

# Designing Your Tailoring Approach to Help Achieve Higher Levels of Maturity

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# Agenda

- What is Tailoring
- A Typical Organization
- A Mature Organization
- Designing Your Tailoring Approach
- Analyzing Tailoring Metrics
- Making Improvements



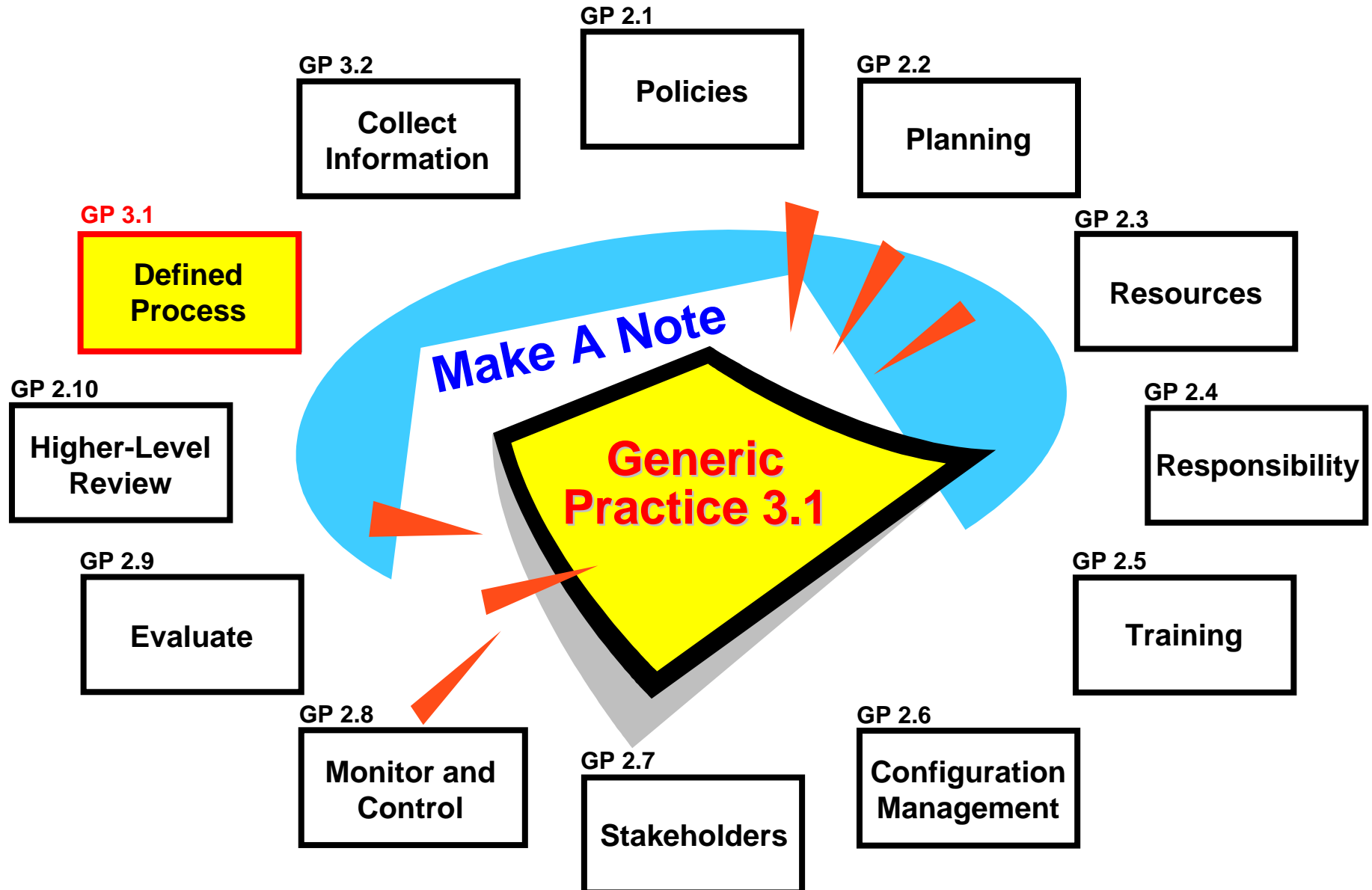
# What is Tailoring?



