

Step 1: Start eVSM

1 On your Desktop, click the "Start eVSM" icon.

2 If you see a message like this, you must "Enable" macros.

3 Click to enable macros.

4 Click "Trust all from publisher" to avoid the security notice in future.

Recycle Bin

Start eVSM

Microsoft Visio Security notice

Microsoft Office has identified a potential security concern.

Note: The digital signature is valid, but the signature is from a publisher whom you have not yet chosen to trust.

File Path: C:\Program Files\evsm\Setup\Solutions\evsmIcons.vss

Macros have been disabled. Macros might contain viruses or other security hazards. Do not enable this content unless you trust the source of this file.

[More information](#)

[Show Signature Details](#)

Trust all from publisher Enable Macros Disable Macros

Step 2: Learn eVSM Basics

Quick Processing

Sketch Processing

2


Avoid re-sizing eVSM shapes. Instead grow the drawing page when needed. To resize the page, hold down the "Ctrl" key, and then drag any page edge to the required size. This method works on all four edges of the page.



5

Save your Visio file and then insert a new page via the right-mouse menus on the page-tabs.

Step 3: Initiate the map for Quick Processing

1 Click the Open button and select the Quick Processing Stencil and click OK.  Open

2 Drag out the red icons from the Quick Processing Stencil first. This is very important!

3 A dialog box will appear asking you to select the map units. Select "US Units" for this example.

6 Enter the available hours per day and days per week.

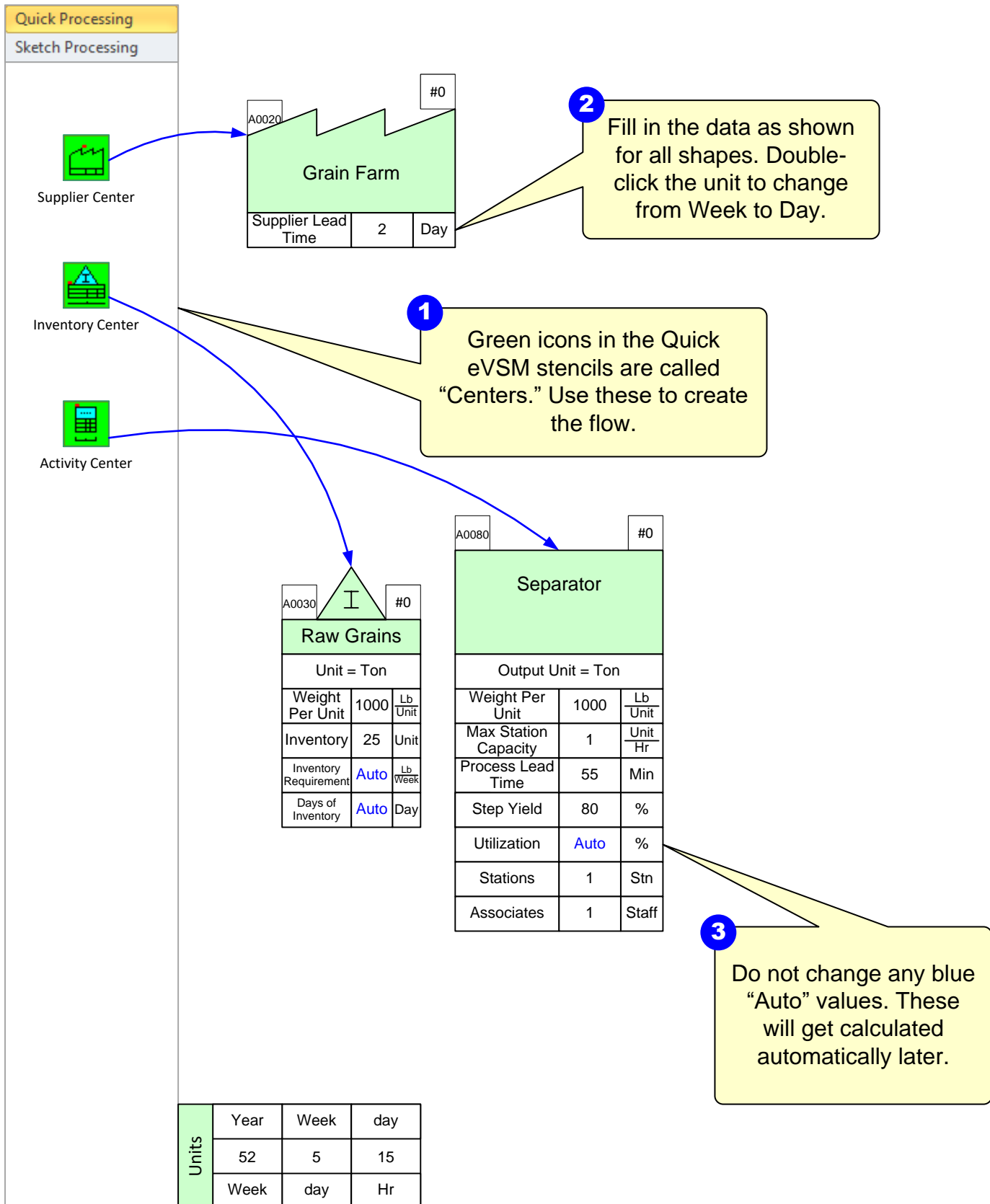
Units	Year	Week	day
	52	5	15
	Week	day	Hr

4 Align all shapes to the grid as you drop them.

20005		#0
Grain Customer		
Demand Weight	1875	Lb Day
Takt Rate	Auto	Lb Hr
Expected Lead Time	1	Day

5 Enter the demand weight.

Step 4: Draw the Flow for Raw Grains



A0050	I	#0
Grains		
Unit = Ton		
Weight Per Unit	1000	Lb Unit
Inventory	5	Unit
Inventory Requirement	Auto	Lb Week
Days of Inventory	Auto	Day

Z0005		#0
Grain Customer		
Demand Weight	1875	Lb Day
Takt Rate	Auto	Lb Hr
Expected Lead Time	1	Day

Step 5: Draw the Flow for Hay

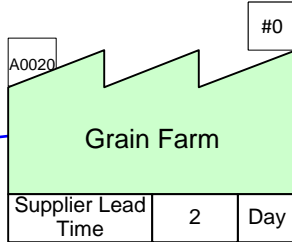
Quick Processing
Sketch Processing



Customer Center

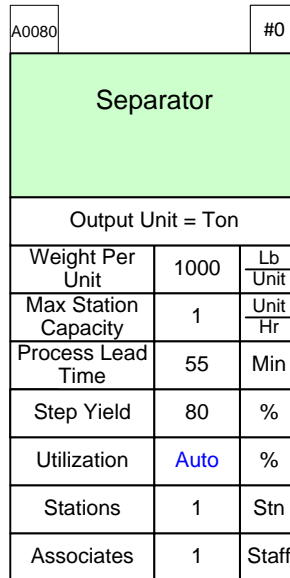
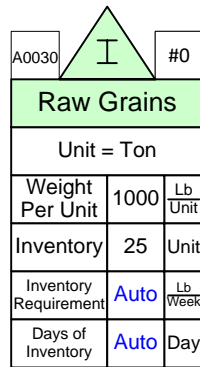


Inventory Center



1

Drag out a Customer Center and Inventory Center for the Hay flow.



Units	Year	Week	day
	52	5	15
	Week	day	Hr

A0070	I	#0
Hay		
Unit = Bale		
Weight Per Unit	500	Lb Unit
Inventory	20	Unit
Inventory Requirement	Auto	Lb Week
Days of Inventory	Auto	Day

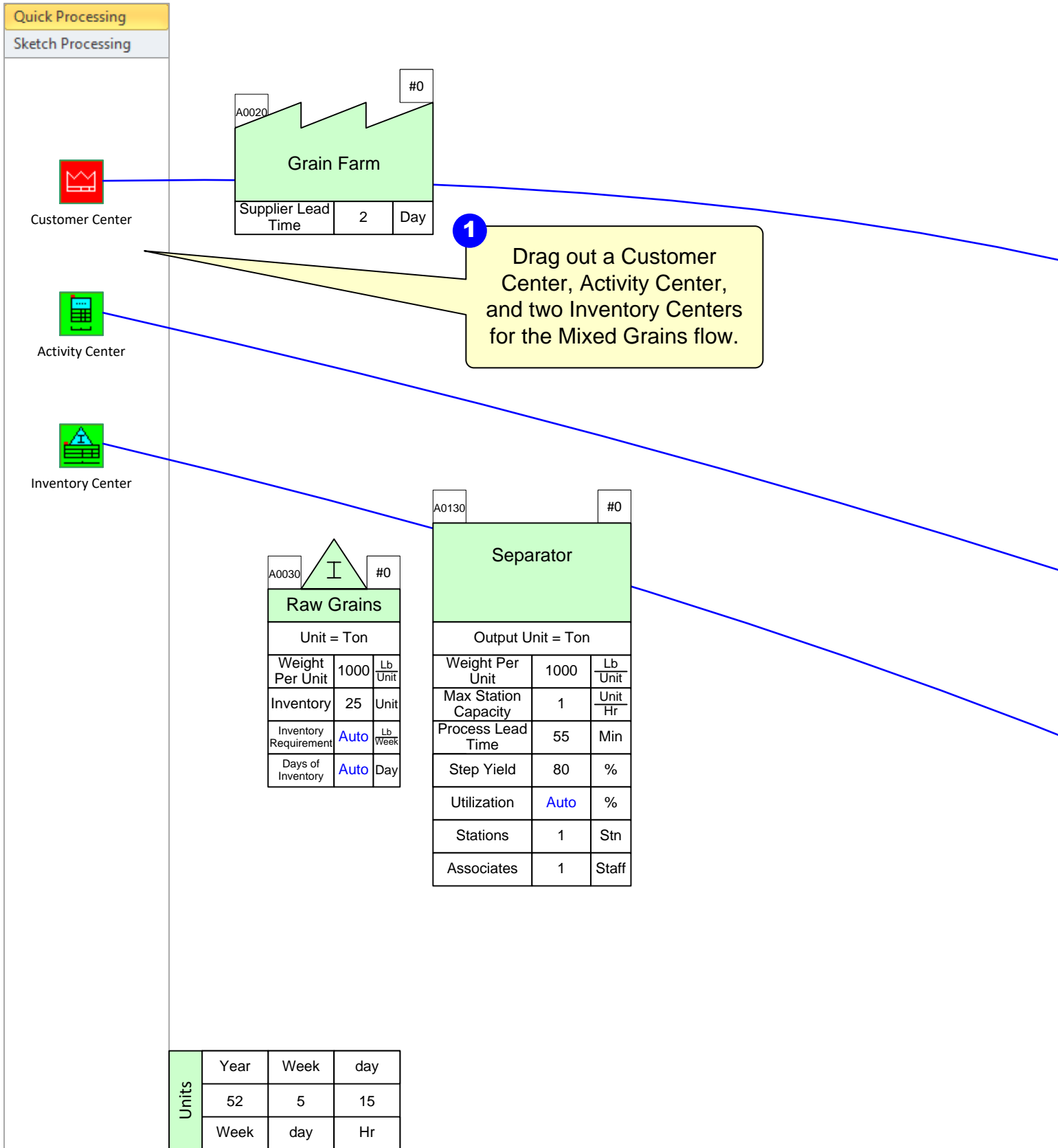
Z0060		#0
Hay Customers		
Demand Weight	10000	Lb Day
Takt Rate	Auto	Lb Hr
Expected Lead Time	1	Day

A0050	I	#0
Grains		
Unit = Ton		
Weight Per Unit	1000	Lb Unit
Inventory	5	Unit
Inventory Requirement	Auto	Lb Week
Days of Inventory	Auto	Day

2 Fill in the data as shown for all shapes.

Z0005		#0
Grain Customer		
Demand Weight	1875	Lb Day
Takt Rate	Auto	Lb Hr
Expected Lead Time	1	Day

Step 6: Draw the Flow for Mixed Grain



A0070	I	#0
Hay		
Unit = Bale		
Weight Per Unit	500	Lb Unit
Inventory	20	Unit
Inventory Requirement	Auto	Lb Week
Days of Inventory	Auto	Day

Z0060	#0
Hay Customers	
Demand Weight	10000 Lb Day
Takt Rate	Auto Lb Hr
Expected Lead Time	1 Day

A0050	I	#0
Grains		
Unit = Ton		
Weight Per Unit	1000	Lb Unit
Inventory	5	Unit
Inventory Requirement	Auto	Lb Week
Days of Inventory	Auto	Day

2 Fill in the data as shown for all shapes.

Z0005	#0
Grain Customer	
Demand Weight	1875 Lb Day
Takt Rate	Auto Lb Hr
Expected Lead Time	1 Day

A0110	I	#0
Quinoa		
Unit = Ton		
Weight Per Unit	1000	Lb Unit
Inventory	1	Unit
Inventory Requirement	Auto	Lb Week
Days of Inventory	Auto	Day

A0100	#0
Mixing	
Output Unit = Bag	
Weight Per Unit	25 Lb Unit
Max Station Capacity	15 Unit Hr
Process Lead Time	25 Min
Step Yield	100 %
Utilization	Auto %
Stations	1 Stn
Associates	1 Staff

A0090	I	#0
Mixed Grain		
Unit = Bag		
Weight Per Unit	25	Lb Unit
Inventory	105	Unit
Inventory Requirement	Auto	Lb Week
Days of Inventory	Auto	Day

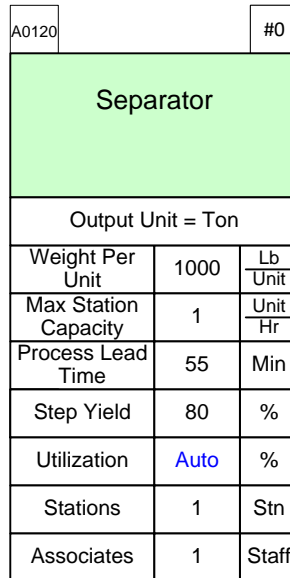
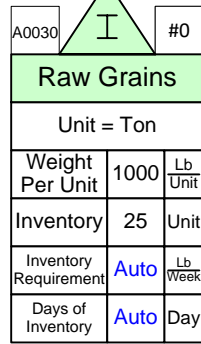
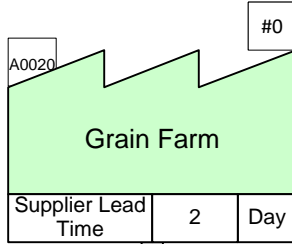
Z0080	#0
Mixed Grain Customers	
Demand Weight	1250 Lb Day
Takt Rate	Auto Lb Hr
Expected Lead Time	1 Day

