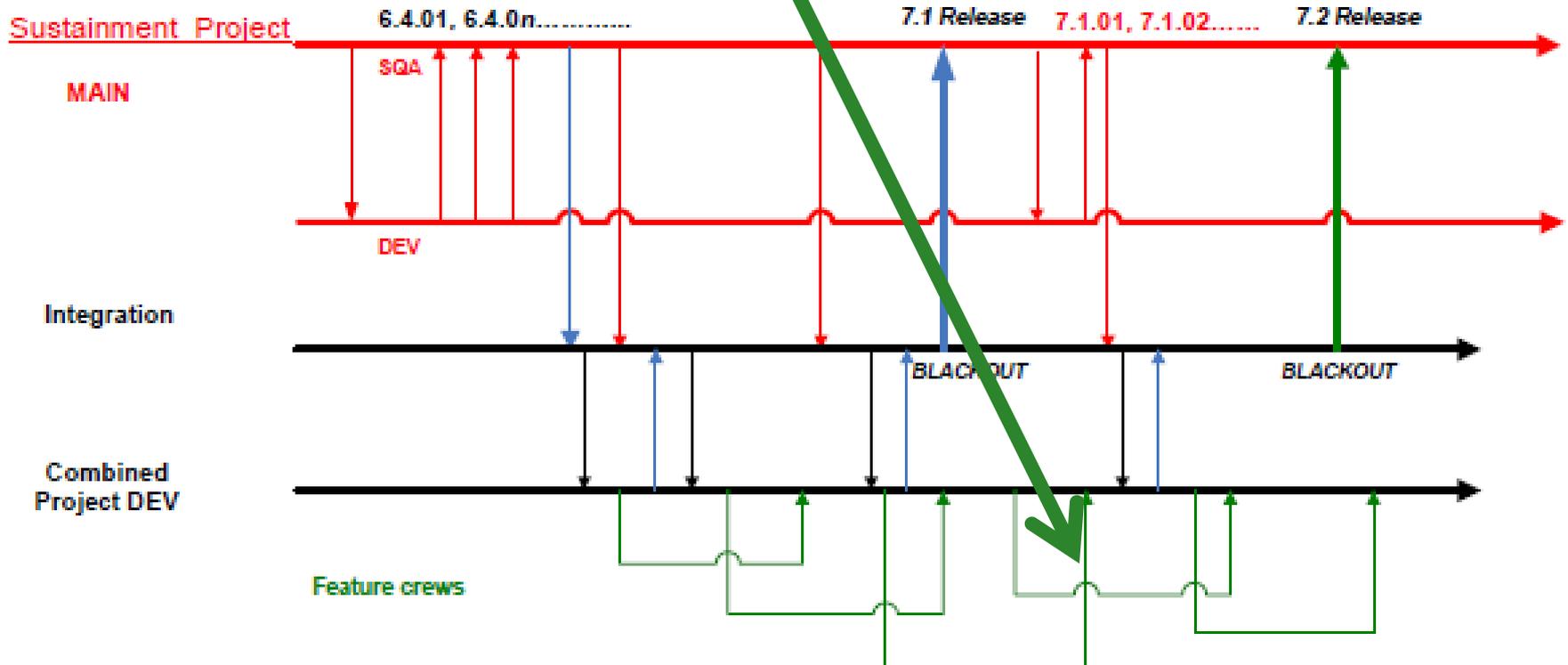
Integration branch
concept emerged to avoid
baseless merging in TFS

Codeline strategy - Jan 2007

Major Merge issues reported at Ops reviews

Merging consumed more capacity than development.