**Adapt the organization's standard processes to meet the project's objectives to arrive at the project's defined process. Like a family tree, all defined processes must be derived from the same trunk.**



# Where is Tailoring in the CMMI?



# GP 3.1 Establish a Defined Process



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## Capability Maturity Model® Integration (CMMI<sup>SM</sup>), Version 1.1

### Tailoring Guidelines

Tailoring a process makes, alters, or adapts the process description for a particular end. For example, a project establishes its defined process by tailoring from the organization's set of standard processes to meet the objectives, constraints, and environment of the project.

[FM114.HDA102.HDB120.T101]

"Tailoring guidelines" are used in CMMI models to enable organizations to implement standard processes appropriately in their projects. The organization's set of standard processes is described at a general level that may not be directly usable to perform a process. [FM114.HDA102.HDB120.T102]

Tailoring guidelines aid those who establish the defined processes for projects. Tailoring guidelines cover (1) selecting a standard process, (2) selecting an approved life-cycle model, and (3) tailoring the selected standard process and life-cycle model to fit project needs. Tailoring guidelines describe what can and cannot be modified and identify process components that are candidates for modification.

[FM114.HDA102.HDB120.T103]

### GP 3.1 Establish a Defined Process

***Establish and maintain the description of a defined process.***

#### Subpractices

1. Select from the organization's set of standard processes those processes that cover the process area and best meet the needs of the project or organizational function. [GP114.SubP101]
2. Establish the defined process by tailoring the selected processes according to the organization's tailoring guidelines. [GP114.SubP102]
3. Ensure that the organization's process objectives are appropriately addressed in the defined process. [GP114.SubP103]
4. Document the defined process and the records of the tailoring. [GP114.SubP104]
5. Revise the description of the defined process as necessary. [GP114.SubP106]

# Storyboard of a Typical Organization

## 1 Create Standard Processes



Develop policies and standard processes in Word

## 2 Post Standard Processes



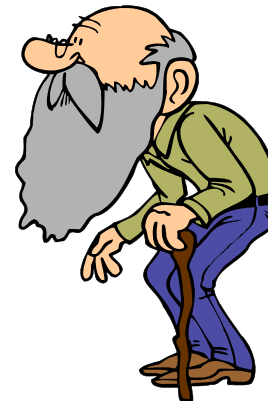
Provide Word files to projects

## 3 Go Into Hibernation



Wait for the next process initiative

## 4 Update Years Later



Update policies and standard processes years later

# Storyboard of a Mature Organization

## 1 Create Standard Processes



**ORACLE®**

Develop policies and standard processes in a tool

## 2 Post Standard Processes



Provide the tool to projects

## 3 Let the Tool Gather Metrics



Walk away knowing the tool will automatically gather metrics

## 4 Improve Standard Processes

**CMMI Level 5**

Use the metrics, to improve the policies and standard processes regularly

# Storyboard of a Typical Organization Trying to Become More Mature

## 1 Collect Defined Processes



Collect Word files from projects

## 2 Figure Out What Was Tailored



Analyze red revision bars in every Word file

## 3 Waste Resources



Waste an enormous amount of money and time

## 4 Improve Standard Processes

**5**  
CMMI Level

Use the error-prone method to improve the policies and standard processes regularly



# 6 Steps to a Mature Tailoring Approach



**Define Goals-Questions-Measures**



**Define Tool Requirements**



**Define Tailoring Options**



**Design Tailoring Tool**



**Analyze Metrics**



**Improve the Standard Processes**

# 1 Define **G**oals-**Q**uestions-**M**easures



## Goals

- Continually improve the policies
- Continually improve the standard processes
- Create an efficient tailoring process



