



PNSQC

OCTOBER 10-12 2022

Don Kidd

Service Confidence

Service Confidence



because code coverage and CRAP scores
just don't give you the whole picture

- Who am I?
- How did we get here
- What is the Service Confidence Framework
- What have we learned
- How are we improving



Who am I?

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Miami University

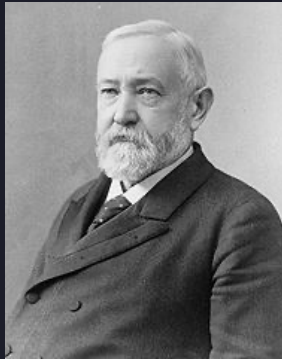


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Miami University

Few Famous Alum



Benjamin Harrison, the 23rd President of the United States graduated from Miami in 1852



Miami University

Cradle of Coaches



Paul Brown, Weeb Ewbank, Ara Parseghian, Earl
Blaik, Woody Hayes, Bo Schembechler, and Jim Tressel

Ben Roethlisberger -
Super Bowl XL and XLIII



John Harbaugh –
Super Bowl XLVII

Sean McVay – Coach
Super Bowl LVI



Miami University



- Not in Florida, that's the University of Miami

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- Lots of stuff
 - 100+ GitLab Repositories of assorted stuff
- Many Languages
 - PHP, Cobol, Perl, Python, Shl, PL\SQL, Pro C



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- Big “products” with lots of code and others with maybe 2 or 3 files
- Everything we support we classify as a Services



How did we get here?

What is Quality?

- I became **THE** Quality Team
- I wanted to improve the “Quality” but what does that mean?
- Where do you start when you have so much stuff?



- [Home](#)

Unit Test Results

Designed for use with [PHPUnit](#) and [PHPUnit](#)

Packages

[SemanticScuttle](#)

Classes

[Api_ExportCsvTest](#)
[Api_PostsAddTest](#)
[Api_PostsDeleteTest](#)
[Api_PostsUpdateTest](#)
[Bookmark2TagTest](#)
[BookmarkTest](#)

Summary

Tests	Failures	Errors	Success rate	Time
153	1	0	99.35%	14.088

Note: failures are anticipated and checked for with assertions while errors are unanticipated.

Packages

Name	Tests	Errors	Failures	Time(s)
SemanticScuttle	153	0	1	14.088

Report generated at 2011-04-29T07:41:30+02:00

Comparing Apples and Oranges



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Improve the Quality of everything



