

## LIS-4190

### Creating a Work Breakdown Structure

#### *Purpose:*

This activity is intended to create a list of tasks required to prepare for the arrival and day activities of your selected public figure. The tasks will be organized in a hierarchical format known as a work breakdown structure (WBS). The WBS that is the result of this activity will be used to create a complete schedule and budget in later activities.

#### *Activity Deliverables & Requirements:*

A WBS detailing the tasks required to 1) prepare for the meet-and-greet and 2) get your public figure where s/he needs to be.

#### *Instructions:*

1. Read the section below on building a work breakdown structure (WBS)
2. Create a list of tasks

#### *Requirements:(these may vary for your REAL project, but follow these for practice)*

1. Include at least 12 tasks in the project.
2. There must be at least two tasks in each of the five project phases (*Initiation, Planning, Execution, Control, and Closure*).
3. Some of the tasks may have been completed previously, but you can still list them.
4. We have to use this WBS as the basis for our plan and will need it to create a detailed schedule, and a budget. Consequently we need a clear, precise system for identifying tasks. There are two relatively clear and distinct "sub-phases" here; the preparation for the meet-and-greet and the "day-of."

#### *Guidelines for Building a Work Breakdown Structure*

The Work Breakdown Structure (WBS) documents the work to be done on a project. Components of the WBS include tasks, dependencies, estimates, durations, milestones, start/end dates, and resources. The WBS is the basis for determining cost, schedule, and work assignments. It is an important component of the project management plan; once completed, it becomes a tool for tracking and reporting your progress. As Project Manager/Lead, you build the WBS, usually with participation from the project team and others, as needed. But before we start with identifying all the tasks it helps to identify the basic structure of the plan. We begin with the five phases of the plan: Initiation, Planning, Executing, Controlling and Closure. There are tasks associated with each of these phases so in the exercise below you will identify those tasks. We can use our WBS to help us.

To begin, we will create a generic structure. This subset of the WBS hierarchy will ultimately look like the following:

## PROJECT EXECUTION

### 1. Meet-and-Greet Planning

#### 1.1 Determine venue

...

### 2. Day of Arrival

#### 2.1 Be at airport with transportation

...

Each section and/or subsection will contain some of the activities you will identify below. In addition there will be other activities in this and other phases. In this activity we will concentrate on identifying the tasks required..

Creating an effective WBS is a challenging process that forces you to think about and plan your project. Your goal is to identify all the tasks that must be accomplished in order to create the deliverables required for your project. The effort you put in to this process will provide great benefits as your project unfolds. After building the WBS, you can then use it to track and report your progress. You can easily see what tasks are complete and what tasks are falling behind schedule. You can also see the work that remains to be done.

There are a number of ways to identify the tasks in a WBS. Following is one method others have found to be effective.

### *Identify the project deliverables*

Using the project charter and any other documents or knowledge you have, identify the project's deliverables and write each one down on a sticky note. Identify each one clearly as a deliverable. Remember a deliverable is "Any unique and verifiable product, result, or capability to perform a service that must be produced to complete a process, phase, or project". For example, "confirming the venue" is a deliverable. Everyone can tell whether it has been completed or not. "Exploring venue options" is not as easy to document and therefore is not a good deliverable (even though you DO have to do it before you purchase the tickets and, thus, you might want to list it as a task).

### *Brainstorm the tasks*

Start with some brainstorming. Your goal at this point is to identify the work effort. Don't worry about the sequence, the level of detail or times and dates. Focus on what needs to be done—not on dates, estimates, resources you will need, or what needs to be done first, last or in the middle. And don't expect to identify the entire project in one pass; it may take several iterations.

Think of the things that you need to do to complete this project. Write each individual item on a separate sticky note. Here are three tasks to get you started:

1. Determine meet-and-greet venue(s)
2. Arrange for travel
3. Visit meet-and-greet venue prior to "day of"

Once you have a collection of sticky notes, start to organize them. Use a wall, a whiteboard, or a desktop, any place where you can spread out and create a visual grouping of your notes.

Organize the work into logical groupings that make sense to you. For example, you might organize by activities – making trip arrangements, preparing to leave, getting to Disney, visiting Disney and going home. Or, you might organize by function (e.g., transportation, accommodations, meals, visiting the parks, relaxing). You can even use Project Initiation, Project Planning, Project Execution, Project Control and Project Closure, if you wish. Try a few different approaches until you find one you are comfortable with. The main reasons you are doing this are to help you think of other tasks and to help you find them easily. In the end we are going to have to organize the project planning tasks and the “day of” tasks a little differently in order to help us build a full plan.

While you are organizing, eliminate any duplicate tasks and tasks that, upon further examination, aren't relevant to your project (e.g., are out of scope, are too detailed, etc. ). In addition start thinking about any of the major activities in the project. These activities are those that produce the major project deliverables that will meet the project goals. As your tasks begin to take shape, additional tasks and work may come to mind. Or, you might decide to split an identified task into two (or more). You can add, remove, and rearrange tasks accordingly. Your goal is to adequately define the scope of the project with these tasks.