## Questions

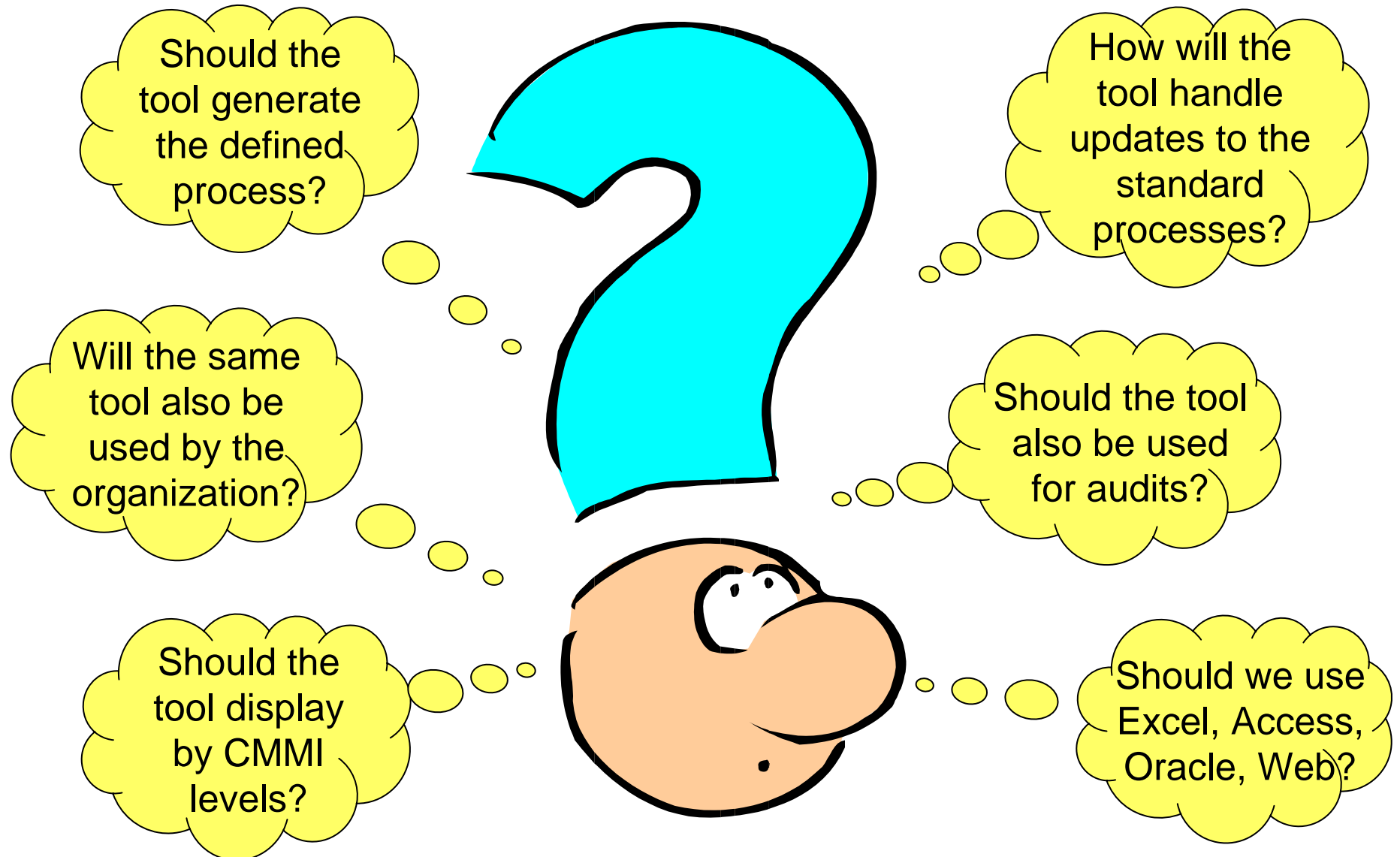
- Which policies are being waived?
- Which processes are being tailored frequently?
- How long is it taking projects to tailor?
- Is a particular process troublesome for projects?



## Measures

- Hours
- Number of waivers, deviations, etc. for policies
- Number of additions, deletions, etc. for standard processes
- Categorize above by project type, project size, etc.

# 2 Define Tool Requirements





# Define Tailoring Options



## Policies

- Compliant
- Waiver
- Deviation
- N/A



## Standard Processes

- Applicable
- Modify
- Delete
- Add
- N/A

Include detailed definitions of the tailoring options in your Tailoring Guidelines.

