Understanding Organizational Breakdown Structure

The following is extracted from the@schedule Users Guide.

An Organizational Breakdonw Structure (OBS) is used to group tasks by responsible organization. An OBS provides a way of organizing project tasks by those responsible for executing the work.

An OBS is a hierarchical coding structure with each succeeding level providing a lower level of detail. @schedule allows you to create a hierarchical OBS Area structure with no limit to the depth of the hierarchy (organization, sub-org, sub-sub-org, etc.).

The figure below is an example of an OBS for a City Hall Renovation Project. We show the structure as a horizontal tree so that you can easily understand the hierarchical nature of the structure. Notice that the top levels of our structure (01, 02, 03 etc.) are disciplines. The exception is OBS *99 Contractors*. Notice that the next levels are crafts for these disciplines.
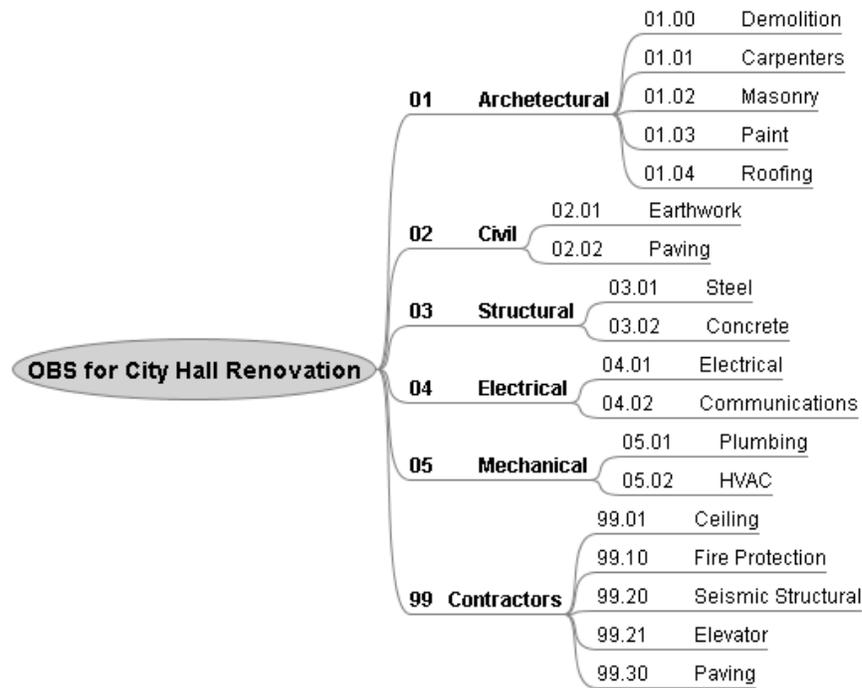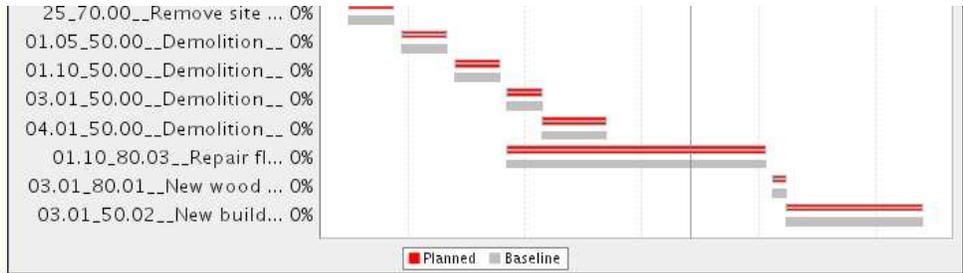
```
                                                    01.00    Demolition
                                                    01.01    Carpenters
                          01    Archetectural       01.02    Masonry
                                                    01.03    Paint
                                                    01.04    Roofing
                                       02.01    Earthwork
                          02    Civil
                                       02.02    Paving
                                            03.01    Steel
                          03    Structural
                                            03.02    Concrete
                                            04.01    Electrical
OBS for City Hall Renovation
                          04    Electrical
                                            04.02    Communications
                                          05.01    Plumbing
                          05    Mechanical
                                          05.02    HVAC
                                          99.01    Ceiling
                                          99.10    Fire Protection
                          99    Contractors  99.20    Seismic Structural
                                          99.21    Elevator
                                          99.30    Paving
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Figure: OBS Structure

Next we will look at an example of how OBS helps you when you are creating or reviewing schedules.

How Can a WBS Help You?

To help you understand some of the uses for OBS we provide an example using the figure below. It shows a portion of a page of @schedule's Create/Edit Task Form. Notice that the tasks are sorted by OBS and then by Plan Start Date. The table below the Gantt chart are grouped by OBS indicated by the blue-gray heading across the width of the table and indicating the start of a new OBS.

Figure: Tasks sorted by OBS and date

Sorting by OBS and date can provide you with the information you need to understand how well your resources are being used. It will help you to answer these questions:

- Is the work for the resource sequential and without breaks in continuity? If not the resource will be under utilized because there are dead periods for the resource.

- Are the resources being over utilized? If the tasks over-lap and

Sorting by OBS means we are sorting by the disciplines responsible for performing the task. OBS 01.00 is the Demolition stem of the Architectural (OBS 01) discipline in our OBS structure (see figure *OBS Structure* above).

Notice that the resource assignment for each task in this OBS is the same (8-man labor crew) so sorting by OBS and date has grouped all of this resource together for us and in the order of execution. Now look at the Gantt chart above the table. The Gantt chart shows the same tasks in the same order as the table below it. Notice that each task for this OBS is contiguous (end to end). So we conclude that work for the labor crew will be sequential with no no-work voids in between tasks.

This isn't by lucky chance of course. We used this same screen and the same sort when we assigned predecessors to these tasks. We used other sorts when assigning other predecessors. For example the sort by WBS view helps to insure that work we do in different areas is also logical and that logic of the project as a whole makes sense.

@schedule provides ten different sorts to help you create schedules and to monitor and report progress.