13th International Conference of the
TOC Practitioners Alliance - TOCPA
www.tocpractice.com
May 21-22, 2014 Johannesburg, South Africa

Understanding and Managing Loading on the Factory in Order to Ensure an Agile Supply Chain and Excellent Due-Date Performance

Dawid B Janse van Rensburg

21 May 2014

Dawid B Janse van Rensburg

MD of CargoSolutions, a supply chain optimization business unit of the Cargo Carriers Group.

Focus on TOC supply chain solution implementations, and is an Implementation Partner for Inherent Simplicity's Symphony software in SA.

Worked in many industries in SA, including FMCG, building supplies, extrusion, footwear, clothing and printing, etc.

CargoSolutions
011 485 8700
dawid@cargosolutions.co.za

Discussion Points

CargoSolutions

The Importance of Load Control in Factories (S&T perspective)

The Background (Little's Law)

How to Determine the Load

Using the Load to Promise Due-Dates

Using the Load in S&OP Meetings

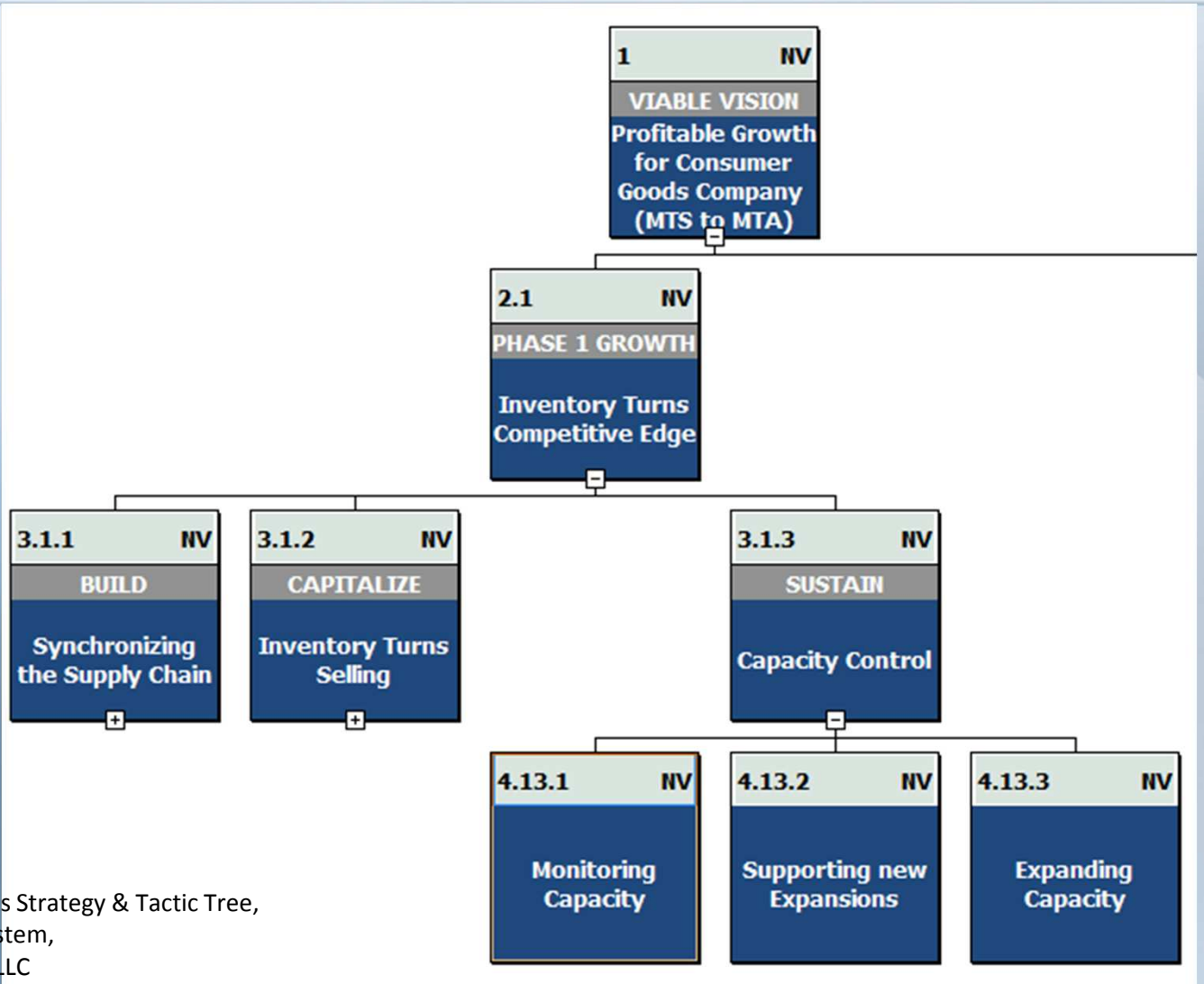
Checklist of Pre-requisites

Some Case Studies

Strategy & Tactic Trees on Capacity Control

- Prominent in Consumer Goods S&T - capacity control
- Even more so in Manufacturing MTO S&T – setting order due dates, capacity elevation, and rapid response load control

Capacity Control in the S&T's

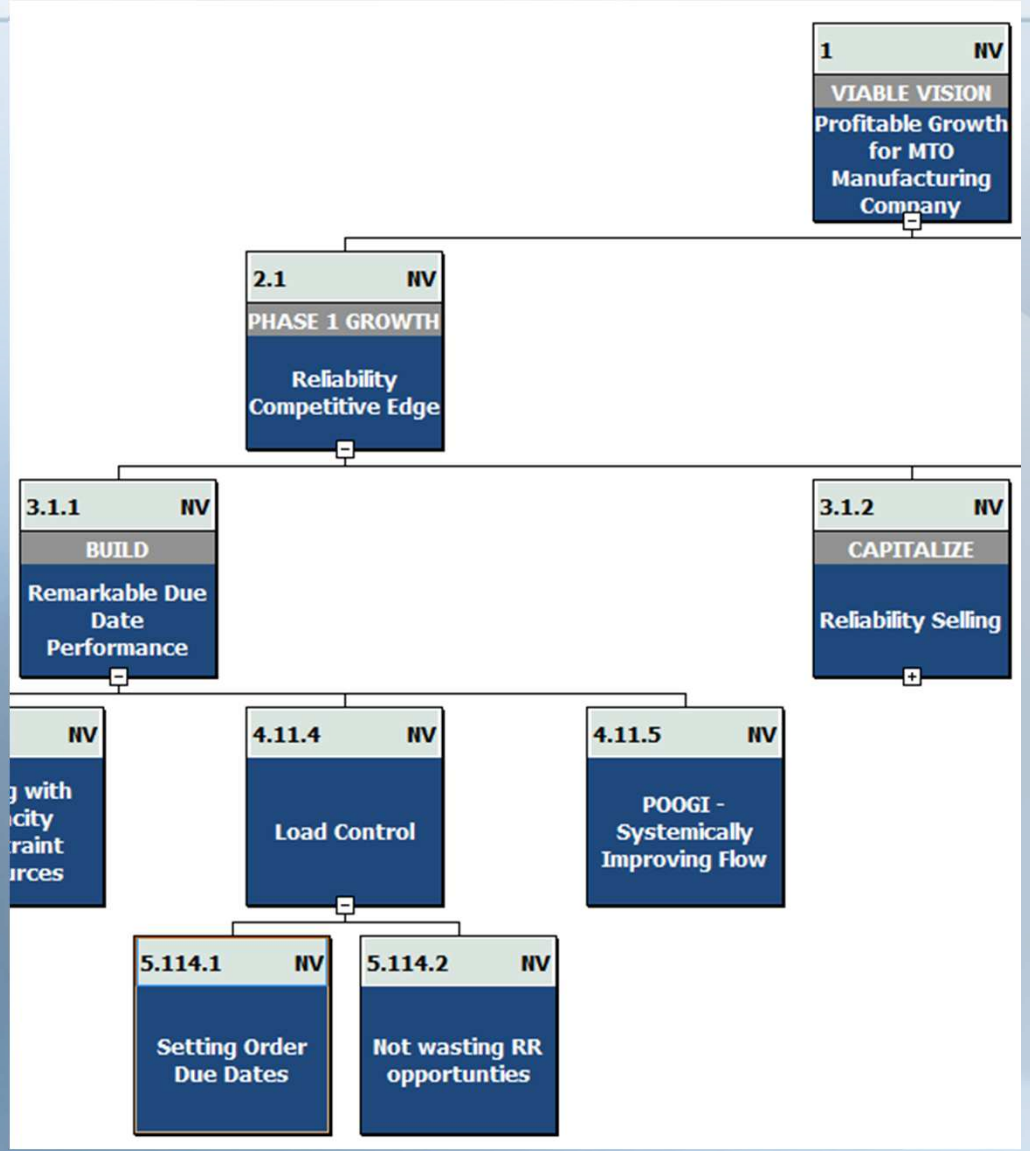


Source: Consumer Goods Strategy & Tactic Tree,
Harmony S&T Expert System,
Goldratt Research Labs LLC

Consumer Goods

4.13.1	Monitoring Capacity
Necessary	• When protective capacity falls below 10% replenishment time increases sharply. When replenishment time increases, target inventories should be increased. When target inventories increase the load on production resources increase. When the load on production resources increase protective capacity decreases. This devastating spiral is likely to collapse a company which is based on providing excellent availability. • The relentless pursuit for growth in demand (unavoidably achieved when capitalizing on a competitive edge) eventually would erode protective capacity to be below 10%.
Strategy	**Maintaining sufficient protective capacity is the Company's prime concern.**
Parallel	It is relatively easy to monitor the load placed by all orders (excluding orders to build new inventory buffers, see step 4:42) and deduce the amount of available protective capacity.
Tactic	**The Company constantly monitors the amount of protective capacity available.** **When it drops below 20% the red flag is raised. When it drops to almost 10% any new expansion is frozen.**
Sufficiency	

Manufacturing MTO S&T



Setting Order Due Dates

5.114.1	Setting Order Due Dates
Necessary	As sales are growing, the irregular way in which orders are coming wastes capacity to the extent that DDP are in danger. When sales grow substantially, permanent CCRs appear. If sales continue to commit to due-dates according to fixed lead time, the chances to meet due-dates diminishes.
Strategy	**Due-dates given by the sales force are always met.**
Parallel	In a well-run plant, most of the time an order spends on the floor it is waiting to be processed by the CCR. Therefore, when the CCR is performing on the order in (about) the middle of the order's buffer the chance to meet the DD is very high. Note: The actions taken in "dealing with CCR step" may rapidly elevate a CCR's capacity to the extent that another resource should be considered as the CCR.
Tactic	**Due-date commitments are given according to first available slot on the CCR plus ½ the production buffer. (See Supplemental file titled "Setting Order Due Dates")** **(The sales force is trained to call operations before giving the commitment to client. Operations is organized to give the answer in less than a minute.)**
Sufficiency	

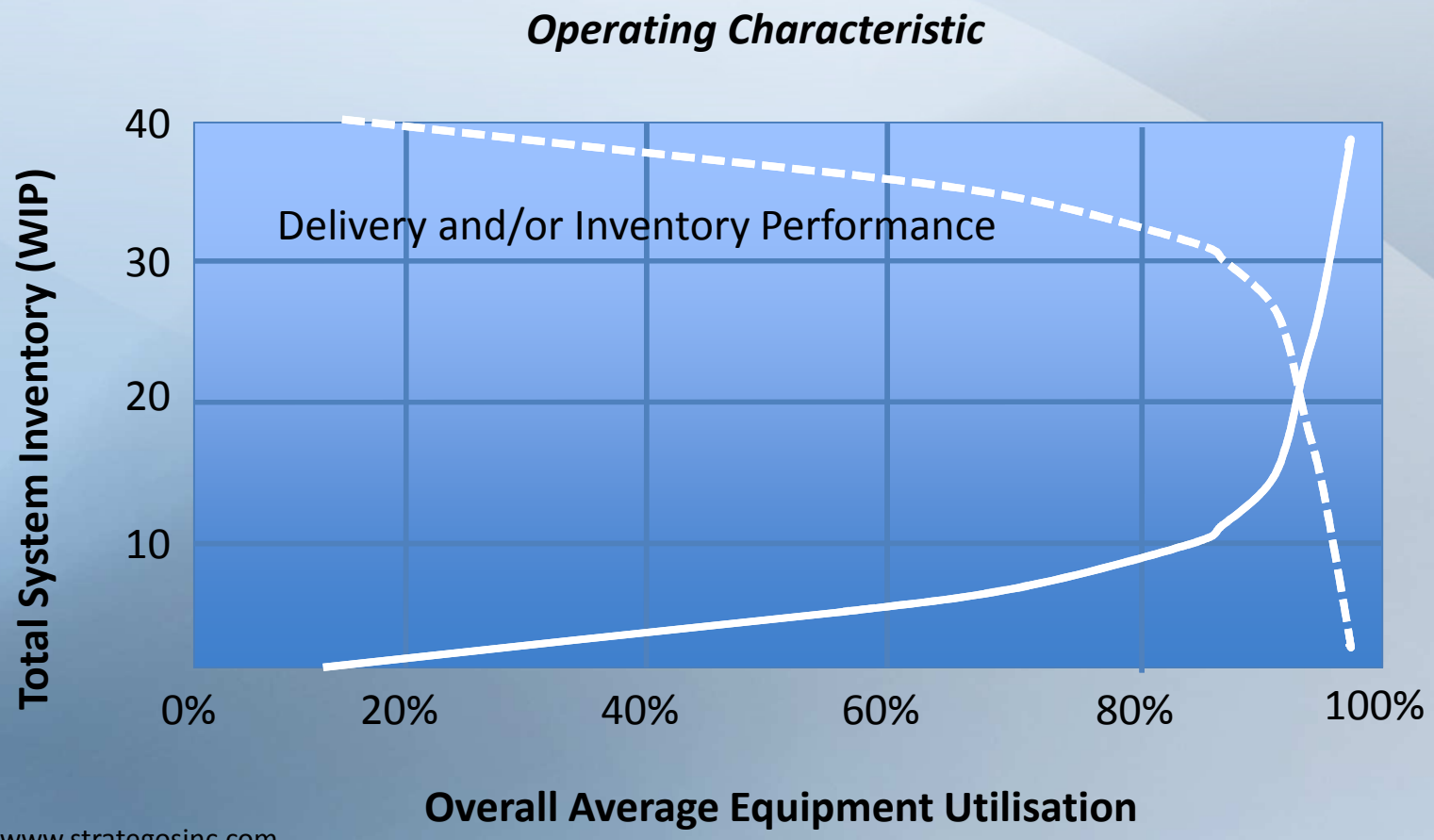
Capacity Elevation

4.13.2	Capacity Elevation
Necessary	When given delivery lead times are (much) longer than the industry standard lead time, not only may orders be lost, but clients may be lost.
Strategy	**Desired clients are not lost due to given delivery lead times which are too long.**
Parallel	• Profits increase when additional sales are gained for just an increase in direct labor. • After some time, the first actions toward the VV bring the Company to be cash rich. At that stage, the load of additional investment in equipment is not a barrier.
Tactic	**A mechanism is in place to rapidly open the capacity (labor and even equipment) when significant sales are endangered by giving delivery lead times which are too long.**
Sufficiency	Too often, companies's capacity expansions resemble playing Russian roulette (making large long terms commitments based on vague knowledge of probability, amount, and timing of need).

