Recommended Deployment Process for Project Refresh with Bureaus

Rick Nixon, BTS, 8/3/2010

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Challenges Ahead for Migration Process

...to coordinate / deploy an effective method:

- Bureaus have disparate needs/requirements

- Bureaus have widely varying levels of skill / expertise

- Common set of features needs to be determined / negotiated with bureaus

- Effective Communication; dispensing/referring of issues

- Sheer number of bureaus / sites

Desirable Characteristics of a Process

- Simple, repeatable, lightweight process

- Easily understood / communicated to deploy en masse

- Pipelining of multiple bureaus; broader context of "input"

- Bureaus "own" their needs / priorities

- Bureaus "own" their state of quality

  – Achieve and maintain their features / content

  – Expose and coordinate their own beta releases

An ABRIDGED version of Scrum

Goals of Scrum

To embrace and refine a repeatable and self-correcting development process that:

- Promotes communication and people over rigid processes
- Emphasizes working software over detailed documentation / planning
- Encourages Negotiations over "Contracts" with stakeholders
- Requires being adaptable over following a set detailed plan
- Balances team velocity versus quality
  - Scope creep affects speed
  - Quality affects speed
  - Minimize notion of "technical debt" over implementation
    - tests not written to protect code
    - refactoring done to improve structure/supportability of code
    - documentation lacking, etc.

Overview of Scrum

- A specialized flavor of Agile for development method

- An adaptive framework that can be understood and implemented in a few days; a management wrapper around existing engineering practices to drive incremental improvements

- A proven approach to managing complex engineering projects

- A collaborative effort involving developers and customers in ongoing dialog

- An environment which supports self-organization resulting in enhanced productivity and creative problem solving
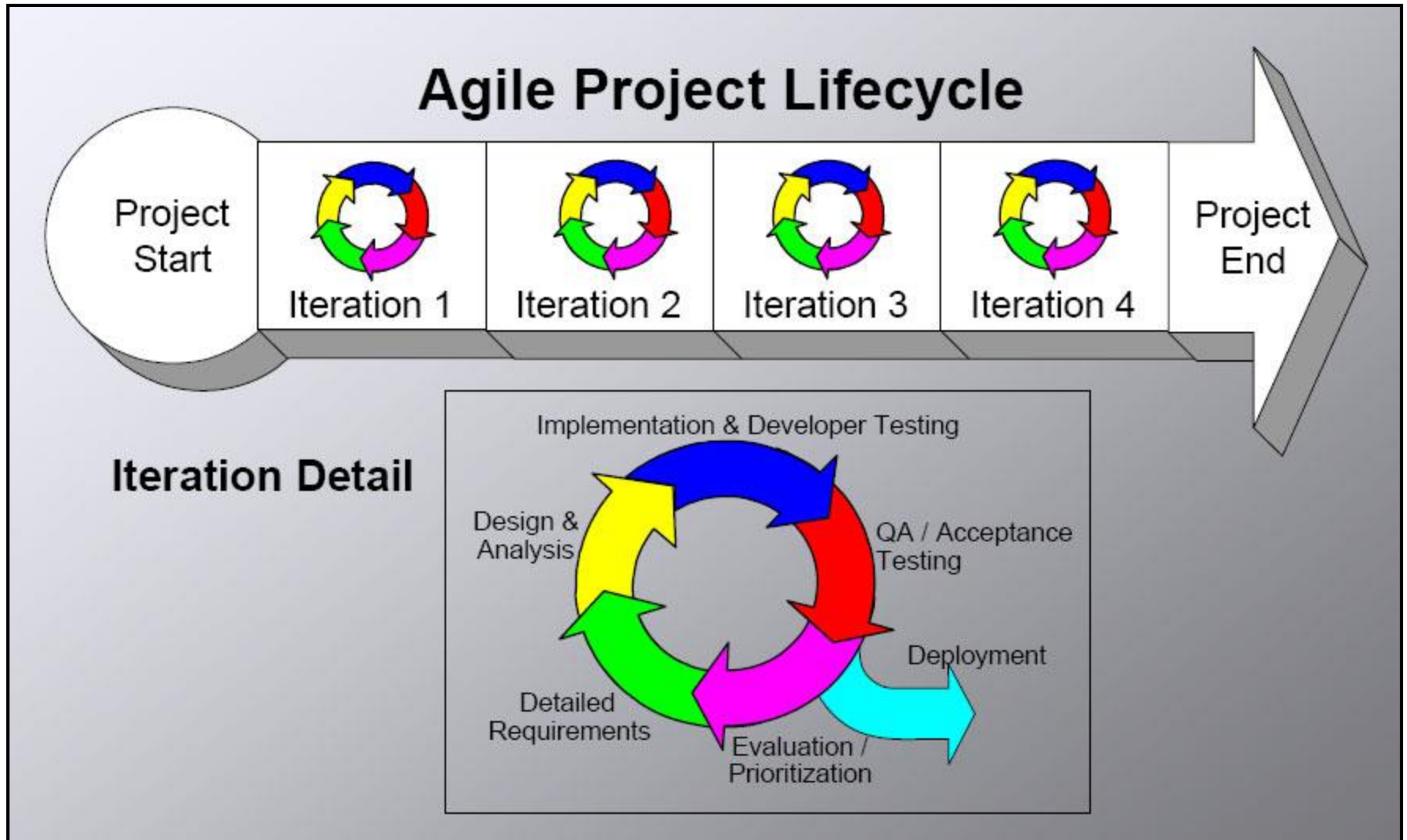
Key Elements of Scrum

