

ELECTRO-MOTIVE		BUSINESS PROCESS REVIEW	
	Title	EMD & PRM Supplier Scorecard Report	
	Organization/Area	Purchasing & Supply Chain	
	EUP Category:	N/A	
File Name:	BPR-Supplier Scorecard Report	Revision Date	11/14/2014
		Revision Level	B

The Electro-Motive (EMD & PRM) Supplier Scorecard Report

Electro-Motive has developed a supplier scorecard report to provide information related to a supplier's quality, delivery performance, commercial alignment and cost performance for the time period as listed on the report. This new report is presented in a spreadsheet based format. This document will detail the information that will be presented in the scorecard along with how the logic used to determine the scores.

All scores are reported at the Electro-Motive Purchasing Supplier code level. Therefore it is possible for a supplier to have more than one scorecard if Electro-Motive has multiple purchasing codes for the supplier. This would normally occur only if the supplier has multiple addresses to which Electro-Motive would issue purchase orders.

Scores - Definitions and Calculation

For a given Supplier code, the report will provide a Total Score along with scores for four components. For the total score and each of the four components, a definition and information related to the logic used to determine the score will be detailed below.

Scores for a given supplier code are based solely on data tied to that supplier code.

Total and component scores are values that range from zero (0) up to 100. The scores do not represent percentages, but represent a value assigned to the score component. A score of zero (0) means a score exists and the value attributed to the score is zero (0), unless otherwise stated in the individual score component section below.

Total Score:

The total score is the summation of three of the four scoring components, each of the three weighted equally. The Delivery Performance Score is currently not included in the calculation of the Total Score. Therefore, if a supplier has component scores of:

$$\begin{array}{r}
 \text{Quality Score} = 95 \\
 \text{Commercial Alignment Score} = 67 \\
 \text{Year over Year Cost Score} = 75 \\
 \hline
 \text{Total Score} = \mathbf{79} = (95 + 67 + 75) / 3
 \end{array}$$

The total score for a given month is based on the component scores for that same given month. The current month's total score does not represent a summary, or a running average of the prior months' total scores listed on the report.

ELECTRC MOTIVE		BUSINESS PROCESS REVIEW	
	Title	EMD & PRM Supplier Scorecard Report	
	Organization/Area	Purchasing & Supply Chain	
	EUP Category:	N/A	
File Name:	BPR-Supplier Scorecard Report	Revision Date	11/14/2014
		Revision Level	B

Quality Score:

The quality score for a given supplier code for a given month is calculated based on the ratio of good parts received versus total parts received. The given month's score is based on the data for a three month period ending in with the given month. Therefore, the Quality score for the month of March will be based on the number of good parts received and the total number of parts received during the time period of January, February, and March.

The number of goods parts received is determined by taking the total parts received and subtracting the number of complaint (rejected) parts for the given time period. As a part may be rejected in a month other than the month in which it was initially received, a quality score will never be given a negative value even if the ratio itself is negative.

Delivery Score:

The delivery score for a given supplier code for a given month is based on equally weighted quantity fill and on-time scores for the same given month. **The delivery score components are based on data measured at the individual delivery schedule line level of a purchase document.** Each individual delivery schedule line's scores are equally weighted when it comes to calculating the overall component score.

Quantity Fill Score:

The quantity fill score for a given delivery schedule line is based on the ratio of the delivery schedule line's quantity received by the upper end of the delivery tolerance period versus the delivery schedule line's quantity.

On-Time Score:

The on-time score for a given delivery schedule line is based on the ratio of the delivery schedule line's quantity received within the delivery tolerance period versus the delivery schedule line's quantity.

Additional information related to Delivery Score calculation is provided in the section titled "Delivery Score Calculation" later in this document

Year over Year (YoY) Cost Score:

The YoY score for a given supplier code for a given month is based on the percent change of the total cost of the materials purchased from a current time period to a prior time period. The resulting total percent change is then translated in to a score.

The percent change is essentially based on three key factors:

- 1.) The percent change in cost of those parts purchased in the current period based on the cost of the same parts in the prior period.
- 2.) The quantity of those parts that were purchased in the current period.
- 3.) Only those parts that were purchased in both the current and prior periods are included in the supplier's YoY Cost Score determination process.

