

ZEUS[®] PRODUCTION DATA CAPTURE

REPORT BOOKLET





ZEUSX PDC Report Booklet

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1 General

The present document contains a selection of sample PDC reports including

- » standard reports
- » reports extended resp. created with the Report Designer
- » evaluations of PDC information
- » graphical analyses created in Excel based on data retrieved from *PDC information*

2 Sample reports relating to "Cost Centre Recording"

2.1 Cost centre analysis with staff

This report is grouped by cost centre and shows the employees' total time booked on the corresponding cost centre (CC) within the selected time range. Furthermore, it reveals the time total per cost centre and, at the bottom of the list, the grand total of all cost centre sub-totals.

Cost centre analysis with staff		
Cost center: 100 Sales department		
Personal number	Name, first name	PDC time
1005	White, Matthew	22.17
1012	Miller, Benjamin	135.58
1021	Sanchez, Samuel	129.55
1022	Perez, Emely	6.47
1025	Lee, Michael	125.42
100 Sales department		Total 420.39
Cost center: 130 Purchase Department		
Personal number	Name, first name	PDC time
1005	White, Matthew	2.54
130 Purchase Department		Total 2.54
Cost center: 140 HR department		
Personal number	Name, first name	PDC time
1025	Lee, Michael	7.10
1026	Martinez, Dylan	7.45
140 HR department		Total 14.55
Cost center: 150 IT department		
Personal number	Name, first name	PDC time
1004	Young, Anthony	7.46
1026	Martinez, Dylan	25.41
150 IT department		Total 33.27
Cost center: 160 Export department		
Personal number	Name, first name	PDC time
1004	Young, Anthony	8.22
1005	White, Matthew	10.06
1011	Harris, Luke	7.08
1021	Sanchez, Samuel	7.57
1121	Nelson, Jack	143.11
160 Export department		Total 176.44
Cost center: 170 Technical support		
Personal number	Name, first name	PDC time
1004	Young, Anthony	121.00
1022	Perez, Emely	122.43
1026	Martinez, Dylan	102.09
1027	Wright, Isabella	131.26
1100	Scott, Noah	134.36
170 Technical support		Total 611.54
Total values:		Total 1260.33

2.2 Employee-related analysis with daily totals broken down by cost centres

For each employee, the time totals are shown per day and cost centre. Furthermore, you can view the daily totals of the PDC times that have been booked on cost centres.

Additionally, the grand total of all times that have been booked on cost centres within the selected time range is shown in the *Total values* row at the bottom of the report.

Employee-related analysis with daily totals			
Personal number: 815 Wilson, Sofia			
Date	Cost Centre	Cost Centre Name	PDC time
11/18/2019	100	Sales department	1.36
11/18/2019	160	Export department	0.43
11/18/2019	900	Burden costs	0.04
11/18/2019			
815 Wilson, Sofia			Total 2.23
11/19/2019	100	Sales department	3.38
11/19/2019	160	Export department	1.38
11/19/2019	900	Burden costs	0.09
11/19/2019			
815 Wilson, Sofia			Total 5.25
11/20/2019	100	Sales department	1.14
11/20/2019	160	Export department	0.33
11/20/2019	900	Burden costs	0.03
11/20/2019			
815 Wilson, Sofia			Total 1.50
11/21/2019	100	Sales department	5.28
11/21/2019	160	Export department	2.27
11/21/2019	900	Burden costs	0.14
11/21/2019			
815 Wilson, Sofia			Total 8.09
11/22/2019	100	Sales department	1.18
11/22/2019	160	Export department	0.35
11/22/2019	900	Burden costs	0.03
11/22/2019			
815 Wilson, Sofia			Total 1.56
815 Wilson, Sofia			Total 19.43
Total values:			Total 19.43

2.3 Cost centre times broken down into the different time allocation and time types

This report shows the presence time per day (*PDC gross*) and the total time booked on the corresponding cost centre (*PDC time*).

Depending on the type of time allocation, the *PDC time* value is calculated as the sum of the time allocated automatically plus the time allocated manually plus the actual PDC time booked.

The column *Idle time* shows the presence times that have not been assigned to any cost centre.

Employee-related analysis with time allocation & time type details

Personal number: 1124 Moore, Elizabeth

Date	Cost Centre	Cost Centre Name	Allocated time (AUTO)	Allocated time (manual)	Punchcard actual time	PDC time	Idle time	PDC gross	
12/2/2019			0.00	0.00	0.00	0.00	0.00	8.03	
12/2/2019	110	Marketing	0.00	3.44	0.00	3.44	0.00	0.00	
12/2/2019	160	Export department	0.00	0.00	4.19	4.19	0.00	0.00	
12/2/2019									
1124 Moore, Elizabeth			Total	0.00	3.44	4.19	8.03	0.00	8.03
12/3/2019			0.00	0.00	0.00	0.00	0.00	5.58	
12/3/2019	100	Sales department	0.00	1.33	0.00	1.33	0.00	0.00	
12/3/2019	160	Export department	0.00	0.00	4.25	4.25	0.00	0.00	
12/3/2019									
1124 Moore, Elizabeth			Total	0.00	1.33	4.25	5.58	0.00	5.58
12/4/2019			0.00	0.00	0.00	0.00	0.00	7.49	
12/4/2019	100	Sales department	0.00	5.43	0.00	5.43	0.00	0.00	
12/4/2019	160	Export department	0.00	0.00	2.06	2.06	0.00	0.00	
12/4/2019									
1124 Moore, Elizabeth			Total	0.00	5.43	2.06	7.49	0.00	7.49
12/5/2019			0.00	0.00	0.00	0.00	0.15	9.30	
12/5/2019	110	Marketing	0.00	9.00	0.00	9.00	0.00	0.00	
12/5/2019	120	Distribution	0.15	0.00	0.00	0.15	0.00	0.00	
12/5/2019									
1124 Moore, Elizabeth			Total	0.15	9.00	0.00	9.15	0.15	9.30
12/6/2019			0.00	0.00	0.00	0.00	0.00	4.14	
12/6/2019	120	Distribution	0.15	0.00	0.00	0.15	0.00	0.00	
12/6/2019	160	Export department	0.00	1.36	2.23	3.59	0.00	0.00	
12/6/2019									
1124 Moore, Elizabeth			Total	0.15	1.36	2.23	4.14	0.00	4.14
1124 Moore, Elizabeth			Total	0.30	21.36	13.13	35.19	0.15	35.34

2.4 Employee data analysis with bookings and cost centre related premium hours

The present report shows in detail the time value calculated for the relevant time range from (*Time slice start*) - to (*Time*) which has been determined either as *PDC time* or *Premium hours* value with reference to the corresponding cost centre.

The evaluation is based on the premium hours definitions created for Time & Attendance and the settings in the corresponding PDC time slice definition.

In the bottom line, you can view the total values with regard to the *PDC time* and the *Premium hours accounts* for the entire selected time range.

Employee data analysis with bookings and premium hours						
Personal number: 1127 Taylor, Oliver						
Date	Cost Centre	Cost Centre Name	PDC time	OT 25% WkReq	OT 50% WkReq	Idle time
12/2/2019	170	Technical support	0.52			0.00
12/2/2019	170	Technical support	4.25			0.00
12/2/2019	170	Technical support	0.00	2.00		0.00
12/2/2019	170	Technical support	0.00		0.42	0.00
12/2/2019	300	Development	3.45			0.00
12/2/2019	300	Development	1.40			0.00
12/3/2019	170	Technical support	0.07			0.00
12/3/2019	170	Technical support	1.05			0.00
12/3/2019	170	Technical support	2.00			0.00
12/3/2019	170	Technical support	3.19			0.00
12/4/2019	150	IT department	1.29			0.00
12/4/2019	150	IT department	0.15			0.00
12/4/2019	300	Development	2.06			0.00
12/4/2019	300	Development	4.18			0.00
12/4/2019	300	Development	0.00	0.08		0.00
12/5/2019	300	Development	4.05			0.00
12/5/2019	300	Development	2.27			0.00
12/5/2019	300	Development	4.33			0.00
12/5/2019	300	Development	0.00	2.00		0.00
12/5/2019	300	Development	0.00		1.05	0.00
12/6/2019	300	Development	3.53			0.00
12/6/2019	300	Development	3.22			0.00
1127 Taylor, Oliver			Total	43.41	4.08	1.47

2.5 Cost centre analysis with determination of personnel costs

This report shows the time totals (PDC time) per cost centre and employee as well as the applicable hourly rate taking into account any changes within the relevant output date range.

Based on this data, the costs per employee as well as the total cost per cost centre are displayed, complemented by the grand total of personnel costs of all cost centres in the bottom line of the report.

