

OEE Studio

MTTR

This Tool-Tip will guide you through the process of creating the MTTR report in OEE Studio.

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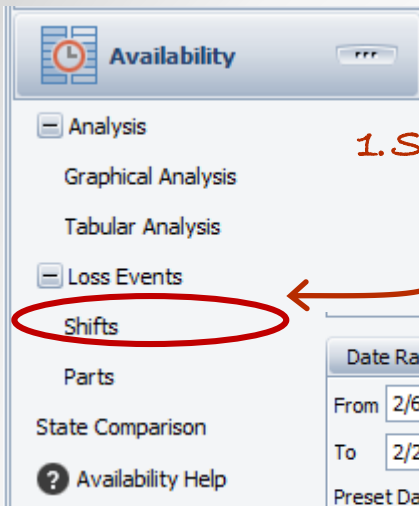
Last Updated: 10/03/2023

Tool-Tip - MTTR

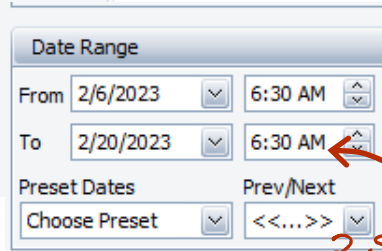
- The MTTR uses the **Availability – Loss Events**.
 - "Mean Time To Repair" is the average time that it takes to repair something after a failure.
 - **MTTR** = Downtime/# Breakdown
 - Again, It is important to be able to specify the **TYPE** of breakdown to get a better picture of MTTR
 - With OEE Studio you can calculate **MTTR** either by Shift or by specific Parts. You can also use the Tabular Analysis screen.

Creating the MTRR Report

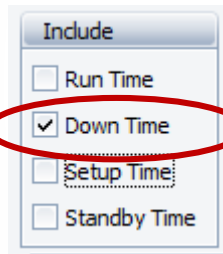
The process is the same whether you select **Availability - Loss Events - Shift** or **Loss Events - Parts**.



1. Select Loss Events - Shift under Availability



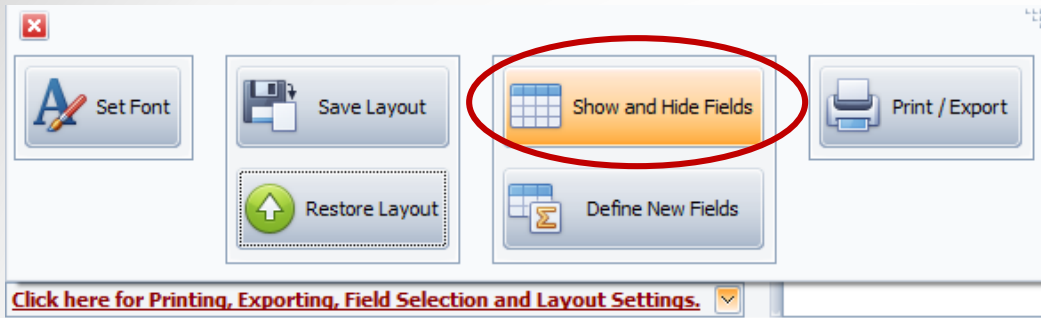
2. Select the Date Range



3. Select Down Time

4. Click Apply/Refresh to view your data. >>>

Device	Shift	State	Grand Total	
			Duration	Reason Count
- F052_Line 01	- Day Shift	Down	00h 00m 00s	3
- F052_Line 02	- Day Shift	Down	11h 49m 09s	39
	- Night Shift	Down	15h 05m 56s	39
F052_Line 02 Total			26h 55m 05s	78
- F052_Line 03	- Day Shift	Down	06h 31m 45s	32
	- Night Shift	Down	03h 38m 30s	24
F052_Line 03 Total			10h 10m 15s	56
- F052_Line 04	- Day Shift	Down	00h 00m 00s	2
- F052_Line 12	- Day Shift	Down	08h 57m 44s	21
	- Night Shift	Down	06h 16m 19s	20
F052_Line 12 Total			15h 14m 02s	41
- F052_Line 26	- Day Shift	Down	07h 42m 04s	11
	- Night Shift	Down	06h 37m 32s	4
F052_Line 26 Total			14h 19m 35s	15
Grand Total			66h 38m 58s	195



Creating the Filter

First, we need to get our data elements set up.