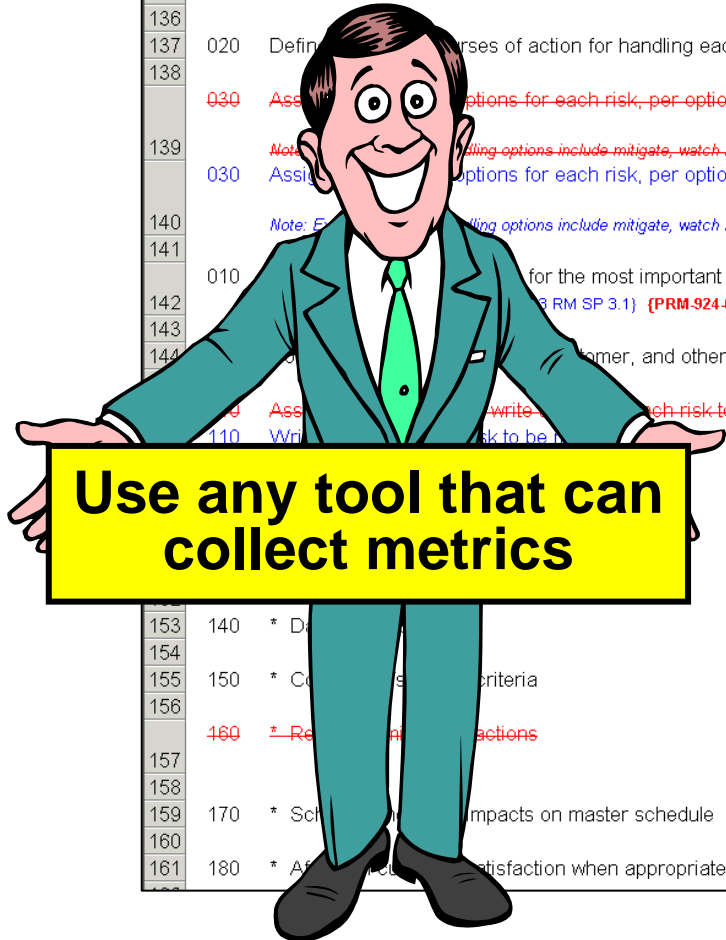
# 4 Design Tailoring Tool

Microsoft Excel - dm-135 Rev 08 10-01-04.xls

File Edit View Insert Format Tools Data Window Help

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	A	D	E	F	G	I
1						
2			<b>924 Risk Management</b>		<b>Selection</b>	<b>Rationale</b>
130					Applicable	
135			<b>4.5 Handle Risks</b>		Applicable	
136						
137			020 Define courses of action for handling each risk.		Applicable	
138			<del>030 Assign handling options for each risk, per options defined in project plans.</del>		Original	
139			<del>Note: Existing handling options include mitigate, watch list, etc.</del>			
140			030 Assign handling options for each risk, per options defined in the Risk Management Plan.		Modified	Risk handling options are defined in the Risk Management Plan.
141			Note: Existing handling options include mitigate, watch list, etc.			
142			010 Identify the most important risks to the project as defined by risk		Compliant	
143			RM SP 3.1) (PRM-924-070)			
144			Identify the customer, sponsor, and other potentially affected teams, as appropriate.		Applicable	
145			<del>040 Assign handling options for each risk to be mitigated.</del>		Original	
146			Write handling options for each risk to be mitigated.		Modified	Plans must be written. Action items are not allowed.
147					Applicable	
148					Applicable	
149					Applicable	
150			* Determine risk criteria		Applicable	
151			* Communicate risk criteria		Applicable	
152			<del>460 * Review mitigation actions</del>		Deleted	Results of mitigation actions are not known when the plan is being written.
153			140 * Determine risk criteria		Applicable	
154			150 * Communicate risk criteria		Applicable	
155			170 * Schedule mitigation impacts on master schedule		Applicable	
156			180 * Assess customer satisfaction when appropriate		Applicable	

