

# Pm Centers USA®



## A Scrum Case Study

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# Presentation Purpose

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The Case Study in this presentation is based on a real Scrum project that was conducted at a local firm, and will provide you with the opportunity to hear how Scrum best practices work in the real world.



# Topics

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1. Scrum Review
2. Corporate Scrum Environment
3. Project Background
4. Planning the Project
5. Scrum Execution in Action
6. The Results



# Topic 1: Scrum Review

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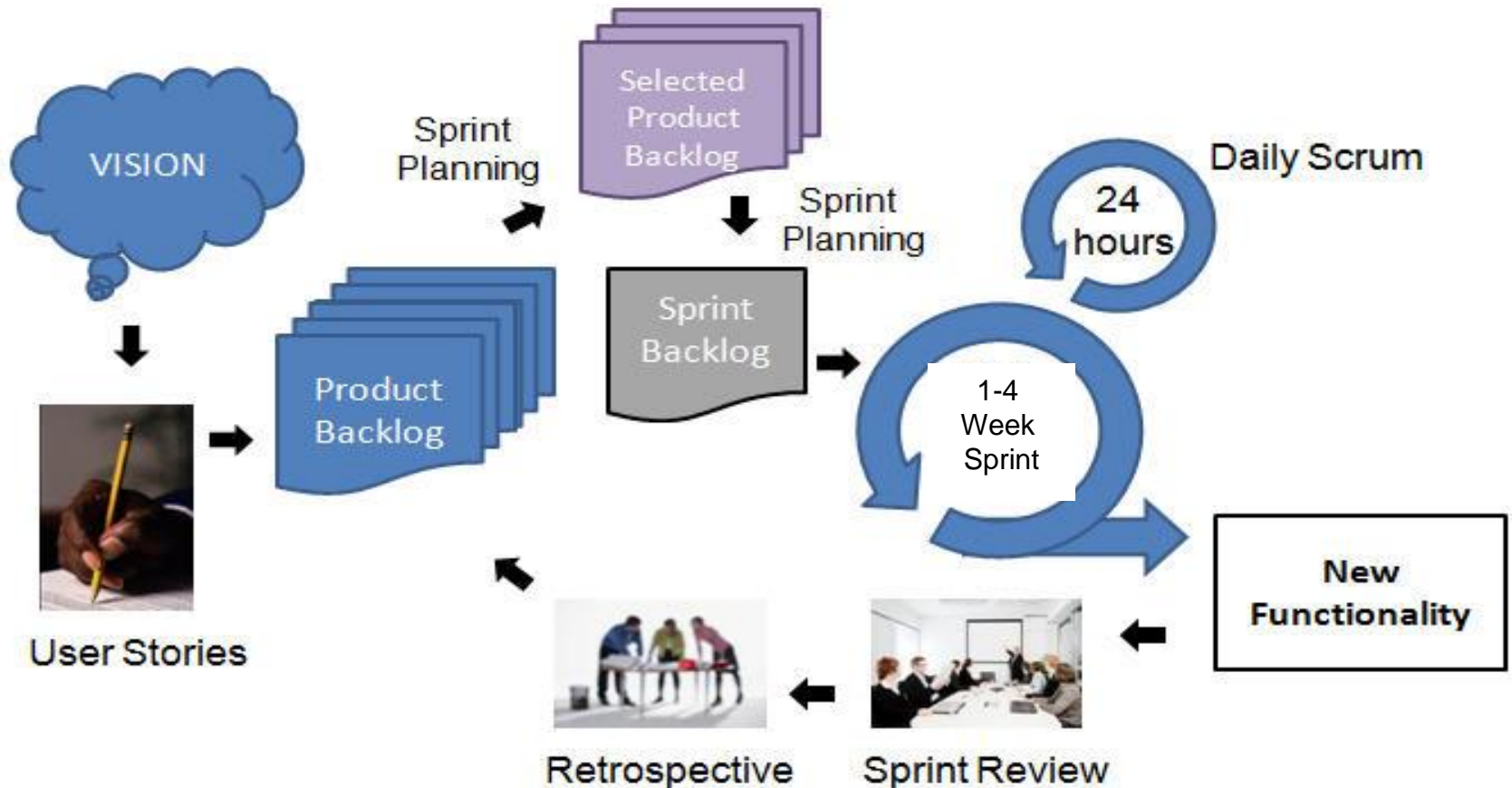
**Scrum:** the most prevalent of a set of Agile methods used to manage technical projects

