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MANAGING UNCERTAINTY IN RESOURCE AVAILABILITY

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WHAT WE DO

We provide Cloud Solutions across the enterprise enabling amazing customer outcomes in:

+ PROJECT & IT FINANCIAL MANAGEMENT
+ WORKFLOW AUTOMATION
+ DIGITAL ENGAGEMENT

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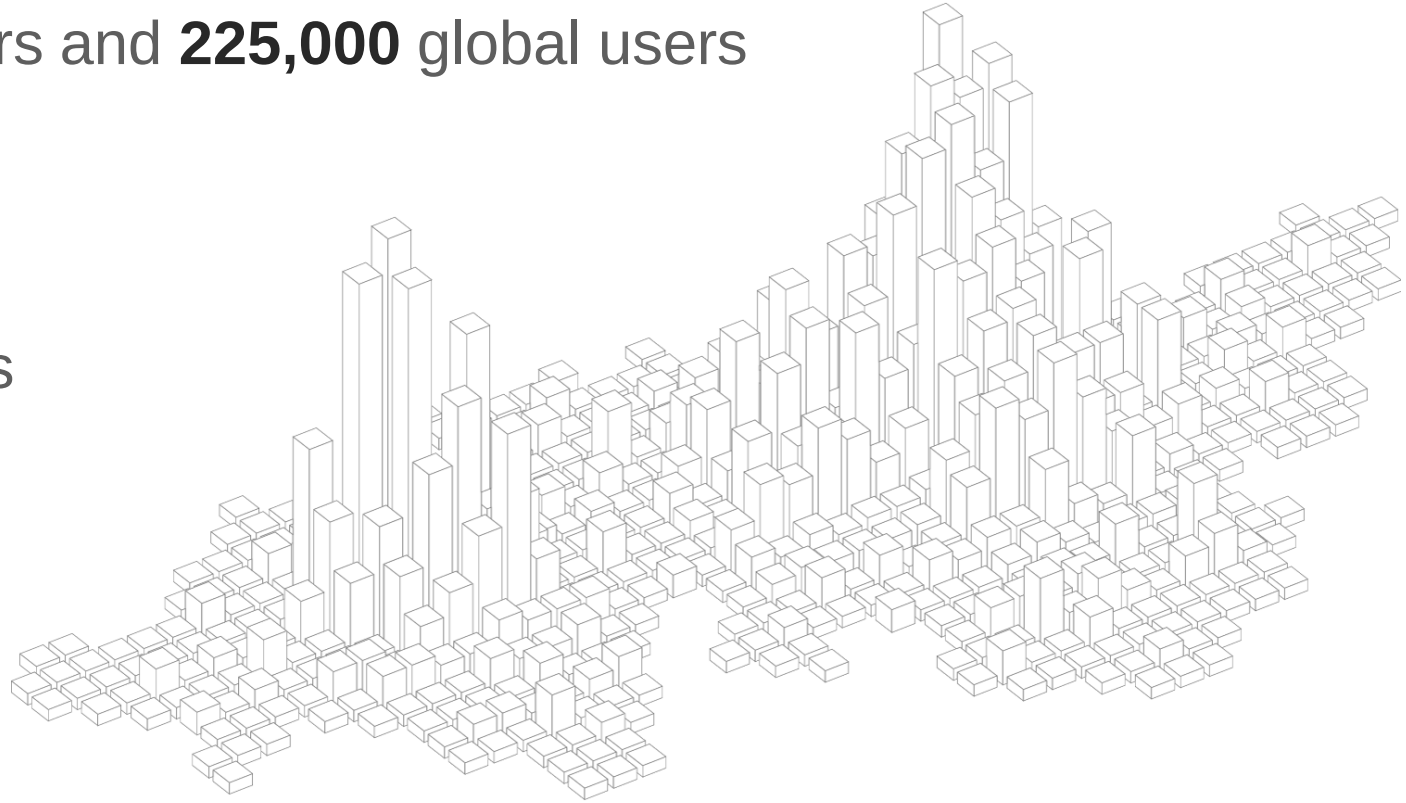
OVERVIEW

+ **Leading provider** of cloud-based Enterprise Work Management software

+ Supporting over **1,600** customers and **225,000** global users

+ **IPO** in 2014

+ Headquartered in **Austin**, Texas



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UPLAND PRODUCT FAMILY

PROJECT & IT FINANCIAL MANAGEMENT

Manage your organization's projects, professional workforce and IT costs.

