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## Definition of Done

An Organizational Perspective

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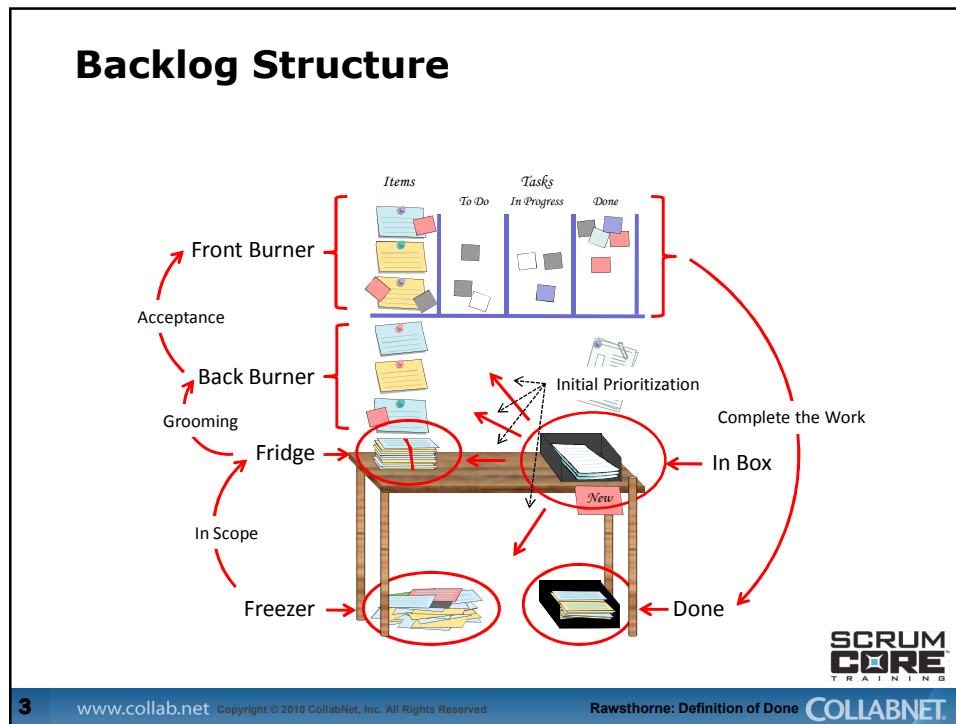
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### Topics to Cover


- Agreement on “Done”
  - Examples of Agreements
  - Organizational Need to “Standardize”
  - StoryoTypes
  - Summary






- ### In the Front Burner (Sprint Backlog)
- The Team has an Agreement on “done” for each story
  - This is an Agreement amongst the team (includes the PO, remember) that answers the question:
    - How will we (the Team) know that we are done with this story?
    - Must be verifiable by the Team
    - Can't be dependent on the “kindness of strangers”
  - The Team “owns” this Agreement – it can't be agreed to for them
    - The Agreement is negotiated in “good faith” by the PO and the rest of the Team
    - The PO represents external stakeholders
  - If the Team can't accept the agreement
    - We must change the agreement so they can, or
    - Treat the story as an Epic (discussed later)
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### Externally Visible Scope vs Technical Debt



Acceptance Criteria  
What we “Deliver”  
Externally Visible



Definition of Done  
Technical Debt  
Invisible from Outside

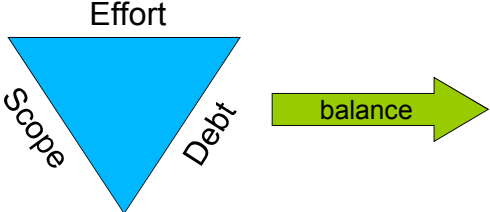
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### Form of the Agreement

- These agreements have different forms for different kinds of stories (storytypes), but for a functional story I think there are three parts to an Agreement:
  - What will be verified to prove that the story provides the stakeholder-requested value?
  - What will be verified to prove that we have mitigated the risk of producing technical debt?
  - Other Agreements, like which SMEs we’ll talk to, the simplifying assumptions, what’s out of scope, etc
- We will discuss agreement for various StoryTypes
  - Production (coding) stories
  - Analysis stories – produce Development stories
  - Business Support stories – non-development support of the Business
  - Chores – stories that have no explicit business value

