

_ ,	
Show additional cost figures in Cost Card and BoM	
Functional Area:	Costing
Proposed Release:	R27
Business Process:	Costing
Process Objective:	Introduce new costing metrics
Product Backlog Item (PBI):	10411
Estimated cost of development:	£3,000
Estimated cost of non-development to business:	Unknown
Estimated Business Value:	Unknown

ı	2.1.1 – Cost Card	eria				
1	2.1.1 – Cost Card					
	Cost cards are documents which detail the standard amounts of materials, labour and overheads					
	required to make one unit of a product. Cost cards can be found in Halo by navigating to the Costing >> Cost Cards menu.					
Ι`	ost cards mend.					
				lled 'Total Variable Cos	sts ' This field s	shall be
C	computed as the Manufact	uring Cost - I	Fixed Overl	heads.		
	The man field also	II la a a al al a al 3000	- 4 la - 1 4la -		046-14	
	I ne new field sna	ii be added jus	st below the	existing Manufacturing	Cost field.	
	Manufacturing Cost	272.055887		Accumulated Time		
				Accumulated Time	4.404524	(Minutes)
	The state of the s			Accumulated Time	4.404524	(Minutes)
,				Accumulated Time	4.404524	(Minutes)
(Total Variable Costs	270.041171		Accumulated Time	4.404524	(Minutes)
(Accumulated Time	4.404524	(Minutes)
(97.63%	Total Conversion	4.404524 6.455497	
(Total Variable Costs	270.041171	97.63% 0.03%			
(Total Variable Costs Material Grand Total	270.041171 265.600390				2.37%
(Total Variable Costs Material Grand Total Material Reject	270.041171 265.600390 0.075196	0.03%	Total Conversion	6.455497	2.37%
(Total Variable Costs Material Grand Total Material Reject Total Material Usage	270.041171 265.600390 0.075196	0.03%	Total Conversion	6.455497	2.37%
(Total Variable Costs Material Grand Total Material Reject Total Material Usage Raw Materials	270.041171 265.600390 0.075196 265.525194	0.03% 97.60% 0.00%	Total Conversion Fixed Overheads Total Variable Conversion Cost	6.455497 2.014716 4.440781	2.37% 0.74% 1.63%
(Total Variable Costs Material Grand Total Material Reject Total Material Usage Raw Materials Outside	270.041171 265.600390 0.075196 265.525194	0.03% 97.60%	Total Conversion Fixed Overheads	6.455497 2.014716	2.37% 0.74% 1.63% 0.00%
(Total Variable Costs Material Grand Total Material Reject Total Material Usage Raw Materials Outside Interco Homemade	270.041171 265.600390 0.075196 265.525194 0.000000 0.000000	0.03% 97.60% 0.00% 0.00%	Total Conversion Fixed Overheads Total Variable Conversion Cost Process Rejects	6.455497 2.014716 4.440781 0.000000	2.37% 0.74% 1.63% 0.00%
(Total Variable Costs Material Grand Total Material Reject Total Material Usage Raw Materials Outside Interco Homemade Auxiliary Components	270.041171 265.600390 0.075196 265.525194 0.000000 0.000000 257.420750	0.03% 97.60% 0.00% 0.00% 94.62%	Total Conversion Fixed Overheads Total Variable Conversion Cost Process Rejects Variable Conversion Costs	6.455497 2.014716 4.440781 0.000000 4.440781	2.37% 0.74% 1.63% 0.00% 1.63%
(Total Variable Costs Material Grand Total Material Reject Total Material Usage Raw Materials Outside Interco Homemade Auxiliary Components Outside	270.041171 265.600390 0.075196 265.525194 0.000000 0.000000 257.420750 0.000000	0.03% 97.60% 0.00% 0.00% 94.62%	Total Conversion Fixed Overheads Total Variable Conversion Cost Process Rejects Variable Conversion Costs Direct Labor	6.455497 2.014716 4.440781 0.000000 4.440781 2.663416	2.37% 0.74% 1.63% 0.00% 1.63% 0.98%
