

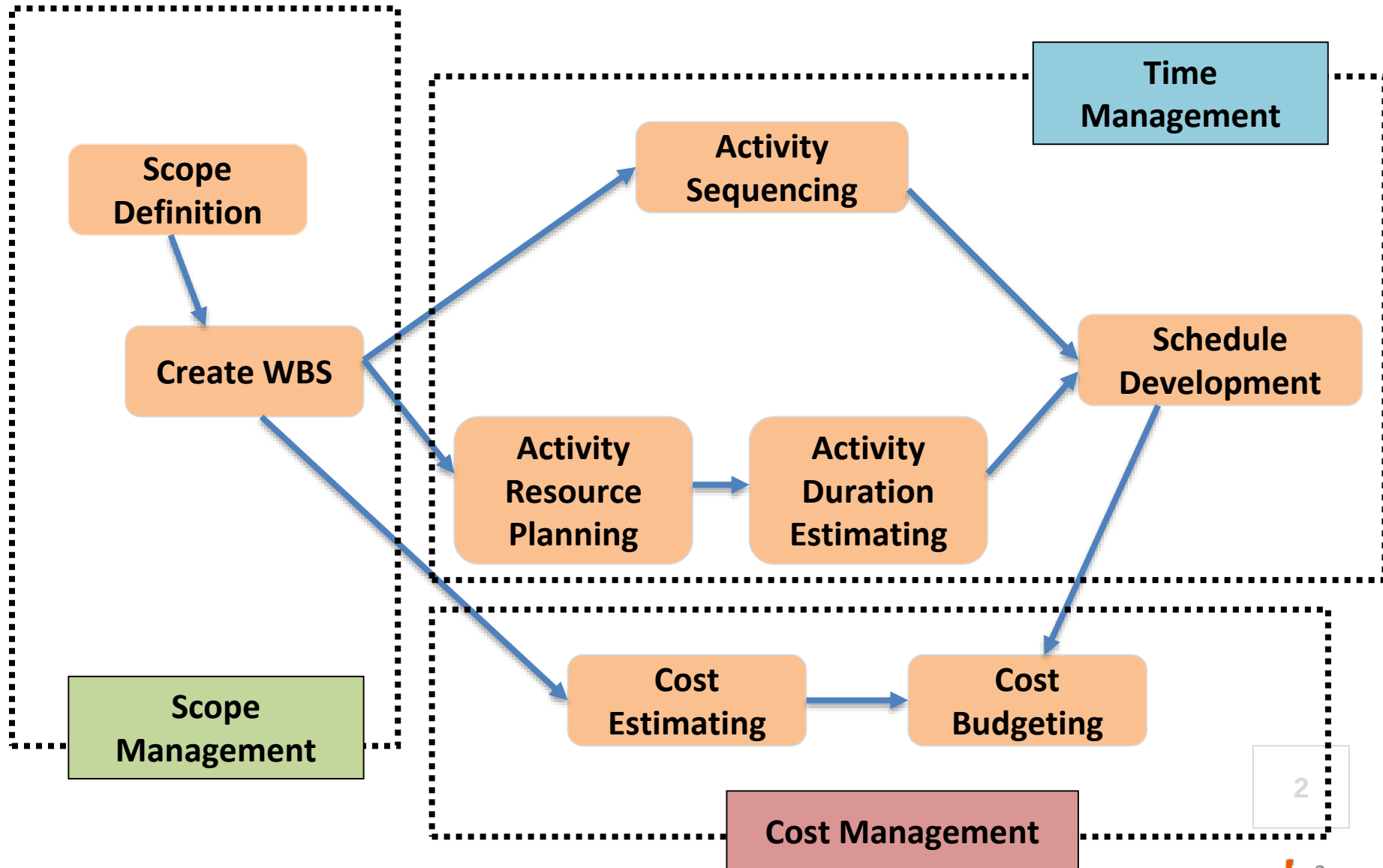
FOLDER 9

PENGURUSAN KOS

- Cost Estimating
- Cost Budgeting
- S-Curve



key planning process for scheduling & estimating..



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Cost Estimating & Budgeting

Perancangan Kos Projek

Merupakan proses yang diperlukan untuk memastikan projek dapat disiapkan dalam lingkungan bajet yang diluluskan



Perancangan Kos Projek



Anggaran Kos

- Kos disediakan pada tahap sub task
- Berkaitan dengan kos sumber (disediakan oleh kontraktor)
- Berdasarkan kos BQ (diisi dalam column fixed cost (MSP))



Bajet Kos

- Bajet kontraktor untuk melaksanakan kerja berdasarkan anggaran kos sumber
- Bajet pelanggan berdasarkan harga kontrak (kos kontrak)
- Merupakan kos baseline/ S-Curve kewangan (kos kontrak)

Anggaran Kos (Cost Estimating)

1.0 specialist salary	1 x RM	70,000.00	x	4 /Month	=	RM	280,000.00
2.0 Staff a) J54	1 x RM	9,000.00	x	20 /Month	=	RM	180,000.00
b) J52	1 x RM	7,000.00	x	20 /Month	=	RM	140,000.00
c) J48	2 x RM	5,000.00	x	20 /Month	=	RM	200,000.00
d) J41	2 x RM	3,000.00	x	20 /Month	=	RM	120,000.00
3.0 Workshop							
Nos of people attend	10 x RM	250.00			=	RM	2,500.00
Fasilitator	4 x RM	200.00	x	8 /Jam	=	RM	800.00
Venue	2 x RM	500.00			=	RM	1,000.00
Refreshment	14 x RM	50.00			=	RM	700.00
4.0 Meeting	10 x RM	350.00			=	RM	3,500.00
5.0 Documentation Submission	5 x RM	2,500.00			=	RM	12,500.00
6.0 Training							
a) Top Management	1 x RM	15,000.00			=	RM	15,000.00
b) Project Team	4 x RM	1,000.00			=	RM	4,000.00
c) Project Manager	1 x RM	10,000.00			=	RM	10,000.00
d) JKR's Profesional	2 x RM	3,000.00			=	RM	6,000.00
e) JKR's Supporting Staff	2 x RM	6,000.00			=	RM	12,000.00
TOTAL					=	RM	<u>988,000.00</u>

Bajet Kos (Cost Budgeting)

Contoh:

- a) Kos keseluruhan projek = RM 270 juta**
- b) Kos lain seperti kerja pengambilan tanah (LA) = RM 2.1 juta**

Jumlah kos (a) & (b) merupakan bajet yang diperuntukkan (bajet kos)



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9

Value of Works

- Cost Of Works As Per BQ



refer to..

Value of Works table
in Folder 1

Memasukkan Kos Aktiviti

1. View tab selected

2. Tables menu open

3. Cost option selected

Task ID	WBS	Task Name	Task Mode	Duration	Start	Finish	Pr
1	1	Membina 2 Blok Bangunan		12 days	Sat 01-06-13	Wed 30-10-13	
2	1.1	Projek Mula		2 days	Sat 01-06-13	Sat 01-06-13	
3	1.2	Preliminari		2 days	Sun 02-06-13	Wed 30-10-13	
4	1.2.1	Performance Bond		2 days	Sun 02-06-13	Sun 09-06-13	2
5	1.2.2	Est & remove S.O.		7 days	Mon 10-06-13	Wed 30-10-13	
6	1.2.2.1	Establish S.O		4 days	Mon 10-06-13	Sun 16-06-13	4
7	1.2.2.2	Removal S.O		2 days	Tue 29-10-13	Wed 30-10-13	28
8	1.2.3	Maintain S.O.		1 days	Mon 17-06-13	Tue 29-10-13	6
9	1.2.4	Progress Report		4 days	Tue 25-06-13	Mon 28-10-13	
10	1.2.4.1	Progress Report :		2 days	Tue 25-06-13	Wed 26-06-13	
11	1.2.4.2			2 days	Thu 25-07-13	Sun 28-07-13	
12	1.2.4.3			2 days	Sun 25-08-13	Mon 26-08-13	

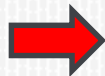
Cost Table →

Task Name	Fixed Cost	Fixed Cost Accrual	Total Cost	Baseline	Variance	Actual	Remaining	
1 Membina 2 Blok Bangunan	\$0.00	Prorated	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
2 Projek Mula	\$0.00	Prorated	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
3 Preliminari	\$0.00	Prorated	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
4 Performance Bond	\$0.00	Prorated	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
5 Est & remove S.O.	\$0.00	Prorated	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
6 Establish S.O	\$0.00	Prorated	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
7 Removal S.O	\$0.00	Prorated	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
8 Maintain S.O.	\$0.00	Prorated	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
9 Progress Report	\$0.00	Prorated	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
10 Progress Report :	\$0.00	Prorated	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	

Memasukkan Kos Aktiviti

File Task Resource Project View Format								
Task Views			Resource Views			Data		
Task Name	Fixed Cost	Fixed Cost Accrual	Total Cost	Baseline	Variance	Actual		
1 Membina 2 Blok Bangunan	RM0.00	Prorated	2,000,000.00	RM0.00	2,000,000.00	RM0.00		
2 Projek Mula	RM0.00	Prorated	RM0.00	RM0.00	RM0.00	RM0.00		
3 Preliminari	RM0.00	Prorated	RM50,000.00	RM0.00	RM50,000.00	RM0.00		
4 Performance Bond	RM10,000.00	Prorated	RM10,000.00	RM0.00	RM10,000.00	RM0.00		
5 Est & remove S.O.	RM0.00	Prorated	RM20,000.00	RM0.00	RM20,000.00	RM0.00		
6 Establish S.O.	RM15,000.00	Prorated	RM15,000.00	RM0.00	RM15,000.00	RM0.00		
7 Removal S.O.	RM5,000.00	Prorated	RM5,000.00	RM0.00	RM5,000.00	RM0.00		
8 Maintain S.O.	RM15,000.00	Prorated	RM15,000.00	RM0.00	RM15,000.00	RM0.00		
9 Progress Report	RM0.00	Prorated	RM5,000.00	RM0.00	RM5,000.00	RM0.00		
10 Progress Report 1	RM1,000.00	Prorated	RM1,000.00	RM0.00	RM1,000.00	RM0.00		
11 Progress Report	RM1,000.00	Prorated	RM1,000.00	RM0.00	RM1,000.00	RM0.00		