### *Creating the Overall Structure of the Project*

The WBS is created within a hierarchical structure. As you move down into the hierarchy, you define more detailed work. Following is an example of a WBS hierarchy with four levels. Your WBS may have more or fewer levels, depending on your project and on standards that may be in place in your area.

Name of Project

1 Initiation

2 Planning

1.1 Activity 2.1

1.1.1 Task 2.1.1

1.1.2 Task 2.1.2

1.2 Activity 2.2

1.2.1 Task 2.2.1

1.2.2 Task 2.2.2

1.2.3 Etc...

3 Execution

4 Control

5 Closure

Start by putting the name of the project and the five standard project Phases (Project Initiation, Project Planning, Project Execution, Project Control, Project Closure) into the Gantt chart. The phases should be subtasks for the project.

Next enter the tasks you identified above.

Consistency is important, particularly if the tool you use to create your WBS allows you to sort, filter, or roll up the tasks; or to view more than one WBS at a time. For example, if your area uses a specified numbering scheme, follow that scheme carefully. Or, if your area uses a specified number of WBS levels (e.g., Stage, Phase, Activity, Task, sub-task, sub-sub-task, etc.) in specific ways, be sure your WBS complies. It will also help you locate task information when you are dealing with a large project.

With a good foundation in place, you should now be ready to bring together your tasks and your structure. Here are the next steps, in practice they can be completed in any order, but for your first effort, we suggest you follow the order described below.

### *Define descriptive tasks*

Open the sample WBS document and look at the innermost level of your WBS – which at this point identifies the project phases. Examine the tasks you have written on sticky notes, determine which of them belong to the project initiation phase. Sometimes this is easy, sometimes it may seem that the tasks fit into two or more phases. In practice, there are rarely particular "right" or "wrong" answers, per se. Pick the one that makes the most sense to you. Once you have identified tasks within Project Initiation, create a new task within the Project Initiation task (create a new task below Project Initiation and then "indent it" within Project Initiation) for each of those tasks that belongs in this phase.

After you have completed the project initiation phase move on to each of the other four phases and place your tasks in those phases.

Each task should contribute to the completion of a deliverable. Since a task on this level denotes work effort, you should define each task to imply action. Most often, you can structure this level of task with a verb followed by an object. For example: "Develop Payroll Report."

Each task description should uniquely state the work that needs to take place. For example, "Plan Transportation" would not be unique in a project where several trips are being developed. However, "Obtain Airline Tickets" has a much better chance of being unique.

Describe each task in measurable terms. Ultimately this will help you know when a task is complete. A measurable task has an associated deliverable so you know when the task is complete. For example, "Obtain Airline Tickets" is a good task description because it is clear that it is done when you have obtained the airline tickets. "Research flight options" is something you have to do, but is not a good description because it is hard to know when you are done.

Minimize the use of "bucket" tasks, e.g., tasks for meetings, documentation, or administration. Bucket tasks are difficult to track because they usually have multiple resources assigned, a large number of hours allocated and no deliverables.

Depending on, for example, the type of project and the experience of your resources, you might want to create a WBS dictionary. This is simply a list of your tasks with a short description of the scope of each. This information can be helpful during the estimating process. It can also, for example, help your resources understand what is expected of them. It is not likely that you will need one here.

### *Establishing dependencies*

Dependencies are the logical relationships between your tasks. For example, does the start date of one task depend on the start or completion date of another? Or, can two tasks be started at the same time? When assigning dependencies be careful not to assign too many dependencies to any one task. We will cover this in much deeper detail when we do actual Gantt Charts, but it is good to practice this a bit now.

### *Adding milestones*

A milestone is a point in time that is usually tied to a deliverable. For example, milestones can be used to mark the completion of deliverables or restrain future work until a deliverable is complete. Milestones do not have durations.

Milestones are added to the WBS after the lowest level tasks have been defined. State your milestone in measurable terms.

Make sure you include the following milestones, though there may be more (these are tasks with no duration that are designated as milestones with the project management software):

1. Secure meet-and-greet venue
2. Retrieve \_\_\_\_\_ from the airport

Finally add any dependencies between the milestones and the tasks.

Once you have added all your dependencies and milestones. Use the checklist below to make sure you are ready to submit your WBS. If you are ready, submit your WBS, but make sure you keep a copy because you will need it later. The next step in building our project plan will be to estimate the time required for each task, to include those estimates in our project plan and modify the calendar for the project. Once the calendar and task times have been included we will have a complete schedule for the project.

### *Completion Checklist:*

1. Have you included the tasks and their predecessors?
2. Did you include all of the required activities?
3. Did you include the required milestones (at least the deliverables and milestones noted above)?
4. Are the tasks described in a way that their completion can be measured?