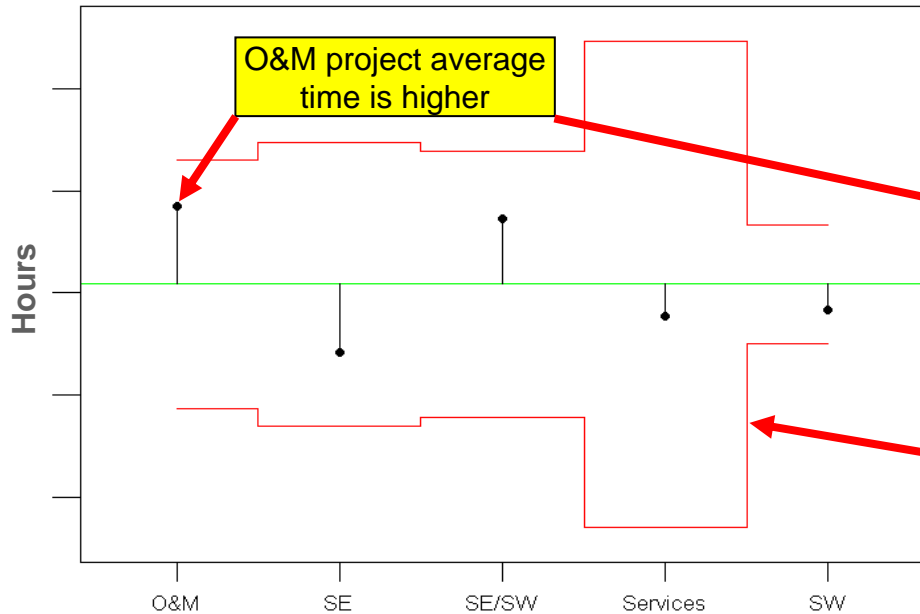




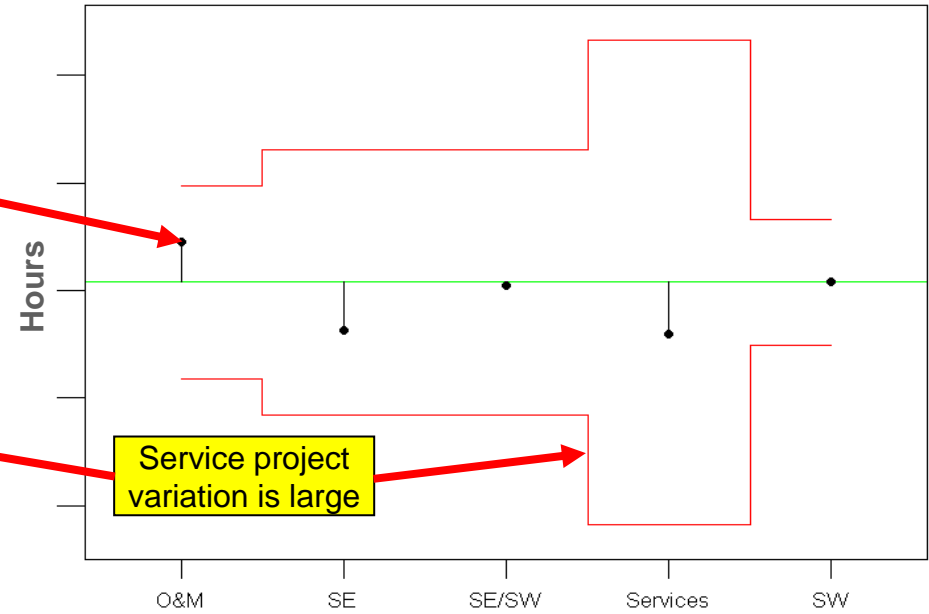


# Analyze Hours by Project Type

Variation analyzed through Six Sigma projects



Hours for Defining Compliance to Policies



Hours for Tailoring the Standard Processes

**Actions:** Improve tailoring guidance and training to reduce variation, especially for service and Operations and Maintenance (O&M) projects. Publicize good examples.

