

# **Management instrument “Controlling of material costs“**

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## **Abstract**

At present all industrial enterprises are struggling with the global economic crisis. That's why is needfulness for companies good control of costs. Special category is the category “material costs“, just because material costs make up that part of the price, which occurs when pricing the substantial differences between the various suppliers. Tool "project evaluation" is used for the economic evaluation of the project. The project, which can be evaluated using, it must also be focused on the monitoring of material costs thanks to the reduction of this is company able to generates more profit.

## **Keywords**

Material costs, industrial enterprise, program Excell, controlling.

## **1. Introduction**

Management of material costs is essential in industrial activities. Its correct realization leads to good results of the company and its high competitiveness. But the problem is the fact that some companies are controlling job demands and high responsibility and competence of their staff. This essay deals with the management of material costs in the company that manufactures automobiles. His name remains unknown to the needs of this work, but it is a real company and a real problem that is solved in these lines, as the author of this automaker is working closely. Mentioned problem difficulty in controlling jobs also applies to the company. The company is struggling with high turnover in controlling positions.

Therefore, the author stood before the task to create a tool "Controlling of material costs" in such a way that the sophisticated model that includes all the necessary entities, but will be simple enough for control and understanding of its structure. It is for this reason that the newly arrived worker quickly understand issues and methodology of solving work problems and responsibilities. of all possible methods models were chosen in table format in the excel, because with this program is the most familiar technical economic staff at the user level and higher level.

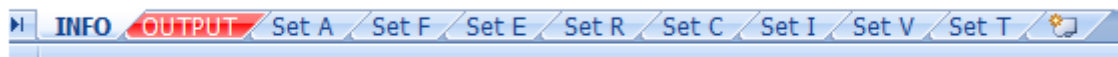
Controlling is important, because is one of the managerial functions like planning, organizing, staffing and directing. It is an important function because it helps to check the errors and to take the corrective action so that deviation from standards are minimized and stated goals of the organization are achieved in a desired manner.

## 2. Description of the tool "controlling of material costs"

Tools "controlling of material costs" is divided into two files. This paper deals with the details of the first one. It is called the basic Input file from which data will be generated, which works with the second, the Output file. The Output file will be then manipulate the data, compare them according to certain keys as you will be controlling worker wish. The Input file is important, because it interferes in a significant number of workers who inserted him into their data. With an output file then worked for only one chief officer, who supervises the entire project.

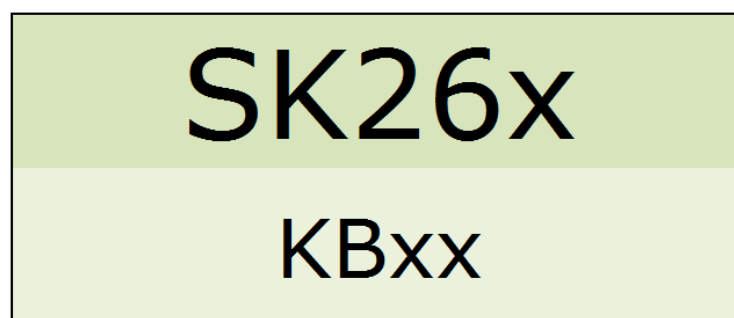
The following figure shows the distribution of leaves in the "Input file". It consists of ten sheets, each of which has a specific function. Info sheet used to establish baseline data about the investigated and controlled car. List Output used for generation of information from all the other sheets. Furthermore, the leaves are divided into different sections that make up truck as car factory monitor.

Set A monitor material costs of engines and transmissions. Set F monitor material costs chassis. Set E parts associated with electrical wiring and components. The remaining sets watching the body, interior, and other parts in various specific breakdown.



**Pic. 1** Breakdown sheets in the file Input file

The INFO sheet provides basic information. What type of car it is (SK26), which platform is built (PQ xx), from which the car is based (SK37), for which the region is determined, for what period is the condition of the car in the file closed (Stand) what kind of motorization is a model within the vehicle type and its relationship to in-house information system (Mandator).



Platform:	PQ xx
Fahrzeug:	SK 37x
Fert. Region:	EU
Stand:	8/2011
KM:	1.4 TSI MQ F
Mandant/Status/Čas:	1.3.2012

**Pic. 2** Structure of sheet INFO

Output sheet has a specific structure. This distinction is crucial for the definition of the type of vehicle, its engines, chassis, tires and other parts. Thus, the basic division that defines the car is for the sheet Output same as for all other leaves that start with the word "Set".

