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# 7 Agile Best Practices for BA's



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# Agenda

01

How BA fits  
into Agile

02

7 Agile  
Best Practices

03

Conclusion

04

Questions &  
Answers

- + Best Practices
- + Solutions to Challenges



**POLARION**

- ✓ **2004** Founded with Disruptive Vision
- ✓ **2005** First Unified, 100% Browser-Based ALM
- ✓ **10 Years** Focus on Unlocking Synergies:  
Full Traceability, Real-Time Collaboration, Intuitive UI
- ✓ **10 Years** Customer Satisfaction & Growth

**250+**

Fortune 1000  
Deployments

**2.5+M**

Users

**200+**

Extensions

**15K**

Registered  
Community  
Members

# How BA fits into Agile

# 7 Agile Best Practices for BA's

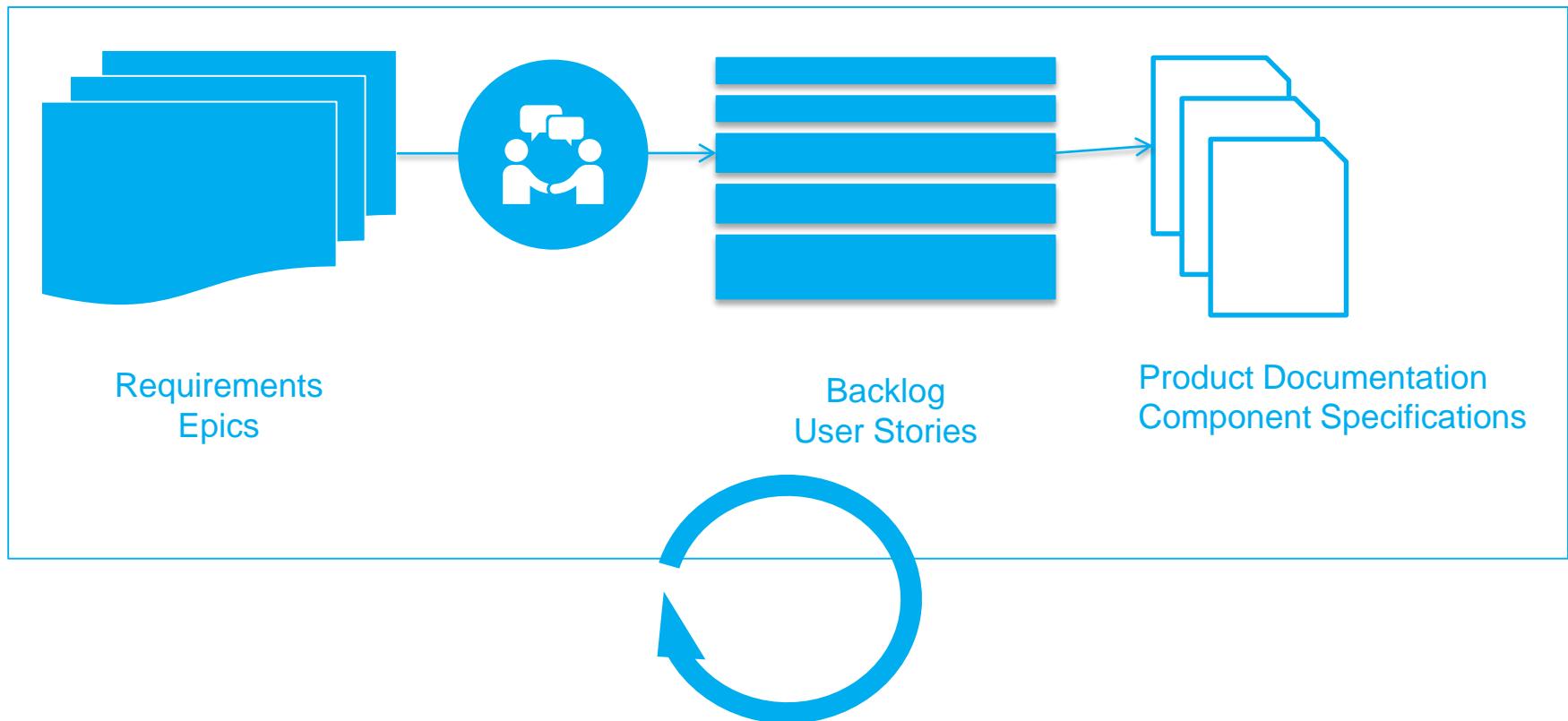
# 1

Specify Requirements  
Progressively

# WASTE



# Progressive Requirement Specification



# Think Critical

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*Under Agile, **technical** debt piles up and is not addressed because the business people will not see a problem until it's far **too late** or, at least, **too expensive** to fix it.*

*Agile forces developers to work on **atomized**, feature-level “user stories” and developers are often disallowed to work on improvements/defects/issues that can’t be related to **short-term**, immediate business needs*

