

Master Series:

Everyday Uses of Process Modeling

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Masters Series Agenda

Week 1	Week 2	Week 3
 Introduction to simulation Understand the basic components of modeling The importance of understanding the impact of interactions in a dynamic process 	 Transactional and Service models Replenishment pull for supplies Data collection and model validation Techniques to model forecast work, kits of information, batch release, etc. 	 Social distancing models Your challenges – email your process model challenges to modeling@moresteam.com
eLearning course, Kathy's Best Wursts case study, build models from the webinar	Build the Loan Application and Agile Sprint models from today's session, complete the eLearning quiz	



HOMEWORK

OBJECTIVES

An Item By Any Other Name...

Process models consist of three basic components:

- Blocks which define the components of the process Activities, queues, decisions, etc.
- Connectors which define the flow of the process
- Items which are the 'things' that move in the process. So what can an item be?

Product Customer Information Signal



Items in Items

A loan package, which consists of an application, which triggered

- An appraisal process
- An underwriting process
- Employment verification, etc.

A bicycle, which is built from

• A frame, wheels, fork, handlebars, gears, pedals, etc.

A visit to the ER, which triggered

- The check-in process
- Health history and basic work-up
- Additional visits, test, scripts, etc.



Compound Items

Underwriting Employment Paper Documents Number Item Number Item Number Item Item Number Item Item Item Item Item Item Item Item	
Employment Paper Documents	
Paper Documents	Wait
Appraisal V I	to Pull
Completed Application	0 0 0
Create an Item Type Employment • 1	- Ū
Add Component: Select Item 🔻	

Application	Þ	Name Completed App	lication		
Appraisal	•	Color			
Underwriting	•	Item Components (Optiona	al) —		
Employment	•	ltem	Number	Wait to Pull	
Paper Documents	•	Appraisal	• 1		Û
Completed Application	×.	Underwriting	• 1		Û
Create an Item Type		Employment	• 1	_	回
		Paper Documents	• 1	\checkmark	Û
		Add Component: Sel	ect Item	Ŧ	



Model #1 – Loan Applications



Model #2 – Agile Sprint Planning

Add unique parameters: Select Item v (?)

Edit Item Types



A demand block is not used in this model. The sprint plan is loaded into the queue which holds the planned cards for the sprint. This model will examine the capacity of the process to handle the planned workload





Run for 80 Hours (2 week sprint)

Add Block Parameters

Parameters	Results	5	
Name Jumble Servers Available Allow All Items de	the order	50	_ ⑦ ✓
Process Parameter Setup Time Distributi Processing Time Dist Unique Processing Ti	on ribution	C(0)	h)) s
Optional Paramete Set Priority To ⑦	rs ———		
Add unique parame Edit Item Types	eters: Select	Item	• ?

Results Parameters Primary Dev Work \bigcirc Name Servers Available 8 ▶ Allow All Items *defaults* ⑦ 卣 Plan 0.5 ⑪ Plan 1.0 副 Plan 2.0 靣 Plan 4.0 莭 Orange Add unique parameters: Select Item • (?) Edit Item Types

Parameters	Resu	lts	
Name Code Re	eview		\bigcirc
Servers Available		5	
Allow All Items de	efaults (?)		2
• Allow All terns de			-
Process Parameter	s ———		
Setup Time Distributi	on	C(0)	h
Processing Time Dist	ribution	T(0.5,1,2	<mark>?) h</mark>
Unique Processing Ti	me	\checkmark	
Optional Paramete	rs		
Set Priority To ⑦			
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			· ·
Plan 4.0			団
Add unique parame	ters: Sole	ect Item 🔻	(?)
	Jele	· · · · ·	Û
Edit Item Types			

Insignificant addition of time, randomizes the order the cards will be played in the sprint



Unique processing times for each type of card: Plan 0.5 = T(2,4,6) hours Plan 1.0 = T(6,8,10) hours Plan 2.0 = T(12,16,20) hours Plan 4.0 = T(24,36,40) hours Orange = T(0.25,1,6) hours

Orange card demand will be introduced later, but go ahead and add it to the activity block now All item types have the same distribution of time at T(0.5,1,2), except for the Plan 4.0 items.