ELECTRC MOTIVE		BUSINESS PROCESS REVIEW	
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	EUP Category:	N/A	
File Name:	BPR-Supplier Scorecard Report	Revision Date	11/14/2014
		Revision Level	B

The current period is the period beginning on January 1st, of the calendar year of the given month, to the last day of the given month. The prior period is defined as the 12 month calendar year preceeding the given month's calendar year. Therefore, for the given month of March, 2014:

- The current period is January 1, 2014 through March 31, 2014
- The prior period is January 1, 2013 through December 31, 2013

Additional information related to YoY Score calculation is provided later in this document in the section titled "Year over Year Score Calculation."

Commercial Alignment Score:

The Commercial Alignment score for a given vendor code for a given month. The Commercial alignment score is summation of three weighted characteristic scores. The three components and there weighting in the determination of the Commercial Alignment Score are:

Does not compete in aftermarket (50%), NDA (25%), and Commercially Responsive (25%). The definition and scoring logic for each characteristic is described below:

Does not compete in aftermarket:

If a supplier has an Exclusivity Agreement in place and it is confirmed that the supplier does not complete in the EMD aftermarket, then they will receive a score of 100.

If a supplier does not have an Exclusivity Agreement in place and/or it is not confirmed that the supplier does not complete in the EMD aftermarket, then they will receive a score of 1.

NDA:

If a supplier has a Non-Disclosure Agreement (NDA) in effect, they will receive a score of 100. If no NDA is in effect, the supplier will receive a score of 1.

Commercially Responsive:

If a supplier is considered commercially responsive they will receive a score 100.

If a supplier is not considered commercially responsive they will receive a score of 1.

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File Name:	BPR-Supplier Scorecard Report	Revision Date	11/14/2014
		Revision Level	B

Getting Started

Receiving the Report (file)

The supplier scorecard report will be sent out from EMD via e-mail. The report for a given month will be generated and broadcast in the middle of the preceding month. Therefore the report for the given month of March will be generated and broadcast in the middle of April.

A scorecard sent out via the monthly batch e-mail broadcast will have an e-mail subject line and text that reads as follows:

Subject: PRM & EMD Supplier Scorecard Report

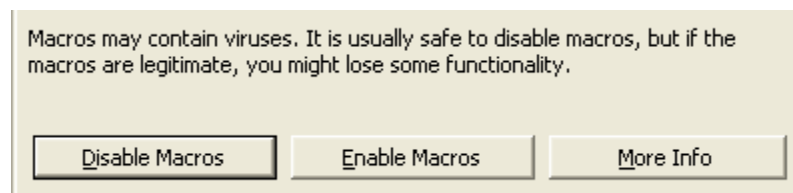
Please find the attached report containing the current PRM & EMD Supplier Scorecard report. If you have any questions related to opening, reading, or interpreting the report, please review the training aid titled "EMD & PRM Supplier Scorecard Report" posted on the EMD website located at: www.progressrail.com/supplychainmanagement Under General Information. Any questions concerning the Supplier Scorecard, please contact your EMD or PRM Buyers.

Note: This is a system generated E-mail. Please do NOT reply to it.

The supplier scorecard report will be attached as an excel file.

Opening the Report (file)

From the e-mail which contains the file, a user can either attempt to open or download the file to a different file location. Regardless of whether the file is being opened for the original e-mail or from the downloaded location, the user will receive a "Security Warning" message that will state the following:

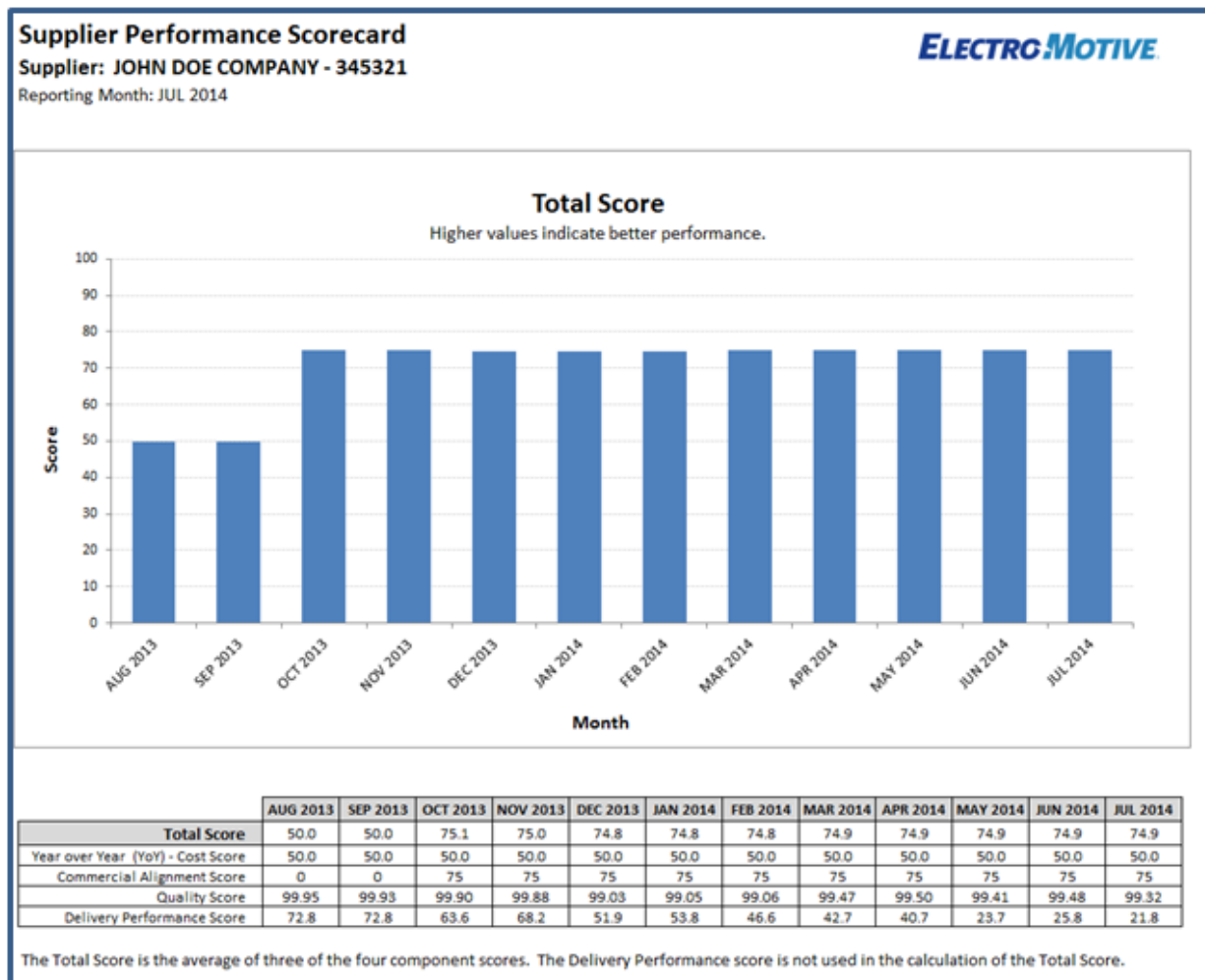


To the typical user it does not matter if you click on the "Disable Macros" or "Enable Macros" as the file will open and function properly. No data will be lost.

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File Name:	BPR-Supplier Scorecard Report	Revision Date	11/14/2014
		Revision Level	B

Scorecard Orientation

The supplier scorecard report will be presented in an Excel format which will contain two sheets. The first sheet labeled Total Score will detail the Total Score for the given supplier code. There will be 12 months of Total scores listed; the given (reporting) month, along with the prior 11 months. An example of the Total Score sheet is shown in the example below:



In the example above the report is for the reporting month of July and would have been generated and broadcast in mid-August.