# Product Owner is Facilitator

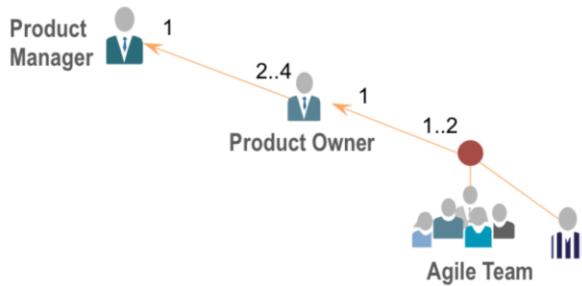


Figure 1. Fanout (cardinality) of Product Manager > Product Owner > Agile Team

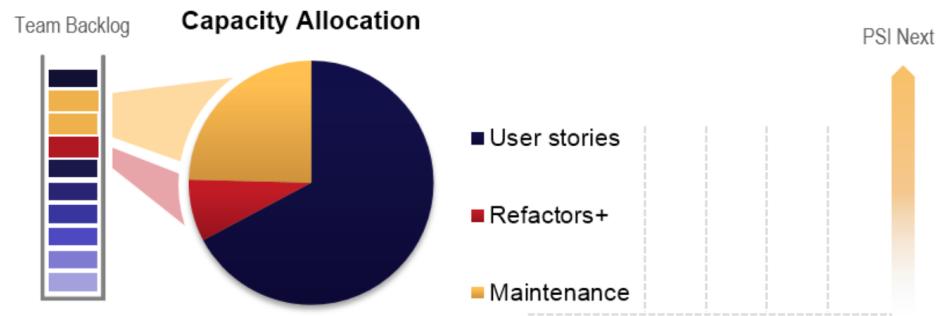


Figure 2. Team Backlog Capacity Allocation

<http://www.scaledagileframework.com/>

# Right Tools

The screenshot shows a web-based application interface for Polarion SVN. On the left, there's a sidebar with navigation links like Home, Report Bug, Sprint PI, Sprint XI, Sprint Lambda, and various work item categories such as Defect, Improvement, Task, User Story, Requirement, Feedback, Test Case, Epic, and Feature. The main content area displays a document titled "3 User Requirements". The first requirement, "3-1 - User can compare and merge branched documents:", lists four sub-points: "3-1.1 - Branch to Master", "3-1.2 - Branch to a revision of a Master", "3-1.3 - Revision of a Branch to Master", and "3-1.4 - Branch to Branch". Each sub-point has a detailed description. Below this, there's a section titled "3.1 Compare" with a sub-point "3.1.1 - User is able to get an overview of the changed work items in the compare interface, and perform the merge actions directly there. (we speak about the **document compare** interface where you see the **work items changes**)". A blue arrow points to a "Document" tab in a toolbar below this text. To the right, there's a "Work Item Properties" panel for "DPP-91351 - Merge Branch Changes" with fields for Severity (Normal) and Status (Open). It also lists "Links" and "is parent of" other work items.

**3 User Requirements**

3-1 - User can compare and merge branched documents:

- 3-1.1 - Branch to Master (where master is the document that was used to create a branch from), e.g. I need to merge changes to Version 2.0 branch back to master, or merge some changes from master to branch.
- 3-1.2 - Branch to a revision of a Master, e.g. user needs to merge changes from approved revision of master to branch version 2.0
- 3-1.3 - Revision of a Branch to Master , e.g. user needs to merge changes from newly approved revision of branch back to master (trunk)
- 3-1.4 - Branch to Branch (supposing they have the same parent in the upper hierarchy), e.g. user needs to perform a change request to version 1 and 2 that makes no sense in trunk anymore, so they perform a change in one branch and merge to the other

3-1.4.1 - Revision of a branch to Branch, e.g. in the example above, user merge the changes once the new version was approved, and they take the changes from this approved revision.

**3.1 Compare**

3.1.1 - User is able to get an overview of the changed work items in the compare interface, and perform the merge actions directly there. (we speak about the **document compare** interface where you see the **work items changes**)

Changed:  
Work Item Field Revision: 42795  
Revision: 46913

3.1.2 - If the item is referenced from a revision, user must see the changes of the item - what are the differences between item loaded from the corresponding (different) revisions from each of a document.

Example - Master and two branches with referenced item.  
=====master document (head revision 300)=====

**Work Item Properties**

DPP-91351 - Merge Branch Changes

Properties

Severity: Normal

Status: Open

Links

Edit Links

is parent of

- DPP-91352 - Introduction
- DPP-91357 - Overall Description
- DPP-91358 - User Requirements
- DPP-91359 - Nonfunctional Requirements
- DPP-93462 - Mockup
- DPP-91362 - Appendix A: Terminology/

# 2

## Evolve Planning & Prioritization

# Prioritize Backlog Continuously

Screenshot of a software application interface showing a backlog of work items and a planning dashboard.

The main view displays a table of work items with columns: ID, Title, Status, Priority, Assignee(s), Planned In, Initial Estimate, and Remaining Estimate. A filter "Planned In: Version 1.0" is applied. One item, EL-134, is selected and highlighted in yellow.

ID	Title	Status	Priority	Assignee(s)	Planned In	Initial Estimate	Remaining Estimate
EL-134	Listing of the 20 most frequently borrowed eBooks.	✓	100.0	Steve Developer	Iteration 33	1d	
EL-135	The listing of 10-50 recently checked books.	✓	90.0	Philip GUI	Iteration 33	1d 5h	
EL-140	Administration	✓	80.0	Steve Developer	Iteration 33		
EL-142	There are two user roles: basic user and administrator.	✓	70.0	Philip GUI	Iteration 33	1d	
EL-143	System Administrator must be able to set the user role.	✓	60.0	Steve Developer	Iteration 33	3h	
EL-139	Maintain the list of favorite books	⌚	64.0	Steve Developer	Iteration 34	6d	2d
EL-138	Access the list of favorite books	💡	61.0	Philip GUI	Iteration 34	2d	
EL-137	Mark a book as favorite	👤	58.0	Steve Developer	Iteration 34	3h	
EL-136	Configure contact information	⌚	55.0	Steve Developer	Iteration 34	9 1/2d	6 1/2d

Buttons at the bottom left include: Edit, Save, Cancel, Open in Document, and a toolbar with icons for messaging, attachments, filters, and navigation.

The bottom panel shows details for the selected item, EL-134:

- Type: User Story
- Assignee(s): Steve Developer
- Estimate in Story Points: 8
- Created: 2010-11-25 15:16, Updated: 2015-07-03 14:34
- Relationships: EL-129, PG1-226, EL-64

The right side features a "Planning" dashboard for Version 1.0 (2014-06-30). It shows:

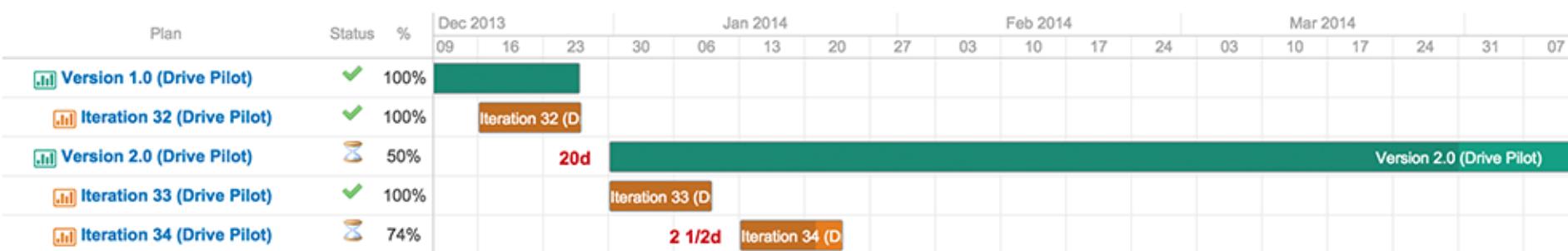
- 16 Item(s) Planned
- 150 Item(s) Unplanned
- 0 Prioritize Items

Buttons: Add (0 item(s) to Plan) and Remove (0 item(s) from Plan).

