



Project Manegment



(IENG419)



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Chapter 2

Resources

➤ What is a Resource?

Projects are gathering places for **people**.

Projects also utilize **equipment** and **materials**.

Those people, equipment, and materials are your project *resources*.

➤ **MSP Resources**

MSP works with three types of resources:

- 1- **Work Resources** like **engineer** and **worker** and **equipment**.
- 2- **Material Resources** like **concrete** and **ceramic**.
- 3- **Cost resources** like **the total budget of project**.

✓ In this project, we consider only work resources and material resources that you can see in this table:

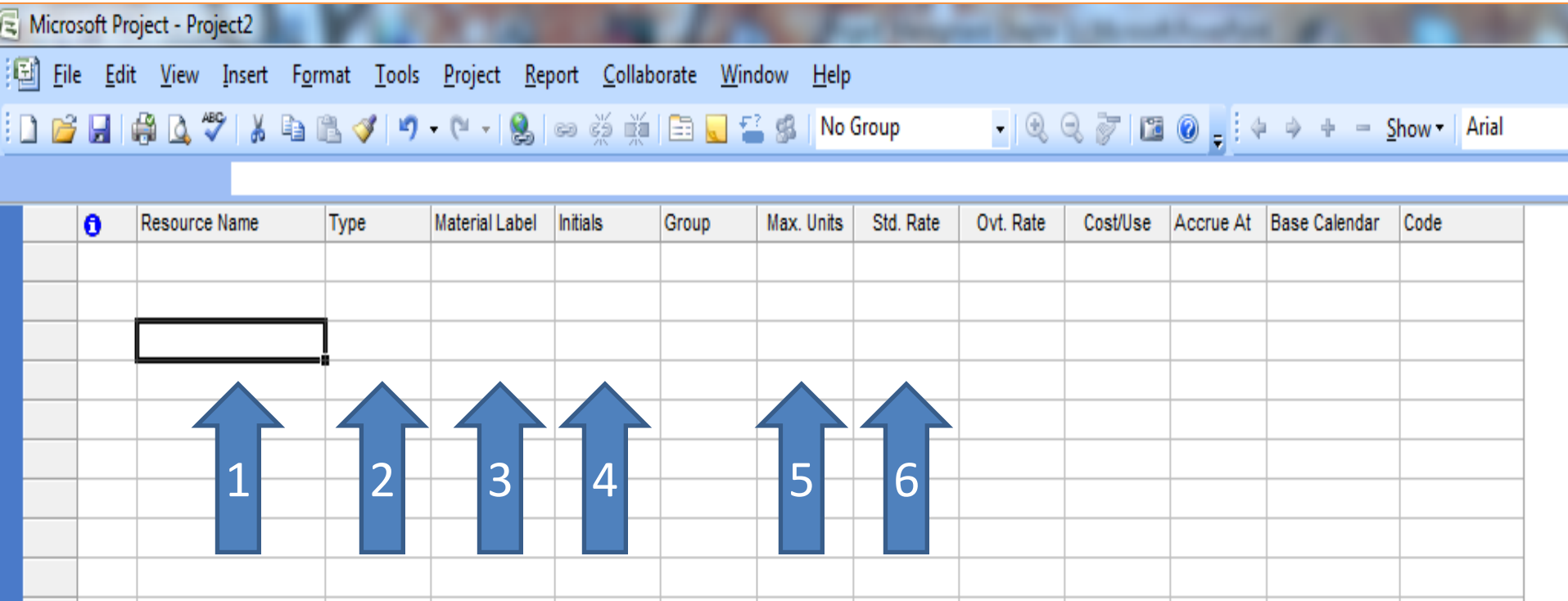
No	Resource	Type of Resource	# of Available Res.	Cost
1	Labor 1	Work	1	\$70/h
2	Labor 2	Work	1	\$70/h
3	Labor 3	Work	1	\$70/h
4	Engineer	Work	1	\$120/h
5	Loader	Work	1	\$300/h
6	Bulldozer	Work	1	\$350/h
7	Truck	Work	2	\$320/h
8	Mold	Work	3	\$10/h
9	Concrete	Material	-	\$5
10	Bar	Material	-	\$10
11	Ceramic	Material	-	\$10
12	Cement	Material	-	\$15
13	Cutback	Material	-	\$20

Entering Resources in MSP

- ✓ In order to consider resources in MSP, first we should define all resources of each project in MSP program.
- ✓ To define the resources, we must enter some information about all resources in the **Resource Sheet**.
- ✓ **Resource Sheet** can be opened from **View** in the **Menu Bar**.