(Total Variable Costs Material Grand Total Material Reject Total Material Usage Raw Materials Outside Interco Homemade Auxiliary Components Outside Interco	270.041171 265.600390 0.075196 265.525194 0.000000 0.000000 257.420750 0.000000 0.000000	0.03% 97.60% 0.00% 0.00% 94.62% 0.00%	Total Conversion Fixed Overheads Total Variable Conversion Cost Process Rejects Variable Conversion Costs Direct Labor Indirect Labor	6.455497 2.014716 4.440781 0.000000 4.440781 2.663416 0.325039	2.37% 0.74% 1.63% 0.00% 1.63% 0.98% 0.12%
(Total Variable Costs Material Grand Total Material Reject Total Material Usage Raw Materials Outside Interco Homemade Auxiliary Components Outside Interco Homemade	270.041171 265.600390 0.075196 265.525194 0.000000 0.000000 257.420750 0.000000	0.03% 97.60% 0.00% 0.00% 94.62%	Total Conversion Fixed Overheads Total Variable Conversion Cost Process Rejects Variable Conversion Costs Direct Labor Indirect Labor Energy	6.455497 2.014716 4.440781 0.000000 4.440781 2.663416 0.325039 0.066614	2.37% 0.74% 1.63% 0.00% 1.63% 0.98% 0.12% 0.02%
(Total Variable Costs Material Grand Total Material Reject Total Material Usage Raw Materials Outside Interco Homemade Auxiliary Components Outside Interco Homemade Outher	270.041171 265.600390 0.075196 265.525194 0.000000 0.000000 257.420750 0.000000 0.000000 0.0000000 0.0000000	0.03% 97.60% 0.00% 0.00% 94.62% 0.00% 0.00%	Total Conversion Fixed Overheads Total Variable Conversion Cost Process Rejects Variable Conversion Costs Direct Labor Indirect Labor	6.455497 2.014716 4.440781 0.000000 4.440781 2.663416 0.325039	2.37% 0.74% 1.63% 0.00% 1.63% 0.98% 0.12% 0.02%
(Total Variable Costs Material Grand Total Material Reject Total Material Usage Raw Materials Outside Interco Homemade Auxiliary Components Outside Interco Homemade Other Tooling	270.041171 265.600390 0.075196 265.525194 0.000000 0.000000 257.420750 0.000000 0.000000 0.0000000 0.0000000	0.03% 97.60% 0.00% 0.00% 94.62% 0.00% 0.00%	Total Conversion Fixed Overheads Total Variable Conversion Cost Process Rejects Variable Conversion Costs Direct Labor Indirect Labor Energy	6.455497 2.014716 4.440781 0.000000 4.440781 2.663416 0.325039 0.066614	2.37% 0.74% 1.63% 0.00% 1.63% 0.98% 0.12% 0.02%
(Total Variable Costs Material Grand Total Material Reject Total Material Usage Raw Materials Outside Interco Homemade Auxiliary Components Outside Interco Homemade Other Tooling Packing Material	270.041171 265.600390 0.075196 265.525194 0.000000 0.000000 257.420750 0.000000 0.000000 0.000000 0.000000 7.4444444	0.03% 97.60% 0.00% 0.00% 94.62% 0.00% 0.00% 0.00% 2.74%	Total Conversion Fixed Overheads Total Variable Conversion Cost Process Rejects Variable Conversion Costs Direct Labor Indirect Labor Energy Variable Overheads	6.455497 2.014716 4.440781 0.000000 4.440781 2.663416 0.325039 0.066614 1.385713	2.37% 0.74% 1.63% 0.00% 1.63% 0.98% 0.12% 0.02% 0.51%
(Total Variable Costs Material Grand Total Material Reject Total Material Usage Raw Materials Outside Interco Homemade Auxiliary Components Outside Interco Homemade Other Tooling	270.041171 265.600390 0.075196 265.525194 0.000000 0.000000 257.420750 0.000000 0.000000 0.0000000 0.0000000	0.03% 97.60% 0.00% 0.00% 94.62% 0.00% 0.00%	Total Conversion Fixed Overheads Total Variable Conversion Cost Process Rejects Variable Conversion Costs Direct Labor Indirect Labor Energy Variable Overheads	6.455497 2.014716 4.440781 0.000000 4.440781 2.663416 0.325039 0.066614 1.385713	2.37% 0.74% 1.63% 0.00% 1.63% 0.98% 0.12% 0.02%