RR Load Control

3.2.2	Rapid Response (RR) Load Control
Necessary	Shrinking the production lead time is not sufficient to ensure fast delivery (a major portion of the time is the time until the order is released). • The irregular way in which rapid orders are coming may create peaks of load on the CCR. • The load control mechanism cannot be applied to rapid orders
Strategy	**The Company has the ability to deliver a considerable portion of its volume in a quarter of the standard industry Lead Time (LT) or less.**
Parallel	When an order jumps the queue it disrupts the delivery of other orders unless capacity was a-priori allocated for such events. • For those orders that jump the queue of orders to be released, delivery LT is equal to production LT. • For orders that get top priority on the shop floor, delivery LT is less than production buffer time.
Tactic	**Enough capacity is reserved for Rapid Response (RR) orders (when giving a due-date for a regular order the fact that capacity is reserved for RR orders is taken into account).**
Sufficiency	Dealing simultaneously with two, vastly different, types of orders (regular and RR) can severely complicate the shop floor.

Manufacturing Systems



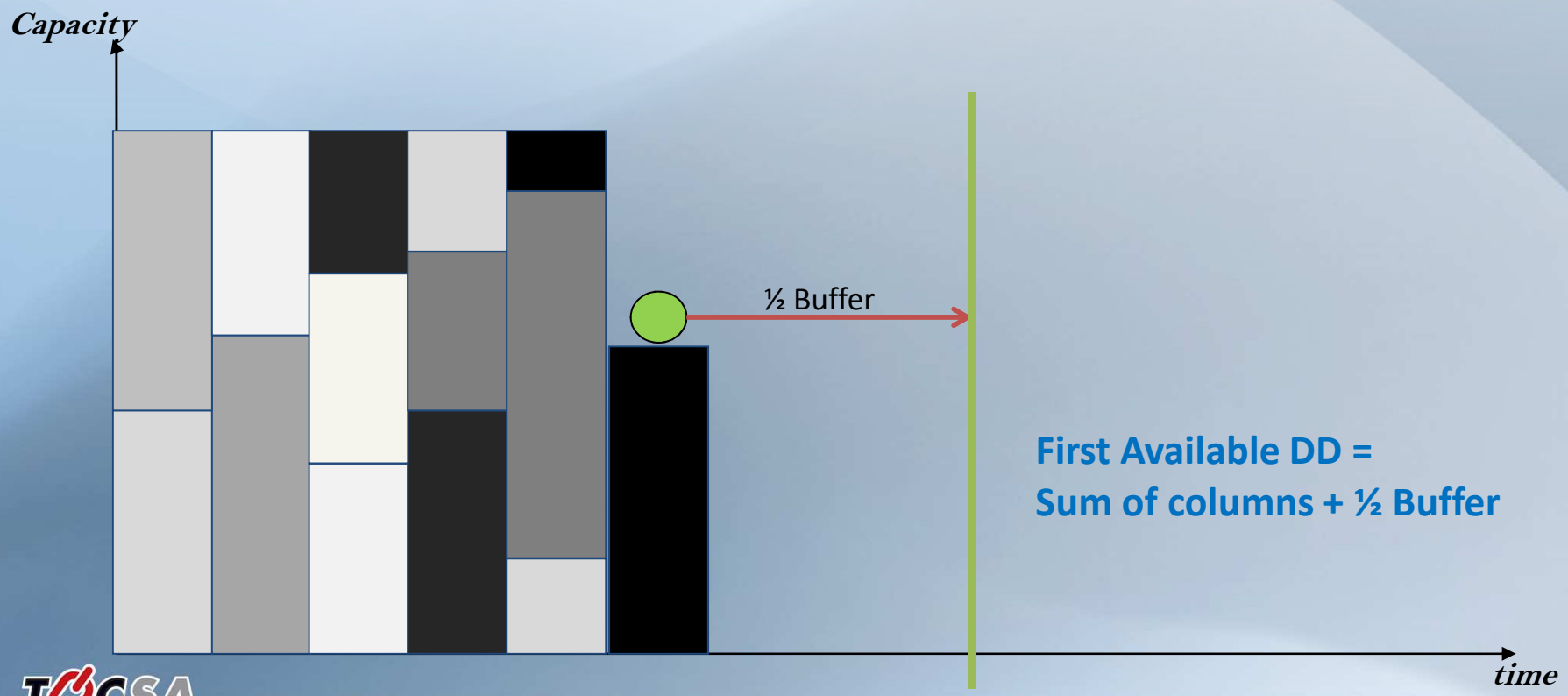
Source: www.strategosinc.com

Load Control Basics

- The CCR – Capacity Constrained Resource ("the weakest link")
- Shipping Buffer – list of current Work Orders (both MTO & MTS)
- Planned Load – the accumulation of the derived load on the CCR for all the firm orders that have to be delivered within a certain horizon of time
- Slack – difference between the market due-date (lead time) and our calculated due date
- Production rate – specified in units/hour per production family
- Due Dates on MTO WO's are correct, i.e. reflect reality!

Getting Quotes

Will that be the Quoted DD?

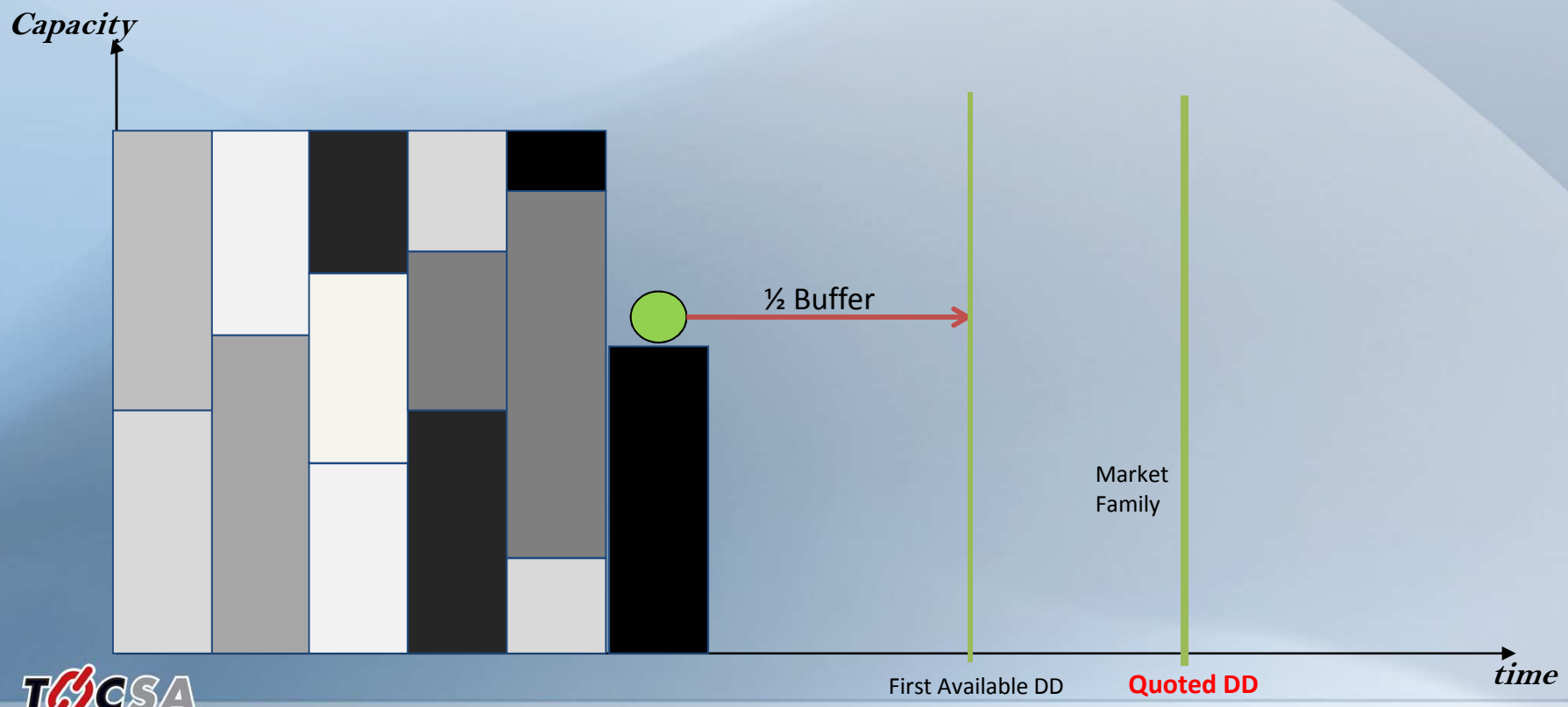


First Available DD =
Sum of columns + ½ Buffer

Getting Quotes

Quoted DD = The max between:

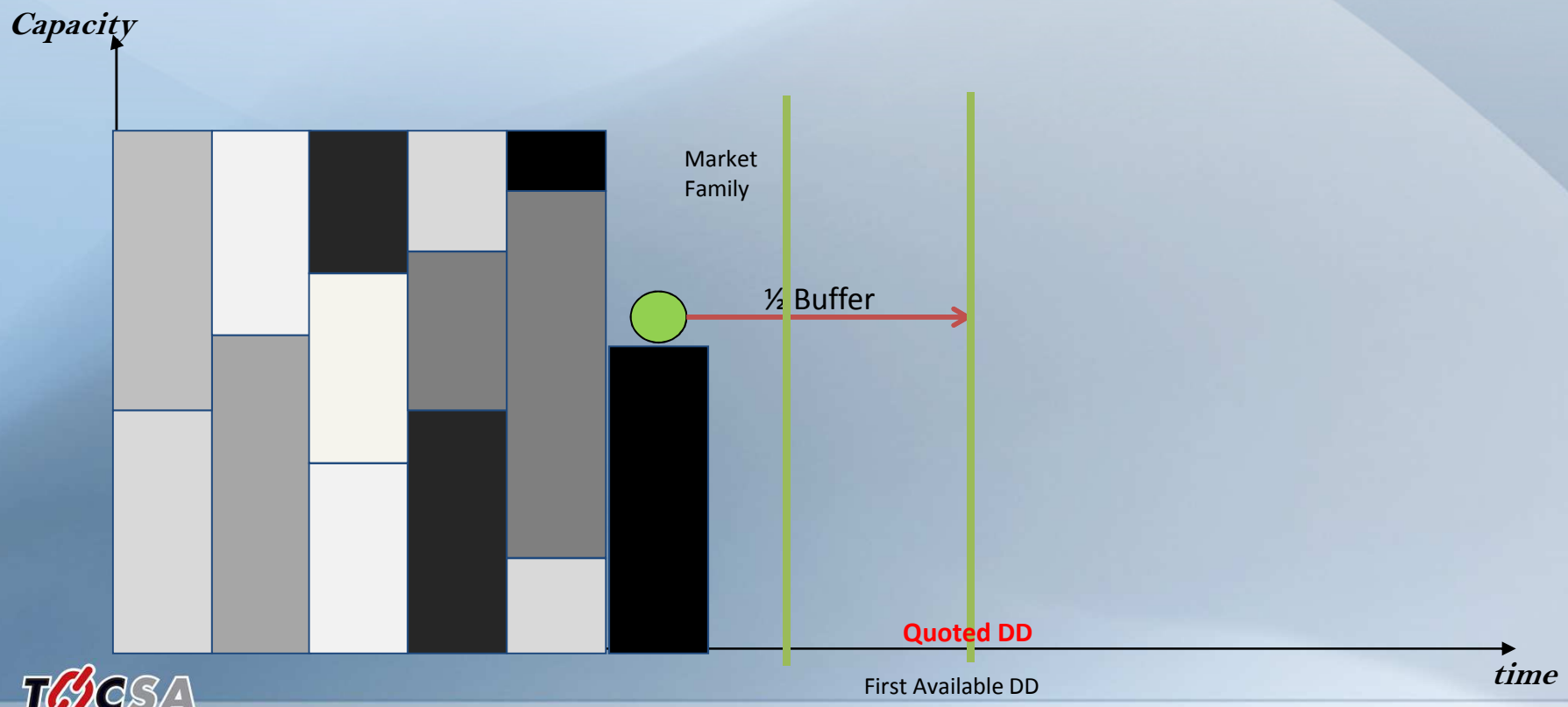
Sum of columns + ½ Buffer
&
Market Family