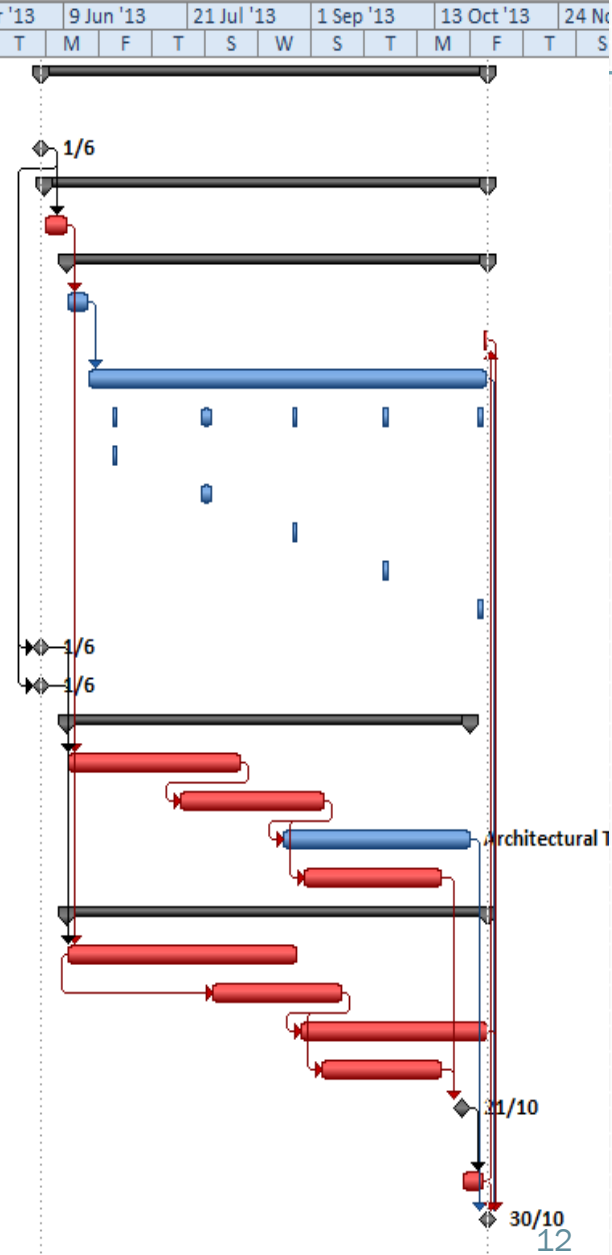
**Project
Total Cost**



Task Name	Fixed Cost	Fixed Cost Accrual	Total Cost	Baseline	Variance	Actual	
1 Membina 2 Blok Bangunan	RM0.00	Prorated	2,000,000.00	RM0.00	2,000,000.00	RM0.00	Jun
2 Projek Mula	RM0.00	Prorated	RM0.00	RM0.00	RM0.00	RM0.00	1/6
3 Preliminari	RM0.00	Prorated	RM50,000.00	RM0.00	RM50,000.00	RM0.00	
4 Performance Bond	RM10,000.00	Prorated	RM10,000.00	RM0.00	RM10,000.00	RM0.00	
5 Est & remove S.O.	RM0.00	Prorated	RM20,000.00	RM0.00	RM20,000.00	RM0.00	
6 Establish S.O.	RM15,000.00	Prorated	RM15,000.00	RM0.00	RM15,000.00	RM0.00	
7 Removal S.O.	RM5,000.00	Prorated	RM5,000.00	RM0.00	RM5,000.00	RM0.00	
8 Maintain S.O.	RM15,000.00	Prorated	RM15,000.00	RM0.00	RM15,000.00	RM0.00	
9 Progress Report	RM0.00	Prorated	RM5,000.00	RM0.00	RM5,000.00	RM0.00	
10 Progress Report 1	RM1,000.00	Prorated	RM1,000.00	RM0.00	RM1,000.00	RM0.00	

Fixed Cost & Total Cost

	Task Name	Fixed Cost	Fixed Cost Accrual	Total Cost	Baseline	r '13 9 Jun '13 21 Jul '13 1 Sep '13 13 Oct '13 24 No													
						T	M	F	T	S	W	S	T	M	F	T	S		
1	▢ Membina 2 Blok Bangunan	RM0.00	Prorate	RM2,000,000.00	RM2,000,000.00														
2	Projek Mula	RM0.00	Prorate	RM0.00	RM0.00														
3	▢ Preliminaries	RM0.00	Prorate	RM50,000.00	RM50,000.00														
4	Performance Bond	RM10,000.00	Prorate	RM10,000.00	RM10,000.00														
5	▢ Est. & Remove S.O	RM0.00	Prorate	RM20,000.00	RM20,000.00														
6	Establish S.O	RM15,000.00	Prorate	RM15,000.00	RM15,000.00														
7	Removal S.O	RM5,000.00	Prorate	RM5,000.00	RM5,000.00														
8	Maintain S.O	RM15,000.00	Prorate	RM15,000.00	RM15,000.00														
9	▢ Progress Report	RM0.00	Prorate	RM5,000.00	RM5,000.00														
10	Progress Report 1	RM1,000.00	Prorate	RM1,000.00	RM1,000.00														
11	Progress Report 2	RM1,000.00	Prorate	RM1,000.00	RM1,000.00														
12	Progress Report 3	RM1,000.00	Prorate	RM1,000.00	RM1,000.00														
13	Progress Report 4	RM1,000.00	Prorate	RM1,000.00	RM1,000.00														
14	Progress Report 5	RM1,000.00	Prorate	RM1,000.00	RM1,000.00														
15	Land Acquisition	RM0.00	Prorate	RM0.00	RM0.00														
16	Services Relocation	RM0.00	Prorate	RM0.00	RM0.00														
17	▢ Blok A	RM0.00	Prorate	RM1,050,000.00	RM1,050,000.00														
18	Kerja Tanah	RM200,000.00	Prorate	RM200,000.00	RM200,000.00														
19	Kerja Struktur	RM400,000.00	Prorate	RM400,000.00	RM400,000.00														
20	Kerja Arkitek	RM250,000.00	Prorate	RM250,000.00	RM250,000.00														
21	Kerja M&E	RM200,000.00	Prorate	RM200,000.00	RM200,000.00														
22	▢ Blok B	RM0.00	Prorate	RM900,000.00	RM900,000.00														
23	Kerja Tanah	RM180,000.00	Prorate	RM180,000.00	RM180,000.00														
24	Kerja Struktur	RM290,000.00	Prorate	RM290,000.00	RM290,000.00														
25	Kerja Arkitek	RM200,000.00	Prorate	RM200,000.00	RM200,000.00														
26	Kerja M&E	RM230,000.00	Prorate	RM230,000.00	RM230,000.00														
27	Completion of Cable Laying by TNB	RM0.00	Prorate	RM0.00	RM0.00														
28	T&C	RM0.00	Prorate	RM0.00	RM0.00														
29	Projek Siap	RM0.00	Prorate	RM0.00	RM0.00														



Fixed Cost Accrual (Kaedah Pembayaran)

START

- bayaran 100% dibuat bila kerja bermula
- Contoh : special item /special contract

PRORATED

- bayaran yang dibuat mengikut kemajuan kerja
- Contoh : kerja-kerja fizikal

END

- bayaran 100% dibuat hanya setelah siap kerja
- Contoh : kerja-kerja fizikal yang menggunakan kaedah earned value

Performance Bond	RM10,000.00	Prorated	RM10,000.00
Est & remove S.O.	RM0.00	Prorated	RM0.00
Establish S.O	RM15,000.00	Prorated	RM15,000.00
Removal S.O	RM5,000.00	Start	RM5,000.00
Maintain S.O.	RM15,000.00	Prorated	RM15,000.00
Progress Report	RM0.00	End	RM0.00
Progress Report 1	RM1,000.00	Prorated	RM1,000.00

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Penyediaan S-Curve



Kegunaan S-Curve

Dari Perspektif Pelanggan

- Progress/ Kemajuan Kerja
- Bayaran
- Untuk menyediakan peruntukan

Dari Perspektif Kontraktor

- Anggaran Bajet / Sumber 4M
- Aliran Tunai
- Pelaksanaan
- Progress/ Kemajuan Kerja
- Tuntutan/ Bayaran
- Sebagai asas/bukti untuk menyokong tuntutan bayaran dan permohonan lanjutan masa.

Memahami S-Curve



- Financial S-Curve is based on cost.
 - Works **Cost** (RM) vs Project Duration (Months).
- Physical S-curve is based on duration.
 - Works **Duration** (days) vs Project Duration (Months)

Question 1

A 100mil project shows the actual
physical progress of 50% and Client just
paid the Contractor 32mil.



Why?
Why different?
Not fair...
Mostly.... Current practice

Question 2

A project shows the variances for financial progress, physical progress and project finish date were -10%, -15% and +20days respectively.

Please explain.



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10

Penyediaan S-Curve Kewangan

Untuk menyediakan **S-CURVE Kewangan** menggunakan MS Project 2010

- ✓ Method 1 – using Visual Reports.
- ✓ Method 2 – using Task Usage View.

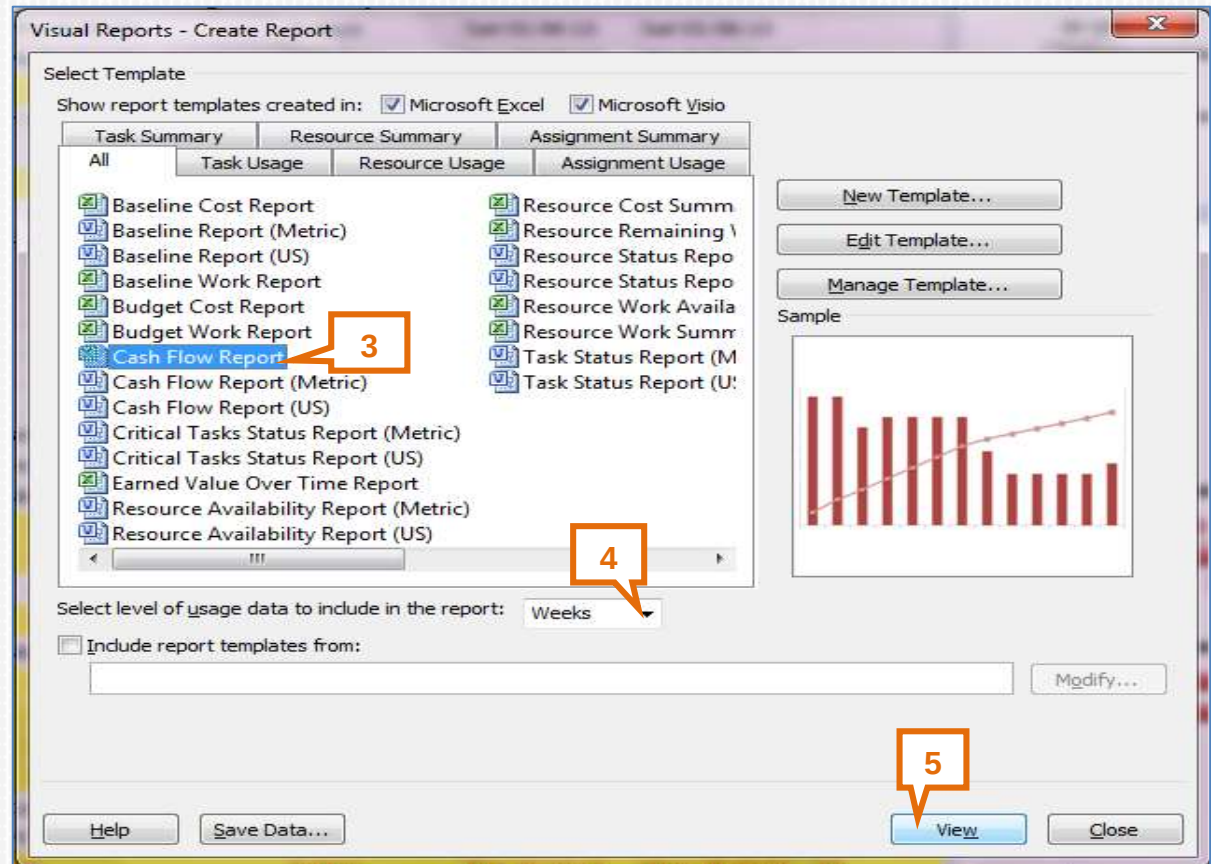
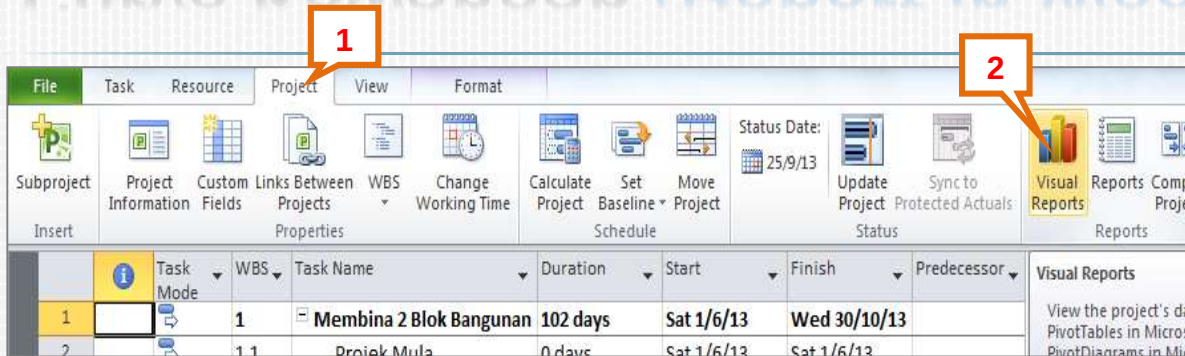