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## Iron Triangle and "Doneness"



Story Done List

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Tests to Pass

Time Boxes

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Inspections

Process Reqts

- Agile Planning is actually about balancing effort, scope, and technical debt
- The expected scope and debt is seldom documented in detail, but maybe if should be
  - I like to see an explicit DoneList so that we can "check it off"
- DoneList Agreement has two parts
  - Scope Side (acceptance), usually defined by tests, time boxes, etc
  - Debt Side (doneness), usually defined by inspections, process steps, etc
- The DoneLists are different for different storytypes, and the tasks exist in order to get the DoneList completed

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## Seeing is Believing...

- Probably the best way to understand this concept is to see some examples
- In the following examples, we see some “complete” stories – stories that have been agreed to and accepted into the Front Burner (Sprint Backlog)
  - What we see here defines the “what” for the story
  - The “how” will be explored, defined, and implemented as the story is worked on
  - There could be more stuff than this, but we usually defer it until we have committed to actually doing the story
- First we’ll look at some stories of different types, and then we’ll discuss Epics



## Sample Development Story

**Get List of Flights from CUTLASS**  
 Size: 8 SPs      Type: [backbone]

As a <flyer> I want <to have a list of flights that matches my itinerary> so that <I can choose one that works for me>

**General:**

- Joe (SME) is the expert on CUTLASS
- Simplifying Assumptions: One Way, Single Leg, No Seat Selection, Single Passenger, Full Fare, No Luggage ...

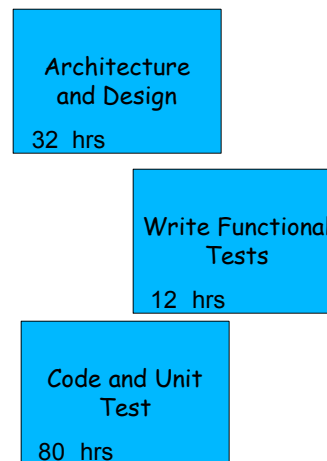
**Acceptance:**

- Pass in an itinerary and get a list of Flights back

**Doneness:**

- Review Architectural Decisions with Team
- Design Review
- Review Functional Test Strategy
- Review Unit Tests
- Verify Tests passing on Development Machine
- Code Review
- Functional Tests Written
- Verify Tests passing on Integration Box
- Add Tests to Regression Test Suite

### Tasks



## Sample Analysis Story

**Analyze Shopping for Flights**  
Size: 2-day Timebox    Type: [analysis]

As a <developer> I want <some stories for "shopping for flights"> so that <I'll have some work to do>

General:  
 - Amir (Team Member) is the Coordinator

Acceptance:

- The Backbone Story is in the Backlog
- There is at least one validated (with the SMEs) story, based on this backbone story, ready to be "worked on"

Doneness:

- Identify SMEs (Subject Matter Experts) for "Shopping for Flights" and document in epic
- Meet with the SMEs and discuss the issues, document what you get in the Wiki
- Generate, and validate, the "backbone" version of this epic
- Have a meeting with the Team to discuss it...

**Tasks**

Meeting with SMEs  
4 hrs

Document in Wiki  
6 hrs

Generate Production Story  
4 hrs

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## Sample Business Support

**Support Sales with Company ABC**  
Size: 2-day Timebox    Type: [bus spt]

As a <sales guy> I want <to sell the new capabilities to Company ABC> so that <we'll make some good money>

General:  
 - Sandy (from Sales) is the Coordinator

Acceptance:

- Our Team gives Sandy 2 days of its time to support her sales efforts with Company ABC

Doneness:

- Bring Sandy and other sales guys up to speed on new capabilities
- Go with Sandy to see Company ABC to provide technical support
- Work with Sandy to make sure bid correctly describes the new capabilities

