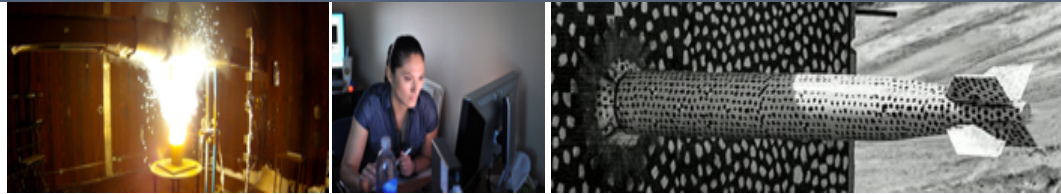




How we used Rally and incremental improvements to manage our work – 3 years of learning



SAND 2018-XXXX

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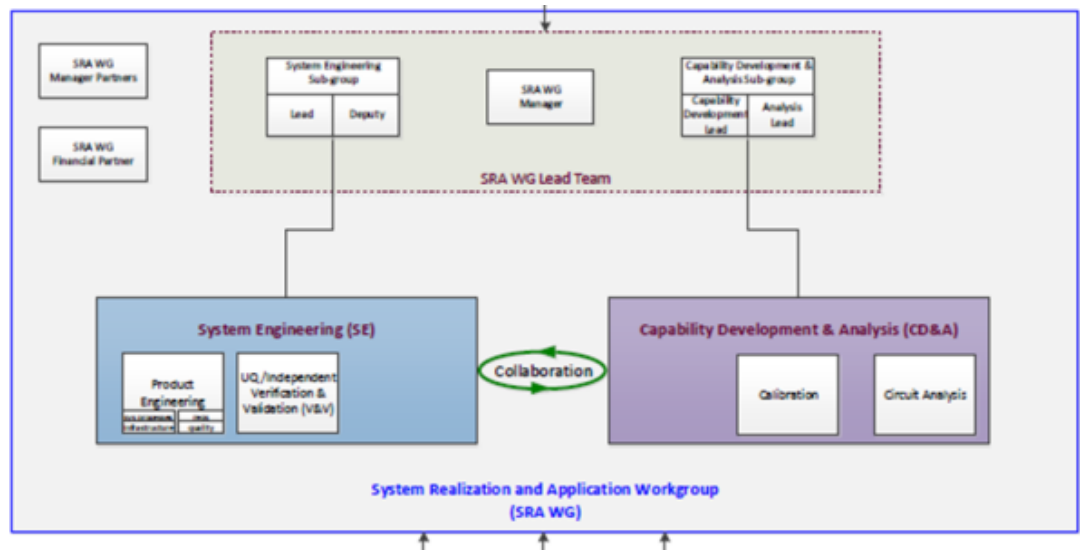
Tim Wiseley, Lean Systems Engineer, 6616



Outline



- Project Background & Team Commitment
- How we used Initiatives, Features and User Stories (and Tasks) to track work in Rally (Year1, Year 2, Year 3)
- Identified & Implemented improvements
- Challenges
- What did not work
- What worked
- What next?

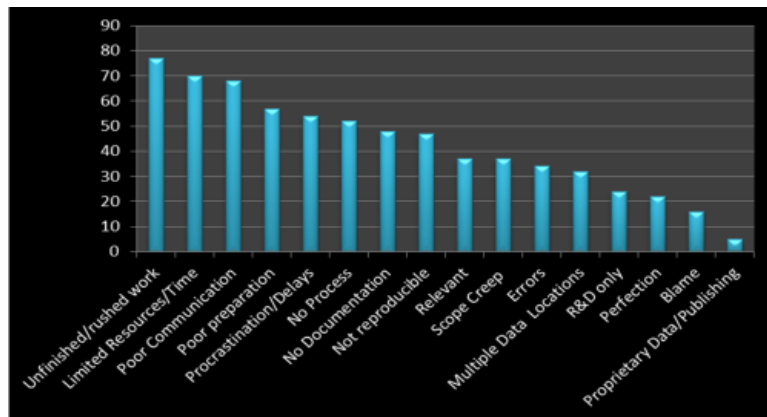


Project Background

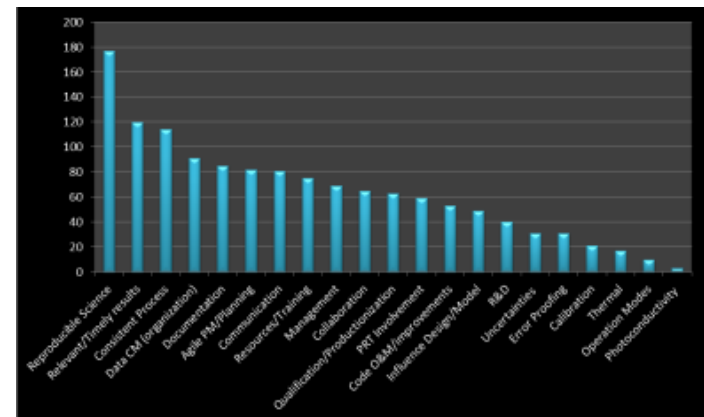
| Comment area | # of comments | # Categories |
|-------------------------|---------------|--------------|
| Stop or do less | 226 | 16 |
| Well | 82 | 8 |
| Do more or have success | 416 | 21 |