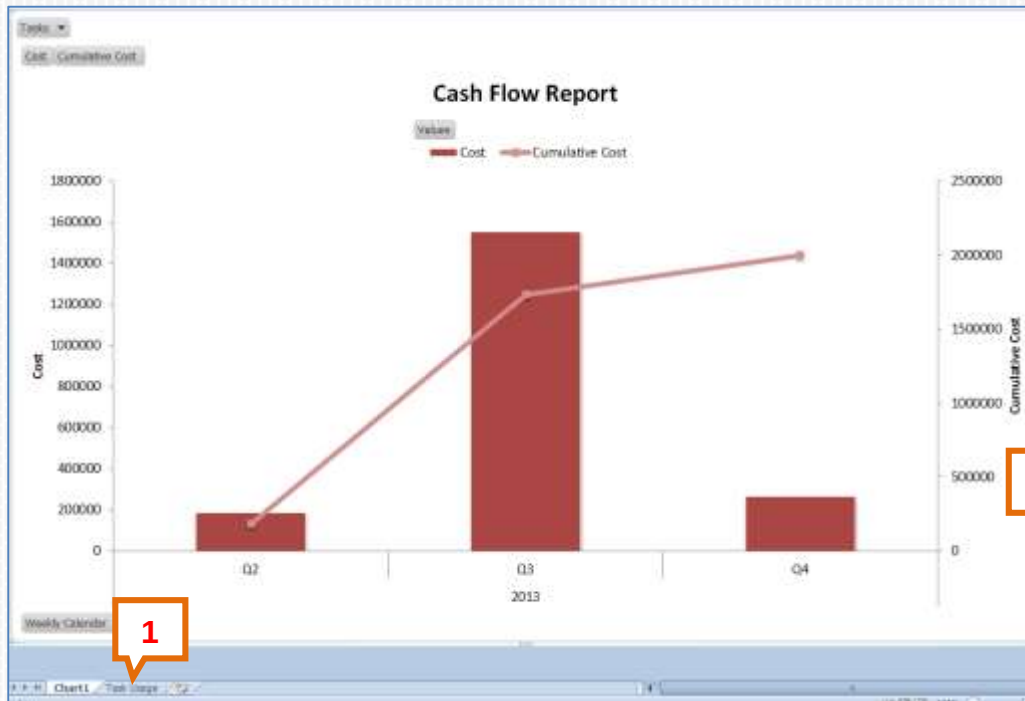
Penyediaan S-Curve Kewangan (Method 1)

- **Menggunakan Visual Report**

S-Curve Kewangan (Report in Week)



S-Curve Kewangan (Report in Week)

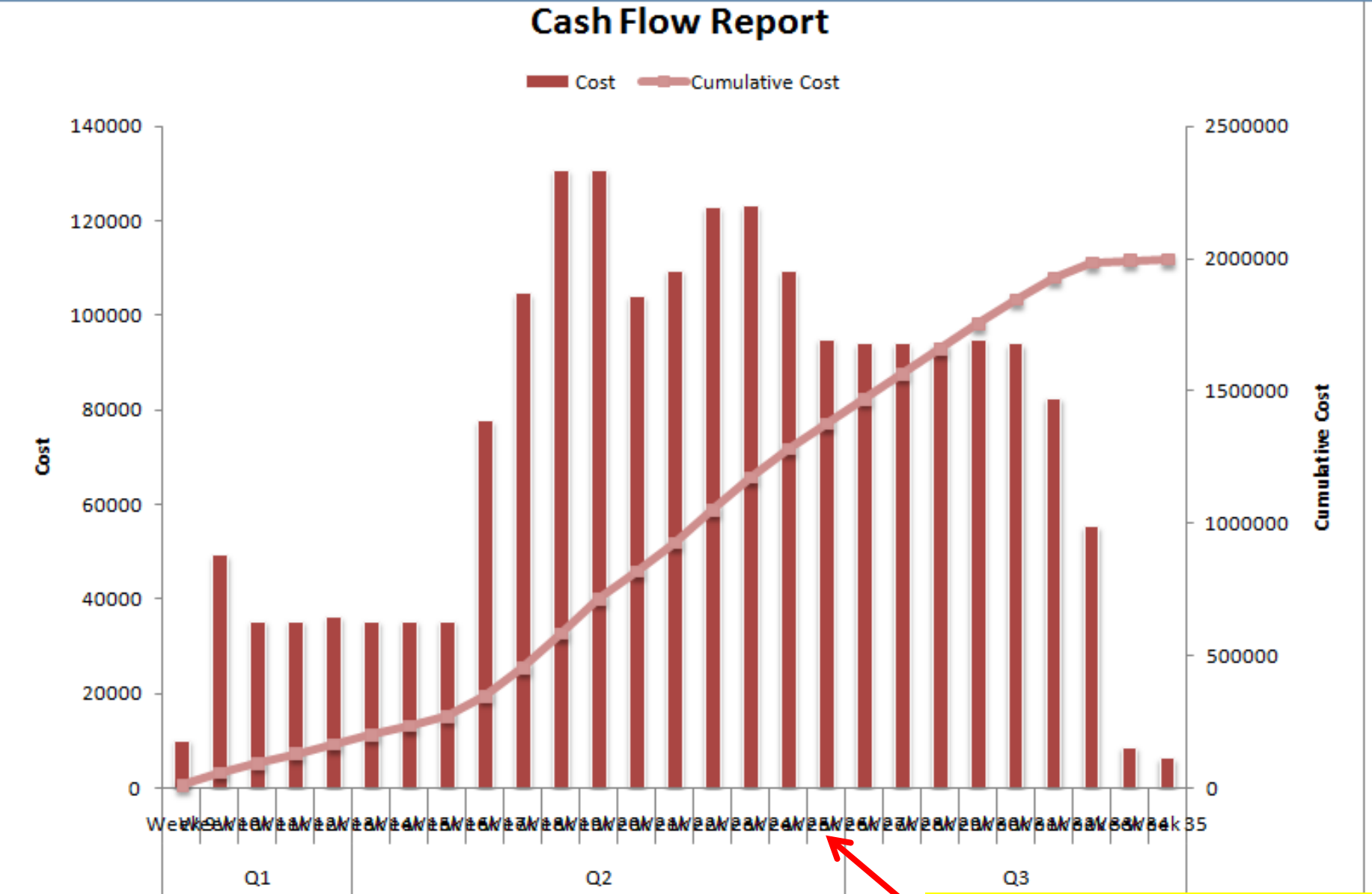


Ms Project will export the financial data into Ms Excel format

4	Year	Quarter	Week	Cost	Cumulative Cost
5	2013	Q2	Week 22	0	0
6			Week 23	7999.999821	7999.999821
7			Week 24	46632.52896	54632.52349
8			Week 25	44449.98901	99082.51904
9			Week 26	42614.82905	141697.3498
10			Week 27	41614.82907	183312.1806
11		Q2 Total		183312.1759	183312.1806
12		Q3	Week 28	33291.86926	216604.0452
13			Week 29	53736.0388	270340.0878
14			Week 30	103220.8877	373560.9778
15			Week 31	140887.5569	514448.5337
16			Week 32	120443.3873	634891.9115
17			Week 33	101395.7677	736287.6707
18			Week 34	132558.647	868846.3231
19			Week 35	162178.1164	1031024.436
20			Week 36	197646.5056	1228670.941
21			Week 37	164471.1865	1383142.123
22			Week 38	100376.9378	1483519.07
23			Week 39	126471.1872	1609990.253
24			Week 40	125471.1872	1735461.436
25		Q3 Total		1552149.275	1735461.436
26		Q4	Week 41	125471.1872	1860932.619
27			Week 42	60818.42864	1921751.043
28			Week 43	54149.75879	1975900.799
29			Week 44	24099.15946	1999999.955
30		Q4 Total		264538.5341	1999999.955
31	2013 Total			1999999.985	1999999.955
32	Grand Total			1999999.985	1999999.955
33					
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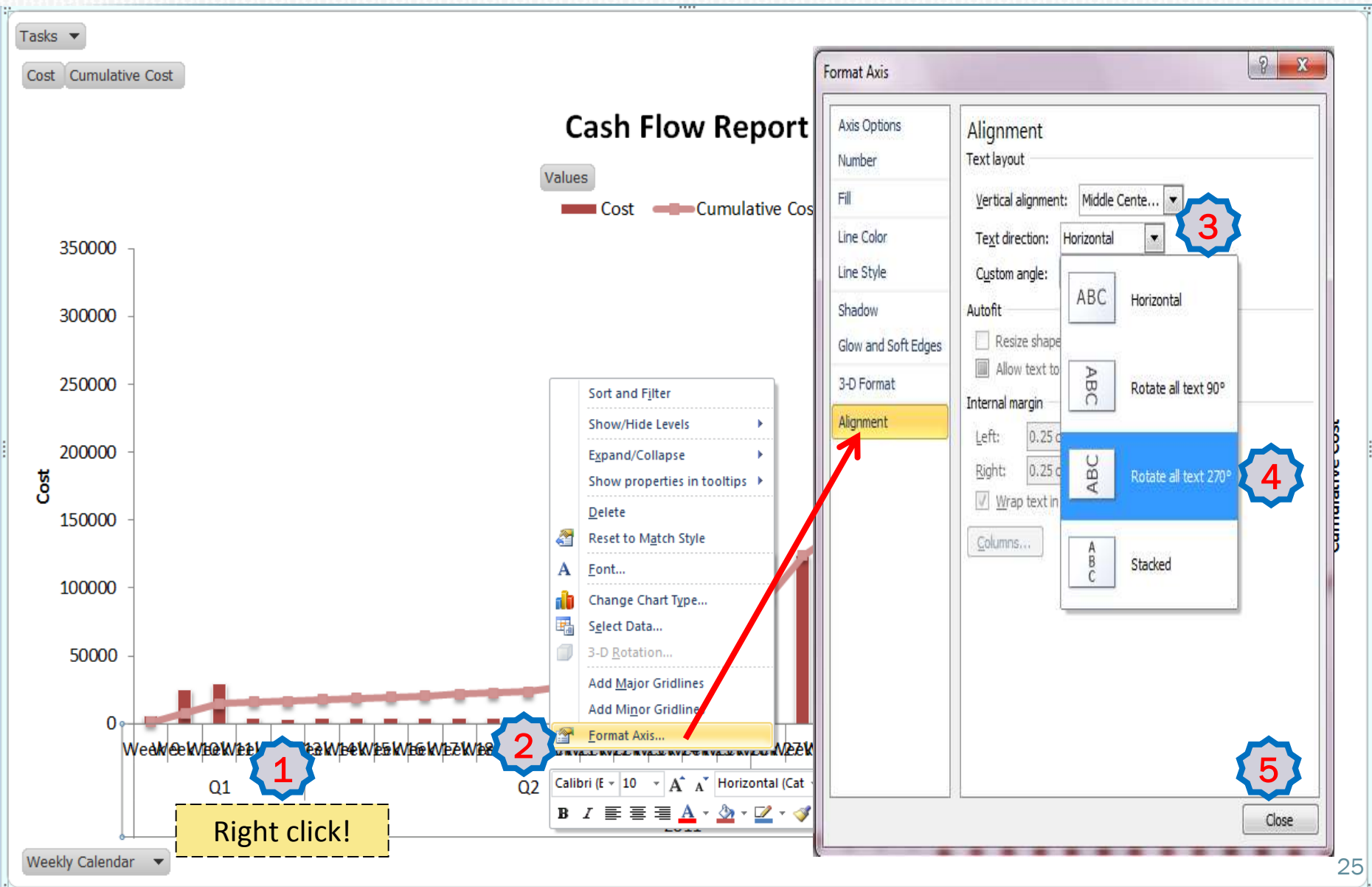
Chart1 Task Usage