Open Plans section shows: Version 1.0 (2014-06-30) and Iteration 34 (2014-01-24).

# Evolving Roadmap 3-6 months

## Teams Dashboard



# Heap vs Backlog



*Focusing on continuous delivery has the effect of creating an unmanageable defect backlog while developers work to put something in front of the customer.*

YES or NO ?

# Transparency / Workflow

DPP-91905 DPP-89686 DPP-88250 DPP-91326 +

Created: 2015-06-15 17:37, Updated: 2015-09-16 09:41

[DPP-91327 - Filtering in picker of already used test parameters \(i216\)](#)

[DPP-93423](#) [DPP-93397](#) [DPP-93473](#) [DPP-93526](#) [DPP-93527](#) [DPP-93528](#) [DPP-93529](#) [DPP-93530](#) [DPP-93288](#) [DPP-93292](#) [DPP-93293](#) [DPP-93323](#) [DPP-93453](#) [DPP-93581](#)

DPP-93303 [DPP-93840](#) +

Type: [User Story](#)

Severity: [Must Have](#)

Author: Radek Krotil

Categories: [Test Management](#)

Story Type: [New Feature Story](#)

Initial Estimate: **6d**

Time Spent: **7d 1h**

Remaining Estimate: **3d 3h**

QA Sprint Estimate: **2d**

Dev Sprint Estimate: **4d**

Linked Work Items					
Suspect	Role	Title	Project	Revision	Status
	has parent	DPP-91905 - Stage 3: Adding of new test parameters	PolarionSVN		
	relates to	DPP-89686 - com.polarion.ui.maxRenderedItemsInCombo	PolarionSVN		
	implements	DPP-88250 - Parametrized Testing	PolarionSVN		
	follows	DPP-91326 - Pick from test parameters that were already used in this Test Case (i213)	PolarionSVN		
	is related to	DPP-93423 - com.polarion.ui.comboItemsForFilter	PolarionSVN		
	is implemented by	DPP-93397 - Keyboard navigation in popup list is working only for first key in IE sometimes	PolarionSVN		
	is implemented by	DPP-93473 - Failed: com.polarion.alm.shared.reqif.SpecificationConfigurationDataImportTest.testUseTe	PolarionSVN		
	is implemented by	DPP-93526 - Failed: com.polarion.alm.shared.reqif.MappingGroupModelTest.testCompatibleFields	PolarionSVN		
	is implemented by	DPP-93527 - Failed: com.polarion.alm.shared.reqif.SpecificationConfigurationDataImportTest.testReload	PolarionSVN		
	is implemented by	DPP-93528 - Failed: com.polarion.alm.shared.reqif.SpecificationConfigurationDataImportTest.testLoadN	PolarionSVN		
	is implemented by	DPP-93529 - Failed: com.polarion.alm.shared.reqif.SpecificationConfigurationDataExportTest.testTempl	PolarionSVN		
	is implemented by	DPP-93530 - Failed: com.polarion.alm.shared.reqif.SpecificationConfigurationDataExportTest.testLoadN	PolarionSVN		
	is implemented by	DPP-93288 - Only explicit selection in combo	PolarionSVN		

# Multi-Dimensional Prioritization

**Priority = Occurrence \* Detection \* Workaround \* Severity**

DPP-14684 DPP-81948 +  
DPP-42038 - Gaps in ID spaces of WorkItems imported from Excel  
↑ +

Type: Defect  
\*Severity: Major  
Author: Roman Sandera  
Categories: Export/Import and Printing

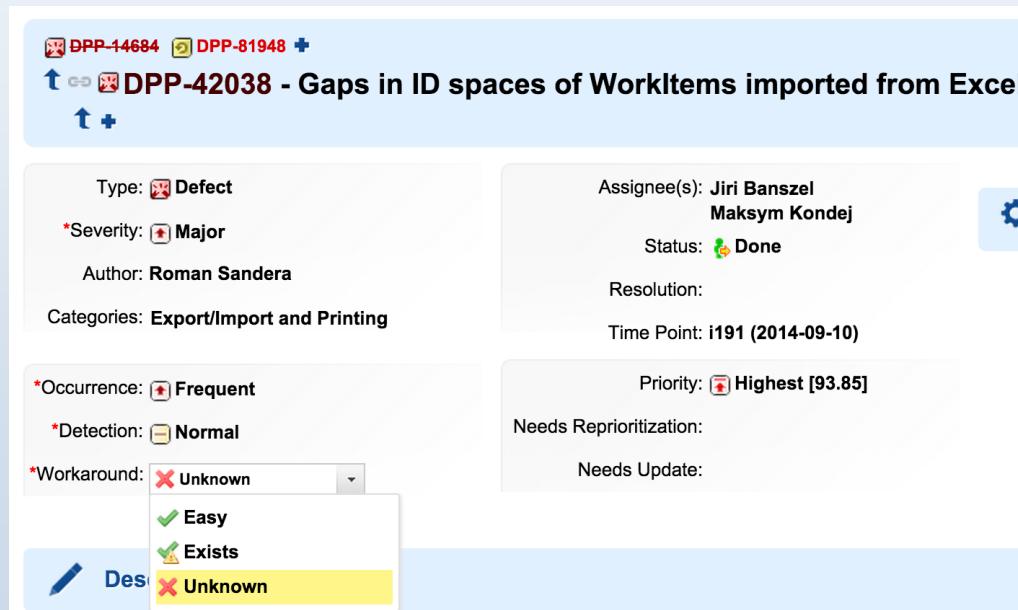
Assignee(s): Jiri Banszel  
Maksym Kondej  
Status: Done

\*Occurrence: Frequent  
\*Detection: Normal  
\*Workaround: Unknown

Priority: Highest [93.85]  
Needs Reprioritization:  
Needs Update:

Easy  
Exists  
Unknown

Des



# 3

## A Picture's Worth 1000 Words

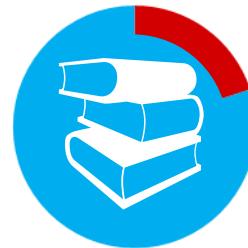
“We are visual creatures. When you doodle an image that captures the essence of an idea, you not only remember it, but you also help other people understand and act on it - which is generally the point of meetings in the first place.”

