Beginner's Guide to Open Workbench

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Introduction

Open Workbench is a free, full-featured alternative to Microsoft Project. The project is under active development by a company called itdesign. It is also a component of the CA Clarity PPM system, although for the purposes of this document we're going to assume it is being used in stand-alone mode.

Visit the Open Workbench Warrior website (http://workbenchwarrior.wordpress.com/) for more information and tutorials.

Open Workbench Functionality

As I said, Open Workbench is a full-featured desktop scheduling tool. It provides all of the same functionality as Microsoft Project, including:

Project Planning

- Task definition

- Dependency definition

- Resource assignment

- Calendars for managing resource availability

- Critical Path analysis

Project Tracking and Management

- Setting and Managing Baselines

- Recording estimates of effort (work) required to complete tasks

- Recording actual effort (work) expended on tasks

- Tracking progress

The process for compiling a project plan using Open Workbench is in reality little different from using Microsoft Project. You define the work to be done, and the resources needed to do it and then refine based on the outputs. The key differences between Open Workbench and Microsoft Project are:
- Open Workbench won't schedule your project until you ask it to. MS Project (by default) will re-plan the project every time the Enter key is pressed. Open Workbench lets you get your "ducks in a row" first.
- Open Workbench schedules the project based on the availability of resources to do the work. Microsoft Project (by default) schedules based on the duration to complete tasks.

Sample Project

I'm using a simple sample project here to demonstrate the basic functionality of Open Workbench.

Part 1: Planning

Establishing The Project

The first thing we need to do is set up the project information. We need to open the **Project Properties** dialog box and enter the project details. I'm going to name the project "*OWB Sample Project*" and a brief description. I'll leave the rest of the details either blank or as the defaults.
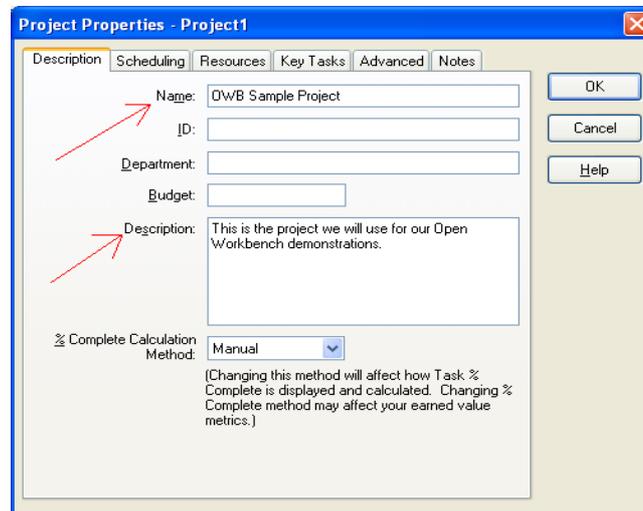
The Help provides information on the other fields on this screen. They are all optional. At this stage, we'll leave the rest of the tabs and move onto building our project.

Creating the Tasks

The next step is to enter the tasks that will comprise our project plan. There are many Views we can use to do this, but I'm going to use the *WBS Definition* View on the *Planning* Group.

Please note the following for this portion of the guide:

- All we're going to do at this stage is list the Tasks and structure the Work Breakdown. We'll create our Dependencies and add Resources later.

- Also note, we're using the Views as they install. We're not going to configure the Views at this stage, but a future tutorial will cover personalising Views.

- We're only going to use 4 Task Types: Phase, Activity, Task, Milestone. Open Workbench allows you to go as deep as you like, using the WBSLevel3, WBSLevel4... Task Types, and you can re-name these in the *WBS* Tab of the *Project Properties* Dialog Box, but we won't be doing either of these in this guide.

- The Deliverables field is not Active. It was active in a former version of Workbench, but has been removed from the data structure (although the field still appears). **A note to itdesign**: please, please, please reinstate this field!!