S-Curve Kewangan (Report in Week)



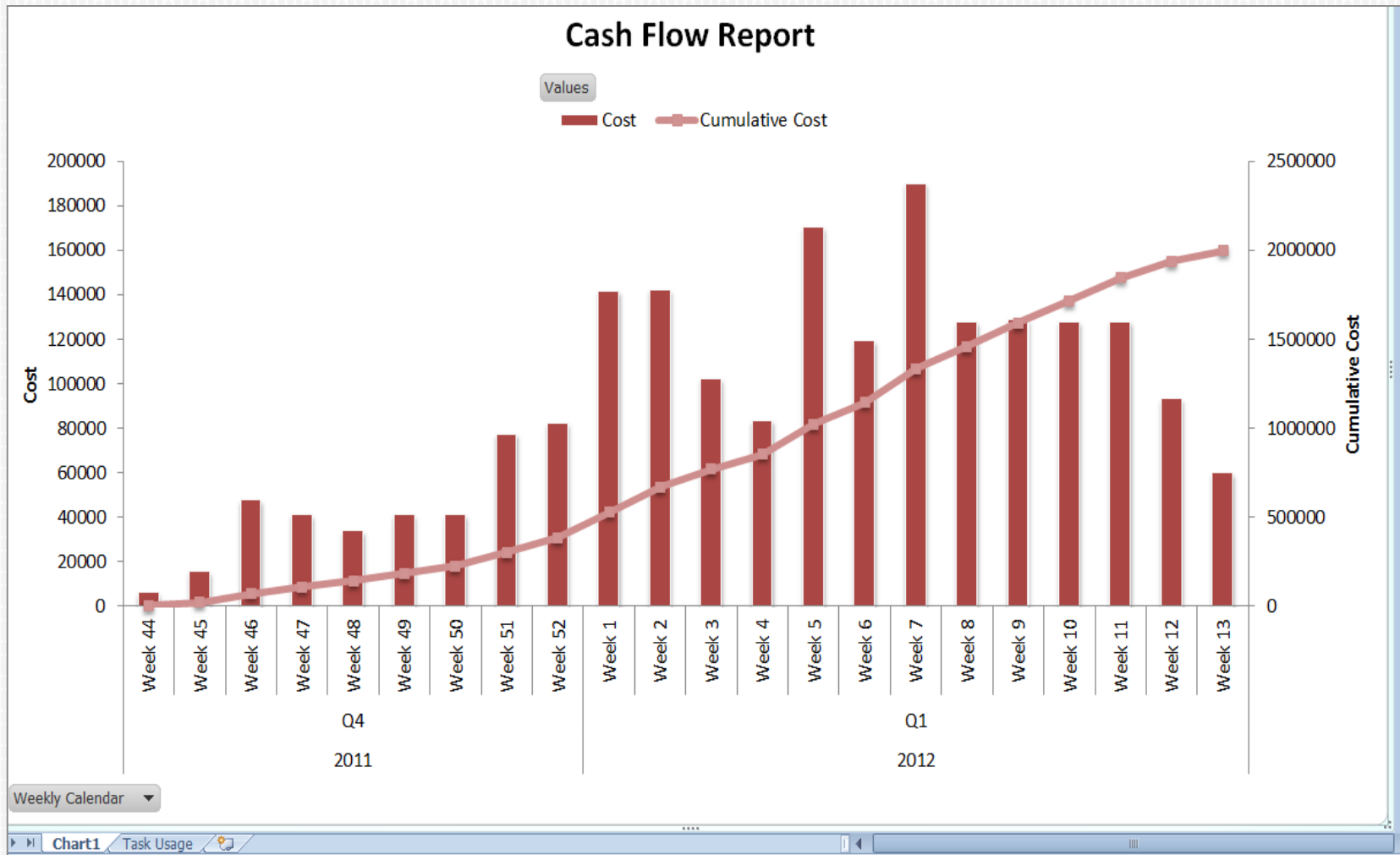
Words alignment needs change

To change alignment of X-Axis title description (weeks)



S-Curve Kewangan (Report in Week)

Financial S-Curve in Week



S-Curve Kewangan (Report in Month)

1

2

Visual Reports - Create Report

Select Template

Show report templates created in: ☒ Microsoft Excel ☒ Microsoft Visio

Task Summary	Resource Summary	Assignment Summary
All	Task Usage	Resource Usage

- Baseline Cost Report
- Baseline Report (Metric)
- Baseline Report (US)
- Baseline Work Report
- Budget Cost Report
- Budget Work Report
- Cash Flow Report
- Cash Flow Report (Metric)
- Cash Flow Report (US)
- Critical Tasks Status Report (Metric)
- Critical Tasks Status Report (US)
- Earned Value Over Time Report
- Resource Availability Report (Metric)
- Resource Availability Report (US)
- Resource Cost Summ
- Resource Remaining 1
- Resource Status Repo
- Resource Status Repo
- Resource Work Availa
- Resource Work Summr
- Task Status Report (M
- Task Status Report (U

3

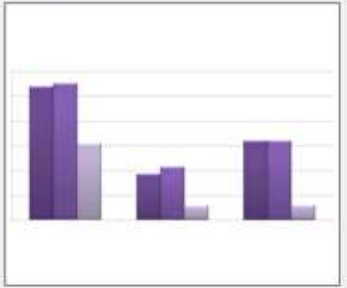
4

5

View

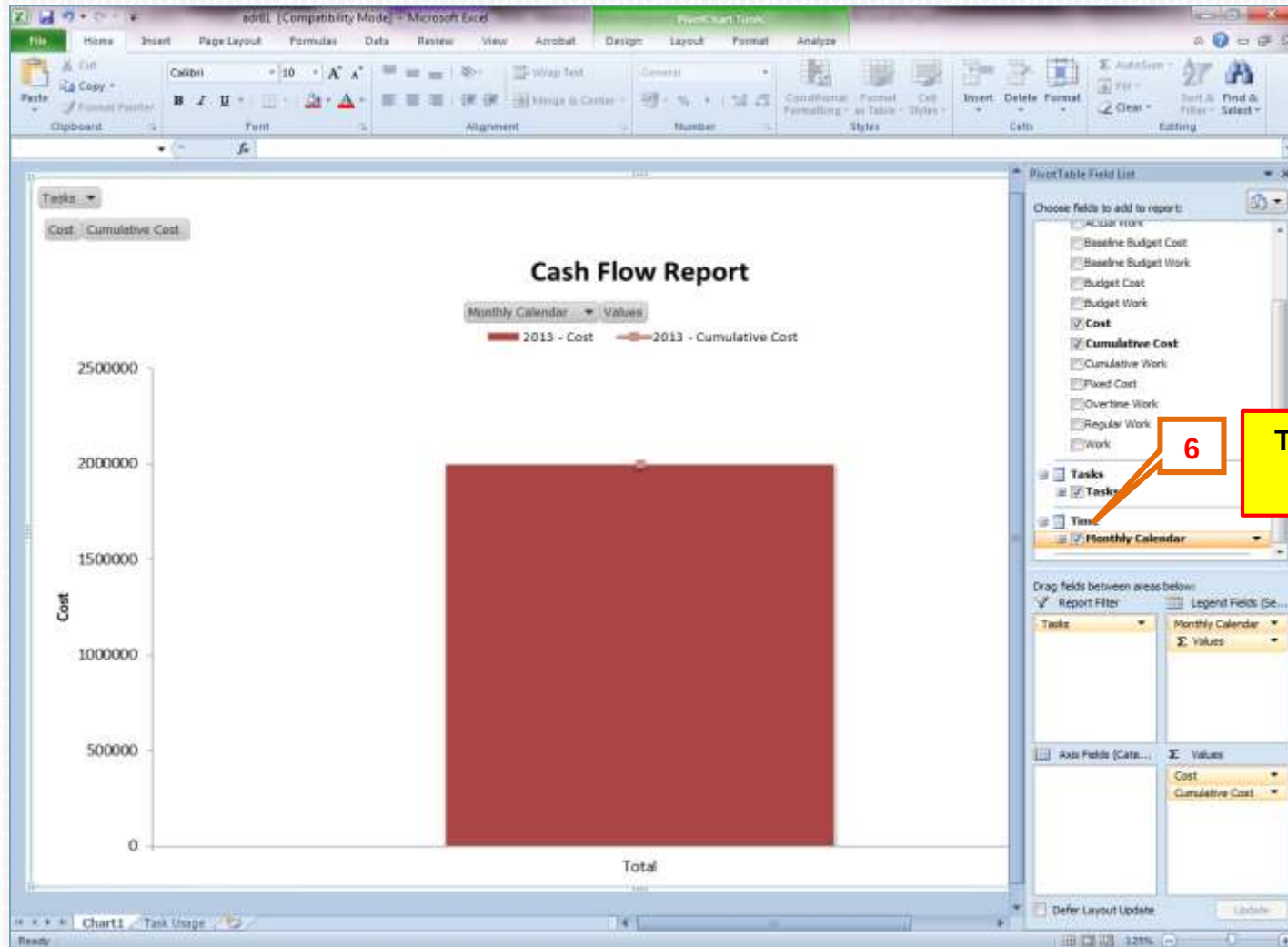
Close

Sample



The sample chart is a bar graph with a light blue background and a white grid. It features five vertical bars of varying heights. The first bar is the tallest, followed by a shorter one, then a medium one, and finally two more bars of similar height. The bars are colored in a light blue shade.

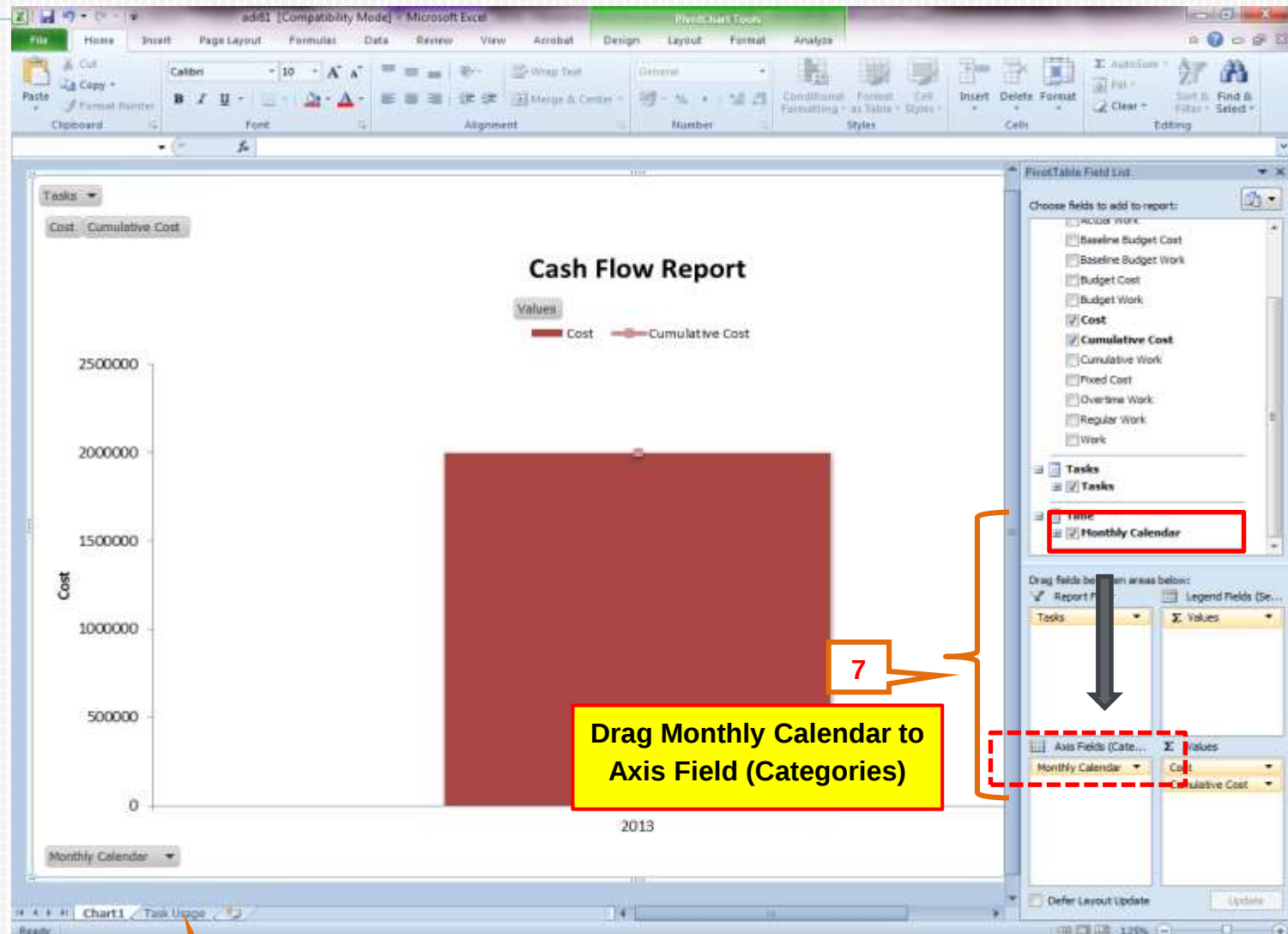
S-Curve Kewangan (Report in Month)