- Iterative, incremental development
- Time-boxed work phases called sprints
- Team is self-managing
- Business determines priority of Product Backlog items
- Team decides which items they can do
- Product Backlog is re-prioritized at the start of each sprint



# The Scrum Framework

## SCRUM Overview



From <http://www.unstuckcompany.com>

# Three Primary Scrum Roles

## Business Knowledge



### PRODUCT OWNER

- Sets the Vision and Product Roadmap
- Manages and Owns Product Backlog
- Orders by Business Value
- Determines Acceptance Criteria
- Communicates

## Process Knowledge



### SM/Coach

- Team Process Conscience
- Organizer/Facilitator
- Removes Impediments
- Prepares Team
- Liaison to Stakeholders
- Updates Information Radiators
- Communicates

## Technology Experts



### DEVELOPMENT TEAM

- Cross-functional
- Self-organizing
- Estimates the Work
- Creates a Plan for the Iteration
- Commits to the Work
- Demonstrates Working Product for Feedback
- Communicates

# Relative Estimation – Story Points

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- “New” kind of estimation done in Agile
- Does not replace “hours” estimation, but is done beforehand
- Based on a purely comparative, subjective estimation – “**This** is bigger than **That**”
- Uses a logarithmic scale called a Fibonacci Sequence
- Cannot compare one team’s scale to another’s



## Topic 2: Corporate Scrum Environment

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- Large, locally-positioned, Investment Management firm
- Medium-sized IT Department ~ 350 staff
- Successful and efficient PM process – good balance between rigorous and flexible
- Always looking to improve – started investigating Scrum 5 years ago
- First Scrum project 4 years ago as pilot
- ~1/4 of their projects are now done using Scrum





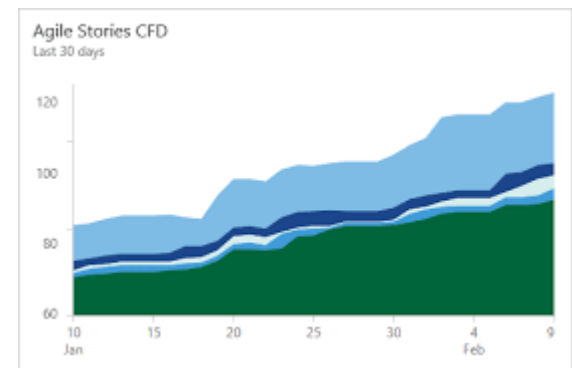
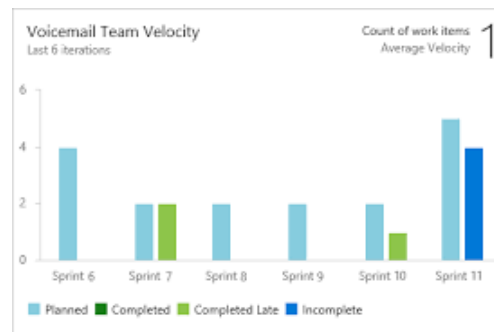
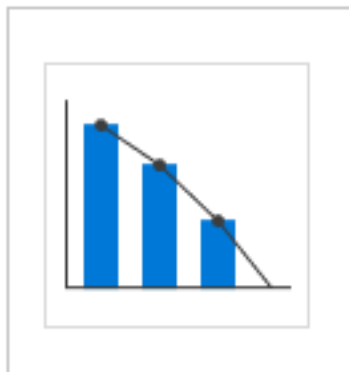
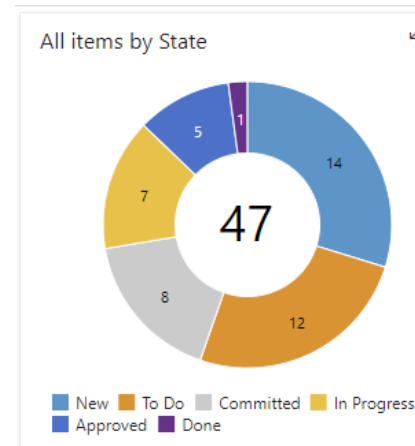
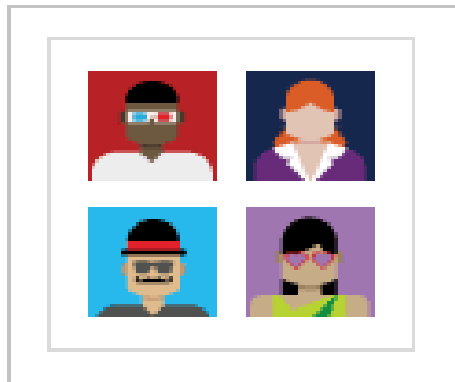
# Scrum “Compliance” Level