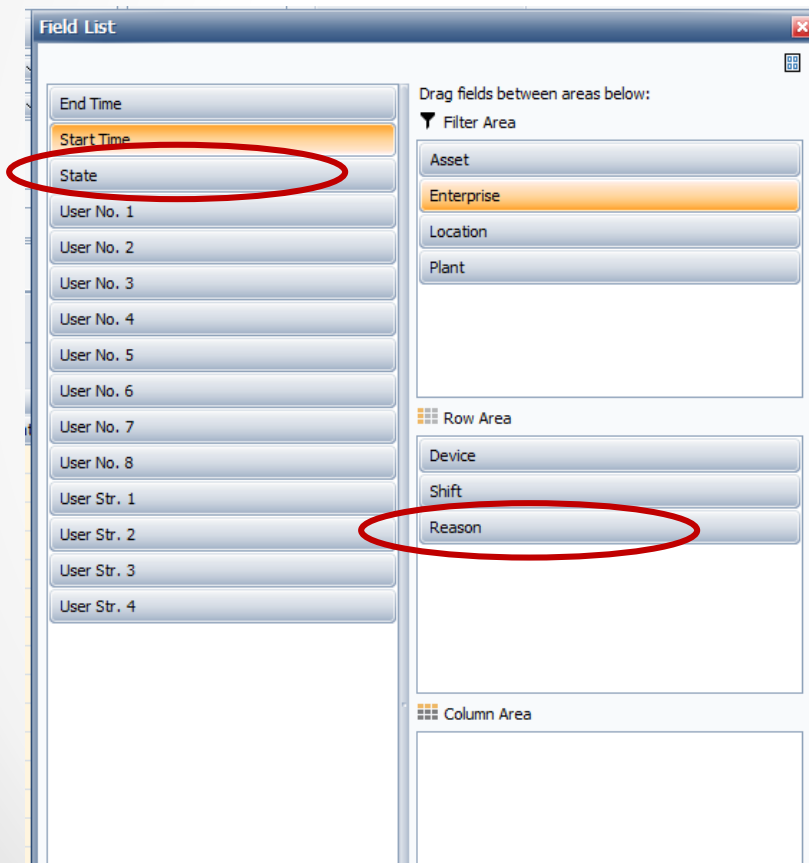
Select the **“Click here for Printing . . .”**.

Click on the **Show and Hide Fields** button.

The PivotGrid Field List on the left is the default display.

1. Drag the State Item on the right to the left.

2. Drag the Reason from the left to the right under Row Area as you see in this display.



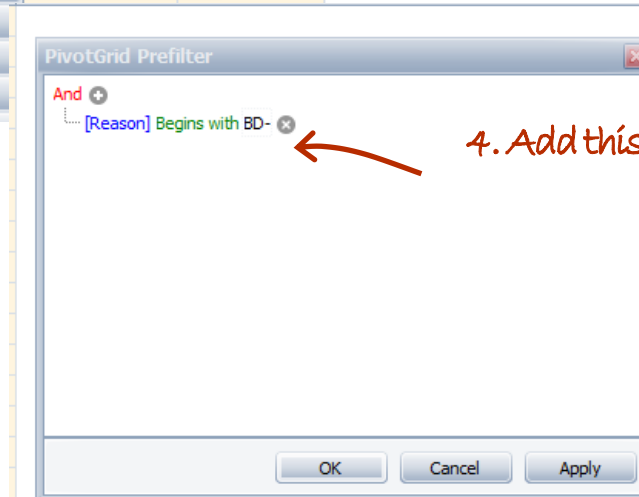
Create Filter – (cont'd)

3. Right-Mouse click on Reason Column heading and select Show Prefilter

Shift	Reason	Reason Count
Day Shift	None	3
Day Shift	BD-Extr-Mechanical	1
	BD-Former-Mechanical	2
	BD-Former-Oil U	1
	BD-Grinder-Blade	1
	BD-Grinder-Jam	2
	BD-Tooling-Clean	2
	BD-TP-Ejector Fault	
	BD-TP-Electrical	
	BD-TP-Mechanical	

Select the specific reason set.

4. Add this filter building the criteria.



Night Shift Total		02h 35m 26s	3
F052_Line 12 Total		06h 59m 36s	7
F052_Line 26	Day Shift	BD-Former-Mechanical	00h 05m 06s 1
		BD-Mat'l-Loader	04h 40m 32s 1
		BD-Mat'l-Material	02h 32m 48s 1
Day Shift Total		07h 18m 26s	3

Starts with ([Reason], 'BD-')

[Click here for Printing, Exporting, Field Selection and Layout Settings.](#)

Now you have the correct dataset and you can see your filter criteria at the bottom of the grid.

Create the MTR calculation =

Duration/Reason Count

Since we are using the Duration feature, we do not have to do any additional calculations.