- Tom Wujek

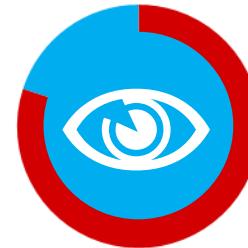
Studies show that people remember:



10%  
of what they hear



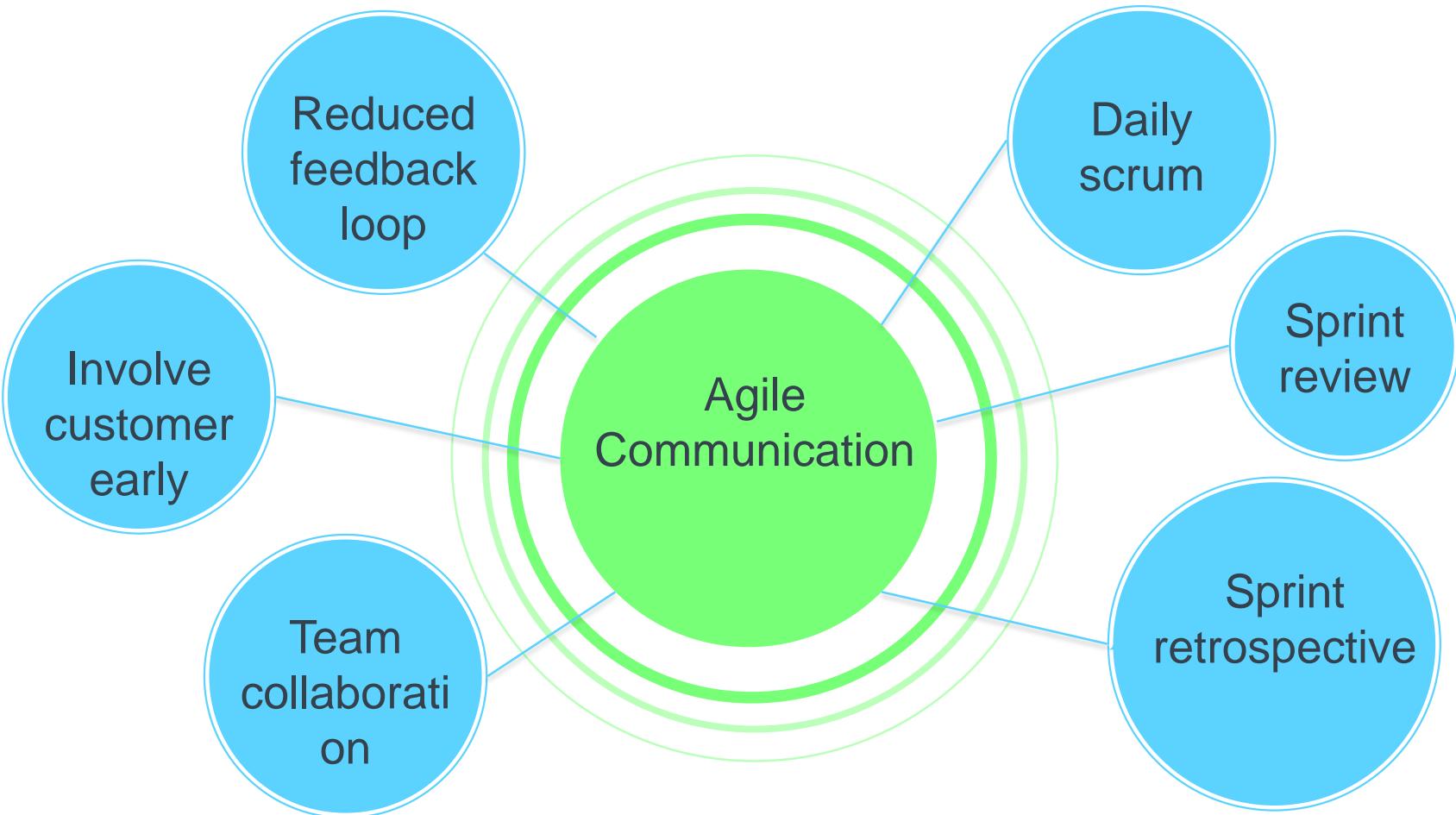
20%  
of what they read



80%  
of what they see

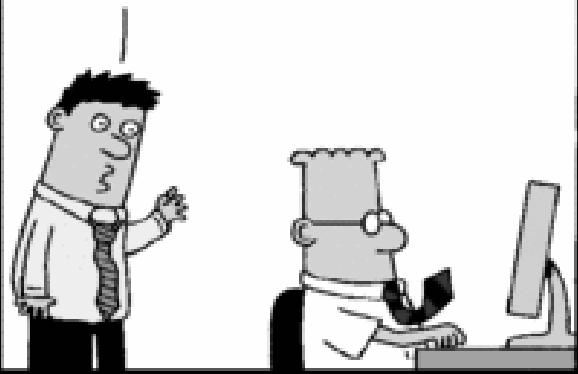
# 4

## Enhance Communication



# Challenges

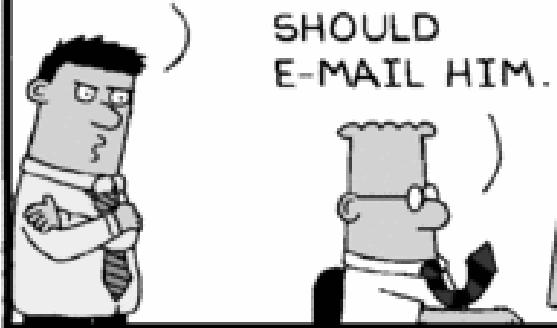
DUDE, WHY HAVEN'T  
YOU ANSWERED MY  
E-MAIL?



YOUR MESSAGE WAS SO  
POORLY WRITTEN  
THAT I DIDN'T UNDER-  
STAND IT AND I DIDN'T  
DARE TO START  
A DIALOGUE.



MAYBE I SHOULD  
HAVE A TALK WITH  
YOUR  
BOSS.



