Agile In Practice

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Booz | Allen | Hamilton

software AG   webMethods

near ∞
i n f i n i t y

Programmer/

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Agile Origins

- Goal: prove value with working software

- Lightweight approach

- Reaction to Waterfall failures

Prescriptive-style

- Restrict change to improve predictions

- Drive with the plan

- Communicate with documents

- Interchangeable programmers
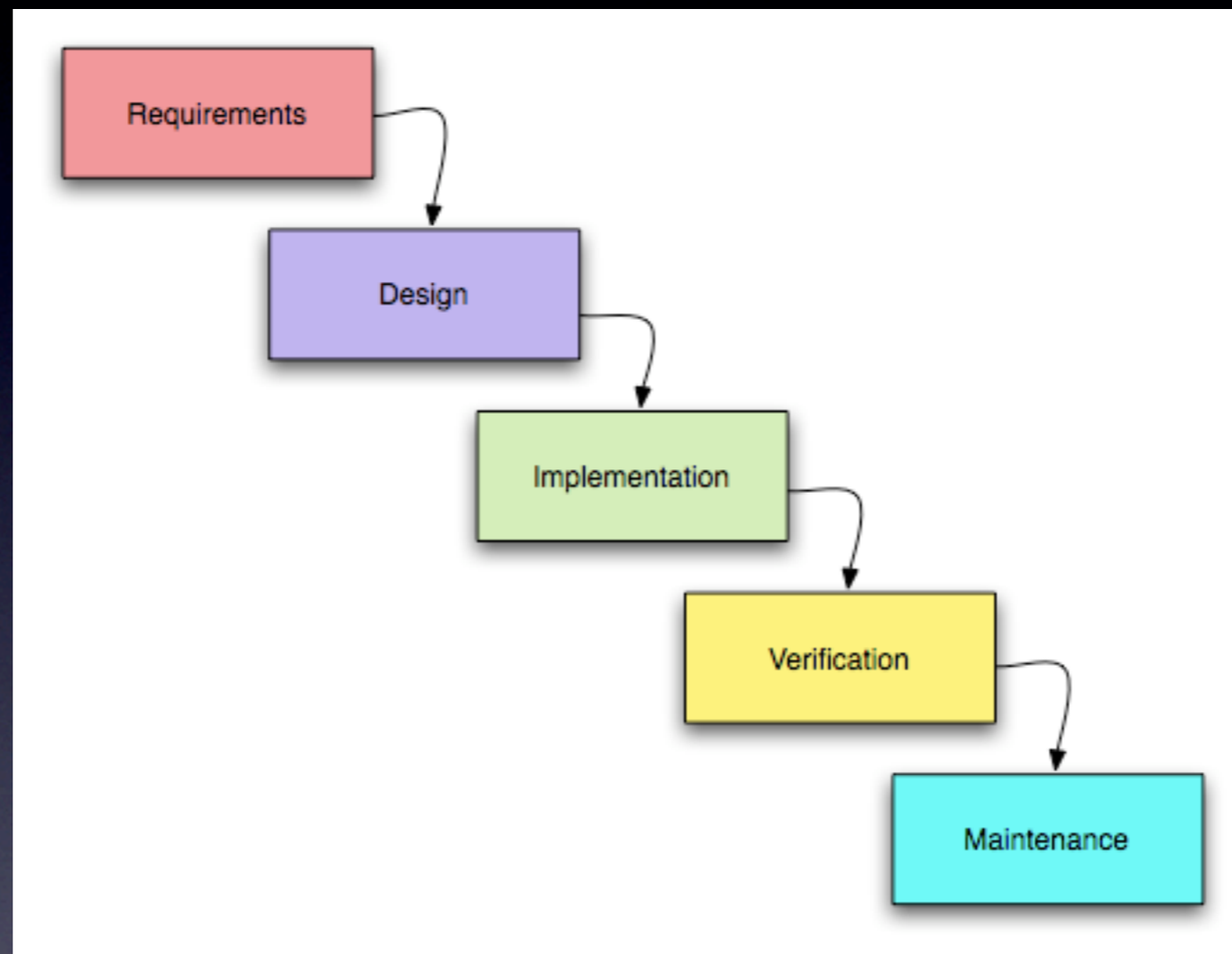
Waterfall
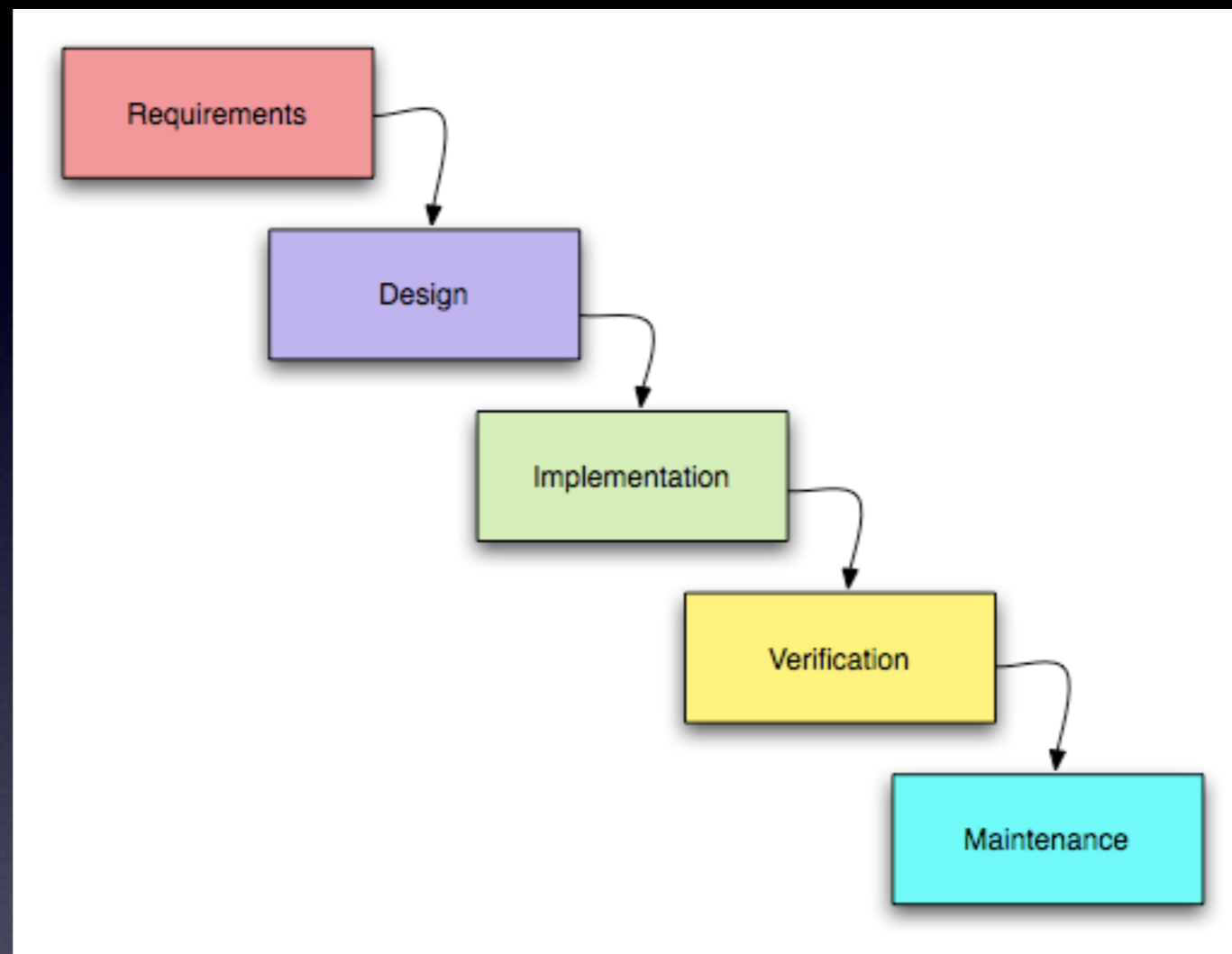
Waterfall

Waterfall Is

Waterfall Not all

- Space shuttle flight control system

- Requirements are well defined

- Unlimited resources

- Useful for < 5% of all software projects

Your

- Add a 'nice looking' menu page to an existing restaurant's seven year old website.