PowerSteering by upland

EclipsePPM by upland

ComSci by upland

Tenrox by upland

WORKFLOW AUTOMATION

Real time productivity optimization, collaboration, and functional automation across your organization's value chain.

Ultriva by upland

FileBound by upland

DIGITAL ENGAGEMENT

Effectively engage with your customers, prospects and community via the web and mobile technologies.

MobileCommons by upland

Clickability by upland

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- To Register for our other webinars visit:
  - EclipsePPM.com/webinars

- Eclipse PPM Demonstrations
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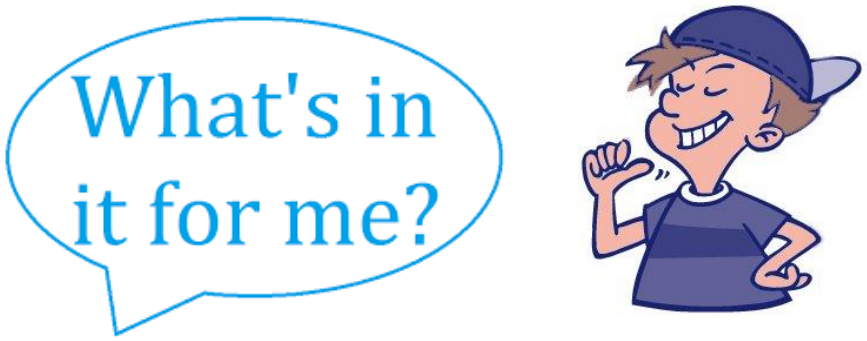


- Paint the picture
- Understand the problem
- Alternatives / Options

DISCLAIMER – THE TERM ‘PROJECT RESOURCE’

+ “Project Resource” is used liberally in this presentation, but…

+ ‘Project Resource’ is very Theory X

+ Raw materials and currency are resources.
  + Projects are delivered by skilled people

PAINTING THE PICTURE

+ Your project is on top 10 list
+ Scope & effort are well defined
+ Critical risks identified & responded to
+ Scope is being well managed
+ But….your project is late

WHAT COULD HAVE CAUSED THIS?

+ Scope creep?
+ Effort underestimation?
+ Technology risks?
+ Political delays?

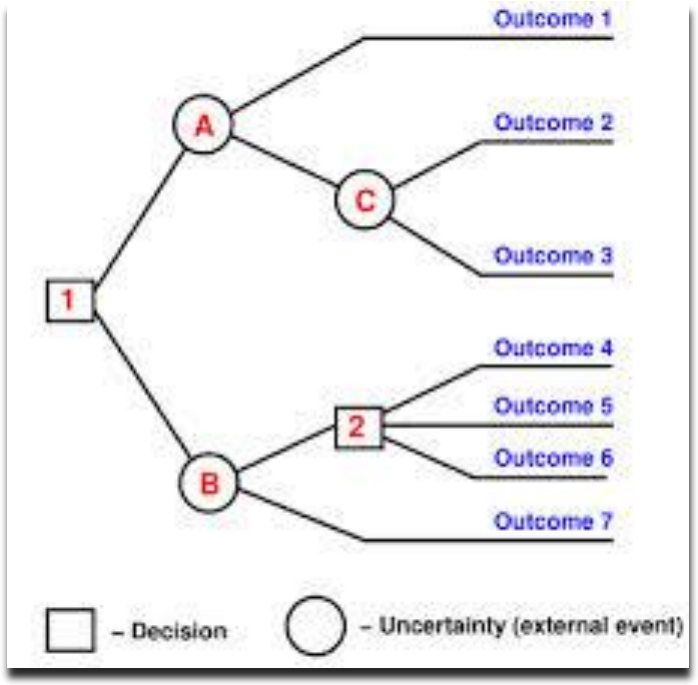
“Once you eliminate the impossible, whatever remains, no matter how improbable, must be the truth.”