- Fall 2015 (FY16) performed lessons learned interviews in two weeks with 24 people who contributed to project
 - What begins or triggers the process for Circuit Survey activities?
 - Does customer come to you?
 - Where is the agreement documented, stored and how formal is process currently?
 - We want to control (manage) the versions of software and are looking for suggestions on good way to do that. We will be in touch.

• Do Less



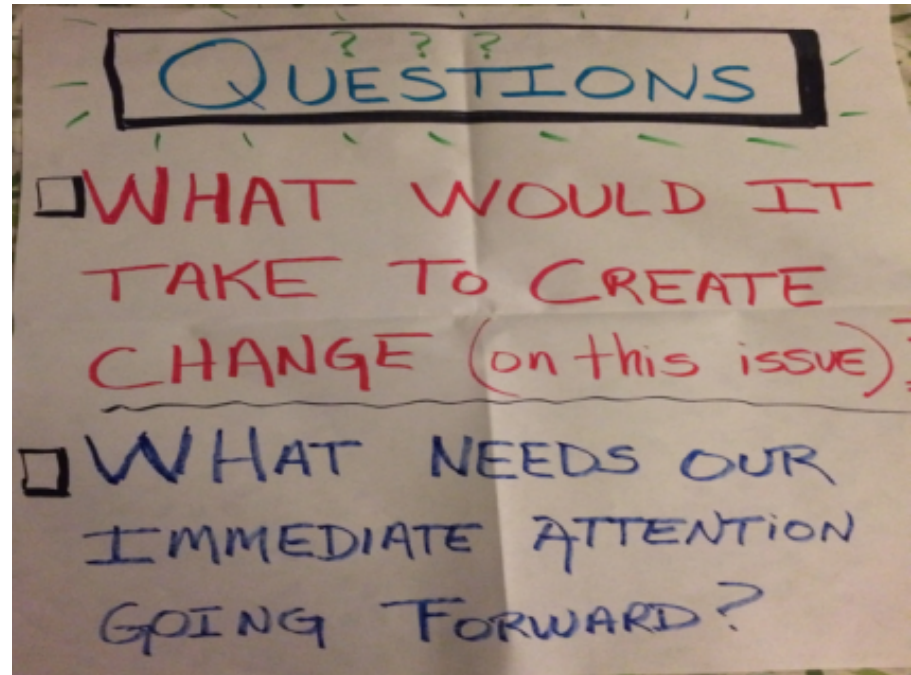
Do More



Team Commitment



- Team exercise in Nov 2015
- All 24 interviewees attended



- Team identified three bold steps from interview results
 1. Define PROCESS (be reproducible)
 2. MANAGED SCOPE CREEP
 3. BE RELEVANT
- This activity set our agile journey into motion
- We referenced these three bold steps REPEATEDLY during next three years keeping our big picture in mind.

How we used in Rally to track work (Epics) Year 1



- Initiatives (Epics)- high level items that spanned entire year based on the team
- Decided on monthly sprints/iterations

| RANK | ID | NAME ▲ |
|------|-----|---|
| | I23 | =====> FY16 Completed+++ <===== |
| ▶ | I6 | FY16 CA: Preliminary Circuit Survey |
| ▶ | I16 | FY16 CDA Other Tasks |
| ▶ | I5 | FY16 Predict stochastic neutron effects at the SSIC and circuit level (ASC & NSEC L2) |
| ▶ | I1 | FY16 SE Planning and Status Reporting |
| ▶ | I18 | FY16 SE: Project Management Improvements |
| ▶ | I14 | FY16 SE: QASPR productionization (L3 Milestone) |
| ▶ | I15 | FY16 UQ characterization of III-V 5x10 Npn devices: (ASC L3-1) |

How we used Rally Features - Year 1



- Added the Deliverables from Work Package Proposals (WPP)
- Features – quarterly deliverables with Initiative as parent
- Set up release for Quarterly reporting (match ND cycle)
- Sorted by projects, added abbreviation in name