Step 7: Add Arrows

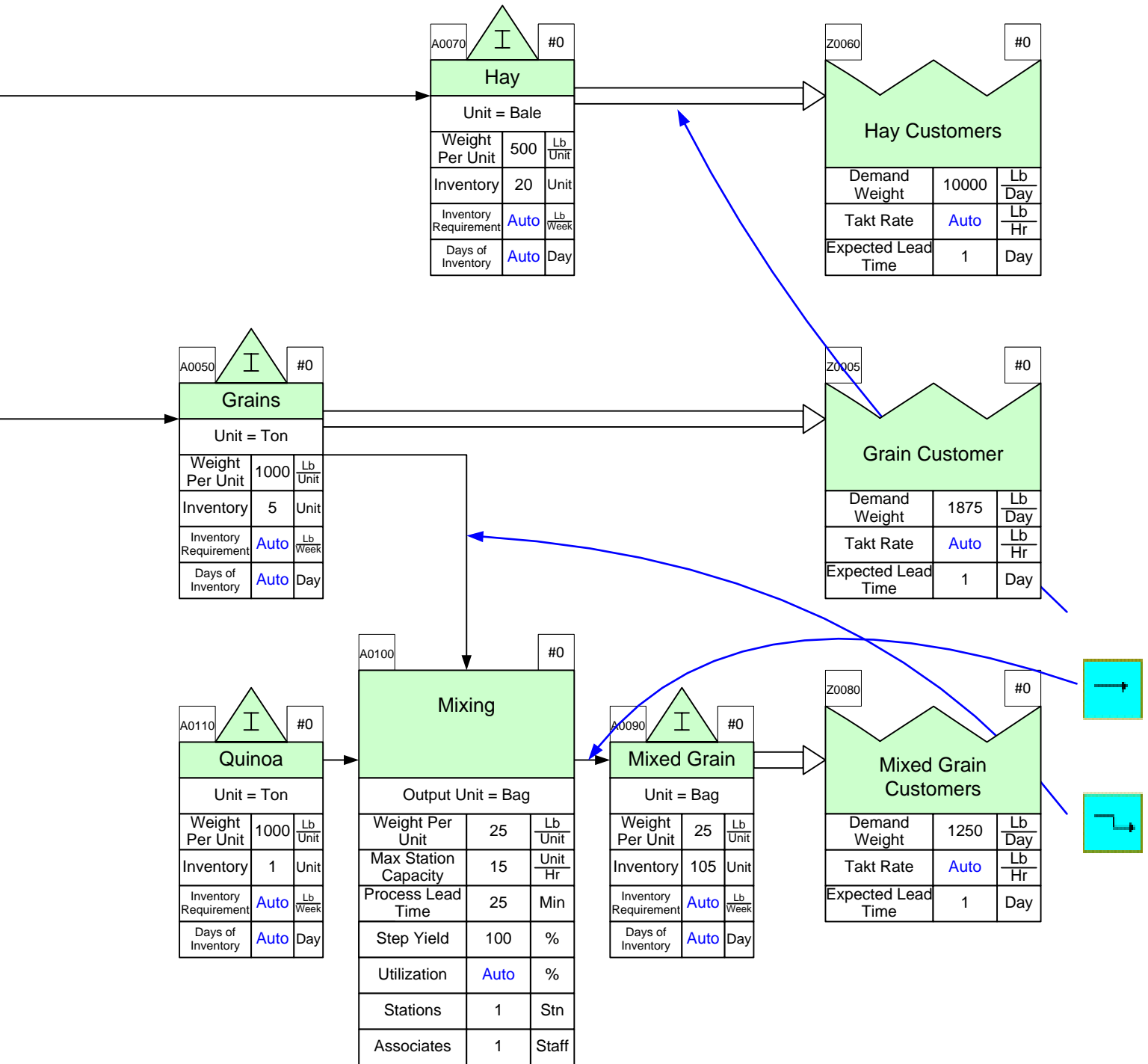
Quick Processing

Sketch Processing

Units	Year	Week	day
	52	5	15
	Week	day	Hr



1 Drag out arrows from the eVSM Arrows stencil as shown to visualize the flow.



Step 8: Sequence Path 1

Quick Processing

Sketch Processing

Units	Year	Week	day
	52	5	15
	Week	day	Hr

A0020 #0

A

Supplier Lead Time	2	Day
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A0030 #0


B

Weight Per Unit	1000	Lb Unit
Inventory	25	Unit
Inventory Requirement	Auto	Lb Week
Days of Inventory	Auto	Day

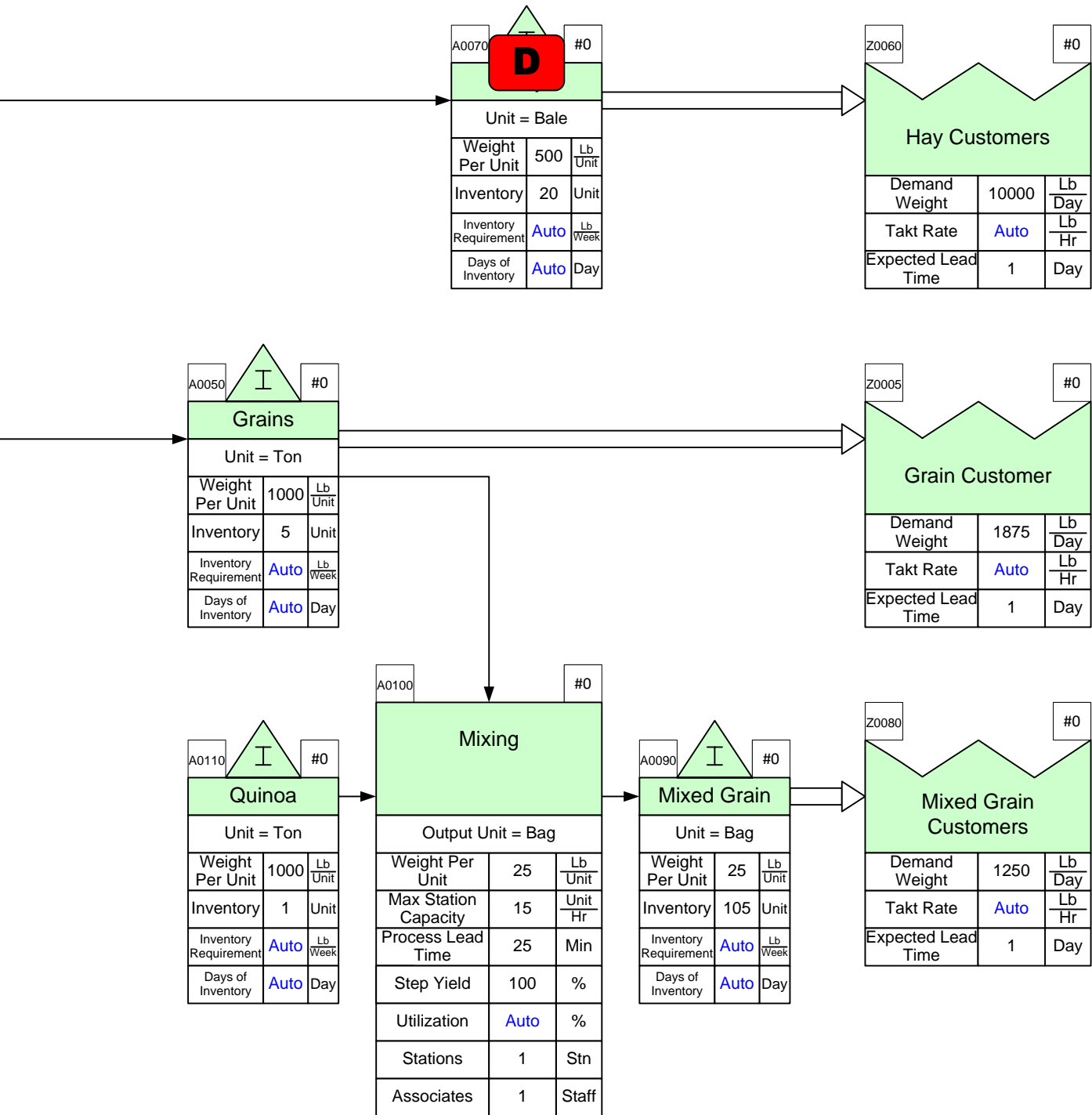
A0130 #0

C


Weight Per Unit	1000	Lb Unit
Max Station Capacity	1	Unit Hr
Process Lead Time	55	Min
Step Yield	80	%
Utilization	Auto	%
Stations	1	Stn
Associates	1	Staff

2 Click the Sequence button.  Sequence

1 Hold down the Shift key and select the green shapes in the order shown. This will be path 1.



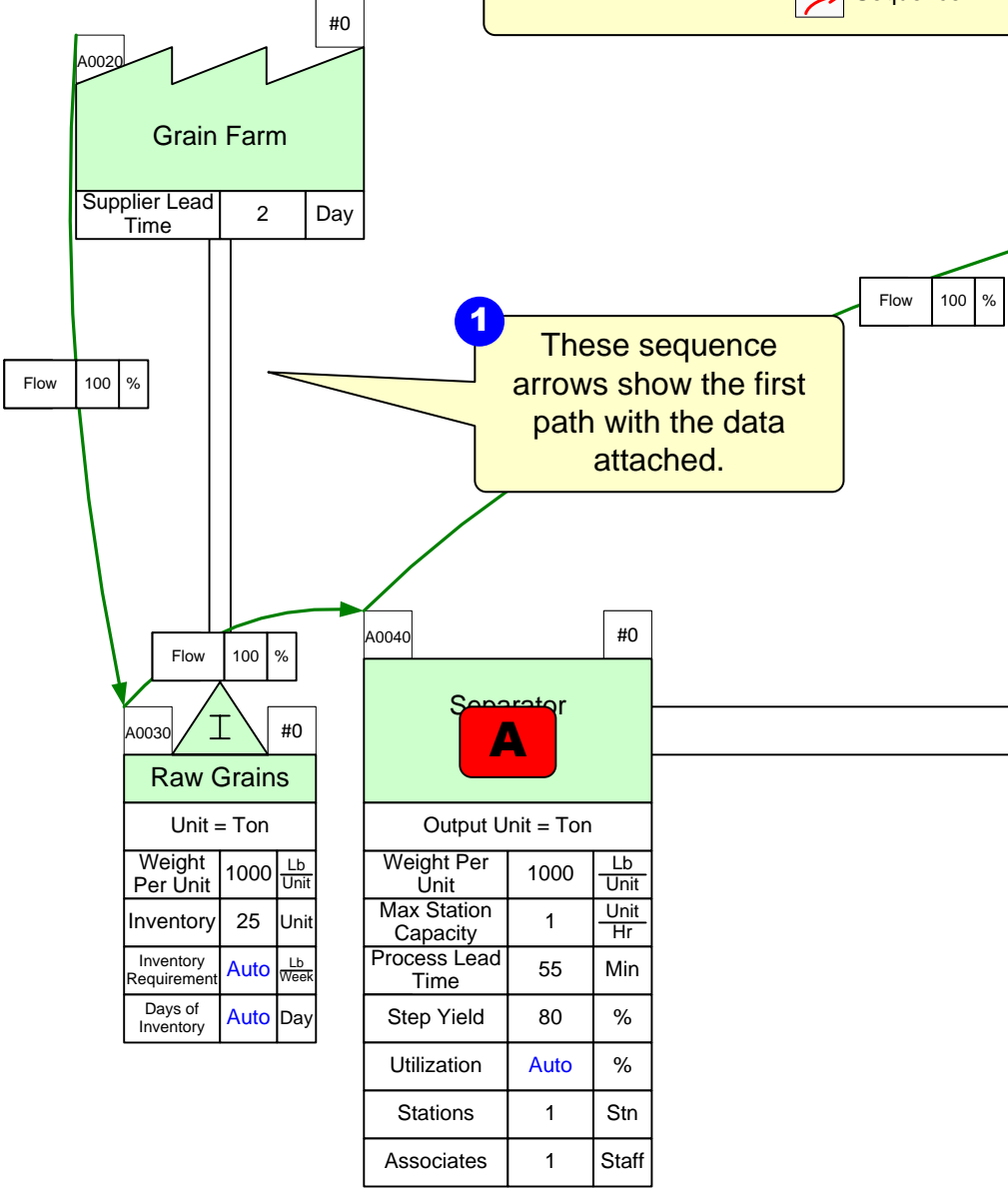
Step 9: Sequence Path 2

2 Again, hold down the Shift key, select the shapes in order for Path 2, then click the Sequence button.  Sequence

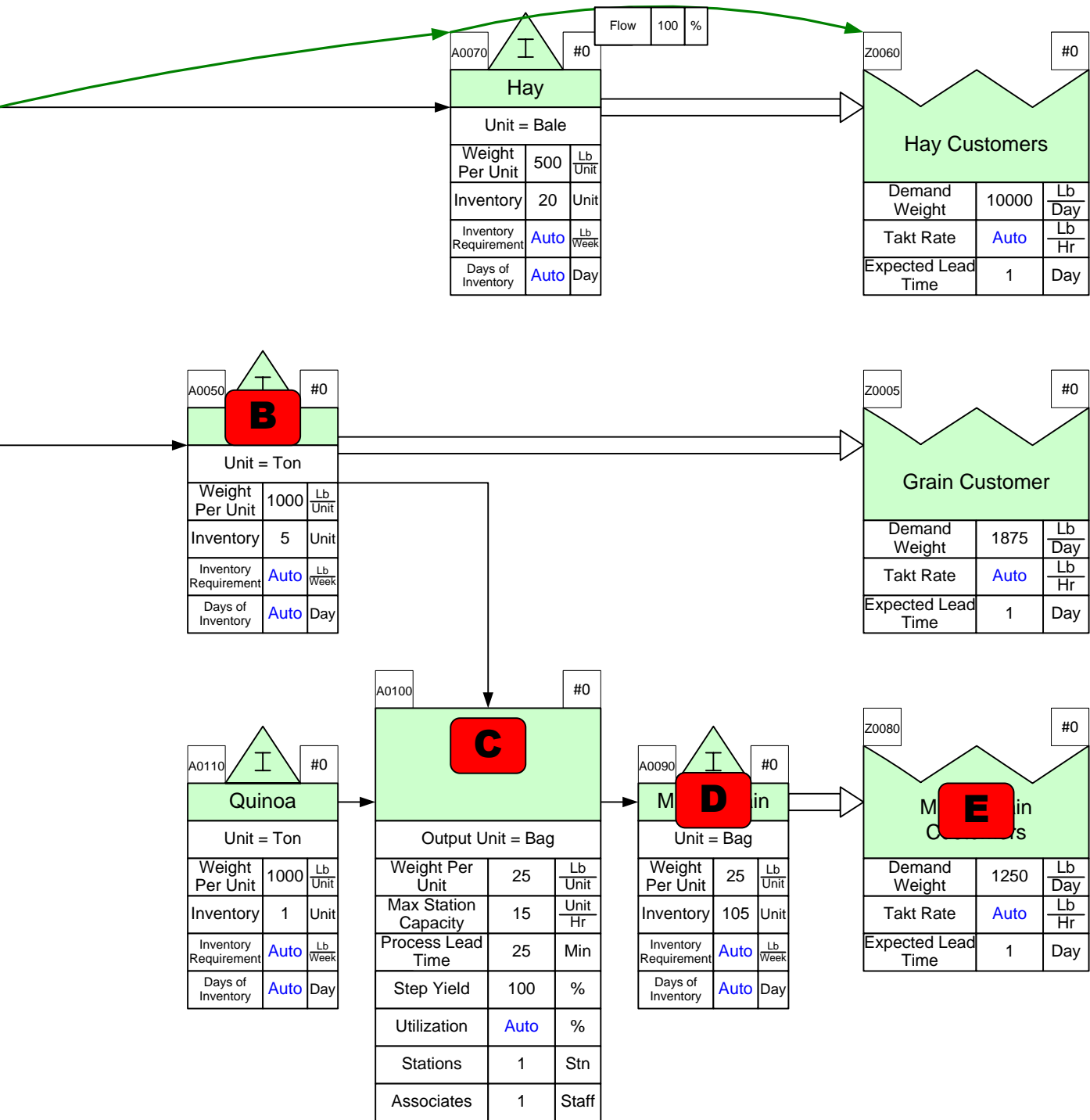
1 These sequence arrows show the first path with the data attached.