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- Very close to Scrum textbook standard
- 4-week sprints
- Standard ceremonies: daily standup, sprint planning, sprint review, retrospective, grooming
- TFS used to track user stories, tasks, burndown
- Many “reporting” widgets used to track progress
- Scrum Master is also external Project Manager
- Many routine corporate processes are maintained, but external to the Scrum effort



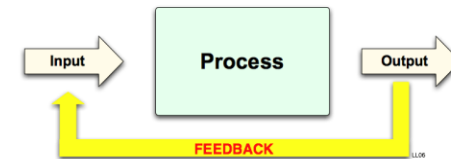
# TFS Widgets



# Project Process

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- Project is launched for planning as Agile
- Team is trained (if needed) by SM
- TFS is set up and Sprints are laid out
- Scope document is prepared and approved
- Calibration sprint (or two) done to establish baseline for team velocity
- Release Plan is done, for entire project's scope – all stories are given story points
- Project moves into Execution with Sprint 2 (or 3)



## Topic 3: Project Background

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- A satellite office, in another city, has its own software suite that needs its own support structure
- One group in IT has been given this office to support, but that is not all they do
- The office has a long list of “Service Requests” that get attended to one at a time when there is availability
- They wanted more focused attention ...



# The Maintenance List

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- None of the SRs are large enough to warrant their own project
- Some are related to each other but most are not, even though they all deal with the same software and reporting tools
- This is a perfect environment for Scrum – a set of mostly unrelated work pieces, ready for unfettered prioritization!
- Project is launched to run over a single calendar year - 2017



# The Customer

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- Generally happy with IT but thinks more could be done
- Likes to change their mind on the fly
  - Knows that IT is irritated by this
  - Expects instant response to changes
- Has a problem with being available for questions
- Is far away in another city



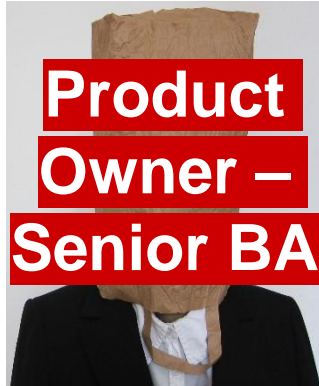
# Topic 4: Planning the Project

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- Assembled the team
- Trained the team
- Set up TFS
- Converted the SRs into properly formatted user stories and did initial prioritization
- Threw them into the deep end: Calibration Sprint!
- Completed the Release Plan
- Moved into Execution right after Sprint 1



# The Team



Bob



Carol



Ted



Alice



Pete



Repeat



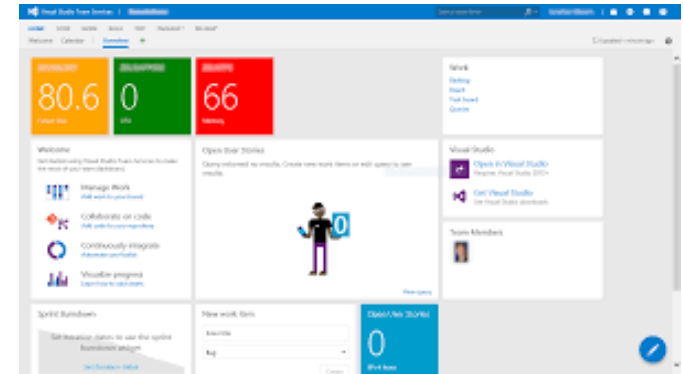
Scrum Master

The Lone PM



# Setup TFS

- Established project “area”
- Inserted team
- Provided permissions
- Decided which “widgets” to use
  - # of open stories, # of completed tasks, etc, etc
- Set up queries which drove widgets and charts
- Set up task board
- Prepared team to ALWAYS INSERT THEIR HOURS DAILY (I wonder how well that worked out ...)



# Trained the Team

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- Scrum Master did training – established a bond early – SM continued as mentor and coach
- Took a couple of days for this training
- Included exercises
- Used company's own material but augmented as needed
- Included training in TFS but this was less important
- Generated lots of enthusiasm for Scrum!



