



Polarion Approach on Quality Assurance

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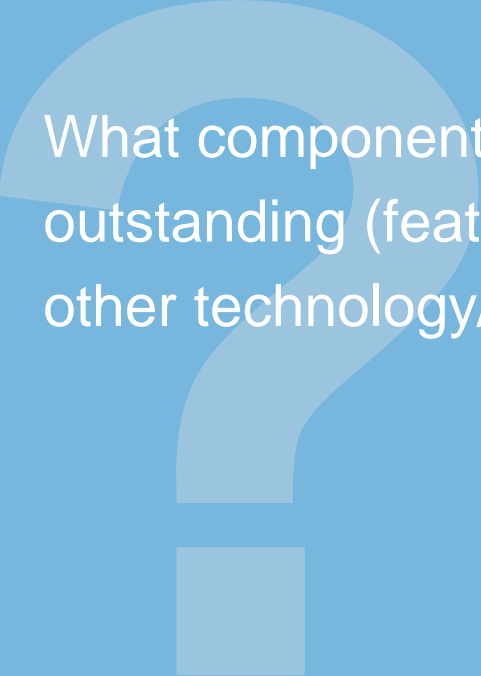
VP Product Management



Three Tiers of QA

1. Process Quality
2. Continuous Validation & Verification
3. Release Testing

#1 Process Quality

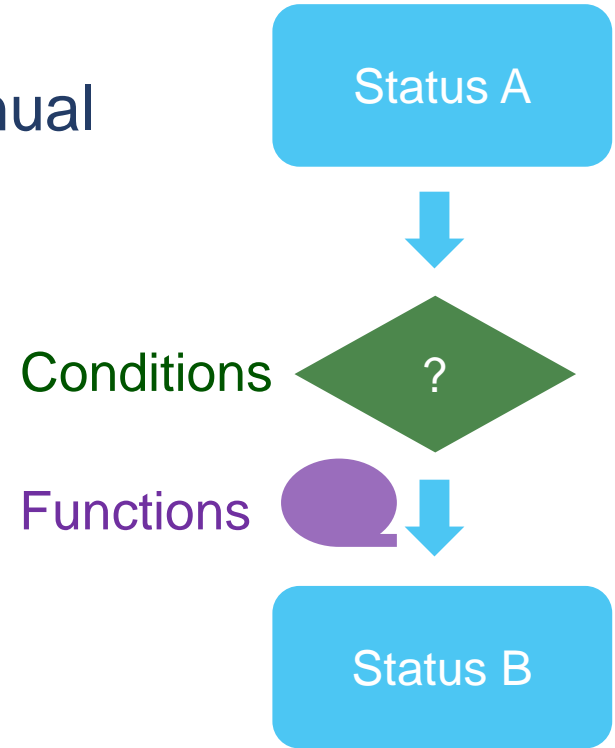


What component of Polarion do you consider to be outstanding (features, quality, ease of use) compared to other technology/software you use?

