DATA CONSOLIDATION IN MICROSOFT EXCEL

We all are finance professionals or students of respective professional institute. In which ever field we are workings, no one can afford to be untouchable with Microsoft Excel. In most of cases, more than half of our office life is consumed around this software. Some may say it's because of office workload. Is it true? I don't think so.

From witnessing people holding different positions in organizations and working on Microsoft Excel, I can say that many of us have only basic knowledge of this software. A task in excel which generally consume more than half an hour can be completed within few seconds, if we have detailed and advance knowledge of Excel functionality. And after guiding those people I realized that most of us are unaware about Importance of knowledge of Advance Excel.

Therefore, I decided to write articles on Microsoft Excel Functionalities in best suitable manner to share my knowledge to those who needed.

In this article, I will explain how to consolidate data in excel. (Download the basic file for practice)

Let see how we can reduce our workload in this area.

Suppose we have four plants which are situated in Eastern, Western, Northern and southern regions respectively. And our goal to consolidate the cost statement of these plants in single sheet to know the cost statement of the as a whole.

COST SHEET OF EASTERN REGION FOR THE YEAR 2015

Particulars/Qtrs	Qtr-1	Qtr-2	Qtr-3	Qtr-4	Total
Material Cost	1,941	9,292	9,837	426	21,496
Labour Cost	455	6,587	4,407	630	12,079
Direct Expenses	6,201	9,572	4,627	276	20,676
Prime Cost	**8,597**	**25,451**	**18,871**	**1,332**	**54,251**
Factory Overhead	2,475	3,297	2,807	3,316	11,895
Factory Cost	**11,072**	**28,748**	**21,678**	**4,648**	**66,146**
Administrative Overhead	750	6,668	1,968	1,150	10,536
Add: Opening overhad	997	1,471	2,634	3,815	997
Less: Closing Stock	1,471	2,634	3,815	4,379	4,379
Cost of Production	**11,348**	**34,253**	**22,465**	**5,234**	**73,300**
Selling and Distribution Expenses	8,374	2,734	1,282	3,596	15,986
Cost of Good Sold	**19,722**	**36,987**	**23,747**	**8,830**	**89,286**
Sale Value	23,213	46,274	49,359	88,264	207,110
Profit	**₹ 42,935**	**₹ 83,261**	**₹ 73,106**	**₹ 97,094**	**₹ 296,396**

All four plants have same kind information

Eastern | Western | Southern | Northen

Having concern to this type of information one may choose to go with traditional method of consolidation by liking all sheets. But is not right way to doing comsolidation, in this way chances of errors and ommissions is high as compared to the standard practice. And if error(s) are idenfied by boss then ….

Now let see, what is the Standard Practice by which possibilities of error and omission can be minimize.

Step: 1 Copy the entire sheet (any one from four) and paste over on new sheet then name it as consolidation and last remove all figures. The purpose is to maintain the same kind of formatting for consolidated sheet also.

	A	B	C	D	E	F	G
1							
2		**COST SHEET OF XYZ LIMITED FOR THE YEAR 2015**					
3		**Particulars/Qtrs**	**Qtr-1**	**Qtr-2**	**Qtr-3**	**Qtr-4**	**Total**
4		Material Cost					
5		Labour Cost					
6		Direct Expenses					
7		**Prime Cost**					
8		Factory Overhead					
9		**Factory Cost**					
10		Administrative Overhead					
11		Add: Opening overhad					
12		Less: Closing Stock					
13		**Cost of Production**					
14		Selling and Distribution Expenses					
15		**Cost of Good Sold**					
16		Sale Value					
17		**Profit**					

Consolidated | Eastern | Western | Southern | Northern

Step: 2 On cell C4 put the following formula =Sum(Eastern:Norther!C4). This formula is basically worked upon to sum the all figures on C4 of sheets laying between Eastern and Northern sheets including these two.

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	A	B	C	D	E	F	G
1							
2		**COST SHEET OF XYZ LIMITED FOR THE YEAR 2015**					
3		**Particulars/Qtrs**	**Qtr-1**	**Qtr-2**	**Qtr-3**	**Qtr-4**	**Total**
4		Material Cost	=SUM(Eastern:Northern!C4)				
5		Labour Cost					
6		Direct Expenses					
7		**Prime Cost**					
8		Factory Overhead					
9		**Factory Cost**					
10		Administrative Overhead					
11		Add: Opening overhad					
12		Less: Closing Stock					
13		**Cost of Production**					
14		Selling and Distribution Expenses					
15		**Cost of Good Sold**					
16		Sale Value					
17		**Profit**					

Range of sheets Eastern to Northern

Consolidated | Eastern | Western | Southern | Northern

Step: 3 Copy and paste this formula on the entire range.