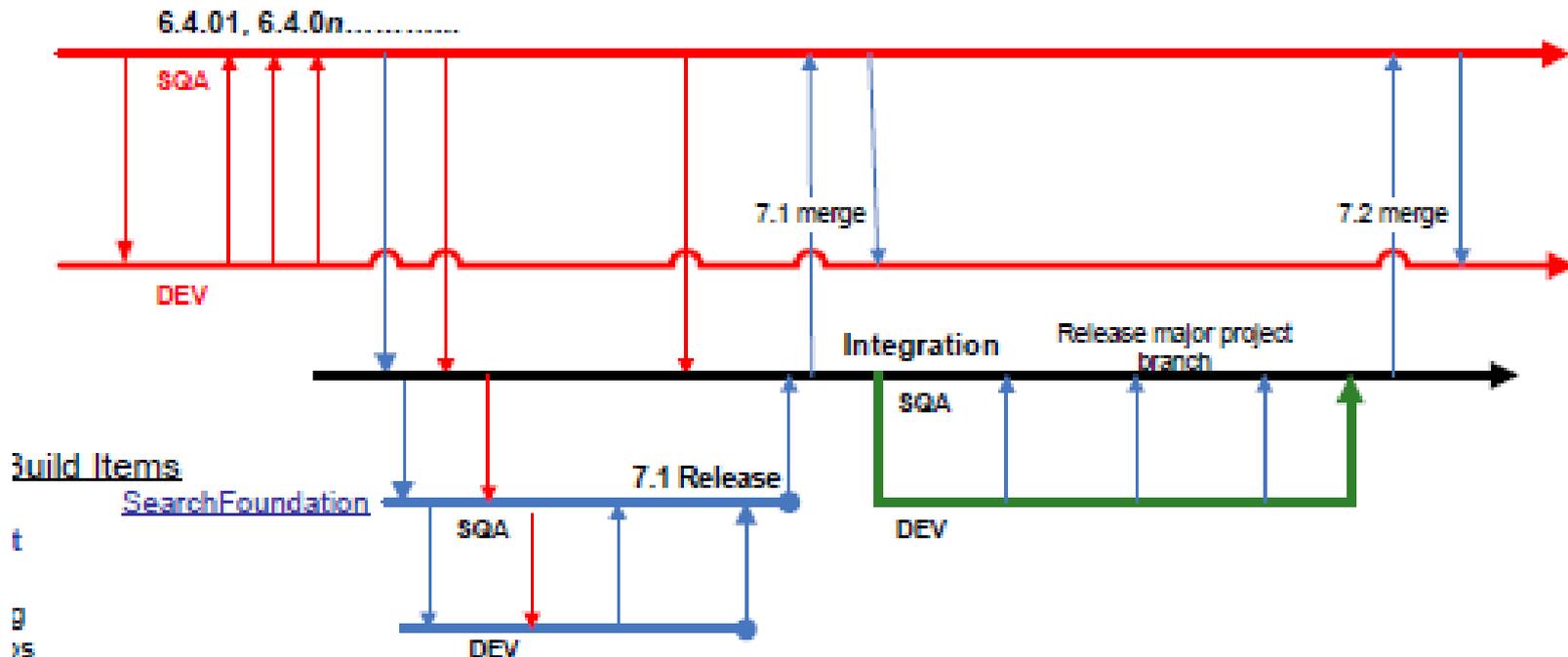
Experimented with Feature crew branches for large project work all branched from combined dev branch but folks were uncomfortable with it.



Codeline strategy – July 2007

Major Merge issues reported at Ops reviews

Merging consumed more capacity than development.