Once you have your list of Tasks (divided into Activities and Phases), you need to identify those tasks which need to be "time boxed" (for example, you're going to allow a standard 5 days to review and revise a document). To fix the duration of a task, go into the **Task Properties** dialog box either by right-clicking on the Task and selecting **Modify**, or double-clicking on the **Row Header**.

In the **Task Properties** dialog box, enter a **Duration** (in days) and tick the **Fixed** tick-box. This will ensure the duration of the task remains at the number you set, during the *AutoSchedule* process (see below).

Entering Dependencies

There are a number of ways to define Dependencies between Tasks in Open Workbench. The most common is through the Task Properties dialog box. Select the Dependencies tab, and in the Project Tasks list, navigate to the task (or tasks) with which you want to create the dependency. Then, click on either Add Predecessor (to make the task a predecessor to the current task), or Successor (to make it a successor).
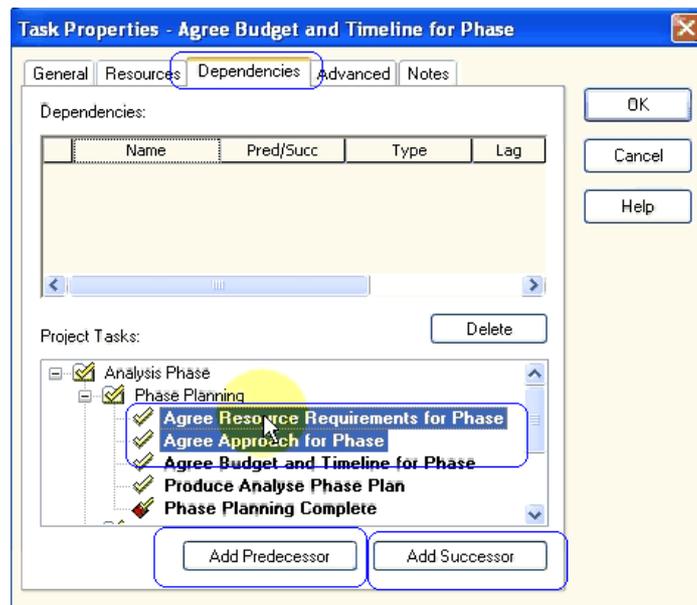
This will create the dependency relationship. When the relationship is created, the tasks will highlight in pink, indicating a dependency violation. Don't worry about that – we'll take care of it when we AutoSchedule.

AutoSchedule

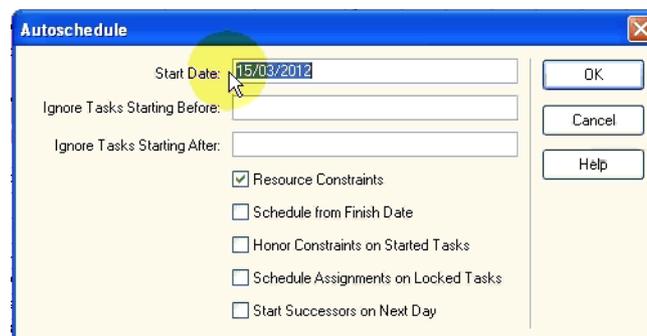Now we have our hierarchy established and our dependencies mapped, we're ready to have Open Workbench schedule the project (we'll do this multiple times as we go through creating our plan). Select the Project tab and click the AutoPlan button to bring up the AutoSchedule dialog box.

The fields available in the AutoSchedule dialog box are as follows:

- Start Date: This is the date from which the scheduler will commence scheduling. By default, it displays the current date. You can change this so the project commences on a different date.

- Ignore Tasks Starting Before: The scheduler will not AutoSchedule any tasks starting before the date you enter in this field. This allows you to AutoSchedule (for example) future Phases of the project.

- Ignore Tasks Starting After: The scheduler will not AutoSchedule any tasks starting after the date you enter in this field. This allows you to schedule only as far as your planning window (for example, you can choose to only plan out the next 3 months' tasks)

- Resource Constraints: You can instruct the scheduler to either honour or ignore any constraints which exist in the pool of resources (see below)

- Schedule from Finish Date: If you have a project that must finish on a certain date (for example, if there is a compliance project that must be implemented by a certain date), you can instruct the scheduler to schedule the project from right-to-left.