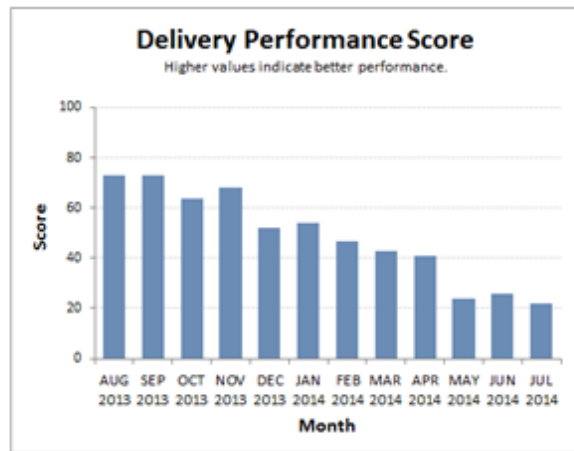
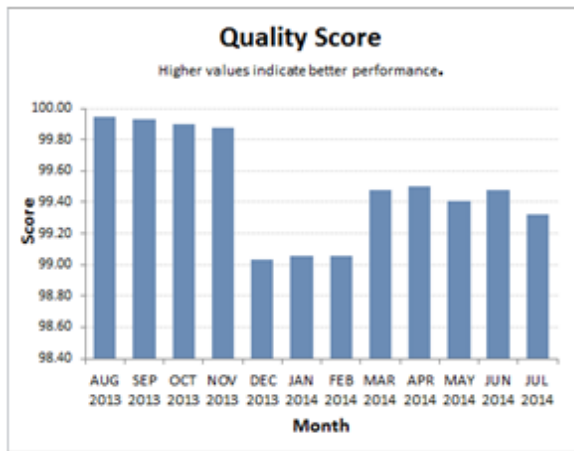
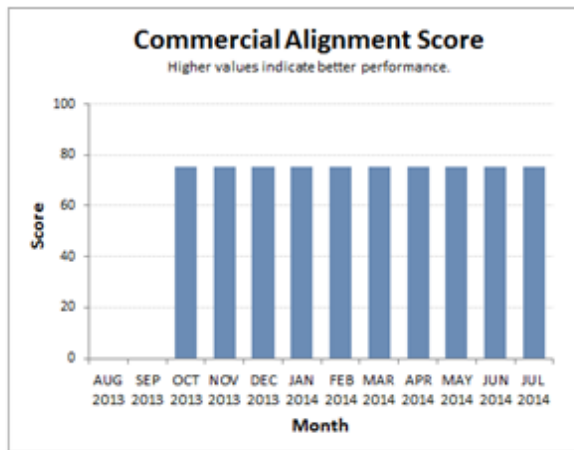
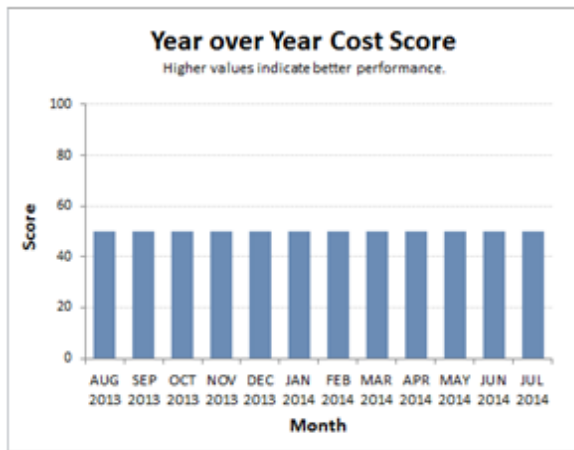
The table below the graph details the monthly total score along with the scores of each of the four scoring components upon which the total score was calculated.

ELECTRC MOTIVE		BUSINESS PROCESS REVIEW	
	Title	EMD & PRM Supplier Scorecard Report	
	Organization/Area	Purchasing & Supply Chain	
	EUP Category:	N/A	
File Name:	BPR-Supplier Scorecard Report	Revision Date	11/14/2014
		Revision Level	B

The second sheet labeled Scorecard Dashboard will detail the four components for the given supplier code. There will be 12 months of component scores listed; the reporting month, along with the prior 11 months. An example of the Scorecard Dashboard sheet is shown in the example below:

(top half of Scorecard Dashboard sheet)

Supplier Performance Dashboard
Supplier: JOHN DOE COMPANY - 345321
 Reporting Month: JUL 2014



Under the four graphs will be a table which lists the monthly score for the component and the scores or values of the attributes upon which the component score is based.

ELECTRC MOTIVE		BUSINESS PROCESS REVIEW	
	Title	EMD & PRM Supplier Scorecard Report	
	Organization/Area	Purchasing & Supply Chain	
	EUP Category:	N/A	
File Name:	BPR-Supplier Scorecard Report	Revision Date	11/14/2014
		Revision Level	B

(bottom half of Scorecard Dashboard sheet)