Cost centre analysis with personnel costs

Cost centre: 130 Purchase Department

Personal number	Name, first Name	PDC time	Ø - Hourly rate	Costs
1001	Anderson, Jacob	14.57	\$48.00	\$717.60
1005	White, Matthew	2.54	\$39.00	\$113.10
130 Purchase Department		Total		\$830.70

Cost centre: 140 HR department

Personal number	Name, first Name	PDC time	Ø - Hourly rate	Costs
1025	Lee, Michael	7.10	\$34.50	\$247.25
1026	Martinez, Dylan	7.45	\$42.00	\$325.50
140 HR department		Total		\$572.75

Cost centre: 150 IT department

Personal number	Name, first Name	PDC time	Ø - Hourly rate	Costs
1001	Anderson, Jacob	4.19	\$48.00	\$207.20
1004	Young, Anthony	7.46	\$45.00	\$349.50
1026	Martinez, Dylan	25.41	\$42.00	\$1,078.70
150 IT department		Total		\$1,635.40

Cost centre: 160 Export department

Personal number	Name, first Name	PDC time	Ø - Hourly rate	Costs
815	Wilson, Sofia	23.58	\$27.50	\$659.08
1000	Smith, James	0.00		\$0.00
1002	Thompson, Lucas	49.40	\$31.45	\$1,562.02
1004	Young, Anthony	8.22	\$45.00	\$376.50
1005	White, Matthew	10.06	\$39.00	\$393.90
1011	Harris, Luke	7.08	\$27.00	\$192.60
1021	Sanchez, Samuel	7.57	\$34.00	\$270.30
1121	Nelson, Jack	143.11	\$34.00	\$4,868.23
1125	Torres, Julian	137.16	\$35.50	\$4,872.97
160 Export department		Total		\$13,195.60

Cost centre: 900 Burden costs

Personal number	Name, first Name	PDC time	Ø - Hourly rate	Costs
815	Wilson, Sofia	2.14	\$27.50	\$61.42
1002	Thompson, Lucas	4.09	\$31.45	\$130.52
900 Burden costs		Total		\$191.93

Total values:		Total		\$16,426.38
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2.6 Employee data analysis grouped by organisation unit

This report is grouped by the employee's organisation unit (OU) and shows the time totals (per employee) that have been booked on cost centres as well as the total time booked on cost centres.

In the *Total values* line at the bottom of the report, you can view the grand total of all PDC times having been booked on cost centres with regard to the selected organisation units within the corresponding output time range.

Cost centre analysis grouped by the employee's OU

Employee's organization unit: 1001 Sales

Personal number	Name, first name	Cost Centre	PDC time
2004	Anderson, James	100	180.45
2005	Davis, Ethan	100	180.45
2006	Wilson, Daniel	100	180.45
2008	Clark, Zoey	100	180.45
2009	Hernandez, Logan	100	180.45
2010	Garcia, Alexander	100	180.45
1001 Sales			Total 1084.30

Employee's organization unit: 1002 Technical Support

Personal number	Name, first name	Cost Centre	PDC time
1001	Anderson, Jacob	170	152.18
1003	Gonzalez, Ella	170	162.00
1004	Young, Anthony	170	154.56
1012	Miller, Benjamin	100	142.09
1021	Sanchez, Samuel	100	145.45
1022	Perez, Emely	170	147.04
1025	Lee, Michael	100	159.11
1026	Martinez, Dylan	150	26.45
1026	Martinez, Dylan	170	106.15
1027	Wright, Isabella	170	143.45
1100	Scott, Noah	170	139.58
1002 Technical Support			Total 1480.06

Employee's organization unit: 2900 Engineering department

Personal number	Name, first name	Cost Centre	PDC time
815	Wilson, Sofia	100	79.01
815	Wilson, Sofia	160	35.17
815	Wilson, Sofia	900	3.21
1121	Nelson, Jack	160	149.04
1125	Torres, Julian	160	155.57
1129	Roberts, Charles	100	141.34
1130	Evans, Connor	100	147.48
1141	Thompson, Joseph	100	153.24
1148	Martin, Henry	100	180.45
2900 Engineering department			Total 1046.11

Employee's organization unit: 10012 Sample Company

Personal number	Name, first name	Cost Centre	PDC time
1002	Thompson, Lucas	100	99.34
1002	Thompson, Lucas	160	44.30
1002	Thompson, Lucas	900	4.17
10012 Sample Company			Total 148.21

Total values:			Total 3759.08
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2.7 Cost centre analysis with time and cost values expressed as percentages

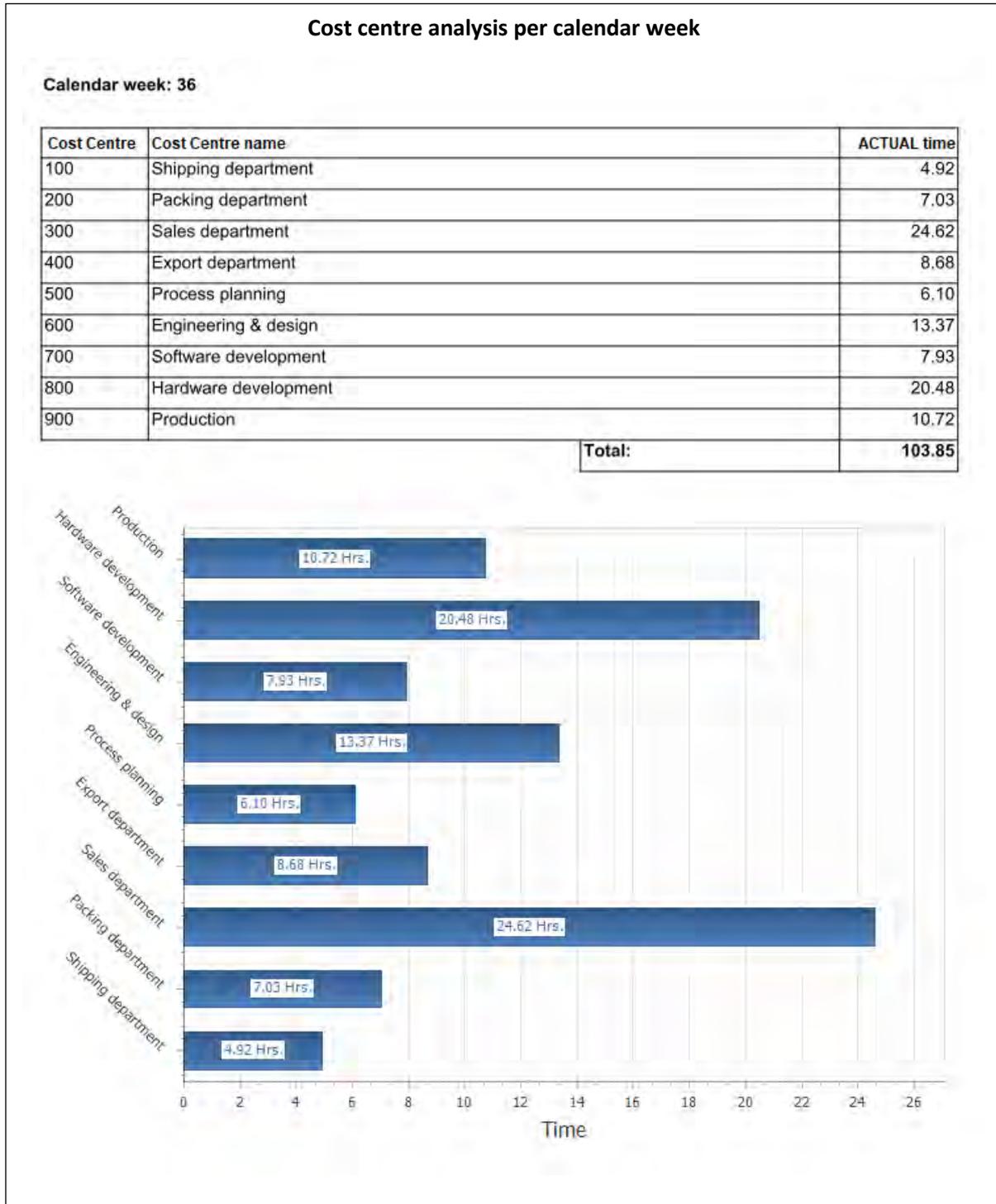
This report is grouped by cost centres listing the cost and time totals per employee.

Beside the cost and time totals per employee, the report contains two additional columns for the time and cost values expressed as percentages (%) of the cost centre's total time (hours) resp. total cost (in €).