Merge Policy documented but not made explicit enough

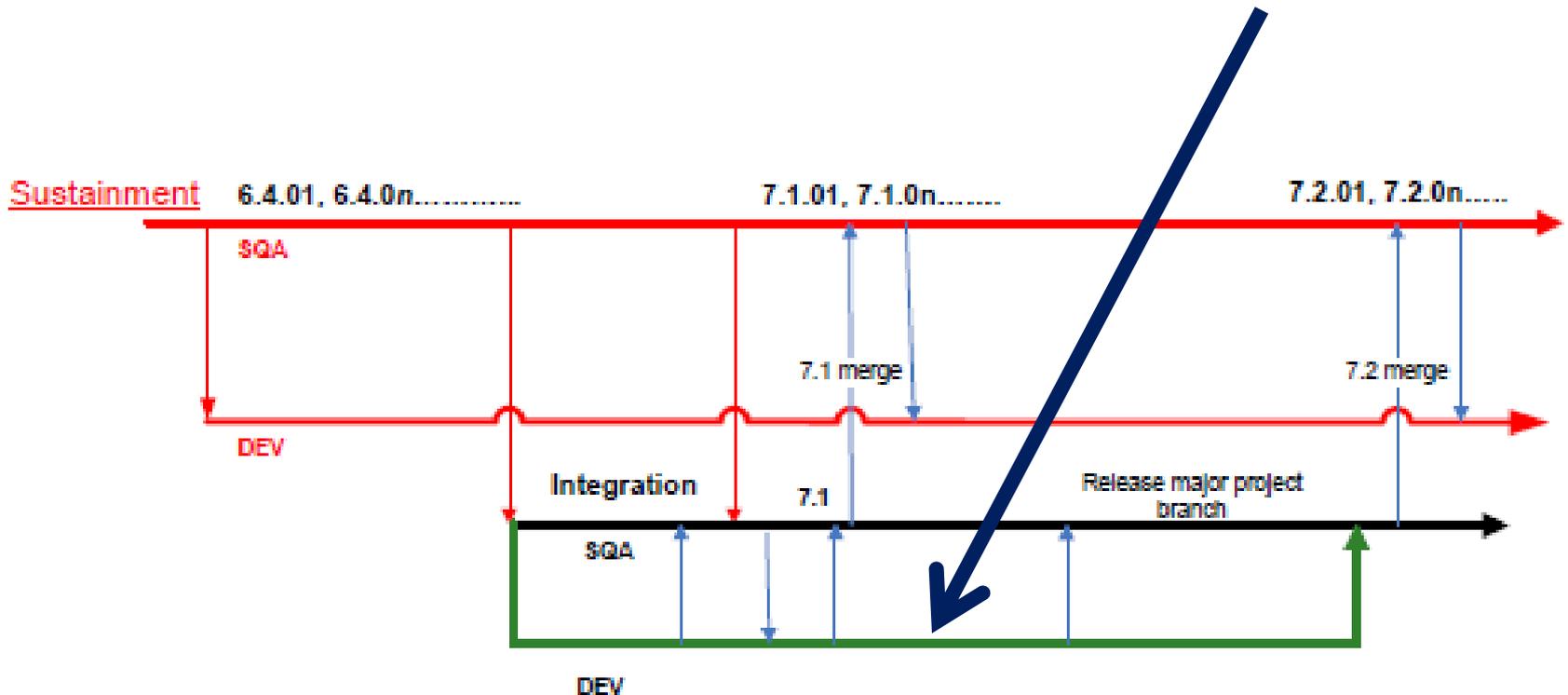
Corbis Code Line Guidelines



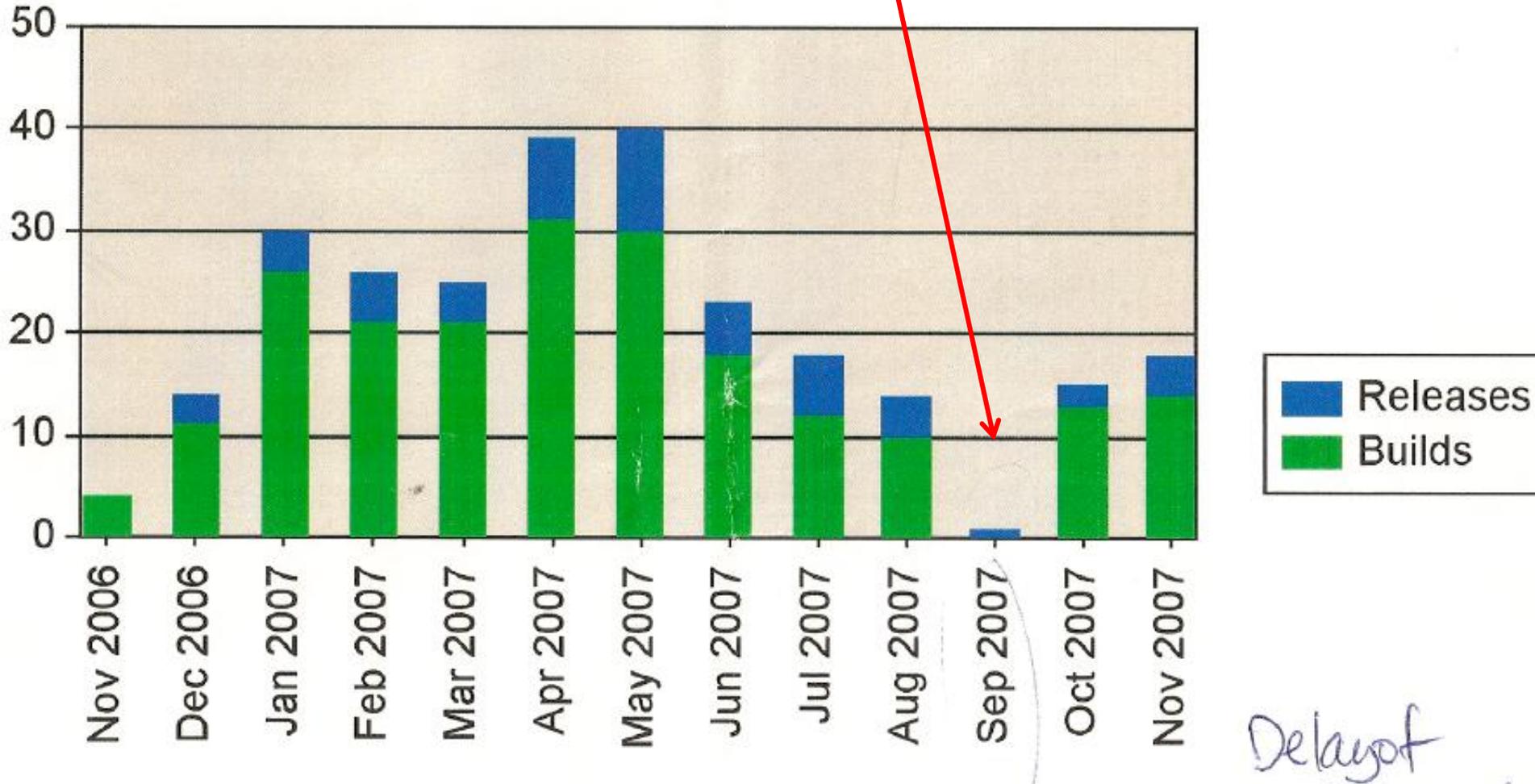
Check-in, Shelving and Merge Guidelines

Codeline strategy - Sept 2007

