



Inventory Analytics with MC.9 – Determining Usage Rates

Determining Usage Rates

- Settings like safety stock can be determined just by the quantity set times the cost of the part. Usage value is different in that it changes over time, and the cost of the buffer will change.
- The goal of this is to get an average daily usage value in order to determine how much, for example, 20 days of safety time is worth in dollars.
- Note that usage values can change over time so when comparing periods, use the same usage value data set for both periods when auditing for changes to buffers.

Determining Usage Rates

MC.9 Finding Usage

- For items that get put to a stock location, MC.9 can help you determine the historical consumption.
- Run the report by plant.
- MC.9 always defaults to the last 90 days for a date range, but you can modify that just by changing the date range. To get a good usage history we recommend at least 12 months. I also only run it for full months (I don't use current month)

After making selections hit the execute button.

Material Analysis: Stock: Selection

SelectVers. User settings Standard drilldown

Characteristics

Plant	<input type="text"/>	to	<input type="text"/>	<input type="button" value="Execute"/>
Storage Location	<input type="text"/>	to	<input type="text"/>	<input type="button" value="Execute"/>
Material	<input type="text"/>	to	<input type="text"/>	<input type="button" value="Execute"/>
MRP controller	<input type="text"/>	to	<input type="text"/>	<input type="button" value="Execute"/>

Material Groupings

Material Type	<input type="text"/>	to	<input type="text"/>	<input type="button" value="Execute"/>
Material Group	<input type="text"/>	to	<input type="text"/>	<input type="button" value="Execute"/>
Valuation Class	<input type="text"/>	to	<input type="text"/>	<input type="button" value="Execute"/>

Period to Analyze

Month	<input type="text" value="01/2016"/>	to	<input type="text" value="08/2017"/>	<input type="button" value="Execute"/>
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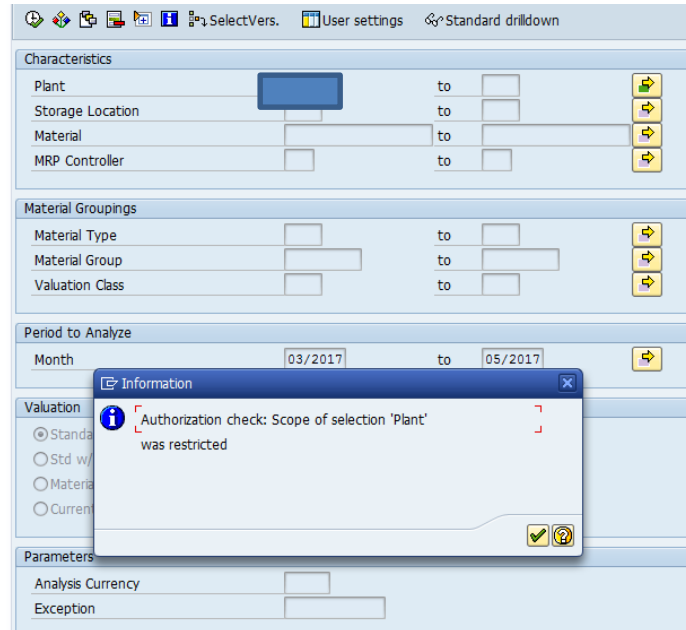
Valuation

Standard
 Std w/o Distrib.
 MaterialLedger Active
 Current Price

Determining Usage Rates

MC.9

- If this screen pops up, just hit the green check mark and move through it.



MC.9

- This should bring you here

This is a very important Button that lets you add a lot of power to this view

Material Analysis: Stock: Basic List

No. of Material: 17475

Material	ValStockValue	Valuated stock	CnsgtStock
Total	36,620,325.17 USD	8,633,948.471 ***	0.000 ***
30	0.00 USD	0 EA	0 EA
4	0.00 USD	0 EA	0 EA
6	0.00 USD	0 EA	0 EA
8	0.00 USD	0 EA	0 EA
420	0.00 USD	0 EA	0 EA
615	0.00 USD	0 EA	0 EA
615L	12.48 USD	2 EA	0 EA
	0.00 USD	0 EA	0 EA
	0.00 USD	0 EA	0 EA
	0.00 USD	0 EA	0 EA
	0.08 USD	8 EA	0 EA
	0.38 USD	64 EA	0 EA
		0 EA	0 EA
		0 EA	0 EA

This is your part number
This is your current \$ value
This is your current in stock

Analyzing Buffering parameters

MC.9

No. of Material: 608

Material	ValStockValue	Valuated stock	CnsgtStock
Total	4,746,341.97 USD		
	0.00 USD		
	0.00 USD		
	0.00 USD		
	0.00 USD		
	0.00 USD		
	0.00 USD		
	0.00 USD		
	0.00 USD		
	0.00 USD		
	2,007.69 USD		
	0.00 USD		
	0.00 USD		
	16.65 USD		
	0.61 USD		
	296.87 USD		
	0.00 USD		
	0.00 USD		
	127.48 USD		
	0.00 USD		
	0.00 USD		
	0.00 USD		
	0.00 USD		
	0.00 USD		
	0.00 USD		
	0.00 USD		
	0.00 USD		
	0.00 USD		
	0.00 USD		

When I click here,
This comes up.
When I select the options,
I can bring them over to
The main spreadsheet by
Hitting the side ways
Triangles.
After I add the options
I want I have to hit the
Green check mark.