Cost centre analysis incl. time and cost values in %						
Issue period: Date range (01.09.19 - 30.09.19)					Report-Nr.: 11	
Cost Center: 100						
Description: Versand						
Personal number	Name	Hourly rate	Hours	Costs	Hours prop.	Costs prop.
2000	Herrmann, Thomas	\$35.50	10.33	\$366.72	51.80%	58.17%
2003	Lehmann, Willy	\$27.50	9.62	\$263.73	48.20%	41.83%
			19.95	\$630.44	100.00%	100.00%
Cost Center: 200						
Description: Packerei						
Personal number	Name	Hourly rate	Hours	Costs	Hours prop.	Costs prop.
2000	Herrmann, Thomas	\$35.50	14.80	\$525.40	51.69%	58.01%
2003	Lehmann, Willy	\$27.50	13.83	\$380.33	48.31%	41.99%
			28.63	\$905.73	100.00%	100.00%
Cost Center: 300						
Description: Vertrieb						
Personal number	Name	Hourly rate	Hours	Costs	Hours prop.	Costs prop.
2000	Herrmann, Thomas	\$35.50	51.80	\$1,839.26	51.65%	57.97%
2003	Lehmann, Willy	\$27.50	48.50	\$1,333.48	48.35%	42.03%
			100.30	\$3,172.73	100.00%	100.00%
Cost Center: 400						
Description: Export						
Personal number	Name	Hourly rate	Hours	Costs	Hours prop.	Costs prop.
2000	Herrmann, Thomas	\$35.50	18.18	\$646.46	51.54%	57.89%
2003	Lehmann, Willy	\$27.50	17.10	\$470.25	48.46%	42.11%
			35.28	\$1,116.71	100.00%	100.00%

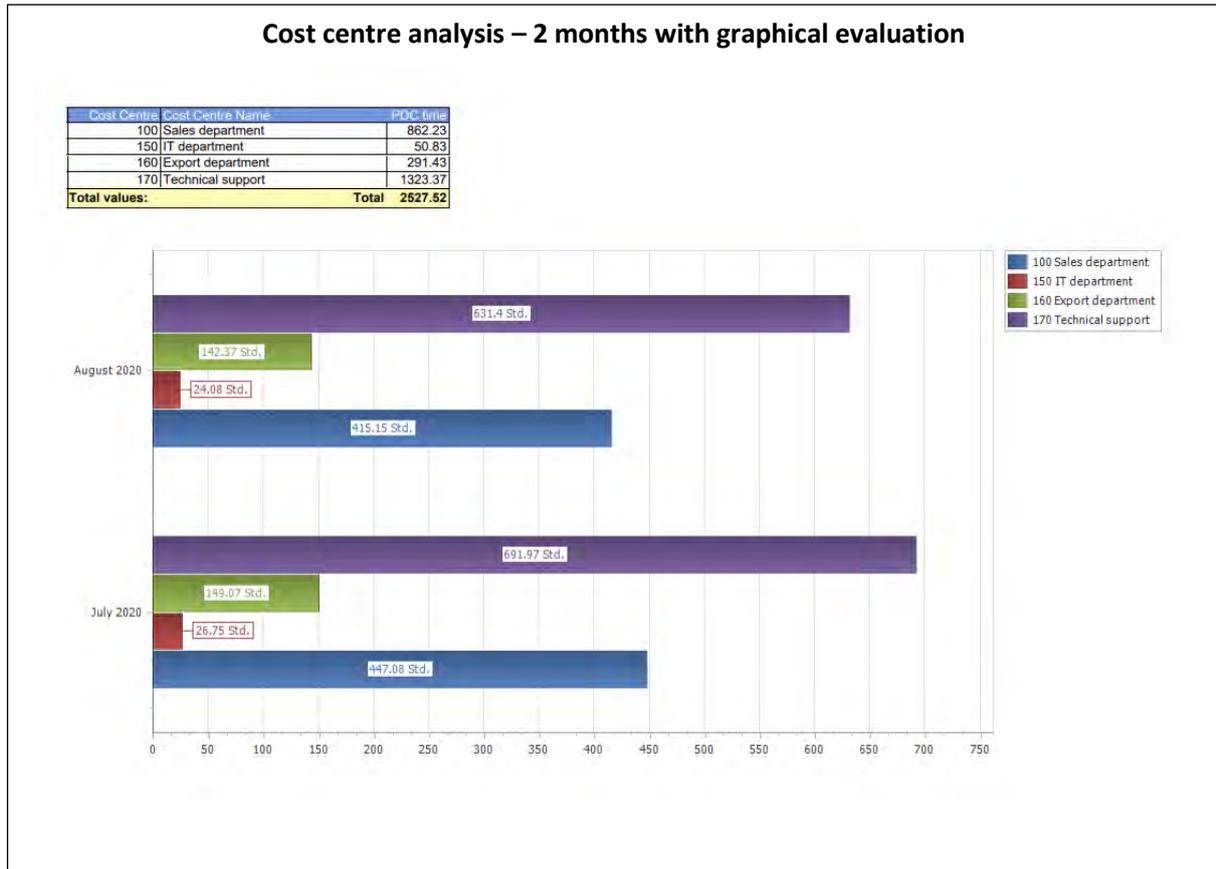
2.8 Tabular and graphical analysis of cost centre times per calendar week

This report is based on a cost centre analysis with reference to a selected calendar week. The evaluation shows the weekly ACTUAL time totals per cost centre in a tabular form as well as in a graphical form, here as a bar chart.



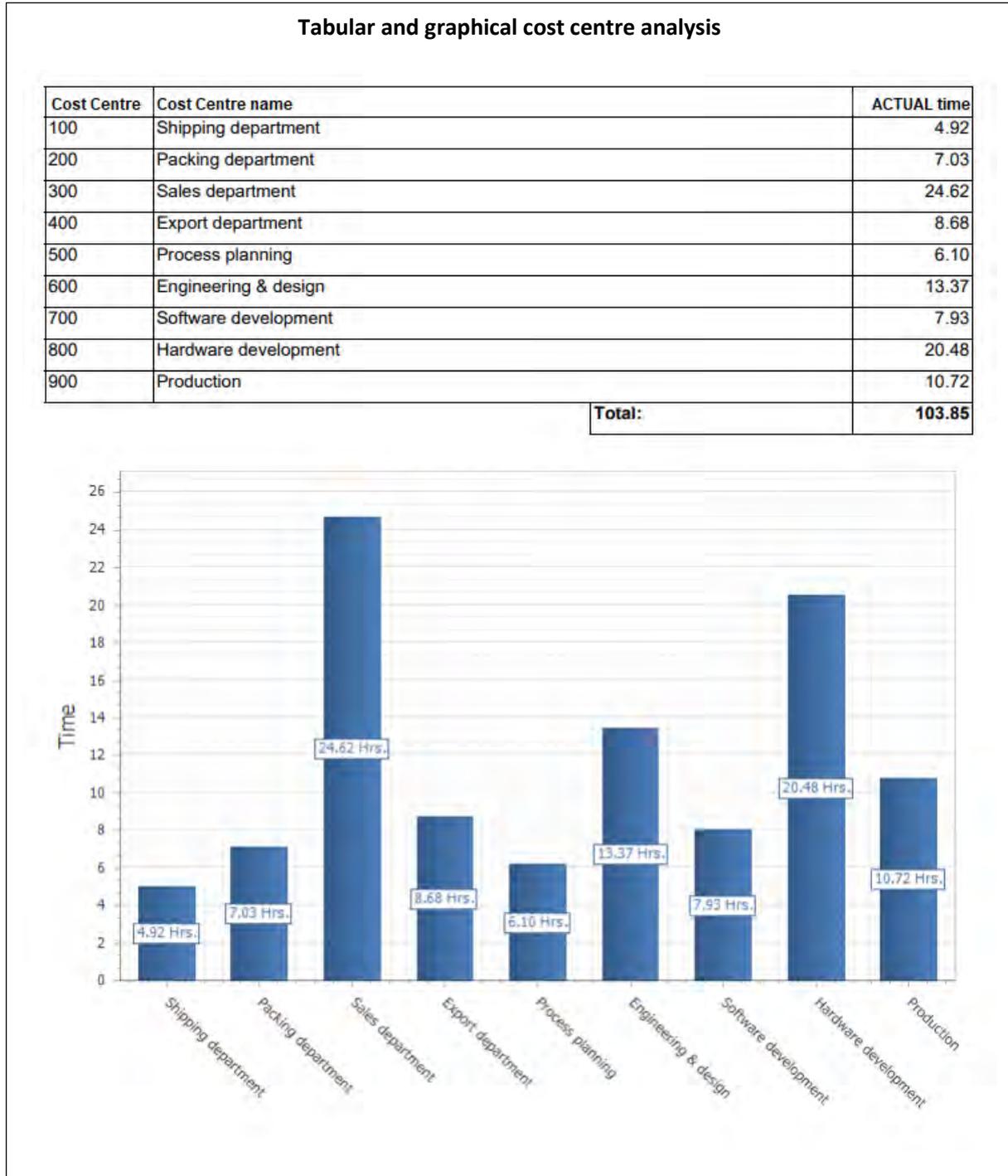
2.9 Cost centre analysis with graphical visualization per month

This reports contains both a table and a graphical visualization of the result values. The table shows the PDC time totals per cost centre times based on the entire selected time period (here: 2 months), whereas the graphical visualization (bar chart) presents the corresponding cost centre times as coloured bars grouped by month.