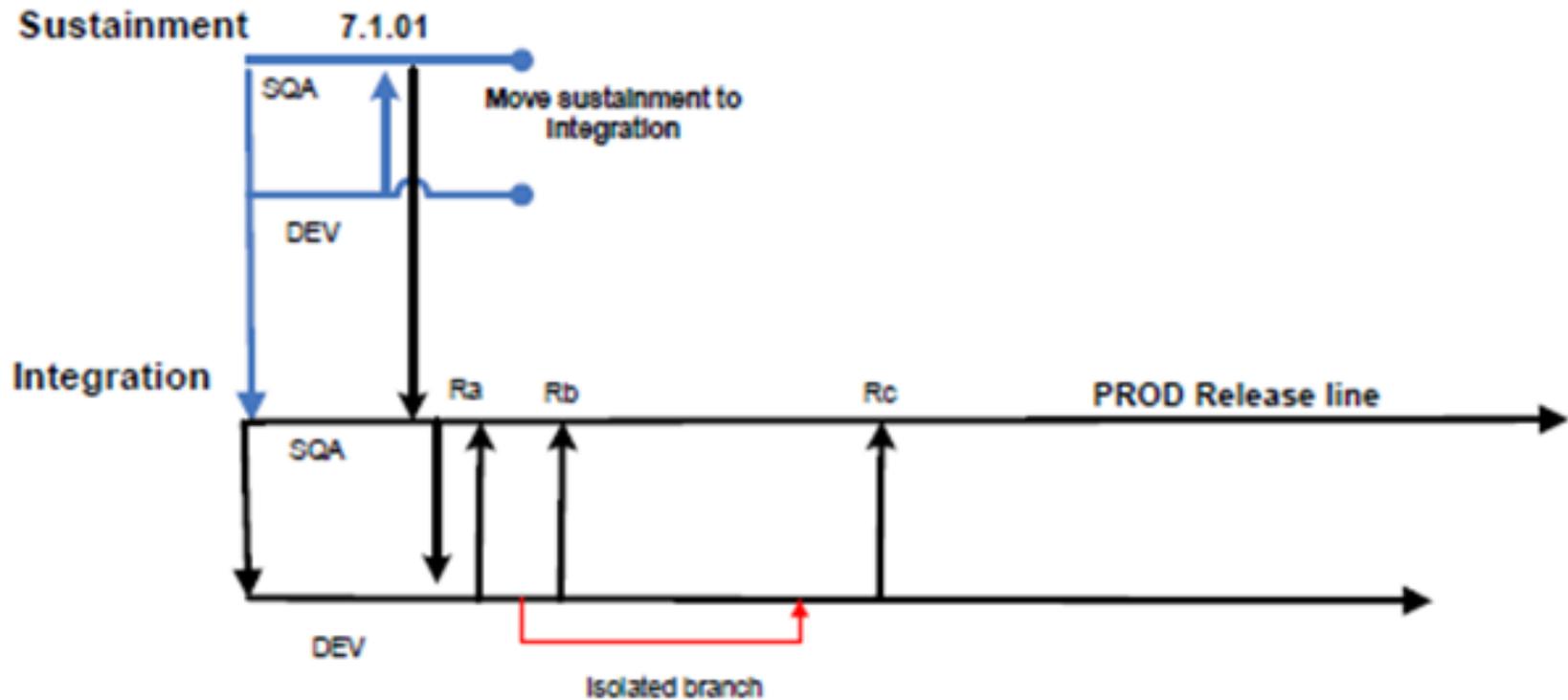
Large project Dev branches combined



Sustainment releases stuck waiting a release.
The approach used to branch the code prevented check-ins until the major project release was deployed.