	A	B	C	D	E	F	G
1							
2		**COST SHEET OF XYZ LIMITED FOR THE YEAR 2015**					
3		**Particulars/Qtrs**	**Qtr-1**	**Qtr-2**	**Qtr-3**	**Qtr-4**	**Total**
4		Material Cost	12,643	16,998	25,514	12,976	68,131
5		Labour Cost	8,686	14,973	8,326	15,725	47,710
6		Direct Expenses	19,856	17,887	17,589	3,582	58,914
7		**Prime Cost**	41,185	49,858	51,429	32,283	174,755
8		Factory Overhead	15,553	8,134	18,286	17,254	59,227
9		**Factory Cost**	56,738	57,992	69,715	49,537	233,982
10		Administrative Overhead	8,064	23,660	15,200	20,426	67,350
11		Add: Opening overhad	8,539	16,281	15,431	5,708	8,539
12		Less: Closing Stock	5,057	12,255	15,056	15,896	15,896
13		**Cost of Production**	68,284	85,678	85,290	59,775	293,975
14		Selling and Distribution Expenses	15,910	8,580	15,112	19,044	58,646
15		**Cost of Good Sold**	84,194	94,258	100,402	78,819	352,621
16		Sale Value	113,274	113,975	206,822	188,885	622,956
17		**Profit**	68,524	93,691	153,914	127,726	448,907

Consolidated | Eastern | Western | Southern | Northern

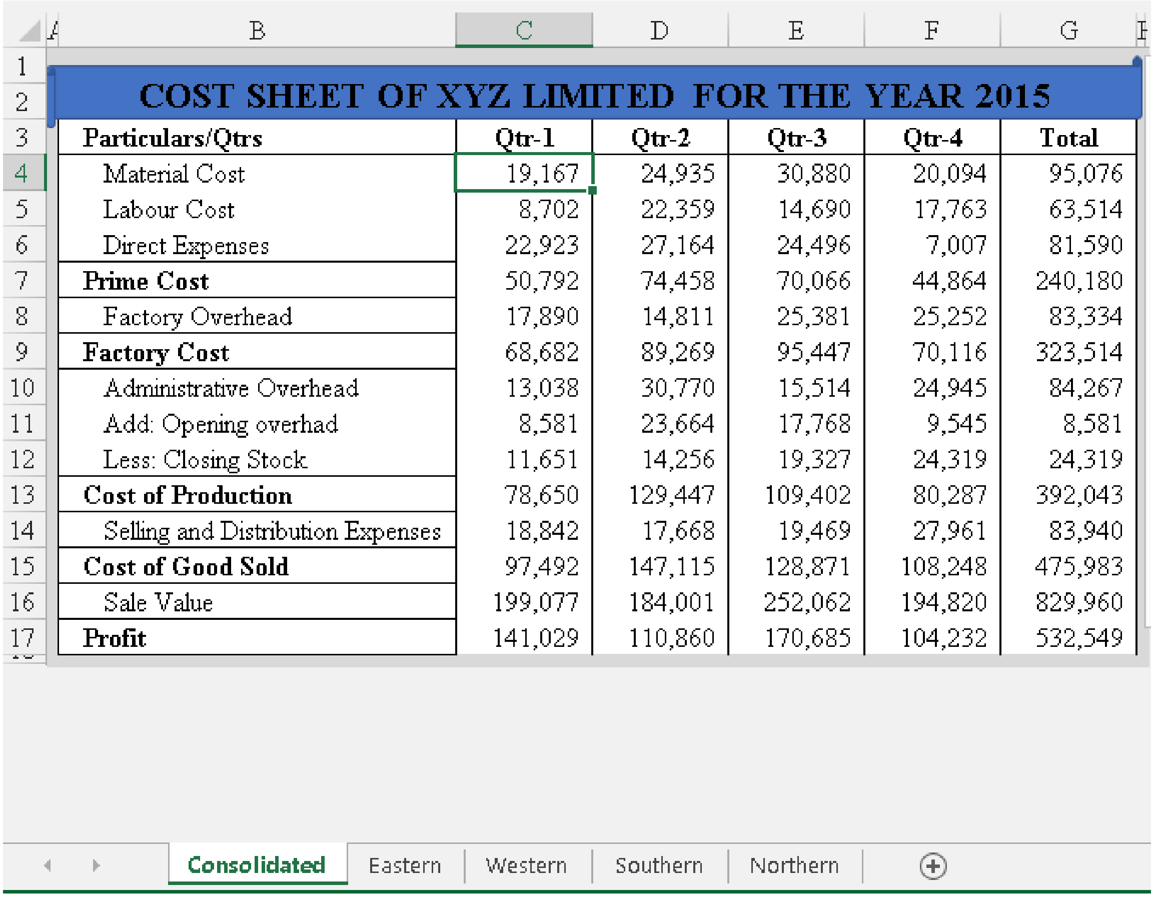
Instantly all sheet within range get consolidated automatically.