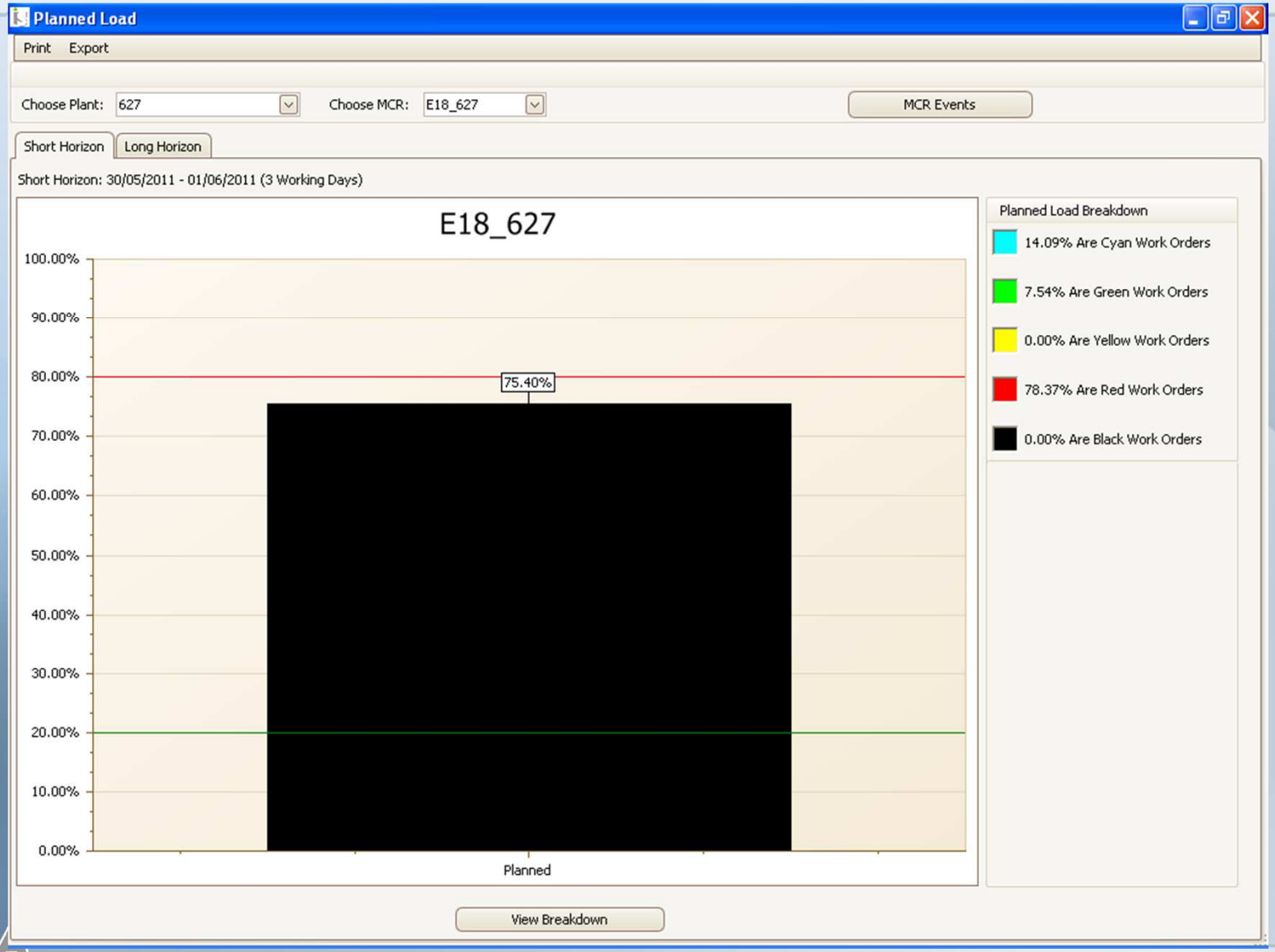
Getting Quotes

Quoted DD = The max between:

Sum of columns + ½ Buffer
&
Market Family



Short Horizon View



Short Horizon Calculation

Work Orders Breakdown for E18_627 - Short Horizon Planned Load

Views: Save View, Manage V..., Restore ...

Export

Print

Availability

Planned Load: 75.40%

Total Available Hours: 44.00

Drag a column header here to group by that column

Work Load...	Work Load (H...	W	Work Ord...	SKU	SKU Descrip...	Client Descrip...	Quantity	Bu...	Due Date
78.37%	26.00	E	0339564 1	ENPOS120235FRWHI090SG100020000	ENV030014 PR...	SOUTH AFRICA...	780.00	72%	31/05/2011
7.54%	2.50	E	340157 1	ENCBM115230QRWHI080A0000010002	115*230 - PVT ...	SUPPORT TEAM ...	100.00	0%	
14.09%	4.68		40176 1	ENMPE115230QRWHI080AG100000000	115X230 BANK...	SUPPORT TEAM ...	187.00	-12%	

Record 3 of 3

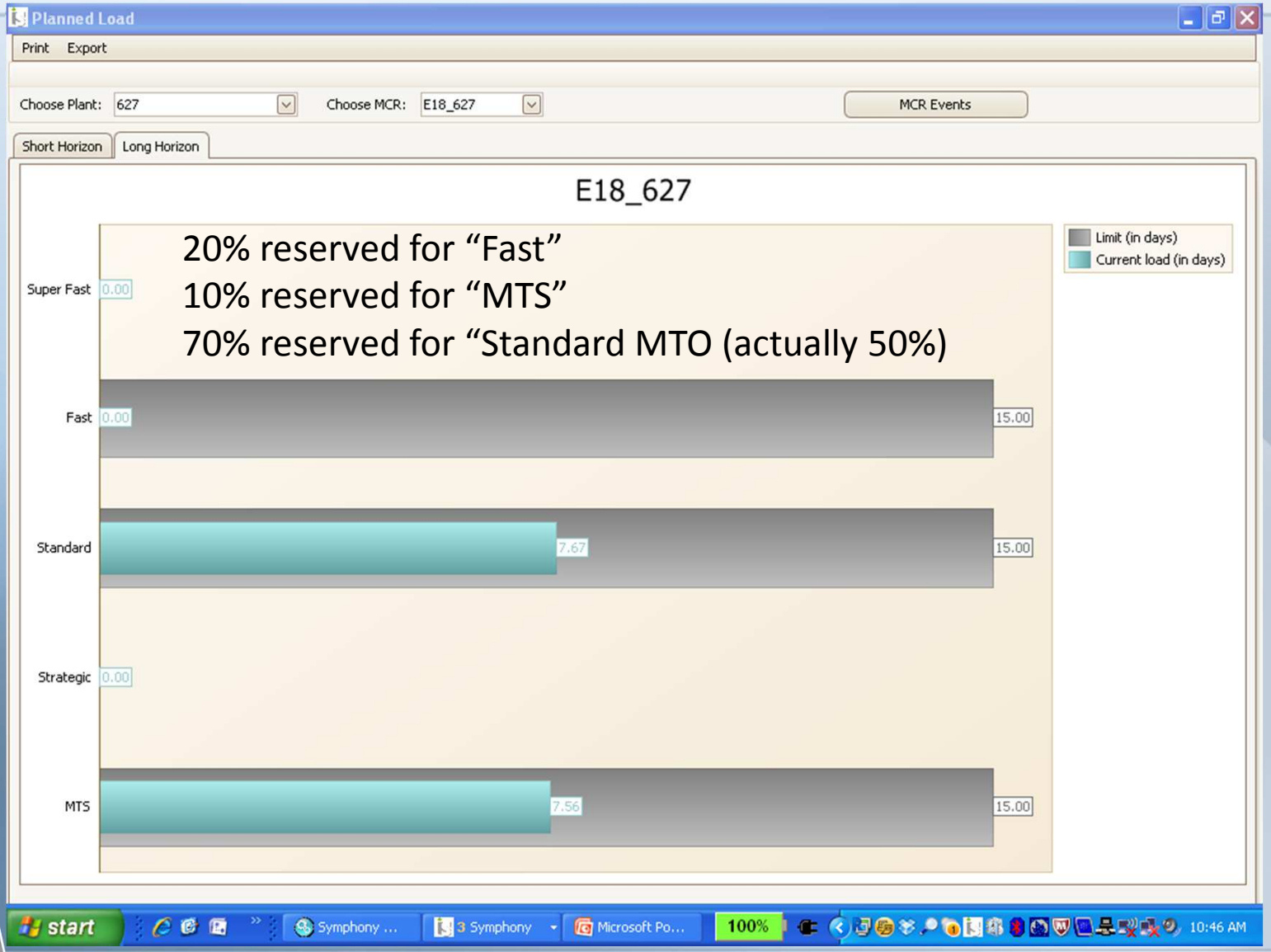
Calculation:

Duration of all WO's: 26+2.5+4.68 = 33.17 hrs

Available hours: 8+18+18 = 44 hrs

And 33.17/44 = 75.4% loaded

Long Horizon View



LH - Calculation of Duration

Date = 27 May 2011, a Friday

Long Term Horizon Planned Load calculation for E18

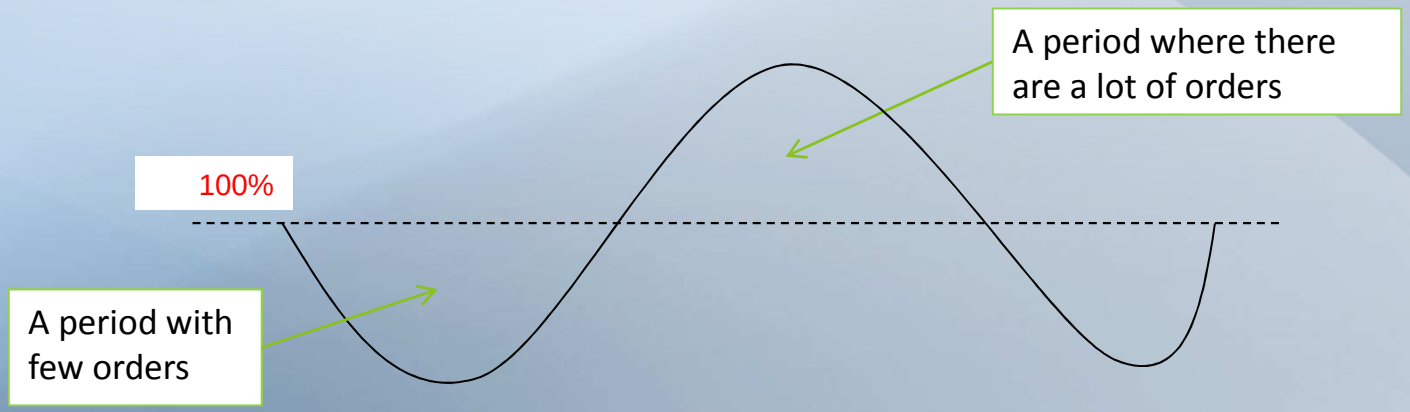
SKU	*WO*	*Qty rate/hr*		*hrs*	*fri*	*sat*	*sun*	*mon*	*tue*	*wed*	*thu*	*fri*		
ENPOS120235FRWHI090SG100020000	WO339564	780	30	26	8	0	0	18	18	18	18	8		
ENAFH115230QRWHI080SG100010001	WO340087	1000	40	25	8	0	0	18	18	18	18	8		
				51										
	70%	Reserved - Std WO's		72.86										
	80%	20% reserved		**91.07**	83.07	83.07	83.07	65.07	47.07	29.07	11.07	3.071		
					1	2	3	4	5	6	7	0.384	**7.38**	days

Slack

- So, according to the algorithm explained above, each order will always be put at the end of the line.
- But, what will happen in situations where I have few orders at the moment, but expect a larger quantity in the near future?
- By looking only on the Short Horizon I can be affected by demand peaks.

Slack

- For example:



We would want to slide some orders backwards to the period where I don't work with my full capacity

Slack

- The goal will be to enlarge the buffer a little (Slack), and by that releasing the WO to the shop floor earlier:

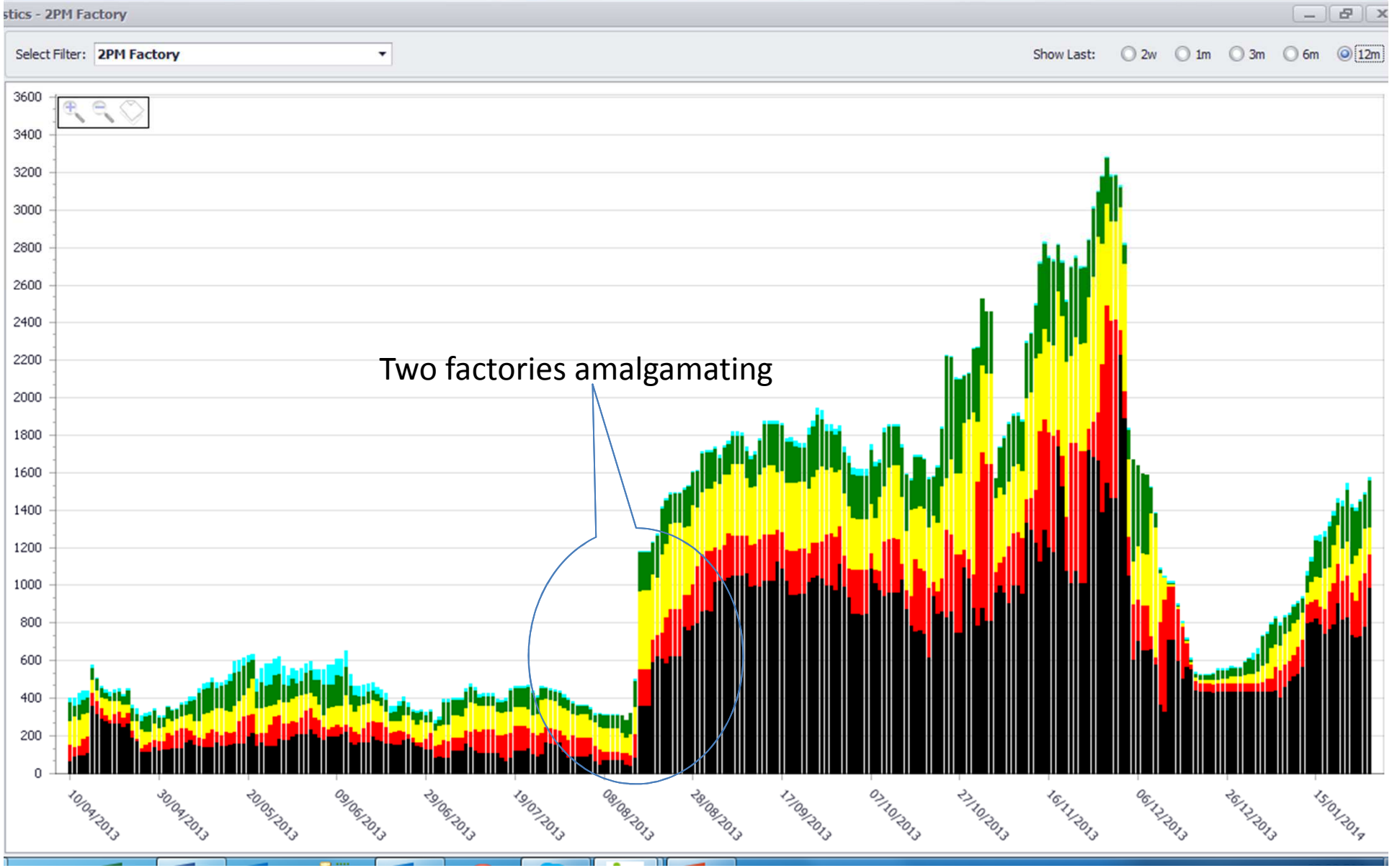
Old Buffer:

New Buffer:

Analysis of Badly & Well Managed CCR's

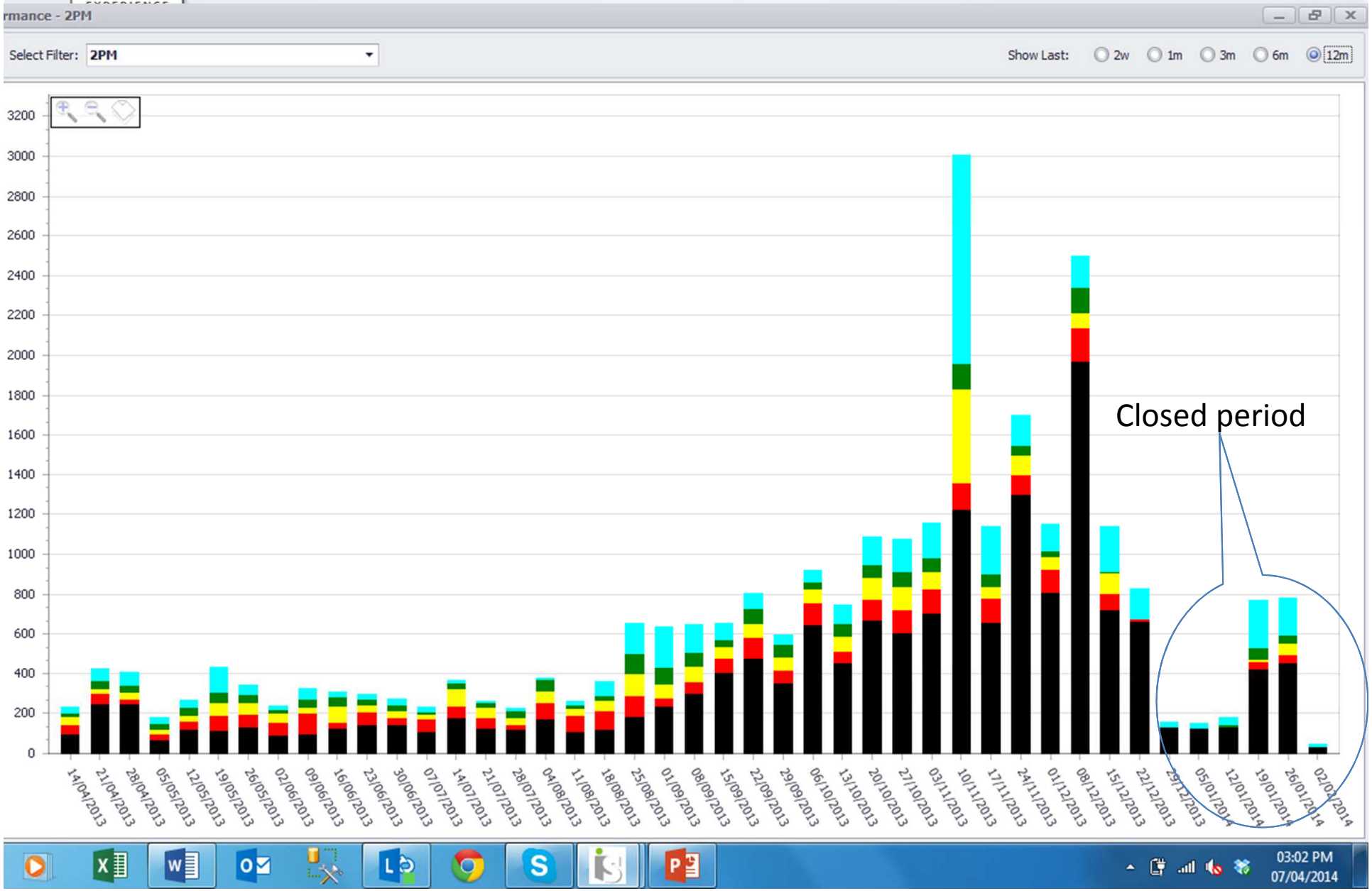
www.tocpractice.com

Factory – Current WO Status



www.tocpractice.com

Due Date Perf on MTO WO's



www.tocpractice.com

TOCPA
Theory Of Constraints Practitioners Alliance
SHARING EXPERIENCE

All WO's on CCR

There's a problem here!

Filter

hoose Work Center Group: All

rag a column header here to group by that column

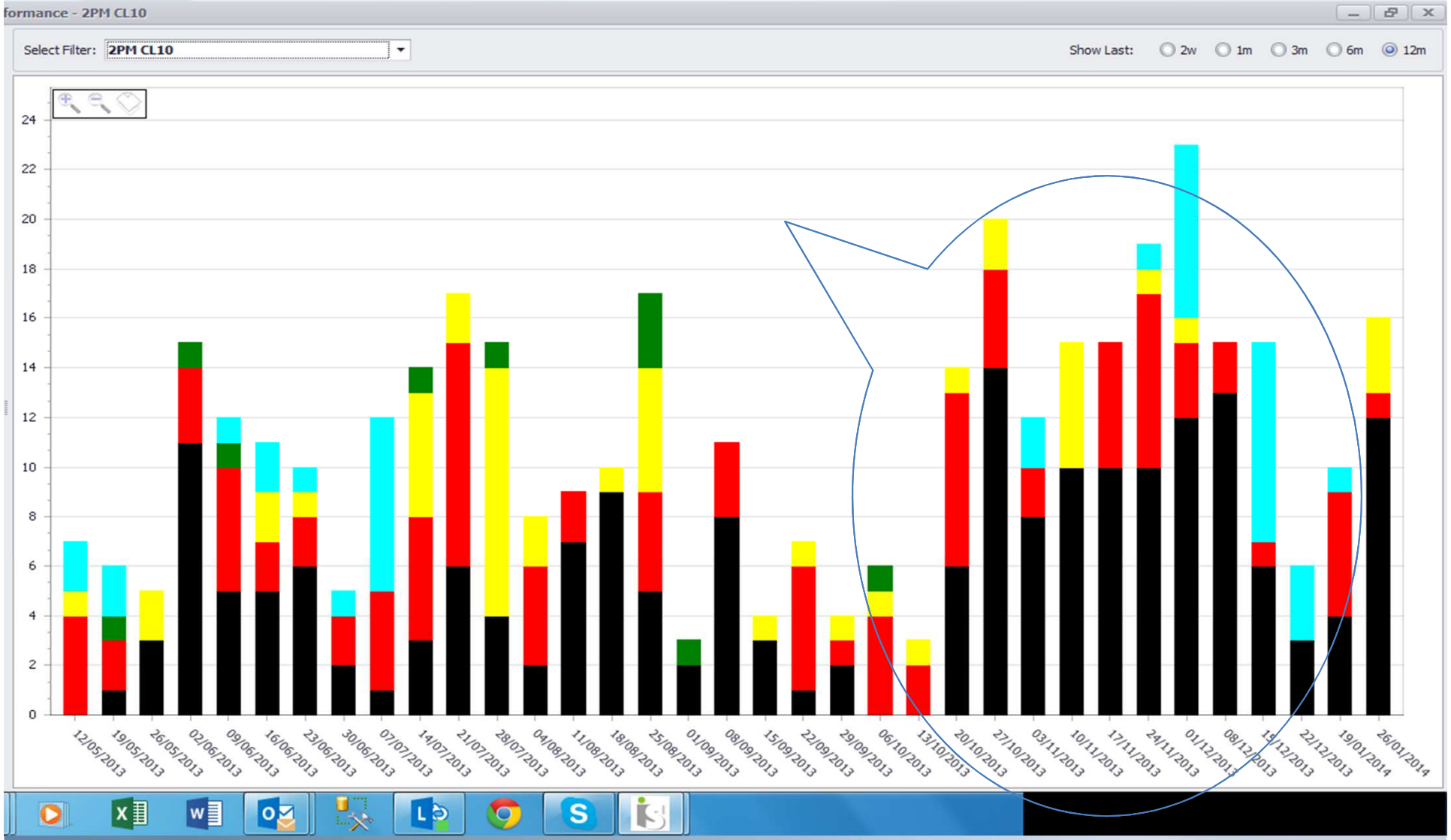
Work Center	Work Order ID	SKU	SKU Description	Client	Plant	Quantity	UOM	Order Type	Due Date	Buffer Penetration	Actual Release Date	Not
2PMCL10R												
2PMCL10R	W03-2PM055584	CL40/0223K	CLISCOE INNER TYPE D2H 1.2 140 NP R/H PRE-...	Client	2PM Factory	68	Unit	Order	19/01/2014	154%	17/01/2014	
2PMCL10R	W03-2PM055954	CL40/0222K	CLISCOE INNER TYPE D2H 1.2 140 NP L/H PRE-...	Client	2PM Factory	133	Unit	Order	19/01/2014	154%	17/01/2014	
2PMCL10R	W03-2PM054384	CL10/0021	CLISCOE INNER TYPE NC1 HG 140 NP SLOPING ...	Client	2PM Factory	29	Unit	Order	20/01/2014	147%	20/01/2014	
2PMCL10R	W03-2PM054994	CL10/0021	CLISCOE INNER TYPE NC1 HG 140 NP SLOPING ...	Client	2PM Factory	19	Unit	Order	20/01/2014	147%	20/01/2014	
2PMCL10R	W03-2PM055563	CL10/0114	CLISCOE INNER TYPE D2H R/H HG 140 NP SLO...	Client	2PM Factory	358	Unit	Order	20/01/2014	147%	20/01/2014	
2PMCL10R	W03-2PM055565	CL40/0223	CLISCOE INNER TYPE D2H 1.2 140 NP R/H PRE-...	Client	2PM Factory	68	Unit	Order	20/01/2014	147%	20/01/2014	SEN
2PMCL10R	W03-2PM055757	CL10/0021	CLISCOE INNER TYPE NC1 HG 140 NP SLOPING ...	Client	2PM Factory	3	Unit	Order	20/01/2014	147%	20/01/2014	
2PMCL10R	W03-2PM055758	CL10/0022	CLISCOE INNER TYPE NC1 HG 140 NP SLOPING ...	Client	2PM Factory	3	Unit	Order	20/01/2014	147%	20/01/2014	
2PMCL10R	W03-2PM055761	CL40/0222	CLISCOE INNER TYPE D2H 1.2 140 NP L/H PRE-...	Client	2PM Factory	133	Unit	Order	20/01/2014	147%	20/01/2014	SEN
2PMCL10R	W03-2PM054387	CL10/0055	CLISCOE INNER TYPE ND4 HG 140 NP PAINTED	Client	2PM Factory	41	Unit	Order	22/01/2014	134%	22/01/2014	
2PMCL10R	W03-2PM056187	CL10/0055	CLISCOE INNER TYPE ND4 HG 140 NP PAINTED	Client	2PM Factory	1	Unit	Order	22/01/2014	134%	22/01/2014	
2PMCL10R	W03-2PM056687	CL10/0113	CLISCOE INNER TYPE D2H L/H HG 140 NP SLO...	Client	2PM Factory	60	Unit	Order	22/01/2014	134%	22/01/2014	
2PMCL10R	W03-2PM056389	CL10/0055	CLISCOE INNER TYPE ND4 HG 140 NP PAINTED	Client	2PM Factory	4	Unit	Order	23/01/2014	127%	23/01/2014	
2PMCL10R	W03-2PM054995	CL10/0022	CLISCOE INNER TYPE NC1 HG 140 NP SLOPING ...	Client	2PM Factory	7	Unit	Order	24/01/2014	121%	24/01/2014	
2PMCL10R	W03-2PM056691	CL40/0336	PRE-GALV INNER TYPE NE1 1.2 140 NP SLOPING ...	Client	2PM Factory	44	Unit	Order	25/01/2014	114%	24/01/2014	SEN
2PMCL10R	W03-2PM056185	CL10/0021	CLISCOE INNER TYPE NC1 HG 140 NP SLOPING ...	Client	2PM Factory	19	Unit	Order	26/01/2014	107%	24/01/2014	
2PMCL10R	W03-2PM056186	CL10/0022	CLISCOE INNER TYPE NC1 HG 140 NP SLOPING ...	Client	2PM Factory	7	Unit	Order	26/01/2014	107%	24/01/2014	
2PMCL10R	W03-2PM056685	CL10/0022	CLISCOE INNER TYPE NC1 HG 140 NP SLOPING ...	Client	2PM Factory	12	Unit	Order	26/01/2014	107%	24/01/2014	
2PMCL10R	W03-2PM056686	CL10/0055	CLISCOE INNER TYPE ND4 HG 140 NP PAINTED	Client	2PM Factory	21	Unit	Order	26/01/2014	107%	24/01/2014	
2PMCL10R	W03-2PM057222	CL10/0055	CLISCOE INNER TYPE ND4 HG 140 NP PAINTED	Client	2PM Factory	21	Unit	Order	26/01/2014	107%	24/01/2014	
2PMCL10R	W03-2PM057424	CL40/0223K	CLISCOE INNER TYPE D2H 1.2 140 NP R/H PRE-...	Client	2PM Factory	92	Unit	Order	27/01/2014	101%	27/01/2014	
2PMCL10R	W03-2PM055582	CL10/0079K	CLISCOE INNER TYPE C2H R/H 1.0 140 NP SLOPI...	Client	2PM Factory	30	Unit	Order	30/01/2014	81%		CAN
2PMCL10R	W03-2PM055561	CL10/0079	CLISCOE INNER TYPE C2H R/H 1.0 140 NP SLOPI...	Client	2PM Factory	30	Unit	Order	01/02/2014	67%		SEN
2PMCL10R	W03-2PM057899	CL10/0008	CLISCOE INNER TYPE NC1 LG 140 NP L/H PAINT	Client	2PM Factory	177	Unit	Order	02/02/2014	61%		

[Work Center] = '2PMCL10R'