| ◆ | ID | NAME | PROJECT | RELEASE ▼ |
|---|-----|---|---------------------|-----------|
| ▶ | F48 | VV: Assess irradiation parameter space updates (Heaphy) | UQ/WV/Threat | FY16 Q2 |
| ▶ | F14 | CAL: Complete initial assessment of 5x10 Npn variability (FY16) | Calibration | FY16 Q1 |
| ▶ | F17 | CA: Perform Pikes and Crestone multi-pulse calculations and compare with experiments | Circuit Analysis | FY16 Q1 |
| ▶ | F18 | CA: Perform follow-up analysis of the FY15 survey for FY16 circuit survey | Circuit Analysis | FY16 Q1 |
| ▶ | F26 | PE: Actions for improvement resulting from the "Lessons Learned" activity | Product Engineering | FY16 Q1 |
| ▶ | F27 | PE: Prepare for QASPR Reviews and Presentations FY16 Q1 | Product Engineering | FY16 Q1 |
| ▶ | F42 | UQ: Initiate III-V Pnp calibration (Q1) | UQ/WV/Threat | FY16 Q1 |
| ▶ | F43 | VV: Update III-V Npn validation coverage and incorporate into the parameter space report | UQ/WV/Threat | FY16 Q1 |
| ▶ | F44 | UQ: Complete FY15 L2 milestone DRAFT documentation (Heaphy) | UQ/WV/Threat | FY16 Q1 |
| ▶ | F45 | QMU: Reevaluate uncertainties in FY15 milestone and assess uncertainty required in FY16 milestone (Lewis) | UQ/WV/Threat | FY16 Q1 |

How we used Rally User Stories - Year 1



- Used Stories – monthly work with features as parent
- User Stories to track work in Rally

| | | | |
|-------|---|-------------|---------|
| ▼ F42 | UQ: Initiate III-V Pnp calibration (Q1) | UQ/W/Threat | FY16 Q1 |
| US104 | VW: Assess III-V Pnp calibration process (Heaphy) | UQ/W/Threat | FY16 Q1 |
| US105 | UQ: Assess uncertainty in the III-V Pnp calibration (Lewis) | UQ/W/Threat | FY16 Q4 |
| US113 | CAL: Complete initial II-V Pnp calibration (Mar) | Calibration | FY16 Q2 |

- Added user last name, most people did not have Rally accounts, we reviewed stories as group once month.
- Stories were not completed month, work continued – too vague
- Became a trailing indicator, what was completed, rather than tool for helping to manage and plan work
- Was not very successful



Identified & Implemented improvements - Year 2



- Complete work monthly (our sprint cadence)
- Smaller User Stories
- Track Project management items (SRA) & CORE team
- Continued Team Abbreviation in Story
- Some Task
- Added “Assigned to” field – no rally account necessary

| ID | NAME | ASSIGNED TO |
|-------|--|-------------------|
| US337 | SRA: Provide status for Jan CORE team | Steve Wix |
| TA336 | Coordinate status for Jan CORE team | Steve Wix |
| TA360 | SE: Provide status for Jan CORE team to Wix | Tim Wiseley |
| TA361 | CA: Provide status for Jan CORE team to Wix | Biliana Paskaleva |
| TA362 | CAL: Provide status for Jan CORE team to Wix | Alan Mar |
| US380 | SRA: Report PLATR updates for Q2 | QASPR'SRA |
| US337 | SRA: Provide status for Jan CORE team | QASPR SRA |
| US424 | CA: 6-month status update on the QASPR related task on the NA-10 FY17 Getting the Job Done List (our L2 this year) | Circuit Analysis |

Challenges



- Part-time people
 - Several folks at 25% or less time available
 - Limited time to update Rally
 - Rally does have learning curve (ALL tools do)
- Work was still too big or similar activities
 - Stories were still too big
 - Struggled with difference between Kanban and Sprints
- Tool resistance
 - Rally accounts cost project money
 - No time to learn or try tool
- Inconsistent effort
 - Rally was not used by other team members
 - Missed planning sessions



Challenges



- Limited planning sessions
 - Tried to get others to review stories at technical meetings
 - Team would verbally review activities and repeat items but resisted documentation
- Time to plan (1 hr month)
 - Monthly (sprint) planning
 - No Retros
 - Updating stories and tasks was monthly
- Plan was only reviewed at beginning of month
 - Activities not updated or reviewed
- Comments such as –
 - “who wrote that?”
 - “what does that mean?”
 - “I don’t know what to do”
 - “I am still doing that activity”
- Planning sessions became technical or problem solving sessions



What worked- Year 3



- Sent monthly updates (snapshots of rally)
- Started splitting stories
 - Take credit for work completed
 - Plan for next few activities
- Kickoff meeting for FY18 with team commitment to use Rally
- All users obtained Rally accounts now.
- Most users updated their own tasks, but it took most of year
 - Created a view for each user sorted by “Assigned to” task
- Constant reminders by ScrumMaster of three bold steps
- Set up closed loop change process by using Rally to track defects for work requested for Data Reduction Team (DRT)

Conclusions



- Remain unflappable
 - Steady, consistent effort
 - Keep using tools and agile practices
- Enjoy the small successes
 - Individuals updating their own stories and tasks
 - No direct cost for Rally account
- Keep big picture in mind-
 - Is team making progress?
 - Is team meeting milestones?



One step at a time. Thank you. Questions???



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- Lean 6 Sigma Black Belt
- Certified ScrumMaster

