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.

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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

⊕ ⬧ ⬚ ⬚ ⬚ i ⬚ SelectVers.   ⬚ User settings   ⬚ Standard drilldown

Characteristics

Plant		to	⬚
Storage Location		to	⬚
Material		to	⬚
MRP controller		to	⬚

Material Groupings

Material Type		to	⬚
Material Group		to	⬚
Valuation Class		to	⬚

Period to Analyze

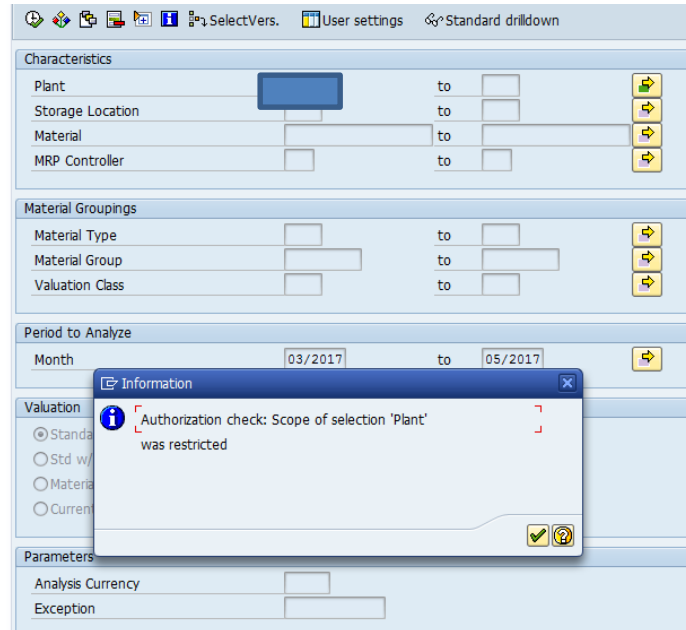|			
Month	01/2016	to	08/2017 ⬚

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

Switch drilldown... Top N...

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
M321200-31				0	EA	0	EA
				0	EA	0	EA

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

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Analyzing Buffering parameters

MC.9

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.

Analyzing Buffering parameters

MC.9

Material Analysis: Stock: Basic List

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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.

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Determining Usage Rates

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Step 2

Material Analysis: Stock: Basic List

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	350	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		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.

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Determining Usage Rates

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

Determining Usage Rates

MC.9

- In the lower right hand corner is an export button so if you are doing an XYZ analysis, you can pull it into a spreadsheet for easier manipulation.

- Click the little side ways arrow and the "Save List" pops up, and then select the green check mark and a location to save it.

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Determining Usage Rates

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

1. Greencheck mark
2. Select directory
3. Name/Save file
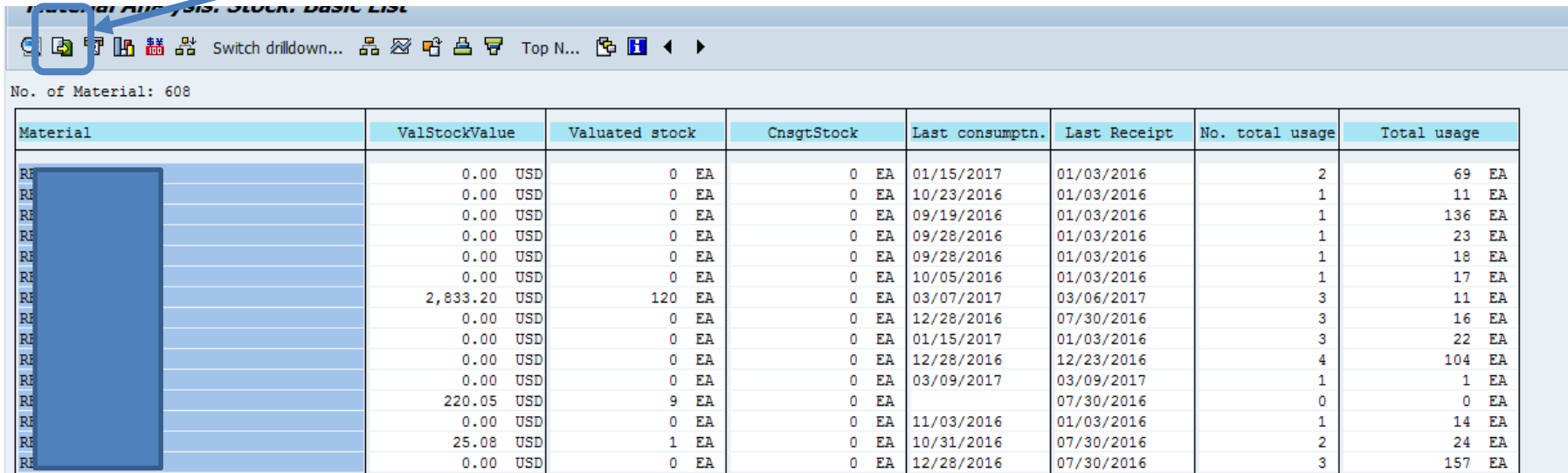
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Determining Usage Rates

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.

Determining Usage Rates

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

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 com 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 Usa	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		986	1.06	$ 13,597,520.53
20	$ 664,848.32		940	0.86	$ 13,296,966.49