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Analyzing Buffering parameters

MC.9

Material Analysis: Stock: Basic List

Switch drilldown... Top N...

No. of Material: 608

Material	ValStockValue	Valuated stock	CnsgtStock	Last consumptn	Last Receipt	N. total usage	Total usage
Total	4,746,541.97 USD	146,930.000 ***	0.000 ***			9,136	167,826.000 ***
	0.00 USD	0 EA	0 EA	10/05/2016	01/03/2016	1	2 EA
	0.00 USD	0 EA	0 EA	10/09/2016	10/17/2016	4	98 EA
	0.00 USD	0 EA	0 EA	09/22/2016	08/20/2016	1	98 EA
	0.00 USD	0 EA	0 EA	10/08/2016	01/03/2016	1	8 EA
	0.00 USD	0 EA	0 EA	10/05/2016	01/03/2016	1	5 EA
	0.00 USD	0 EA	0 EA	05/12/2017	02/23/2017	2	3 EA
	0.00 USD	0 EA	0 EA	11/23/2016	11/23/2016	4	4 EA
	0.00 USD	0 EA	0 EA	02/22/2016	01/29/2016	1	1 EA
	0.00 USD	0 EA	0 EA	09/27/2016	01/03/2016	1	3 EA
	0.00 USD	0 EA	0 EA	10/08/2016	01/03/2016	1	4 EA
	2,007.69 USD	1 EA	0 EA	01/10/2017	07/31/2016	2	27 EA
	0.00 USD	0 EA	0 EA	10/08/2016	01/03/2016	1	4 EA
	0.00 USD	0 EA	0 EA	05/11/2017	03/31/2017	32	127 EA


- Now I have something with a lot of information.
- The last consumption date and the last receipt date can give you a good view of what may be slow moving.
- No. of Total usage: is the number of times an item has been used, which can help in the XYZ analysis.
- Total usage is both the planned and unplanned consumption for the period/date range you requested.

Determining Usage Rates

MC.9

Step 2

Material Analysis: Stock: Basic List

Switch drilldown...  Top N...

No. of Material: 18108

Material	ValStockValue	Valuated stock	CnsgtStock	No. total usage	Total usage	Tot. usage val.
Total	35,129,114.75 USD	8,661,037.614 ***	0.000 ***	1,111,392	23,720,304.109 ***	1871702,377.51 USD
	0.00 USD	0 EA	0 EA	3	300 EA	17.37 USD
	0.00 USD	0 EA	0 EA	0	0 EA	0.00 USD
	0.00 USD	0 EA	0 EA	5	800 EA	193.12 USD
	0.00 USD	0 EA	0 EA	14	192 EA	25.55 USD
	0.00 USD	0 EA	0 EA	1	579 EA	USD
	0.00 USD	0 EA	0 EA	25	25,484 EA	USD
	0.00 USD	0 EA	0 EA	1	71 EA	USD
	0.00 USD	0 EA	0 EA	1	300 EA	46.15 USD
	12.48 USD	2 EA	0 EA	2	264 EA	1,647.36 USD
	0.00 USD	0 EA	0 EA	3	53 EA	19.02 USD
	0.00 USD	0 EA	0 EA	3	648 EA	5.31 USD
	0.00 USD	0 EA	0 EA	11	1,716 EA	6.05 USD
	0.06 USD	6 EA	0 EA	1	2- EA	0.02- USD
	0.00 USD	0 EA	0 EA	0	0 EA	0.00 USD
	0.00 USD	0 EA	0 EA	1	1 EA	3.91 USD

Step 1

Keep this little icon in mind.
When I click into a table field (step 1), and then click the icon (Step 2), the next slide shows up.