Entering Resources in MSP

Resource Sheet of MSP



In this sheet **columns 1, 2, 4 and 6** must be filled for **all resource types** including work and material. But **column 3** must be filled only for **materials** and also **column 5** must be used only for **work resources**.

Entering Resources in MSP

- ✓ By default, the **Max. Units** for each resource is **100%** and it means that such resource are full time resource.
- ✓ If for **Work Resources** there are more than one available number of the same resource, the **Max. Units** for such resource will increase, but how?
For example in a project we have **3** same engineers, so the **Max.Units** for this resource will be **300%**.
- ✓ For part time resources the **Max. Units** will be less than **100%**.

Entering Resources in MSP

- ✓ Now, we start to enter the resources in the Resource Sheet.

Microsoft Project - Sample_Project

File Edit View Insert Format Tools Project Report Collaborate Window Help

No Group

									No	Resource	Type of Resource	# of Available Res.	Cost
		Resource Name	Type	Material Label	Initials	Group	Max. Units	Std. Rate					
		Labor 1	Work		L		100%	\$70.00/h	1	Labor 1	Work	1	\$70/h
1		Labor 1	Work		L		100%	\$70.00/h	2	Labor 2	Work	1	\$70/h
2		Labor 2	Work		L		100%	\$70.00/h	3	Labor 3	Work	1	\$70/h
3		Engineer 1	Work		E		100%	\$120.00/h	4	Engineer	Work	1	\$120/h
4		Concrete	Material	Type A	C			\$5.00	5	Loader	Work	1	\$300/h
									6	Bulldozer	Work	1	\$350/h
									7	Truck	Work	2	\$320/h
									8	Mold	Work	3	\$10/h
									9	Concrete	Material	-	\$5
									10	Bar	Material	-	\$10
									11	Ceramic	Material	-	\$10
									12	Cement	Material	-	\$15
									13	Cutback	Material	-	\$20

Defining Calendar for Resources

- ✓ The calendar for each resource may be different. For example **Labor** or **Engineer** is working **8 hours per day** but some resources like **Loader** and **Truck** may work **2** or **3 shifts per day**.
- ✓ For defining or changing the calendar of each resource, we open **Change Working Time** from **Tools**.
- ✓ Now, we are able to assign **nonworking times** to the resources.

Defining Calendar for Resources

- ✓ For example, to specify nonworking time to **Labor 1**, as you see, labor and Base calendar should be selected after that in Exceptions the nonworking dates will be entered.

Microsoft Project - Sample_Project

File Edit View Insert Format Tools Project Report Collaborate Window Help

No Group Show Arial

Resource Name

1	Labor 1
2	Labor 2
3	Engineer
4	Concrete

Change Working Time

For calendar: Labor 1

Standard

Legend:

- Working
- Nonworking
- Edited working hours
- On this calendar:
- Exception day
- Nondefault work week

Click on a day to see its working times:

December 2010

S	M	T	W	Th	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

December 7, 2010 is nonworking.

Based on:
Exception 'Rest' on calendar 'Labor 1'.

Exceptions

Name	Start	Finish
1 Rest	12/7/2010	12/9/2010

Details...
Delete

Defining Calendar for Resources

- ✓ Also for changing the working hours during the working days, you can follow these steps:

Microsoft Project - Sample_Project

File Edit View Insert Format Tools Project Report Collaborate Window Help

No Group

Show Arial 8 B

Change Working Time

For calendar: Labor 1 Create New Calendar ...

Base calendar: Standard

Legend:

- Working
- Nonworking
- 31 Edited working hours
- On this calendar:
- 31 Exception day
- 31 Nondefault work week

Click on a day to see its working times:

December 2010

S	M	T	W	Th	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

December 7, 2010 is nonworking.

Based on:
Exception 'Rest' on calendar 'Labor 1'.

Exceptions

Name	Start	Finish
1 [Default]	NA	NA

Work Weeks

Details...

Details for '[Default]'

Set working time for this work week

Select day(s):

- Sunday
- Monday
- Tuesday
- Wednesday
- Thursday
- Friday
- Saturday

☐ Use times from base calendar for these days.

☐ Set days to nonworking time.

☒ Set day(s) to these specific working times:

	From	To
1	8:00 AM	12:00 PM
2	1:00 PM	5:00 PM

Help Cancel

1

2

3

4

5 Delete or change these rows