Quick Processing


Sketch Processing



Units	Year	Week	day
	52	5	15
	Week	day	Hr

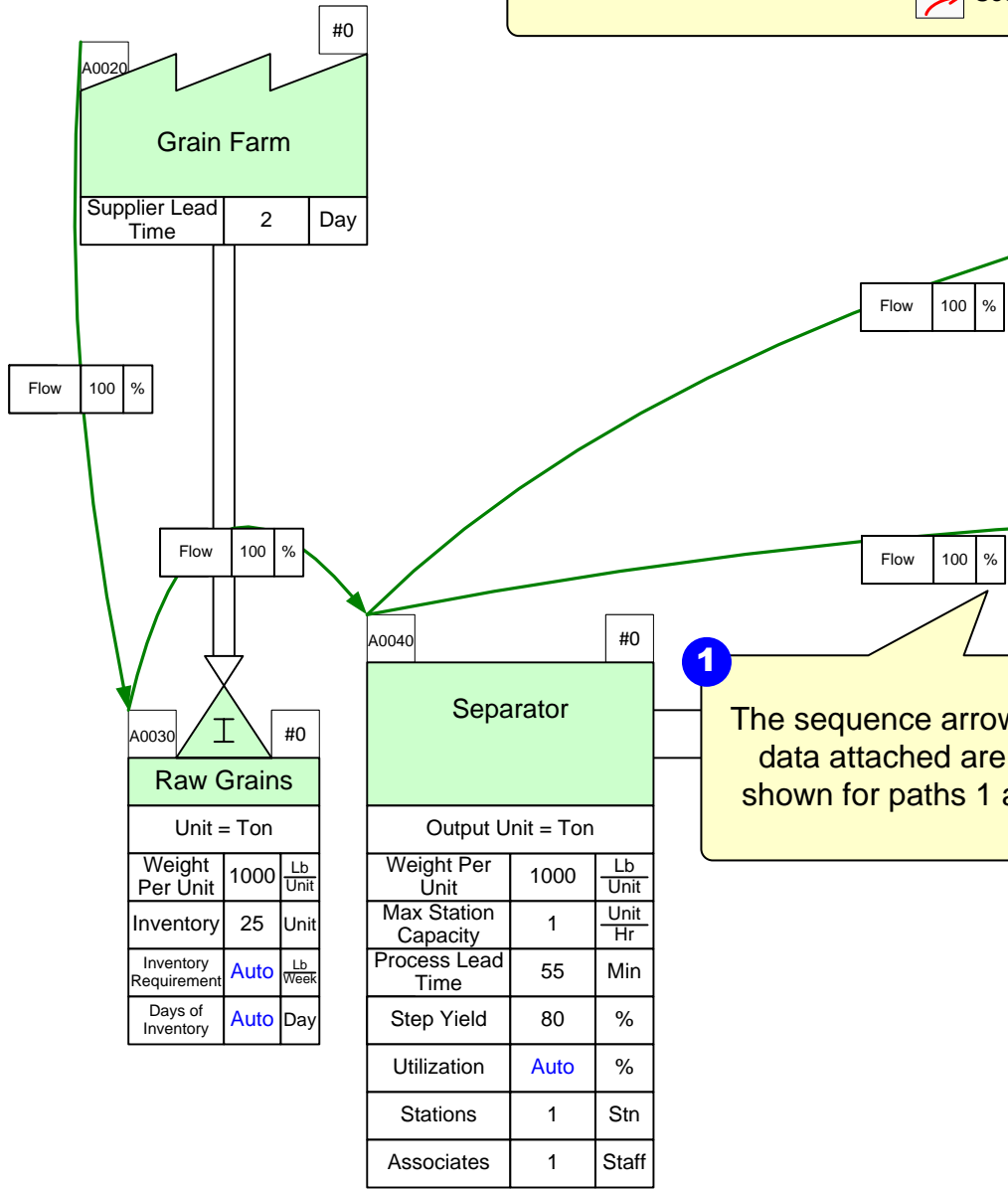


Step 10: Sequence Path 3

2 Again, hold down the Shift key, select the shapes in order for Path 3, then click the Sequence button.  Sequence

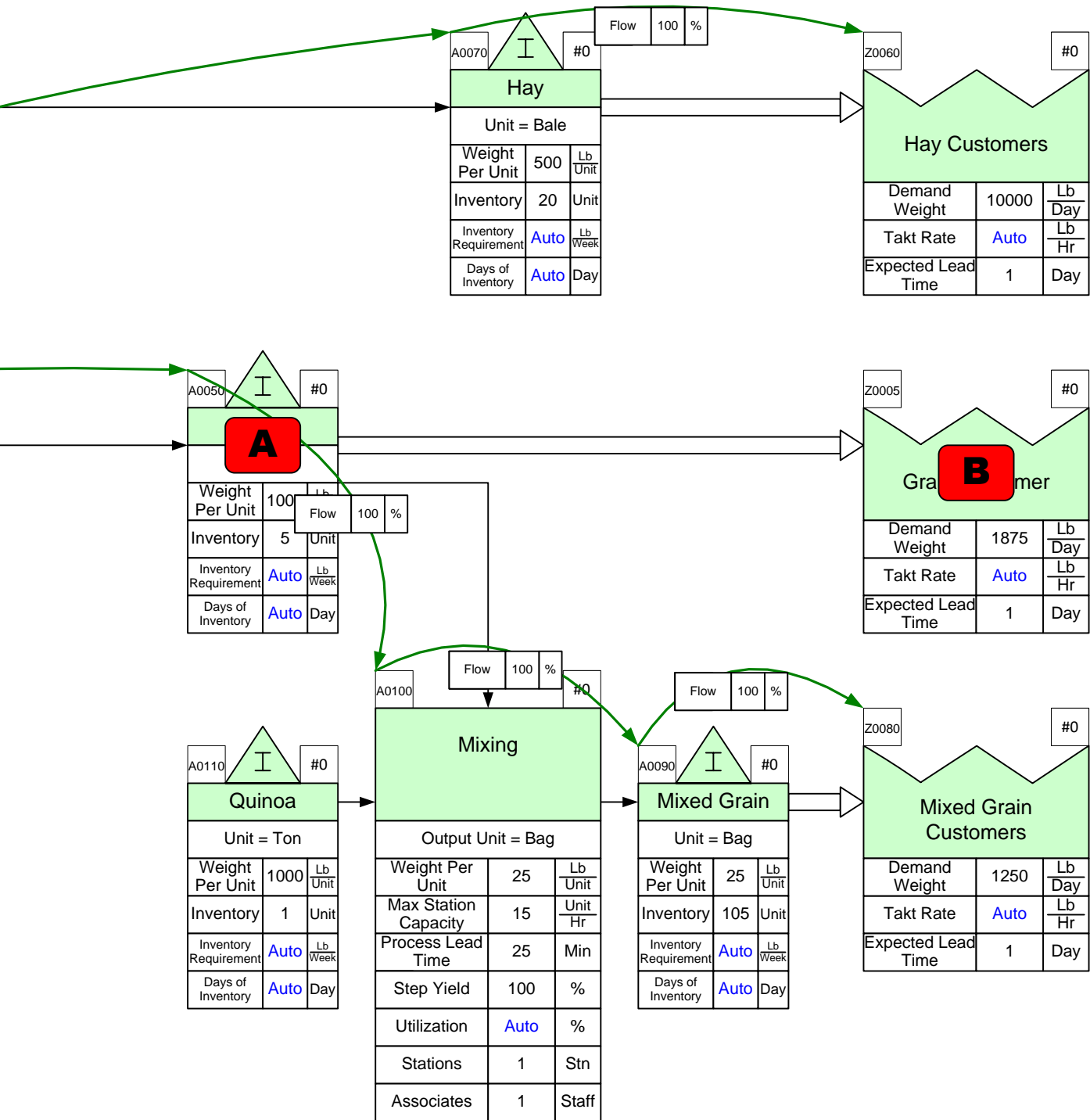
Quick Processing

Sketch Processing




1 The sequence arrows with data attached are now shown for paths 1 and 2.

Units	Year	Week	day
	52	5	15
	Week	day	Hr

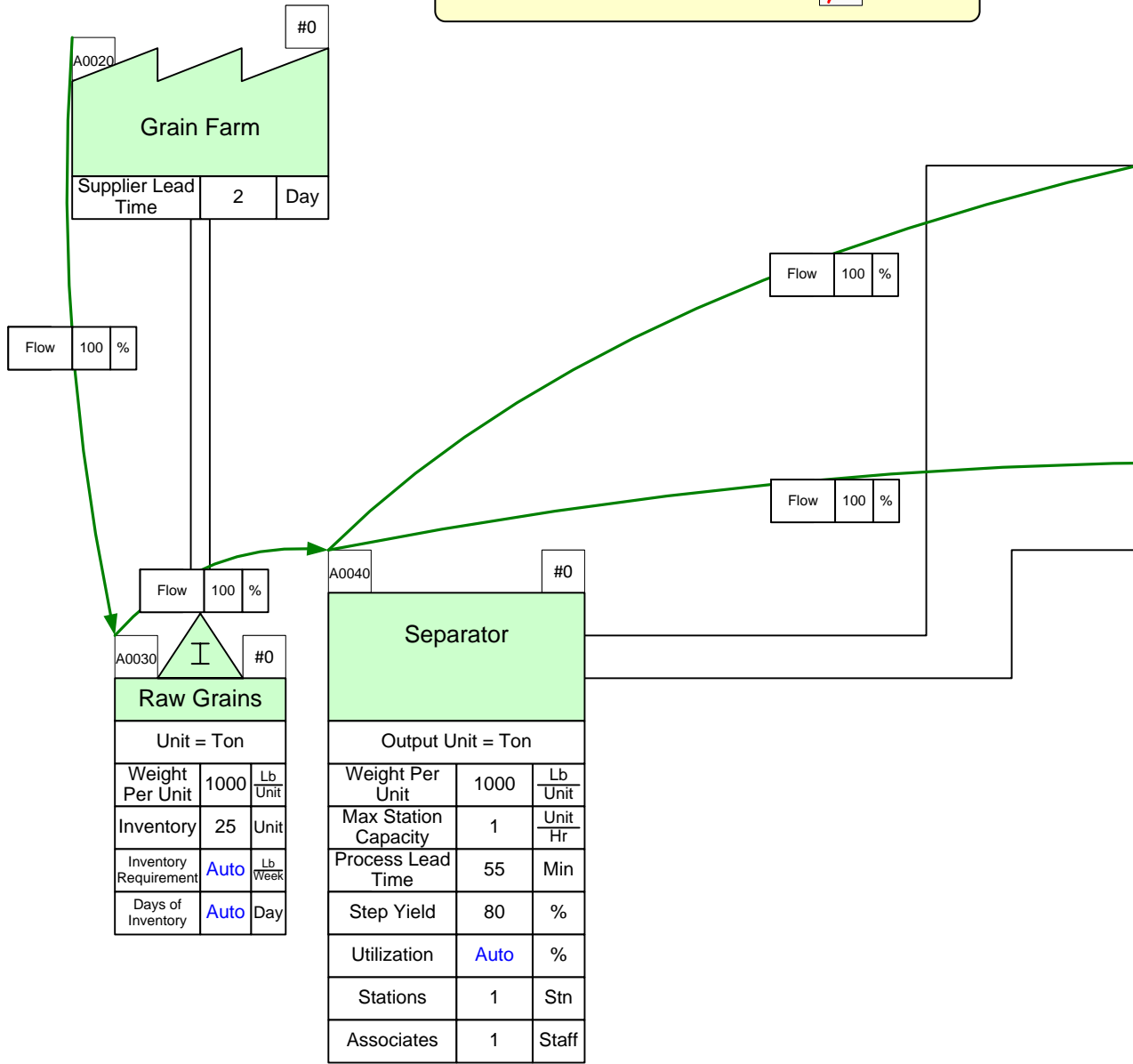


Step 11: Sequence Path 4

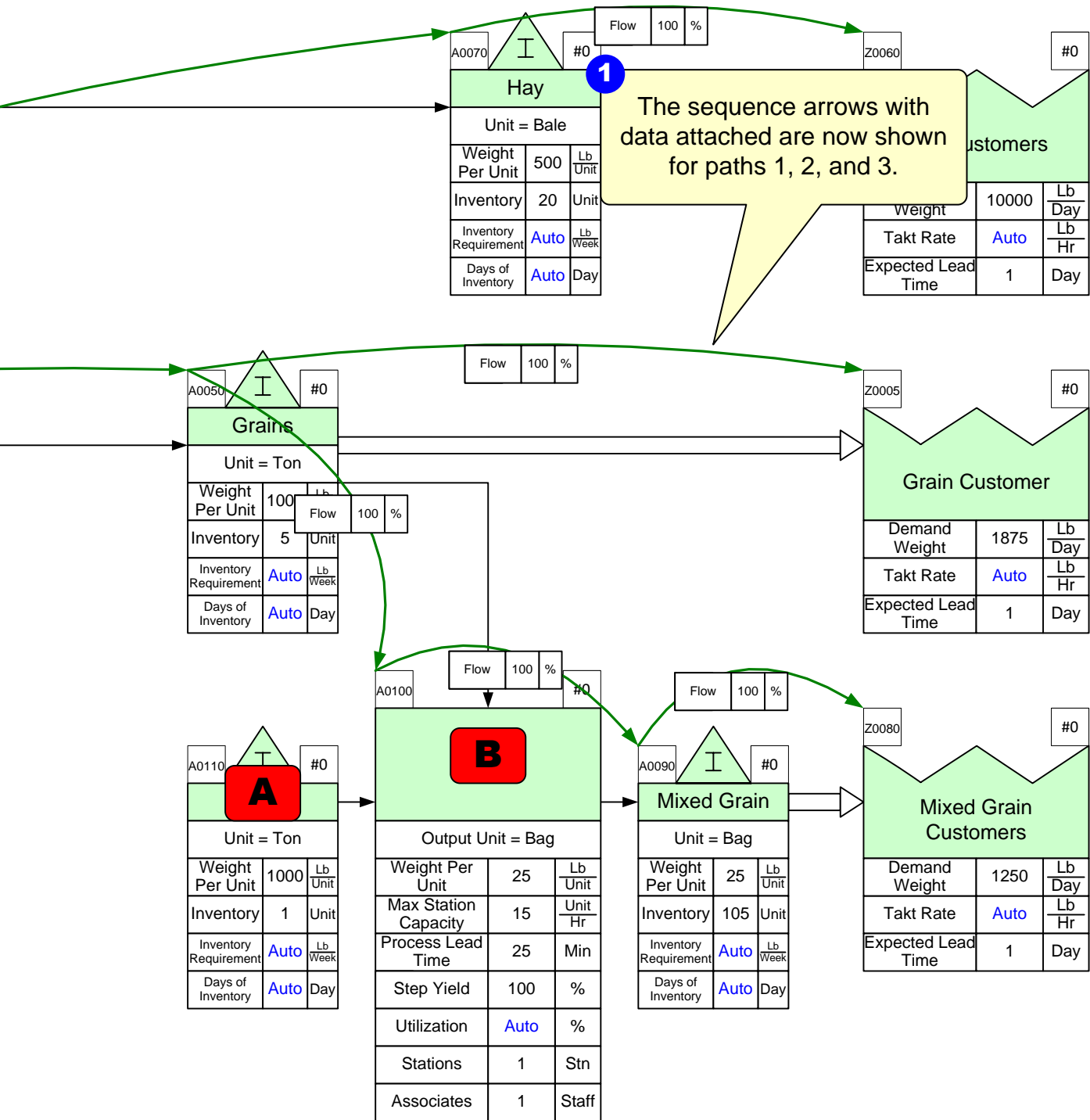
2 Again, hold down the Shift key, select the shapes in order for Path 4, then click the Sequence button.  Sequence