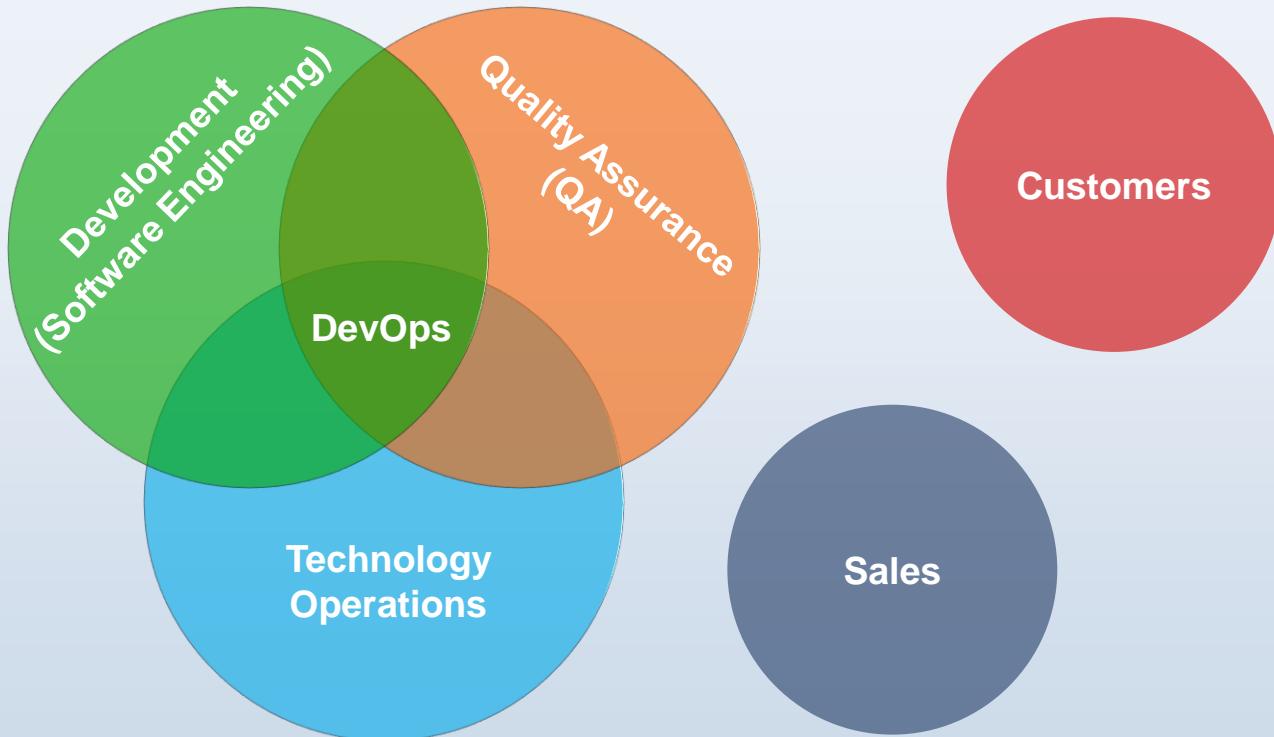
MAYBE YOU  
SHOULD  
E-MAIL HIM.

# Use Tools for Real-time Collaboration

The screenshot displays a software interface designed for real-time collaboration, specifically for managing work items and projects. The interface includes:

- Left Sidebar:** Shows a hierarchical tree view of project components like [Polarion], cns.noreg, and Polarion, along with a list of work items (e.g., DP-397, DP-398, DP-399, DP-400, DP-401, DP-402, DP-405, DP-406, DP-407, DP-408) and their details.
- Top Bar:** A header bar with the title "[Polarion] Backlinked WI Updated: DPP-34921: Feedback II : Finalize look of Workitems views and query panels [Assignee: Vaclav Chroust] [by Sarka Jelinkova] - [Polarion] - polarion - Mozilla Thunderbird".
- Central Panel:** A "Mark Reviewed: Signatures" dialog box is open, showing a timeline from 14. Jan to 24. Jan with three progress indicators: Ideal Progress (blue), Real Progress (green), and Relative Progress (yellow).
- Plan Board:** A Kanban-style board titled "Plan Board" with columns for Open (6 items), In Progress (4 items), Done (9 items), and Verified (4 items). It lists work items like "EL-139 - Maintain the list of favorite books" and "EL-91 - Administration section to manage user defined shortcuts".
- Review Panel:** A vertical panel on the right labeled "Review" containing a list of tasks with checkmarks and user icons, such as "EL-78", "EL-77", "EL-75", and "EL-74".
- Bottom Status:** A footer bar indicating "Version 1.0 (2013-12-27)".

# Think Widely



# Early Validation

The image displays two side-by-side screenshots of the Polarion SVN web interface, illustrating early validation features.

**Left Screenshot:** The title bar shows "Merge Branch Changes". The main content area is titled "3 User Requirements". It lists several requirements related to merging branches:

- 3-1 - User can compare and merge branched documents:
  - 3-1.1 - Branch to Master (where master is the document that was used to create a branch from), e.g. I need to merge changes to Version 2.0 branch back to master, or merge some changes from master to branch.
  - 3-1.2 - Branch to a revision of a Master, e.g. user needs to merge changes from approved revision of master to branch version 2.0
  - 3-1.3 - Revision of a Branch to Master , e.g. user needs to merge changes from newly approved revision of branch back to master (trunk)
  - 3-1.4 - Branch to Branch (supposing they have the same parent in the upper hierarchy), e.g. user needs to perform a change request to version 1 and 2 that makes no sense in trunk anymore, so they perform a change in one branch and merge to the other
    - 3-1.4.1 - Revision of a branch to Branch, e.g. in the example above, user merge the changes once the new version was approved, and they take the changes from this approved revision.