Make sure you select **Use Summary Values**.

Creating the MTR Calculation

Layout

- Set Font
- Save Layout
- Restore Layout
- Revert to Default Layout

Fields

- Show and Hide Fields
- Define Custom Fields**

General

- Print / Export

New Custom Expression

Options

Field Description: **MTRR**

Result Type: Duration

Summary Type: Sum

Field Calculation

Summary Values

Field Area

Enterprise		Location		Plant		Line							
Availability		OEE		Device 0		Device 1		Device 2		Device 3		Grand Total	
Area	0	Shift	0	Availability	OEE	Availability	OEE	Availability	OEE	Availability	OEE	Availability	OEE
Packaging	Shift 1	47.3	33.9	46.7	35.2	47.0	34.5						
	Shift 2	0.0	0.0	0.0	0.0	0.0	0.0						
	Shift 3	58.1	41.0	65.1	47.5	61.6	44.3						
	Shift 4	3.9	3.1	10.9	8.8	5.8	4.7						
Packaging Total		37.7	26.9	45.3	33.6	41.2	30.0						

f: Expression editor

[Duration] / [Reason Count]

Functions

Operators

Constants

Fields: [Reason Count]

Field Information
Caption: Reason Count
The type of this field is: System.Decimal

Completing the Report

The new field appears in the Data Area.

PivotGrid Field List

Drag Items to the PivotGrid

End Time
Job
Start Time

Drag fields between areas below:

Filter Area

Asset
State
Enterprise

Column Area

Row Area

Device
Part
Reason

Data Area

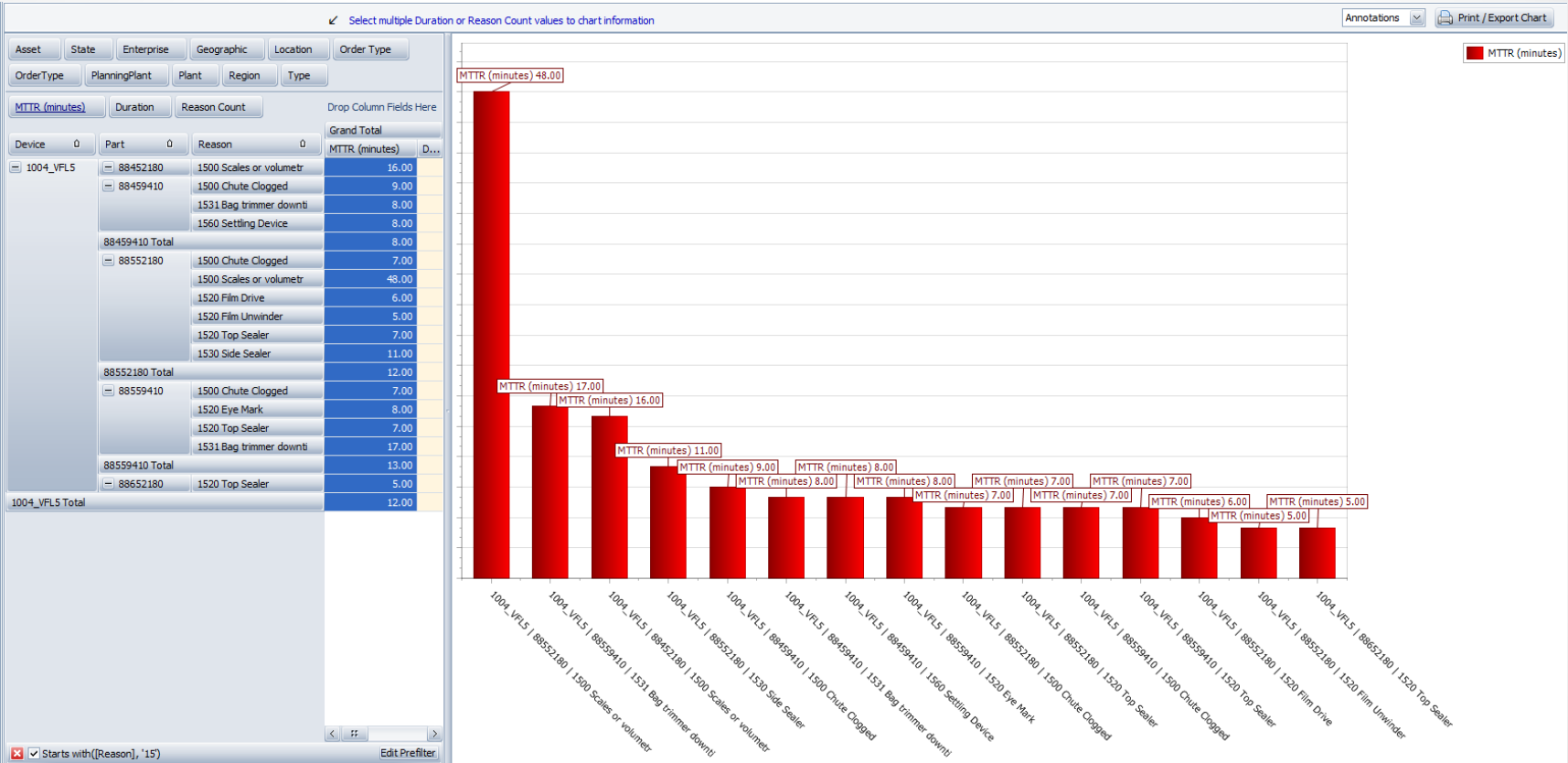
Duration
Reason Count
MTTR (minutes)