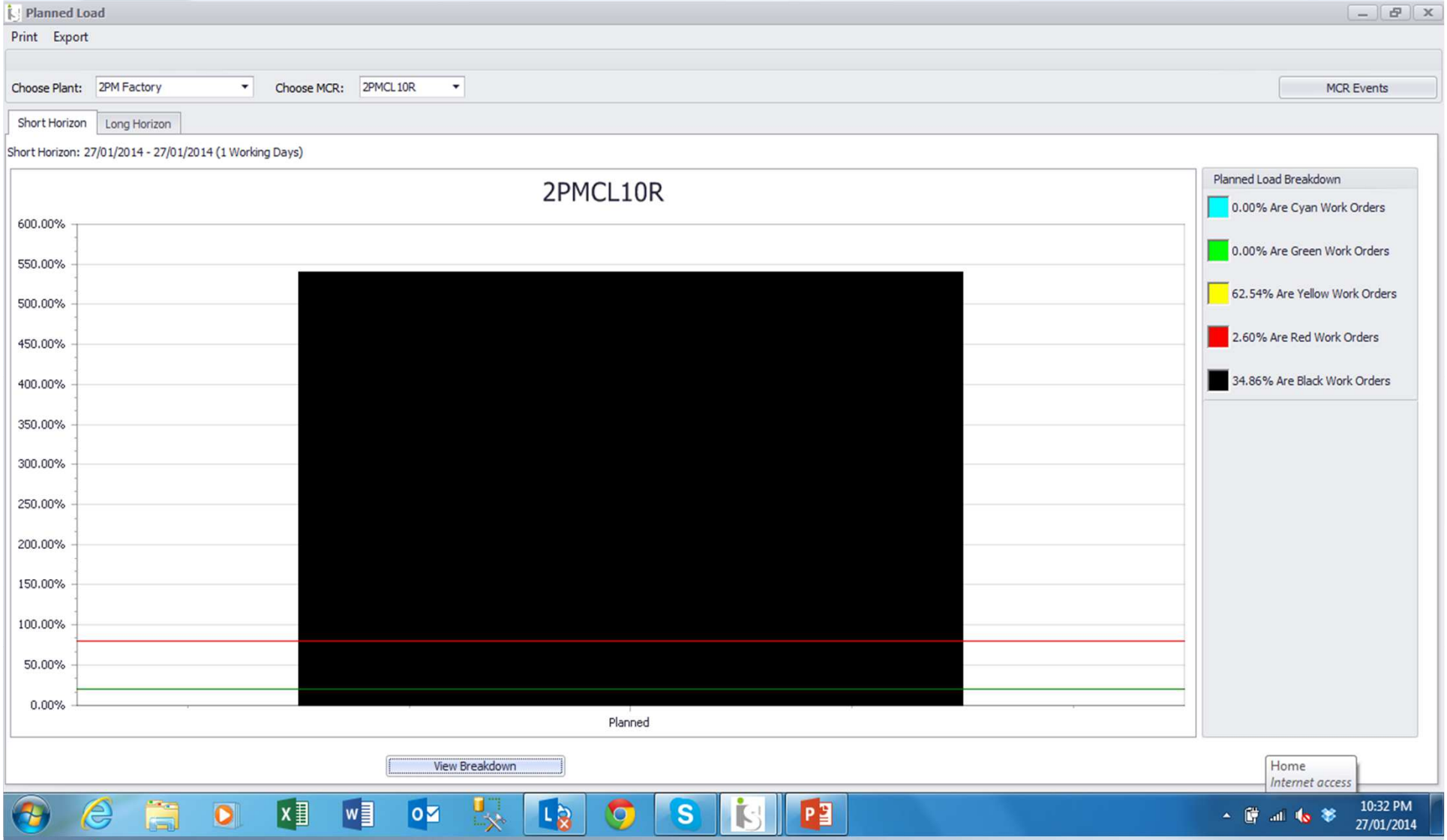
Edit Filter

Record 1 of 36

WO Due Date Performance



Short Horizon



SH Work Breakdown

2PMCL10R - Short Horizon Planned Load

Availability

Planned Load: 540.82%

Total Available Hours: 7.50

Drag a column header here to group by that column

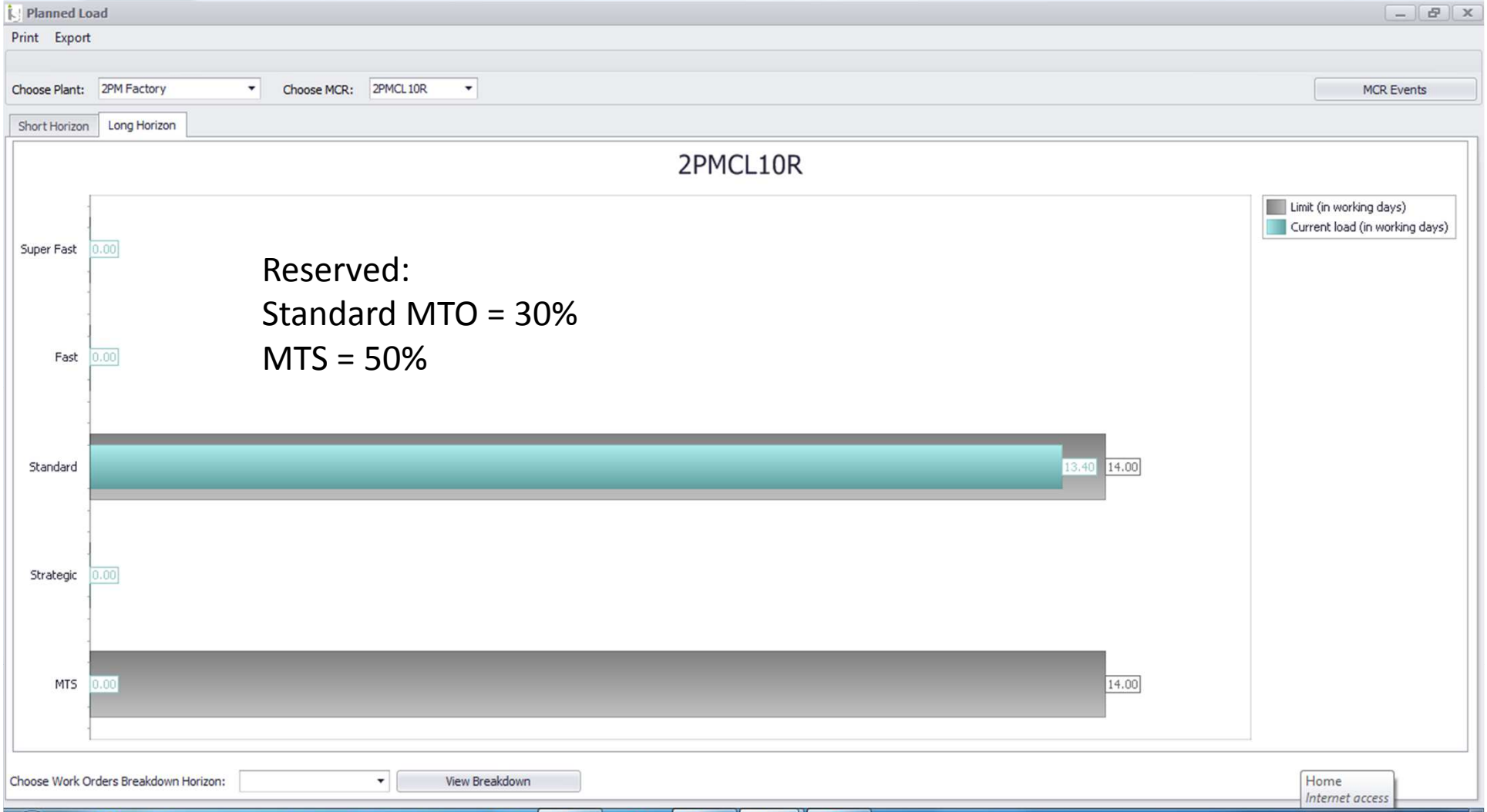
Work Load (%)	Work L...	Work Center	Work Order ID	SKU	SKU Description	Client	Quantity	Order Type	Due Date	Buffer Penet...	SAGE Sales Order ID	Stat Code 1	S
5.75%	2.33	2PMCL10R	W03-2PM055761	CL40/0222	CLISCOE INNER TYPE D2H ...	Client	133.00	Order	20/01/2014 08:00:00 AM	147%		PRE	C
0.13%	0.05	2PMCL10R	W03-2PM055758	CL10/0022	CLISCOE INNER TYPE NC1 ...	Client	3.00	Order	20/01/2014 08:00:00 AM	147%		PRE	C
0.13%	0.05	2PMCL10R	W03-2PM055757	CL10/0021	CLISCOE INNER TYPE NC1 ...	Client	3.00	Order	20/01/2014 08:00:00 AM	147%		PRE	C
2.94%	1.19	2PMCL10R	W03-2PM055565	CL40/0223	CLISCOE INNER TYPE D2H ...	Client	68.00	Order	20/01/2014 08:00:00 AM	147%		PRE	C
15.48%	6.28	2PMCL10R	W03-2PM055563	CL10/0114	CLISCOE INNER TYPE D2...	Client	358.00	Order	20/01/2014 08:00:00 AM	147%		PRE	C
0.82%	0.33	2PMCL10R	W03-2PM054994	CL10/0021	CLISCOE INNER TYPE NC1 ...	Client	19.00	Order	20/01/2014 08:00:00 AM	147%		PRE	C
1.25%	0.51	2PMCL10R	W03-2PM054384	CL10/0021	CLISCOE INNER TYPE NC1 ...	Client	29.00	Order	20/01/2014 08:00:00 AM	147%		PRE	C
2.60%	1.05	2PMCL10R	W03-2PM056687	CL10/0113	CLISCOE INNER TYPE D2...	Client	60.00	Order	22/01/2014 08:00:00 AM	134%		PRE	C
0.04%	0.02	2PMCL10R	W03-2PM056187	CL10/0055	CLISCOE INNER TYPE ND4 ...	Client	1.00	Order	22/01/2014 08:00:00 AM	134%		PRE	C
1.77%	0.72	2PMCL10R	W03-2PM054387	CL10/0055	CLISCOE INNER TYPE ND4 ...	Client	41.00	Order	22/01/2014 08:00:00 AM	134%		PRE	C
0.17%	0.07	2PMCL10R	W03-2PM056389	CL10/0055	CLISCOE INNER TYPE ND4 ...	Client	4.00	Order	23/01/2014 08:00:00 AM	127%		PRE	C
0.30%	0.12	2PMCL10R	W03-2PM054995	CL10/0022	CLISCOE INNER TYPE NC1 ...	Client	7.00	Order	24/01/2014 08:00:00 AM	121%		PRE	C
0.91%	0.37	2PMCL10R	W03-2PM057222	CL10/0055	CLISCOE INNER TYPE ND4 ...	Client	21.00	Order	26/01/2014 08:00:00 AM	107%		PRE	C
0.91%	0.37	2PMCL10R	W03-2PM056686	CL10/0055	CLISCOE INNER TYPE ND4 ...	Client	21.00	Order	26/01/2014 08:00:00 AM	107%		PRE	C
0.52%	0.21	2PMCL10R	W03-2PM056685	CL10/0022	CLISCOE INNER TYPE NC1 ...	Client	12.00	Order	26/01/2014 08:00:00 AM	107%		PRE	C
0.30%	0.12	2PMCL10R	W03-2PM056186	CL10/0022	CLISCOE INNER TYPE NC1 ...	Client	7.00	Order	26/01/2014 08:00:00 AM	107%		PRE	C
0.82%	0.33	2PMCL10R	W03-2PM056185	CL10/0021	CLISCOE INNER TYPE NC1 ...	Client	19.00	Order	26/01/2014 08:00:00 AM	107%		PRE	C
1.30%	0.53	2PMCL10R	W03-2PM055582	CL10/0079K	CLISCOE INNER TYPE C2H ...	Client	30.00	Order	30/01/2014 08:00:00 AM	81%		PRE	C
1.30%	0.53	2PMCL10R	W03-2PM055561	CL10/0079	CLISCOE INNER TYPE C2H ...	Client	30.00	Order	01/02/2014 08:00:00 AM	67%		PRE	C
1.64%	0.67	2PMCL10R	W03-2PM057902	CL10/0085K	CLISCOE INNER TYPE NC1 ...	Client	38.00	Order	02/02/2014 08:00:00 AM	61%		PRE	C
7.74%	3.14	2PMCL10R	W03-2PM057901	CL10/0059	CLISCOES ND54S INNER T...	Client	179.00	Order	02/02/2014 08:00:00 AM	61%		PRE	C
7.57%	3.07	2PMCL10R	W03-2PM057900	CL10/0009	CLISCOE INNER TYPE NC1 ...	Client	175.00	Order	02/02/2014 08:00:00 AM	61%		PRE	C
7.66%	3.11	2PMCL10R	W03-2PM057899	CL10/0008	CLISCOE INNER TYPE NC1 ...	Client	177.00	Order	02/02/2014 08:00:00 AM	61%		PRE	C
1.64%	0.67	2PMCL10R	W03-2PM057869	CL10/0085	CLISCOE INNER TYPE NC1 ...	Client	38.00	Order	03/02/2014 08:00:00 AM	54%		PRE	C