- Honor Constraints on Started Tasks: This specifies whether you want the scheduler to honour any constraints or dependencies you have on tasks with a status of "Started".

- Schedule Assignments on Locked Tasks: One of the fields available in the Advanced tab of the Task Properties dialog box is "Lock for Scheduling". If this tick-box is selected, AutoSchedule will move any remaining Estimate to Complete within the Start and Finish dates.

- Start Successors on Next Day: In the Gantt View, the smallest time-period that can be displayed is a Day. The Open Workbench scheduling algorithm, however, can schedule a project to the Second. This means if (for example) a task is 4 hours long, its successor can theoretically start on the same day. Ticking the option to Start Successors on Next Day instructs the scheduler to not start a successor task on the same day as its predecessor finishes. This is one way to build buffer into your schedule.

For now, I'm going to leave all options as the defaults. Here is my project plan before running the AutoSchedule:

And here is what it looks like after we AutoSchedule:
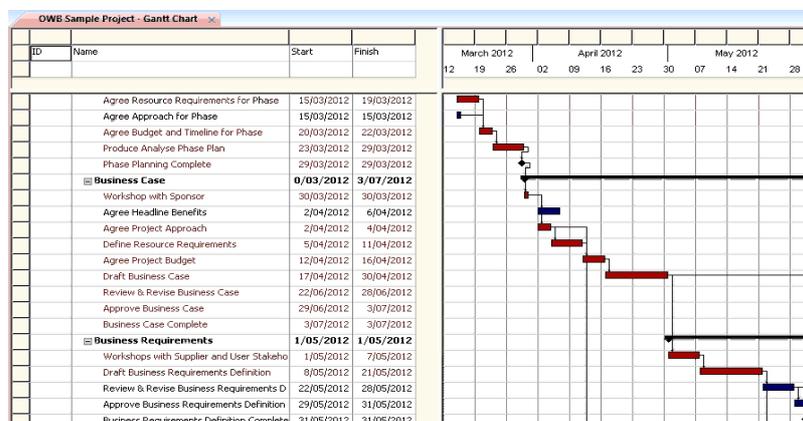
Notice the dependency violations have been remedied and the scheduler has defined the Critical Path (in Red).

Adding Resources

We'll now move on to resourcing our plan. **Note** this part of the tutorial applies to those using Open Workbench stand-alone. If you're using Open Workbench in conjunction with the CA Clarity PPM system, you should define your resources in Clarity.

I'm going to start by adding the generic roles I'll need for this phase of the project.