# Started the Work

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- Converted all the SRs into properly formatted User Stories
  - *As a <user role> I want <to do something> so that <value results>*
  - Acceptance Criteria
  - Notes including constraints and contacts
- Did Sprint 1 as a Calibration (we will look at how the sprints were run soon ...)
- Treated Sprint 1 as a training extension



# Release Plan Sample

Calibration		Release 1								
Sprint 1		Sprint 2		Sprint 3		Sprint 4				
8/7 - 9/1 2017	Points	ID	9/4 - 9/29 2017	Points	ID	10/2 - 10/27 2017	Points	ID	10/30 - 11/24 2017	Points
113233 2017 ITD Benchmark Unit Value	3	<a href="#">122474</a>	Fix Situational Awareness	3	<a href="#">122435</a>	Add New Benchmarks to Blends PAGES Front End	13	<a href="#">113231</a>	Fix Auto Withdrawal Import Causing Screen Freeze	5
117872 NUOM Client Listing	8	<a href="#">122403</a>	RBC Tax Harvesting and New Trade Allocation Template	8	<a href="#">125898</a>	Add New Benchmarks / Blends to Pages Performance Reports	8	<a href="#">113230</a>	Add Operators to Indata Available Email	3
113201 RBC Tax Harvesting and New Trade Allocation Template	8	<a href="#">113340</a>	Add Data for New Benchmarks	13	<a href="#">113254</a>	Res. Effects of Not Using Acct/Co Characteristics	5	<a href="#">114013</a>	Billing Rebates Process - Secure Data Part 1 - Audit Item	20
113280 Modify Incoming / ML to exclude some TXNs	5	<a href="#">122409</a>	Modify Incoming / ML to exclude some TXNs	13	<a href="#">113271</a>	Modify Muni-Mutual Fund holdings report for PGH	13	<a href="#">125903</a>	PROD Permissions Report	13
113318 Incoming Allocations - Mortgage Update	8	<a href="#">122410</a>	Clover State Street Allocations - Mortgage Update	5	<a href="#">113319</a>	Indata: New Global Group	13	<a href="#">125902</a>	DEV Refresh Privileges	13
113338 Revise SS&C PAGES, RG&L Cover Letters	8	<a href="#">122411</a>	New Report - List of Foreign Holdings	8	<a href="#">111734</a>	Upcoming Maturities Report - Add Prerefunding/calls	8	<a href="#">125704</a>	Update INDATA 2018 Processing Calendar	13
116254 PAGES- Eliminate blank lines in top holdings rpt	5	<a href="#">113451</a>	Modify Pages Component #7 - Maturity Date	3	<a href="#">113142</a>	Format UBS Daily Download	8	<b>Estimated 67</b>		
116255 Update PAGES - Web Access Cover Letter	8	<a href="#">116483</a>	Correct Accrual Days Calculation - Holidays	5	<b>Estimated 68</b>					
118065 Modify Situational Analysis - Add Bond \$ Column	8	<a href="#">113222</a>	Update Trade Rotation Sheet Scheduling	5						
113200 New Report - List of Foreign Holdings	8	<b>Estimated 63</b>								
113362 HPSM requests for access	5									
<b>Estimated</b>	<b>74</b>									

# Topic 5: Scrum Execution in Action

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- Sprint 1 – maybe this was for calibration, but the work was real!
- Sprint 2
- Sprint 3
- Team Velocity vs Hours estimates



# Sprint 1 - Sprint Planning

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- Sprint 1 planning took all of the first day of the sprint – this shrunk later
- Lots of uncertainty, especially about estimation – they had been burned in the past
- Took careful facilitation by the SM – broke day down into phases:
  - Present backlog items in order, validate story points, decide which ones would be in sprint
  - Break each story into tasks, assign resources, get “hours” estimates, document tasks in TFS



# Sprint 1 - Daily Standup

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- With a new team, this is often a problem as they are not used to being on time, every time
- This group was better, mostly because the SM was so “emphatic” during training!
- SM was very “crisp” when facilitating – kept discussions from getting out of hand
- Every day at 0830
  - Some team members called in while driving
  - Had a team member call in from the hospital once!





# Sprint 1 – TFS Updates

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- This was harder – some team members never did get perfect about this
- Supposed to do this before the standup, which meant at the end of the previous day
- Never did see a perfect meeting with all updates done on time
- The team members started getting mad at each other over this – SM stopped having to do anything other than sigh ...