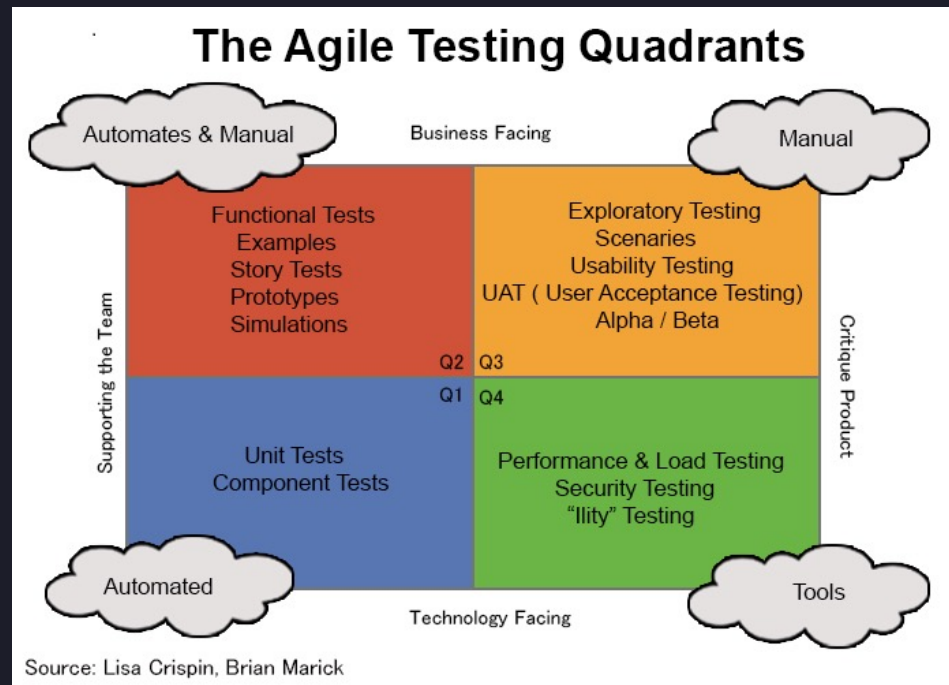
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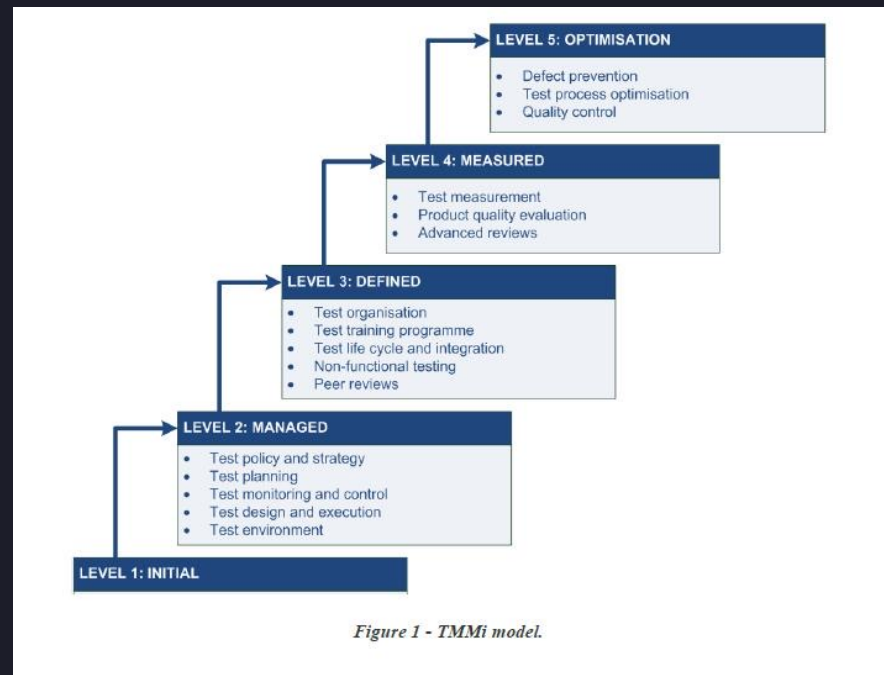
-Marie Kondo-

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Testing Quadrants



Testing Maturity Model



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Creating Quality Software



- What is Quality Software?
 - Do more tests mean higher Quality?
 - How good is good enough?

A	B	C	D	F
✓ +	✓	✓	-	✗
Satisfactory / Not Satisfactory				
A + A	A - B + B	B - C + C	C - D + D	D - F
100, 99, 98, 97, 96, 95, 94, 93, 92, 91, 90, 89, 88, 87, 86, 85, 84, 83, 82 . . .				
★	★	★	★	★
Keep trying!				

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Quality Grades

- Confidence in the service



	Small Audience to use Service	Medium Audience to use Service	Large Audience to use Service
High Confidence in Change	A	B	C
Medium Confidence Change	B	B	C
Low Confidence in Change	C	C	D

- No F
- It takes work to get an A
- Who determines the desired grade?