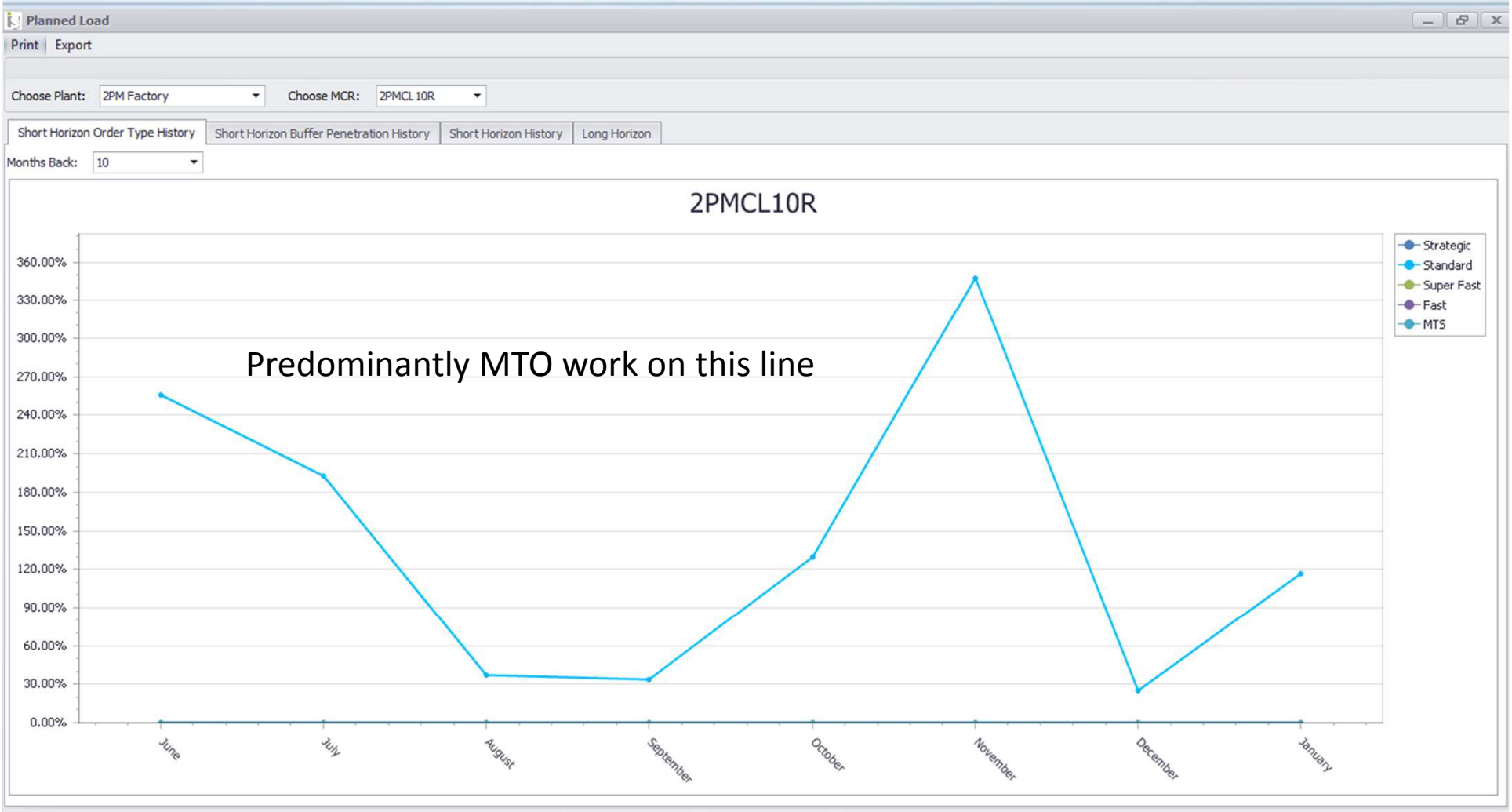
Record 7 of 28

Home
Internet access

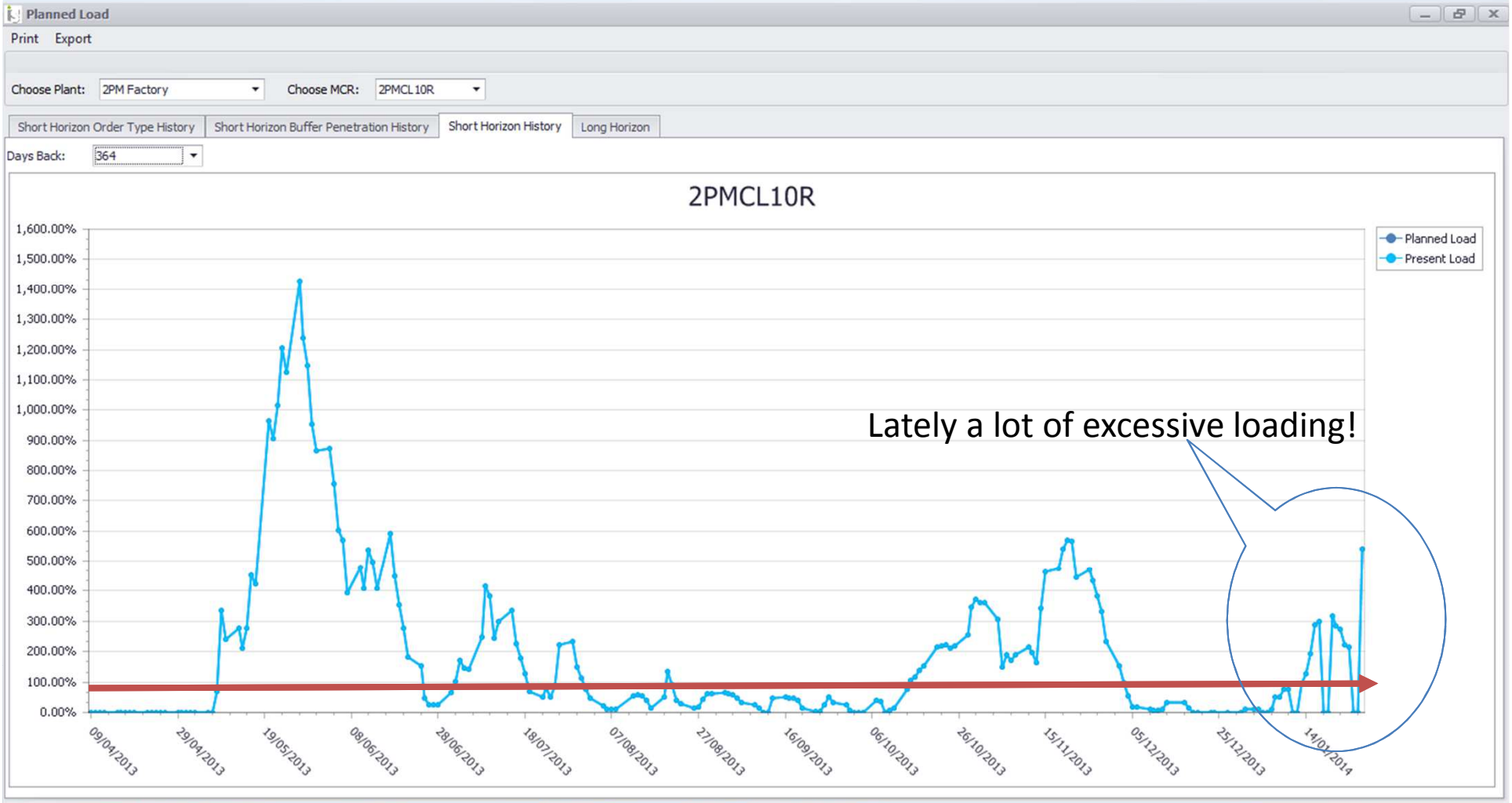
10:33 PM
27/01/2014

Long Horizon

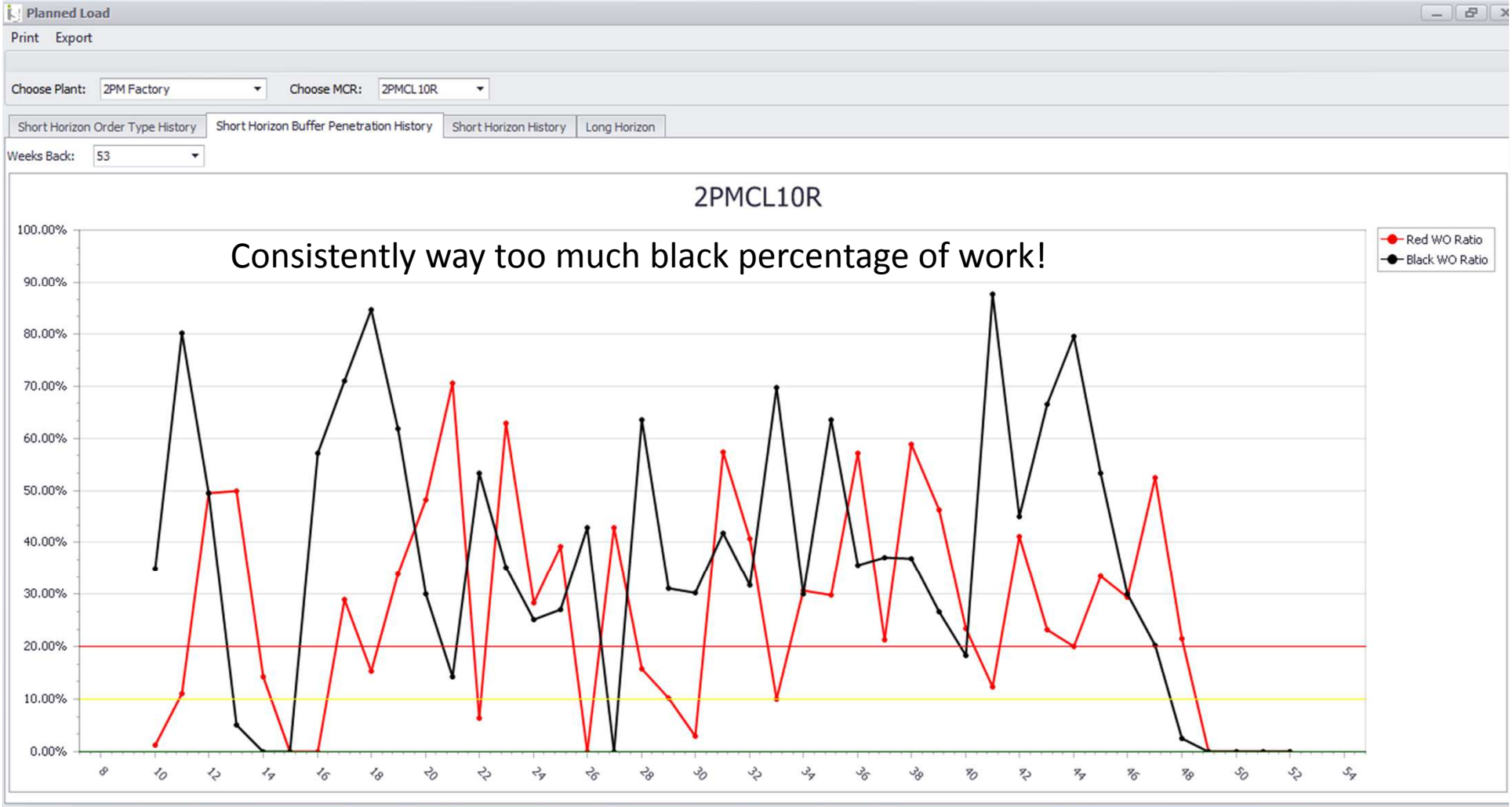



Planned Load
Print
Export
Choose Plant:
2PM Factory
Choose MCR:
2PMCL 10R
Short Horizon Order Type History
Short Horizon Buffer Penetration History
Short Horizon History
Long Horizon
Months Back:
10
2PMCL10R
Predominantly MTO work on this line
360.00%
330.00%
300.00%
270.00%
240.00%
210.00%
180.00%
150.00%
120.00%
90.00%
60.00%
30.00%
0.00%
June
July
August
September
October
November
December
January
Strategic
Standard
Super Fast
Fast
MTS

Short Horizon History



Black/Red Penetration History



www.tocpractice.com

Same Factory – Different CCR

Filter

Choose Work Center Group: All

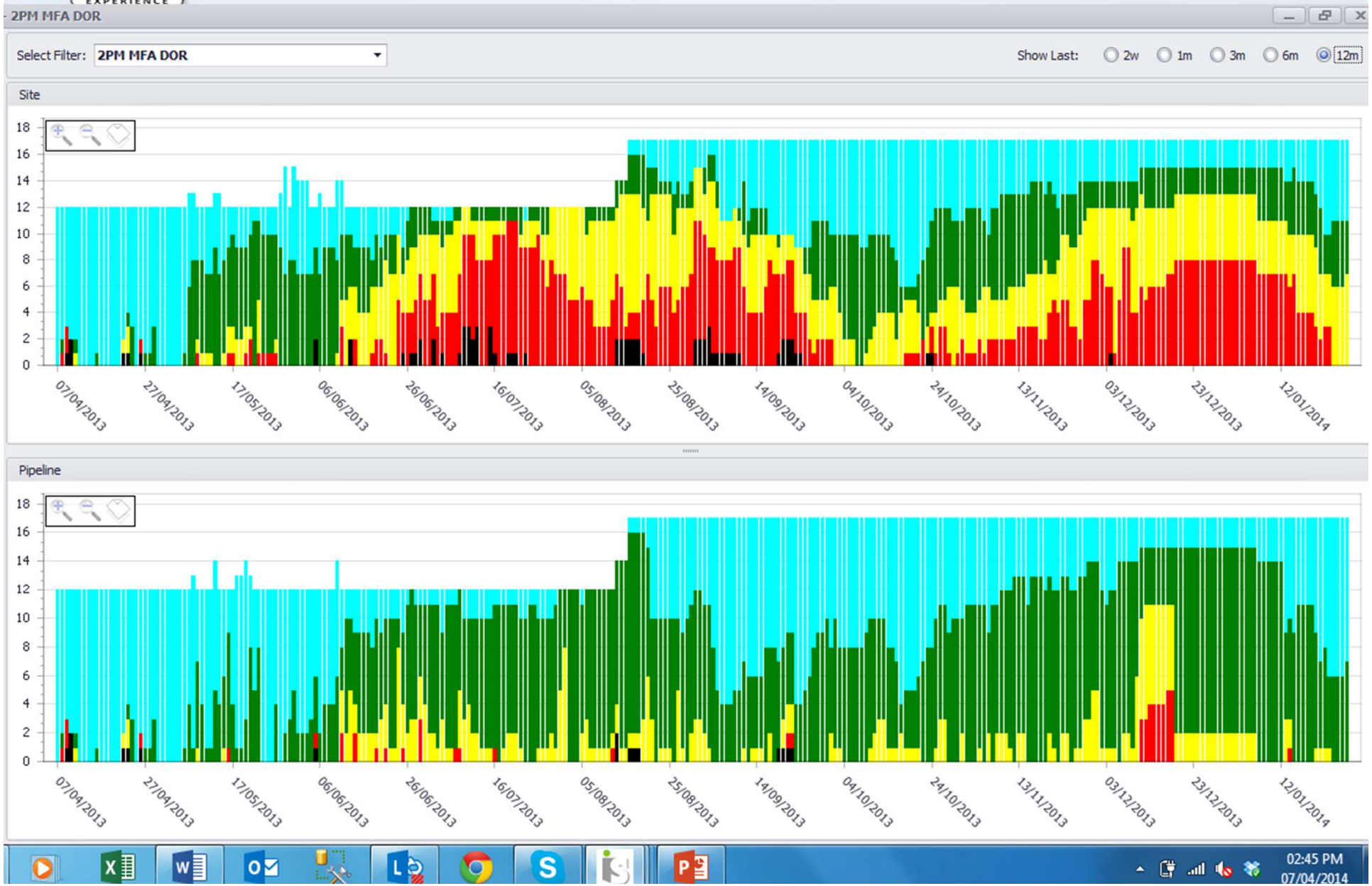
Drag a column header here to group by that column