This breakdown identifies three main areas under which the car is defined. It is an area motor (Pohon a přílehlé oblasti), area transmission (Getriebe) and the chassis (Fahrwerk).

Pohon a přílehlé oblasti											Getriebe				Fahrwerk									
OTTO DIESEL	GL GLT	EA	ZYL	OBJ.	MOT.	kW	Standort ZP4	EXHL	DPF, PMS, OxiKat, 4WK, SCR, CNG, PLG, EBS	TECH	Man Aut	Mom	F	GA KA	Standort ZP3 GET	VL ML	RAD	ABS ESP	STAHL ALU	REIF MASS	REIF ART	HIN BRE	Bremse Vorn	Bremse Hinten
otto		211	R3	1,0	MPI	44	MB	EU6W		NWS/WIV	MQ	100	5F		MB	VL	R14	ESP	stahl	165/70	grün	TB		
otto		211	R3	1,0	MPI	44	MB	EU6W		NWS/WIV	MQ	100	5F		MB	VL	R14	ESP	stahl	165/70	grün	TB		
otto		211	R3	1,0	MPI	55	MB	EU4 o. OBD		NWS	MQ	100	5F		MB	VL	R14	ESP	stahl	175/70	grün	TB		
otto		211	R3	1,0	MPI	55	MB	EU4 o. OBD		NWS	MQ	100	5F		MB	VL	R14	ESP	stahl	175/70	grün	TB		
otto	SSR	211	R3	1,0	MPI	55	MB	EU6W		NWS/WIV	MQ	100	5F		MB	VL	R14	ESP	stahl	175/70	grün	TB		
otto	SSR	211	R3	1,0	MPI	55	MB	EU6W		NWS/WIV	MQ	100	5F		MB	VL	R14	ESP	stahl	175/70	grün	TB		
otto		211	R3	1,0	MPI	55	MB	EU6W		NWS/WIV	MQ	100	5F		MB	VL	R14	ESP	stahl	175/70	grün	TB		
otto		211	R4	1,2	TSI	66	MB	EU6W			MQ	200	5F		MB	VL	R14	ESP	stahl	175/70	grün	TB		
otto		211	R4	1,2	TSI	66	MB	EU6W			MQ	200	5F		MB	VL	R14	ESP	stahl	175/70	grün	TB		
otto	SSR	211	R4	1,2	TSI	66	MB	EU6W			MQ	200	5F		MB	VL	R14	ESP	stahl	175/70	grün	TB		
otto	SSR	211	R4	1,2	TSI	66	MB	EU6W			MQ	200	5F		MB	VL	R14	ESP	stahl	175/70	grün	TB		
otto	SSR	211	R4	1,2	TSI	81	MB	EU6W			MQ	200	6F	KA+	MB	VL	R15	ESP	stahl	185/60	grün	SB		
otto	SSR	211	R4	1,2	TSI	81	MB	EU6W			MQ	200	6F	KA+	MB	VL	R15	ESP	stahl	185/60	grün	SB		
otto		211	R4	1,2	TSI	81	MB	EU6W			MQ	200	6F		MB	VL	R15	ESP	stahl	185/60	grün	SB		
otto		211	R4	1,2	TSI	81	MB	EU6W			MQ	200	6F		MB	VL	R15	ESP	stahl	185/60	grün	SB		
otto	SSR	211	R4	1,2	TSI	81	MB	EU6W			DQ	200	7F		vrohlabi	VL	R15	ESP	stahl	185/60	grün	SB		
otto	SSR	211	R4	1,2	TSI	81	MB	EU6W			DQ	200	7F		vrohlabi	VL	R15	ESP	stahl	185/60	grün	SB		
otto		211	R4	1,2	TSI	81	MB	EU6W			DQ	200	7F		vrohlabi	VL	R15	ESP	stahl	185/60	grün	SB		
otto		211	R4	1,2	TSI	81	MB	EU6W			DQ	200	7F		vrohlabi	VL	R15	ESP	stahl	185/60	grün	SB		
otto		211	R4	1,6	MPI	81	MB	EU5			MQ	200	5F		mb	VL	R14	ESP	stahl	175/70	grün	TB		
otto		211	R4	1,6	MPI	81	MB	EU5			AQ	180	6F		aisin	VL	R14	ESP	stahl	175/70	grün	TB		
otto		211	R4	1,6	MPI	81	MB	EU5			AQ	180	6F		aisin	VL	R14	ESP	stahl	175/70	grün	TB		
otto		211	R4	1,6	MPI	81	MB	EU4 o. OBD			AQ	180	6F		aisin	VL	R14	ESP	stahl	175/70	grün	TB		
otto		211	R4	1,6	MPI	81	MB	EU4 o. OBD			AQ	180	6F		aisin	VL	R14	ESP	stahl	175/70	grün	TB		
diesel		288	R3	1,4	TDI-CR	66	salzgitter	EU6W	DPF		MQ	250	5F		kassel	VL	R14	ABS	stahl	175/70	grün	TB		
diesel		288	R3	1,4	TDI-CR	66	salzgitter	EU6W	DPF		MQ	250	5F		kassel	VL	R14	ABS	stahl	175/70	grün	TB		
diesel	SSR	288	R3	1,4	TDI-CR	66	salzgitter	EU6W	DPF		MQ	250	5F		kassel	VL	R14	ESP	stahl	175/70	grün	TB		
diesel	SSR	288	R3	1,4	TDI-CR	66	salzgitter	EU6W	DPF		MQ	250	5F		kassel	VL	R14	ESP	stahl	175/70	grün	TB		