Codeline Strategy – Oct 2007



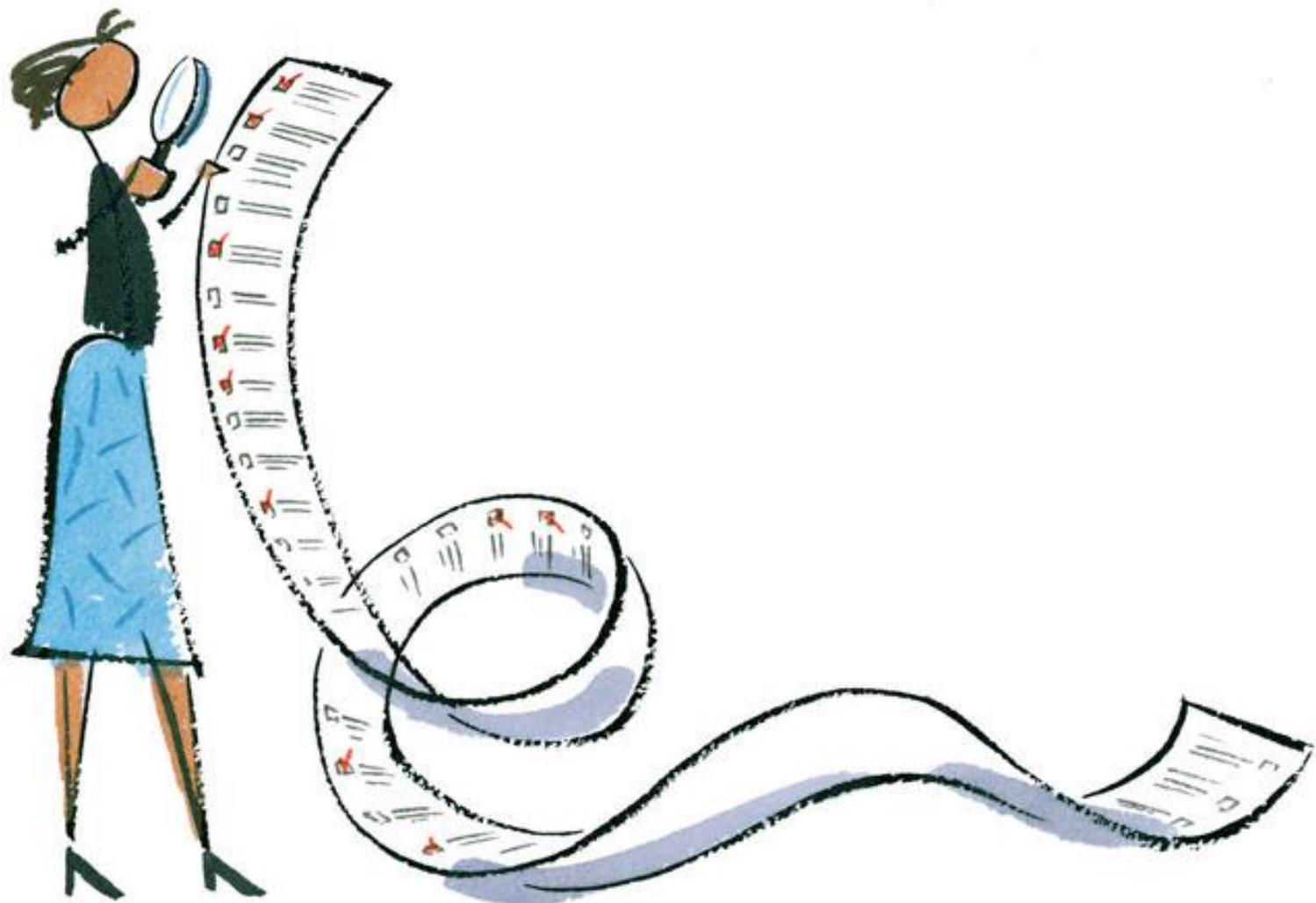
Those tricky environment
specific config files

Production Release Issues log

RRT 8.1.18 - Prod release error due to password error in MediaSuite WCF service for Marketing collections DB connection string.

This also occurred with a prior release too.”





9:30 standup every morning



If interested, be there

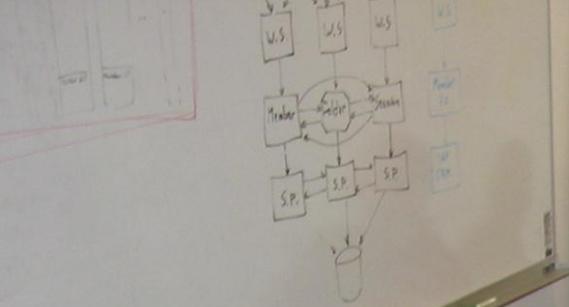


Phil
Vince
Craig
James
Kurt
Steve L
Jay F
Mark K
Travis O
(Study)

100
1100
1300

Single Entry
Inter-company
Leaf

20 = 2	2	2	2	2
6 = 2	2	2	2	2
9 = 3	3	3	3	3
	M	M	M	M



The Transition from manually triggered builds to Continuous Integration

Automating builds and deployments

The screenshot displays a build automation tool interface. On the left is a sidebar with various utility icons like 'Log Message', 'Run Program', 'Set Macro', etc. The main area shows a hierarchical project tree with folders like 'Check Out Files', 'Register', 'Build Projects', and 'Check In Files'. To the right of the tree is a table listing tasks with their status, category, and command.