Defer Layout Update

Asset	State	Enterprise	Geographic	Location	Order Type	OrderType	PlanningPlant	Plant	
Duration Reason Count MTTR (minutes) Drop Column Fields Here									
Device			Part			Reason			Grand Total
									Duration Reason Count MTTR (minutes)
1004_VFL5			88452180			1500 Scales or volumetr			00h 16m 14s 1 16.00
			88459410			1500 Chute Clogged			00h 08m 51s 1 9.00
						1531 Bag trimmer downti			00h 07m 45s 1 8.00
						1560 Settling Device			00h 07m 35s 1 8.00
			88459410 Total						00h 24m 11s 3 8.00
			88552180			1500 Chute Clogged			00h 13m 51s 2 7.00
						1500 Scales or volumetr			00h 47m 32s 1 48.00
						1520 Film Drive			00h 11m 50s 2 6.00
						1520 Film Unwinder			00h 04m 59s 1 5.00
						1520 Top Sealer			00h 06m 40s 1 7.00
						1530 Side Sealer			00h 43m 37s 4 11.00
			88552180 Total						02h 08m 29s 11 12.00
			88559410			1500 Chute Clogged			00h 22m 29s 3 7.00
						1520 Eye Mark			00h 07m 34s 1 8.00
						1520 Top Sealer			00h 13m 32s 2 7.00
						1531 Bag trimmer downti			03h 03m 28s 11 17.00
			88559410 Total						03h 47m 03s 17 13.00
			88652180			1520 Top Sealer			00h 04m 53s 1 5.00
1004_VFL5 Total									06h 40m 50s 33 12.00