Quick Processing

Sketch Processing



Units	Year	Week	day
	52	5	15
	Week	day	Hr

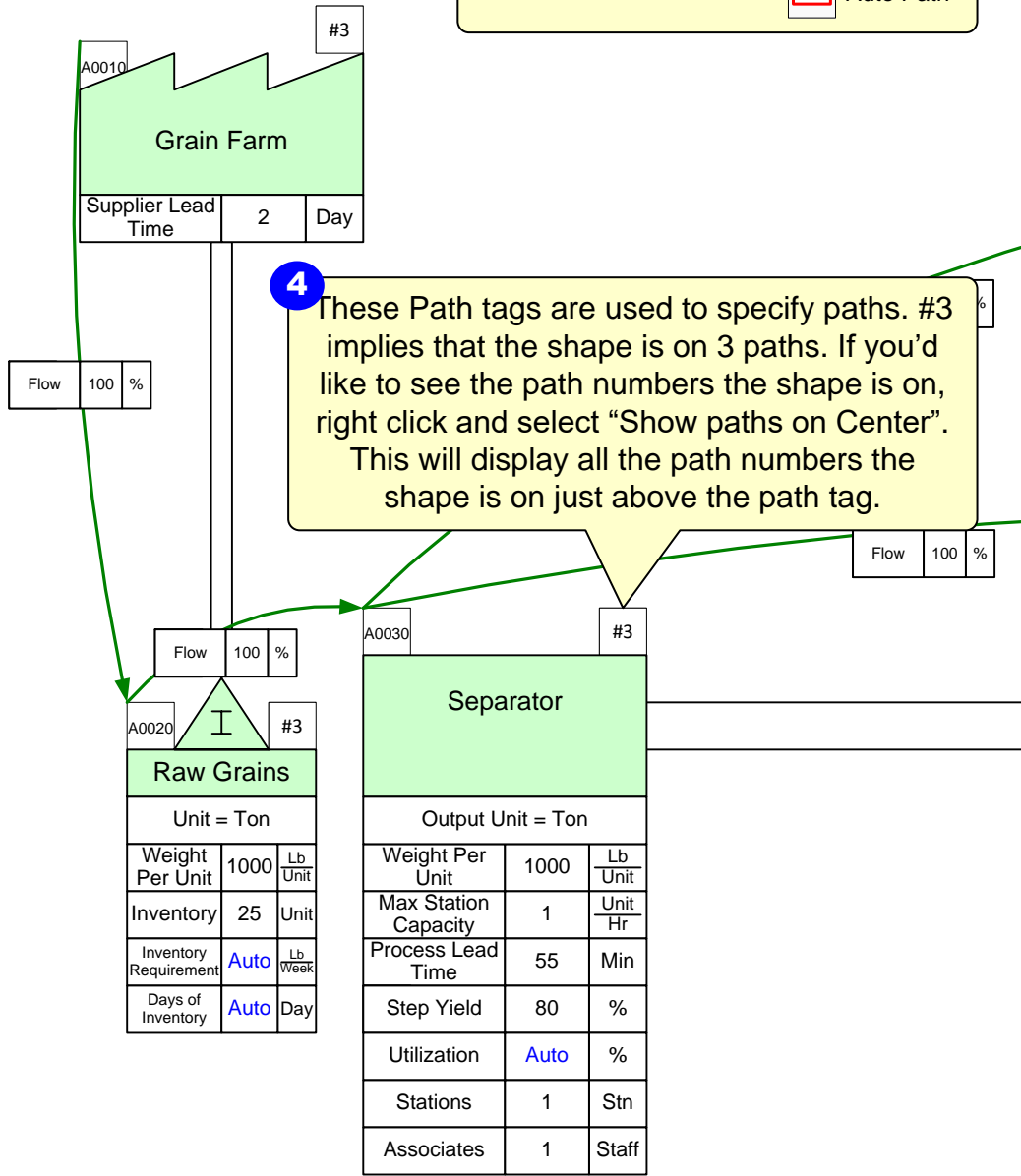


Step 12: Create Path Numbers Based on Sequence Arrows

Quick Processing

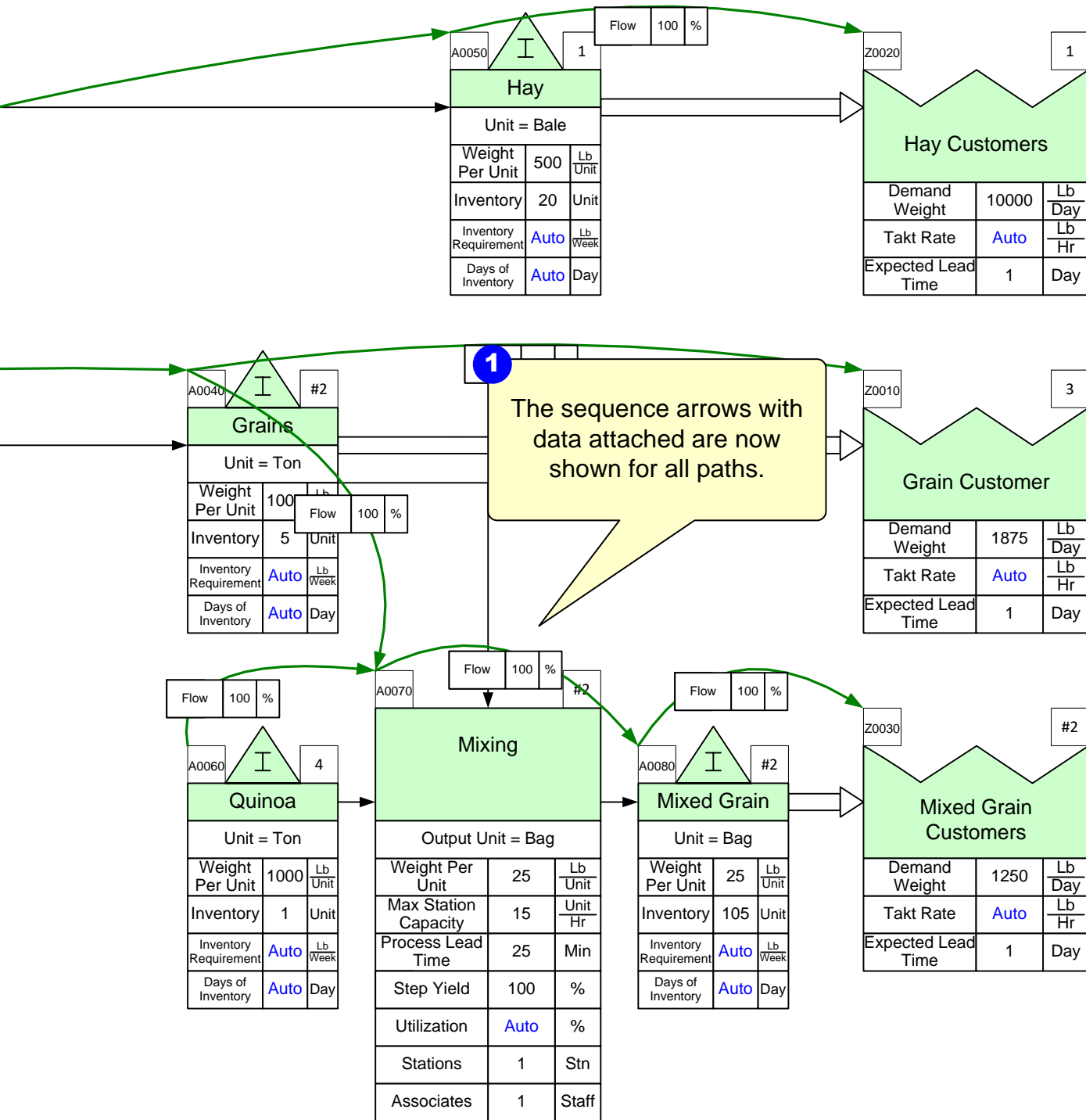
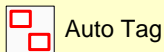
Sketch Processing

Units	Year	Week	day
	52	5	15
	Week	day	Hr




NOTE: Your path numbers may be different than shown but the calculations will still be correct.

3 Click Auto Tag to automatically re-order the tag numbers based on the sequence arrows.

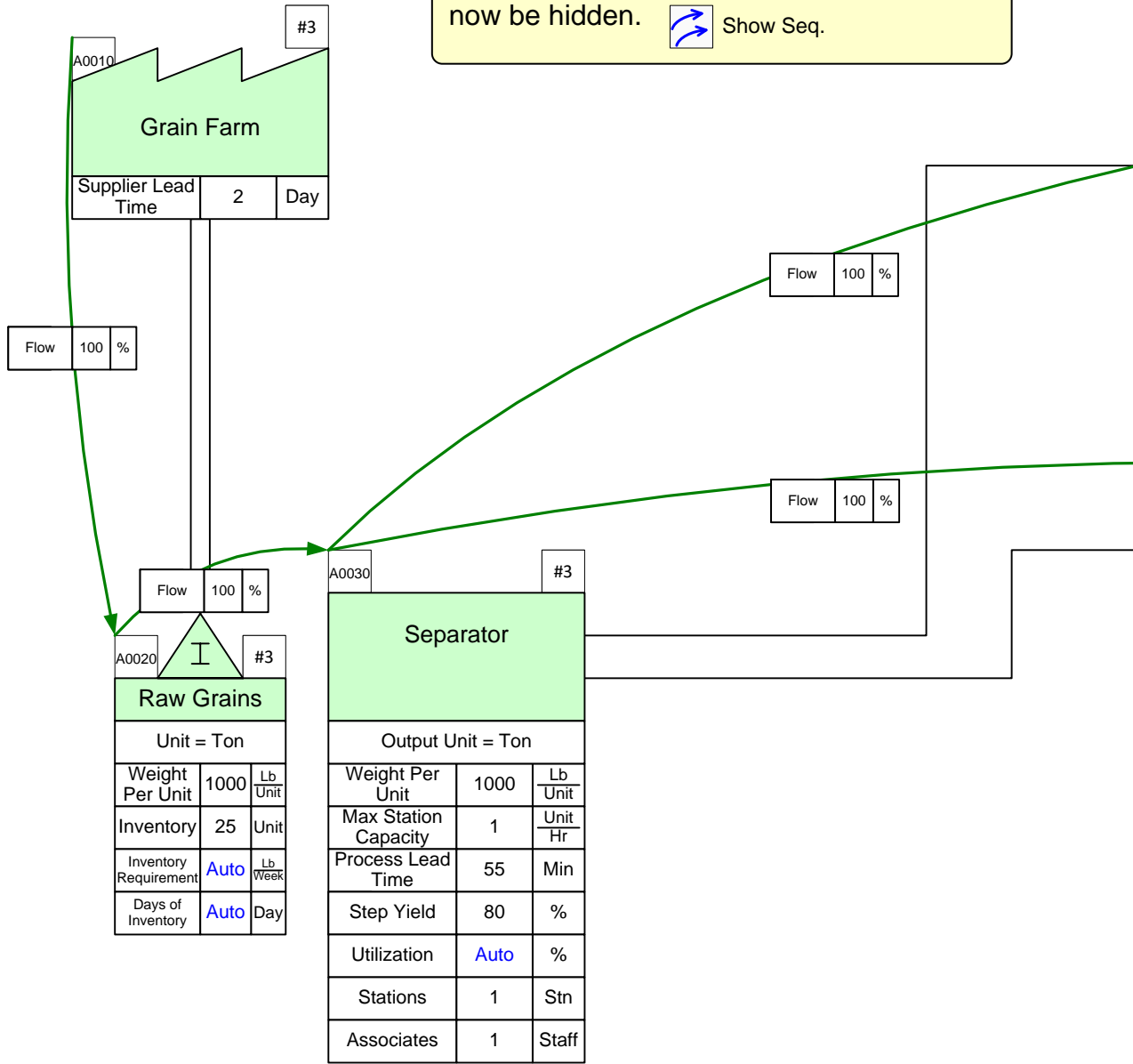


Step 13: Update Sequence Data

3 The Sequence Arrows can be hidden or shown by clicking the Show Sequence button. To simplify the map, the arrows will now be hidden.  Show Seq.