6

Tick Monthly
Calendar

S-Curve Kewangan (Report in Month)



S-Curve Kewangan (Report in Month)

	A	B	C	D	E
1	Tasks	All			
2					
3		Data			
4	Year	Cost	Cumulative Cost		
5	2013	2000000	2000000		
6	Grand Total	2000000	2000000		
7					
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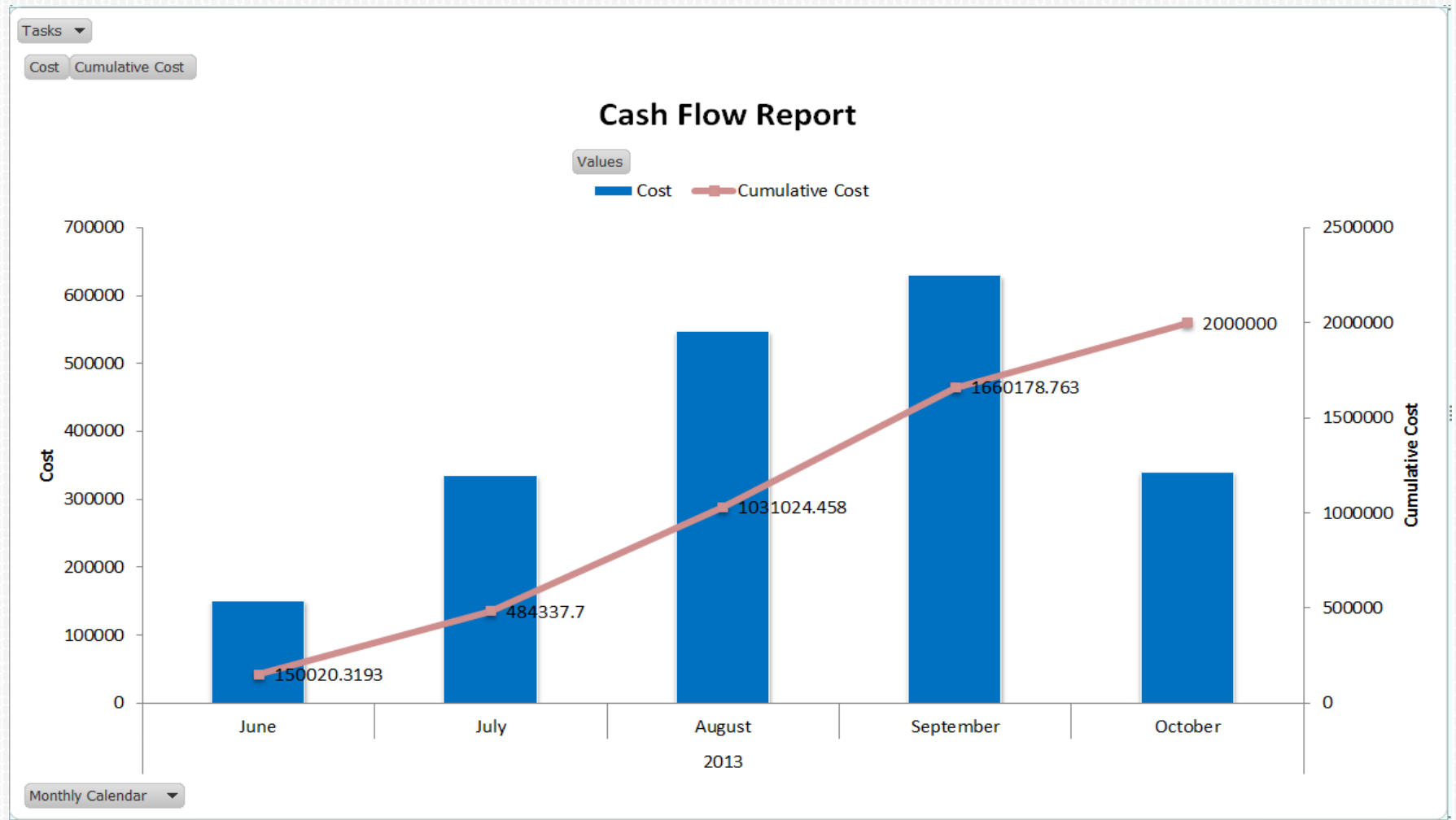
9 Untick

	A	B	C	D	E
1	Tasks	All			
2					
3		Data			
4	Year	Month	Cost	Cumulative Cost	
5	2013	June	150020.32	150020.3193	
6		July	334317.37	484337.7	
7		August	546686.76	1031024.458	
8		September	629154.3	1660178.763	
9		October	339821.25	2000000	
10	2013 Total		2000000	2000000	
11	Grand Total		2000000	2000000	
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10

S-Curve Kewangan (Report in Month)

Financial S-Curve in Month

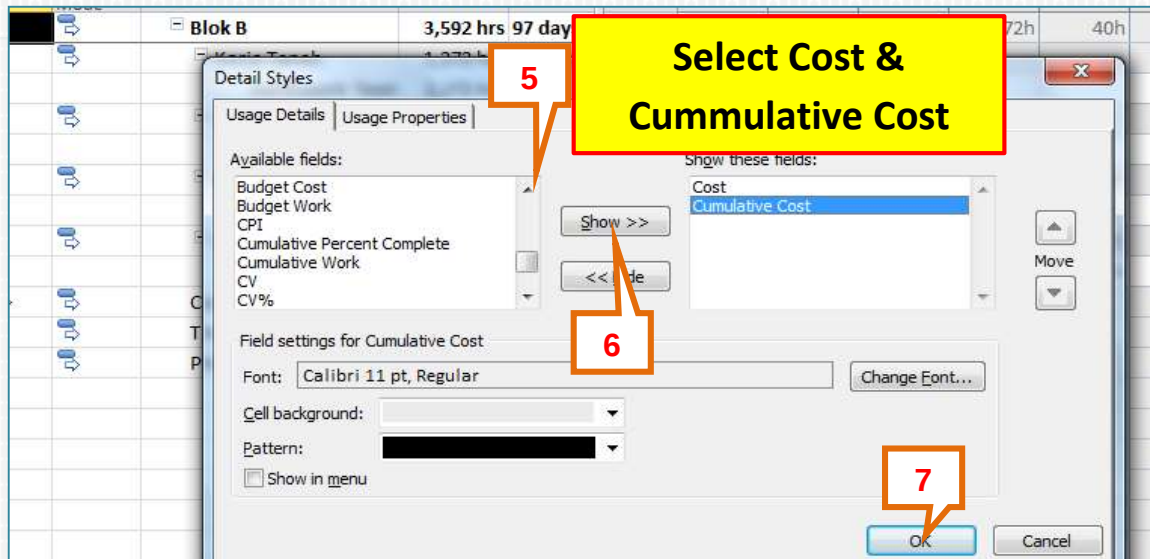




Penyediaan S-Curve Kewangan (Method 2)

- **Menggunakan Task Usage**

S-Curve Kewangan (Report in Month)



Task Usage				8 Sep '13			
Task Name	Work	Duration	Details	S	S	M	T
1 Membina 2 Blok Bangunan	6,600 hrs	102 days	Cost		RM34,760.91	RM34,760.91	RM34,760.91
2 Projek Mula	0 hrs	0 days	Cum. Cost	RM1,228,670.97	RM1,263,431.87	RM1,298,192.78	RM1,332,953.68
3 Preliminari	0 hrs	102 days	Cost		RM164.84	RM164.84	RM164.84
4 Performance Bond	0 hrs	5 days	Cum. Cost	RM37,230.77	RM37,395.60	RM37,560.44	RM37,725.27
5 Est & removal	0 hrs	5 days	Cost	RM10,000.00	RM10,000.00	RM10,000.00	RM10,000.00
6 Establish S.O	0 hrs	5 days	Cum. Cost	RM15,000.00	RM15,000.00	RM15,000.00	RM15,000.00
7 Removal S.O	0 hrs	2 days	Cost				
8 Maintain S.O.	0 hrs	91 days	Cum. Cost	RM9,230.77	RM9,395.60	RM9,560.44	RM9,725.27
9 Progress Report	0 hrs	83 days	Cost				
			Cum. Cost	RM3,000.00	RM3,000.00	RM3,000.00	RM3,000.00

S-Curve Kewangan (Report in Month)

Right click to change timescale

1

2

Task Mode	Task Name	Work	Duration	Details	8 Sep '13
1	Membina 2 Blok Bangunan	6,600 hrs	102 days	Cost	RM34,760.91
				Cum. Cost	RM1,228,670.97
2	Projek Mula	0 hrs	0 days	Cost	RM1,263,429.53
				Cum. Cost	
3	Preliminari	0 hrs	102 days	Cost	RM164.84
				Cum. Cost	RM37,230.77
4	Performance Bond	0 hrs	5 days	Cost	RM37,395.60
				Cum. Cost	RM37,560.44
					RM37,725.00
					RM10,000.00
					RM10,000.00
					RM10,000.00
					RM10,000.00

3

4

Timescale

Top Tier Middle Tier Bottom Tier Non-working time

Middle tier formatting

Units: Years Label: 2009, 2010, ... Use fiscal year

Count: 1 Align: Left Tick lines

Timescale options

Show: Two tiers (Middle, Bottom) Size: 100 % Scale separator

Preview

S	S	M	T	W

Help OK Cancel

S-Curve Kewangan (Report in Month)

