Project Activities and Tasks

Module 4

Module Objectives

After completing the Project Activities and Task Section, participants will be able to:

- learn the difference between an activity and a task.
- define Work Breakdown Structure (WBS).
- describe the difference between summary and detailed activities.
- describe the different formatting approaches for a WBS.
Activities versus Tasks

An activity is generally a higher level of work or an element of the project. In some organizations, the term “activity” is used to describe a particular function such as design activity, purchasing activity, etc. If this is true of your organization, it may be more appropriate and less confusing to use the term “tasks”.

Tasks and subtasks describe what needs to be accomplished in the project. This is the actual work to be done by the people supporting the project. Time, cost, and resources can be assigned at the task level.

Tasks (or Activities)

- Represent action or work and should begin with a VERB
- Assign resources - accountability and responsibility
- Determine duration and work
- Identify cost
- Track progress
After the Statement of Work has been completed, the next step is to identify all the elements (activities), tasks, and subtasks associated with the project.

The initial identification of tasks is a draft of what the project team thinks needs to be accomplished. When more structure is added to the Project Plan, the team may identify additional tasks, change tasks, or delete tasks altogether.

Work Breakdown Structure (WBS)

Graphically depicts the elements and tasks to be completed within a project to meet the desired project goals and objectives.

The Work Breakdown Structure (WBS):
- shows the different levels of a project.
- does not take into consideration order of tasks or time.
- can be presented in several different formats.
Work Breakdown Structure (WBS)

- Level I: Project
  - Phase
  - Element
  - Segment
  - Deliverable
    - Tasks
    - Subtasks
    - Subtasks

Work Breakdown Structure Approaches

- Top Down Approach
- Bottom Up Approach
- Outlining Format
- Work Order or Numeric Format
Top Down Format

In the top down format, it is assumed that the project team knows the major elements. The team identifies the tasks and subtasks associated with each element. For example, building a garage would include:

- Build a Garage
- Administration
- Preliminary
- Cement
- Garage
- Electricity
- Project Management

Bottom Up Format

The bottom up format is useful when the project team is able to determine the tasks and subtasks that need to be completed. Once this step is completed, then several common elements can be defined and the tasks grouped by elements.
**Bottom Up Format Example**

Build a Garage

<table>
<thead>
<tr>
<th>Administration</th>
<th>Preliminary</th>
<th>Cement</th>
<th>Garage</th>
<th>Electricity</th>
<th>Project Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>Get permit</td>
<td>Develop layout</td>
<td>Prepare &amp; level area</td>
<td>Route electrical</td>
<td>Install the switches</td>
<td>Track costs</td>
</tr>
<tr>
<td>Obtain signed contract</td>
<td>Develop blueprint of garage</td>
<td>Dig footings for the garage</td>
<td>Rough in the walls</td>
<td>Get inspection (electrical)</td>
<td>Monitor hours worked</td>
</tr>
<tr>
<td>Contact material suppliers</td>
<td>Post permit</td>
<td>Lay forms in ground</td>
<td>Complete with texture sheathing</td>
<td>Install the electricity &amp; outlets</td>
<td>Prepare weekly cash flow report</td>
</tr>
<tr>
<td>Develop quote and estimate</td>
<td>Get inspection (cement)</td>
<td>Pour the cement</td>
<td>Hang the garage door</td>
<td>Connect electricity to the door</td>
<td>Prepare schedule tracking report</td>
</tr>
<tr>
<td>Contact inspector</td>
<td>Pour the cement</td>
<td>Hang the cement</td>
<td>Hang the 36” door</td>
<td>Prepare resource tracking report</td>
<td>Prepare invoice</td>
</tr>
</tbody>
</table>

- Get final inspection
- Pour the cement
- Hang the 36” door
- Prepare resource tracking report
- Set trusses
- Sheath the roof & shingle
- Get inspection
- Paint the garage
- Get final inspection

---

**Outline Format**

This format is most common in many project management software packages. This method is often used in management consulting and engineering projects. The number scheme is usually determined by your organization.

I. Project Title
   A. Element I
      A.1 Complete task 1
      A.2 Complete task 2
         A.2.1 Complete subtask 2.1
         A.2.2 Complete subtask 2.2

(c)2010 Competitive Advantage
Graphic - WBS - Levels

Outlining Format - Example

<table>
<thead>
<tr>
<th>ID</th>
<th>Task Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1 Preliminary</td>
</tr>
<tr>
<td>2</td>
<td>1.1 Develop Layout</td>
</tr>
<tr>
<td>3</td>
<td>1.2 Develop Blueprint of Garage</td>
</tr>
<tr>
<td>4</td>
<td>1.3 Post the Permit</td>
</tr>
<tr>
<td>5</td>
<td>2 Administration</td>
</tr>
<tr>
<td>6</td>
<td>2.1 Develop Quote and Estimate</td>
</tr>
<tr>
<td>7</td>
<td>2.2 Get Permit</td>
</tr>
<tr>
<td>8</td>
<td>2.3 Obtain Signed Contract</td>
</tr>
<tr>
<td>9</td>
<td>2.4 Contact Material Supplier</td>
</tr>
<tr>
<td>10</td>
<td>2.5 Contact Inspector</td>
</tr>
<tr>
<td>11</td>
<td>3 Cement</td>
</tr>
<tr>
<td>12</td>
<td>3.1 Prepare &amp; Level Area</td>
</tr>
<tr>
<td>13</td>
<td>3.2 Dig Footings for Garage</td>
</tr>
<tr>
<td>14</td>
<td>3.3 Lay Forms in Ground</td>
</tr>
<tr>
<td>15</td>
<td>3.4 Get Inspection (Cement)</td>
</tr>
<tr>
<td>16</td>
<td>3.5 Pour the Cement</td>
</tr>
<tr>
<td>17</td>
<td>4 Garage</td>
</tr>
<tr>
<td>18</td>
<td>4.1 Route Electrical Conduit</td>
</tr>
<tr>
<td>19</td>
<td>4.2 Rough in Walls</td>
</tr>
<tr>
<td>20</td>
<td>4.3 Complete with Texture Sheathing</td>
</tr>
<tr>
<td>21</td>
<td>4.4 Set Trusses</td>
</tr>
<tr>
<td>22</td>
<td>4.5 Sheath Roof &amp; Shingle</td>
</tr>
</tbody>
</table>
Sample WBS in MS Project

Project Exercise: Work Breakdown Structure

Instructions:
- brainstorm a list of tasks and subtasks
- although your projects may be very detailed, do not go below Level III; develop at a macro level
- use the Top Down or Bottom Up Approach to develop your WBS
- use the next page to develop your draft
- transfer your final WBS to flipchart paper

Time Limit: 60 minutes
Project Exercise: WBS Form

Module Review

This section covered the following topics:

- activities
- tasks and subtasks
- elements
- Work Breakdown Structure (WBS)
- Top Down WBS
- Bottom Up WBS
- Outline WBS