Quick Processing

Sketch Processing



Supplier Lead Time	2	Day
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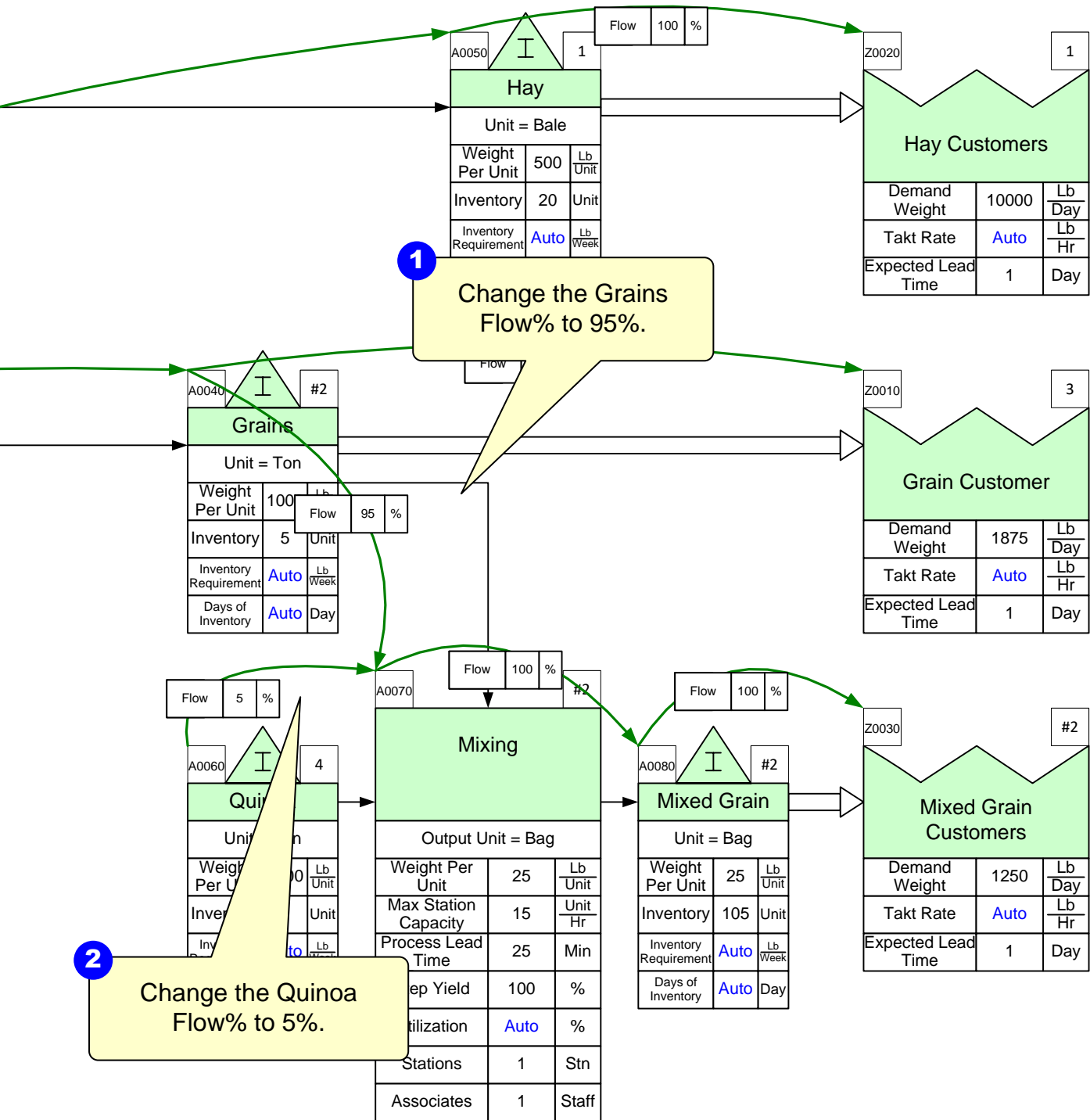
Flow	100	%
------	-----	---

Flow	100	%
------	-----	---

A0020	#3
Raw Grains	
Unit = Ton	
Weight Per Unit	1000 Lb Unit
Inventory	25 Unit
Inventory Requirement	Auto Lb Week
Days of Inventory	Auto Day

A0030	#3
Separator	
Output Unit = Ton	
Weight Per Unit	1000 Lb Unit
Max Station Capacity	1 Unit Hr
Process Lead Time	55 Min
Step Yield	80 %
Utilization	Auto %
Stations	1 Stn
Associates	1 Staff

Units	Year	Week	day
	52	5	15
	Week	day	Hr



Step 14: Add-Ons

Quick Processing

Sketch Processing

Activity Center

Activity Scrap

Activity Setup

Units	Year	Week	day
	52	5	15
	Week	day	Hr

A0010 #3

Grain Farm		
Supplier Lead Time	2	Day

Flow 100 %

1 Note how all these yellow add-on names start with the word "Activity." Yellow Add-ons that follow a green Center can only be used with that Center. So, these "Activity..." add-ons can be used only with the Activity Center.

Flow 100 %

A0020 #3

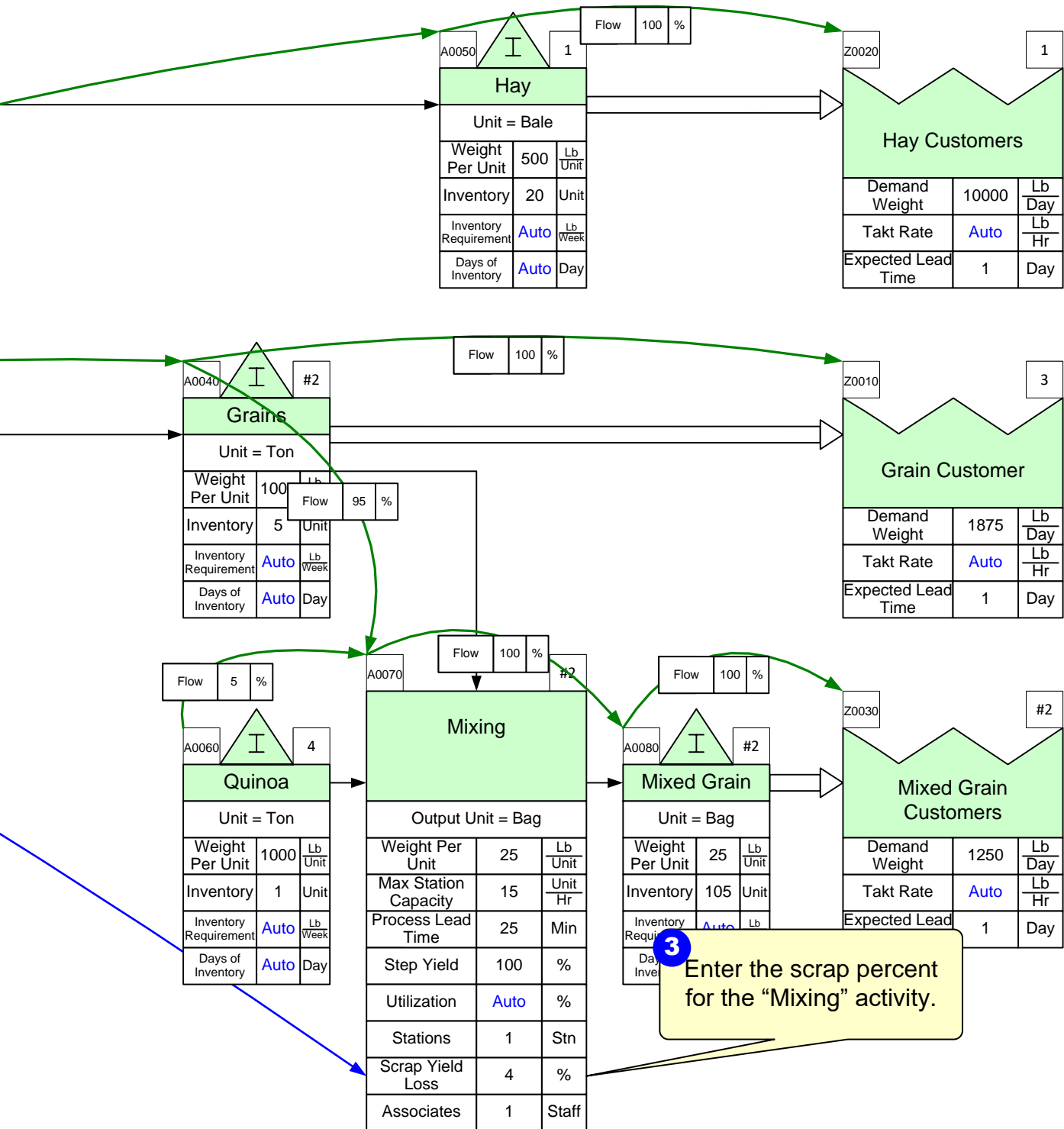
Raw Grains		
Unit = Ton		
Weight Per Unit	1000	Lb Unit
Inventory	25	Unit
Inventory Requirement	Auto	Lb Week
Days of Inventory	Auto	Day

A0030 #3

Separator		
Output Unit = Ton		
Weight Per Unit	1000	Lb Unit
Max Station Capacity	1	Unit Hr
Process Lead Time	55	Min
Step Yield	80	%
Utilization	Auto	%
Stations	1	Stn
Setups	1	StUp Day
Time Per Setup	40	Min StUp
Associates	1	Staff

Flow 100 %

2 Enter the setup time for the "Separator" activity.



Step 15: Add Arrow Data

Quick Processing

Sketch Processing

 Sequence Center

 Sequence Output Weight

A0010 #3

Grain Farm

Supplier Lead Time	2	Day
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Flow 100 %

A0020 #3

Raw Grains

Unit = Ton

Weight Per Unit	1000	Lb Unit
Inventory	25	Unit
Inventory Requirement	Auto	Lb Week
Days of Inventory	Auto	Day

A0030 #3


Separator

Output Unit = Ton

Weight Per Unit	1000	Lb Unit
Max Station Capacity	1	Unit Hr
Process Lead Time	55	Min
Step Yield	80	%
Utilization	Auto	%
Stations	1	Stn
Setups	1	StUp Day
Time Per Setup	40	Min StUp
Associates	1	Staff

Flow	100	%
UOW%	80	%
Cost Allocation	4	%

Flow	100	%
UOW%	20	%
Cost Allocation	96	%

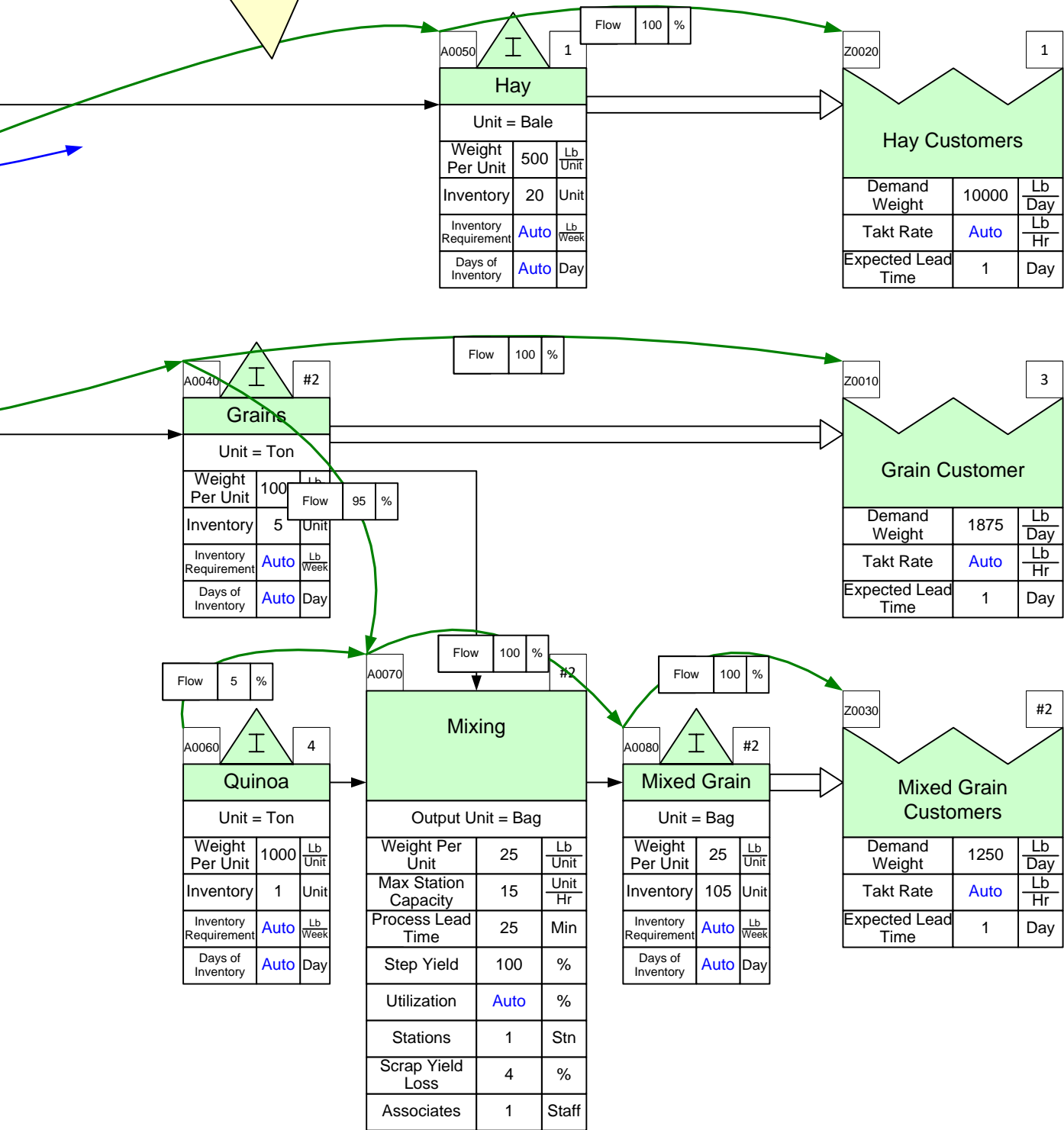
1 Click the Show Seq button on the toolbar to show the Sequence Arrows again.  Show Seq.

3 Enter cost allocations and UOW% for both add-ons.

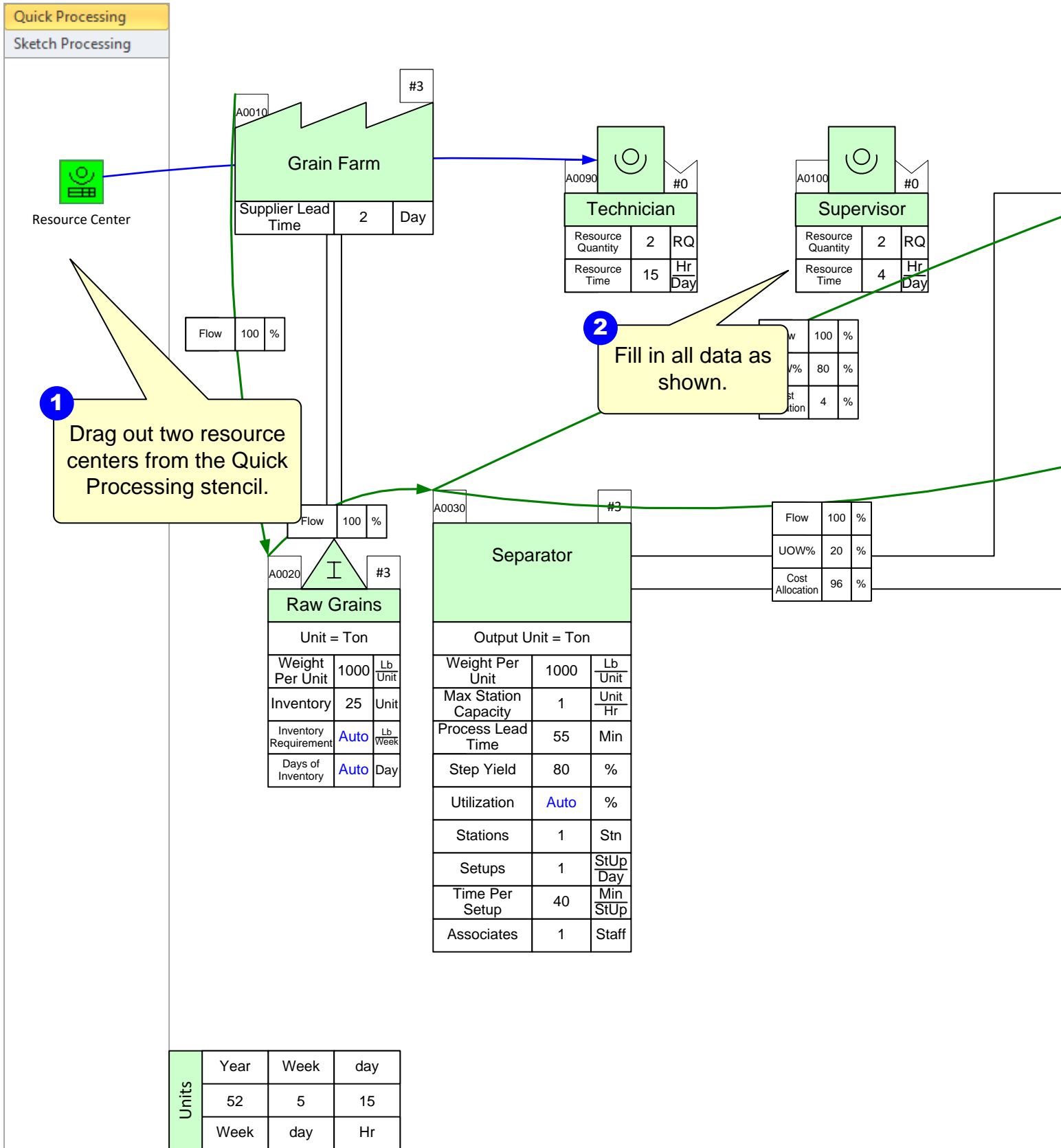
2 Drag out a Sequence Output Weight add-on and glue it under the Flow% from Separator to Grains and Separator to Hay.