Step: 4 After pasting this formula the formatting may be changed, in that case copy the content of eastern region (one can choose other region also) by selecting range from C4:D17

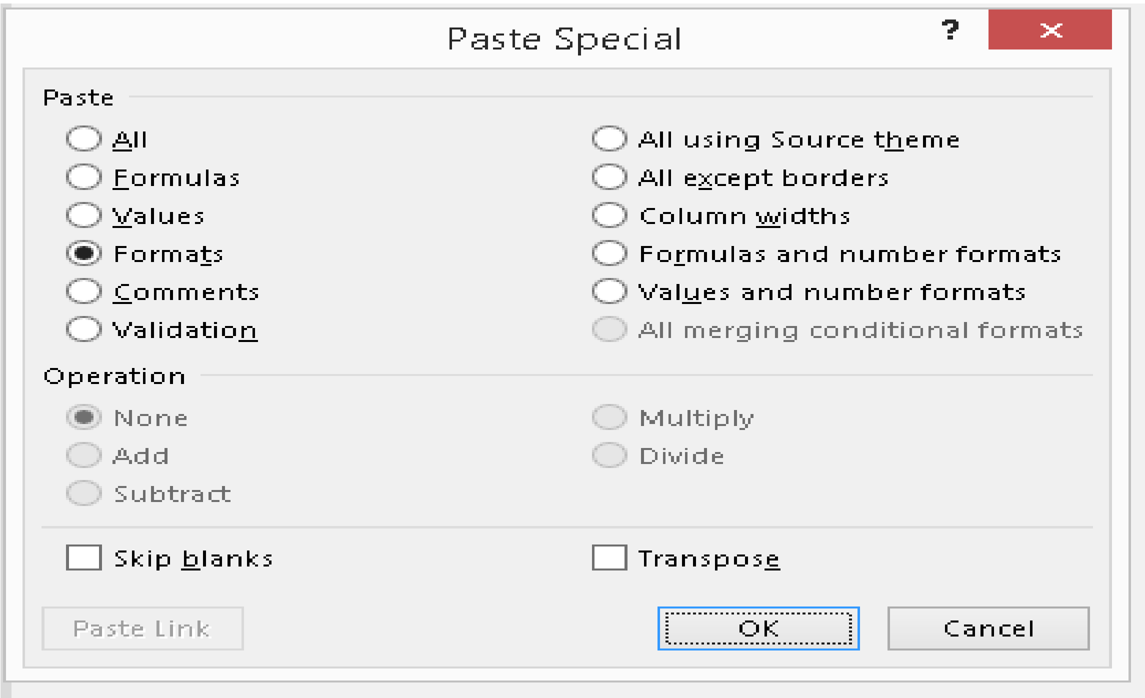
	B	C	D	E	F	G
2	COST SHEET OF EASTERN REGION FOR THE YEAR 2015					
3	**Particulars/Qtrs**	**Qtr-1**	**Qtr-2**	**Qtr-3**	**Qtr-4**	**Total**
4	Material Cost	1,941	9,292	9,837	426	21,496
5	Labour Cost	455	6,587	4,407	630	12,079
6	Direct Expenses	6,201	9,572	4,627	276	20,676
7	**Prime Cost**	**8,597**	**25,451**	**18,871**	**1,332**	**54,251**
8	Factory Overhead	2,475	3,297	2,807	3,316	11,895
9	**Factory Cost**	**11,072**	**28,748**	**21,678**	**4,648**	**66,146**
10	Administrative Overhead	750	6,668	1,968	1,150	10,536
11	Add: Opening overhad	997	1,471	2,634	3,815	997
12	Less: Closing Stock	1,471	2,634	3,815	4,379	4,379
13	**Cost of Production**	**11,348**	**34,253**	**22,465**	**5,234**	**73,300**
14	Selling and Distribution Expenses	8,374	2,734	1,282	3,596	15,986
15	**Cost of Good Sold**	**19,722**	**36,987**	**23,747**	**8,830**	**89,286**
16	Sale Value	23,213	46,274	49,359	88,264	207,110
17	**Profit**	**₹ 42,935**	**₹ 83,261**	**₹ 73,106**	**₹ 97,094**	**₹ 296,396**