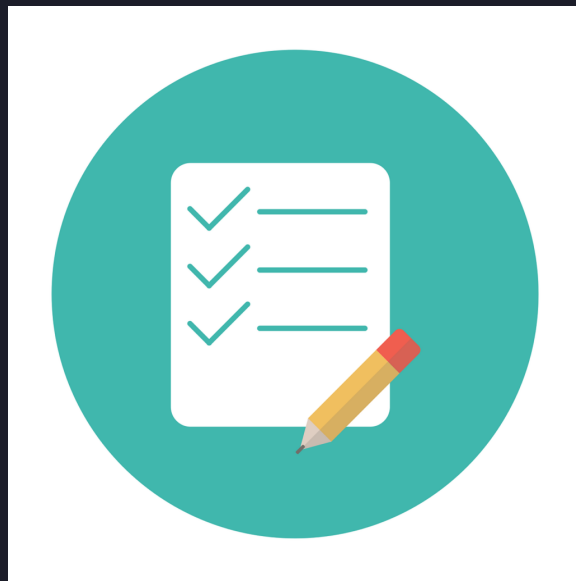


What is the Service Confidence Framework

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Service Confidence Framework



3 activities in the process

- Score
- Visualize
- Act

Service Confidence Framework

- Scoring



Who should be involved?

- Stakeholders
 - Developers
 - Operations
 - Users
- The Conversation involved in Scoring is the most important part



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Service Confidence Framework

- Scoring



3 common factors in every Service

- Context
- Confidence (Direct)
- Complexity

Service Confidence

- Context



- Factors outside of our control
 - Frequency of use
 - Users per unit of time
 - Business criticality

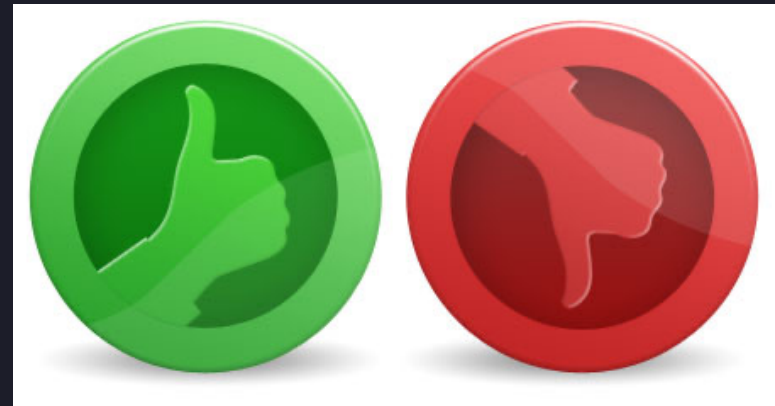


Service Confidence

- Direct Confidence



- Factors we have explicit control over(to some extent)
 - Test Coverage
 - Change management
 - Documentation
 - Observability
 - Resiliency
 - Positive Track Record



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Service Confidence - Complexity



- Factors we can influence but maybe not control
 - Code complexity
 - Dependencies
 - Architecture
 - Deployment Process
 - Integrations