- Need ability to edit the menu online. Current menus are stored in a MS Word document.

- Add 'Suggestion' capability to restaurant's site. Users can use a form to submit suggestions which get stored and also emailed to the owner.

Time? $$$?
"Just give me

Agile

- People (users) are the focus

- Measure success with working software

- Expect and embrace change

- Use small, skilled, motivated teams

Agile – SCRUM

- Japanese origin

- Whole team

- 1995 OOPSLA, by Jeff Sutherland and Ken Schwaber

- Skeleton of practices and roles
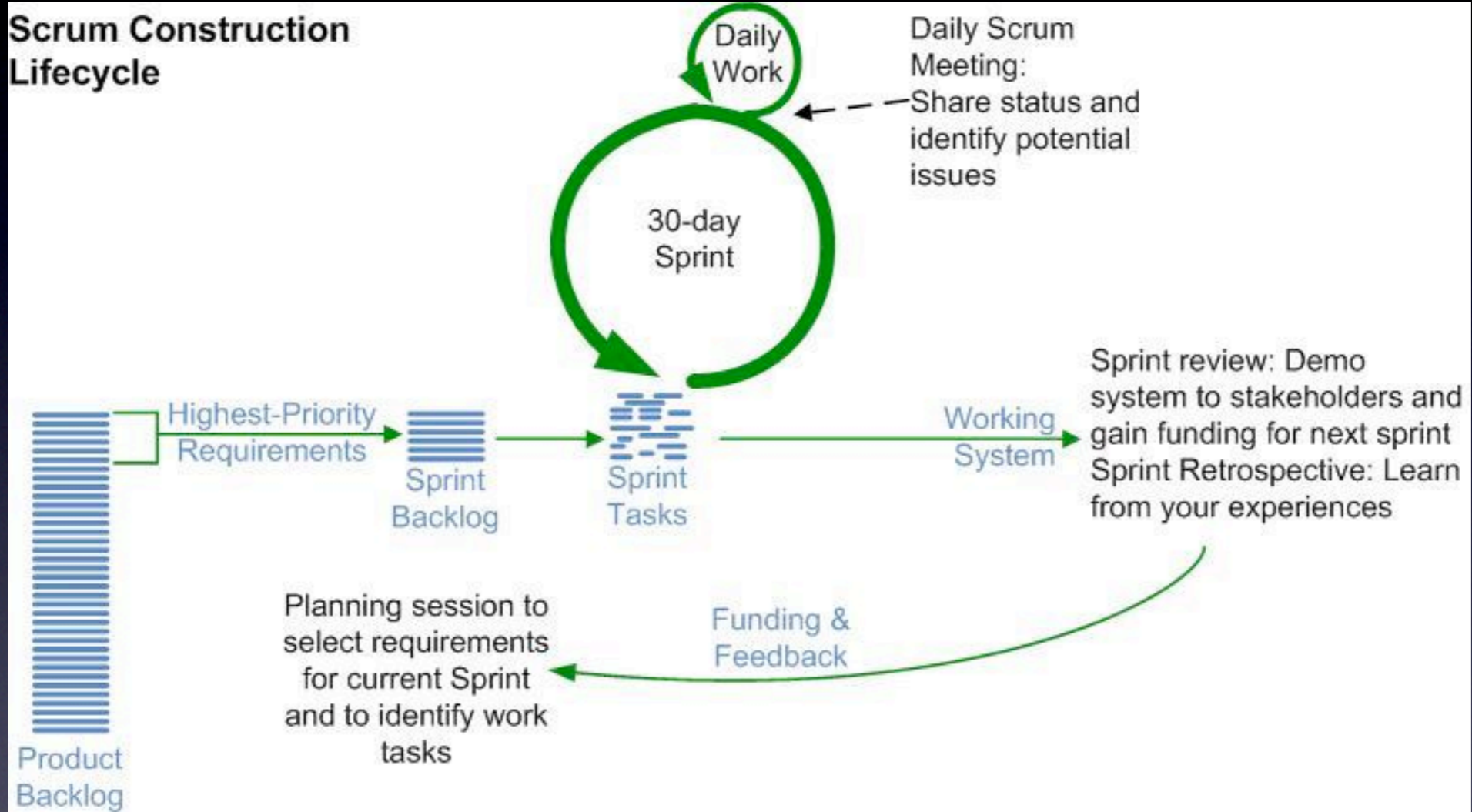
SCRUM Workflow