Customizable Workflow 69%

Workflow

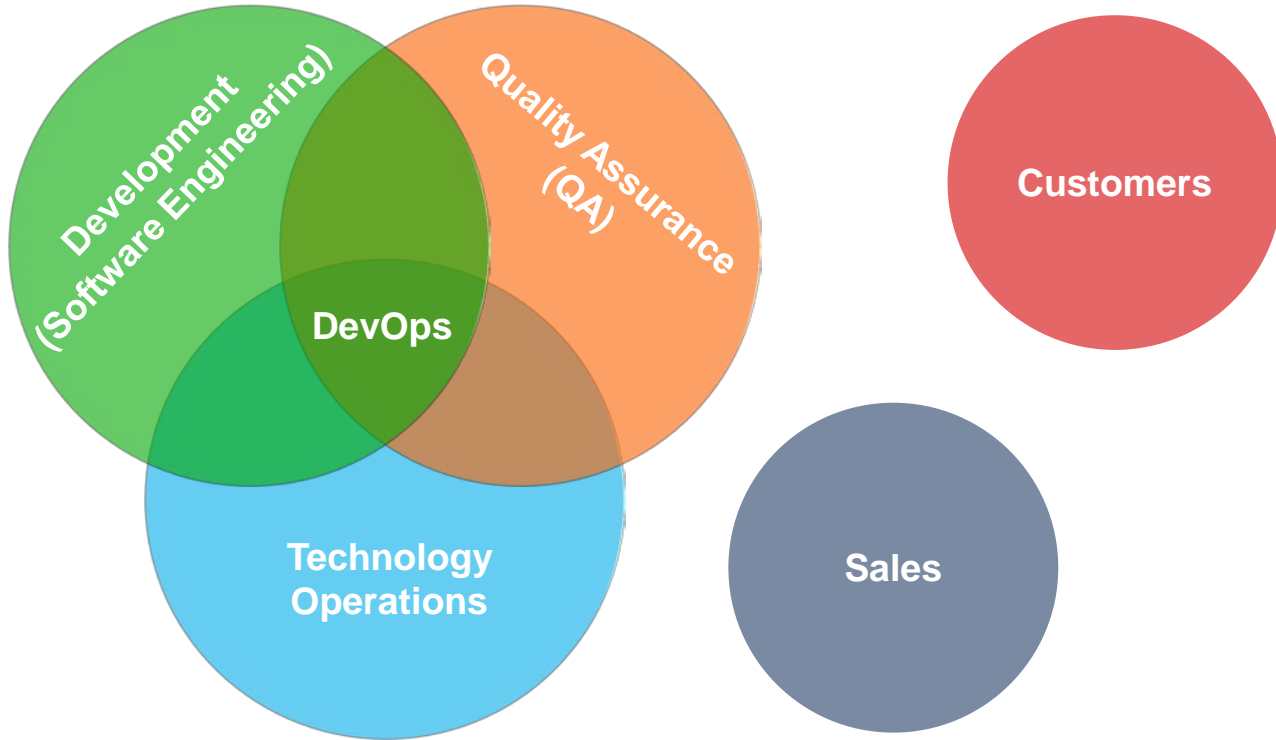
- Automation reduces routine manual work and it prevents errors
- Guides users and ensures the process to be followed.



Secure Collaboration

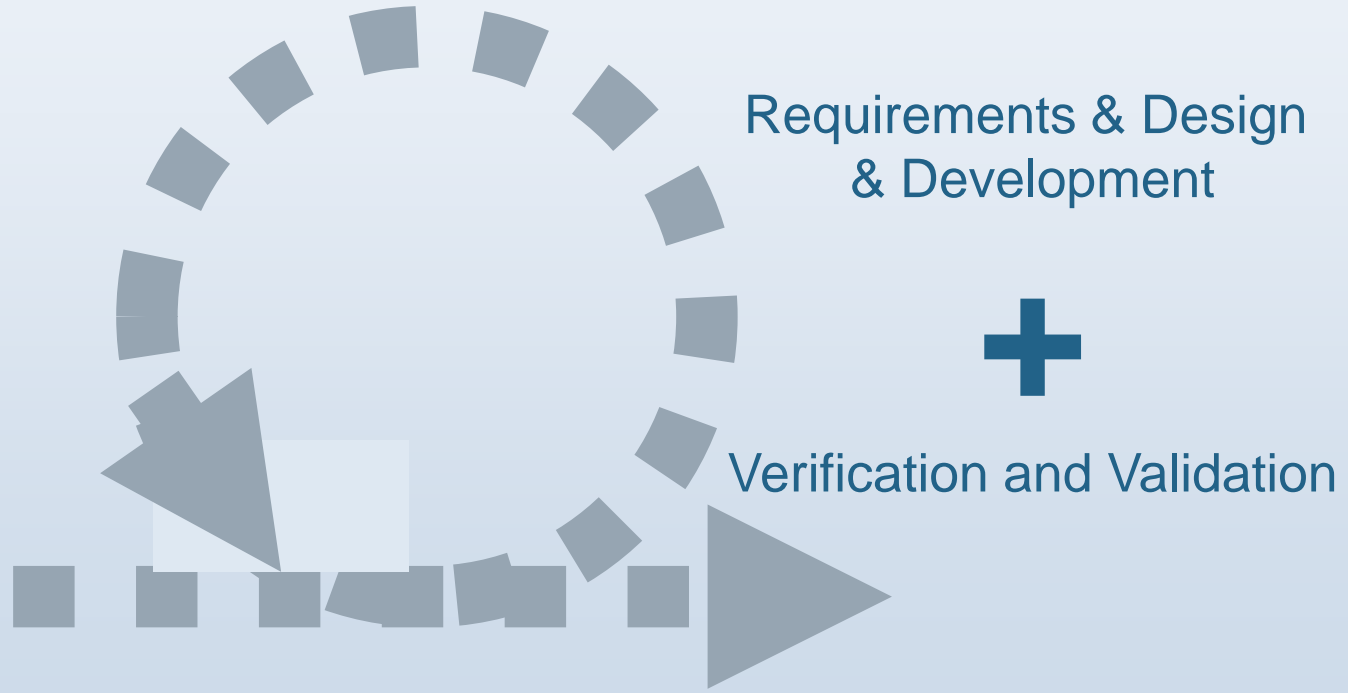
- Because the data should be kept private, and/or...
- Because you want to **ensure** that information can be exposed or **modified at the right time**.