The first step is to define the resource you'll need. We're going to use the Gantt Chart View.
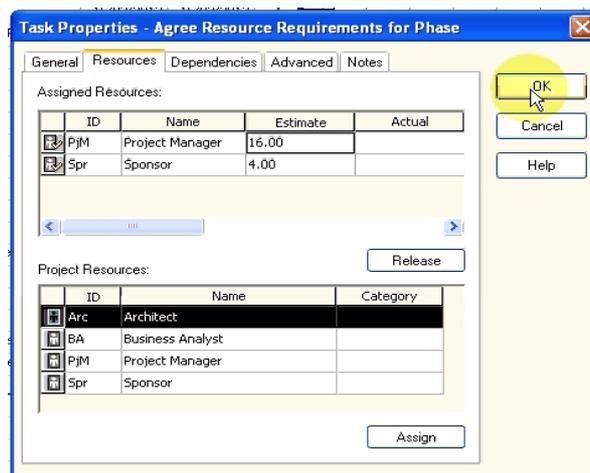
Right-click on the Row Selector and select **Modify** (you can also double-click the Row Selector). This will bring up the Resource Properties dialog box. Enter a Name and an ID for your new Resource. You can also enter any other information that's relevant, such as the number of hours per day your resource will work (in the '*Availability*' field), or their Cost (using the '*Rate*' field). The Open Workbench Help provides information on each field.
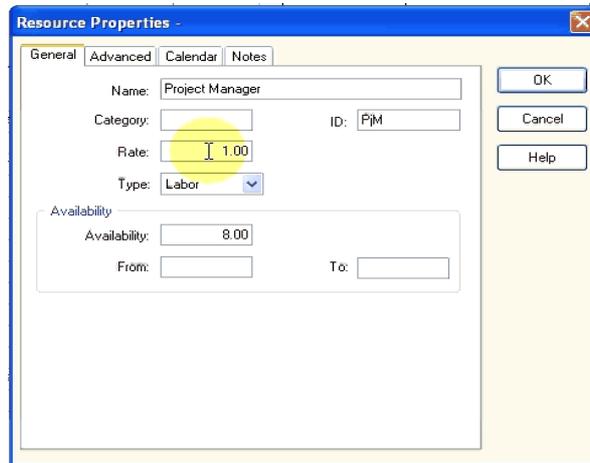
The other way to add resources is to type directly into the View. To do this, you need to know the field represented by each of the columns. In (default) the Gantt View, the fields in the Resource area are Resource ID, Resource Name, Start Date, Finish Date.

Once we've defined our Resources, we need to Assign them to the Tasks in our Project. As with most other activities in Open Workbench, there are a number of ways to do this.

First, you can assign using the Task Properties dialog box. Right-click on the Row Selector next to your Task and select Modify (or double-click on the Row Selector). Then, move to the Resources tab. Click on the Row Selector next to the Resource (or Resources) you wish to assign, and click on Assign. Enter an Estimate (in hours) of the amount of Effort (Work, is MS Project language) required for each Resource to complete their part of the Task and click OK.

The other way to Assign Resources to Tasks is to select them in the Resources section of the View (click on the the Row Selector), and then 'drag and drop' them onto the Task. Note, this will Assign them to the Task but will not enter an estimate of effort, which you'll need to do later.

As with almost all other aspects of using Open Workbench, when working with Resources the Highlights are your friend. If you have estimated the effort required for a Resource to complete a Task and they are unable to complete the Task within the nominated Duration, Open Workbench will let you know there's a problem by highlighting in yellow.

Open Workbench won't automatically correct these problems for you. You have the option of correcting yourself, or Open Workbench will attempt to correct it for you when you AutoSchedule.

Part 2: Tracking

Tracking a project plan should be (at minimum) a weekly occurrence. There are 4 key elements to track, although as the Project Manager you should also make sure the structure of your plan (Phases, Activities, Tasks and Milestones) continues to model and reflect how you're going to deliver the project, and you should modify your plan when it ceases to accurately reflect how the project will be delivered.

Actual Effort

The level of completeness of a Task is measured by the amount of work done, against the amount of work left to do. Again, with Open Workbench there are many ways to record Actual Effort. The following describes one. **Note again**, this is for those using Open Workbench stand-alone. If you use Open Workbench in conjunction with CA Clarity PPM, this section will not apply to you.

Open the **Status Update** View on the **Controlling** Tab, and enter the amount of work done into the *Actual Effort* field. Note the *Total Actual Effort* and *Estimate to Complete* for the Task will automatically update based on the number entered into the *Actual Effort* field.

Estimates to Complete

It is important for the project plan to correctly track how much work is left to do, to complete the project. The Estimate to Complete field enables you to keep track of the remaining work, and to monitor whether the remaining work can be completed within deadlines.

To update the amount of work required to complete a Task, update the *ETC (Hours)* field (see the screen shot above).

When you AutoSchedule the Project, for those Tasks which are not Fixed Duration or Locked for Scheduling, the Task Duration will be revised based on the ETC (Hours).

Task Status

The Task Status field provides three Task Statuses; Not Started, Started and Completed.