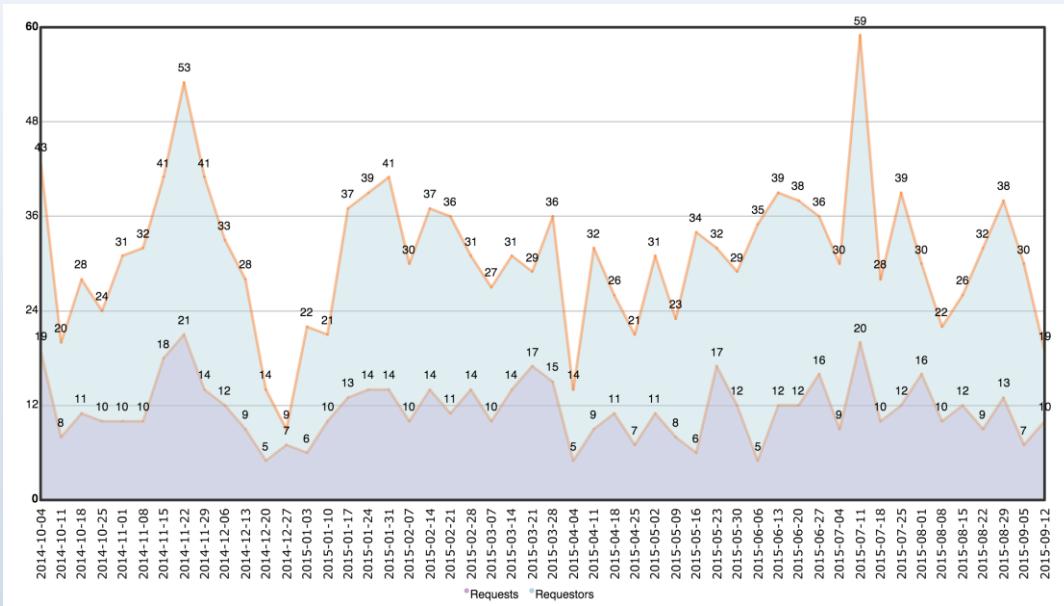
Below this, a section titled "3.1 Compare" is shown with requirement 3-1.1 highlighted. A blue arrow points to the "Work Items" tab in the navigation bar of a modal window titled "Comparing System Requirements ... #46913 as Document Work Items Fields". The modal shows "Changed:" with "Revision: 42795" and "Revised by: Revision: 46913".

**Right Screenshot:** The title bar shows "Merge Branch Changes". The main content area is titled "3.1 Compare". It lists requirements related to comparing work items:

- 3-1.1 - User is able to get an overview of the changed work items in the compare interface, and perform merge actions directly there. (we speak about the **document compare** interface where you see the **work items changes**)
- 3-1.2 - If the item is referenced from a revision, user must see the changes of the item - what are the differences between item loaded from the **master** to the **item** from the **revision** in the **head** corresponding (different) revisions from each of a document.
- 3-1.3 - When user compares any of the documents together, he/she sees the changes on login button on one line.
- 3-1.4 - If the item has been overwritten in the branch, i must see the changes aggregated, as if the master and branched items would be the single item. It does not care changes do branched item or added master item removed, but I see the changes, so I can easily perform the merge (one below).

A blue arrow points to the "Fields" tab in the navigation bar of a modal window titled "Comparing System Requirements ... #46913 as Document Work Items Fields". The modal shows "Changed:" with "Work Item Field Revision: 42795" and "Revised by: Revision: 46913".

# Process Plan Feedback



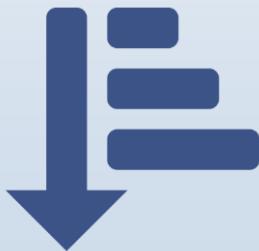
Dedicated Value Stream  
(25% capacity)

# 5

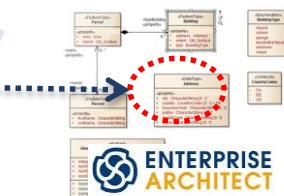
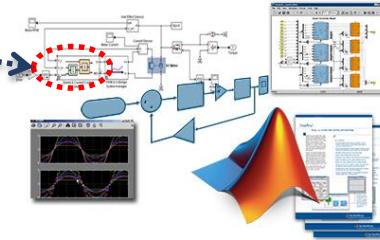
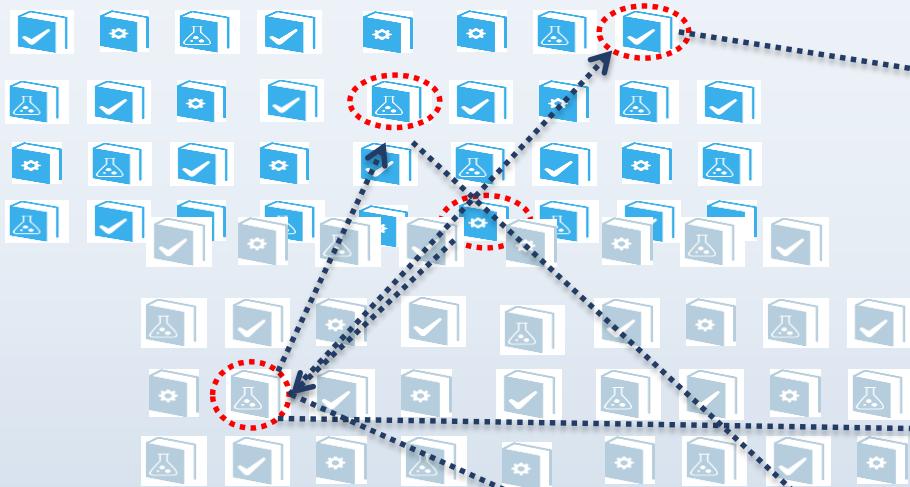
## Embrace Change Smartly

# Eliminate Waste

1. Continuous Backlog Prioritization
2. Early and Frequent Product Review & Validation
3. No Heavy Up-front Specification



# Impact Analysis



A screenshot of a code editor showing Java code for a Faces configuration file. The code defines a class named `Carbone` with methods for getting and setting a `carbone` attribute. An arrow points from this code to the code editor below.

```
faces-config.xml [carbon.java]
package example;
...
public class carbon {
    private java.lang.String carbone;
    public carbon() {
    }
    ...
    public java.lang.String getcarbone() {
        return carbone;
    }
    public void setcarbone(java.lang.String carbone) {
        this.carbone = carbone;
    }
}
```



Large Data Scale  
50k Requirements  
20mil LoC

# Regulatory Compliance

*Demonstrate that the software units fulfill the software specifications and do not contain undesired functionality.*

- Requirements are documented
- Verification Scenarios are documented and results traceable
- Source code changes are verified and traceable



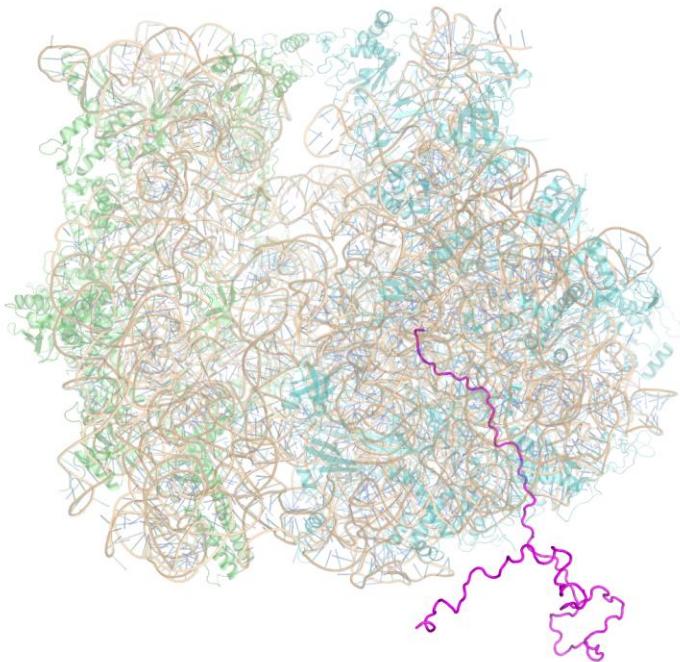


Customers don't know what they want ...