Think Widely



#2 Continuous Verification and Validation

Iterative Development Process





Feature



User Story



Work Package

Product Increment

Continuously ...

Verify You built it **RIGHT**

Validate You built the **RIGHT THING**

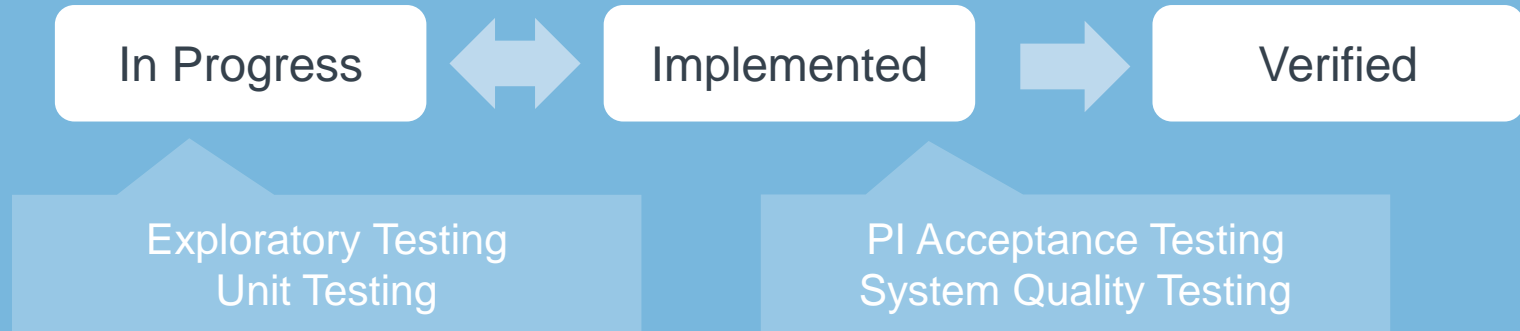
 **DPP-89431**  **DPP-94175** 

Created: 2015-09-23 15:38, Updated: 2015-09-25 14:01

   **DPP-94179 - Remove idgen files from repository**

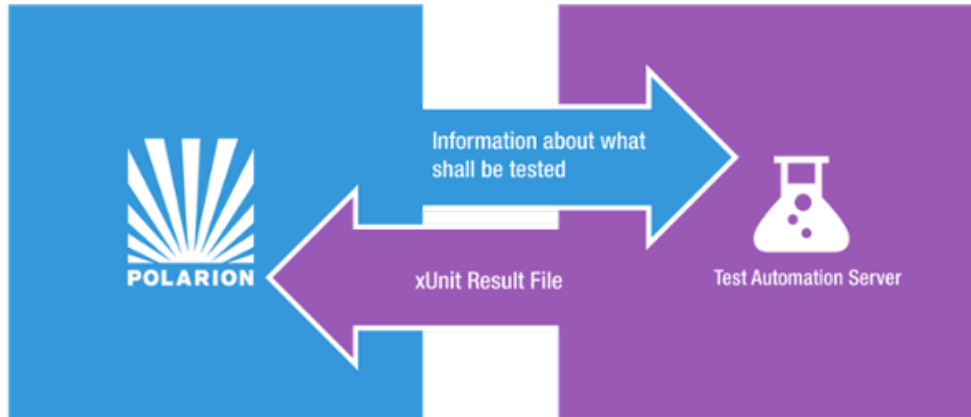
  **DPP-35232**  **DPP-35534**  **DPP-44869**  **DPP-90862**  **DPP-94182** 