- Empirical process – detailed up-front planning and defined processes are replaced by more frequent adaptive inspect and correct cycles

- Multiple design, implementation, and test cycles, "sprints"

- Distinct roles – Product Owner (customer / biz owner), Scrum Master, and Dev Team

- Communication – four key meetings:

  - Sprint Planning – a given sprint begins with Product Owner and Team agree on subset of features to implement for that sprint

  - Daily Standup – Team reports status every day to facilitate daily "inspect and adapt" cycles

  - Sprint Review – Team demonstrates sprint deliverables to Product Owner; purpose is to achieve acceptance (signoff) and/or feedback from PO

  - Sprint Retrospective – Team analyzes last sprint and adjusts for next

- Test Driven Development (TDD) – unit tests are written first, implementation follows; code coverage analysis tools, etc

- Continuous Integration – nightly builds on dedicated resource enforce coding discipline and avail access to available functionality at all times

Key Elements of Scrum – ABRIDGED

- Empirical process – detailed up-front planning and defined processes are replaced by more frequent adaptive inspect and correct cycles

- Multiple design, implementation, and test cycles, "sprints"

- Distinct roles – Product Owner (bureau lead), Scrum Master, and Dev Team (inc. QA bureaus)

- Communication – four three key meetings:

  - Sprint Planning – a given sprint begins with Product Owner and Team agree on subset of features to implement for that sprint

    - Kickoff meeting: understand/agree on approach, set expectations

    - Subsequent meetings: input → bureau list of issues / identify deliverables

  - Daily Biweekly Standup –Team to review bureau list of issues / blocking (Weds for rollup?)

  - Sprint Review – Team demonstrates sprint deliverables to Product Owner; purpose is to achieve acceptance and/or feedback from PO

    - Explain Disposition of Issues

    - Handoff to "QA"

  - Sprint Retrospective – Team analyzes last sprint and adjusts for next

- Continuous Integration – alpha → beta site serves this purpose

- Sprints begin with Planning Meeting and end with Review Meeting
- Each sprint or "iteration" spent implementing features or performing tasks (estimating effort levels, dispensing of issues, etc)

Agile Project Lifecycle

Project Start

Iteration 1

Iteration 2

Iteration 3

Iteration 4

Project End

Iteration Detail

Implementation & Developer Testing

Design & Analysis

QA / Acceptance Testing

Deployment

Detailed Requirements

Evaluation / Prioritization

Key Artifacts of Scrum

- Product Backlog (Product / Biz Owner)
  - Collection of "stuff" to be done; including rough estimates for effort
  - Features, capabilities, issues, etc., often ill-defined
  - Anybody may add to the product backlog
  - Prioritized by Product Owner (typically customer)

- Sprint Backlog (Dev Team)
  - Work the team has signed up to do
  - "Well-understood" user stories and tasks
    - Supplied by the Product Owner

- Product
  - Running, integrated, tested code
  - Documentation
  - Training materials, etc.