Determining Usage Rates

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Material	01/2016	02/2016	03/2016	04/2016	05/2016	06/2016
	0.06 USD	0.24 USD	0.54 USD	0.24 USD	0.06 USD	0
			45.48 USD			22
	6.88 USD	6.89 USD	20.65 USD	13.76 USD	12.04 USD	0
	0.00 USD	0.10 USD	0.04 USD	0.10 USD	0.06 USD	0
	0.00 USD	3.08 USD	1.96 USD	2.52 USD	2.24 USD	0
						20
	0.00 USD	0.00 USD	0.00 USD	0.00 USD	0.00 USD	0
	0.00 USD	1.64 USD	0.00 USD	0.00 USD	1.23 USD	0
	0.00 USD	0.00 USD	3.36 USD	0.00 USD	1.68 USD	0
		70.55 USD				
	0.00 USD	0.00 USD	0.00 USD	0.00 USD	0.00 USD	0
	0.00 USD	0.00 USD	0.00 USD	0.00 USD	0.00 USD	0
	0.00 USD	0.00 USD	0.00 USD	0.94 USD	0.00 USD	0
	0.00 USD	0.00 USD	28.92 USD	43.38 USD	0.00 USD	14
	0.00 USD	0.00 USD	0.00 USD	0.00 USD	0.00 USD	0
			8.76 USD		13.14 USD	42
					36.30 USD	36
					13.17 USD	

- Now we have usage value by month in the period range you selected.

Determining Usage Rates

MC.9

- I am going to do the same thing for Total usage (which is the quantity used by month) and save that as well.

Key figure	Total usage	01/2016	02/2016	03/2016	04/2016	05/2016	06/2016	07/2016
Material								
Total		339.000 ***	4,759.000 ***	4,864.000 ***	2,966.000 ***	2,355.000 ***	2,337.000 ***	2,522.000 ***

- Greencheck mark
- Select directory
- Name/Save file

Save As

Save in: SAP Files

Name: PHX1 May 18 2017 MC dot 9

Date modified: 5/18/2017 3:23 PM

Type: Microsoft

File name: []

Save as type: EXCEL Files (*.XLS)

Encoding: []

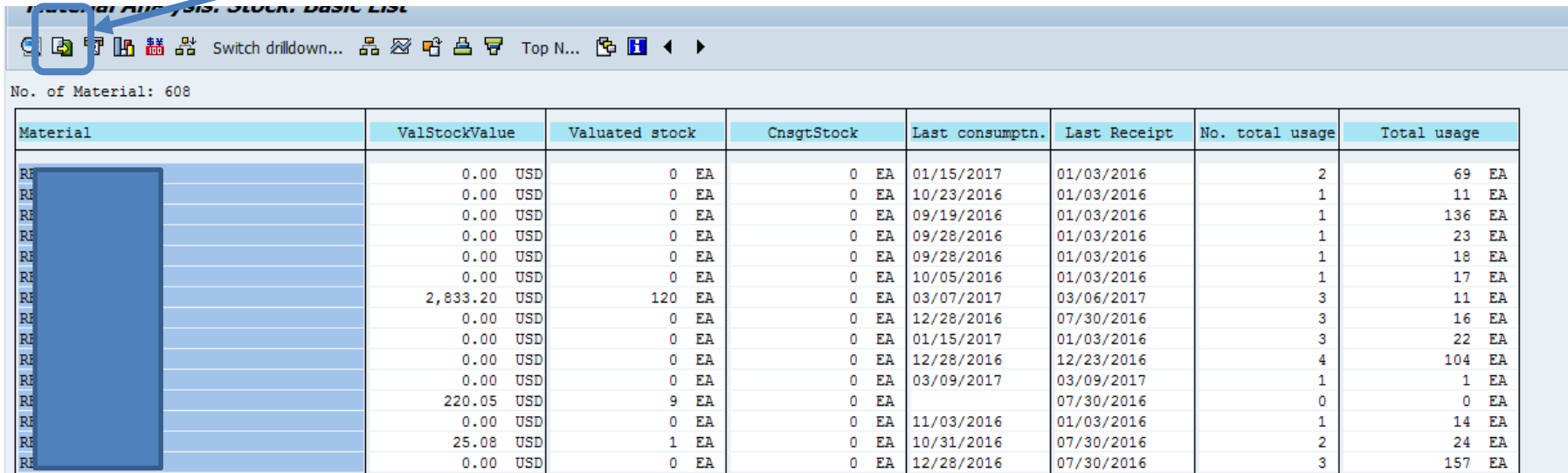
Generate Replace Extend

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Determining Usage Rates

MC.9

- I will also export the higher level current state snap shot. Note the export arrow is in the upper left corner for this one.



