USING MS PROJECT

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INTRODUCTION

We are engaged in projects all the time. We might be working towards completing a qualification, revising for an exam, growing vegetables, building a petrol station or completing a programming assignment.

Project Management is about

- scheduling tasks and setting targets
- charting progress actually made
- rescheduling tasks and targets in the light of actual progress made
- evaluating the management of the project

The aim of project management is to deliver the project complete and on time and to budget.

In these notes we see how to schedule a programming project and to track its progress.

The appendix contains a printed version of the online Microsoft Project Tutorial.

FAMILIARISATION EXERCISE

Start Microsoft Project. Move a mouse pointer over each toolbar button or icon. Identify the icon to

- start a **New** project
- **Save** a project
- show a **Print Preview**
- **Link Tasks**
- **Unlink Tasks**
- **Split Tasks**
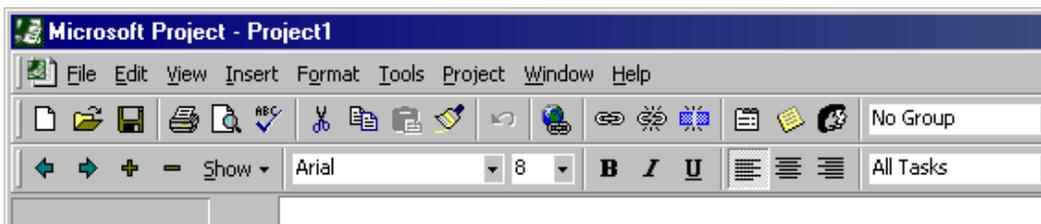
Fig 0 Microsoft Project Menu Bar and Icons

START A NEW PROJECT

We start with a blank Project file and choose either a start date or a finish date. If our project
MUST end by a certain date we start by entering the finish date.
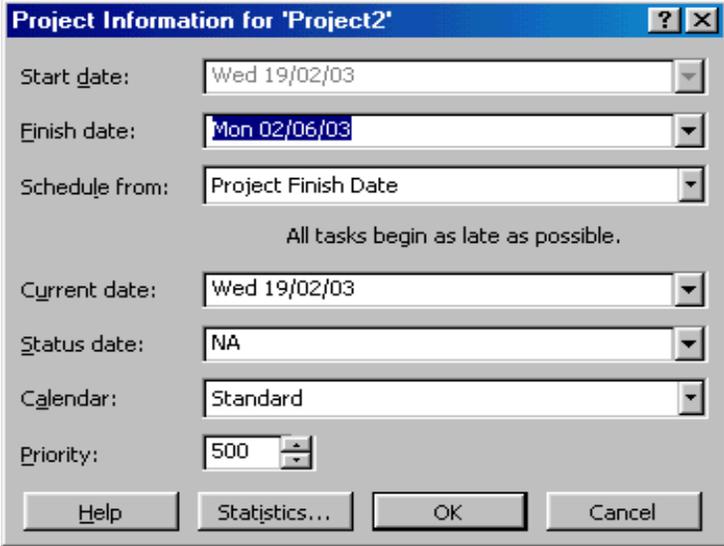

1 Create a New Project

Click **New** icon

2 Complete the Project Information Panel

In the **Schedule from:** text box select **Project Finish Date**.

In the **Finish date:** text box select **2 June 2003**

Click **OK**

Fig 1 Set Project Finish Date

3 Save Project Information

Click **Save** icon

In the File name text box enter your choice for a descriptive file name e.g.
ProgrammingProject2003 and then click **Save**.

ENTER AND ORGANISE A TASK LIST

Enter Tasks and their Durations

We begin by writing down a list of tasks in the right order. We estimate how long each task should take.   A task should typically take between one day and three weeks.

1 On the **View** menu, click **Gantt Chart**

2 In the **Task Name** field type a task name and then press TAB

3 In the **Duration** field, type the amount of time each task will take. Use w for weeks, e.g. 3w, d for days e.g. 5d. For deadlines or milestones or deliverables, use zero days. A deliverable is an actual product e.g. a report. A milestone is an important event e.g. the completion of a part of the project.