They DO!



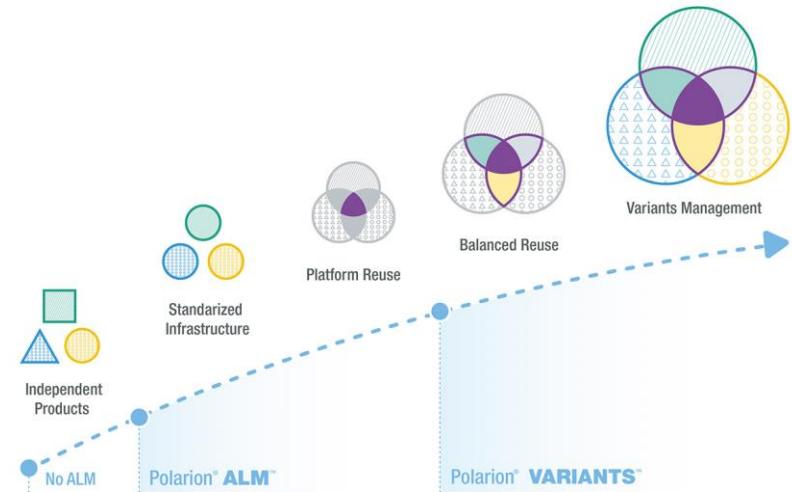
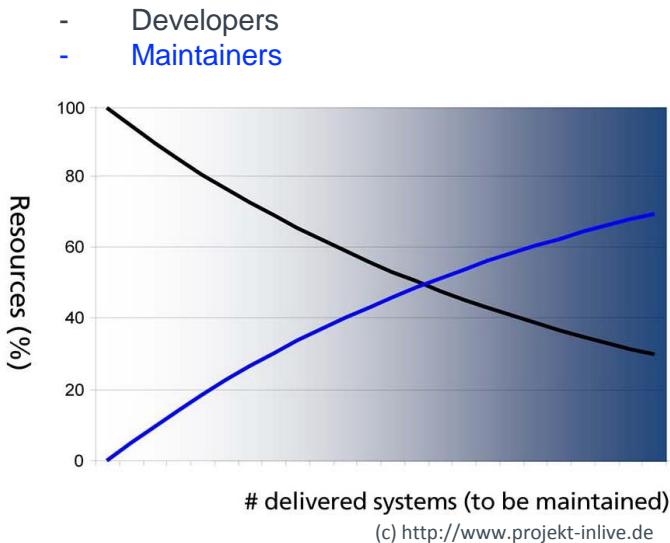
# Architecture



Design & Refactor

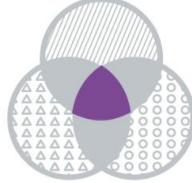
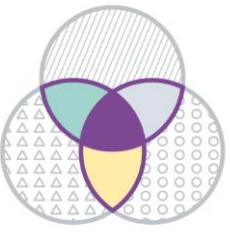
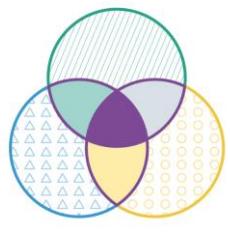
- for **extensibility**
- for **flexibility**

# Maintenance Paralysis



# Variants Management

## Degree of Commonality and Variability

Minimalistic (50%)	Balanced (90%)	Maximalistic (150%)
Common solutions only	Common and shared solutions only	Common, shared and specific solutions
		

# 6

## Quality is Queen

# Verify

You built

IT

# **RIGHT**

# Validate

You built

THE

# **RIGHT THING**



Acceptance criteria & test cases



Continuous integration / testing



SW V&V during each iteration



Maintain traceability



Validation iteration

# Traceability Reports

Created: 2013-04-03 17:47, Updated: 2014-05-27 16:01

Work Item Types: System Requirement, Software Requirement, Mechanical Requirement, Electrical Requirement

Additional Query: status:approved

Link Direction / Role: Backlinked **verifies, implements**

Apply Save as Default Show Advanced Options...

## Traceability Report

Produced by Jiri Walek, Tue May 27 16:01:44 UTC 2014

ID-Title	Link Role	Suspect	Status
<a href="#">DP-313 - DrivePilot shall easily engage operations while the vehicle is at rest.</a>			
<a href="#">DP-314 - DrivePilot may not be engaged while the vehicle is under manual control.* provid...</a>			
<a href="#">DP-315 - DrivePilot shall be easy to operate without extensive training.</a>			
<a href="#">DP-316 - Before any user may engage DrivePilot on public roads, that user must successful...</a>			
<a href="#">DP-453 - DrivePilot requires confirmation of a test drive</a>	implements		Verified as Done
<a href="#">DP-450 - Require Tutorial before first run</a>	implements		Verified as Done
<a href="#">DP-224 - A tutorial is required before the first run.</a>	verifies		Active
<a href="#">DP-317 - Drive Pilot warnings on special conditions</a>			
<a href="#">DP-454 - Drive Pilot warnings on special conditions</a>	implements		Reopened
<a href="#">DP-473 - DrivePilot will disengage when User shouts "Stop"</a>	verifies		Active