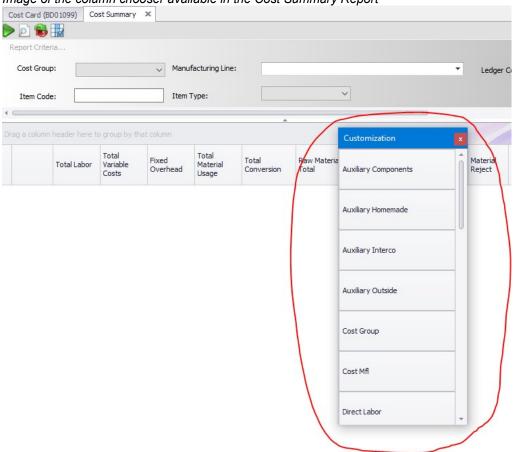
Scott Davidson 2016 Page: 1 of 5



The Cost Summary Report found under **Costing >> Reports >> Cost Summary Report** shall be updated to include 'Total Variable Costs' within the available columns in the DevExpress grid column chooser.

The Total Variable Costs field shall not be displayed on the Cost Summary Report by default.

Image of the column chooser available in the Cost Summary Report



All columns that have been renamed on the cost card (as part of this specification) shall be renamed on the Cost Summary Report to match the names they have on the cost card.

2.1.2 - Cost Card Drill Down

The following labels on the cost card shall be turned into blue hyperlinks and it shall be made possible to click on them to get a detailed view of the individual component costs that make up the total:

- Material Grand Total
- Material Reject
- Total Material Usage
- Raw Materials
- Auxilliary Components
- Other

Scott Davidson 2016 Page: 2 of 5



Upon clicking on a hyperlink a new non-modal dialog shall be opened showing the relevant components from the Bill of Material with the cost of each component in a flat list. For example clicking on the Total Material Usage link for item BD01099...

Manufacturing Cost	272.055887		Accumulated Time	4.404524	(Minutes)
Total Variable Costs	270.041171				
Material Grand Total	265.600390	97.63%	Total Conversion	6.455497	2.37%
Material Reject	0.075196	0.03%			
Total Material Usage	265.525194	97.60%	Fixed Overheads	2.014716	0.74%
Raw Materials					
Outside	0.000000	0.00%	Total Variable Conversion Cost	4.440781	1.639
Interco	0.000000	0.00%	Process Rejects	0.000000	0.009
Homemade	257.420750	94.62%	Variable Conversion Costs	4.440781	1.639
Auxiliary Components					
Outside	0.000000	0.00%	Direct Labor	2.663416	0.989
Interco	0.000000	0.00%	Indirect Labor	0.325039	0.129
Homemade	0.000000	0.00%	Energy	0.066614	0.029
<u>Other</u>			Variable Overheads	1.385713	0.519
Tooling	0.000000	0.00%			
Packing Material	7.44444	2.74%			
Subcontracting	0.000000	0.00%	Created	PPISARKIEW	17/03/1998
Undefined	0.660000	0.24%	Last Updated	shutttho	08/06/2016

...would open a window like this:

BD01099 [Std] - Total Material Usage

Item Code	UOM	Quantity	Cost Per Unit	Cost
LS03	PCS	0.0222	335	7.44444444
OM0013	PCS	1	0.34	0.34
PB0001	PCS	1	0.32	0.32
BD01099-FI	PCS	1	249.53359	249.53359
LEF00343-PP	PCS	2	3.94358	7.88716
	70		Total	265.525194

i.e. showing the material costs from the top level of the BOM.