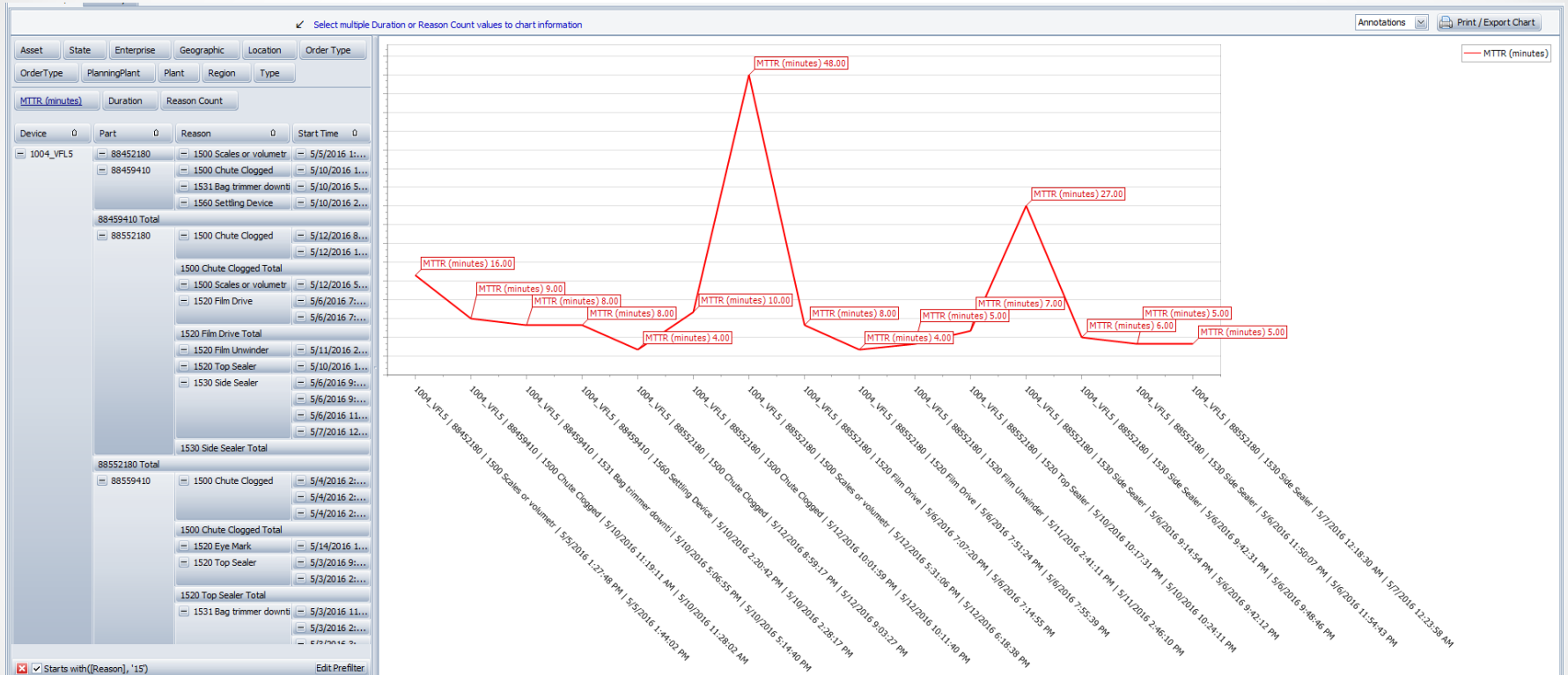
Graphing the Report

Click on the MTRR column heading to automatically graph the results.

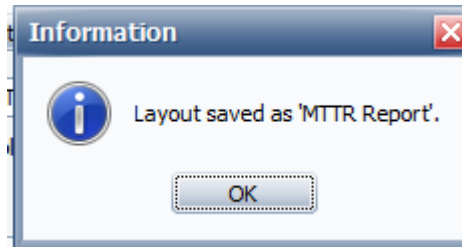
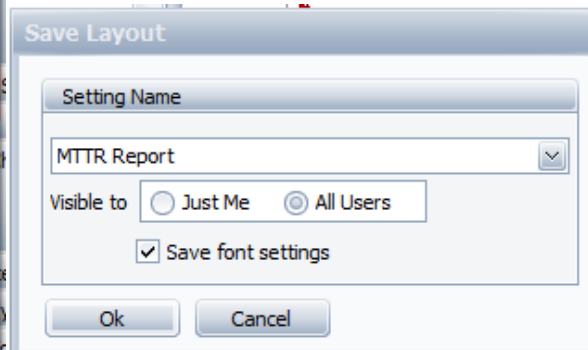
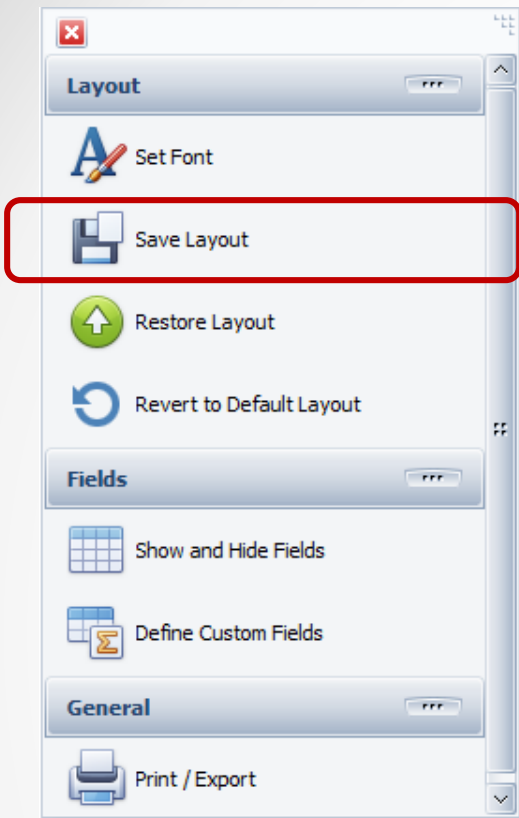


Graphing the Report

Create a trend graph by adding the start and end time.



Saving the Report



Select the “**Click here for Printing. . .**” options.

Click on the **Save Layout** button.

Enter a name for the report.
Select ‘**All Users**’.

Click the **OK** button.

You can call up the report by following the same process and select the **Restore Layout** button.

OR – Click the Add to Favorites button and save it that way.