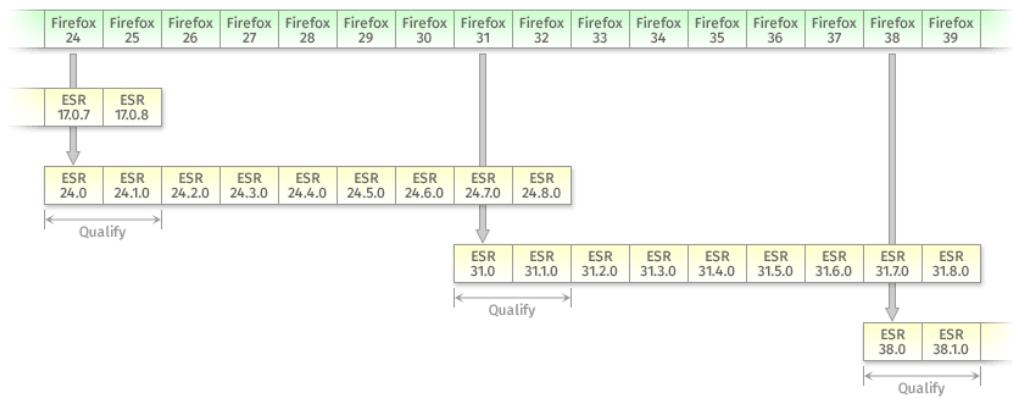
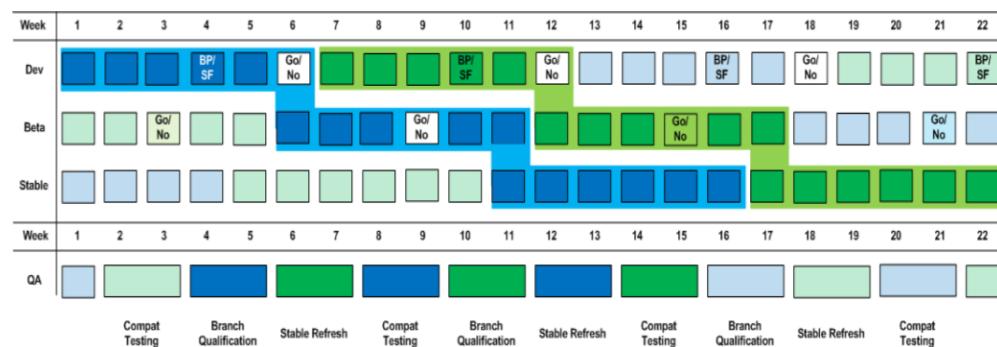
**Info**

Revision: 339 556 Date: 2012-01-01

Comment: DPP-33715 - Implement DrivePilot

Added: 3 Changed: 5

```
<?xml version="1.0" encoding="utf-8"?>
<wiki-page>
<lastUpdatedBy>admin</lastUpdatedBy>
<author>admin</author>
<type>active</type>
<created>2011-06-29 12:55</created>
<lastUpdated>2011-06-29 12:55</lastUpdated>
<content><![CDATA[({param1} My Polarion)</content>
```

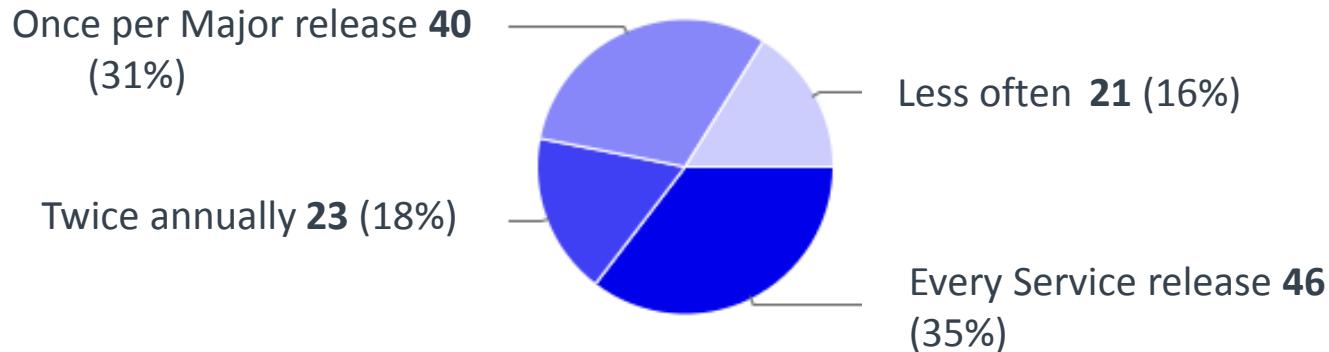


# What is your schedule to update Polarion software?

**84 % on latest major release**



iOS 8 final score:  
87% of users upgraded



# Ensure Release Adoption

- Agile Release Train – same QA gateway for all releases
- Web technology - make it easy to update
- **Backward Compatibility**

# 7

# Do Risk Management

# Risk Management

S ⚡

**POLARION**

E-Library ▾

Search

System Administrator  
My Polariion

Home

Specification

Releases

FMEA Risk

- Index
- FMEA How-To
- FMEA Worksheet
- Requirements Risk Analysis Coverage
- Risk Specification
- Risk by Status

Development

Testing

Test Case Traceability

## FMEA Risk Management

Failure modes and effects analysis (FMEA) is a step-by-step approach for identifying all possible failures (as risk items) in a design, a manufacturing or assembly process, or a product or service.

"Failure modes" means the ways, or modes, in which something might fail. Failures are any errors or defects, especially ones that affect the customer, and can be potential or actual.

"Effects analysis" refers to studying the consequences of those failures.

### Risk Assessment Documents

- Risk Specification (FMEA Worksheet)

### Risk Items by Status

- Draft
- Analysis
- Actions Pending
- Actions Taken
- Rejected

## FMEA Worksheet

- Table to be Exported to Excel FMEA Worksheet
- Open Risk Specification Document

ID	Title	Status	Description	Severity	Potential Cause(s)	Occurrence Rating	Current Controls	Detection Rating
----	-------	--------	-------------	----------	--------------------	-------------------	------------------	------------------

1	SAMPLE-5	EXAMPLE: High level sensor never trips	Liquid spills on customer floor, the floor is damaged and needs to be replaced.	5	High level sensor failed, high level sensor disconnected,	2	Fill timeout based on time to fill to high level sensor	5
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2	SAMPLE-6	EXAMPLE: Low level sensor never trips	High level sensor failed, high level sensor disconnected,	5	High level sensor failed, high level sensor disconnected,	2	Fill timeout based on time to fill to high level sensor	5
1			Severity	Potential Cause(s)	Occurrence	Current Controls	Detection	

## Workflow



# Conclusion

# 7 Agile Best Practices for BA's

Specify **Requirements** Progressively

**Evolve Planning & Prioritization**

A **Picture**'s Worth 1000 Words

Enhance **Communication**

Embrace **Change** Smartly

**Quality** is Queen

Do **Risk Management**

# Questions

# Next Steps

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# Thank you.

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