Enter the tasks shown below and their durations. Do not enter dates for the **Start** and **Finish** fields. Microsoft Project does this for you.

Task Name	Duration
Choose Subject	2 wks
Project Proposal Doc	0 days
Initial Design	2 wks
User Requirements Doc	0 days
Design application classes	2 wks
Implement application classes	2 wks
Test application classes	3 wks
Design, implement & test GUI	3 wks
Integrate application & GUI	3 wks
User Guide	1 wk
Review & Evaluation	1 wk
Demonstration	0 days

Fig 2 Tasks and Durations

SET START AND FINISH DATES

Some tasks cannot start until the previous one is finished. Some tasks overlap; one task does not have to be finished before you start on the next.

Link Tasks

1 On the **View** menu click **Gantt Chart**

2 Select all the tasks in the **Task Name** field: hold down SHIFT, click the first and last tasks

3 Click **Link Tasks** icon

See the Entire Project on the Screen

1 Right click on Date and Day Row. It runs across the top of the Gantt Chart area.

2 Click **Timescale**

3 Set **Major Scale Units** to **Months**

4 Set **Minor Scale Units** to **Weeks**

5 Set **Minor Scale Label** to **31, 07, ...**

6 Click **OK**
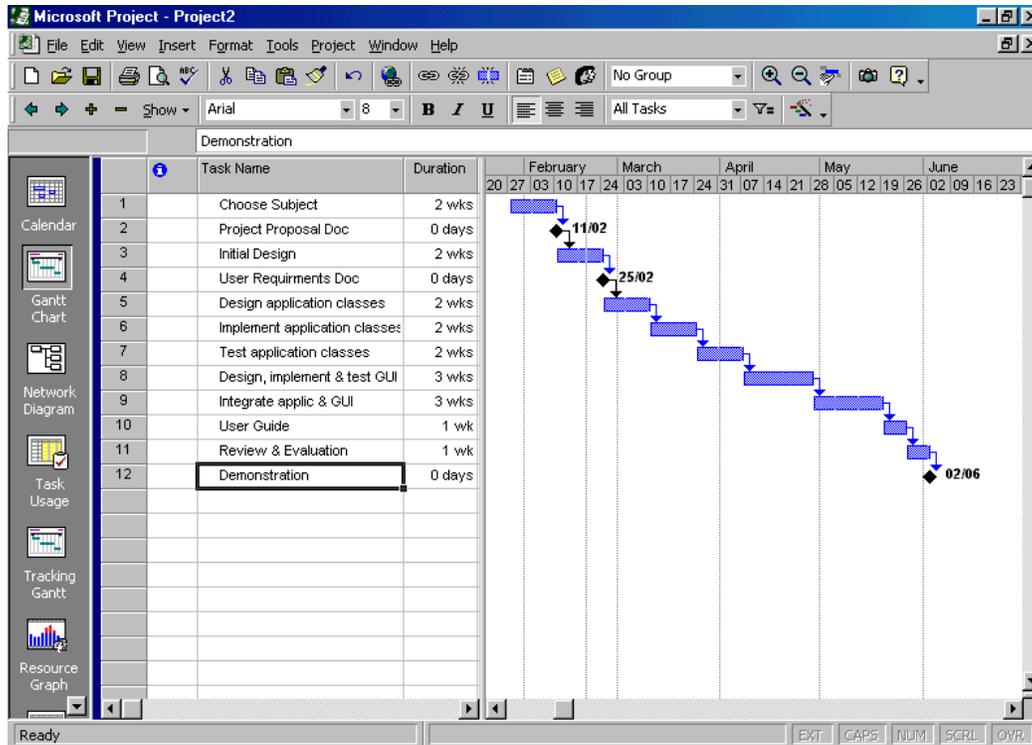
Fig 3 Entire Project On Screen

Overlap Tasks

1 Double click on the link line between the rectangles representing *Design, implement, test GUI* and *Integrate Applications & GUI*.
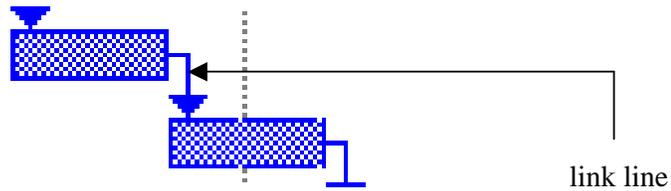
Fig 4 Link Line