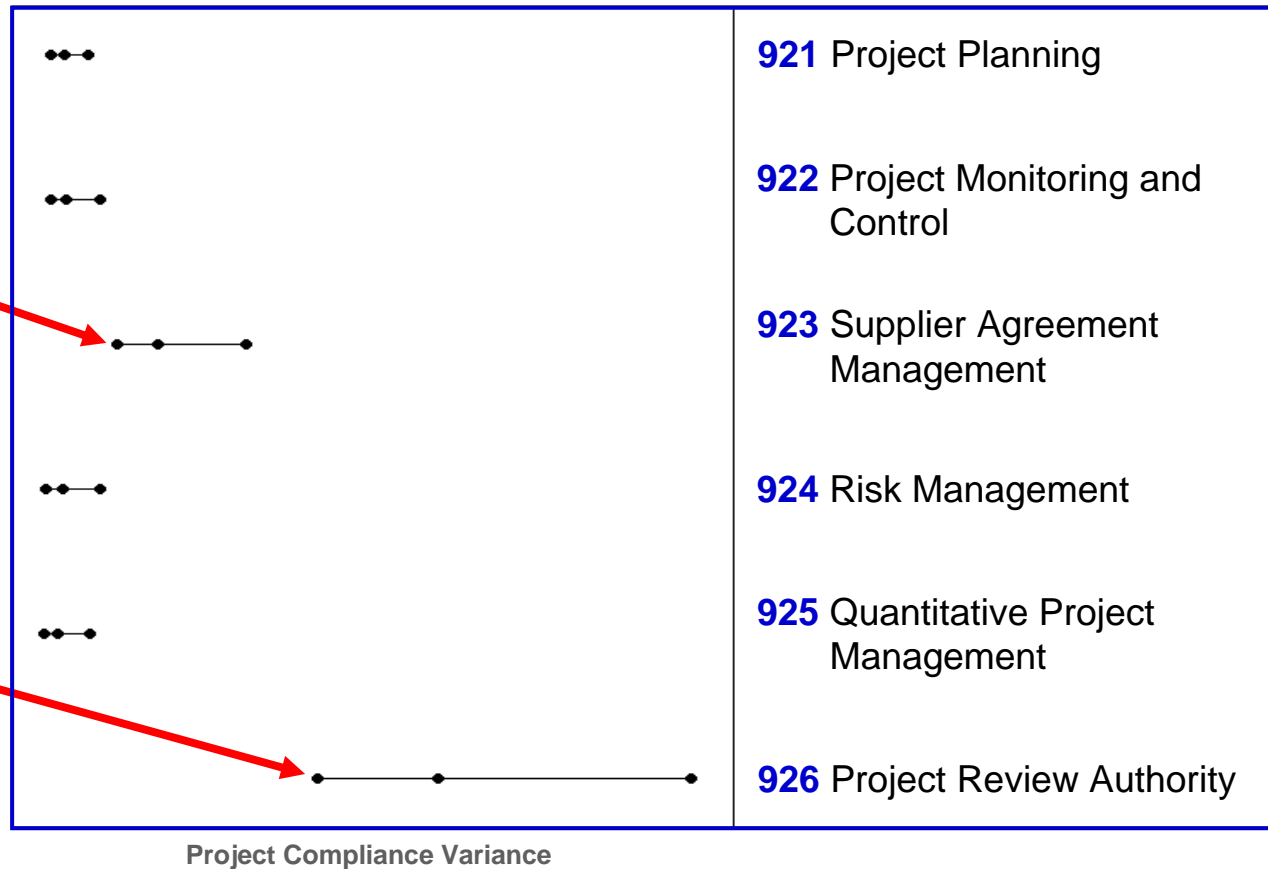
# S Analyze Policy Compliance

## Project Compliance with Policies

Test for Equal Variance (F-Test)

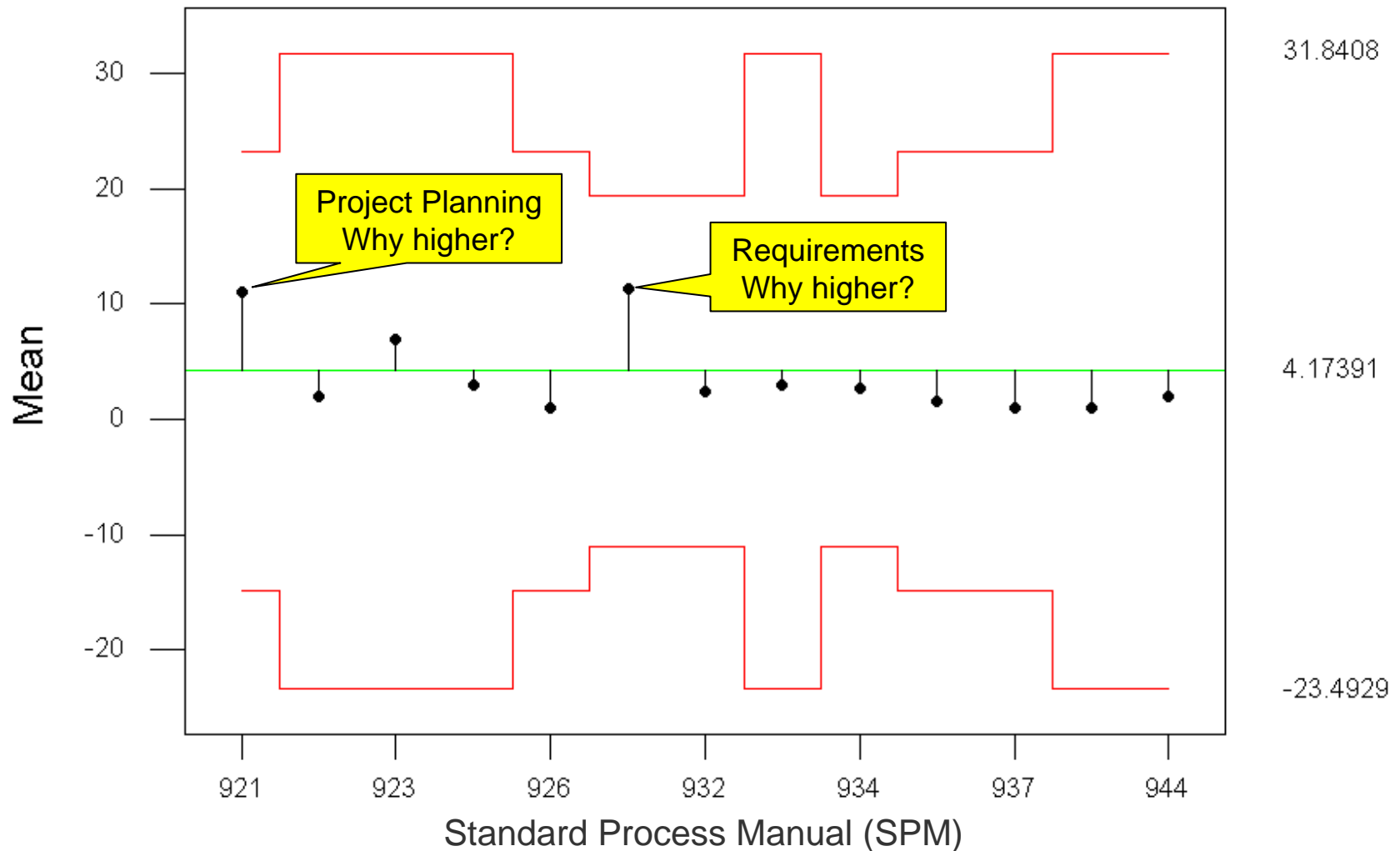
Project compliance varies more since some projects do not have suppliers