Task Name	Status	Category	Command
Get Latest Files	Completed	SourceSafe	Get
Check Out Files	Aborted	Group	
Check Out Source Files	Completed	SourceSafe	Checkout
Check Out Executables	Completed	SourceSafe	Checkout
Register	Completed	Group	
Process Executables	Completed	Process Files	%WORK_ROOT%\Executables
Register It	Completed	COM Register	%PROCFILES_FULLPATH%
Build Projects	Completed	Group	
Build VB Projects	Completed	Make VB6	%WORK_ROOT%\Source\MyProjects.vbg
Build VC Projects	Completed	Make VC6	%WORK_ROOT%\Source\MyProjects.dsw
Create Virtual Dirs	Completed	Run Script	'create a virtual directory to the web a...
Build VS.NET Projects	Completed	Make VS.NET	%VSNET_SLN%\[VerSlnExt].sln
Build VJ Projects	Not Completed	Run Program	%DEVENV% /make "%WORK_ROOT%\...
Generate Build Manifest	Completed	Run Program	%GEN_MANIFEST("%WORK_ROOT%\E...
Check In Files	Completed	Group	
Check In All Files	Completed	SourceSafe	Checkin
Increment Build Number	Completed	Run Script	'increment the build number in the glob...
Label The Build	Completed	SourceSafe	Label

At the bottom, the 'Output' window shows the following log:

```

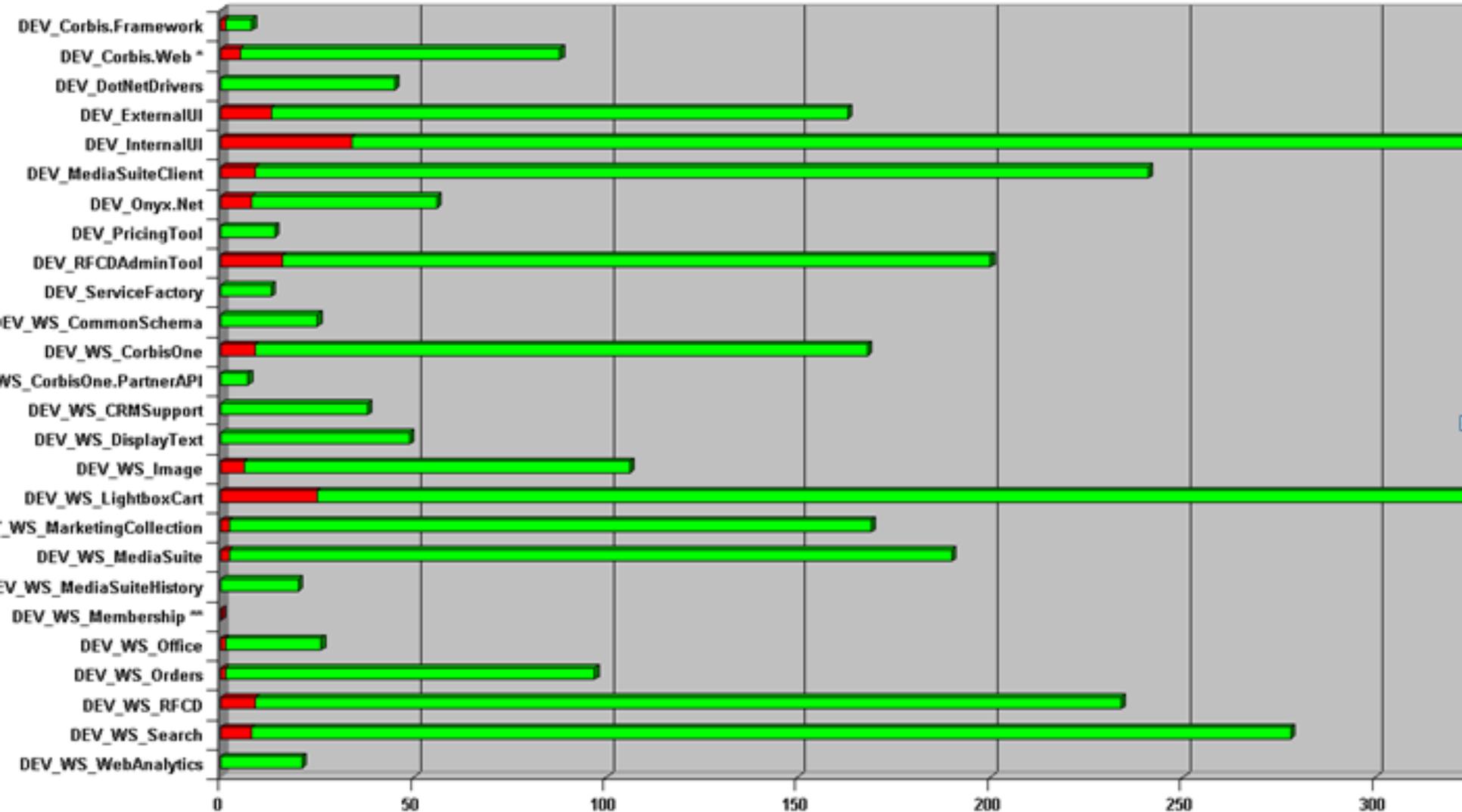
-----Starting Build: 'VStudio.bld'-----
Building project step 'Create Database'...
Step 'Create Database' build rule evaluates false: [Not vbld_FS0.FolderExists("%SAMPLEDB%")] is true
Step skipped
Building project step 'Get Latest Files'...
$/:
$/BranchTest:
$/BranchTest/Source:
MyNETProjects.71.sln
MyNETProjects.sln
    
```