**Tasks**

Brief Sales On New Capabilities  
2 hrs

Meeting with Client  
8 hrs

Work on Bid With Sales  
4 hrs

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## Sample Infrastructure Story

**Install Copy of CUTLASS in Lab**  
Size: 8 SPs                      Type: [enviro]

As a <developer> I want <to have my own copy of CUTLASS to play with> so that <I can figure out how it works>

General:  
 - Joe (SME) is expert on CUTLASS  
 - Sam (Team Member) will be Coordinator

Acceptance:  
 CUTLASS is "up and running" in the lab

Doneness:  
 Get CUTLASS Install from SirJeff  
 Sam work with Joe to:  
 Set up clean machine  
 Install CUTLASS  
 Do Smoke Test to see if it works

### Tasks

Set up clean machine in lab  
8 hrs

Install CUTLASS on new machine  
8 hrs

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## Discussion of Epics

- Epics are Items that the Team can't commit to, for any reason (Complex, Unknown, Risky, or Big)
  - Has other Stories inside it
  - There is usually no definition of "done" for an epic, but
  - These inside stories have Agreements that can be committed to
- Example:
  - Epic: "I want page XYZ to render in < 1/10 sec because it's too slow right now"
    - Epic because team can't commit to 1/10 second (too risky)
  - Stories inside could be:
    - Do 4 hours worth of improvements to the rendering and measure to see how fast it is
    - Implement algorithm ABC to speed up the rendering
    - Etc
- Note that what the stakeholders get is NOT *exactly* what they want – it's what the team can commit to...

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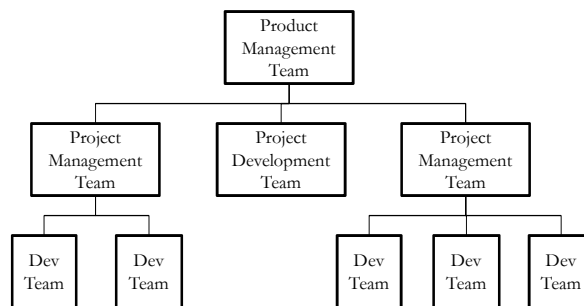
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## Scrum Teams Live Within an Organization

- That can provide constraints upon the Scrum Team
- The Team’s process is part of an overall process
  - The team owns what is not constrained
- What should an organizations constrain?
- What process issues are cross-cutting ones?





## Organizational Issues

- Organizational Issues:
  - Common Codebase across Teams
  - Want to move people from Team to Team
  - Want commonality of “process”
  
- Scrum wants:
  - Self-organization and freedom for teams
  
- A good candidate for standardization across teams is “definition of done”
  - Cross-team integration issues
  - Makes it easier for people to move from team to team
  - But doesn’t micromanage the people themselves...



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## Cross-Team Integration

- Integration is always hard – probably biggest technical issue in most organizations
- Common Def’n of done helps integration issues
  - Know “what to expect” from the code you are integrating with
  - Know “what to expect” if you need to work with somebody else’s code
  - Know “what to expect” if you need to work with people from other teams
- Allows for cross-team Retrospections about what “done” should mean
  - Good for the codebase
  - Good for the organization
- Part of scrum already that Teams working on same Product should have same “definition of done”



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## Makes it Easier for People to Move

- A Common Definition of “Done” Leads to common development practices
  - So, at the “working together” level it makes it easier for people to move from team to team
  - Makes it easier to do technical training for an organization
- But, it gives the team flexibility
  - To adapt their own team dynamics to their team members
  - To add more restrictions to the “def’n of done” for their team
- And it’s not micro-managing
  - It’s more of a “what” thing – it’s telling people what they need to do...
  - It’s putting *constraints* on the hows, but not *defining* the hows



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## Categories of StoryoTypes