Pic. 3 Definition car

In the engine box to fill in parameters such as gasoline or diesel fuel, engine size, type of engine, emission standard, and more. In the section of "transmission" for details on the gear as the torque and others. In the "chassis" wheel size and other parameters. Using the "filtering" allows administrators to filter file types according to the car to show these lower the figure.

Pohon a přílehlé oblasti											Man Aut					
JEKT WURF	FERTIG. REGION	AUSST. T.	pozn.	OTTO DIESEL	GL GLT	EA	ZYL	OBJ.	MOT.	kW	Standort ZP4	EXHL	DPF, PMS, OxiKat, 4WK, SCR, CNG, PLG, EBS	TECH	Man Aut	
						211	R3	1,0	MPI	44	MB	EU6W		NWS/WIV	MQ	
						211	R3	1,0	MPI	44	MB	EU6W		NWS/WIV	MQ	
						211	R3	1,0	MPI	55	MB	EU4 o. OBD		NWS	MQ	
						211	R3	1,0	MPI	55	MB	EU4 o. OBD		NWS	MQ	
						SSR	211	R3	1,0	MPI	55	MB	EU6W		NWS/WIV	MQ
						SSR	211	R3	1,0	MPI	55	MB	EU6W		NWS/WIV	MQ
						211	R3	1,0	MPI	55	MB	EU6W		NWS/WIV	MQ	
						211	R3	1,0	MPI	55	MB	EU6W		NWS/WIV	MQ	
						211	R4	1,2	TSI	66	MB	EU6W			MQ	
						211	R4	1,2	TSI	66	MB	EU6W			MQ	
						SSR	211	R4	1,2	TSI	66	MB	EU6W			MQ
						SSR	211	R4	1,2	TSI	66	MB	EU6W			MQ
						SSR	211	R4	1,2	TSI	81	MB	EU6W			MQ
						SSR	211	R4	1,2	TSI	81	MB	EU6W			MQ
						211	R4	1,2	TSI	81	MB	EU6W			MQ	
						211	R4	1,2	TSI	81	MB	EU6W			MQ	
						SSR	211	R4	1,2	TSI	81	MB	EU6W			DQ
						SSR	211	R4	1,2	TSI	81	MB	EU6W			DQ
						211	R4	1,2	TSI	81	MB	EU6W			DQ	

Pic. 3 Filtering

At the beginning of the table is the "ebene", which indicates that the material costs are reported at two levels. In level that tracks Concern material transfer price (KE), and in the second level, which monitors the material price at a specific car.

Box "UC1 - unicode" is unique in that it generates the parameters specified engine simple function of the original code for each car. This code will be needed in the future work with the "Output", where they will compare different kinds of cars. To avoid unwanted confusion, it is necessary to assign each vehicle specific code. He's generated automatically according to specified parameters. Other fields are left up for future differentiation and filtration.