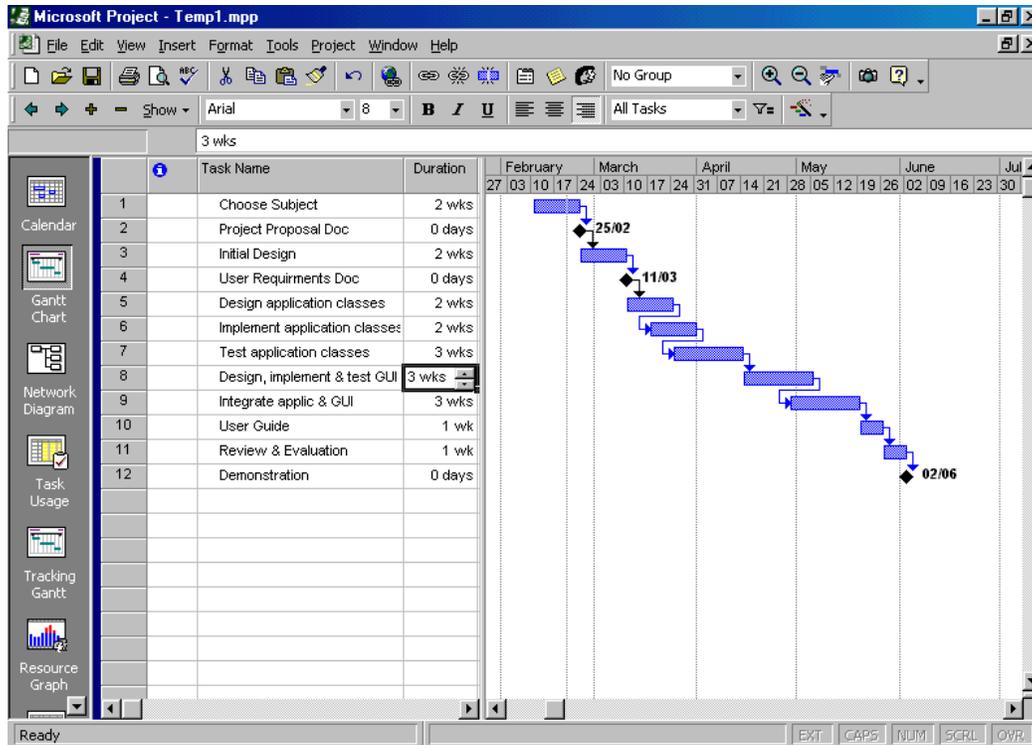**2** Overlap by one week: enter **-1w** in the **Lag**: field.

3 Click **OK**

4 Overlap *Design application classes* and *Implement application classes* by one week.

5 Overlap *Implement application classes* and *Test Application classes* by one week.

Check the Start Date

Check that the start date is 10th February 2003. Make adjustments to the duration of tasks if necessary.

Fig 5 Overlapped Tasks

SAVING PLANS DURING THE LIFETIME OF THE PROJECT

We save a snapshot of our initial plan; this is called a base line. Any subsequent changes we make to the plan can then be compared with the original. We record the changes in an interim plan.

Save a Baseline Plan

When we have finished entering the project information and set up the schedule of tasks, we save the plan as a baseline. We can compare actual progress made against the base line, and see whether our project is behind, on or ahead of schedule.

If our project is behind schedule, we either put in more resources such as time to bring the project back on schedule, or reschedule the tasks.

1 On the **Tools** menu select **Tracking** and then click **Save Baseline**.

2 Click **Entire Project**

3 Click **OK**.

Save an Interim Plan

After saving a baseline, we can save up to 10 interim plans as checkpoints during the project.

1 On the **Tools** menu select **Tracking** and then click **Save Baseline**

2 Click **Save interim plan**

3 In the **Copy** box click the name of the current interim plan

4 In the **Into** box click a name for the next interim plan or specify a new name

5 Click **Entire Project** to save an interim plan for the whole.

6 Click **OK**

TRACK AND MANAGE PROGRESS

We manage a project by comparing actual events with expectations. The sooner we know that something is not going to plan, the better able we are to do something about it.