- StoryoTypes
  - Stereotype of a story
  - Meszaros, “Using Storyotypes to Split Bloated XP Stories” 2004, XP/Agile Universe
  - Originally used to help in “analysis” or decomposing epics
- I extend the concept beyond “coding” stories to all types of stories we find in scrum projects
- There are various Categories of StoryoTypes that I use
  - Production (coding)
  - Analysis (finding stories)
  - Business Support (non-coding)
  - Chores (no immediate Business Value, but not Analysis)



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## StoryoTypes and Agreements

- The most important thing about a StoryoType is that it holds a “common” Agreement that can be reused
  - Common Process Steps
  - Common Constraints (usability, performance, etc)
  - It can also contain common tasks
- Each of these Categories has different “kinds” of Agreements
  - And each StoryoType within the Category has its own variation
- Each organization and Team develops its own catalog of these things over time
  - But I’ll present some guidance and “starter” info in the following slides...
  - And I’ll only do a few of them...



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## Production StoryoTypes Catalog

- [coding] – generic for writing code (many companies do this)
- Use Case Based StoryoTypes (from Meszaros)
  - [backbone]
  - [alt]
  - [beefup]
  - [interface]
- Other Production StoryoTypes
  - [perf]
  - [bug]
  - [cleanup]
  - [documentation]
- Mixins
  - [hack] – intentional hacking, always comes with a [cleanup] story
  - [arch-sig]

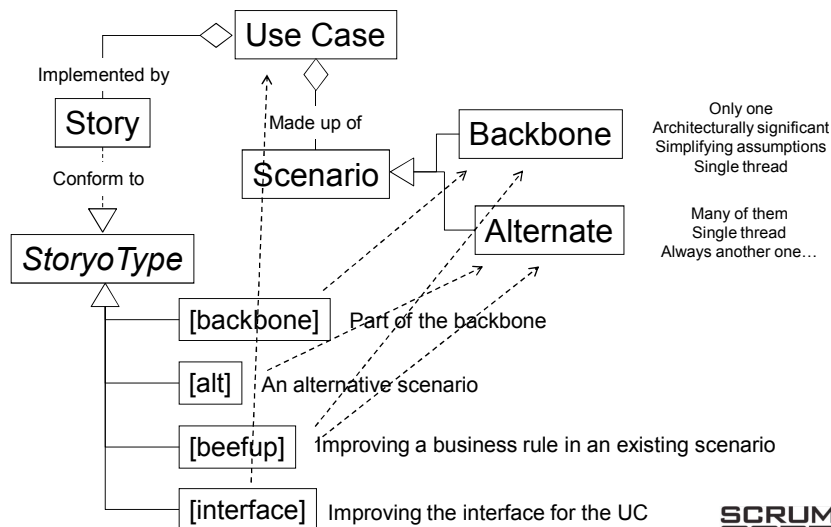


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## Use Case Based StoryoTypes

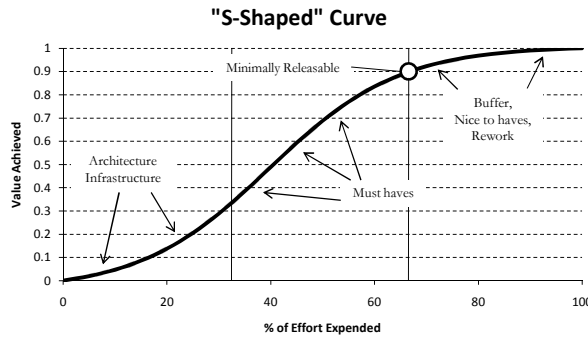


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## S-Shaped Curve for Adding Value for a Use Case



- The [backbone] stories have an architectural element to them
- Our PO's job is to do the stories in the "right" order to keep the value produced on the S-Shaped curve



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## Basic [coding] StoryType "doneness" Criteria

- [coding] story
- Design Review
  - Review Functional Test Strategy
  - Review Unit Tests
  - Verify working on Development Machine
  - Code Review
  - Functional Tests Written
  - Verify working on Integration Box, including Tests
  - Add Functional Tests to Regression Test Suite

or

- [coding] story
- Use XP Practices religiously

or

- [coding] story
- what works for you...