4		Filtrý					Pohon a přílehlé oblasti											
EBENE	UC1 - unicode 1	UC2	Filtr1	Filtr2		OTTO DIESEL	GL GLT	EA	ZYL	OBJ.	MOT.	KW	Standort ZP4	EXHL	DPF, PMS, OxiKat, 4WK, SCR, CNG, PLG, E85	TECH	Man Aut	
5																		
6	SE	SEotto211R31MPI44MBEU6VW01005F0MBVL14ESPstah16570grünTB				1	otto		211	R3	1.0	MPI	44	MB	EU6V		NWSWIV	MQ
7	KE	KE000ott0211R31MPI44MBEU6VW01005F0MBVL14ESPstah16570grünTB00				2	otto		211	R3	1.0	MPI	44	MB	EU6V		NWSWIV	MQ
8	SE	SEotto211R31MPI55MBEU4 o. OBD01005F0MBVL14ESPstah17570grünTB				6	otto		211	R3	1.0	MPI	55	MB	EU4 o. OBD		NWS	MQ
9	KE	KEotto211R31MPI55MBEU4 o. OBD01005F0MBVL14ESPstah17570grünTB00				7	otto		211	R3	1.0	MPI	55	MB	EU4 o. OBD		NWS	MQ

Pic. 4 Unicode

Any group that cares about the material costs of their part of the car thus writes to his letter to the motorization of predetermined values belonging to specific works. The advantage is that it can not intervene in other parts of the group, as it happened in the old days, when all the data were on a single sheet.

Can only be filled box numbers. By entering specific engines may interfere with the Administrator of the entire document. Employees may, however, modify the size of boxes, their coloring, font size and thickness, font color and more. Adjusts so your work your spreadsheet. Administrators value of these achievements but appears on the "OUTPUT", which continues to work with him, regardless of what format you choose to list their workers.

F										
Bremsen	ABS/ESP ASR/EDS	Fußhebel werk	Kupplung s- betätigung	Hinterach se	Achsdäm pfer HA	Lenkung bzw. Servolen kung	Kraftstoff anlage	Schwenk lager	Vorderac hse	Dämpfer bein
99999	46464	2324	99999	46464	2324	99999	46464	2324	99999	46464
5464	646	645	5464	646	645	5464	646	645	5464	646
99999	46464	2324	99999	46464	2324	99999	46464	2324	99999	46464
5464	646	645	5464	646	645	5464	646	645	5464	646
99999	46464	2324	99999	46464	2324	99999	46464	2324	99999	46464
5464	646	645	5464	646	645	5464	646	645	5464	646
99999	46464	2324	99999	46464	2324	99999	46464	2324	99999	46464
5464	646	645	5464	646	645	5464	646	645	5464	646
99999	46464	2324	99999	46464	2324	99999	46464	2324	99999	46464
5464	646	645	5464	646	645	5464	646	645	5464	646
99999	46464	2324	99999	46464	2324	99999	46464	2324	99999	46464
5464	646	645	5464	646	645	5464	646	645	5464	646
99999	46464	2324	99999	46464	2324	99999	46464	2324	99999	46464
5464	646	645	5464	646	645	5464	646	645	5464	646
99999	46464	2324	99999	46464	2324	99999	46464	2324	99999	46464
5464	646	645	5464	646	645	5464	646	645	5464	646

Pic. 5 User interface

The whole program is therefore based on the assumption that most workers can harm their own values. This prevents unnecessary delays in work, repairing damaged files that have occurred in the past. At the end of each "set" common costs are added together. These are then manually transcribed into the "control" and after reaching the deadline for submission of

this box is locked and can not be modified. Thus the administrator will easily find out if someone changed their values even after they have already handed in their work.

### **3. Conclusion**

As mentioned, the material cost management is an essential part of the management of each company, which focuses on the development and production. Proper design of a transparent and simple system is significantly facilitate the work and thus better efficiency.

This work is an initial introduction to the issue of cost management in a specific industrial enterprise, which is engaged in the manufacture of automobiles. Therefore the author of this test program carried out in practice. However, it is only a partial part of the whole work, which will be part of the dissertation work on this broad topic.

The whole system should be an important tool in the work, it will generate comparisons between different cars at different price levels. Will be able to allocate the expected value over quantity produced cars. At the same time as the excel program enables everything transparently handle the resulting graphs. The advantage of the format is its clarity, simplicity and clarity.

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