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:
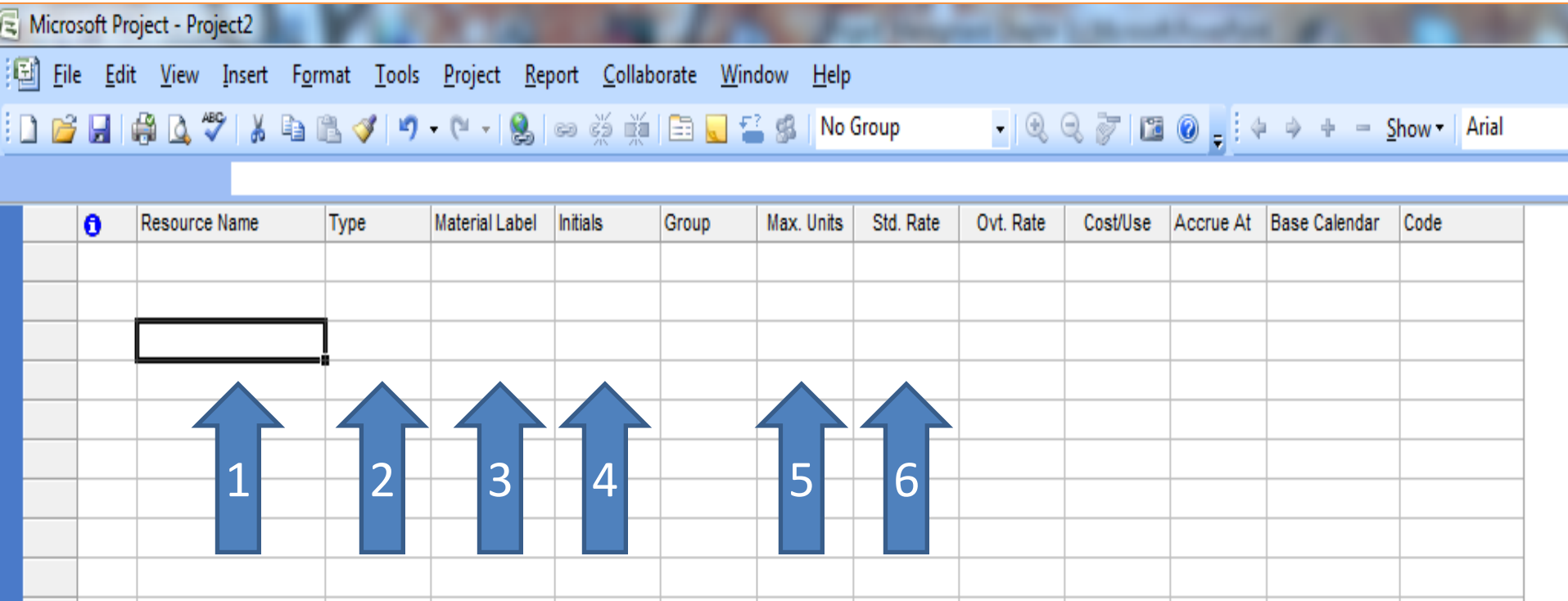
No	Resource	Type of Resource	# of Available Res.	Cost
1	Labor 1	Work	1	$70/h
2	Labor 2	Work	1	$70/h
3	Labor 3	Work	1	$70/h
4	Engineer	Work	1	$120/h
5	Loader	Work	1	$300/h
6	Bulldozer	Work	1	$350/h
7	Truck	Work	2	$320/h
8	Mold	Work	3	$10/h
9	Concrete	Material	-	$5
10	Bar	Material	-	$10
11	Ceramic	Material	-	$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   Show ▾ Ari

	ⓘ	Resource Name	Type	Material Label	Initials	Group	Max. Units	Std. Rate
1		Labor 1	Work		L		100%	$70.00/l
2		Labor 2	Work		L		100%	$70.00/l
3		Engineer 1	Work		E		100%	$120.00/l
4		Concrete	Material	Type A	C			$5.0

No	Resource	Type of Resource	# of Available Res.	Cost
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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.

Defining Calendar for Resources

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