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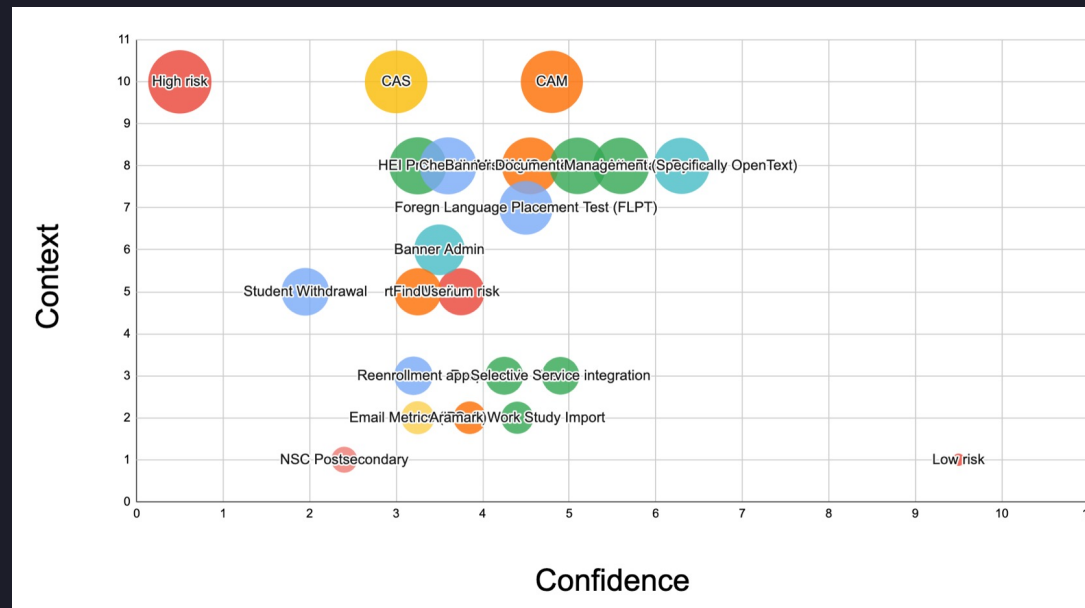
Service Confidence Framework

- Visualize



Service	Confidence	Context	Potential Impact	Direct Confidence	Complexity
CAS	3	10	97	5	8
Responsible Use	4.25	3	25.75	5	3
CAM	4.8	10	95.2	6	4
Banner Admin	3.5	6	56.5	7	10
Reenrollment app	3.2	3	26.8	4	4
TeamDynamix	6.3	8	73.7	7	2
Grok	3.85	2	16.15	7	9
rtFindUser	3.25	5	46.75	5	7
HEI Process	3.25	8	76.75	5	7
IAM Portal	4.55	8	75.45	7	7
NSC Postsecondary	2.4	1	7.6	4	8
Student Withdrawal	1.95	5	48.05	3	7
Email Metrics (iPaaS)	3.25	2	16.75	5	7
Selective Service integration	4.9	3	25.1	7	6
Checklist	3.6	8	76.4	6	8

Service Confidence Framework - Visualize

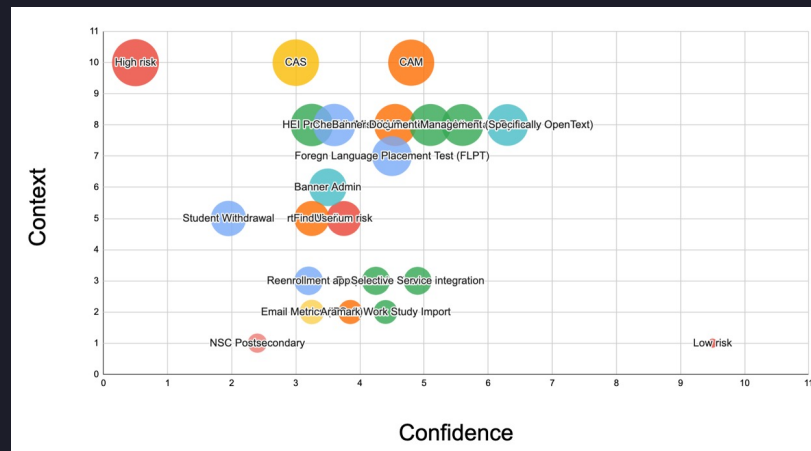


Service Confidence Framework

- Act



- Items in the Upper right
 - High context & Low Confidence
 - What would it take to improve the confidence?