2.10 Tabular and graphical cost centre analysis

The ACTUAL times per cost centre are shown in tabular form and as a bar graph for the selected time range.



3 Sample reports relating to "Job Costing"

3.1 Project analysis with staff grouped by activities / work packages

This evaluation delivers detailed information on a specific project listing the individual activities resp. work packages complemented by the date of performance, name and badge number of the corresponding employee and the allocated PDC time value.

The bottom line contains the total project time accumulated over the specified time range for all involved employees.

Project analysis with staff								
Project: 4 Ewing Equipment								
Date	Personal number	Name, first name	Milestone	Milestone Name	Task	Task Name	PDC time	
9/3/2019	1011	Harris, Luke	200	Consulting	200	Meeting	5.27	
9/3/2019	1012	Miller, Benjamin	200	Consulting	200	Meeting	6.50	
10/1/2019	1002	Thompson, Lucas	100	Hardware installation	100	On-site inspection	3.00	
11/4/2019	1011	Harris, Luke	200	Consulting	210	Software setup	6.44	
11/5/2019	1004	Young, Anthony	100	Hardware installation	110	Terminal installation	8.52	
11/6/2019	1004	Young, Anthony	100	Hardware installation	110	Terminal installation	8.04	
11/7/2019	1012	Miller, Benjamin	200	Consulting	220	Customizing	8.11	
11/11/2019	1011	Harris, Luke	200	Consulting	230	User training	3.44	
11/18/2019	1011	Harris, Luke	200	Consulting	230	User training	4.17	
12/10/2019	1011	Harris, Luke	200	Consulting	240	Final inspection	3.56	
Total values:							Total	59.05
Projekt: 4 Hans Hold AG								

3.2 Project analysis with cost calculation based on the hourly rate as defined for the work package

Regardless of the employee’s hourly rate, the project costs are calculated based on the time spent on each work package and the corresponding hourly rate as previously defined per work package.

The grand total corresponds to the sum of all work package related costs. The previously specified project’s offer price serves as reference value and is displayed in the report header.

Project analysis with costs						
Project: 4 Ewing Equipment						
Offer price: \$5,250.00						
Milestone	Milestone name	Task	Task name	PDC time	Hourly rate of task	Costs
100	Hardware installation	100	On-site inspection	3.00	\$52.00	\$156.00
100	Hardware installation	110	Terminal installation	16.56	\$48.00	\$812.80
200	Consulting	200	Meeting	12.17	\$65.00	\$798.42
200	Consulting	210	Software setup	6.44	\$72.50	\$488.17
200	Consulting	220	Customizing	8.11	\$75.00	\$613.75
200	Consulting	230	User training	8.01	\$67.00	\$537.12
200	Consulting	240	Final inspection	3.56	\$75.00	\$295.00
Total values:				Total	59.05	\$3,701.25
Projekt: 4 Hans Hold AG						

3.3 Target/Actual comparison report based on the target times of the work packages

The report shows both the work package specific target time as previously defined and the actual PDC times. The difference (*Diff.*) is calculated based on these two values.

For all three columns, namely *Working package target*, *PDC time* and *Diff.*, the corresponding grand total is shown in the *Total values* line informing about the total target time, total actual time and the total difference.

Project analysis with target/actual comparison							
Project: 4 Ewing Equipment							
Milestone	Milestone name	Task	Task name	Planned time	PDC time	Diff.	
100	Hardware installation	100	On-site inspection	4.00	3.00	-1.00	
100	Hardware installation	110	Terminal installation	16.00	16.56	0.56	
200	Consulting	200	Meeting	8.00	12.17	4.17	
200	Consulting	210	Software setup	12.00	6.44	-5.16	
200	Consulting	220	Customizing	10.00	8.11	-1.49	
200	Consulting	230	User training	8.00	8.01	0.01	
200	Consulting	240	Final inspection	4.00	3.56	-0.04	
Total values:				Total:	62.00	59.05	0.57

4 Sample reports relating to “Production Data Capture (PDC)”

4.1 Project analysis based on orders (components) and individual positions (activities) incl. PDC times and quantities

For evaluation purposes, the selected project is split into the different orders resp. components and the latter are additionally broken down into its individual positions (activities).

The following values are determined and output per position: the actual *PDC time* as well as the *good yield*, *rejects* and *rework* quantities.

Additionally, the report outputs the total PDC time as group total per order and, in the bottom line, the PDC time as grand total for the entire project.

Project analysis based on orders (components) and positions (activities)							
Project: 410014 IT4100							
Order	Order Name	Activity	Activity Name	PDC time	Good yield	Rejects quantity	Rework quantity
810	IT 4100 CPU	10	Providing material	0.00	100.00	.00	.00
810	IT 4100 CPU	20	SMD assembly	7.21	98.00	.00	2.00
810	IT 4100 CPU	30	Assembly axial components	12.46	100.00	.00	.00
810	IT 4100 CPU	40	Visual inspection/resoldering	3.59	100.00	.00	.00
810	IT 4100 CPU	50	ICT Test	8.07	92.00	2.00	6.00
810	IT 4100 CPU	60	Final inspection / documentation	2.14	50.00	2.00	.00
810							
410014 IT4100							
IT 4100 CPU			Total	34.27			
820	IT 4100 Power Supply	10	Prepare material	0.25	100.00	.00	.00
820	IT 4100 Power Supply	20	Applicate soldering paste	15.39	100.00	.00	3.00
820	IT 4100 Power Supply	30	Setup SMD CPU assembly	935.55	100.00	.00	.00
820	IT 4100 Power Supply	40	SMD assembly	4.01	100.00	.00	.00
820	IT 4100 Power Supply	50	Visual control	14.37	100.00	1.00	3.00
820	IT 4100 Power Supply	70	Packing and storage	5.15	.00	.00	.00
820							
410014 IT4100							
IT 4100 Power Supply			Total	975.52			
410014 IT4100				Total	1010.19		

4.2 Project analysis with employee working times and quantities

For each order position and employee, the PDC times and booked quantities of the respective employee are displayed in detail.

The sum of the individual PDC times is output per order and in the bottom line as grand total for the entire project.

Project analysis with employees								
Project: 410014 IT4100								
Order	Order Name	Activity	Activity Name	Name, first name	PDC time	Good yield	Rejects quantity	Rework quantity
810	IT 4100 CPU	10	Providing material	Gonzalez, Ella	0.00	100.00	.00	.00
810	IT 4100 CPU	20	SMD assembly	Gonzalez, Ella	6.26	98.00	.00	2.00
810	IT 4100 CPU	20	SMD assembly	Young, Anthony	0.55	.00	.00	.00
810	IT 4100 CPU	30	Assembly axial components	Harris, Luke	0.00	.00	.00	.00
810	IT 4100 CPU	30	Assembly axial components	Wright, Isabella	12.46	100.00	.00	.00
810	IT 4100 CPU	40	Visual inspection/resoldering	Wright, Isabella	3.59	100.00	.00	.00
810	IT 4100 CPU	50	ICT Test	Anderson, Jacob	8.07	92.00	2.00	6.00
810	IT 4100 CPU	60	Final inspection / domumentation	Anderson, Jacob	2.14	50.00	2.00	.00
810								
410014 IT4100								
IT 4100 CPU					Total	34.27		
820	IT 4100 Power Supply	10	Prepare material	Gonzalez, Ella	0.25	100.00	.00	.00
820	IT 4100 Power Supply	20	Apply soldering paste	Anderson, Jacob	3.08	.00	.00	.00
820	IT 4100 Power Supply	20	Apply soldering paste	Anderson, James	5.15	100.00	.00	3.00
820	IT 4100 Power Supply	20	Apply soldering paste	Gonzalez, Ella	7.16	.00	.00	.00
820	IT 4100 Power Supply	30	Setup SMD CPU assembly	Anderson, Jacob	8.14	.00	.00	.00
820	IT 4100 Power Supply	30	Setup SMD CPU assembly	Spitz, Larissa	13.23	100.00	.00	.00
820	IT 4100 Power Supply	30	Setup SMD CPU assembly	Young, Anthony	914.18	.00	.00	.00
820	IT 4100 Power Supply	40	SMD assembly	Wright, Isabella	4.01	100.00	.00	.00
820	IT 4100 Power Supply	50	Visual control	Anderson, Jacob	14.37	100.00	1.00	3.00
820	IT 4100 Power Supply	70	Packing and storage	Anderson, Jacob	5.15	.00	.00	.00
820								
410014 IT4100								
IT 4100 Power Supply					Total	975.52		
410014 IT4100					Total	1010.19		

4.3 Project analysis with machine times

This report shows for each position (activity) the machine(s) used, the corresponding PDC time and the booked quantity (*Good yield*).