- Other – sprint burndown charts, product/release burndown charts, impediments
  - Committed backlog items, tasks not started, tasks in-progress, tasks complete

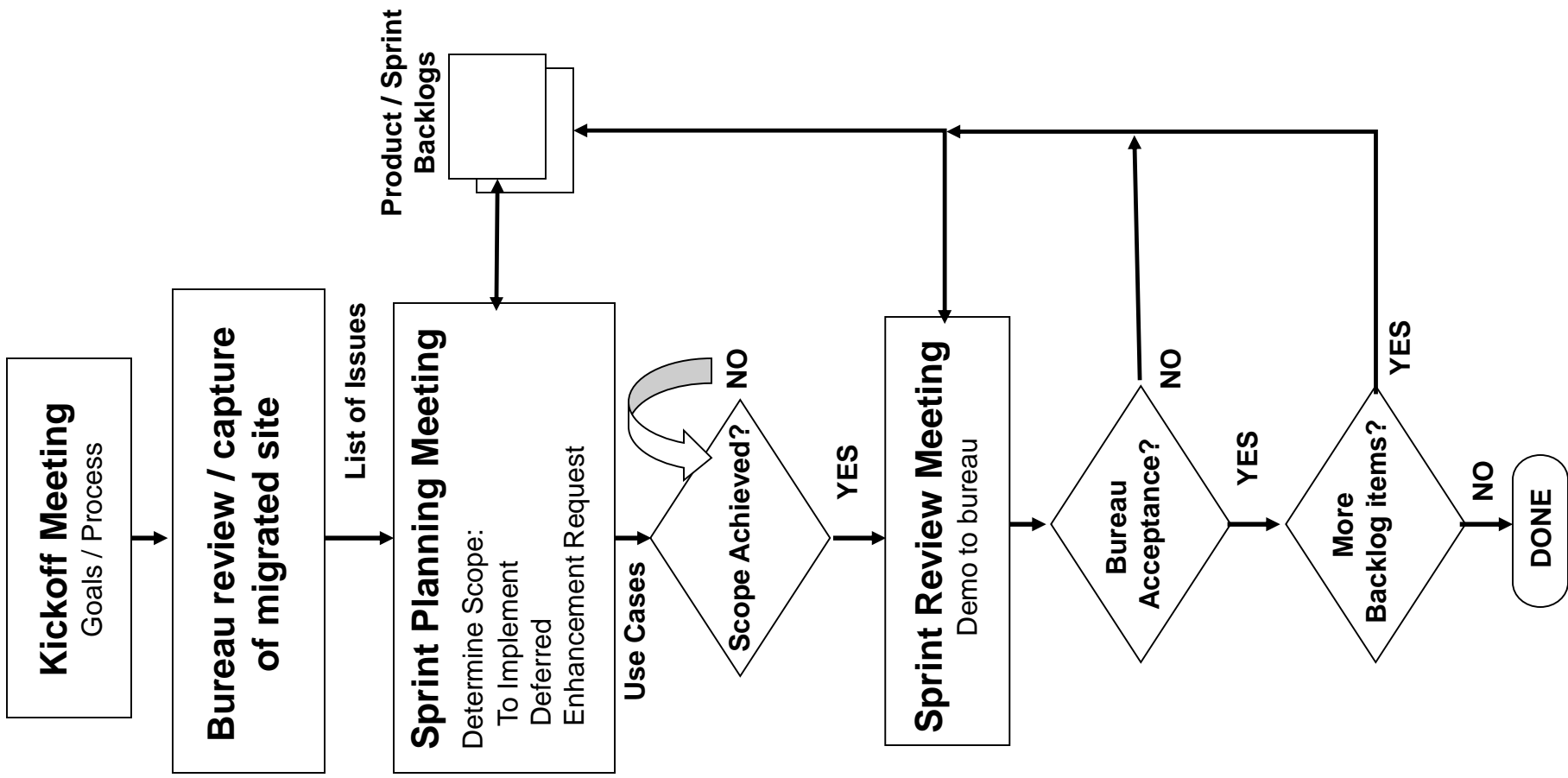# Key Artifacts of Scrum – ABRIDGED

- Product Backlog (bureau lead)