What have we learned

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What have we learned

- Conversations

- Planned to just get a score
- Found out about user manuals that offices had written
- Code improvements



What have we learned

- Timing



- Timing Matters
 - Early in a project
 - Middle of a project
 - End of project



How are we improving

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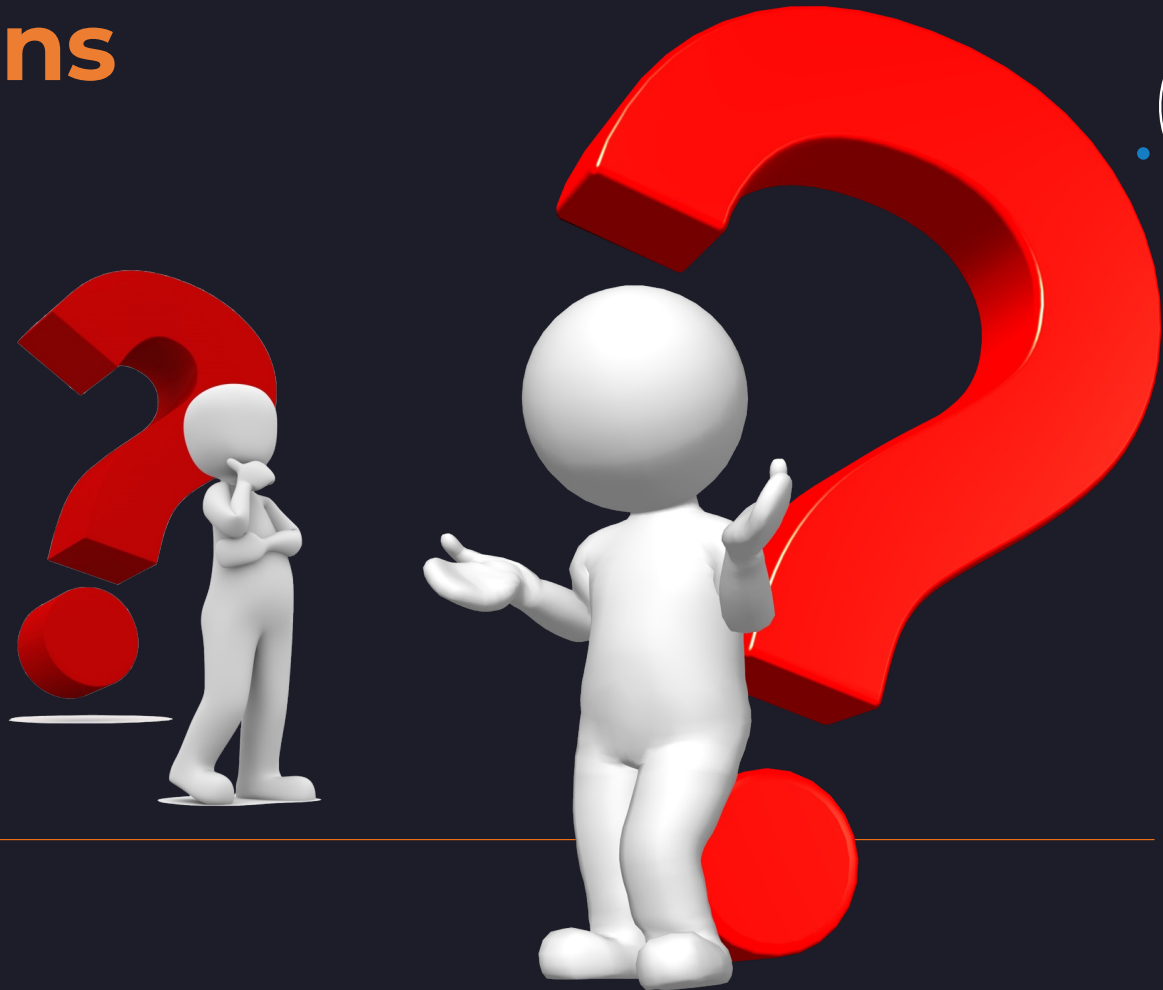
Improvements

- Have conversations more often
- Determining best time for conversation.
- Working to get values for ALL services
- Use these scores in the calculation of ROI



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Questions



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THANK YOU

dkidd@MiamiOH.edu

donkidd 