A Task is considered Not Started when there is no Actual Effort recorded against it and when the % Complete is 0%.

If the Task Status is set to Not Started and you enter a % Complete (other than 0), the Task Status will become Started. If you then set the Task Status back to Not Started, the % Complete field will automatically revert to 0%. Alternatively, if you set the % Complete back to 0%, the Task Status will remain Started.

If the Task Status is Not Started and Actual Effort is recorded against the Task, the Task Status will automatically become Started.

Note that it is possible to have 0 ETC, and a Task where the % Complete is 100%, but the Task will NOT automatically be set to Completed. The Project Manager must do this manually.

% Complete

The Project Manager can manually set the % Complete in order to track the Project Manager's estimation of completeness (which may or may not be the same as completeness based on Work Effort).

In order to manage Task % Complete, go into the Task Properties dialog box (either right-click on the Task and select Modify, or double-click on the Row Selector). The % Complete field is on the General Tab.

I would note, however, that the Gantt Chart View (for example) uses % Work Complete (which is calculated as Actual Effort / (Actual Effort + ETC) to show progress on the Gantt Bar (although you can change this if you want to – see the upcoming tutorial on Managing Views for more information).

I also believe using % Complete is not a recommended method for tracking task completeness. Past experience has shown that as difficult tasks approach the pointy end of a delivery date, they have a tendency to get stuck at 90% Complete (the first 90% of the Task takes 20% of the Duration). The remaining 10% surplus effort is more often than not exceeded. It's far more meaningful to capture regularly updated estimated time to complete data by recording actuals and estimated hours to complete.

Baselines

A Baseline is a snapshot of the project schedule at a point in time. It is most often used as the Project Manager's "promise" to his stakeholders about the duration, cost and resources required for the project, or part of the project.

With Open Workbench the Project Manager can create multiple Baselines, and can Baseline the entire Project or just selected portions.

To create a Baseline, click on the Project Ribbon, and select Define from the Baselines section. This will bring up the Baseline dialog box. Using the Baseline dialog box, you can create a Baseline for the entire Project, the information within the active View or just Selected Tasks. Click on OK to create your Baseline.
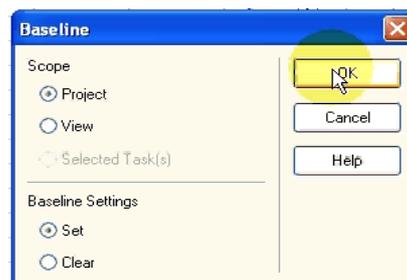
If you have multiple Baselines, you can use the Manage dialog box to add a Description for your Baseline, or select which of your Baselines is the current one. You can even delete a Baseline if it is no longer required.
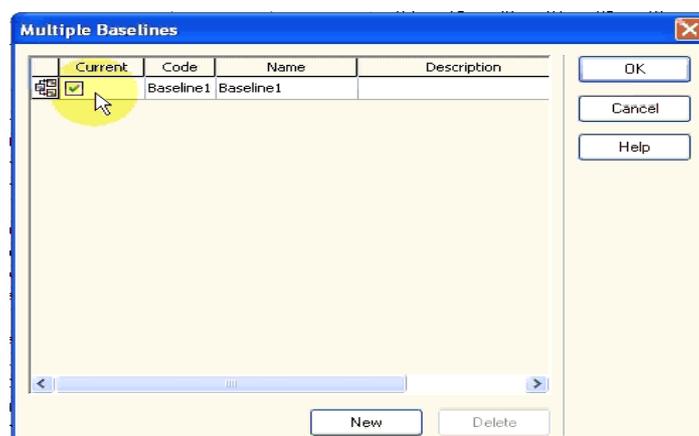
Conclusion

This brings us to the end of this Tutorial. Please be sure to visit the web site (http://workbenchwarrior.wordpress.com/) for more information. If you enjoyed this tutorial, please leave a comment at the site and let me know. If you have a suggestion for additional content or further tutorials, please leave a comment at the site and let me know.