  - Collection of "stuff" to be done, including rough estimates for effort items to be implemented, deferred or previously dispensed

  - Features, capabilities, issues, etc., often ill-defined

  - Anybody may add to the product backlog

  - Prioritized by Product Owner (typically customer)

- Sprint Backlog (Dev Team)

  - Work the team has signed up to do in addition to dispensation of issues

  - "Well-understood" user stories and tasks

    - Supplied by Product Owner for only those features team has agreed upon

- Product

  - Running, integrated, tested code alpha → beta site

  - Documentation, context help for CMS

  - Training materials, etc. beyond initial scope of this effort

- Other – sprint burndown charts, product/release burndown charts, impediments

  - Committed backlog items, tasks not started, tasks in-progress, tasks complete

Development Methodology

- "n" week iterations ("sprints") that begin with a planning meeting and end with a review meeting.

- Feature requests are placed into a master list ("product backlog") and tracked as "done" or not; typically prioritized overall

- For each sprint, the Product Owner (customer) chooses items from the backlog for development, based on business priority

- The development team estimates the difficulty of each item using a point based dev budget or similar system

- Based on the average number of completed points over several sprints, a rate of work ("velocity") is determined and used in future planning

- At the end of each sprint, the team demonstrates the implementation of each item to the Product Owner (for signoff).

Development Methodology – ABRIDGED

- "n" week iterations ("sprints") that begin with a planning meeting and end with a review meeting. **Minimum number of sprints = 1**
    - Bureau shares initial list of findings following Kickoff Meeting; updates queue as discovered
    - Dev team responds with initial review of effort estimates/dispensing of issues
    - Subsequent sprints are on an "as needed" basis

- Feature requests are placed into a master list ("product backlog") and tracked as "done" or not; typically prioritized overall

- For each sprint, the **Product Owner (bureau lead)** chooses items from the backlog for development, based on business priority

- The development team estimates the difficulty of each item using a point based dev budget or similar system

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Kickoff Meeting
Goals / Process

Bureau review / capture of migrated site

List of Issues

Sprint Planning Meeting

Determine Scope:
To Implement
Deferred
Enhancement Request

Use Cases

Scope Achieved?
NO
YES

Product / Sprint Backlogs

Sprint Review Meeting
Demo to bureau

Bureau Acceptance?
NO
YES

More Backlog items?
YES
NO

DONE

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Product / Sprint Backlogs

Refresh Dashboard

21-Nov	Fire	BPS	PBOT	BES	Parks	ONI	Water	BDS	Rev	Police	PBEM	BTS	OMF	BHR	Financ	BOEC	Purch	PSSRP	PHB	Rev	FPDR	O4TC
Cut-over / go-live																						
Go-live readiness declared																						
Testing Complete																						
Beta launch																						
Bureau "ready for test"																						
Characterized / Checklist																						
Site content migrated																						
Subpage features spec'd																						
Homepage features spec'd																						
Access established																						
Kickoff meeting																						

Achieved / Completed - Green	Not Yet Done / Resolved - Yellow	Blocking Issue - Red

Explanations:

Cut-over / go-live = POG site replaces POL site.

Go-live readiness declared = Bureau declares readiness for cut-over

Testing Complete = All external testing complete

Beta launch = bureau has exposed site to public beta

Bureau "ready for test" = Bureau declares ready for external stakeholder testing

Characterized / Checklist = Bureau's site has been reviewed, checklist has been delivered to bureau

Site content migrated = bureau has declared all content is migrated and ready for cursory review by BTS

Subpage features spec'd = Bureau has access to their subpage configurations as spec'd (calendars, blogs, TrackIt forms, etc)

Homepage features spec'd = Bureau has access to their homepage configuration as specified

Access established = bureau personnel has access to test server

Kickoff meeting = meet with bureau, explain objectives, process, and roles