Project compliance varies the most on the policy unique to Mission Systems



**Actions:** Improved the list of metrics in 926 Project Review Authority.

# Analyze Standard Process Additions

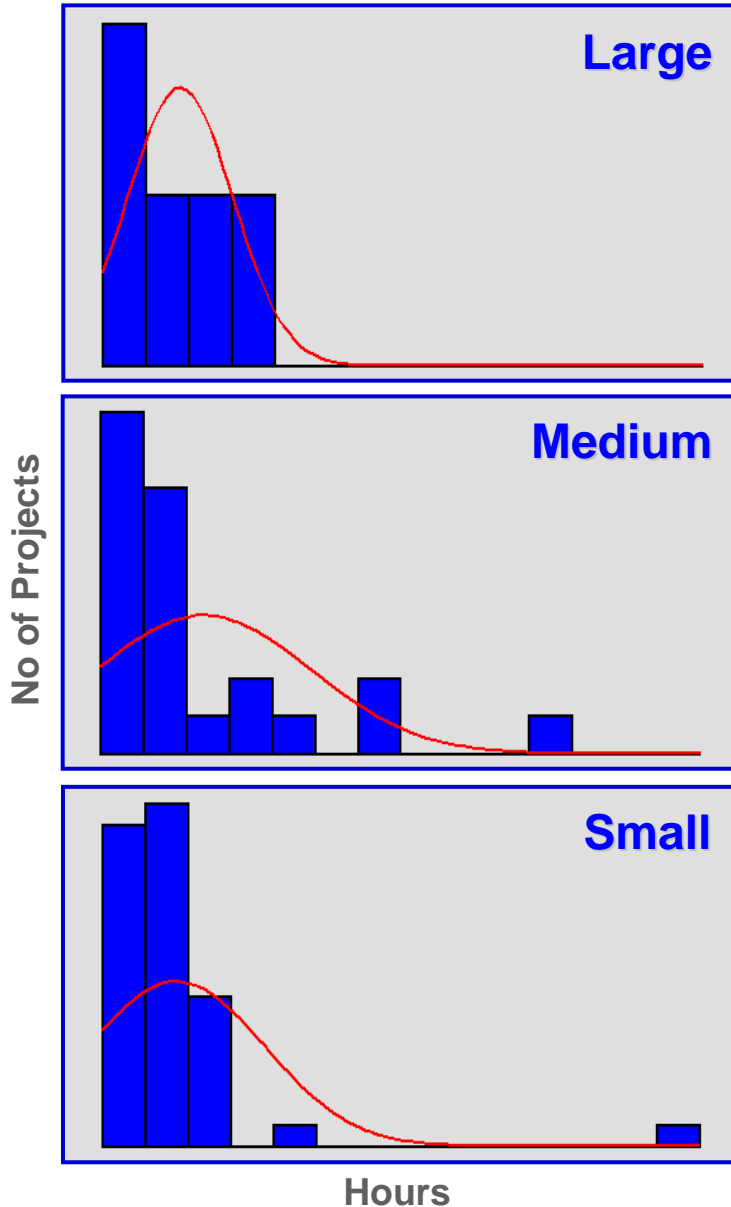
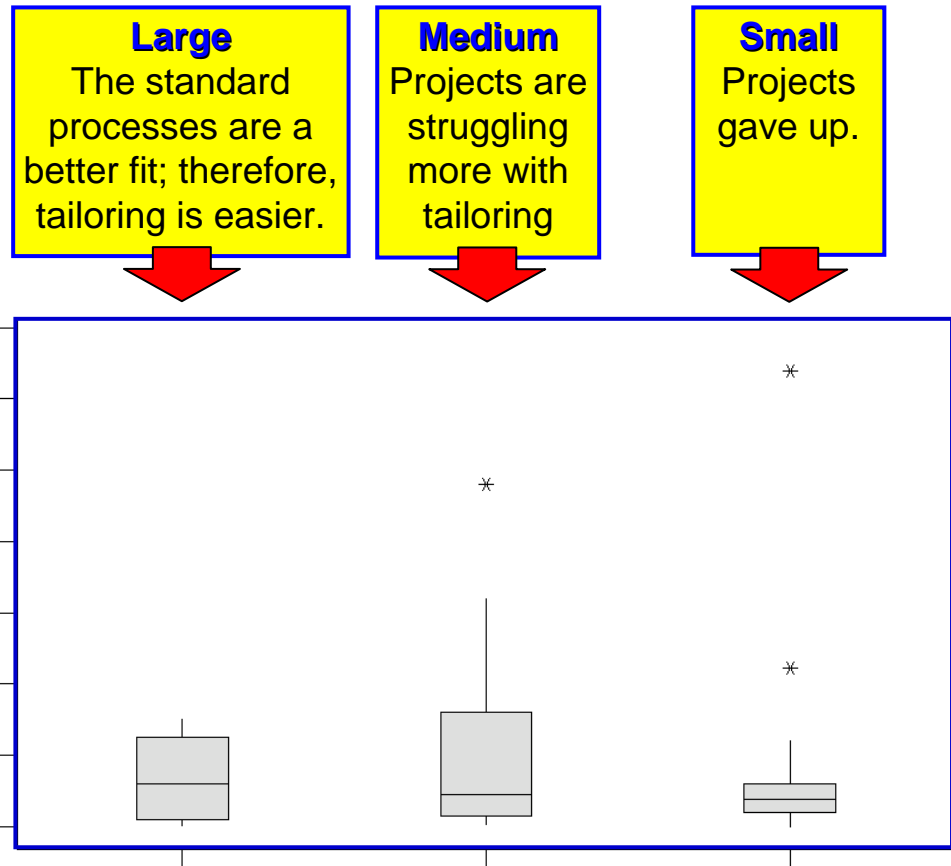