– Arthur Conan Doyle

UNDERSTANDING THE PROBLEM

+ Team members dedicated to working on individual projects; project work only?
+ Functional managers accurately predict operational utilization?
+ Accurate estimates for planned allocation on other projects?

DECISION TREE ANALYSIS, ANYONE?



+ Probability of accurately predicting operational utilization = 50%
+ Probability of accurately predicting usage on other projects = 50%
+ With 3 team members, probability that both estimates for all 3 are accurate is .56 or 1.6%
+ How many of your projects only have 3 team members on the critical path??

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TO MAKE MATTERS WORSE…

+ Rarely have scope defined or managed to lowest level of detail & effort estimates tend to be inaccurate
+ Staff availability estimates are usually inaccurate
+ How comfortable do you feel about your schedule now?

“There is nothing as deceptive as an obvious fact”

– Arthur Conan Doyle

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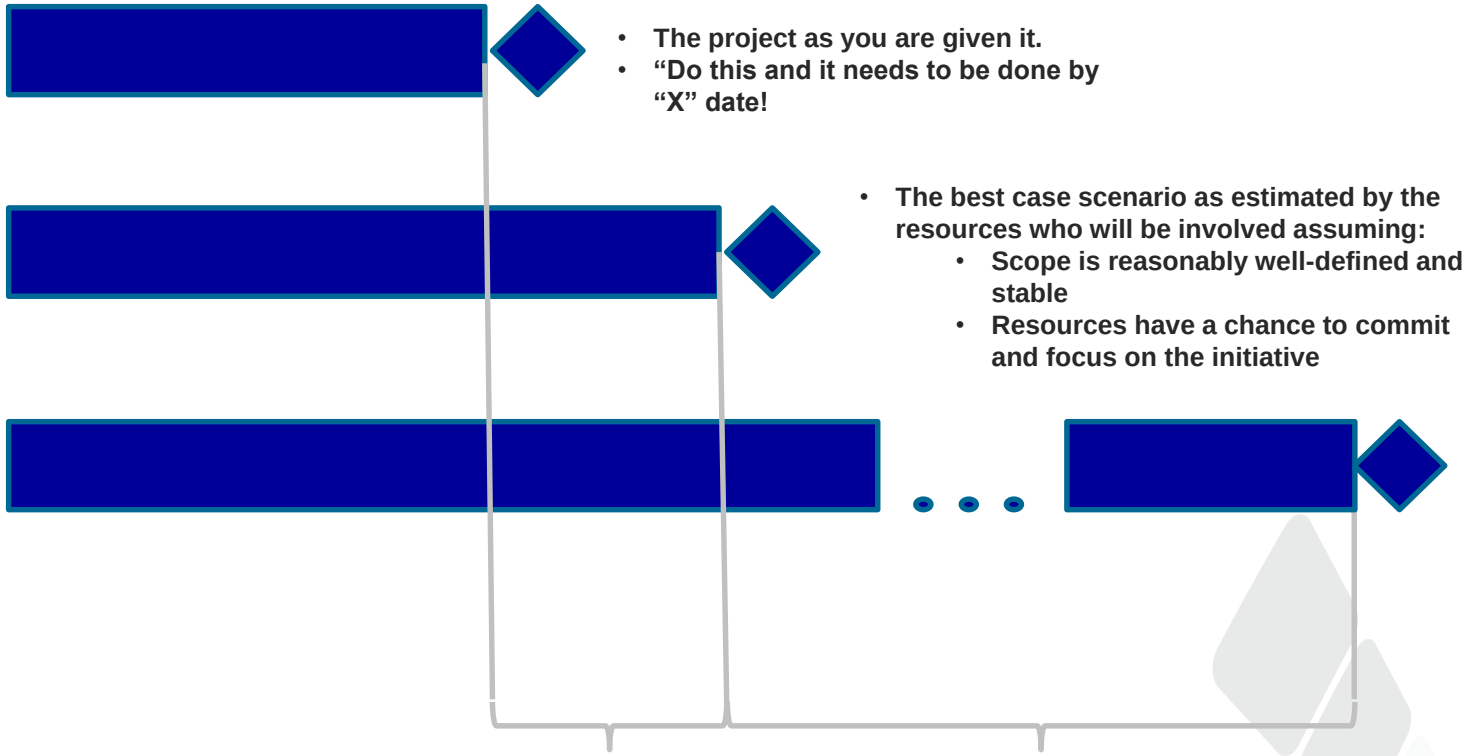
THE ICING ON THE CAKE