The "Allow All Items *defaults*" setting will provide default values to the item, EXCEPT when you add a specific item below.

The processing time for Plan 4.0 items is T(2,4,6)

Param	eters	Results		
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	ing Time Distributi		T(0.1.0.2	Ξ
	0	l distribution rep time.		
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Parameters	Results
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Setup Time Distribution Processing Time Distribution Unique Processing Time Optional Parameters —	C(0) h T(1,3.6) h
Set Priority To 🛛	
Add unique parameters: Edit Item Types	Select Item 🔻 🕐

Add Resource Allocation



Managers	Senior Devs



Senior Devs



Parameters	Resu	lts	
	_		
Name Senio	r Devs		(?)
Conne	ected Activity B	locks	
Block Name	Prio	rity	
Primary Dev Work	1		Ū
Code Review	2		Ū
Fix Issues	3		Û
Select by Block Na	me 🔻		
Resou	rce Availability	Table	
Start Time	End Time	Resour	ce Count
0	End	3	
(+) Add Row			

Name Junior Devs ⑦ Connected Activity Blocks Block Name Priority Primary Dev Work 1 1 1 Fix Issues 2 1 Select by Block Name Resource Availability Table Start Time End Time Resource Count 0 End 3 Add Base	Connected Activity Blocks Block Name Priority Primary Dev Work Fix Issues Connected Activity Blocks Select by Block Name Resource Availability Table Start Time End Time Resource Course	rameters	Resu	lts	
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0 End 3	0 End 3	Resource	e Availability	Table	
		itart Time	End Time	Resource	Count
Add Dow	⊕ Add Row	Er	nd	3	
	O'ridd riow	Add Row			



And Adjust Activities to Reflect Resources

Parameters	Results	
Name Primary	/ Dev Work	0
Servers Available	8	
Resources Required		One
Choose Resou	rce by Most Available	
Choose Resou	rce by Priority	
Dependent	Resource Priorities	
Resource Nam	e Priority	
Managers	3	
Senior Devs	1	
Junior Devs	2	
▼ Allow All Items d	efaults (?)	\checkmark
Process Parameter	rs	
Add unique param	eters: Select Iter	n 🔻 ?
Edit Item Types		

Parameters Results
Name Code Review ?
Servers Available 5
Resources Required 📃 All 🔘 One
Choose Resource by Most Available
Choose Resource by Priority
Dependent Resource Priorities
Resource Name Priority
Managers 1
Senior Devs 2
▼ Allow All Items <i>defaults</i> ⑦
Process Parameters
Setup Time Distribution C(0) h
Add unique parameters: Select Item 🔻 ?
Edit Item Types

Parameters	Results
Name F <mark>ix Issu</mark>	es?
Servers Available 8	
Resources Required	🔵 All 🔵 One
Choose Resource by Most Available	
Choose Resource by Priority	
Dependent Resource Priorities	
Resource Name	e Priority
Managers	3
Senior Devs	1
Junior Devs	2
▼ Allow All Items <i>defaults</i> ⑦	
Process Parameters	
Add unique parameters: Select Item 🔻 ?	
Edit Item Types	







High = 1

Add Batch Release to Production



Add Distractions and Meetings











Homework and More

HOMEWORK:

- Follow the instructions in your enrollment email to access the "Introduction to Process Modeling" course.
 - Don't see the email in your inbox? Check your spam folder.
- Complete the lessons, including the "Kathy's Best Wursts" case study.
- Answer the quiz questions based on the case study and the models built in Session 1.

Today's slides & recording will be available at: <u>https://www.moresteam.com/webcasts/process-modeling-</u> <u>master-series.cfm</u>

Questions about course content or the Process Playground modeling tool? Contact <u>modeling@moresteam.com</u>

For more information about MoreSteam's products & services: Contact Kathy Miller at <u>kmiller@moresteam.com</u>

COMING UP IN SESSION 3: Challenge Lars with your process modeling problems. A simple process map and description of the problem, and a little bit of data would help if you have it. Email to modeling@moresteam.com