Project: Membina 2 Blok Bangunan hrs 102 days Cost RM34,760.91

5

Timescale

Top Tier | Middle Tier | Bottom Tier | Non-working time

Bottom tier formatting

Units: **Months** **6** Label: Jan, Feb, ... ☒ Use fiscal year

Count: 1 Align: Center ☒ Tick lines

Timescale options

Show: Two tiers (Middle, Bottom) Size: 100 % ☒ Scale separator

Preview

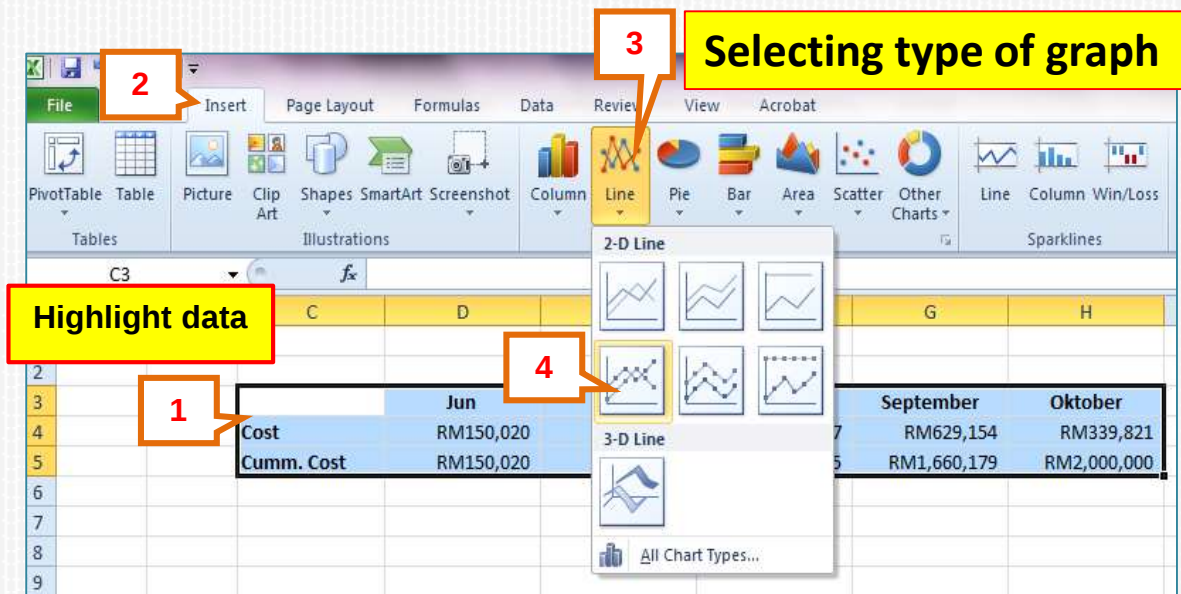
Jul	Aug	Sep	Oct	Nov

7

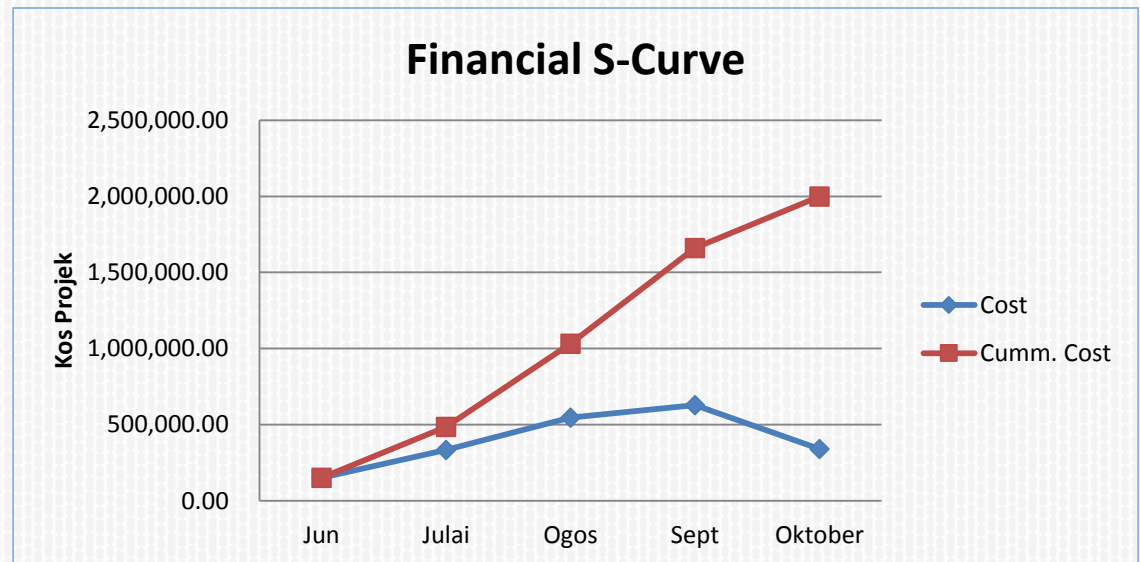
Help OK Cancel

Clipboard	Font	Schedule	Tasks	Insert	Properties	Editing			
i	Task Mode ▾	Task Name ▾	V ▾	Details					
					Jun	Jul	Aug	Sep	Oct
		Membina 2 Blok Bangunan	hrs	Cost	RM150,020.32	RM334,317.37	RM546,686.76	RM629,154.30	RM339,821.25
				Cum. Cost	RM150,020.32	RM484,337.70	RM1,031,024.46	RM1,660,178.76	RM2,000,000.00
		Projek Mula	hrs	Cost					
				Cum. Cost					
		Preliminari	hrs	Cost	RM27,648.35	RM4,626.37	RM4,131.87	RM4,461.54	RM9,131.87
				Cum. Cost	RM27,648.35	RM32,274.73	RM36,406.59	RM40,868.13	RM50,000.00
		Performance Bond	hrs	Cost	RM10,000.00				
				Cum. Cost	RM10,000.00	RM10,000.00	RM10,000.00	RM10,000.00	RM10,000.00
		Est & remove S.O.	hrs	Cost	RM15,000.00				RM5,000.00

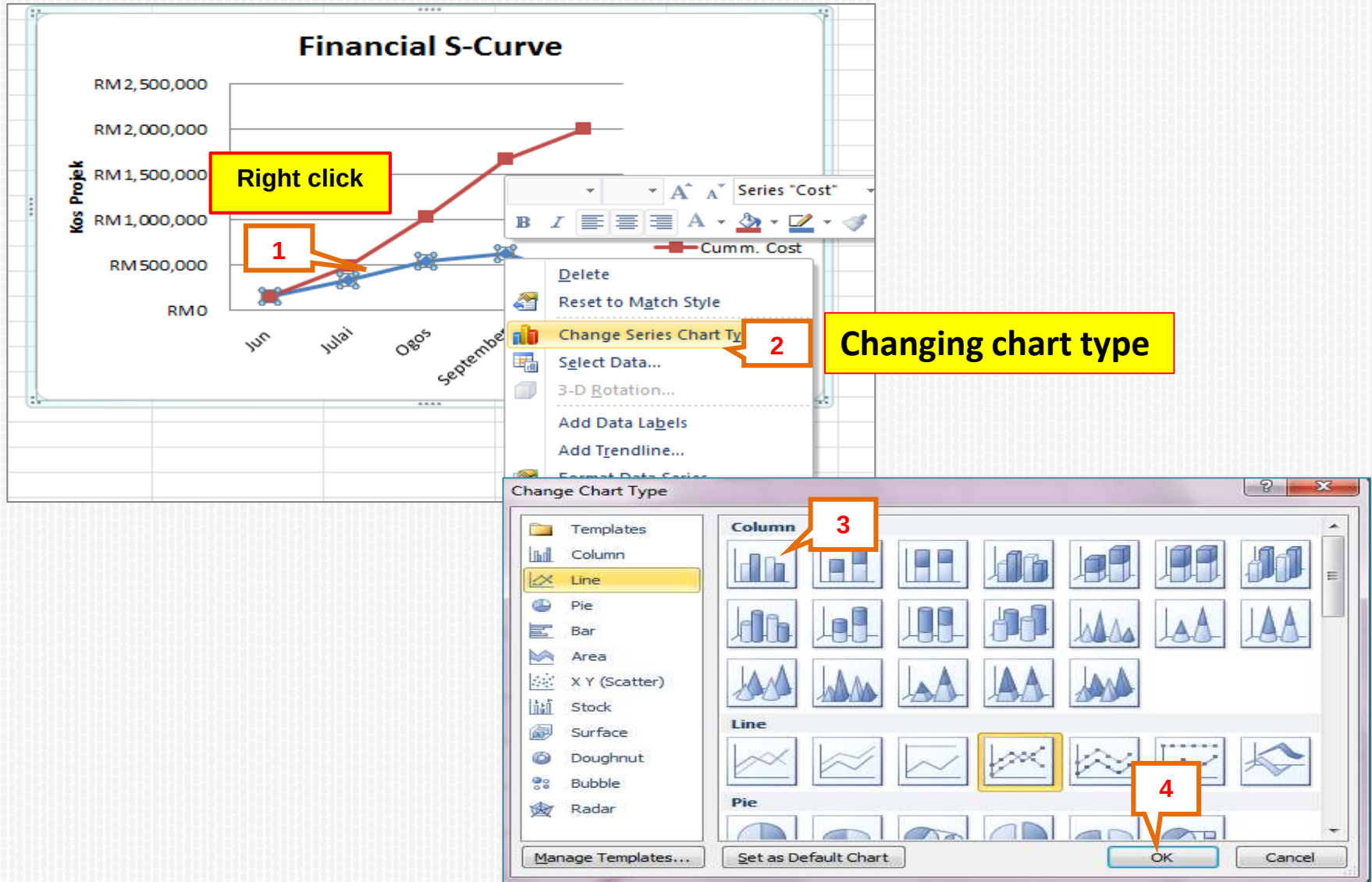
S-Curve Kewangan (Report in Month)



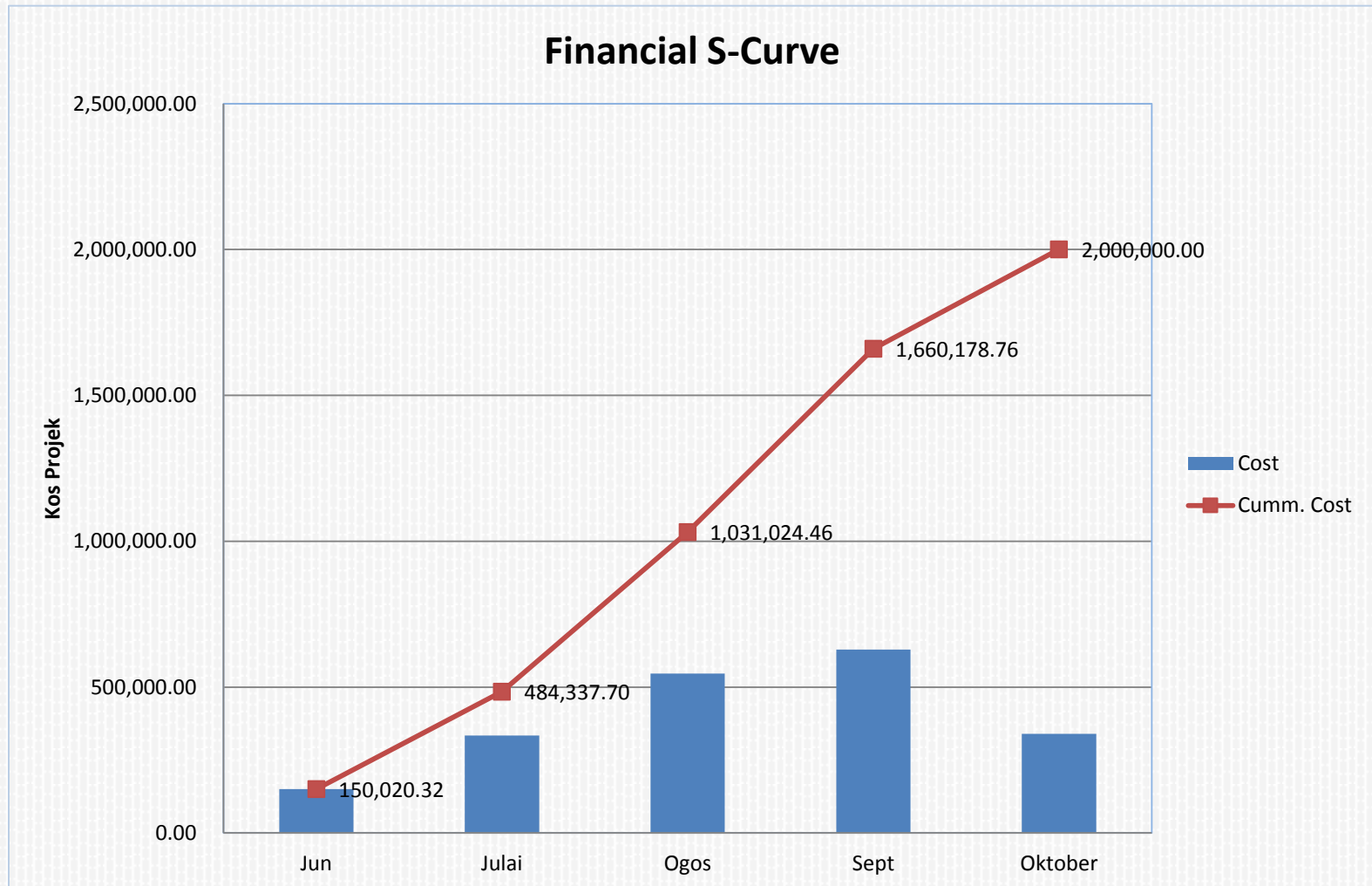
Financial S-Curve



S-Curve Kewangan (Report in Month)