0% Bug Policy



Test Automation

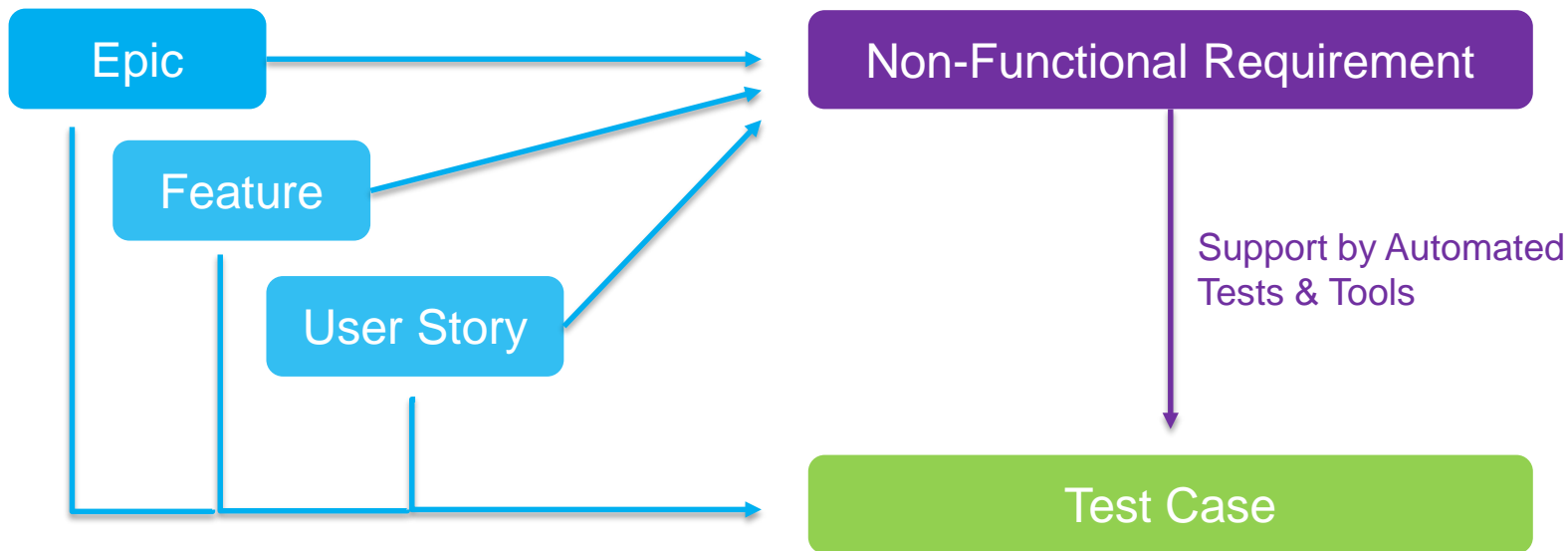
3.6 test tools / customer



- Same process
- Same traceability
- Issue generated and assigned
- xUnit / API Import

Non Functional Requirements

security, reliability, maintainability, scalability, usability and other *ilities