Work Center	Work Order ID	SKU	SKU	Client	Plant	Quantity	UOM	Order Type	Due Date	Buffer Penetration	Actual Release Date	Notes
2PMDORR												
2PMDORR	W03-2PM056161	DR30/0205	DOOR...	2PM	2PM Factory	31	Unit	Order	23/01/2014	141%	23/01/2014	23/01/2014
2PMDORR	W03-2PM053658	DR30/0080	DOOR...	Client	2PM Factory	27	Unit	Order	24/01/2014	131%	24/01/2014	
2PMDORR	W03-2PM055763	DR30/0115	DOOR...	Client	2PM Factory	11	Unit	Order	24/01/2014	131%	24/01/2014	24/01/2014
2PMDORR	W03-2PM057428	DR20/0004	DOOR...	Client	2PM Factory	61	Unit	Order	26/01/2014	111%	24/01/2014	
2PMDORR	W03-2PM057429	DR20/0004	DOOR...	Client	2PM Factory	30	Unit	Order	26/01/2014	111%	24/01/2014	
2PMDORR	W03-2PM057909	DR20/0004	DOOR...	Client	2PM Factory	11	Unit	Order	26/01/2014	111%	24/01/2014	
2PMDORR	W03-2PM056162	DR30/0206	DOOR...	2PM	2PM Factory	87	Unit	Order	27/01/2014	101%	27/01/2014	
2PMDORR	W03-2PM057426	DR20/0003	DOOR...	Client	2PM Factory	60	Unit	Order	27/01/2014	101%	27/01/2014	
2PMDORR	W03-2PM056734	DR30/0006	DOOR...	Client	2PM Factory	1	Unit	Order	29/01/2014	81%		
2PMDORR	W03-2PM056735	DR30/0006	DOOR...	Client	2PM Factory	4	Unit	Order	29/01/2014	81%		
2PMDORR	W03-2PM052883	PS50/0119	DOOR...	Client	2PM Factory	19	Unit	Order	30/01/2014	81%		
2PMDORR	W03-2PM053324	PS50/0119	DOOR...	Client	2PM Factory	8	Unit	Order	30/01/2014	81%		
2PMDORR	W03-2PM054196	DR30/0003	DOOR...	2PM	2PM Factory	241	Unit	Stock		57%	24/01/2014	24/01/2014
2PMDORR	W03-2PM054217	DR30/0020	DOOR...	2PM	2PM Factory	1,118	Unit	Stock		56%	22/01/2014	
2PMDORR	W03-2PM055523	DR30/0269	DOOR...	2PM	2PM Factory	60	Unit	Stock		51%	27/01/2014	
2PMDORR	W03-2PM057841	DR10/8000	SJ DO...	2PM	2PM Factory	481	Unit	Stock		44%	23/01/2014	
2PMDORR	W03-2PM057915	DR30/0118	DOOR...	Client	2PM Factory	14	Unit	Order	02/02/2014	41%		
2PMDORR	W03-2PM058363	DR30/0136	DOOR...	Client	2PM Factory	1	Unit	Order	02/02/2014	41%		
2PMDORR	W03-2PM058186	DR30/0004	DOOR...	2PM	2PM Factory	182	EA	Stock		39%	24/01/2014	
2PMDORR	W03-2PM057366	DR20/0020	DOOR...	2PM	2PM Factory	538	EA	Stock		36%	22/01/2014	
2PMDORR	W03-2PM054194	DR30/0083	DOOR...	2PM	2PM Factory	208	Unit	Stock		35%	24/01/2014	
2PMDORR	W03-2PM054210	DR30/0019	DOOR...	2PM	2PM Factory	1,572	Unit	Stock		35%	24/01/2014	
2PMDORR	W03-2PM056209	DR30/0106	DOOR...	Client	2PM Factory	52	Unit	Order	03/02/2014	31%		
2PMDORR	W03-2PM056210	DR30/0106	DOOR...	Client	2PM Factory	193	Unit	Order	03/02/2014	31%		

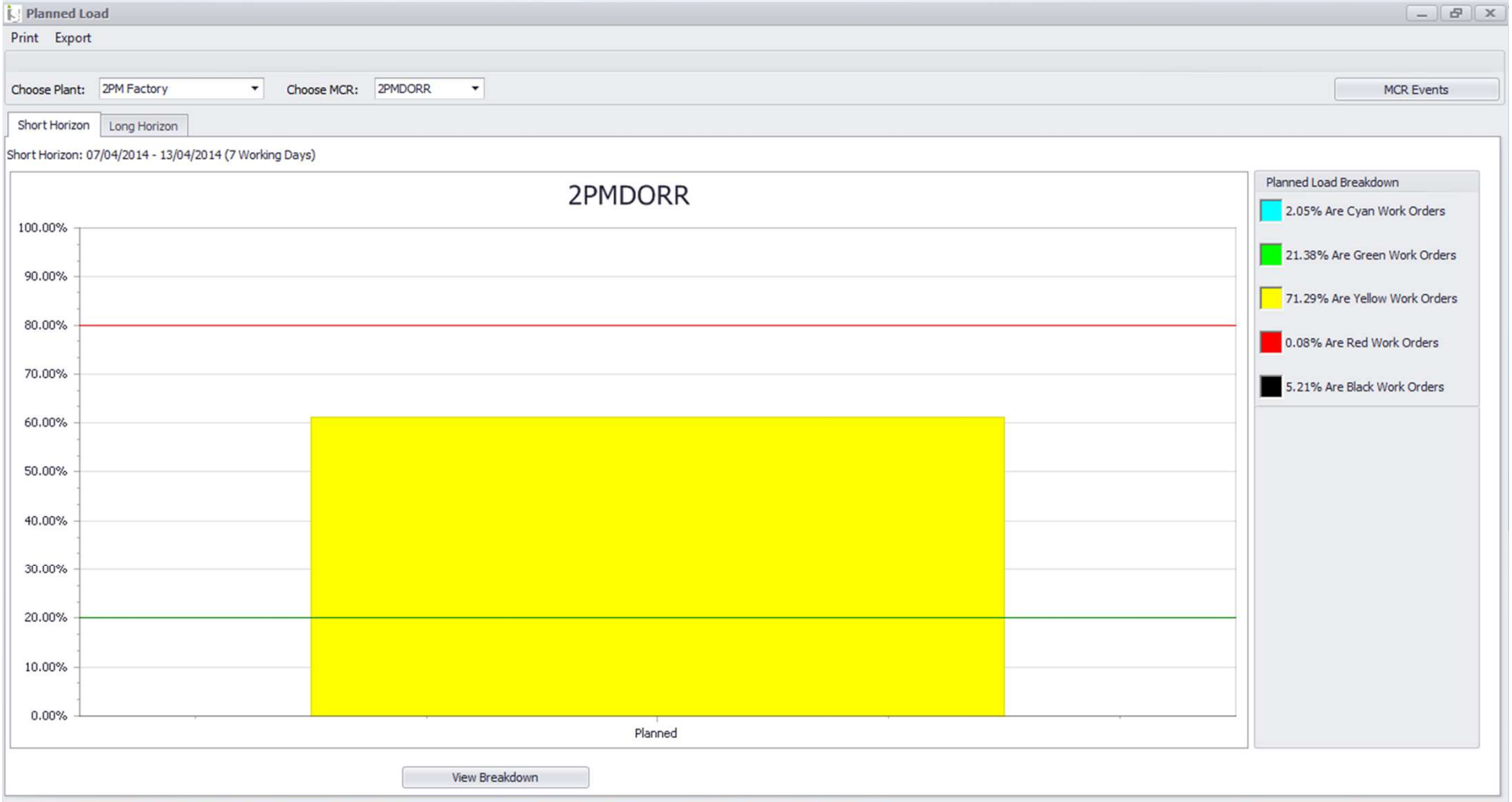
[Work Center] = '2PMDORR'

www.tocpractice.com

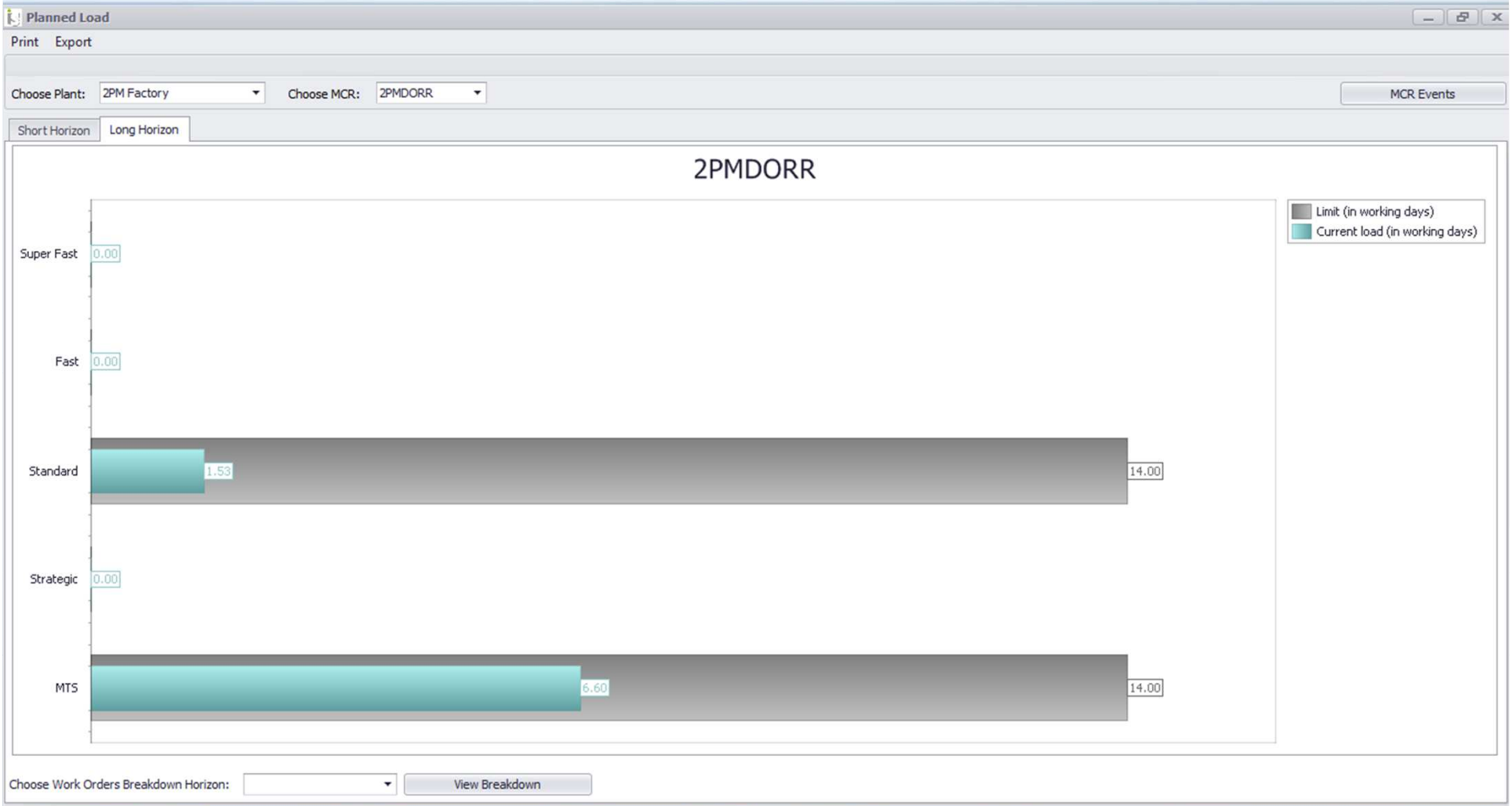
MTS – Colour Statistics



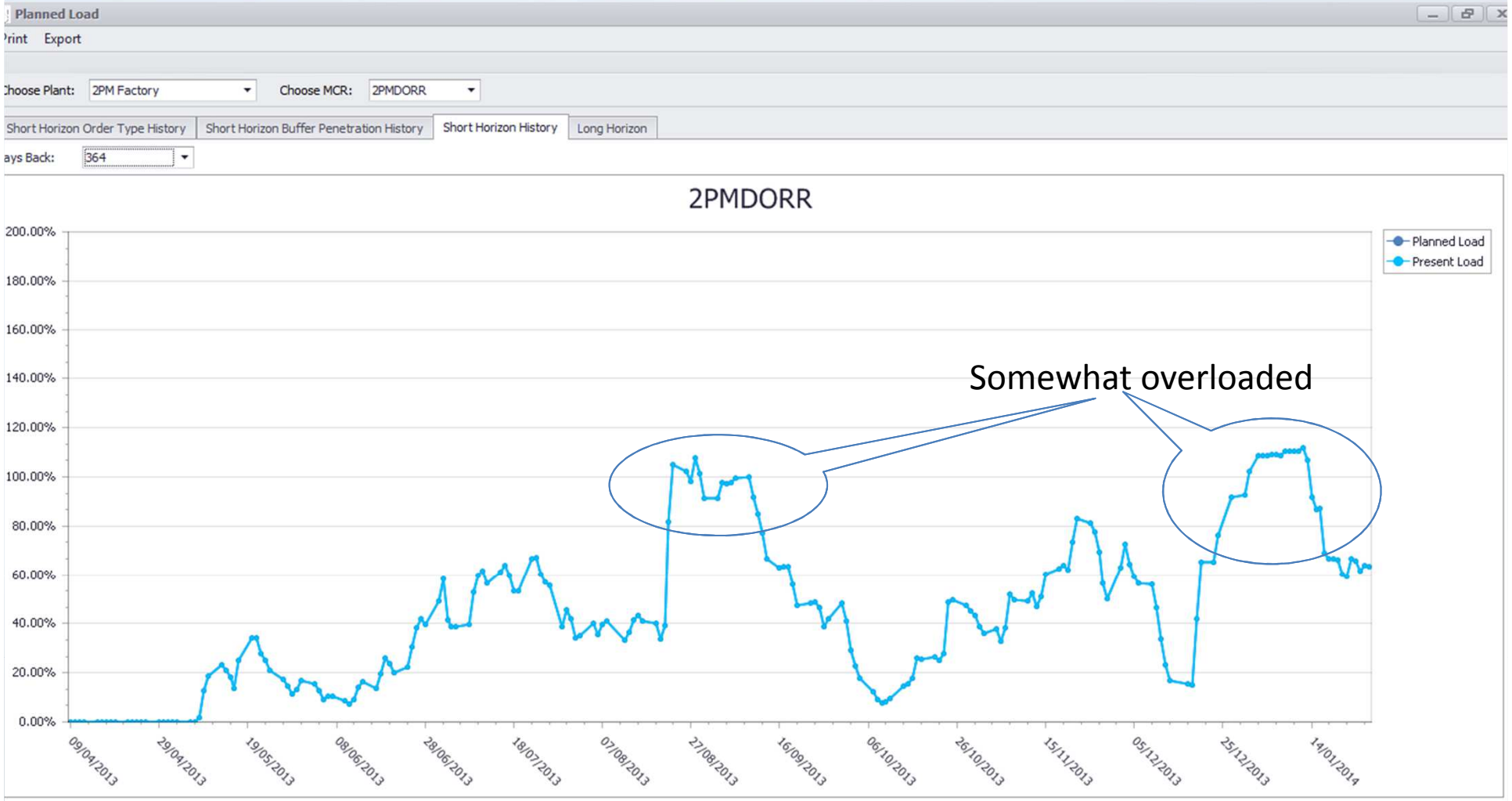
2PM DORR


Planned Load
Print
Export
Choose Plant:
2PM Factory
Choose MCR:
2PMDORR
MCR Events
Short Horizon
Long Horizon
Short Horizon: 07/04/2014 - 13/04/2014 (7 Working Days)
2PMDORR
100.00%
90.00%
80.00%
70.00%
60.00%
50.00%
40.00%
30.00%
20.00%
10.00%
0.00%
Planned
Planned Load Breakdown
2.05% Are Cyan Work Orders
21.38% Are Green Work Orders
71.29% Are Yellow Work Orders
0.08% Are Red Work Orders
5.21% Are Black Work Orders
View Breakdown