+ Optimistic skilled resource availability estimates
+ Staff still feel pressure to complete deliverables on time
+ Staff are multi-tasking
+ Context switching further reduces productive time for any 1 project
+ Likelihood of quality issues and/or team member burnout increases

PROJECT, PORTFOLIO AND RESOURCE MANAGEMENT ANYONE?



- The project as you are given it.
- "Do this and it needs to be done by "X" date!

- The best case scenario as estimated by the resources who will be involved assuming:
  - Scope is reasonably well-defined and stable
  - Resources have a chance to commit and focus on the initiative

- The most likely outcome in organizations with no project or resource management processes in place

- Under-estimation and/or lack of realistic assessment by the sponsor.
- Artificially imposed timelines becoming an assumed "baseline".

- Impact of:
  - Poor planning and prioritization
  - Resource "churn" and dilution caused mainly by too much concurrent WIP and too many active issues

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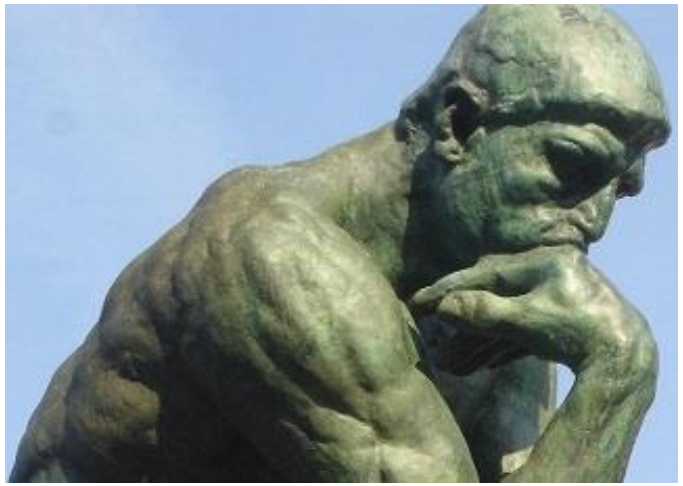
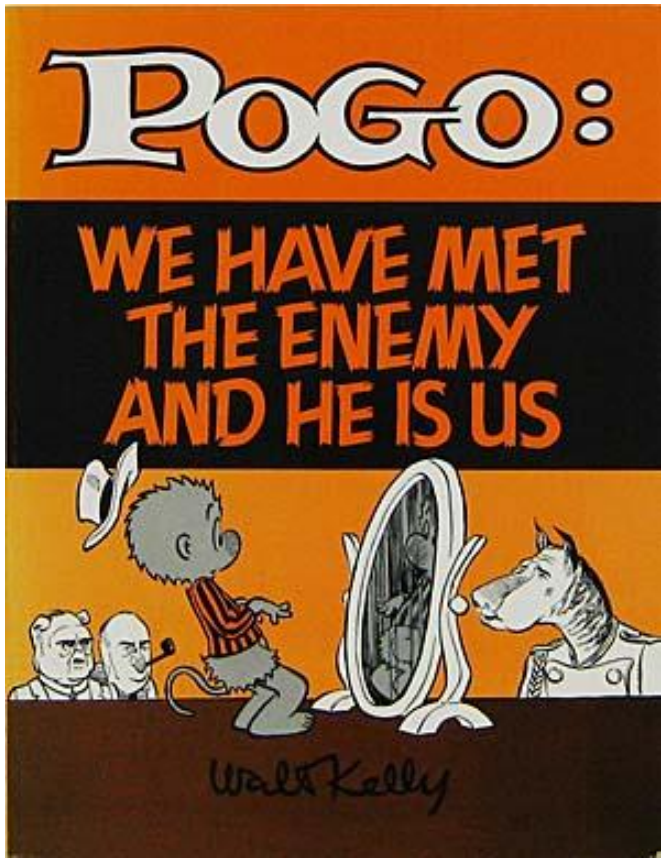
THE POSTULATE