NFR Testing

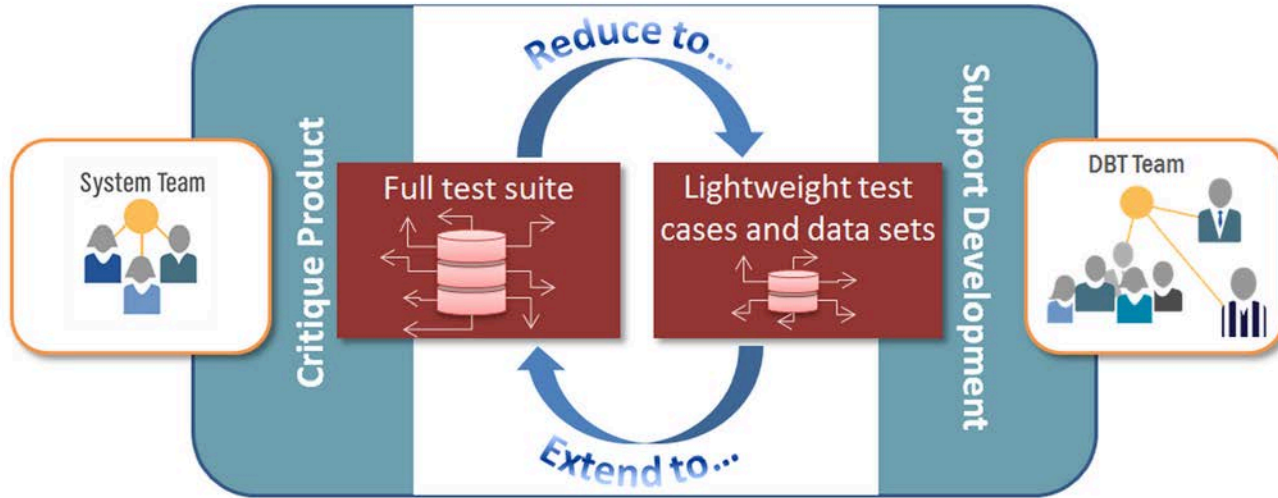
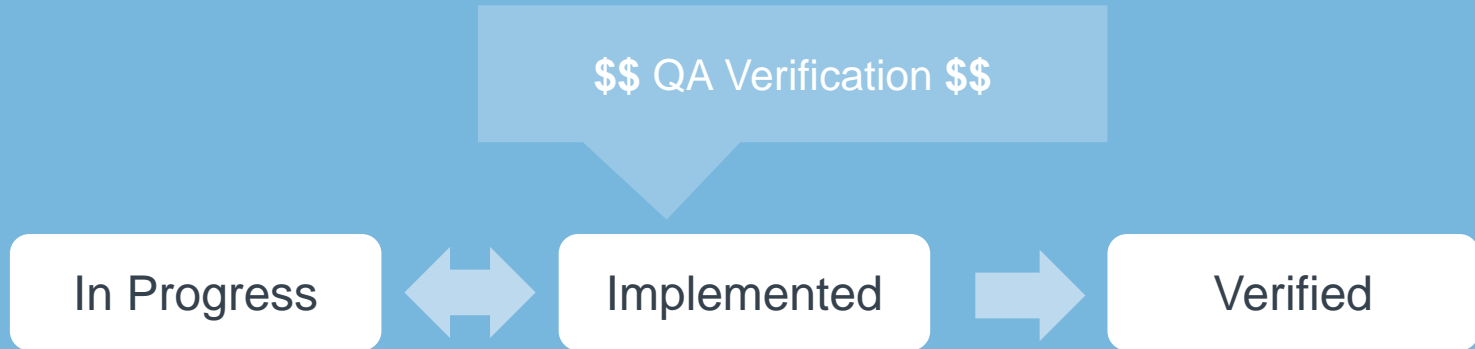
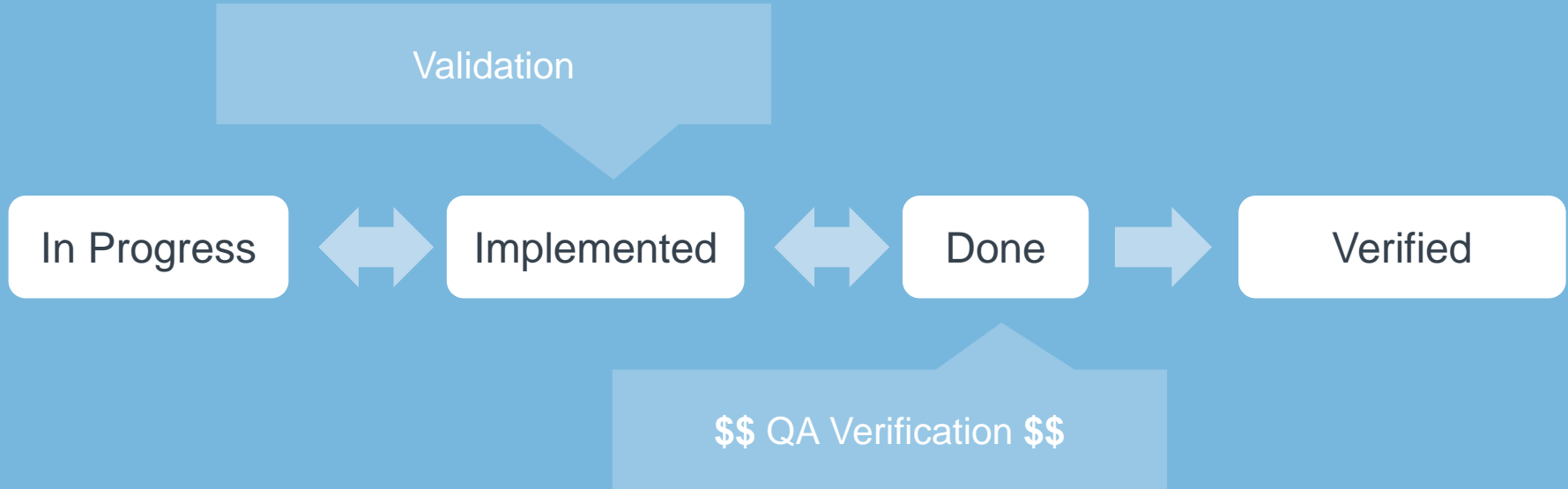