Consolidated | **Eastern** | Western | Southern | Northern

And paste on cell C4 of consolidated sheet as formatting by pressing short combination of ALT+E+S+T keys and hit enter.



COST SHEET OF XYZ LIMITED FOR THE YEAR 2015					
Particulars/Qtrs	**Qtr-1**	**Qtr-2**	**Qtr-3**	**Qtr-4**	**Total**
Material Cost	19,167	24,935	30,880	20,094	95,076
Labour Cost	8,702	22,359	14,690	17,763	63,514
Direct Expenses	22,923	27,164	24,496	7,007	81,590
Prime Cost	50,792	74,458	70,066	44,864	240,180
Factory Overhead	17,890	14,811	25,381	25,252	83,334
Factory Cost	68,682	89,269	95,447	70,116	323,514
Administrative Overhead	13,038	30,770	15,514	24,945	84,267
Add: Opening overhad	8,581	23,664	17,768	9,545	8,581
Less: Closing Stock	11,651	14,256	19,327	24,319	24,319
Cost of Production	78,650	129,447	109,402	80,287	392,043
Selling and Distribution Expenses	18,842	17,668	19,469	27,961	83,940
Cost of Good Sold	97,492	147,115	128,871	108,248	475,983
Sale Value	199,077	184,001	252,062	194,820	829,960
Profit	141,029	110,860	170,685	104,232	532,549



Now you will see that consolidated sheet have same kind of formatting and this process take just 4 easily steps or one say less than a minute is required to console the data on different sheets.

COST SHEET OF XYZ LIMITED FOR THE YEAR 2015					
Particulars/Qtrs	**Qtr-1**	**Qtr-2**	**Qtr-3**	**Qtr-4**	**Total**
Material Cost	12,643	16,998	25,514	12,976	68,131
Labour Cost	8,686	14,973	8,326	15,725	47,710
Direct Expenses	19,856	17,887	17,589	3,582	58,914
Prime Cost	**41,185**	**49,858**	**51,429**	**32,283**	**174,755**
Factory Overhead	15,553	8,134	18,286	17,254	59,227
Factory Cost	**56,738**	**57,992**	**69,715**	**49,537**	**233,982**
Administrative Overhead	8,064	23,660	15,200	20,426	67,350
Add: Opening overhad	8,539	16,281	15,431	5,708	8,539
Less: Closing Stock	5,057	12,255	15,056	15,896	15,896
Cost of Production	**68,284**	**85,678**	**85,290**	**59,775**	**293,975**
Selling and Distribution Expenses	15,910	8,580	15,112	19,044	58,646
Cost of Good Sold	**84,194**	**94,258**	**100,402**	**78,819**	**352,621**
Sale Value	113,274	113,975	206,822	188,885	622,956
Profit	**₹ 68,524**	**₹ 93,691**	**₹ 153,914**	**₹ 127,726**	**₹ 448,907**

Consolidated | Eastern | Western | Southern | Northern

Now after this one can ask that what happened if another sheet (Foreign Plant) is also required to consolidate with this consolidated sheet, should I go through all 4 steps once again.

Answer is No “You need to put that sheet in between the range of Eastern Northern sheets” the consolidated will automatically get update.

For example we need to consolidate the cost sheet of our foreign plant located in X territory with exiting consolidated sheet.