The sum of the individual PDC times is output per order and in the bottom line as grand total for the entire project.

Project analysis with machines								
Project: 410014 IT4100								
Order	Order Name	Activity	Activity Name	Machine	Machine Name	PDC time	Good yield	
810	IT 4100 CPU	10	Providing material	910	Ohne Maschine	0.00	100.00	
810	IT 4100 CPU	20	SMD assembly	100	SMD Bestückungsautomat	7.21	98.00	
810	IT 4100 CPU	30	Assembly axial components	120	Bestückungsrahmen	12.46	100.00	
810	IT 4100 CPU	40	Visual inspection/resoldering	120	Bestückungsrahmen	3.59	100.00	
810	IT 4100 CPU	50	ICT Test	200	ICT / Systemmessplatz	8.07	92.00	
810								
410014 IT4100								
IT 4100 CPU					Total	32.13		
820	IT 4100 Power Supply	10	Prepare material	910	Ohne Maschine	0.25	100.00	
820	IT 4100 Power Supply	20	Apply soldering paste	100	SMD Bestückungsautomat	5.15	100.00	
820	IT 4100 Power Supply	30	Setup SMD CPU assembly	120	Bestückungsrahmen	13.23	100.00	
820	IT 4100 Power Supply	40	SMD assembly	120	Bestückungsrahmen	4.01	100.00	
820	IT 4100 Power Supply	50	Visual control	200	ICT / Systemmessplatz	4.37	100.00	
820								
410014 IT4100								
IT 4100 Power Supply					Total	27.41		
410014 IT4100					Total	59.54		

4.4 Project analysis with cost centre totals

This report shows the cost centre times and the corresponding good yield quantities per position (activity).

The sum of the individual PDC times is output per order and in the bottom line as grand total for the entire project.

Project analysis with cost centres							
Project: 410014 IT4100							
Order	Order Name	Activity	Activity Name	Cost center pattern	Cost center pattern Name	PDC time	Good yield
810	IT 4100 CPU	10	Providing material	100	Lager	0.00	100.00
810	IT 4100 CPU	20	SMD assembly	200	SMD Bestückung	7.21	98.00
810	IT 4100 CPU	30	Assembly axial components	210	Bestückung konventionell	12.46	100.00
810	IT 4100 CPU	40	Visual inspection/resoldering	210	Bestückung konventionell	3.59	100.00
810	IT 4100 CPU	50	ICT Test	600	Elektronik Fertigung	8.07	92.00
810							
410014 IT4100							
IT 4100 CPU						Total	32.13
820	IT 4100 Power Supply	10	Prepare material	100	Lager	0.25	100.00
820	IT 4100 Power Supply	20	Applicate soldering paste	200	SMD Bestückung	5.15	100.00
820	IT 4100 Power Supply	30	Setup SMD CPU assembly	210	Bestückung konventionell	13.23	100.00
820	IT 4100 Power Supply	40	SMD assembly	210	Bestückung konventionell	4.01	100.00
820	IT 4100 Power Supply	50	Visual control	600	Elektronik Fertigung	4.37	100.00
820							
410014 IT4100							
IT 4100 Power Supply						Total	27.41
410014 IT4100						Total	59.54

4.5 Project analysis with breakdown reasons

This report outputs per position (activity) the corresponding employee name, booked PDC time as well as the corresponding good yield, rejects and rework quantities.

Furthermore, breakdown times (if available) complemented by the associated breakdown reason are displayed. In rows containing breakdown reasons, the corresponding breakdown time is displayed in the *PDC time* column.

The sum of the individual PDC times is output per order and in the bottom line as grand total for the entire project.

Project analysis with breakdown reasons									
Project: 410014 IT4100									
Order	Order Name	Activity	Activity Name	Name, first name	Breakdown reasons Na	PDC time	Good yield	Rejects quantity	Rework quantity
810	IT 4100 CPU	10	Providing material	Gonzalez, Ella		0.00	100.00	.00	.00
810	IT 4100 CPU	20	SMD assembly	Gonzalez, Ella		6.26	98.00	.00	2.00
810	IT 4100 CPU	20	SMD assembly	Young, Anthony		0.55	.00	.00	.00
810	IT 4100 CPU	30	Assembly axial components	Harris, Luke		0.00	.00	.00	.00
810	IT 4100 CPU	30	Assembly axial components	Wright, Isabella		12.46	100.00	.00	.00
810	IT 4100 CPU	40	Visual inspection/resoldering	Wright, Isabella		3.59	100.00	.00	.00
810	IT 4100 CPU	50	ICT Test	Anderson, Jacob		7.32	92.00	2.00	6.00
810	IT 4100 CPU	50	ICT Test	Anderson, Jacob	Positioning accuracy	0.35	.00	.00	.00
810	IT 4100 CPU	60	Final inspection / documentatio	Anderson, Jacob		2.14	50.00	2.00	.00
810									
410014 IT4100									
IT 4100 CPU						Total	34.27		
820	IT 4100 Power Supply	10	Prepare material	Gonzalez, Ella		0.25	100.00	.00	.00
820	IT 4100 Power Supply	20	Applicate soldering paste	Anderson, Jacob		3.08	.00	.00	.00
820	IT 4100 Power Supply	20	Applicate soldering paste	Anderson, James		4.45	100.00	.00	3.00
820	IT 4100 Power Supply	20	Applicate soldering paste	Anderson, James	Positioning accuracy	0.30	.00	.00	.00
820	IT 4100 Power Supply	20	Applicate soldering paste	Gonzalez, Ella	Material fault	7.16	.00	.00	.00
820	IT 4100 Power Supply	30	Setup SMD CPU assembly	Anderson, Jacob		2.25	.00	.00	.00
820	IT 4100 Power Supply	30	Setup SMD CPU assembly	Anderson, Jacob	No material	5.49	.00	.00	.00
820	IT 4100 Power Supply	30	Setup SMD CPU assembly	Spitz, Larissa		13.23	100.00	.00	.00
820	IT 4100 Power Supply	30	Setup SMD CPU assembly	Young, Anthony		914.18	.00	.00	.00
820	IT 4100 Power Supply	40	SMD assembly	Wright, Isabella		4.01	100.00	.00	.00
820	IT 4100 Power Supply	50	Visual control	Anderson, Jacob		14.37	100.00	1.00	3.00
820	IT 4100 Power Supply	70	Packing and storage	Anderson, Jacob		5.15	.00	.00	.00
820									
410014 IT4100									
IT 4100 Power Supply						Total	975.52		
410014 IT4100						Total	1010.19		

4.6 Costing analysis report

The report shows for each position the planned PDC target time, the actual PDC time as well as the target quantity (TQ) and the good yield quantity. The costing analysis is complemented by the values of the rejects and rework quantity.

The sum of the individual PDC times is output per order and in the bottom line as grand total for the entire project.

Project-related cost analysis											
Project: 410014 IT4100											
Order	Order Name	Activity	Activity Name	Activity Target time	Activity Quantity per target time	Activity Target quantity (TQ)	PDC time	Good yield	Rejects quantity	Reworks quantity	
810	IT 4100 CPU	10	Providing material	1.00	1.00	100.00	0.40	100.00	.00	.00	.00
810	IT 4100 CPU	20	SMD assembly	4.00	1.00	100.00	7.21	98.00	.00	2.00	.00
810	IT 4100 CPU	30	Assembly axial components	7.30	1.00	100.00	12.46	100.00	.00	.00	.00
810	IT 4100 CPU	40	Visual inspection/resoldering	2.50	1.00	100.00	3.59	100.00	.00	.00	.00
810	IT 4100 CPU	50	ICT Test	5.00	1.00	100.00	8.07	92.00	2.00	6.00	.00
820	IT 4100 Power Supply	10	Prepare material	12.00	100.00	100.00	0.25	100.00	.00	.00	.00
820	IT 4100 Power Supply	20	Apply soldering paste	3.00	1.00	100.00	15.39	100.00	.00	3.00	.00
820	IT 4100 Power Supply	30	Setup SMD CPU assembly	8.00	1.00	100.00	601.02	100.00	.00	.00	.00
820	IT 4100 Power Supply	40	SMD assembly	2.00	1.00	100.00	4.01	100.00	.00	.00	.00
820	IT 4100 Power Supply	50	Visual control	2.50	1.00	100.00	4.37	100.00	1.00	3.00	.00
410014 IT4100						Total	658.37				
Total values:						Total	658.37				

5 Analyses based on data from “PDC information”

Possibility to analyse orders and determine key performance indicators (KPI) based on PDC data in accordance with the VDMA 66412-1 guideline [VDMA stands for the German Mechanical Engineering Industry Association].