SCRUM Roles

- Product Owner

- Team

- Scrum Master

SCRUM Artifacts

- Backlog

- Sprint Burn Down

- Sprint Backlog

- Past Backlogs

| ID	User	Story	Points	Value	Verification	Notes
	Collector Administrator	As a Collector Administrator I need to read how to configure the Collector to take advantage of unused CPU.	4	1-L	The Collector User Guide has a section dedicated to the topic of scaling the Ingestion Server vertically.	
	Don	As an Collector Developer, I want to minimize Collection work needed by auto-collecting events on any controller REST method invoked in my Spring-based web application	8	1-M	All REST functions get auto-collected with proper configuration of my Collector	Consider putting Collector configuration control in some kind of Admin UI.
	Don	As a Collector Developer, I want to ensure my local queue is empty before exiting the JVM. I do not have access to the Ingestion Server database. A call to "flush()" somewhere should explicitly block until the clients-side queue is empty (and should prevent new events from being added).	8	2-M	Collector API has a flush() method to make explicit queue flushing possible. New calls to collect() throw an IllegalStateException (or something like it).	Instigated by Stephen M, who wasn't clear about how/why events sent in tests didn't match actual events received in Database (test JVM was exiting before durable queue items were fully consumed).
55	Don	As a Collector Developer, I want to be able to reference Mock objects in my test environment so that unit tests run quickly and so I don't need the full initialized Spring runtime.	4	2-M	Mock objects exist so that unit tests can be written against a specially configured Collector for testing purposes.	Consider also providing a test-only Spring config file with the Mock Objects preset.
	Don	As a Collector Developer, I want to be make sure there are no class version collisions when I run my app, which is also using the Collector API; ensure this so I can safely use my paid-for Collector tool.		2-M	Installation of incompatible versions of 3rd party libs by Collector and host-app do not result in Class linkage errors.	
	Don	As a Collector Developer, I want to be able to get Event XSD definitions in plain text when the Ingestion Server is hosted by Web Logic	8	3-H	Currently, using the event/schema web service generations stacktraces if hosted by Web Logic	
	Don	As a Collector Developer, I want to be able to see the 'simple' Event XSD - event if Ingestion Server is hosted on WebLogic	8	3-H	The 'plain text' XSD doc service works on Web Logic.	
	Itsuo	As an IT Administrator (for both Collector application host and Ingestion Server), I want to send events in a batch to reduce the bandwidth usage during peak load times.	32	1-L	A batch of events is sent and all are processed successfully.	Need to consider how event metadata time stamps will work. Will we support batch-level transactions?
		As an Ingestion Server Administrator user, I want to lookup an error code in the Ingestion Server User Guide so I			Each code in the list of all possible error codes has a corresponding explanation and	