+ Well-known sources of risk have well-defined response strategies
+ Cannot afford to dedicate staff to only work on projects
+ Cannot afford to dedicate staff to work on only one project at a time
+ Cost constraints on hiring or augmenting
+ Inaccurate resource availability estimation is the primary source of risk to knowledge-based projects



ALTERNATIVES

Strategic

+ Eliminate unhealthy multi-tasking
+ Be agile
+ Use critical chain

Tactical

+ Improve operational estimation
+ Buffer projects
+ Eliminate bottlenecks

ELIMINATE UNHEALTHY MULTI-TASKING

+ Avoid context-switching effort wastage; Avoid operations guesswork
+ Doing projects one at a time results in better throughput
+ Tough option for most companies
+ Hard sell: multi-tasking provides illusion of productivity

REDUCE UNPRODUCTIVE MULTI-TASKING

Do less:

+ Improve project intake
  + Standard project definition?
  + Project intake & approval governance practices?
+ Improve project evaluation, selection, prioritization, initiation & termination processes

Focus more:

+ Segregate staff between operations and project-work
+ Rotate staff regularly to avoid burnout or “us & them” syndrome

BE AGILE

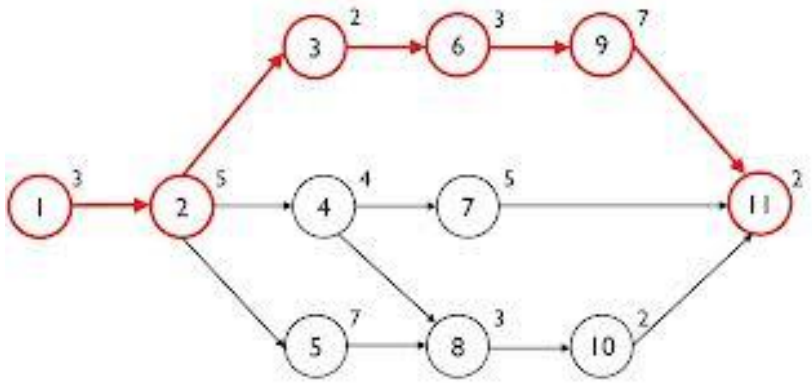
+ Lock dates to eliminate schedule delays
+ Account for estimation inaccuracies by:
  + Ongoing scope prioritization
  + Scope flexibility
  + Iteration-based monitoring & re-forecasting