Figure 7. Collaboration of the System Team and Agile Teams to create a more practical NFR testing strategy

Validation

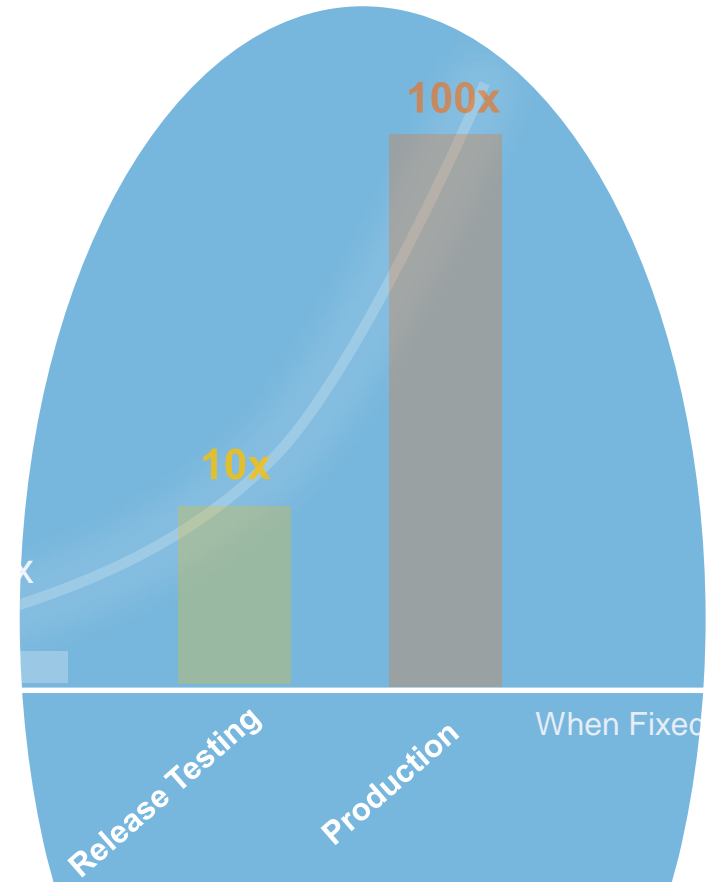


Validation



#3 Release Testing

Prevent Production Defects with Acceptable Release Testing Cost



What tests to execute?



Scope

```
// You cannot create an array using a l  
// It needs to be an int type.  
// Before converting to an int type, che  
// to ensure that file is not larger than  
if (length > Integer.MAX_VALUE) {  
    // File is too large  
}
```