Backlog

Backlog

- User + Points + Value = Priority

- Anyone on team can update it

- Points != Hours

ID	User	Story	Points	Value	Verification	Notes
1202	Sonny	As an Analyst, I want to see all Event-related times in my preferred local time. Somewhere, I should be able to specify what time zone I want to show my information in.	15	3-H	In the UI Server, there is a unified approach (API) to adjust Event UTC time to the user's preferred local time. The User Profile page lets logged in users (with any role)	
1204	Sonny	As a Security Analyst, I want to get notified when an audited application user READs, UPDATEs, or DELETEs a specific document and that function fails because of 'access denied'.	16	3-H	A pre-existing rule (as specified by the story) has been executed resulting in a match. The result of this match is an email being sent to the recipients defined in the Rule definition.	* Analyst role, only See email mock-ups for email template for both light and 'full' email versions.
1205	Sonny, Peg	As a Security Analyst, I want to see the details of an Alert when clicking on the Alert URL in an emailed Notification.	15	3-H	An Alert List with expandable 'detail' view exists. A URL can point to a scoped Alert List with the right Alert expanded to show its detail.	See 'Sonny Sensitive Data' scenario for mock-ups of both types.
1207	Sonny	As a Security Analyst, I want to see Actor Details when I expand an item in an Actor List.	19	3-H	Actor Details view shows: Actor image (or placeholder), related alerts, last login, logout, and location. It also shows a Function List for that actor that can be scoped by: time frame and application.	See 'Sonny Sensitive Data' scenario for a full mock-up.
		TOTAL	**65**			
		Stretch				
1201	Sonny	As a Security Analyst, I want to define Rules that allow me to specify whether or not to send full or 'light' email notifications. I want light versions to keep sensitive data from being emailed to unauthorized people.		2-M	The Rule Definition view allows users to specify light or full notification types.	See 'Sonny Sensitive Data' scenario for mock-ups of both types.
1203	Sonny	As an Analyst, I need to be assured that if a rule I set up fires but the system is unable to notify me, that I will eventually be notified when the notification system recovers.		2-M	Failed notifications should be retried a configurable number of times and duration.	Config probably only needed in Spring application context.
1210	Customer, intelliPrints Developer	As a prospective intelliPrints Customer (TDM) and intelliPrints Developer, I want to know that acceptance tests are being run as part of the daily development process.		2-M	A 'full' Oracle version is installed on Sherlock. The "qa-oracle" maven profile points to it. Maven integration tests can be disabled from the command line. Acceptance tests are run nightly.	

Sprint Backlog

Sprint Backlog

- Story Points vs. Task Points

- Total Point Value <= Team Capacity

- Capacity Measured by Past Burndowns

- 1st Iteration is Guesswork
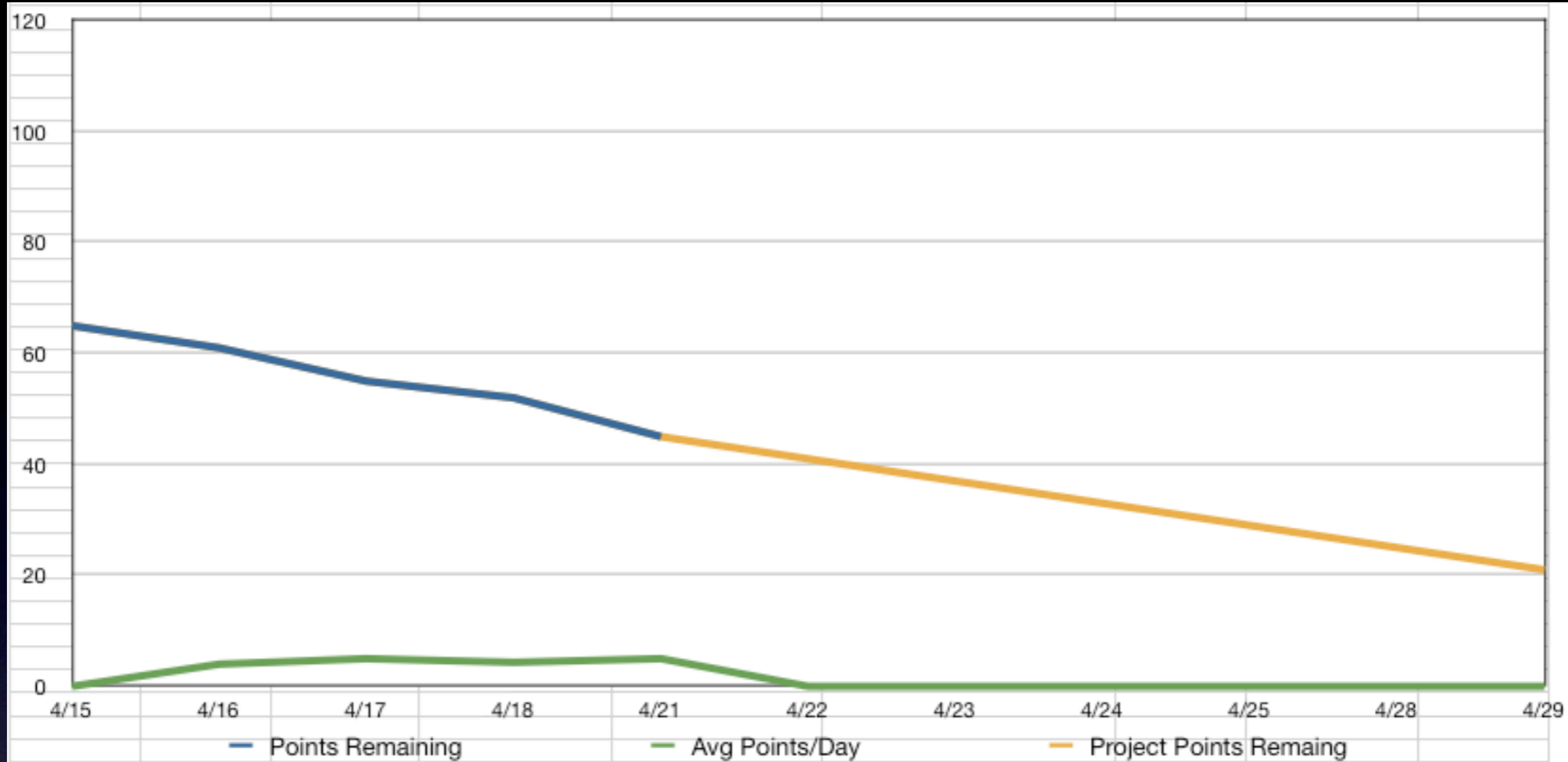
Day	Day of Month	Points Remaining	Average Points/Day	Projected Points Remaining		Points Added	5
1	Apr 15, 2008	65	0	65		Points Dropped	
2	Apr 16, 2008	61	4	61		Change	5
3	Apr 17, 2008	55	5	55			
4	Apr 18, 2008	52	4.33333333333333	52			
5	Apr 21, 2008	45	5	45			
6	Apr 22, 2008			41			
7	Apr 23, 2008			37			
8	Apr 24, 2008			33			
9	Apr 25, 2008			29			
10	Apr 28, 2008			25			
11	Apr 29, 2008			21			