CHALLENGES WITH AGILE

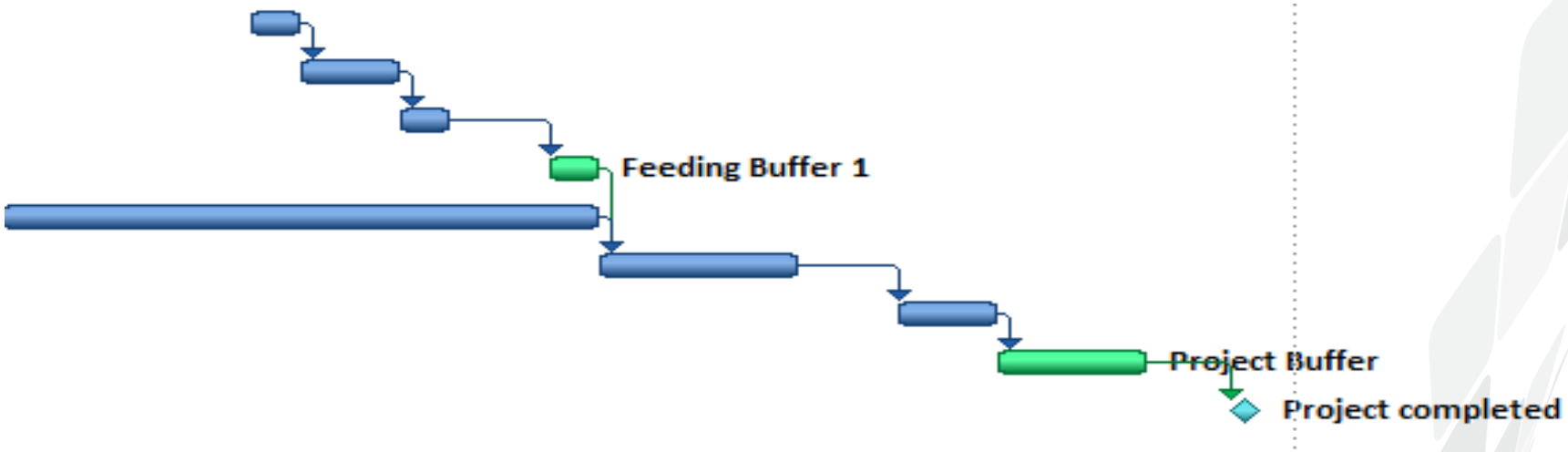
+ Major cultural & behavioral change
+ Unproductive multi-tasking reduces agile velocity – context-switching is “waste”
+ Diminishing benefits from reduction of scope to achieve fixed date
+ Not for all types of projects
+ Requires high degree of trust

CRITICAL CHAIN

+ Resolves key limitation of critical path scheduling: considers resource limitations / dependencies
+ Critical Chain (based on Dr. Eli Goldratt's Theory of Constraints) focuses on longest chain of dependent activities including resource dependencies



CRITICAL CHAIN



+ Buffers used wherever non-critical path sequences link to critical path and end of critical path
+ “Padding” removed from individual tasks, centralized along critical and near-critical paths

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CHALLENGES WITH CRITICAL CHAIN

- Requires behavioral shift from:
  - Customers: Trust buffers!
  - Team members: Avoid Parkinson's Law; use relay race mentality
  - Project manager: Exploit bottleneck skills by removing hurdles
- Increases scheduling complexity
- Doesn't work well on projects with pre-determined end-date, inflexible scope

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IMPROVE OPERATIONAL ESTIMATION ACCURACY

- Implement capture of 100% of actual time
- Implement good asset management practices
  - Frequent evaluation of total cost of ownership of an asset
  - Standards & policies re: assets & end-of-life timeframes
  - Reduce 80-20 Pareto principle operational utilization rule

CHALLENGES WITH IMPROVING OPERATION ESTIMATION

+ Time tracking data represents past performance; not always indicative of future performance
+ Introducing time tracking can be a significant change management exercise; accuracy data is suspect especially if staff only doing weekly
+ Projects stemming from good asset management practices hard to justify staff

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BUFFER PROJECTS

- Use buffers between staffing assignments on distinct projects
- Reduces slippage of 1 project from impacting another & unused buffers between projects can be used for professional development or internal investments
- Challenge:
  - Hard to justify for bottleneck skills or team members on future project's critical path

ELIMINATE BOTTLENECKS

- Cross-train staff; primary skill backups
- Challenges:
  - Experience-based learning doesn't happen overnight
  - Formal training costs $
  - Insufficient staff or opportunities to cross-train all critical skills

- “New Normal”: inaccurate estimates of resource availability
- Multiple ways to deal with this risk
- Evaluate & select options that work best for:
  - Your organization’s culture
  - Project management maturity
  - Needs of your specific project

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THANK YOU!

For more information visit

- **www.eclipseppm.com**
  - **Future Webinars**
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For Questions or Comments:

- **Nadia Skira: nskira@uplandsoftware.com**

PDU Information:

- **Claim 1 PDU on PMI.org** (0.5 Technical, 0.25 Leadership, 0.25 Strategic)
- **Webinar Title:** Managing Uncertainty in Resource Availability
- **Date & Time:** Tuesday, May 24, 2016 2pm ET/11am PT
- **Company Name:** Upland Software

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QUESTIONS?