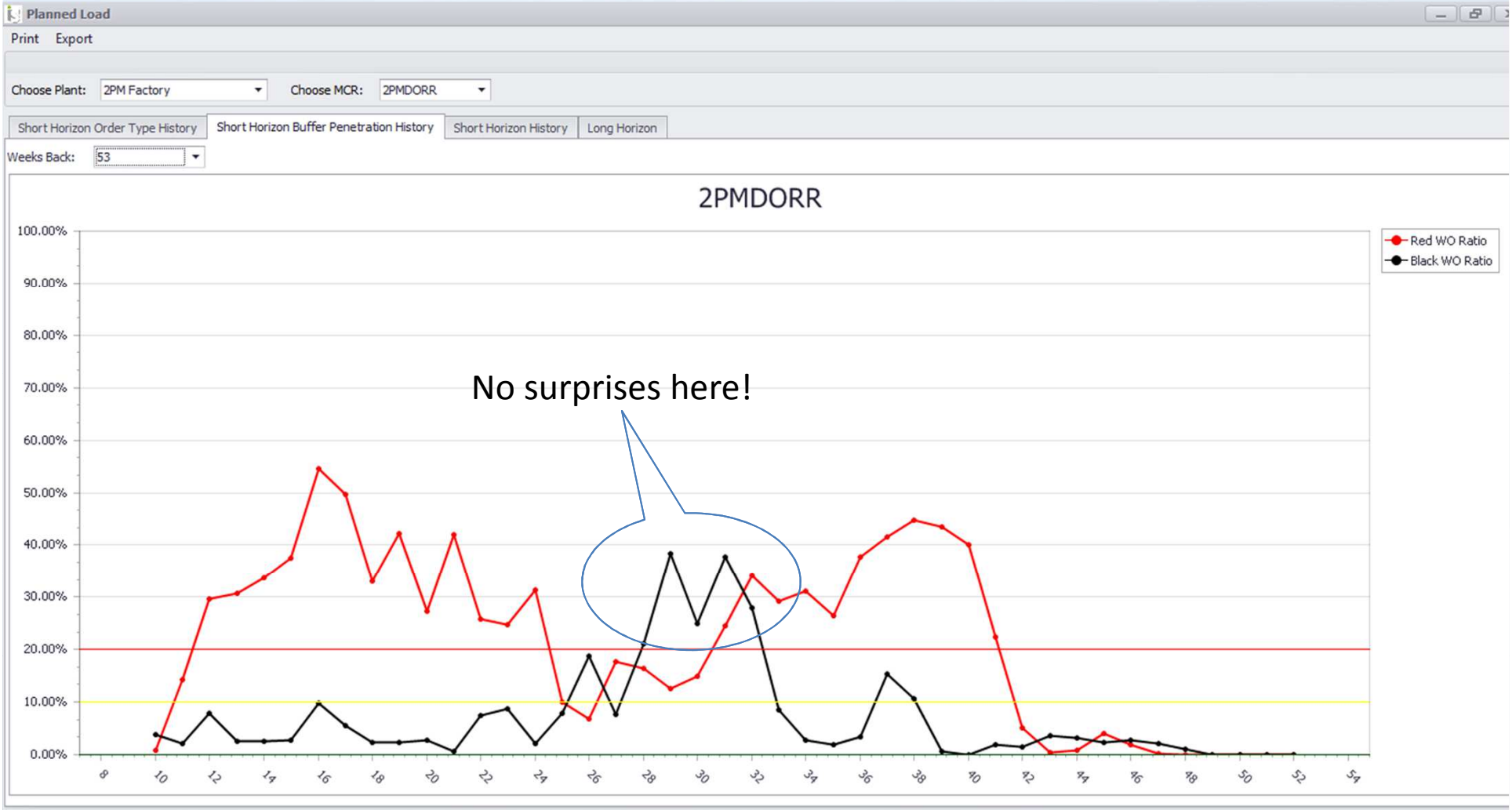
Long Horizon



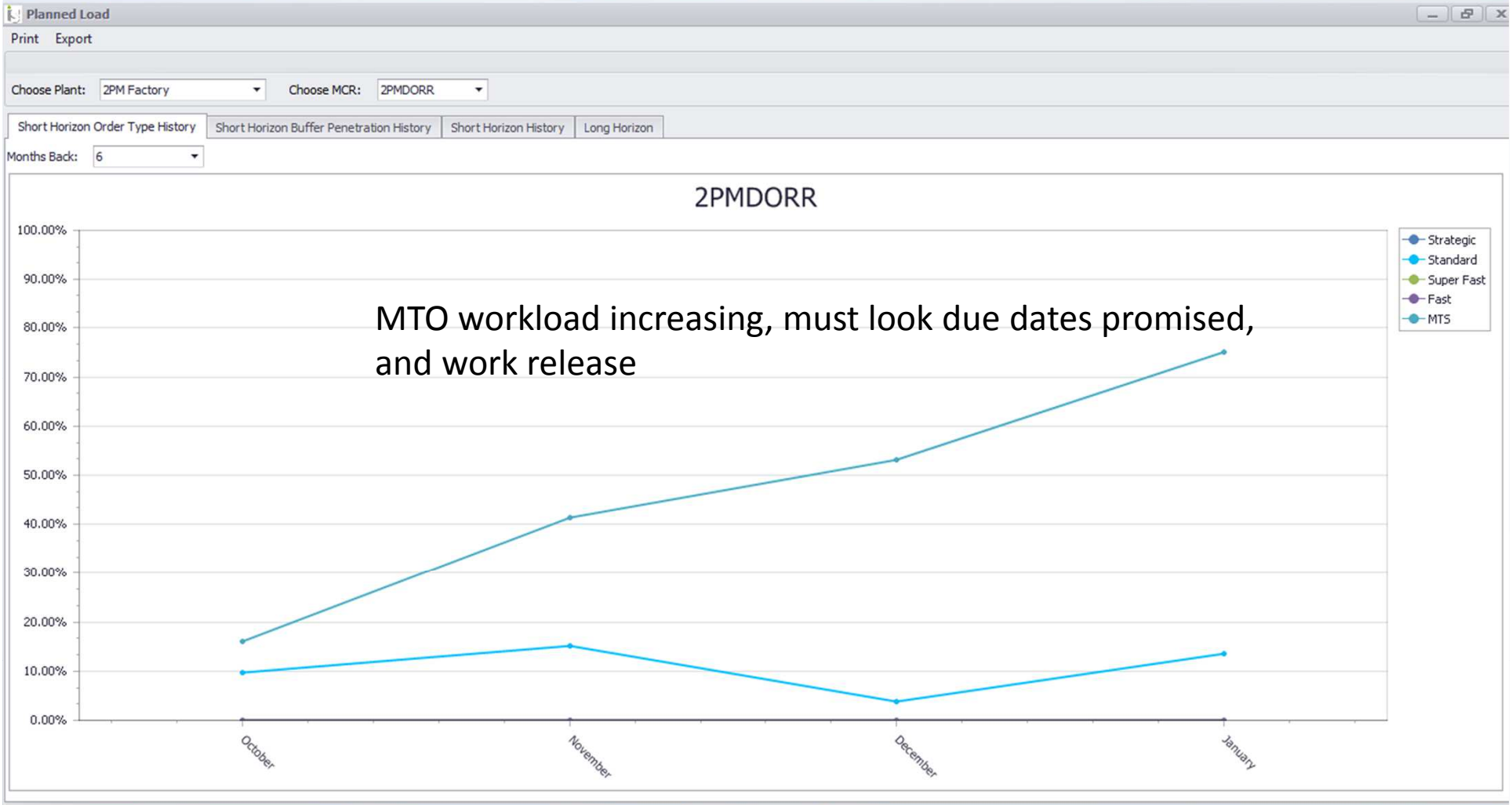
2PM MFA DOR


Planned Load
Print Export
Choose Plant: 2PM Factory
Choose MCR: 2PMDORR
Short Horizon Order Type History
Short Horizon Buffer Penetration History
Short Horizon History
Long Horizon
Days Back: 364
2PMDORR
Planned Load
Present Load
Somewhat overloaded
200.00%
180.00%
160.00%
140.00%
120.00%
100.00%
80.00%
60.00%
40.00%
20.00%
0.00%
09/04/2013
29/04/2013
19/05/2013
08/06/2013
28/06/2013
18/07/2013
07/08/2013
27/08/2013
16/09/2013
06/10/2013
26/10/2013
15/11/2013
05/12/2013
25/12/2013
14/01/2014

Black/Red Penetration



Order Type History



S&OP Enabler!

2PMCL10R - Short Horizon Planned Load

Availability

Planned Load: 540.82%

Total Available Hours: 7.50

Drag a column header here to group by that column

Work Load (%)	Work L...	Work Center	Work Order ID	SKU	SKU Description	Client	Quantity	Order Type	Due Date	Buffer Penet...	SAGE Sales Order ID	Stat Code 1	S
5.75%	2.33	2PMCL10R	W03-2PM055761	CL40/0222	CLISCOE INNER TYPE D2H ...	Client	133.00	Order	20/01/2014 08:00:00 AM	147%		PRE	C
0.13%	0.05	2PMCL10R	W03-2PM055758	CL10/0022	CLISCOE INNER TYPE NC1 ...	Client	3.00	Order	20/01/2014 08:00:00 AM	147%		PRE	C
0.13%	0.05	2PMCL10R	W03-2PM055757	CL10/0021	CLISCOE INNER TYPE NC1 ...	Client	3.00	Order	20/01/2014 08:00:00 AM	147%		PRE	C
2.94%	1.19	2PMCL10R	W03-2PM055565	CL40/0223	CLISCOE INNER TYPE D2H ...	Client	68.00	Order	20/01/2014 08:00:00 AM	147%		PRE	C
15.48%	6.28	2PMCL10R	W03-2PM055563	CL10/0114	CLISCOE INNER TYPE D2...	Client	358.00	Order	20/01/2014 08:00:00 AM	147%		PRE	C
0.82%	0.33	2PMCL10R	W03-2PM054994	CL10/0021	CLISCOE INNER TYPE NC1 ...	Client	19.00	Order	20/01/2014 08:00:00 AM	147%		PRE	C
1.25%	0.51	2PMCL10R	W03-2PM054384	CL10/0021	CLISCOE INNER TYPE NC1 ...	Client	29.00	Order	20/01/2014 08:00:00 AM	147%		PRE	C
2.60%	1.05	2PMCL10R	W03-2PM056687	CL10/0113	CLISCOE INNER TYPE D2...	Client	60.00	Order	22/01/2014 08:00:00 AM	134%		PRE	C
0.04%	0.02	2PMCL10R	W03-2PM056187	CL10/0055	CLISCOE INNER TYPE ND4 ...	Client	1.00	Order	22/01/2014 08:00:00 AM	134%		PRE	C
1.77%	0.72	2PMCL10R	W03-2PM054387	CL10/0055	CLISCOE INNER TYPE ND4 ...	Client	41.00	Order	22/01/2014 08:00:00 AM	134%		PRE	C
0.17%	0.07	2PMCL10R	W03-2PM056389	CL10/0055	CLISCOE INNER TYPE ND4 ...	Client	4.00	Order	23/01/2014 08:00:00 AM	127%		PRE	C
0.30%	0.12	2PMCL10R	W03-2PM054995	CL10/0022	CLISCOE INNER TYPE NC1 ...	Client	7.00	Order	24/01/2014 08:00:00 AM	121%		PRE	C
0.91%	0.37	2PMCL10R	W03-2PM057222	CL10/0055	CLISCOE INNER TYPE ND4 ...	Client	21.00	Order	26/01/2014 08:00:00 AM	107%		PRE	C
0.91%	0.37	2PMCL10R	W03-2PM056686	CL10/0055	CLISCOE INNER TYPE ND4 ...	Client	21.00	Order	26/01/2014 08:00:00 AM	107%		PRE	C
0.52%	0.21	2PMCL10R	W03-2PM056685	CL10/0022	CLISCOE INNER TYPE NC1 ...	Client	12.00	Order	26/01/2014 08:00:00 AM	107%		PRE	C
0.30%	0.12	2PMCL10R	W03-2PM056186	CL10/0022	CLISCOE INNER TYPE NC1 ...	Client	7.00	Order	26/01/2014 08:00:00 AM	107%		PRE	C
0.82%	0.33	2PMCL10R	W03-2PM056185	CL10/0021	CLISCOE INNER TYPE NC1 ...	Client	19.00	Order	26/01/2014 08:00:00 AM	107%		PRE	C
1.30%	0.53	2PMCL10R	W03-2PM055582	CL10/0079K	CLISCOE INNER TYPE C2H ...	Client	30.00	Order	30/01/2014 08:00:00 AM	81%		PRE	C
1.30%	0.53	2PMCL10R	W03-2PM055561	CL10/0079	CLISCOE INNER TYPE C2H ...	Client	30.00	Order	01/02/2014 08:00:00 AM	67%		PRE	C
1.64%	0.67	2PMCL10R	W03-2PM057902	CL10/0085K	CLISCOE INNER TYPE NC1 ...	Client	38.00	Order	02/02/2014 08:00:00 AM	61%		PRE	C
7.74%	3.14	2PMCL10R	W03-2PM057901	CL10/0059	CLISCOES ND54S INNER T...	Client	179.00	Order	02/02/2014 08:00:00 AM	61%		PRE	C
7.57%	3.07	2PMCL10R	W03-2PM057900	CL10/0009	CLISCOE INNER TYPE NC1 ...	Client	175.00	Order	02/02/2014 08:00:00 AM	61%		PRE	C
7.66%	3.11	2PMCL10R	W03-2PM057899	CL10/0008	CLISCOE INNER TYPE NC1 ...	Client	177.00	Order	02/02/2014 08:00:00 AM	61%		PRE	C
1.64%	0.67	2PMCL10R	W03-2PM057869	CL10/0085	CLISCOE INNER TYPE NC1 ...	Client	38.00	Order	03/02/2014 08:00:00 AM	54%		PRE	C

Record 7 of 28

Home
Internet access

10:33 PM
27/01/2014

Conclusion

- Planned load function is essential when implementing VV type solution!
- Must follow the S&T Tree sequence!
- Fair amount of data maintenance
- Not too difficult to implement
- Hard to sell, and get adopted! (Hint: S&OP!)
- Effort will be rewarded well!