Burndown Chart

Burndown Tips

- Auto-calculate velocity & project finish

- Record added/dropped points

- Mark Code Yellow/Red days

- Code Yellow: No more new features

- Code Red: (QA Week) no more changes

Past Iterations

- Keep old Sprint Backlogs & Burndowns

- Keep old tasks

- Use for velocity calculations

- Helps identify trends

Planning Poker

- Each developer has a set of cards with Fibonacci series numbers (2,3,5,8,13,etc..)

- A user story is presented

- Each developer picks the card representing the number of story points the user story should take

- Everyone then shows their cards

- Discussion happens until agreement on a numberigate to the menu from the home page so that I can make a phone order (delivery)

- Repeat for each user story

- Schedule a sprint with the required number of story points based on your team's velocity

As a patron, I

- easily navigate to the menu from the home page so that I can make a phone order (delivery)

- be able to make suggestions for improvements to my overall dining experience

As the restaurant

- create, update and delete menu items so that it stays interesting and keeps people coming back

- generate a PDF of the menu so that I can give it to the printer for creating 'real' menus

- get customer feedback emailed to me so I can quickly respond to problems and also pass on compliments to the staff

SCRUM

- You're velocity is 1.5 points per developer day

- You're team will have 15 developer days available each month

Scrum Taskboard

SCRUM

- Informal

- Physical

- Highly visible

- Ensures open accountability & communication

Agile Challenges

- Access to real customers

- Large, distributed teams

- Industry misperceptions

- Command-and-control culture

In-Practice Tips

- Introduce internally

- Strategy and architecture a must

- Strategy drives estimates

In-Practice Tips

- Plan out-of-sprint breaks

- Allocate QA time

- Keep PM simple but do it

- Keep improving your process

Summary

- Waterfall or nothing still predominant

- Agile is highly adaptive, people centric

- SCRUM is an effective Agile process skeleton

- If your process isn't working adapt it

References

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