# Sprint 1 – Story Time (Grooming)

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- Half-way through the sprint, we looked at the next sprint's potential stories
- We looked at a bit more than we thought would end up on Sprint 2
- Goal was to review the story points and modify them in light of what we had learned
- Generated updates to the Release Plan also, but that was a “PM” activity



# Sprint 1 – Release Planning

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- The project had started with a Release Plan of all the stories - unusual
- We did this again towards the end of Sprint 1 (calibration sprint) – goal was to solidify the existing Release Plan based on what we had discovered about our velocity
- Real goal should have been to look at next 3 sprints
- Probably the least valuable Agile ceremony at this organization – purpose was “PM” not Scrum

# Sprint 1 – Review

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- Customer is supposed to attend but in this case rarely did – they trusted the PO and he did it
- Became more of a formality during the project – in reality it should anyway
- The focus was more often on the stories that did not get done



# Sprint 1 – Retrospective

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- This was very well done throughout the project, and very valuable
- The liked doing Lessons Learned more often
- Focus was on how they were doing Scrum and what should change
- Often included compliments to each other and about the Scrum process itself
- SM posted results in a running total widget in TFS

It's only a  
failure  
if you don't  
learn  
something

## Sprint 2

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- Everything was better – almost like this was a movie script!
- Worked more efficiently and more collaboratively
- Estimated smaller number of stories
- Took only  $\frac{3}{4}$  of the first day for planning
- Based on a Retrospective item from Sprint 1, we established a weekly “in person” day at one of the campuses – very popular
- Questions during Retro became more detailed as far as Scrum process – some of their points ended up going back to the organization as a whole



## Sprint 3

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- Even better, just like Sprint 2 – you could have graphed the improvements using a straight upward line!
- Now using ½ day for planning – that became the standard
- Asked to shift the Review and Retro to the same day as the planning for the next sprint – unusual but worked well
- Velocity now much firmer!



# Velocity Over 4 Sprints

Calibration		Release 1								
Sprint 1		Sprint 2			Sprint 3			Sprint 4		
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Estimated 74										





# Velocity vs Hours Estimates

- During Sprint 2 planning, a senior Developer asked if we could drop this “silly relative estimation” and focus on good, old fashioned work hours
- My answer was to ask him to wait until 3 or 4 sprints were done

	Sprint 1	Sprint 2	Sprint 3	Sprint 4
Story Points	74	63	68	67
Hours	278	185	244	305

- Amazing comparison – which one would you trust?
- He withdrew his request ...

# Topic 6: The Results

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- Delighted team
- Delighted business group
- Applied Scrum thinking to many other things:
  - Development process in general
  - Other, smaller projects
  - Product Owner concept
- Another Scrum project was run, with mostly the same team, during the next calendar year – this is ongoing now
- Many updates and suggestions passed back to rest of corporate Scrum environment



# Review

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1. Scrum Review
2. Corporate Scrum Environment
3. Project Background
4. Planning the Project
5. Scrum Execution in Action
6. The Results



# Some Reference Books

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1. *Essential Scrum: A Guide to the Most Popular Agile Process* by Kenneth S. Rubin
2. *The Elements of Scrum* by Chris Sims & Hillary Louise Johnson
3. *Scrum: A breathtakingly Brief and Agile Introduction* by Chris Sims & Hillary Louise Johnson
4. *Agile Product Management with Scrum* by Roman Richler
5. *Agile Project Management with Scrum* by Ken Schwaber
6. *Agile Estimating and Planning* by Mike Cohn

# Company Background

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## Specialty Staffing, Customized Training & Consulting

- ✓ Specialty Staffing-a-a-Service
- ✓ Customized Training
- ✓ Consulting Services
- ✓ Public & Private Training  
(on-demand, virtual, & on-site)



## National IT Staffing & Placement

- ✓ IT Staffing-as-a-Service Solutions
- ✓ Traditional IT Staffing Services:
  - Contract-to-Hire
  - Contract
  - Direct Hire/Permanent Placement

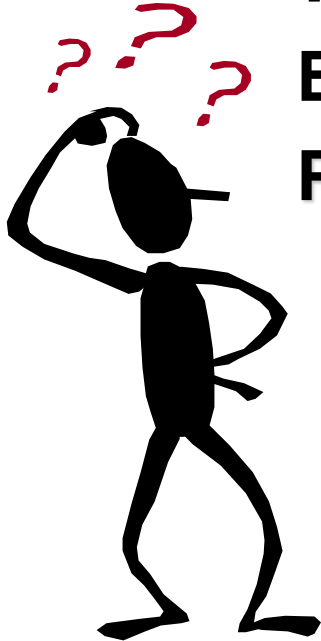


# Questions?

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PMCentersUSA BA Director

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