The total shall equal the relevant total on the cost card to configured number of decimal places.

It shall be possible to see the component costs for all available ledgers.

2.1.3 - Caveats

		It shall not be	possible to v	iew the costs fo	or a manufactur	ring BOM.	Only standa	rd costing E	3OMs
tha	it ha	ave an associa	ted cost card	shall have acc	ess to the cost	card drill d	down functio	nality.	

It shall not be possible to drill down further on the produced report i.e. to see the costs of the components that make up a component.

Scott Davidson 2016 Page: 3 of 5



3.0	User Interface Standards
3.0.1	No additional UI changes shall be made in addition to those already outlined in this specification.
3.1	Security / Preferences
3.1.1	No new security or preferences shall be introduced.
3.2	Performance
3.2.1	Existing Halo performance should be unaffected as a result of the changes outlined in this specification.
3.3	Testing
3.3.1	An indication that development has been completed successfully shall be observed by successfully testing each test case in the test plan (seen in Appendix 1).

Technical Environment where	the PBI will be deployed
Description	
ERP / Systems	SAP / Aurora
Supported Database(S)	SQL2008 R2 SP2 and SQL 2012 SP1
Planned Release	Halo 27
Other Information	

Document Sign Off					
Name	Role	Date	Signature		
Walter Wijckmans	Feature Owner				
Dominic Musgrave	Delivery				
James Pritchett	Development				

Document Sign Off

"I agree that this set of requirements represents our best understanding of the requirements for the next portion of this project and that the solution described will meet our needs as we understand them today. I agree to make future changes in this baseline through the project's defined change process. I realise that changes might require us to renegotiate cost, resource, and schedule commitments."

Document History					
Version	Description	Date	Author		
1.0	Initial Draft	10/06/16	Scott Davidson		

Scott Davidson 2016 Page: 4 of 5



Appendix 1 - Test Plan

It should be possible to run through the following tests from start to finish without any errors.

Test 1 - Regression tests

- Run the relevant regression tests found using the following link: https://vesuvius.visualstudio.com/DefaultCollection/Halo/_testManagement
- 2. Ensure all tests pass without error.

Test 2 - Cost Card - Total Variable Cost

- 1. Navigate to Costing >> Cost Cards
- 2. Open a cost card for any finished goods item.
- 3. **Observe** that **Total Variable Costs** is displayed just below the Manufacturing Cost and that it correctly equals the **Manufacturing Cost** minus the **Fixed Overheads**

<u>Test 3 – Cost Summary Report – Total Variable Costs</u>

- 1. Navigate to Costing >> Reports >> Cost Summary Report
- 2. Observe that there is no Total Variable Costs column shown by default
- 3. Right click on the column header rown and select Column Chooser.
- 4. Ensure that you can see the Total Variable Costs column in the list of available columns.
- 5. Add the column to the report by dragging and dropping it into the grid.
- Ensure that data is displayed in the column and that the values correctly equal the Manufacturing Cost minus the Fixed Overheads

Test 4 - Cost Card Drill Down

- 1. Navigate to Costing >> Cost Cards
- 2. Open a cost card for any finished goods item.
- 3. Locate the Total Material Usage hyperlink.
- 4. Click on the hyperlink.
- 5. Ensure you see a dialog detailing the relevant component costs for the correct BOM.
- 6. **Ensure** that the figures are correct, that they add up to the correct total and that the total matches the total on the cost card to the configured number of decimal places.
- 7. **Change** the ledger by using the dropdown box in the top right hand corner of the cost card.
- 8. Ensure all hyperlinks are still available and that you can click on them to see component details.
- 9. **Repeat** steps 3-7 for all other hyperlinks on the cost card.

Scott Davidson 2016 Page: 5 of 5