Material: 608

Material	ValStockValue	Valuated stock	CnsgtStock	Last consumptn.	Last Receipt	No. total usage	Total usage
RE	0.00 USD	0 EA	0 EA	01/15/2017	01/03/2016	2	69 EA
RE	0.00 USD	0 EA	0 EA	10/23/2016	01/03/2016	1	11 EA
RE	0.00 USD	0 EA	0 EA	09/19/2016	01/03/2016	1	136 EA
RE	0.00 USD	0 EA	0 EA	09/28/2016	01/03/2016	1	23 EA
RE	0.00 USD	0 EA	0 EA	09/28/2016	01/03/2016	1	18 EA
RE	0.00 USD	0 EA	0 EA	10/05/2016	01/03/2016	1	17 EA
RE	2,833.20 USD	120 EA	0 EA	03/07/2017	03/06/2017	3	11 EA
RE	0.00 USD	0 EA	0 EA	12/28/2016	07/30/2016	3	16 EA
RE	0.00 USD	0 EA	0 EA	01/15/2017	01/03/2016	3	22 EA
RE	0.00 USD	0 EA	0 EA	12/28/2016	12/23/2016	4	104 EA
RE	0.00 USD	0 EA	0 EA	03/09/2017	03/09/2017	1	1 EA
RE	220.05 USD	9 EA	0 EA		07/30/2016	0	0 EA
RE	0.00 USD	0 EA	0 EA	11/03/2016	01/03/2016	1	14 EA
RE	25.08 USD	1 EA	0 EA	10/31/2016	07/30/2016	2	24 EA
RE	0.00 USD	0 EA	0 EA	12/28/2016	07/30/2016	3	157 EA

Determining Usage Rates

- The Excel opens like the first view, so I clean it up to make it match the 2nd view.

Key figure	Tot. usage val.	01/2016	02/2016	03/2016	04/2016	05/2016	06/2016	07/2016
Material								
	##### USD	##### USD	##### USD	##### USD	##### USD	##### USD	##### USD	##### USD
	0 USD	0 USD	0 USD	0 USD	0 USD	0 USD	0 USD	0 USD
	0 USD	120.7 USD	0 USD	0 USD	0 USD	0 USD	0 USD	0 USD
	0 USD	0 USD	1.6 USD	3.2 USD	3.19 USD	3.2 USD	1.6 USD	0 USD
	0 USD	0 USD	0 USD	0 USD	0 USD	0 USD	0 USD	0 USD
	4.94 USD	USD	455.31 USD	454.08 USD	0 USD	0 USD	0 USD	0 USD
	0 USD	USD	0 USD	0 USD	0 USD	0 USD	0 USD	0 USD
	0 USD	USD	0 USD	0 USD	0 USD	0 USD	0 USD	0 USD
	0 USD	USD	0 USD	0 USD	0 USD	0 USD	0 USD	0 USD
	0 USD	USD	3.59 USD	0 USD	0 USD	0 USD	0 USD	0 USD
	0 USD	0 USD	0 USD	0 USD	0 USD	0 USD	0 USD	0 USD
	0 USD	0 USD	0 USD	0 USD	0 USD	0 USD	0 USD	0 USD
	0 USD	0 USD	0 USD	0 USD	0 USD	0 USD	0 USD	0 USD
	0 USD	0 USD	21.92 USD	46.80 USD	0 USD	0 USD	0 USD	0 USD
	0 USD	0 USD	0 USD	0 USD	0 USD	0 USD	0 USD	0 USD

Material	01/2016	02/2016	03/2016	04/2016	05/2016	06/2016	07/2016
MS20426B2-3							
-130	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
-02		\$ 120.70					
N04	\$ -	\$ -	\$ 1.60	\$ 3.20	\$ 3.19	\$ 3.20	\$ -
N06	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
C08	\$ 4.94	\$ 862.75	\$ 455.31	\$ 454.08	\$ -	\$ -	\$ -
C0420	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
C0615	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
C0615L	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
C0815L	\$ -	\$ -	\$ 3.59	\$ -	\$ -	\$ -	\$ -
				\$ 1.10			
	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	\$ -	\$ -	\$ 21.92	\$ 32.88	\$ -	\$ 10.96	\$ -
	\$ -	\$ -	\$ 46.80	\$ 70.20	\$ -	\$ 23.40	\$ -

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Determining Usage Rates

- The goal of this is to get an average daily usage value, and we want it to be reasonably correct, we need to know how the data is behaving, and the coefficient of variation helps. In general, a low COV value should allow you to use the information “as is”.
- A high COV may require you adjust the value to more closely resemble the recent period. This can come into play when a part is being phased in or out. Some judgement is required, but as long as the usage value data set is the same when comparing between two periods you should still detect changes in the buffers.

Count of Usage	Avg Usage	Avg Daily Use	STDEV	COV	Total Usage Dollars
20	\$ 1,235,808.34	\$61,790.42	1,114,777	0.90	\$ 24,716,166.72
20	\$ 922,510.09	\$46,125.50	680,641	0.74	\$ 18,450,201.80
20	\$ 791,447.56	\$39,572.38	910,587	1.15	\$ 15,828,951.14
11	\$ 771,789.53	\$38,589.48	814,493	1.06	\$ 15,435,790.56
20	\$ 679,876.03	\$33,993.81	700,986	1.06	\$ 13,597,520.53
20	\$ 664,848.32	\$33,242.41	940	0.86	\$ 13,296,966.49

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