	AUG 2013	SEP 2013	OCT 2013	NOV 2013	DEC 2013	JAN 2014	FEB 2014	MAR 2014	APR 2014	MAY 2014	JUN 2014	JUL 2014
Year over Year Cost Score	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0
YoY Cost Saving	-1.0%	-1.4%	-1.9%	-2.3%	-2.3%	-2.7%	-2.5%	-2.3%	-2.1%	-1.9%	-1.9%	-1.2%
	AUG 2013	SEP 2013	OCT 2013	NOV 2013	DEC 2013	JAN 2014	FEB 2014	MAR 2014	APR 2014	MAY 2014	JUN 2014	JUL 2014
Commercial Alignment Score	0	0	75	75	75	75	75	75	75	75	75	75
Does not compete in aftermarket	0	0	50	50	50	50	50	50	50	50	50	50
NDA in place	0	0	0	0	0	0	0	0	0	0	0	0
Commercially Responsive	0	0	25	25	25	25	25	25	25	25	25	25
	AUG 2013	SEP 2013	OCT 2013	NOV 2013	DEC 2013	JAN 2014	FEB 2014	MAR 2014	APR 2014	MAY 2014	JUN 2014	JUL 2014
Quality Score	99.95	99.93	99.90	99.88	99.03	99.05	99.06	99.47	99.50	99.41	99.48	99.32
3 Month Complaint Quantity	4	6	9	11	81	81	80	41	40	51	49	72
3 Month Receipt Quantity	7857	8239	9087	8931	8371	8552	8497	7794	7984	8660	9398	10583
	AUG 2013	SEP 2013	OCT 2013	NOV 2013	DEC 2013	JAN 2014	FEB 2014	MAR 2014	APR 2014	MAY 2014	JUN 2014	JUL 2014
Delivery Performance Score	72.8	72.8	63.6	68.2	51.9	53.8	46.6	42.7	40.7	23.7	25.8	21.8
On-Time Score	68.5	69.1	58.8	65.4	50.2	53.8	45.4	42.1	39.8	22.0	25.2	21.3
Quantity Fill Score	77.0	76.4	68.5	71.1	53.7	53.8	47.8	43.3	41.6	25.3	26.3	22.3

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File Name:	BPR-Supplier Scorecard Report	Revision Date	11/14/2014
		Revision Level	B

Delivery Score Calculation

The delivery score as mentioned earlier is measured at the delivery schedule line level of a purchase document. It was noted that the quantity fill and on-time scores were determined based on the date goods receipts, or lack thereof, are posted in relationship to a delivery tolerance period based on the statistical delivery date for that delivery schedule line. Described below are the key terms associated with the delivery score calculation logic. An example is also shown to demonstrate how the logic is applied.

Statistical Delivery Date:

The Statistical Delivery Date is the date by which delivery performance will be measured for a given delivery schedule line.

- The statistical delivery date is not the same as the delivery date that is shown on the purchase order, or the weekly open delivery schedule report.
- The delivery date is the date that our SAP system uses to know when material is currently “scheduled” to arrive at our dock. This date should always reflect the most current information.
- When a delivery schedule line is initially created, the delivery date and the statistical delivery date are the same.
- When a delivery date is moved, the statistical delivery date may or may not be moved to match. Changing the statistical delivery date depends on why the delivery date was moved; due to the supplier, or due to EMD. The statistical delivery date is managed by the EMD planner assigned to the material or the supplier.

Delivery Tolerance Period:

The delivery tolerance period is the Statistical Delivery Date for a delivery schedule line plus the lower and the upper delivery tolerance days.

- Delivery tolerance days are expressed in calendar days.
- The lower end of the delivery tolerance period is the statistical delivery date minus the lower tolerance value
- The upper end of the delivery tolerance period is the statistical delivery date plus the upper tolerance value. An example follows:

Statistical Delivery Date: 3/19/2014
 Lower (early) tolerance: 5 days (calendar days)
 Upper (late) tolerance: 2 days (calendar days)
 Delivery Tolerance Period: 3/14/2014 – 03/21/2014

Delivery Score Calculation Trigger:

The Quantity Fill and On-Time score for a given delivery schedule line is determined once the upper delivery tolerance for that schedule line has been exceeded. This event (the scoring of the delivery schedule line for the given statistical delivery date) is called a snapshot.

Scoring Snapshot

A scoring snapshot is taken once the upper end of the delivery tolerance for the delivery schedule line has been exceeded. With the snapshot concept, once a snapshot for a given purchase order, line, delivery schedule line, and statistical delivery date has been taken, the scores tied to that snapshot never changes.