Monthly Financial S-Curve And Cash Flow



MICROSOFT PROJECT



Penyediaan S-Curve Fizikal

- Menggunakan Task Usage

S-Curve Fizikal (Report in Month)

1

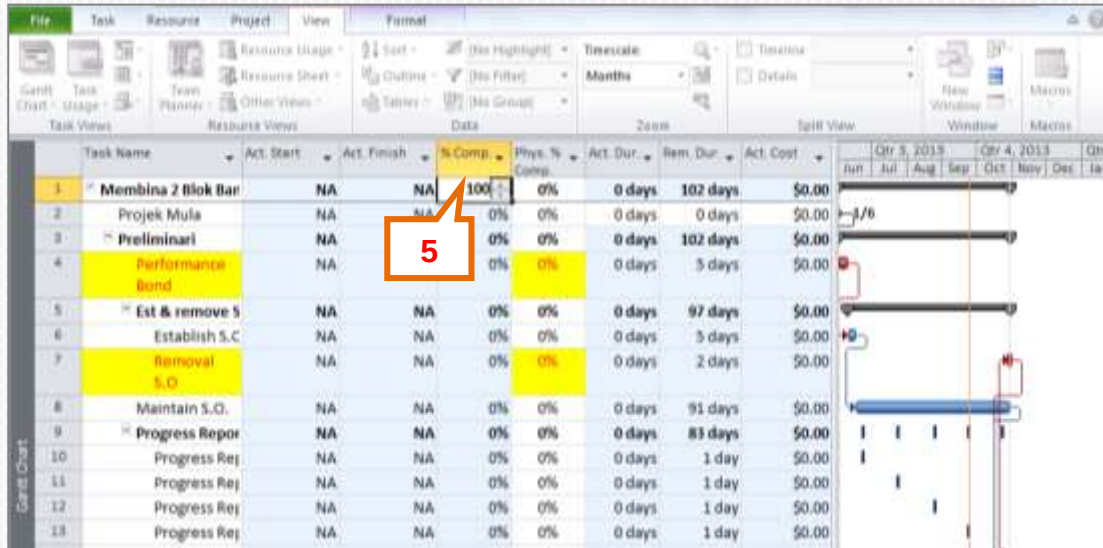
2

3

4

Task Mode	WBS	Task Name	Start	Finish	Predecessor
1	1	Membina 2 B	at 1/6/13	Wed 30/10/13	
2	1.1	Projek Mul	at 1/6/13	Sat 1/6/13	
3	1.2	Preliminar	in 2/6/13	Wed 30/10/13	
4	1.2.1	Perform	in 2/6/13	Sun 9/6/13	2
5	1.2.2	Est & re	on 10/6/13	Wed 30/10/13	
6	1.2.2.1	Estab	on 10/6/13	Sun 16/6/13	4
7	1.2.2.2	Remo	ue 29/10/13	Wed 30/10/13	28
8	1.2.3	Maintain	on 17/6/13	Tue 29/10/13	6
9	1.2.4	Progress	in 23/6/13	Wed 23/10/13	
10	1.2.4.1	Progr	in 23/6/13	Sun 23/6/13	
11	1.2.4.2	Progr	ue 23/7/13	Tue 23/7/13	
12	1.2.4.3	Progr	in 25/8/13	Sun 25/8/13	
13	1.2.4.4	Progress Report 4	1 day	Mon 23/9/13	Mon 23/9/13
14	1.2.4.5	Progress Report 5	1 day	Wed 23/10/13	Wed 23/10/13

S-Curve Fizikal (Report in Month)



Key In 100% in % Comp Column

Table Tracking With 100% complete

Task Name	Act. Start	Act. Finish	% Comp.	Phys. % Comp.	Act. Dur.	Rem. Dur.	Act. Cost
1 Membina 2 Blok Bar	Sat 1/6/13	Wed 30/10/13	100%	0%	102 days	0 days	2,000,000.00
2 Projek Mula	Sat 1/6/13	Sat 1/6/13	100%	0%	0 days	0 days	\$0.00
3 Preliminari	Sun 2/6/13	Wed 30/10/13	100%	0%	102 days	0 days	\$50,000.00
4 Performance Bond	Sun 2/6/13	Sun 9/6/13	100%	0%	5 days	0 days	\$10,000.00
5 Est & remove S	Mon 10/6/13	Wed 30/10/13	100%	0%	97 days	0 days	\$20,000.00
6 Establish S.C	Mon 10/6/13	Sun 16/6/13	100%	0%	5 days	0 days	\$15,000.00
7 Removal S.O	Tue 29/10/13	Wed 30/10/13	100%	0%	2 days	0 days	\$5,000.00
8 Maintain S.O.	Mon 17/6/13	Tue 29/10/13	100%	0%	91 days	0 days	\$15,000.00

S-Curve Fizikal (Report in Month)

6

Task Usage

View all of the tasks and the resources assigned to them.

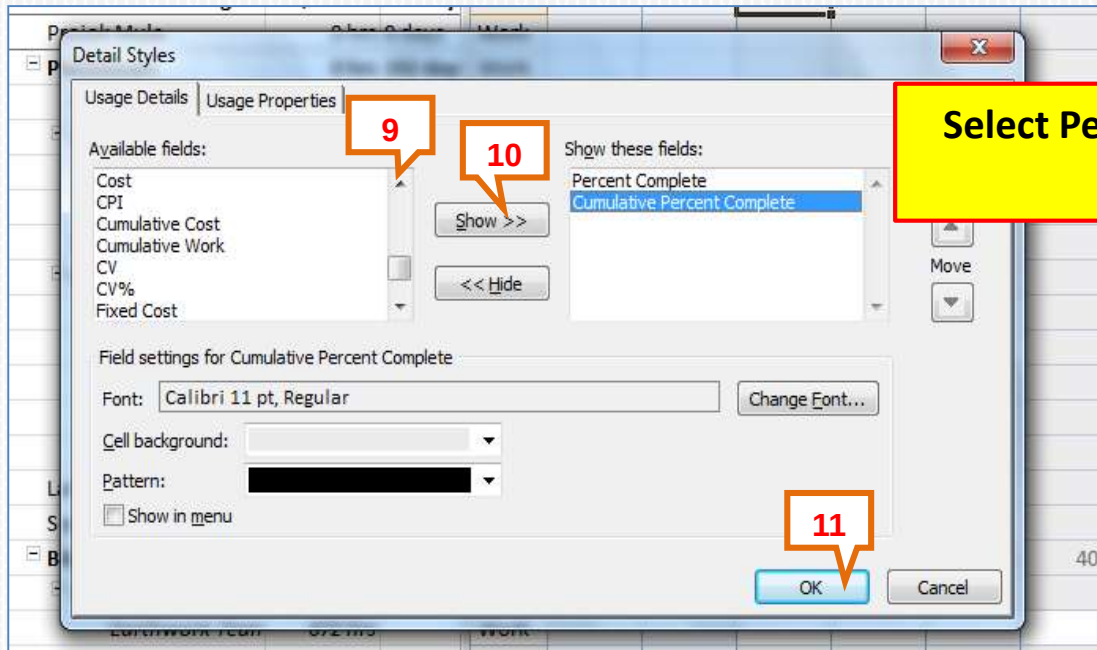
Use this view to update data at the day, week, or other time increment level.

		Act. Finish	% Comp.	Phys. % Comp.	Act. Dur.	Rem. Dur.	Act. Cost
1		6/13 Wed 30/10/13	100%	0%	102 days	0 days	2,000,000.00
2		6/13 Sat 1/6/13	100%	0%	0 days	0 days	\$0.00
3		6/13 Wed 30/10/13	100%	0%	102 days	0 days	\$50,000.00
4		6/13 Sun 9/6/13	100%	0%	5 days	0 days	\$10,000.00
Bond							
5	☒ Est & remove S	Mon 10/6/13 Wed 30/10/13	100%	0%	97 days	0 days	\$20,000.00
6	Establish S.C	Mon 10/6/13 Sun 16/6/13	100%	0%	5 days	0 days	\$15,000.00
7	Removal	Tue 29/10/13 Wed	100%	0%	2 days	0 days	\$5,000.00

The screenshot shows the Primavera P6 software interface in Gantt Chart view. The ribbon at the top includes tabs for File, Task, Resource, Project, View, Format, and Schedule. The main area displays a Gantt chart with tasks listed in a table. A right-click context menu is open over the 'Detail Styles...' option, showing options like Work, Actual Work, Cumulative Work, Baseline Work, Cost, Actual Cost, Show Timeline, and Show Split. A red box highlights the 'Right click' action, and a red circle with the number 7 is placed near the context menu.

Task Mode	Task Name	Work	Duration	Details	8 Sep '13	S	S	M	T	W	F
22	Blok B	3,592 hrs	97 days	Work			72h	72h	72h	40h	
23	Kerja Tanah	1,272 hrs	53 days	Work							
	Earthwork Team	1,272 hrs		Work							
24	Kerja Struktur	960 hrs	30 days	Work			32h	32h	32h		
	Structure Team	960 hrs		Work			32h	32h	32h		
25	Kerja Arkitet	688 hrs	43 days	Work			16h	16h	16h		
	Architectural Te	688 hrs		Work			16h	16h	16h		
26	Kerja M+E	672 hrs	28 days	Work			24h	24h	24h		
	M+E Team	672 hrs		Work			24h	24h	24h		
27	Completion of Cable L	0 hrs	0 days	Work							
28	TnC	0 hrs	5 days	Work							
29	Projek Siap	0 hrs	0 days	Work							

S-Curve Fizikal (Report in Month)



Select Percent Complete & Cumulative Percent Complete



File		Task		Resource		Project		View		Format																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
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S-Curve Fizikal (Report in Month)

File	Task	Resource	Project	View	Format								
Task Views		Resource Views		Data		Zoom		Split View		Window			Macros
													</