Check if Tasks are Progressing According to Plan

We keep our projects on schedule by making sure that our tasks start and finish on schedule. The Tracking Gantt view shows us the tasks that vary from the baseline plan.

The Tracking Gantt View pairs the current schedule with the original schedule for each task.

1 On the **View** menu click **Tracking Gantt**

Enter Actual Start and Finish Dates for a Task
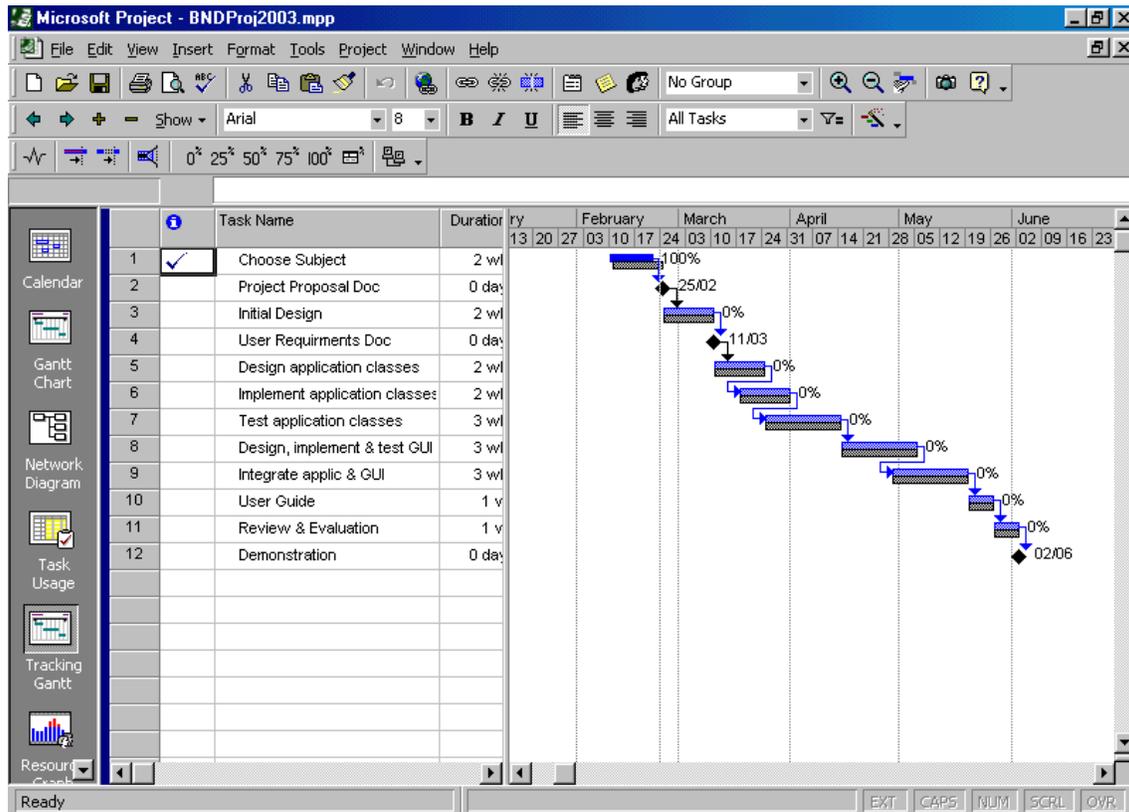
1 On the **View** Menu click **Gantt Chart**

2 On the **View** menu select **Toolbars** and then click **Tracking**.

3 In the **Task Name** field, select the task (but not a milestone) you want to update.

4 Click **Update Tasks**

5 Under **Actual** select a date in the **Start** e.g. 10 Feb and **Finish** e.g. 21 Feb boxes.

6 Click **OK**

Fig 7 Actual Start and Finish Dates – Tracking View

Date Stamp

We put today's date on the header before printing out the project.

1 On the **File** menu choose **Page Setup**

2 Select **Header**

3 Select **Left** tab

4 Click **Insert Current Date** icon

5 Click **OK**