100% Source Code Change Traceability

Task ... risk:LOW

Component

Work Package ... risk:LOW

Work Package

Work Package

Test Suite

TC

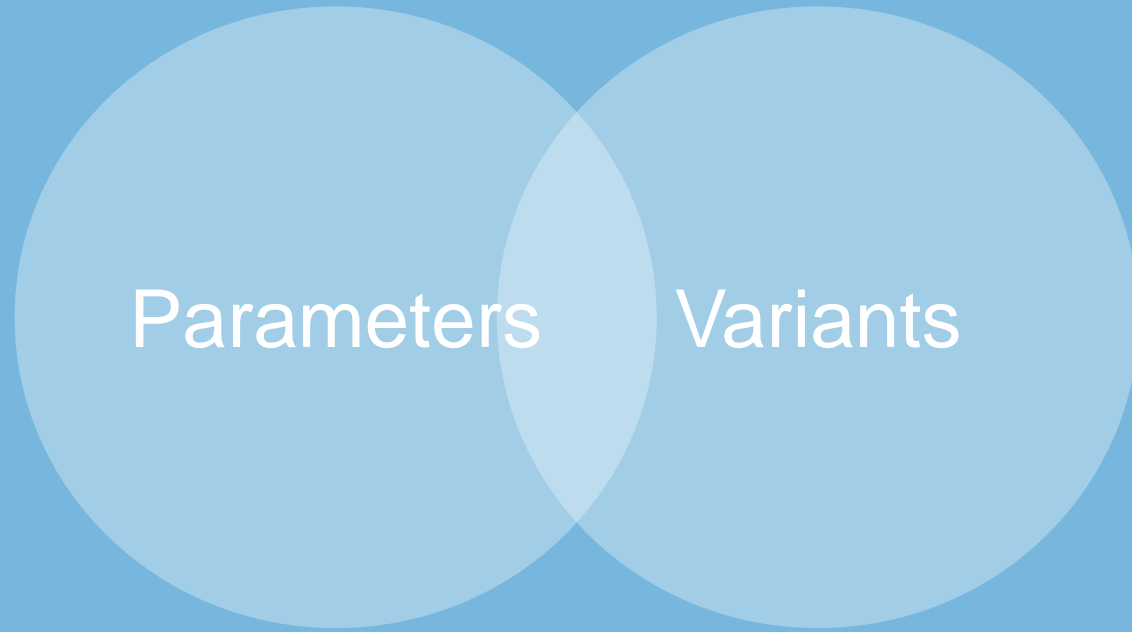
TC

...must

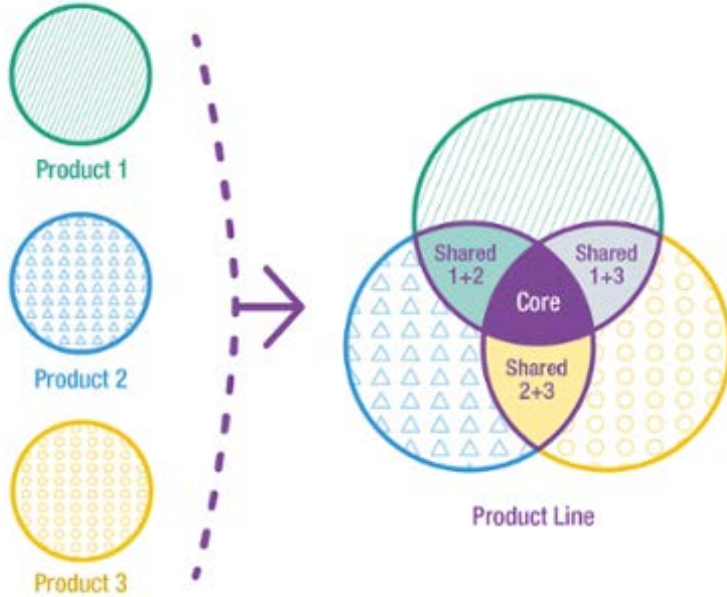
TC

TC

Reuse



Variants



Manageable Test Library

- Feature Model
- Requirements / Test Case Restriction

Parameterization

Current Test Run: **V1-ReleaseTest (Empty)** Start Test Case

Iteration 1

Iteration 2

# Step	Step Description	Expected Result	Actual Result	Step Verdict
1 Open Login Screen	Go to E-Library Portal welcome page, right corner, click login	Login screen with user name and password text fields is displayed		✓ ✗ ⛔
2 Enter Matching User Details	Enter following user details: username: パスワード password: ユーザー名	The login button is disabled until both user name and password is entered		✓ ✗ ⛔
3 Click "Login"	E-library portal is opened			✓ ✗ ⛔

Test Case Verdict

Passed Failed Blocked

Add Attachment Recent ☐ Open next queued Test when finished

Reuse Test Scenarios

- Test Step Parameters
- Manage Input Values
- Test Case Iterarions



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Questions?



Thank you.