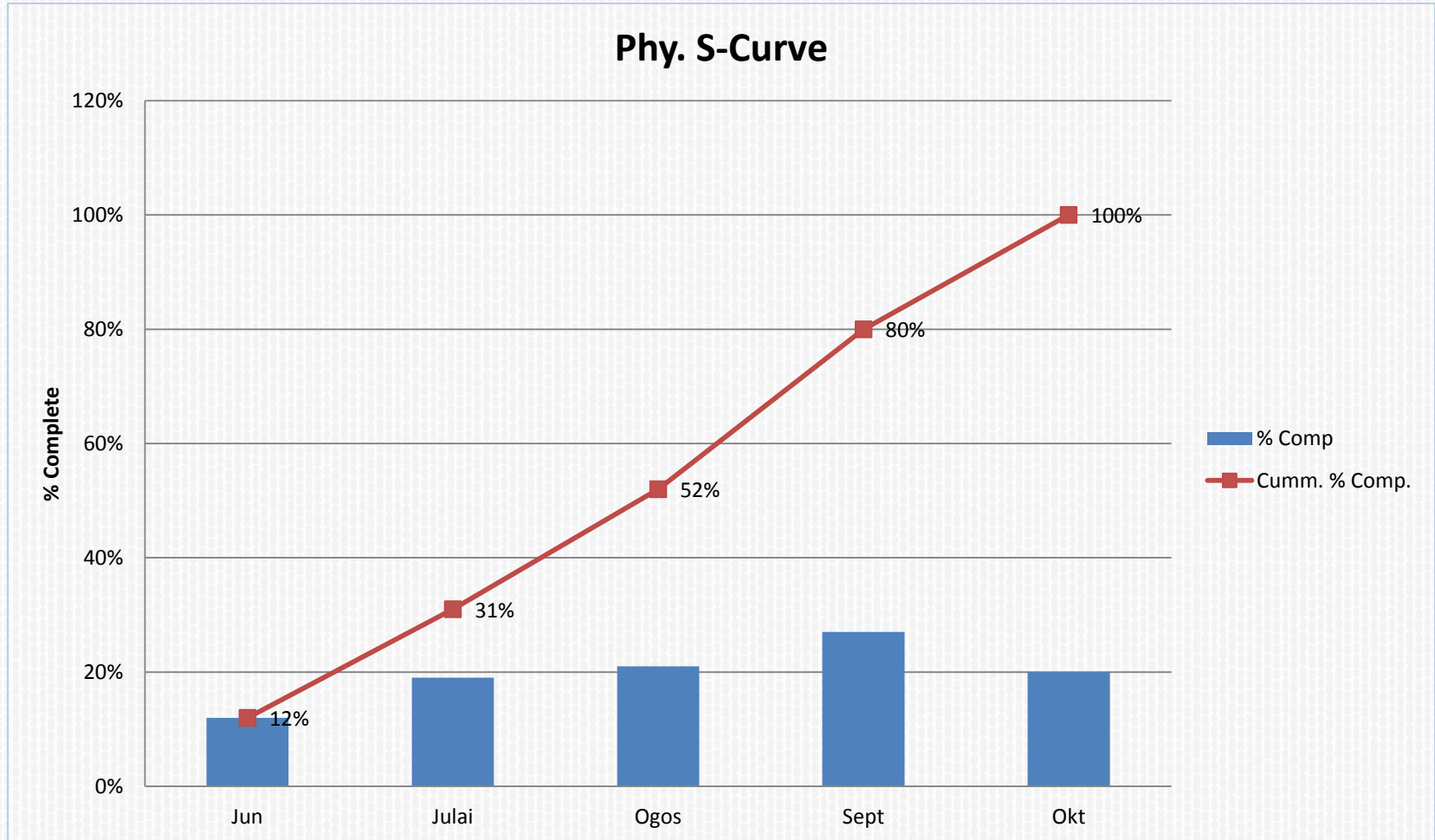
Copy data from
Ms Project to Ms Excel



Paste		Format Painter		B I U		Font		Alignment		Number	
Clipboard											
J19		fx									
	A	B	C	D	E	F	G	H	I	J	
1											
2											
3				Jun	Julai	Ogos	September	Oktober			
4			% complete	12%	19%	21%	27%	20%			
5			Cumm. % complete	12%	31%	52%	80%	100%			

Monthly Physical S-Curve And Cash Flow

Repeat steps as previous slides and plot the S-Curve



MICROSOFT PROJECT

Saving File



Saving File

1

2

Key in '0'

3

4

5

View the task sheet on one side of the view and graphical bars corresponding to the task durations on the other side of the view.

Task Name	Act. Start	Act. Finish	% Comp.	Phys. % Comp.	Act. Dur.	Rem. Dur.	Act. Cost
1 Membina 2 Blok Banguni	Sat 01 06 13	Wed 30 10 13	0%	0%	102 days	0 days	2,000,000.00
2 Projek Mula	Sat 01 06 13	Sat 01 06 13	100%	0%	0 days	0 days	\$0.00
3 Preliminari	NA	NA	100%	0%	102 days	0 days	\$50,000.00
4 Performance Bond	NA	NA	100%	0%	5 days	0 days	\$10,000.00
5 Est & remove S	NA	NA	100%	0%	97 days	0 days	\$20,000.00
6 Establish S.C	NA	NA	100%	0%	5 days	0 days	\$15,000.00
7 Removal S.O	NA	NA	100%	0%	0 days	0 days	\$0.00
8 Maintain S.O.	NA	NA	0%	0%	0 days	0 days	\$0.00
9 Progress Repor	NA	NA	0%	0%	0 days	0 days	\$0.00
10 Progress Ref	NA	NA	0%	0%	0 days	0 days	\$0.00
11 Progress Ref	NA	NA	0%	0%	0 days	0 days	\$0.00
12 Progress Ref	NA	NA	0%	0%	0 days	0 days	\$0.00
13 Progress Ref	NA	NA	0%	0%	0 days	0 days	\$0.00

Saving File

6

7

Information About BGN - Membina 2 Blok Bangunan - In...

C:\Users\JKR\Desktop\penjadualan\BGN - Membina 2 Blok Bangunan - Initial - 01 - 2013-06-01.mpp

Project Server Accounts
Not connected to Project Server

Manage Accounts

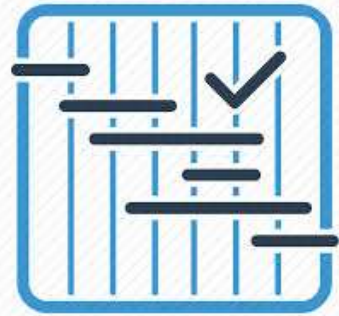
Organizer

Project Information

Start Date	1/6/2013
Finish Date	30/10/2013
Schedule from	Start
Current Date	Today
Status Date	Today
Last Modified	Today
Project Calendar	Standard
Priority	500

Task Mode	WBS	Task Name	Duration	Start	Finish	Predecessor
1	1	Membina 2 Blok Bangunan	102 days	Sat 01 06 13	Wed 30 10 13	
2	1.1	Projek Mula	0 days	Sat 01 06 13	Sat 01 06 13	
3	1.2	Preliminari	102 days	Sun 02 06 13	Wed 30 10 13	
4	1.2.1	Performance Bond	5 days	Sun 02 06 13	Sun 09 06 13	2
5	1.2.2	Est & remove S.O.	97 days	Mon 10 06 13	Wed 30 10 13	
6	1.2.2.1	Establish S.O	5 days	Mon 10 06 13	Sun 16 06 13	4
7	1.2.2.2	Removal S.O	2 days	Tue 29 10 13	Wed 30 10 13	20
8	1.2.3	Maintain S.O.	91 days	Mon 17 06 13	Tue 29 10 13	6
9	1.2.4	Progress Report	83 days	Sun 23 06 13	Wed 23 10 13	
10	1.2.4.1	Progress Report 1	1 day	Sun 23 06 13	Sun 23 06 13	
11	1.2.4.2	Progress Report 2	1 day	Tue 23 07 13	Tue 23 07 13	
12	1.2.4.3	Progress Report 3	1 day	Sun 25 08 13	Sun 25 08 13	
13	1.2.4.4	Progress Report 4	1 day	Mon 23 09 13	Mon 23 09 13	
14	1.2.4.5	Progress Report 5	1 day	Wed 23 10 13	Wed 23 10 13	
15	1.3	Land Acquisition (A&B)	0 days	Sat 01 06 13	Sat 01 06 13	
16	1.4	Service Relocation (B)	0 days	Sat 01 06 13	Sat 01 06 13	
17	1.5	Blok A	93 days	Mon 10 06 13	Thu 24 10 13	
18	1.5.1	Kerja Tanah	42 days	Mon 10 06 13	Wed 07 08 13	
19	1.5.2	Kerja Struktur	33 days	Thu 18 07 13	Wed 04 08 13	
20	1.5.3	Kerja Arkitek	43 days	Thu 22 08 13	Thu 24 10 13	
21	1.5.4	Kerja MHE	32 days	Thu 29 08 13	Mon 14 10 13	
22	1.6	Blok B	97 days	Mon 10 06 13	Wed 30 10 13	
23	1.6.1	Kerja Tanah	53 days	Mon 10 06 13	Mon 26 08 13	
24	1.6.2	Kerja Struktur	30 days	Mon 29 07 13	Tue 10 08 13	
25	1.6.3	Kerja Arkitek	43 days	Wed 28 08 13	Wed 30 10 13	
26	1.6.4	Kerja MHE	28 days	Wed 04 09 13	Mon 14 10 13	
27	1.7	Completion of Cable Lay by TNB	0 days	Mon 21 10 13	Mon 21 10 13	
28	1.8	TnC	5 days	Tue 22 10 13	Mon 28 10 13	
29	1.9	Projek Siap	0 days	Wed 30 10 13	Wed 30 10 13	

MICROSOFT PROJECT



❖ Application of S-Curve : **Financial S-Curve.**

- Financial S-Curve shall be generated from Accepted Work Programme.
- **THIS** Financial S-Curve is to be used in SKALA (Unjuran Kewangan Kontrak).
- Progress reporting in SKALA is financial progress.

MICROSOFT PROJECT



❖ Application of S-Curve : **Physical S-Curve.**

- Physical S-Curve is derived from % complete which is based on duration.
- Report of physical work progress shall be based on the physical s-curve.

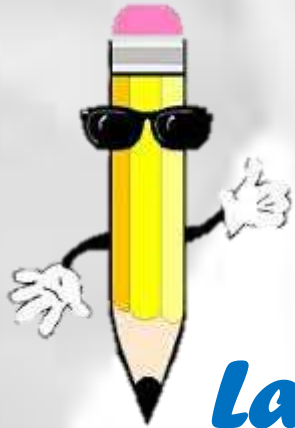
MICROSOFT PROJECT



❖ FINAL SUMMARY.

- Financial S-Curve obtained from the approved Work Programme.
- More realistic reporting based on the approved Work Programme.
- Contractor has to perform based on the financial cash flow that has been planned.

MICROSOFT PROJECT



Latihan 3

Penyediaan S-Curve

Activity	Duration (weeks)	Cost (RM)	W1	W2	W3	W4	W5
A	4	24 k					
B	5	30 k					
C	4	16 k					
D	2	50 k					
E	2	80 k					
F	3	18 k					

Penyediaan S-Curve

❖ CLASS EXERCISE

Q.1 Plot the Financial S-Curve

Q.2 Plot the Physical S-Curve

Q.3 Combine the Financial S-Curve & Physical S-Curve in the same chart

Q.4 Why Physical S-Curve show higher than Financial S-Curve??

Q.5 What is the progress of the works at week 3?

Q.6 At week 3, how much can be claimed as payment for work done?

Penyediaan S-Curve

❖ CLASS EXERCISE

Q.7 At week 3, the contractor actually achieved the following works:

- ➡ A – done 1000/2000
- ➡ B – done 2 Of 5 column
- ➡ C – installed A/C units 1 of 4
- ➡ D – no progress (0%)
- ➡ E – no progress (0%)
- ➡ F – done 100/300

What's the progress & how much can be paid out?

Penyediaan S-Curve



❖ RUMUSAN.

- ✓ Pastikan nilai bayaran yang disyorkan mengikut nilai kerja sebenar dan bukannya mengikut kemajuan fizikal
- ✓ Setiap program kerja akan menunjukkan perbezaan di antara % kemajuan fizikal dan % kemajuan kewangan – Rujuk S-Curve untuk lihat perbezaan