COST SHEET OF FOREIGN PLANT FOR THE YEAR 2015

Particulars/Qtrs	Qtr-1	Qtr-2	Qtr-3	Qtr-4	Total
Material Cost	6,981	8,330	5,907	7,557	28,775
Labour Cost	584	8,371	6,668	2,703	18,326
Direct Expenses	3,292	9,946	7,780	3,912	24,930
Prime Cost	**10,857**	**26,647**	**20,355**	**14,172**	**72,031**
Factory Overhead	2,590	6,953	7,878	8,928	26,349
Factory Cost	**13,447**	**33,600**	**28,233**	**23,100**	**98,380**
Administrative Overhead	5,608	7,831	739	4,818	18,996
Add: Opening overhad	385	7,539	2,968	4,794	385
Less: Closing Stock	7,539	2,968	4,794	8,807	8,807
Cost of Production	**11,901**	**46,002**	**27,146**	**23,905**	**108,954**
Selling and Distribution Expenses	3,098	9,554	4,830	9,242	26,724
Cost of Good Sold	**14,999**	**55,556**	**31,976**	**33,147**	**135,678**
Sale Value	93,073	77,662	51,868	14,096	236,699
Profit	**₹ 78,074**	**₹ 22,106**	**₹ 19,892**	**₹ -19,051**	**₹ 101,021**

Foreign Plant

Put this file with in anywhere between Eastern: Northern sheets range

COST SHEET OF FOREIGN PLANT FOR THE YEAR 2015

Particulars/Qtrs	Qtr-1	Qtr-2	Qtr-3	Qtr-4	Total
Material Cost	6,981	8,330	5,907	7,557	28,775
Labour Cost	584	8,371	6,668	2,703	18,326
Direct Expenses	3,292	9,946	7,780	3,912	24,930
Prime Cost	**10,857**	**26,647**	**20,355**	**14,172**	**72,031**
Factory Overhead	2,590	6,953	7,878	8,928	26,349
Factory Cost	**13,447**	**33,600**	**28,233**	**23,100**	**98,380**
Administrative Overhead	5,608	7,831	739	4,818	18,996
Add: Opening overhad	385	7,539	2,968	4,794	385
Less: Closing Stock	7,539	2,968	4,794	8,807	8,807
Cost of Production	**11,901**	**46,002**	**27,146**	**23,905**	**108,954**
Selling and Distribution Expenses	3,098	9,554	4,830	9,242	26,724
Cost of Good Sold	**14,999**	**55,556**	**31,976**	**33,147**	**135,678**
Sale Value	93,073	77,662	51,868	14,096	236,699
Profit	**₹ 78,074**	**₹ 22,106**	**₹ 19,892**	**₹ -19,051**	**₹ 101,021**

The Position of Foriegn plant should be between the range

Eastern | Western | Foreign Plant | Southern | Northern

Now you will see that consolidated sheet will automatically get updated.

COST SHEET OF XYZ LIMITED FOR THE YEAR 2015					
Particulars/Qtrs	**Qtr-1**	**Qtr-2**	**Qtr-3**	**Qtr-4**	**Total**
Material Cost	19,624	25,328	31,421	20,533	96,906
Labour Cost	9,270	23,344	14,994	18,428	66,036
Direct Expenses	23,148	27,833	25,369	7,494	83,844
Prime Cost	**52,042**	**76,505**	**71,784**	**46,455**	**246,786**
Factory Overhead	18,143	15,087	26,164	26,182	85,576
Factory Cost	**70,185**	**91,592**	**97,948**	**72,637**	**332,362**
Administrative Overhead	13,672	31,491	15,939	25,244	86,346
Add: Opening overhad	8,924	23,820	18,399	10,502	8,924
Less: Closing Stock	12,596	15,223	19,850	24,703	24,703
Cost of Production	**80,185**	**131,680**	**112,436**	**83,680**	**402,929**
Selling and Distribution Expenses	19,008	18,134	19,942	28,286	85,370
Cost of Good Sold	**99,193**	**149,814**	**132,378**	**111,966**	**488,299**
Sale Value	206,347	191,637	258,690	202,981	859,655
Profit	**₹ 146,598**	**₹ 115,797**	**₹ 173,806**	**₹ 108,675**	**₹ 549,928**

Consolidated | Eastern | Western | Foreign Plant | Southern | Northern

Note: 1 To console n numbers of sheets you need to just mention in =sum(beginning sheet name : end sheet name ! Required cell Number

Note: 2 It compulsory for all sheets required to be consolidated must have same kind of data presentation i.e. all similar information must have same cell number for all sheets.

Finally like to say thanks to **CA Nilesh Jain** who had once requested an article on Data Consolidation.

I like to read to your comments about your like, dislike or any query relating to Microsoft Excel.

Regards,

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