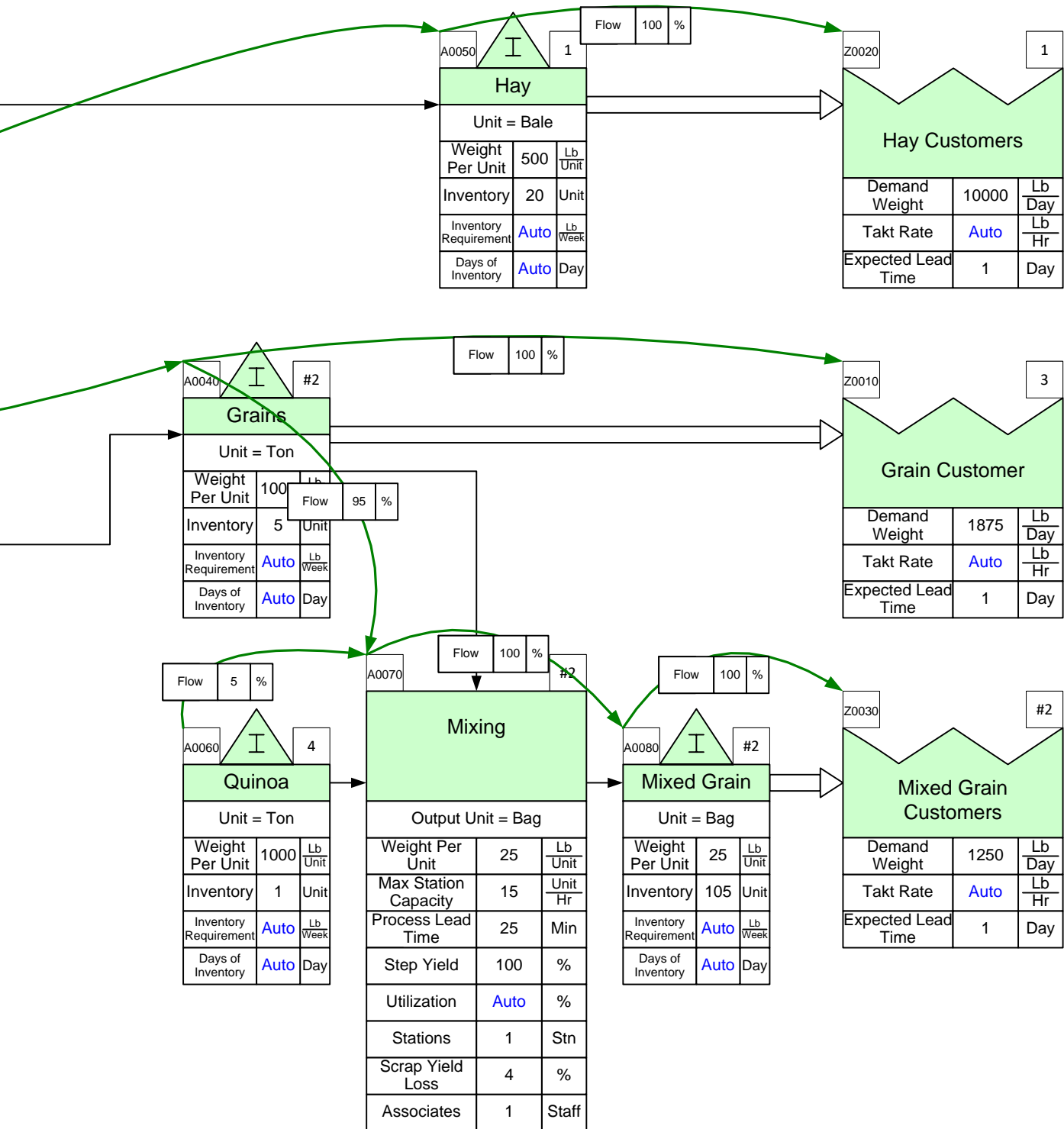
Units	Year	Week	day
	52	5	15
	Week	day	Hr