The evaluation results can be exported to Excel for subsequent processing of the data and creation of different user-specific list views.

5.1 Example of an order analysis with KPI determination

Due to the table width, the output is split into two parts.

The abbreviations used are based on the above-mentioned German VDMA guideline. For further details, please refer to the training document “ZEUSX_PDC_PDC information” (English version under preparation).

Below screenshot shows the results of an in-depth analysis of various order positions incl. time and quantity values as well as the resulting key performance indicators.

	ID	Name	Target time	Time unit	per	TQ	QU	TTU	APT	PSUT	(ASUT)	TTT
🕒	10	Setup Component	350.00	min	100.00	100.00	Stck.	3.50	4.16			350.00
✓	20	Applicate soldering paste	1.50	min	1.00	100.00	Stck.	1.50	1.20	40.00	35.00	190.00
🕒	30	SMD asssembly	15.00	min	4.00	100.00	Stck.	3.75	8.54	75.00	70.00	450.00
🕒	40	Quality Test	7.00	min	1.00	100.00	Stck.	7.00	11.53	10.00	11.00	710.00
🕒	50	Washing	2.00	min	1.00	100.00	Stck.	2.00	1.99	8.00		208.00
🕒	60	IC Test	2.00	min	1.00	100.00	Stck.	2.00	2.12	30.00	27.00	230.00
🕒	70	Final Test and documentation	6.00	min	1.00	100.00	Stck.	6.00	6.03	15.00	19.00	615.00
🕒	80	Packing and storage	25.00	min	100.00	100.00	Stck.	0.25	1.39			25.00

Efficiency	OEE index	NEE index	TAPT	MUT	PCT	IB	BuT	TPT	GY	(RJ)	RQ	PQ
84.06%	73.74%	73.74%	416.37	712.00	712.00		712.00	712.00	150.00	1.00	20.00	171.00
125.00%	95.81%	123.75%	120.00	120.00	155.00		155.00	155.00	99.00	1.00		100.00
43.93%	38.71%	41.92%	853.54	845.00	915.00	15.00	930.00	930.00	96.00	1.00	2.00	99.00
60.74%	60.16%	60.74%	1,152.53	1,141.00	1,152.00		1,152.00	1,152.00	99.00			99.00
100.51%	97.44%	97.44%	198.98	195.00	195.00		195.00	195.00	95.00		3.00	98.00
94.23%	67.67%	76.45%	212.24	208.00	235.00	31.00	266.00	266.00	90.00	2.00	6.00	98.00
99.49%	95.36%	98.46%	603.09	585.00	604.00		604.00	604.00	96.00	1.00		97.00
17.99%	17.99%	17.99%	138.95	132.00	132.00		132.00	132.00	95.00			95.00

5.2 Comparison of 3 production lines

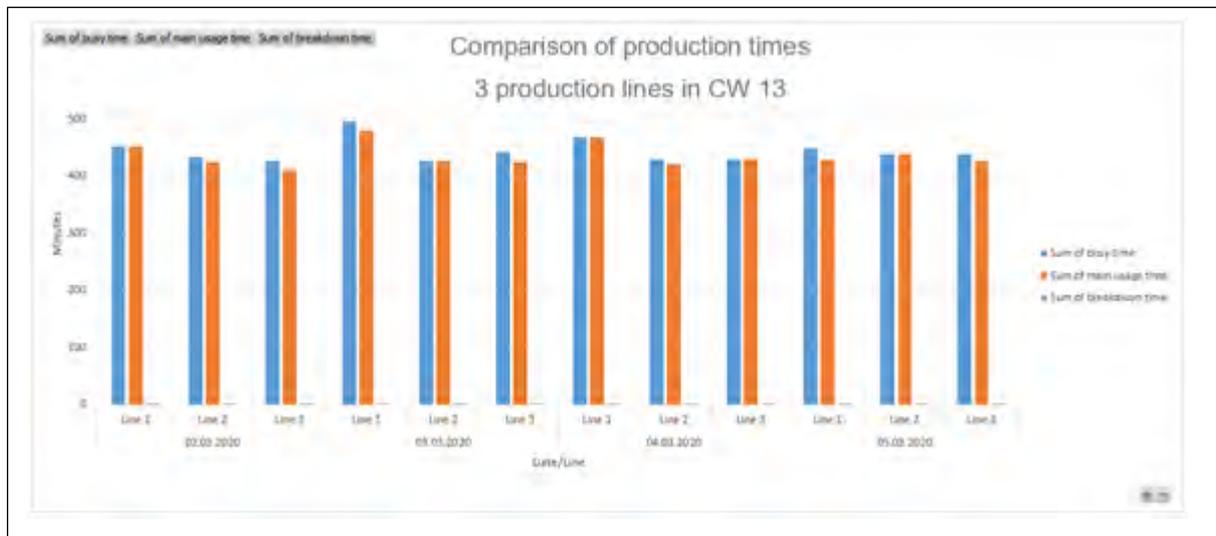
Below evaluation table contains the figures resulting from a comparison of three different production lines (each production line is defined as a cost centre).

Each row corresponds to a specific production line and contains the following data for the selected time range: recorded time values (MUT = Main usage time / PCT = Processing time), recorded quantity values (GY = Good yield / RJQ = Rejects qty. / RWQ = Rework qty. / PQ = Produced qty.) as well as the resulting key performance indicators such as the quality rate or the Overall Equipment Effectiveness (OEE) index.

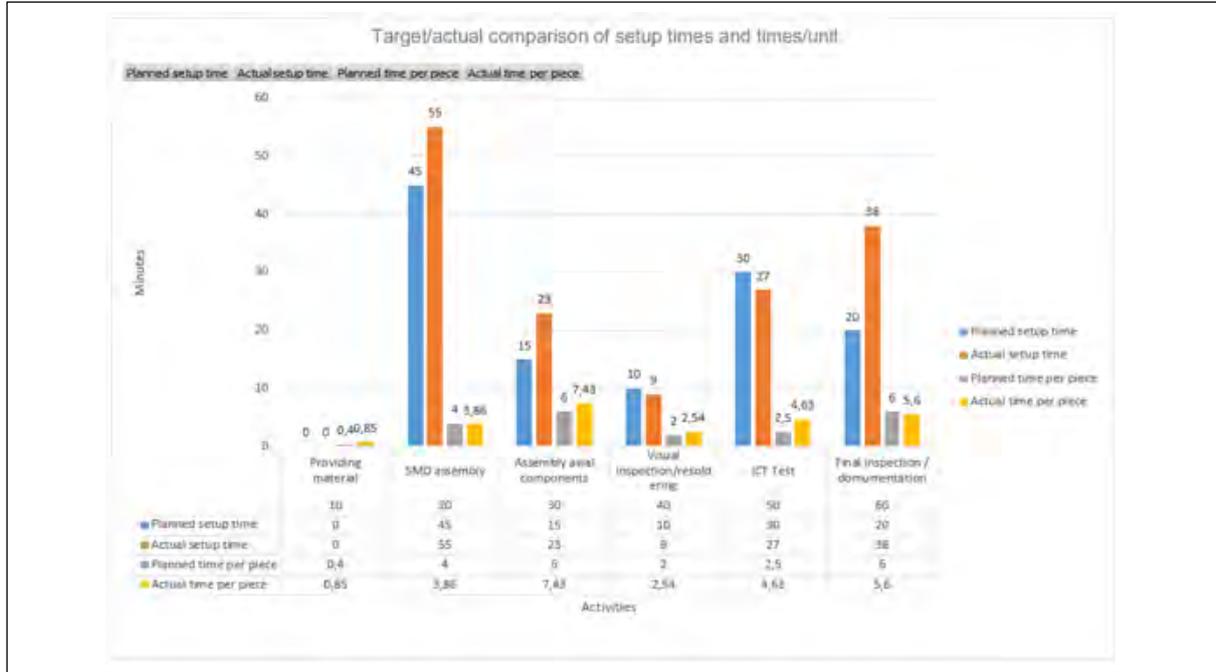
	ID	Name	MUT	PCT	Quality rate	Availability	Rate of capacity	OEE index	GY	RJQ	RWQ	PQ
	6000	Production line 1	2,315.00	2,315.00	92.91%	98.72%	98.72%	88.06%	118.00	2.00	7.00	127.00
	6002	Production Line 2	2,381.00	2,381.00	92.70%	100.00%	100.00%	93.34%	127.00	4.00	6.00	137.00
	6003	Production Line 3	2,371.00	2,371.00	92.86%	100.00%	100.00%	95.95%	130.00	5.00	5.00	140.00

5.3 Graphical comparison of daily values

This graphical analysis is based on the daily values of three different production lines with reference to calendar week 13.