Automated testing was seen as
too expensive



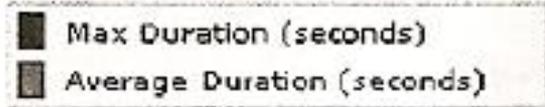
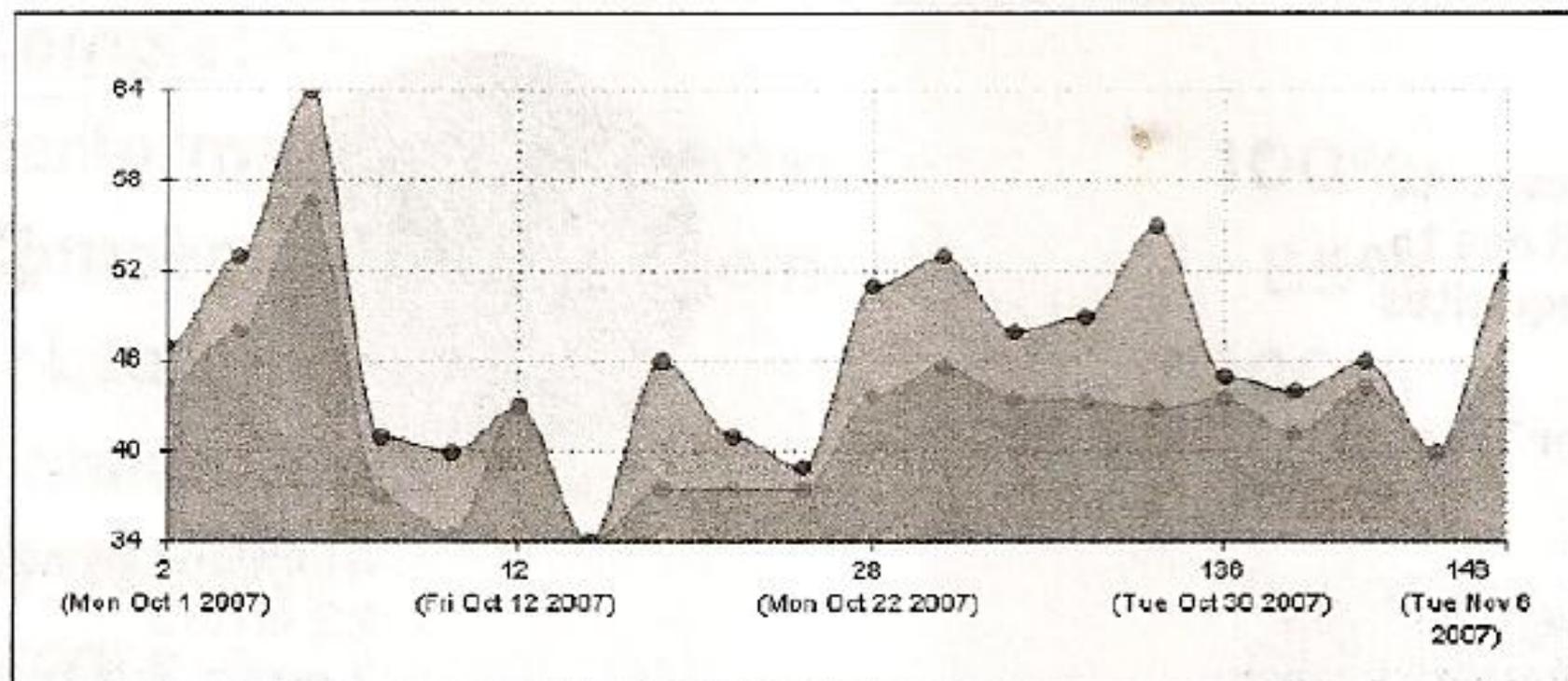
Someone was smart enough to collect and present some vital data on the “**cost of delay**” from developers who were unable to see the impact of their changes quickly enough.