4 To create more room, select the Sequence Arrow and use the yellow diamond to change the curvature of the arrow.

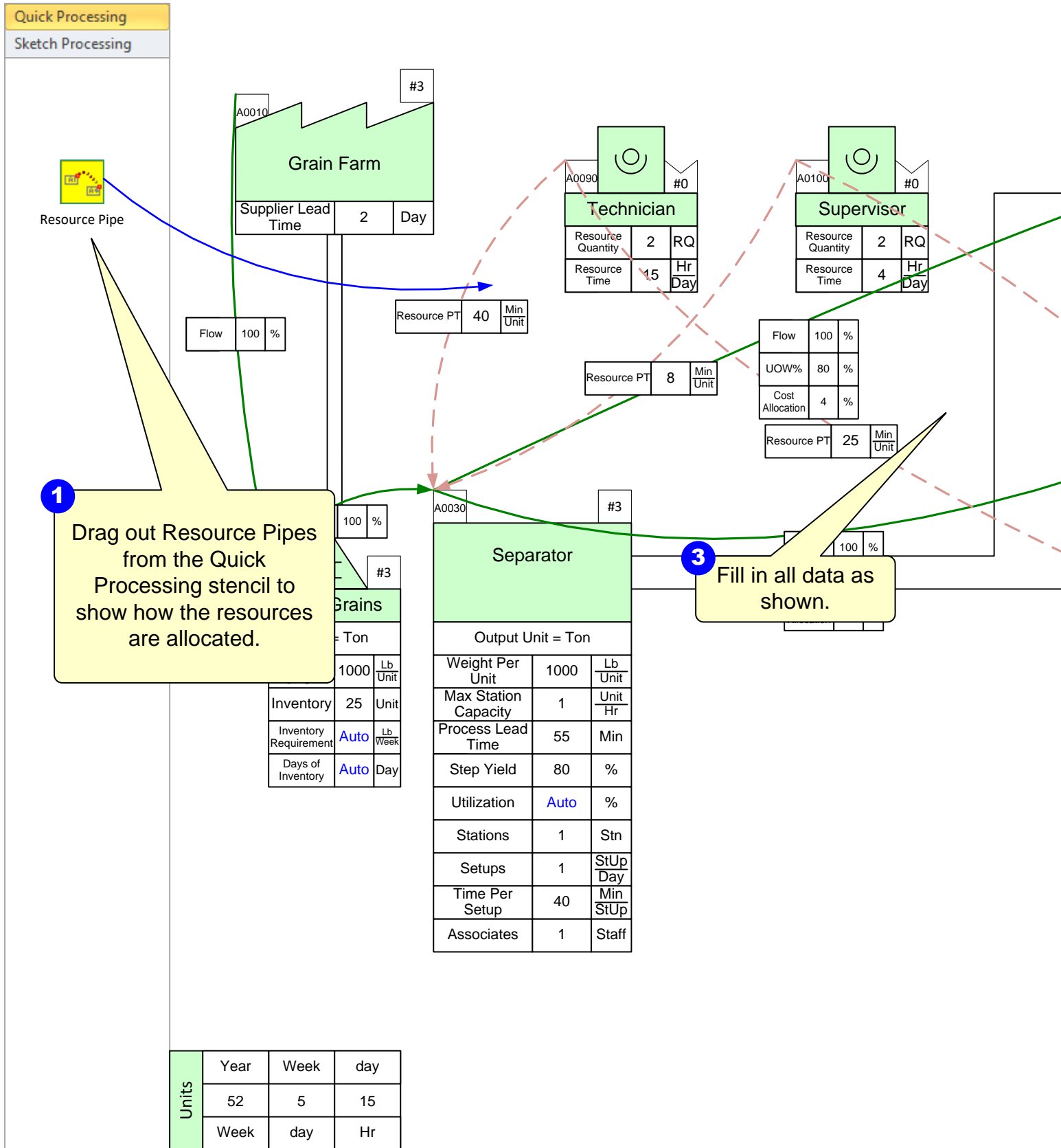


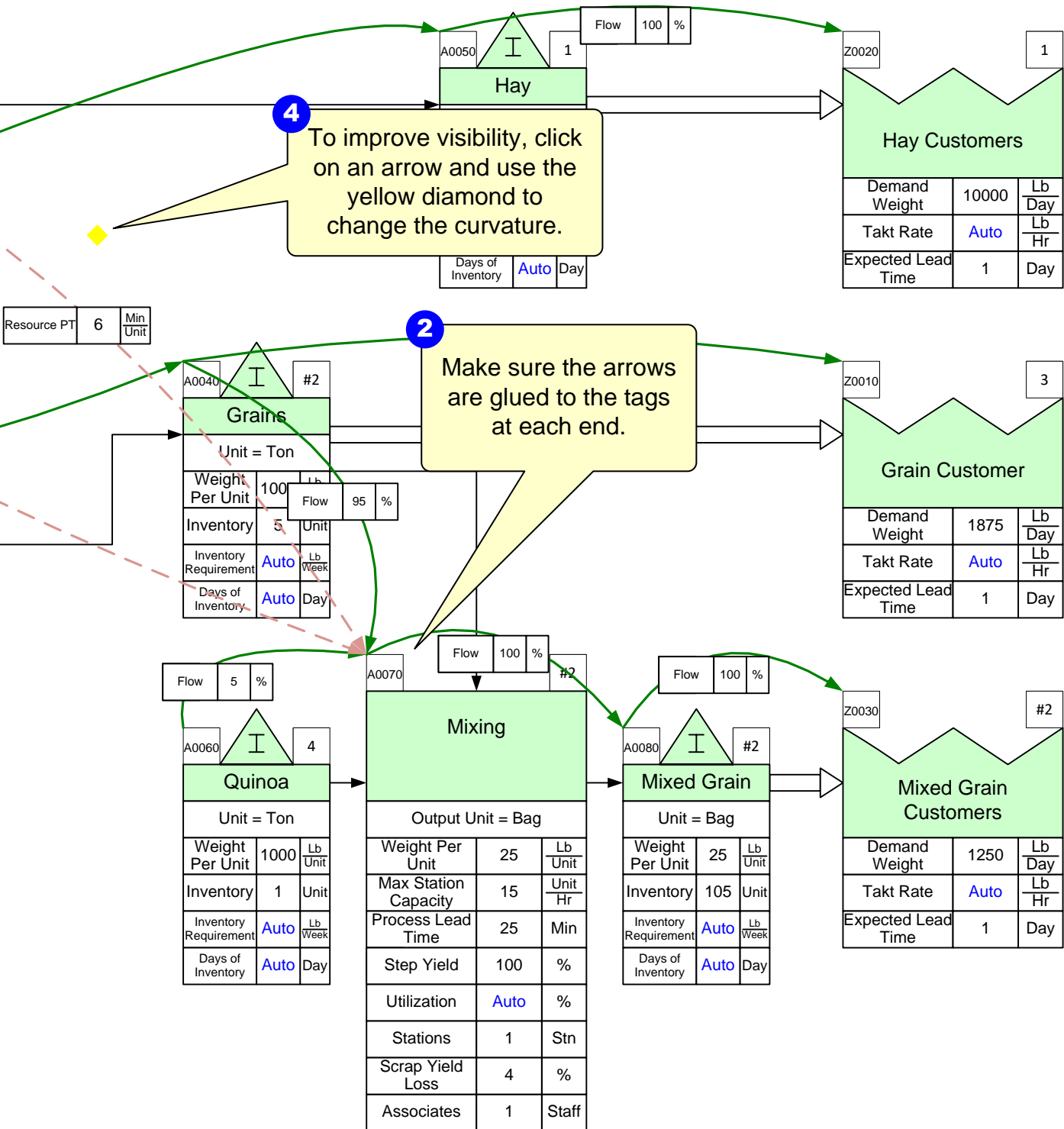
Step 16: Add Resource Centers






Step 17: Add Resource Pipes



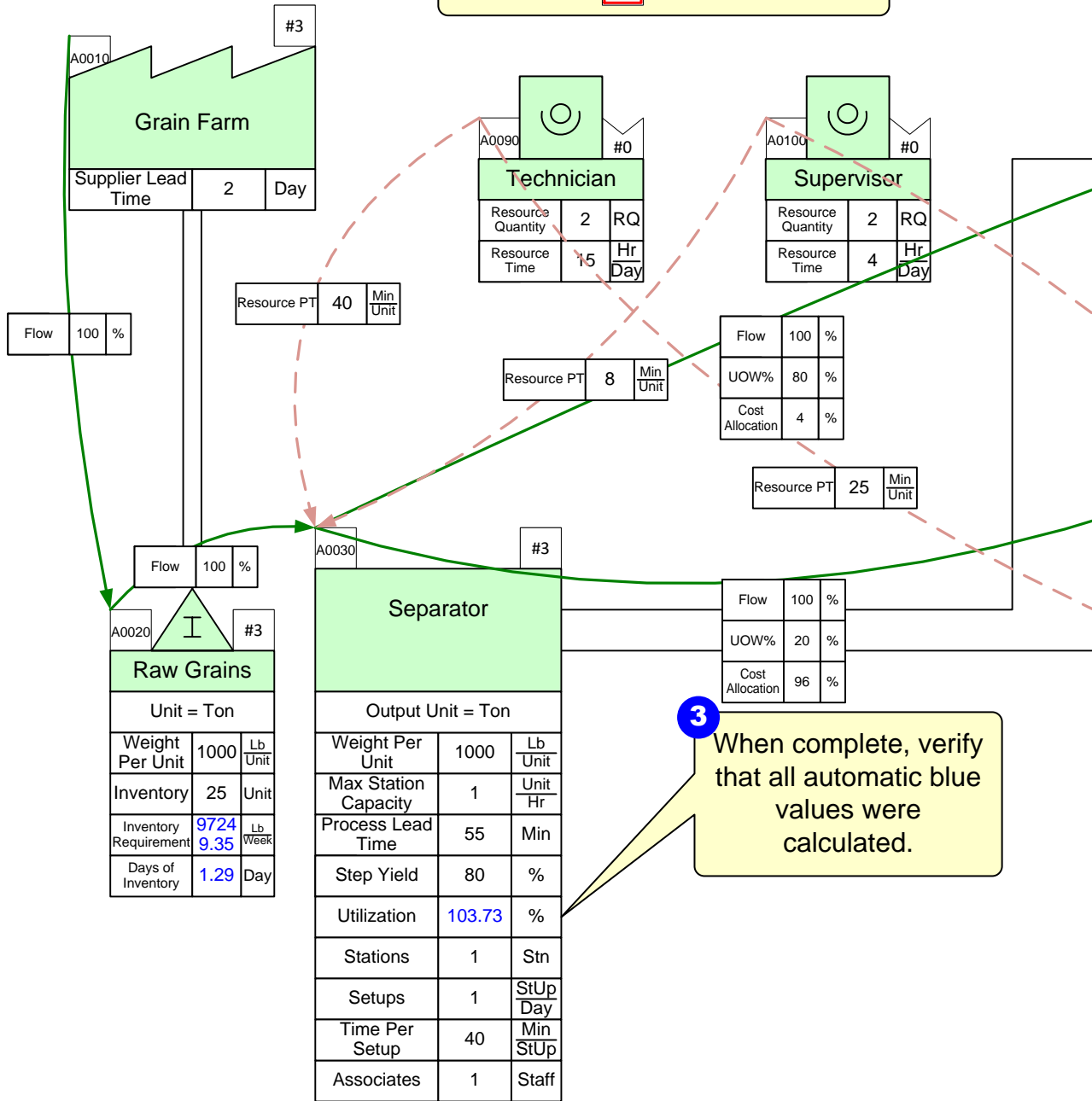


Step 18: Solve the model

1 Click on the Check button on the toolbar to check for any errors in the map.  Check

Quick Processing

Sketch Processing

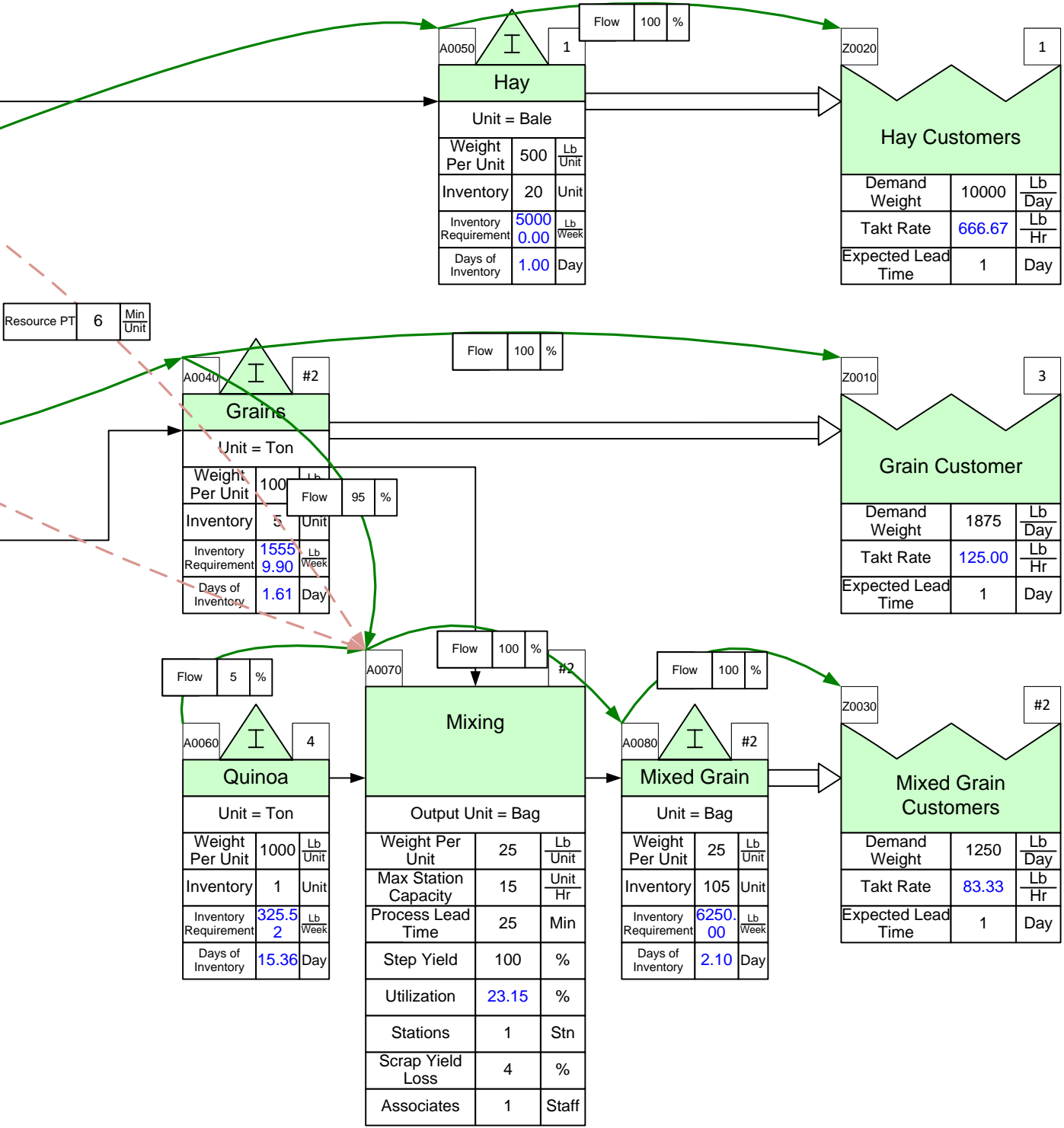


3 When complete, verify that all automatic blue values were calculated.

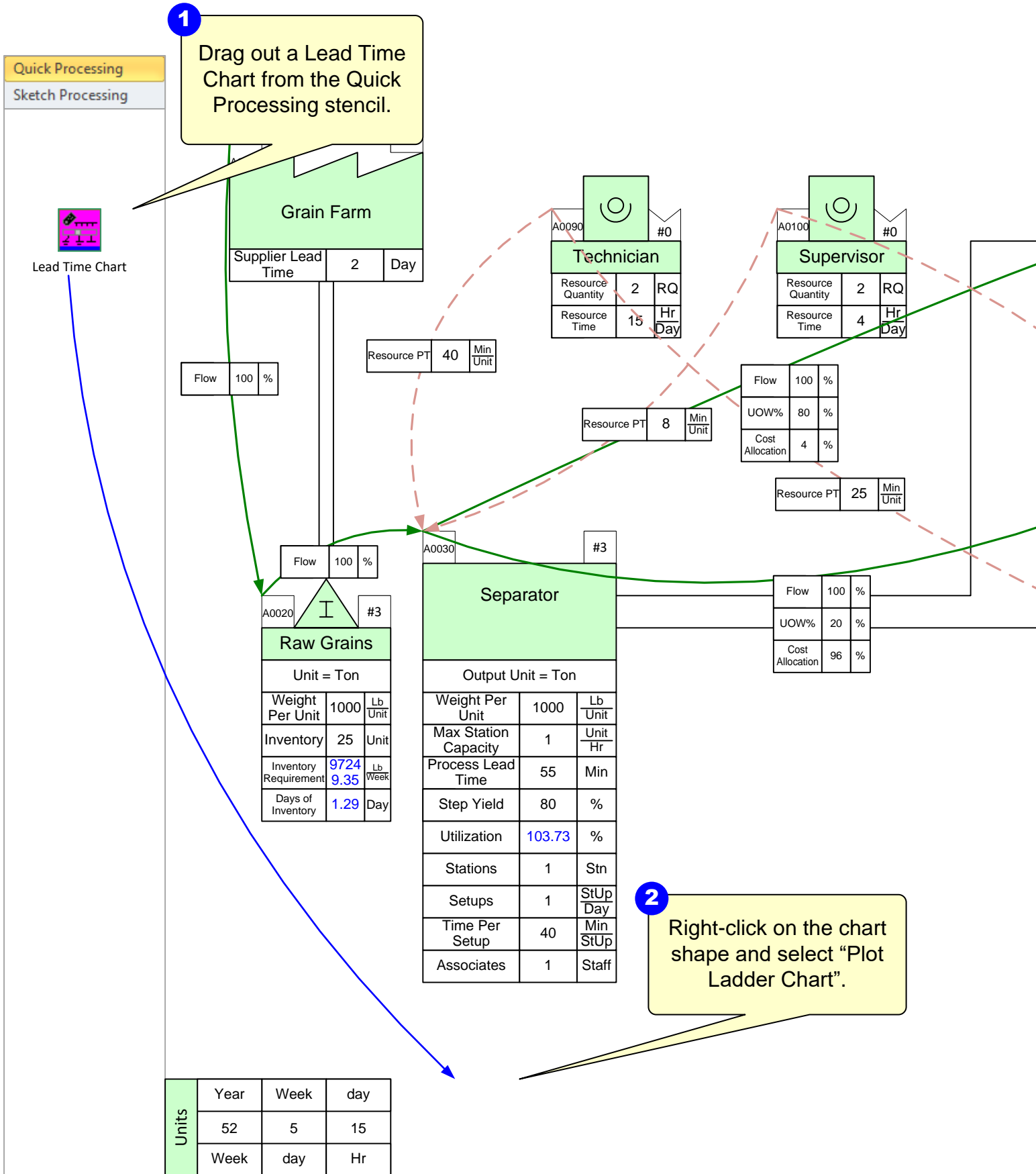
Units	Year	Week	day
	52	5	15
	Week	day	Hr

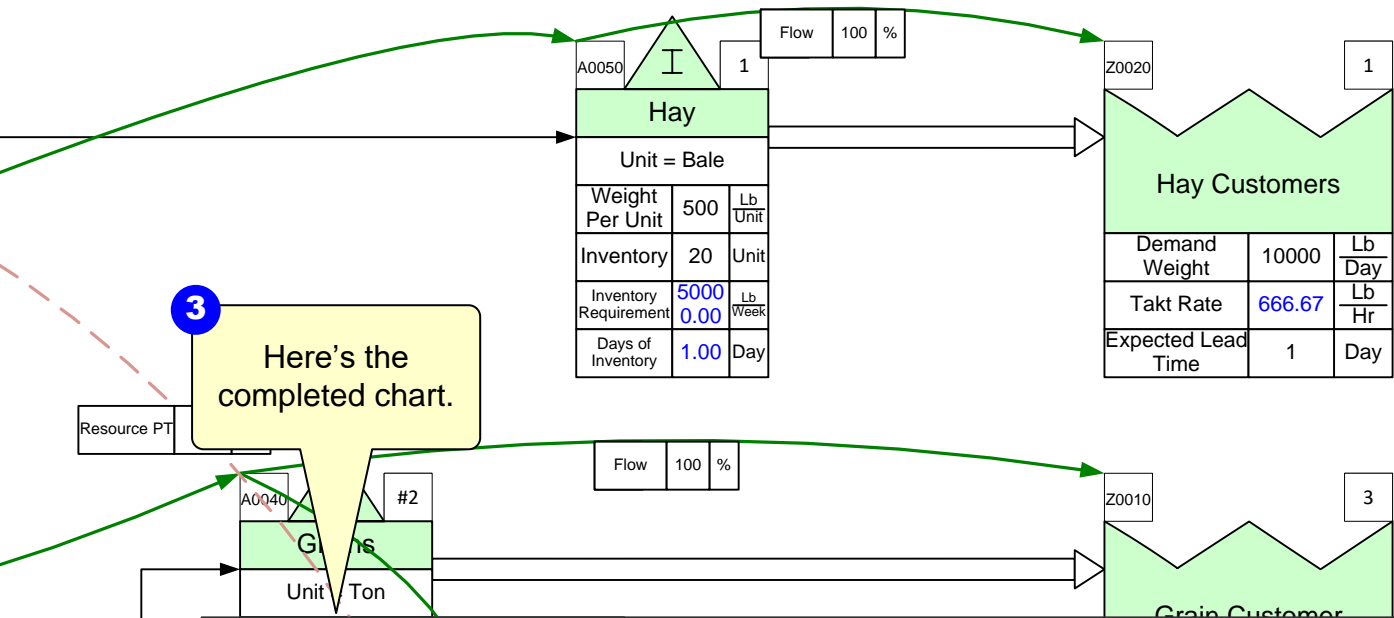
2

After addressing any errors, click the Solve button on the toolbar to solve the map.