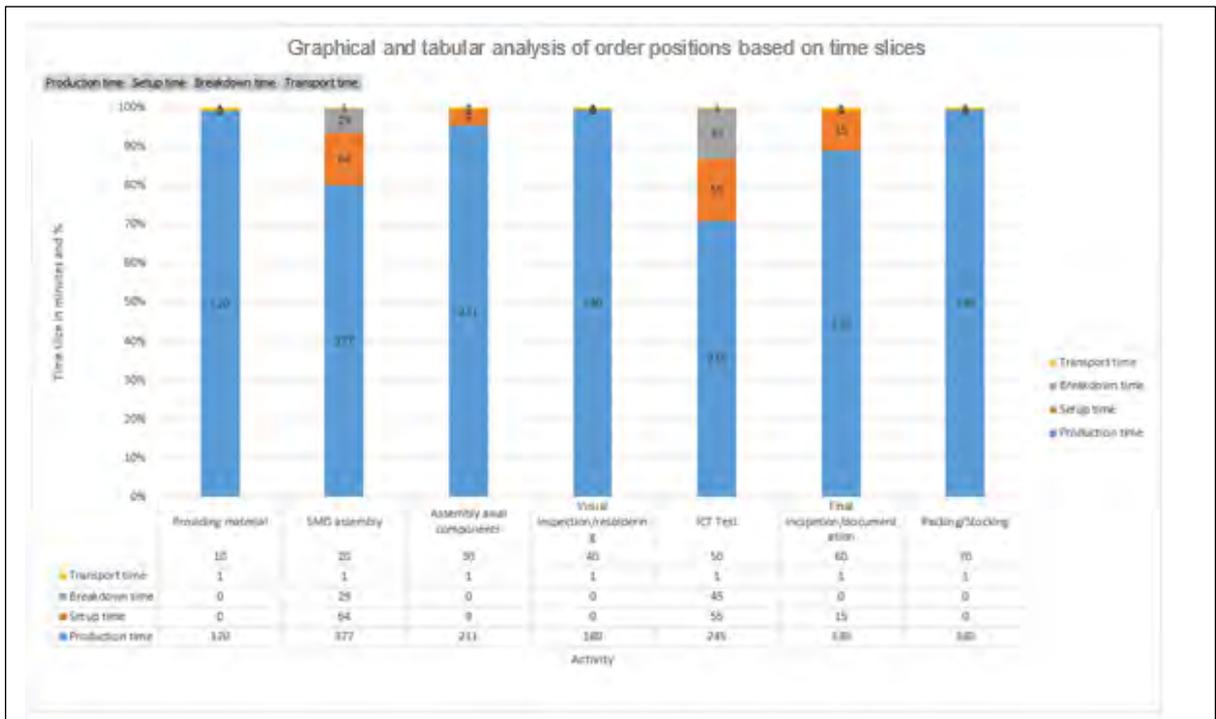


5.4 Graphical and tabular analysis of target and actual values for setup and production times per unit broken down into the individual order processing steps



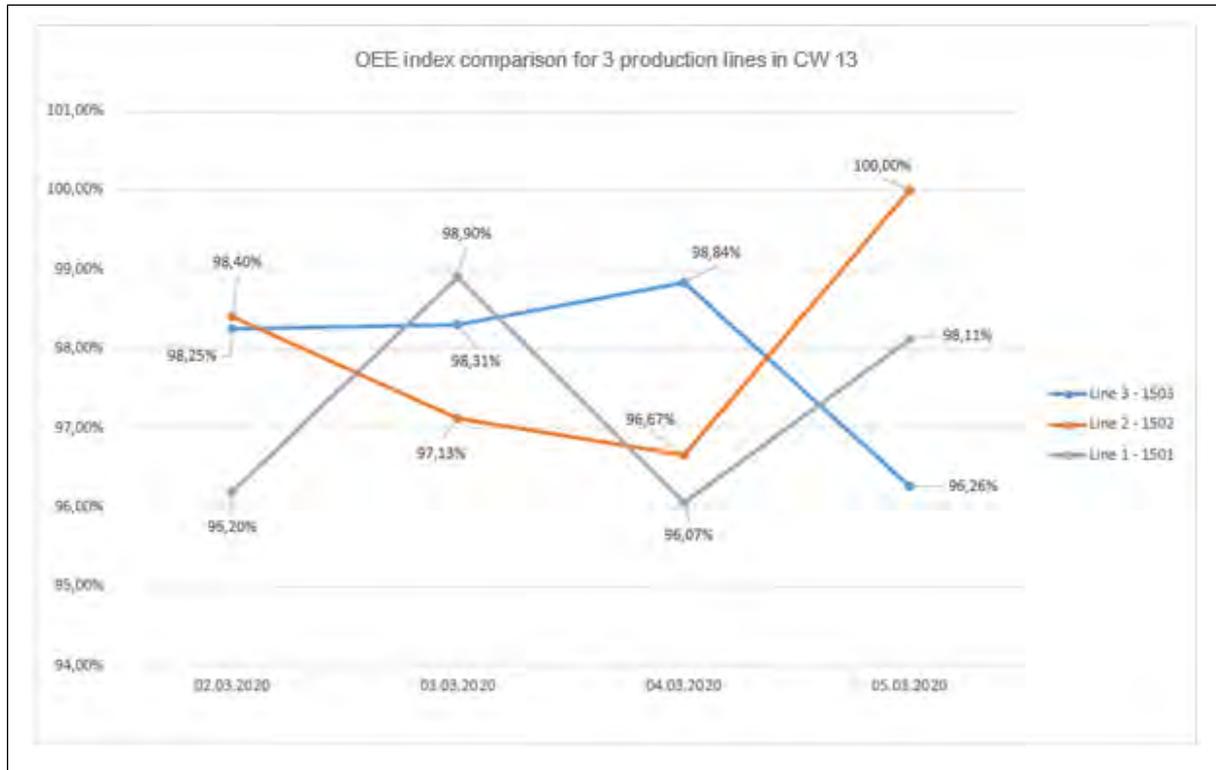
5.5 Graphical and tabular analysis of order positions differentiating between time types

The different time values (times for transport / breakdown, setup and production) shown in the graphical analysis below are reported as percentages (%) and absolute values (in minutes).



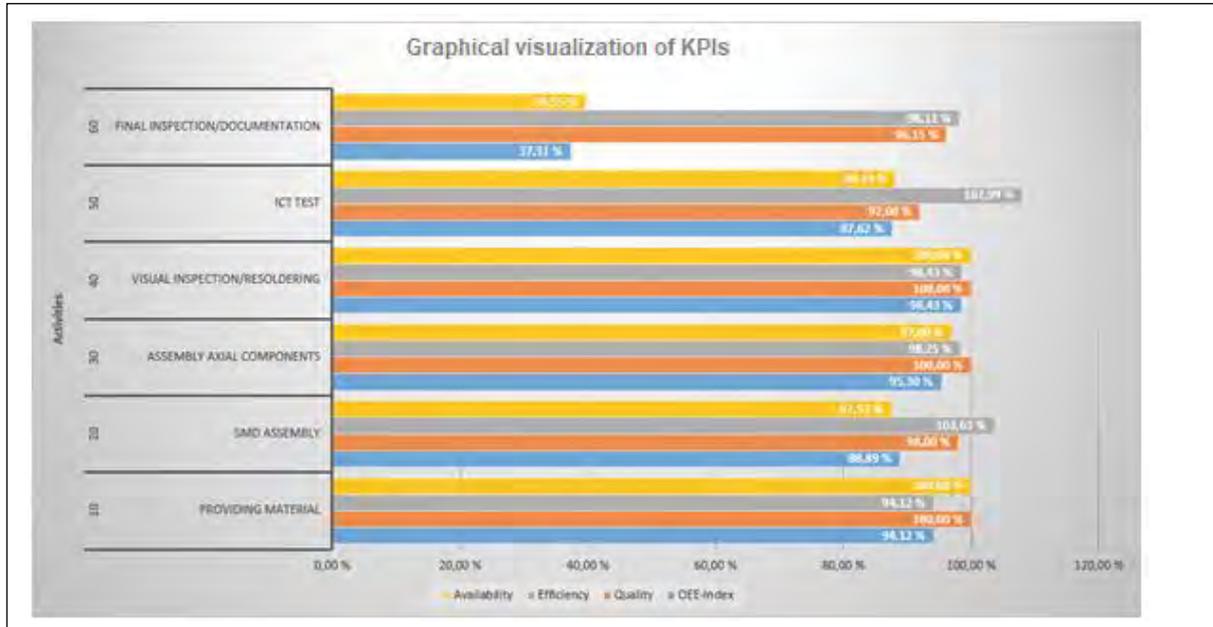
5.6 Graphical visualization of the OEE index over time referring to different cost centres / production lines