Continuous Integration reporting



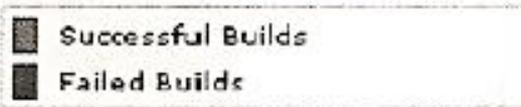
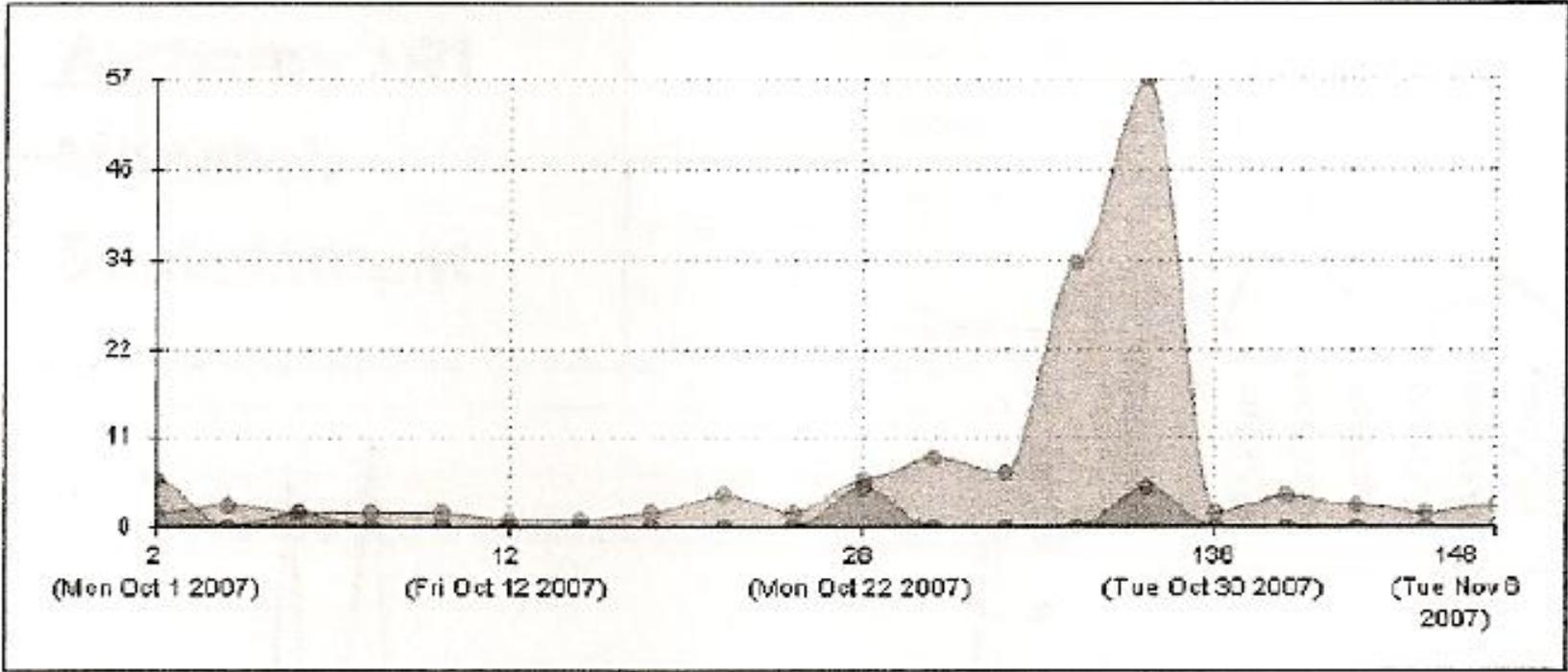
Configuration Management: Build Duration

Build Duration



Configuration Management: Build Quality Reporting available thru Cruise Control

Build Report



“What would it take to get rid
of
the 3 day freeze?”

All hands on deck troubleshooting for
4 days and nights
resulted in a 3 day
post production
freeze in
prod and test
environments.



Joking around after release, “Remember when it took all weekend to do a release?”



no heroics needed
no overtime
no chaos

Spontaneous meeting after standup

Not breaking the WIP limit provoked conversations which led to improvement.



Configuration Management reporting demonstrated incremental improvements over time



For much of 2007,
CM reporting
consisted mostly of problems.

By 2008,
CM reporting
consisted mostly of
improvements.

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Management Solutions for Knowledge Workers