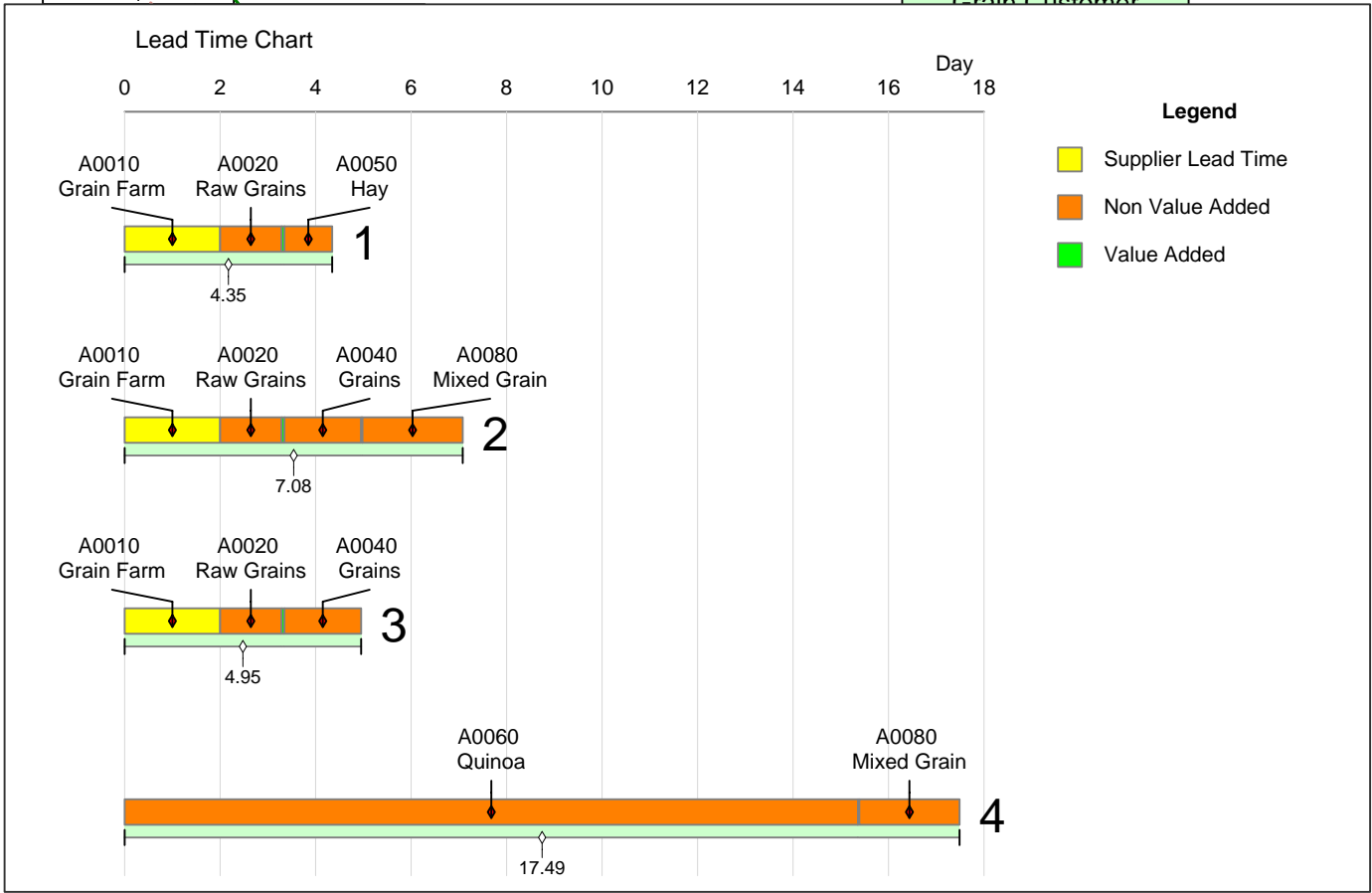


Step 19: Add Lead Time Chart

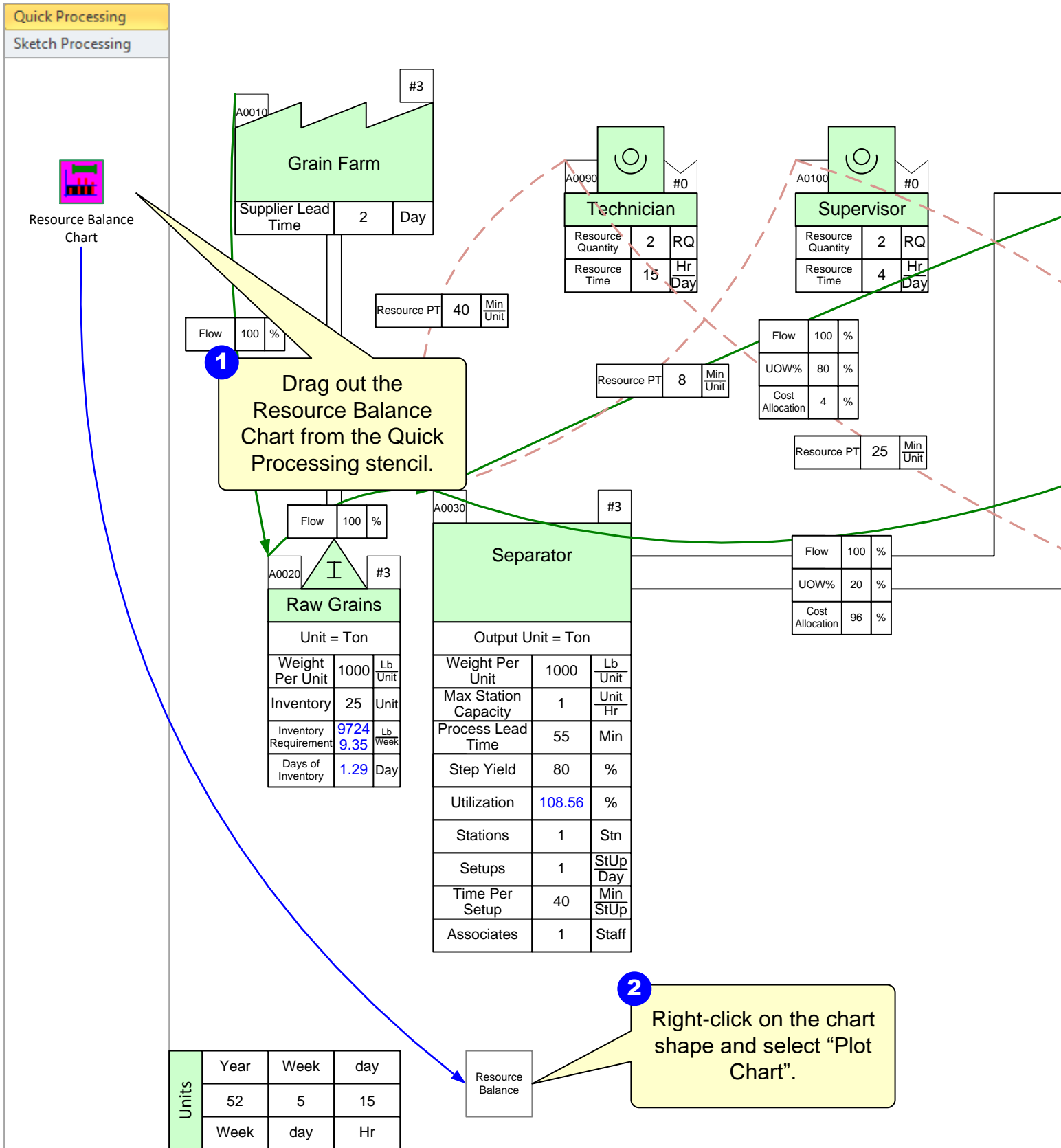




3 Here's the completed chart.



Step 20: Add Resource Balance Chart



1 Drag out the Resource Balance Chart from the Quick Processing stencil.

2 Right-click on the chart shape and select "Plot Chart".

Units	Year	Week	day
	52	5	15
	Week	day	Hr

Resource Balance

A0010	#3
Grain Farm	
Supplier Lead Time	2 Day

A0090	#0
Technician	
Resource Quantity	2 RQ
Resource Time	15 Hr Day

A0100	#0
Supervisor	
Resource Quantity	2 RQ
Resource Time	4 Hr Day

Flow	100 %
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Resource PT	40 Min Unit
-------------	-------------

Resource PT	8 Min Unit
-------------	------------

Flow	100 %
UOW%	80 %
Cost Allocation	4 %

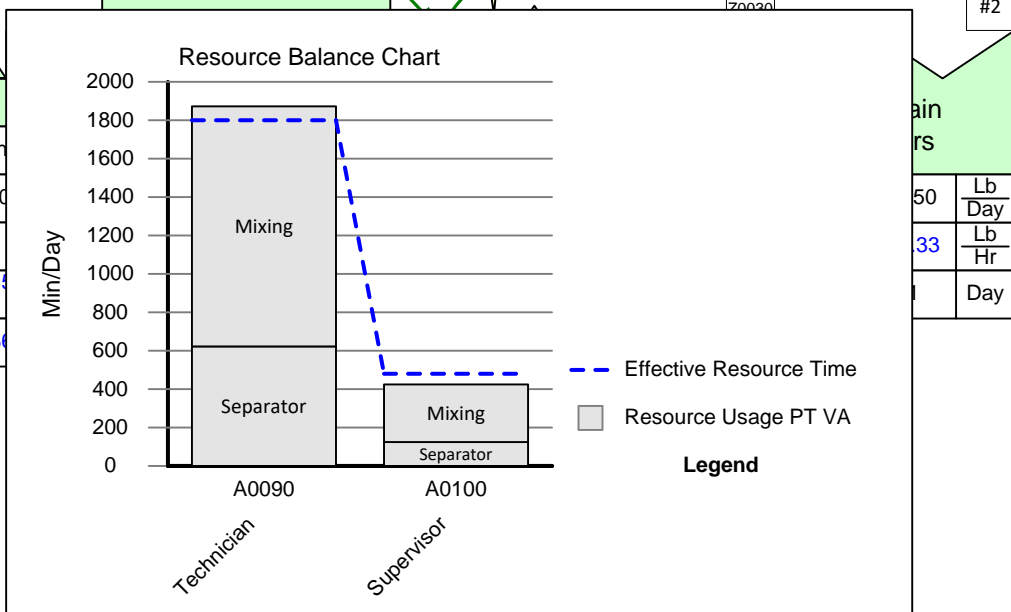
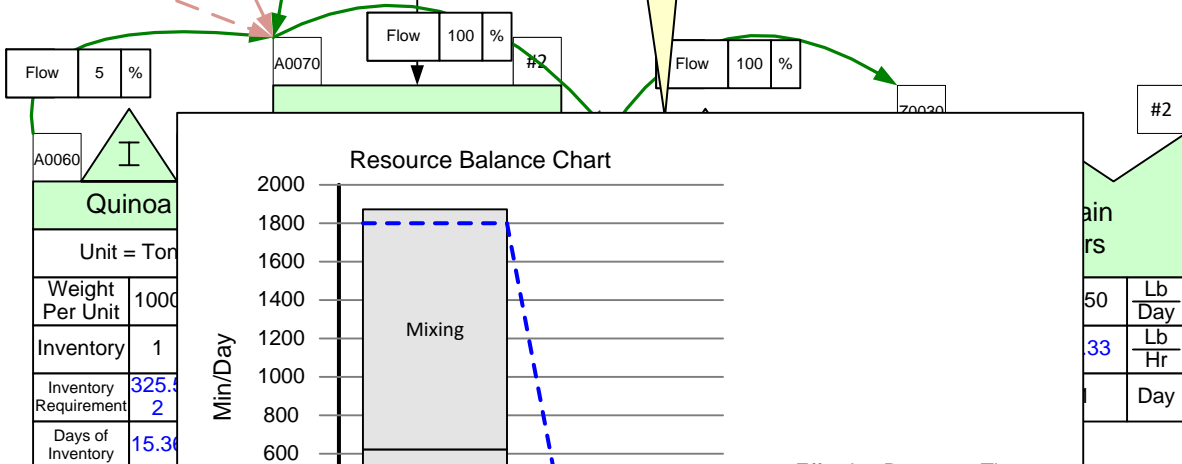
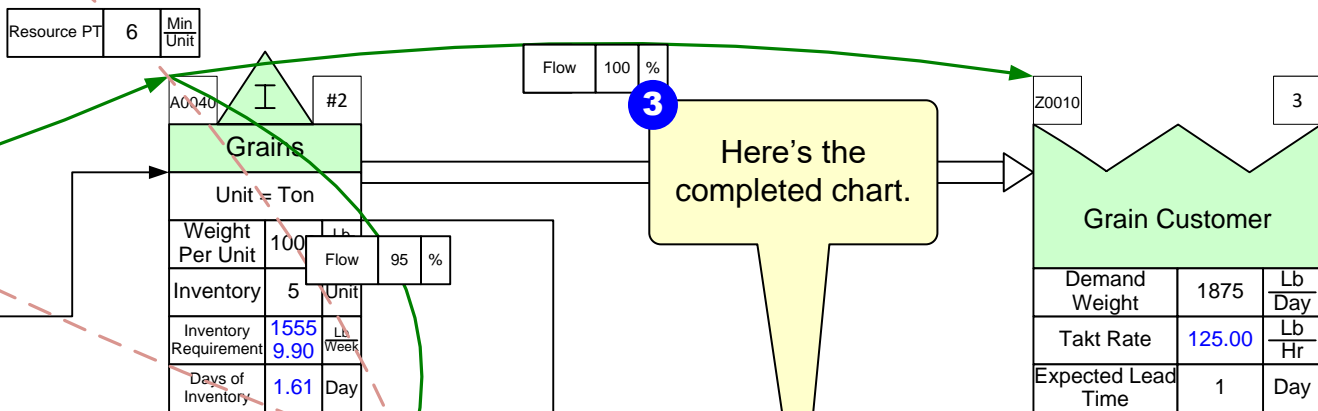
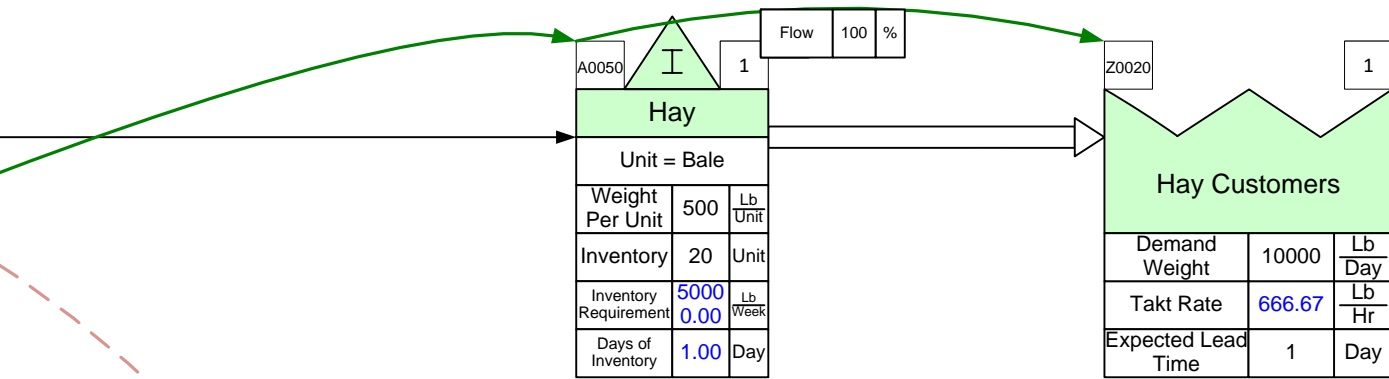
Resource PT	25 Min Unit
-------------	-------------

Flow	100 %
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A0020	#3
Raw Grains	
Unit = Ton	
Weight Per Unit	1000 Lb Unit
Inventory	25 Unit
Inventory Requirement	9724 Lb Week
	9.35
Days of Inventory	1.29 Day

A0030	#3
Separator	
Output Unit = Ton	
Weight Per Unit	1000 Lb Unit
Max Station Capacity	1 Unit Hr
Process Lead Time	55 Min
Step Yield	80 %
Utilization	108.56 %
Stations	1 Stn
Setups	1 StUp Day
Time Per Setup	40 Min StUp
Associates	1 Staff

Flow	100 %
UOW%	20 %
Cost Allocation	96 %



Here's the completed chart.

Step 21: Making VA/NVA Timeline Visible

Variable Visibility

Center/Addon Name	Variable Name(s)	Visibility
	Inventory Unit Cost	<input type="checkbox"/>
	Non Value Added	<input checked="" type="checkbox"/>
	Start Time	<input type="checkbox"/>
	Duration	<input type="checkbox"/>
	End Time	<input type="checkbox"/>
Inventory Cost/Value +		
Inventory Scrap +		
- Activity Center		
	Associates	<input checked="" type="checkbox"/>
	Descriptor	<input checked="" type="checkbox"/>
	Weight Per LOQ	<input checked="" type="checkbox"/>
	LOQ Cycle Rate	<input checked="" type="checkbox"/>
	Process Lead Time	<input checked="" type="checkbox"/>
	Step Yield	<input checked="" type="checkbox"/>
	Utilization	<input checked="" type="checkbox"/>
	Value Added	<input checked="" type="checkbox"/>
	Activity/Output Takt Rate	<input type="checkbox"/>

Default Hide Auto Hide All Show All Cancel OK

2 Check the visibility box for Non Value Added.

3 Check the visibility box for Value Added.

4 Once you click OK, the timeline will appear under the appropriate centers.

Inventory Requirement	9724	Lb	Week
Days of Inventory	1.29	Day	

Process Lead Time	55	Min
Step Yield	80	%
Utilization	103.73	%
Stations	1	Stn
Setups	1	StUp Day
Time Per Setup	40	Min StUp
Associates	1	Staff


Units	Year	Week	day
	52	5	15
	Week	day	Hr

Resource Quantity	2	RQ
Resource Time	4	Hr Day

Flow	100	%
UOW%	80	%
Cost Allocation	4	%

Resource PT	25	Min Unit
-------------	----	-------------

Flow	100	%
------	-----	---

1 If you would like to make the VA/ NVA timeline visible, first click the Views button.  Views