ELECTRC MOTIVE		BUSINESS PROCESS REVIEW	
	Title	EMD & PRM Supplier Scorecard Report	
	Organization/Area	Purchasing & Supply Chain	
	EUP Category:	N/A	
File Name:	BPR-Supplier Scorecard Report	Revision Date	11/14/2014
		Revision Level	B

Example – Delivery Score calculation and trigger: (for a given delivery schedule line)

Delivery Schedule line 1: 100 pieces due
Statistical Delivery Date: 3/19/2014
Lower (early) tolerance: 5 days (calendar days)
Upper (late) tolerance: 2 days (calendar days)
Delivery Tolerance Period: 3/14/2014 – 03/21/2014
Score calculation date: shortly after 12:01 am on 3/22/2014
Goods Receipts:
40 pieces on 3/10/2014 (early – before 3/14/2014)
35 pieces on 3/18/2014 (on-time)
25 pieces on 3/27/2014 (late – after 3/21/2014)

Quantity Fill Score: **75** = (40 + 35)
On-Time Score: **35**
Delivery Performance Score: **55** = [(75 + 35) / 2]

Year over Year Cost Score Calculation

The Year over Year Cost Score as mentioned earlier is based on the change in the total cost from the current period as compared to the prior period for a given supplier code. In order to ensure a proper comparison, only those materials that were purchased in both periods are included in the score calculation process. Additionally, the current period per material volumes are used in the cost change analysis. The calculation process and relevant definitions are detailed below:

For example purposes, assume the given (reporting) month is March, 2014

Current period average cost (for each applicable material):

For a given supplier code pull all invoices posted year-to-date for current year (i.e. Jan 1, 2014 to last day of March) by part number, Total invoiced amount for all posted invoices by part number divided by total quantity for all posted invoices by part number . This is March 2014 average by part number.

Prior period average cost (for each applicable material):

For a given supplier code pull all invoices posted in the prior calendar year (i.e. Jan 1, 2013 – Dec 31, 2013) by part number, Total invoiced amount for all posted invoices by part number divided by total quantity for all posted invoices by part number. This is 2013 average by part number.

ELECTRC MOTIVE		BUSINESS PROCESS REVIEW	
	Title	EMD & PRM Supplier Scorecard Report	
	Organization/Area	Purchasing & Supply Chain	
	EUP Category:	N/A	
File Name:	BPR-Supplier Scorecard Report	Revision Date	11/14/2014
		Revision Level	B

The calculation process is illustrated below:

A	B	C	D	E	F	G
Material - 2014	Ave Price - 2013	Ave Price - 2014	2014 - QTY	\$ Savings Per Unit	Total Savings	Total Spend
40095015	56.89	55.44	223.00	(1.45)	(323.35)	12,363.12
40095019	210.14	204.76	90.00	(5.38)	(484.20)	18,428.40
40113557	974.46	951.35	12.00	(23.11)	(277.38)	11,416.20
40113558	278.97	271.82	97.00	(7.15)	(693.55)	26,366.54
40128119	14,272.00	14,272.00	30.00	-	-	428,160.00
40129080	2,115.97	2,114.62	26.00	(1.35)	(35.03)	54,980.12
40129437	563.09	549.00	96.00	(14.09)	(1,352.43)	52,704.00
40132563	2,287.78	2,548.07	6.00	260.29	1,561.75	15,288.42
40134912	1,101.19	1,072.96	33.00	(28.23)	(931.59)	35,407.68
40149557	11,500.00	11,500.00	27.00	-	-	310,500.00
					(2,535.77)	965,614.48
					YOY Change	-0.26%

Calculation:

- 1.) Savings per material = (March 2014 Average) – (2013 Average) = C - B
- 2.) Total Savings per material = (Savings per Material) * (2014 Quantity) = E * D
- 3.) Total Savings per given Supplier Code = Sum of Column F
- 4.) Total Spend per material = (2014 Average) * (2014 quantity) = C * D
- 5.) Total Spend per given Supplier Code = Sum of Column G
- 6.) **YoY Savings %** = [(Total Savings) * (100%)] / [(Total Spend – Total Savings)]
 = [(-2,535.77) * (100%)] / [(965,614.48) – (-2,535.77)]
 = (-2,535.77 / 968,150.25) * 100%
 = **- 0.26%** (a slight cost savings)

A negative % change indicates a cost reduction from the prior cost period. The larger the negative number the greater the possibility for a better Year over Year Cost score.

Year over Year Cost Score:

The resulting YoY Cost Score is determined by comparing the % Change for the Supplier code to the applicable score as detailed below:

<u>% Change</u>	<u>Score</u>
Less than -1%	0
-1% to -3%	50
Greater than -3%	100

In the example above, the YoY Savings % equals a negative 0.26% (a slight cost savings). Therefore the YoY Score for the given month of March 2014 is equal to **0 (zero)**

Any other questions regarding this report can be addressed to your EMD/PRM Buyer.