**Actions:** Identified potential improvements to the standard processes.



# Analyze Hours by Project Size

This data also helps projects estimate the effort for tailoring -- helps managers recognize when they need assistance.





# Improve the Standard Processes

	A	B	D	E	L	M	N
1			SPM		Modified	Deleted	Not Applicable
2							
43		924	4.4.080		1	4	
44		924	4.4.110			4	3
45		924	4.5.120			4	
46		924	4.5.130			5	
47		924	4.5.140			5	
48		924	4.5.150			5	1
49		924	4.5.160			7	2
50		924	4.5.170			5	
51		924	4.5.180			6	2
52		924	4.5.190			6	
53		924	4.5.200			6	2
54		924	4.6.050			4	
55		924	4.6.070			4	2
56		924	4.7.040			4	

	A	B	D	E	L	M	N
1			SPM		Modified	Deleted	Not Applicable
2							
187		934	4.3.130			6	7
188		934	4.3.150			6	12
189		934	4.3.180			4	6
190		934	4.3.190			4	6
191		934	4.3.230			4	7

A process step in the Integration (934) standard process was being tailored frequently. After investigating, it was discovered the process step was not what is normally done on projects, i.e., it wasn't "standard" practice. The process step was deleted.

A stretch of process steps in the Risk Management (924) standard process was being tailored frequently. After investigating, it was discovered the process steps were way too detailed and not really "standard" practice. As a result, the standard process was changed to have projects define the details in their project plans.



# Lessons Learned



## Top 3 Lessons Learned

Tailoring guidelines and criteria are critical. Provide very specific instructions.

Never assume projects tailored correctly per the tailoring guidelines and criteria.

Consider using the same tool as a policy compliance and process auditing tool.



# Contact Information

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