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## Other Use Case StoryoTypes

```

graph TD
    A["[coding] story"]
    B["[backbone] story  
❑ Review Architectural Decisions with Team  
❑ Review Simplifying Assumptions"]
    C["[beefup] story  
❑ Verify Business Rule with SME"]
    D["[alt] story"]
    E["[interface] story  
❑ Review Interface on White Board  
❑ Informal Usability Test  
❑ Make Improvements"]
    B --- A
    C --- A
    D --- A
    E --- A
    
```

- Note that this is not a big deal
- There’s no magic, but it keeps us “straight” and is a good thing to processize

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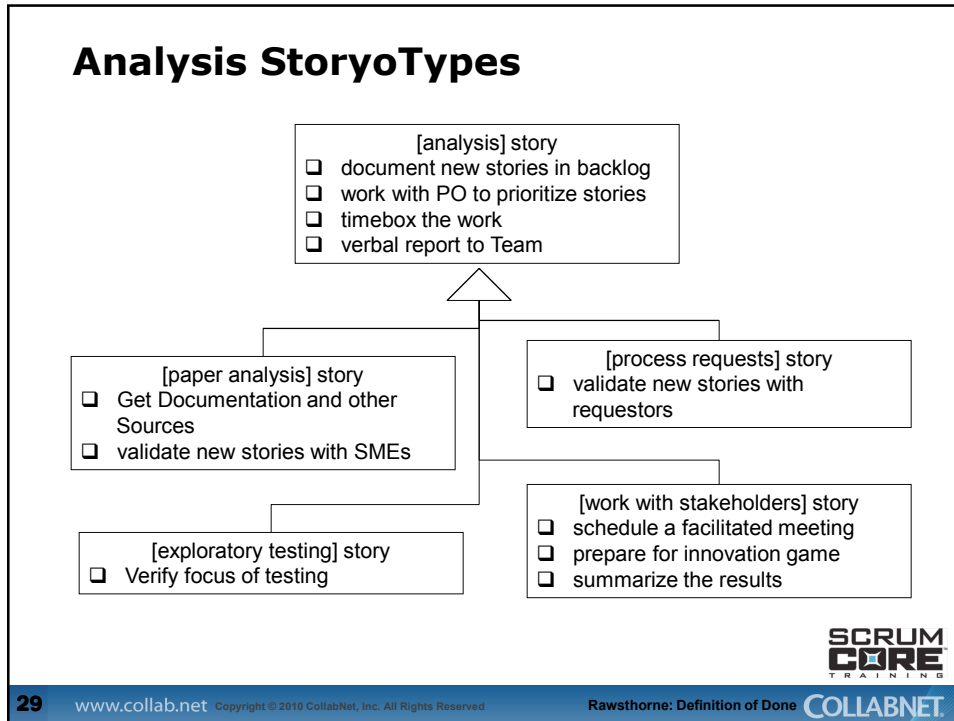
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## Analysis StoryoTypes Catalog

- Analysis StoryoTypes are used to “find” Production Stories
  - [paper analysis]
  - [process requests]
  - [work with stakeholders]
  - [team walk-thru]
  - [exploratory testing]
  - [usability testing]

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## Business Support

- Used to provide support to the Business. They provide Business Value, but aren't developing product
  - [sales meeting]
  - [trade show]
  - [train users]
  - [support help desk]
  - etc

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## Chore StoryoTypes

- Used to set up or improve the Team's environments, infrastructure, etc
  - [new tool]
  - [new hardware]
- These storyotypes are much more "ad hoc" than the previous ones



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## Overview

- Doneness criteria contribute to a Team's success
- Different kinds of stories have different kinds of doneness criteria
- Doneness criteria are good candidates for standardization in an organization
  - Same codebase
  - Same development environment
  - Somewhat the same process
- StoryoTypes are a method for capturing these standardized Doneness criteria
  - For training
  - For retrospections
  - For helping people move from team to team



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## Any Questions?



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**Thank You Very Much!**



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