The relevant values (in %) of the OEE (Overall Equipment Effectiveness) index are calculated based on the available PDC data and grouped by day and cost centre / production line. The corresponding data can be exported to Excel and displayed as a line chart as shown below:



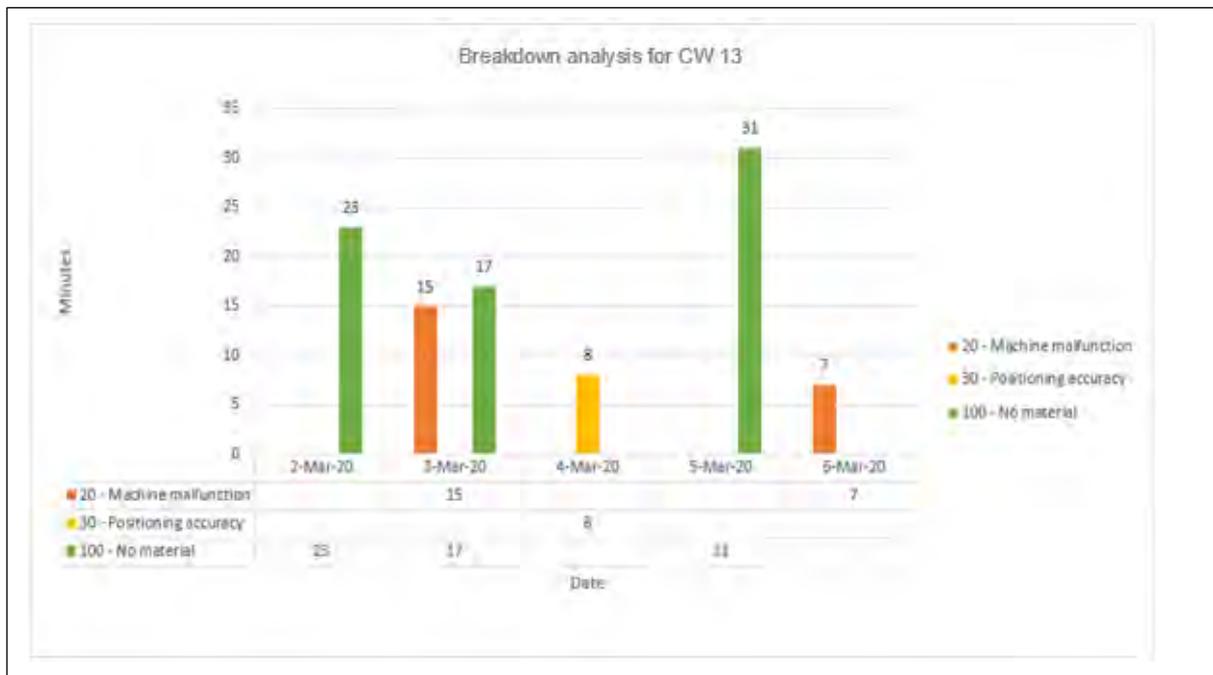
5.7 Graphical visualization of order positions with key performance indicators

The most important key performance indicators expressed as a percentage per order position are displayed in a bar chart.



5.8 Graphical and tabular analysis of breakdown times and reasons

Possibility to output the present breakdown reasons including the corresponding breakdown duration (in minutes) per day as a table. Additionally, the associated data is presented in a bar chart.



6 Print-out of pay slips and barcode lists

The print-out option of pay slips and barcode lists is available for all modules, namely *Cost Centre Recording*, *Job Costing* and *Production Data Capture (PDC)*.

Furthermore, barcode lists can be generated based on master data, such as machines or cost centres. Data entry via barcode facilitates and accelerates error-free input of order parameters.

6.1 Pay slip for project data recording with 2/5 Interleaved (I2of5) barcode

The barcode displayed/printed on the pay slip comprises data referring to the corresponding the projects, milestones and work packages.

Coding is based on the standard 2/5 Interleaved code commonly used in the production area.

Pay slip for project data recording

Identification number 1 Project Name Speedfort shipping Identification number 100 Milestone Name Hardware installation Identification number 100 Task Name On-site inspection	 00000001000001000000001005
Identification number 1 Project Name Speedfort shipping Identification number 100 Milestone Name Hardware installation Identification number 110 Task Name Mounting Terminals	 00000001000001000000001104
Identification number 1 Project Name Speedfort shipping Identification number 200 Milestone Name Consulting Identification number 200 Task Name Meeting	 00000001000002000000002001
Identification number 1 Project Name Speedfort shipping Identification number 200 Milestone Name Consulting Identification number 210 Task Name Software setup	 00000001000002000000002100
Identification number 1 Project Name Speedfort shipping Identification number 200 Milestone Name Consulting Identification number 220 Task Name Customizing	 00000001000002000000002209

6.2 Pay slip for project data recording with QR code

The QR code displayed/printed on the pay slip comprises data referring to the corresponding projects, milestones and work packages.

Pay slips equipped with QR codes are ideally suited for project data recording via ZEUS® mobile.

Pay slip for project data recording

Identification number 1 Project Name Speedfort shipping Identification number 100 Milestone Name Hardware installation Identification number 100 Task Name On-site inspection	
Identification number 1 Project Name Speedfort shipping Identification number 100 Milestone Name Hardware installation Identification number 110 Task Name Mounting Terminals	
Identification number 1 Project Name Speedfort shipping Identification number 200 Milestone Name Consulting Identification number 200 Task Name Meeting	
Identification number 1 Project Name Speedfort shipping Identification number 200 Milestone Name Consulting Identification number 210 Task Name Software setup	
Identification number 1 Project Name Speedfort shipping Identification number 200 Milestone Name Consulting Identification number 220 Task Name Customizing	

7 Presence time

7.1 Comparison report – Presence time vs. booked PDC times

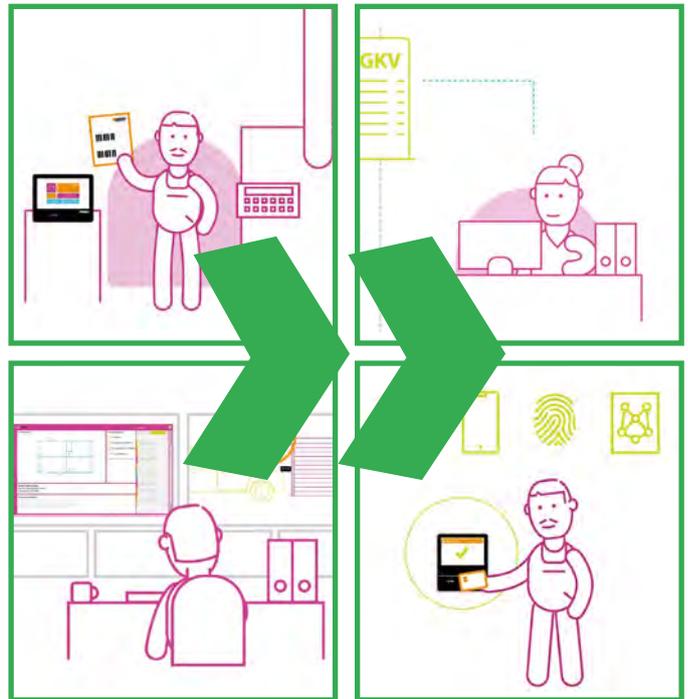
The report shown below includes the results of a comparison between the employee's daily presence time and the associated PDC time booked on cost centres, orders, etc. – the booked PDC times correspond to the productive time.

The *Report Designer* allows you to highlight possible differences between the daily presence time and the sum of the booked PDC times in colour, e. g. in red as shown below.

Comparison between presence time and booked PDC times				
Personnel number: 1005 White, Matthew				
Date	Cost centre	Cost centre name	PDC time	PDC-Gross
2/9/2019			0.00	8.54
2/9/2019	100	Sales department	5.27	0.00
2/9/2019	110	Marketing	3.27	0.00
02.09.2019				
1005 White, Matthew			Total	8.54
3/9/2019			0.00	9.37
3/9/2019	100	Sales department	3.49	0.00
3/9/2019	110	Marketing	1.30	0.00
3/9/2019	160	Export department	4.01	0.00
03.09.2019				
1005 White, Matthew			Total	9.20
4/9/2019			0.00	7.32
4/9/2019	110	Marketing	7.32	0.00
04.09.2019				
1005 White, Matthew			Total	7.32
5/9/2019			0.00	8.59
5/9/2019	130	Purchase Department	2.54	0.00
5/9/2019	160	Export department	6.05	0.00
05.09.2019				
1005 White, Matthew			Total	8.59
6/9/2019			0.00	9.03
6/9/2019	100	Sales department	5.09	0.00
6/9/2019	110	Marketing	3.54	0.00
06.09.2019				
1005 White, Matthew			Total	9.03
1005 White, Matthew			Total	43.48

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