

Project network

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A project network illustrates the relationships between activities (or tasks) in the project. Showing the activities as nodes or on arrows between event nodes are two main ways to draw those relationships. With activities on arrow (AOA) diagrams, you are limited to showing only the finish-to-start relationships - that is, the arrow can represent only that the activity ps the time from the event at the start of the arrow to the event at the end. As well, " dummy" activities have to be added to show some of the more complex relationships and dependencies between activities.

These diagrams came into use in the 1950's, but are now falling into disuse. Activity on node (AON) diagrams place the activity on the node, and the interconnection arrows illustrate the dependencies between the activities. There are more flexible and can show all of the major types of relationships. Since the activity is on a node, the emphasis (and more data) usually can be placed on the activity. AOA diagrams emphasize the milestones (events); AON networks emphasize the tasks. Introduction to The Nine Project Management Knowledge Areas

Also read about our new agile delivery model called Scrumthat is significantly different than the model below. As a PMP I often get questions about what goes into running a project. I will try to explain in a couple of articles the various components that make up a project. There are several ways to look at a project as a whole. You can view it as a series of processes. Some processes are executed in order and some are recurring processes that are executed at various stages throughout the entire project.

You can also view the project from the different knowledge areas that are needed to execute the project. I will cover the knowledge areas in this article <https://assignbuster.com/project-network/>

and go on to the processes in my next article. There are nine knowledge areas and each one covers its own important part of the project. A knowledge area can cover several phases or process groups of the project. The nine areas are mentioned below in some detail. Integration Management If each little part of the project is a tree, Integration Management is the entire forest.

It focuses on the larger tasks that must be done for the project to work. It is the practice of making certain that every part of the project is coordinated. In Integration Management, the project is started, the project plan is assembled and executed, the work is monitored and verification of the results of the work is performed. As the project ends the project manager also performs the tasks associated with closing the project. A project manager must be very good at Integration Management or the project may very well fail.

Other knowledge areas are also important, but Integration Management is the area that requires the most management and control of the entire project. Scope Management This area involves control of the scope of the project. It involves management of the requirements, details and processes. Changes to the scope should be handled in a structured, procedural, and controlled manner. The goal of scope management is to define the need, set the expectations, deliver to the expectations, manage changes, and minimize surprises and gain acceptance of the project.

Good scope management focuses on making sure that the scope is well defined and communicated very clearly to all stakeholders. It also involves managing the project to limit unnecessary changes. Time

ManagementProject Time Management is concerned with resources, activities, scheduling and schedule management. It involves defining and sequencing activities and estimating the duration and resources needed for each activity. The goal is to build the project schedule subsequently to manage changes and updates to the schedule.

When the schedule is first created, it is often referred to as the time baseline of the project. It is later used to compare updated baselines to the original baseline. Many project managers use software to build and maintain the schedule and baselines. Cost Management This knowledge area includes cost estimating and budgeting. After the cost of the project has been estimated the project management must control the cost and makes changes to the budget as needed. The Project Cost Estimate is dependent on the accuracy of the cost estimate of each activity in the project.

The accuracy changes as the project progresses. For instance, in the initiation of the project the estimate is more difficult to assess than later in the project when the scope and the schedule have been defined in detail.

Quality Management This area is an important area where outputs of different processes are measured against some predetermined acceptable measure. The project manager must create a quality management plan. The quality plan is created early in the project because decisions made about quality can have a significant impact on other decisions about scope, time, cost and risk.

The area also includes quality control and assurance. The main difference between control and assurance is that control looks at specific results to see if they conform to the quality standard, whereas assurance focuses primarily

on the quality process improvement. Human Resource Management This area involves HR planning like roles and responsibilities, project organization, and staff management planning. It also involves assigning staff; assess performance of project team members, and overall management of the project team.

The project manager is the “ Boss” of the project and Human Resource Management is essentially the knowledge area of running the project in relations to the resources assigned to the project. Communications Management This area focuses on keeping the project’s stakeholders properly informed throughout the entire project. Communication is a mixture of formal and informal, written and verbal, but it is always proactive and thorough. The project manager must distribute accurate project information in a timely manner to the correct audience.

It involves creating a communications plan that explains what kind of information should be communicated on a regular basis and who should receive it. It includes project performance reporting to stakeholders so everyone is on the same page of the project progress, for example, what is outstanding, what is late, and what risks are left to worry about, etc. Risk Management This involves planning how to handle risks to the project. Specifically the project manager must identify risks and also plan how to respond to the risks if they occur.

Risk has two characteristics: Risk is related to an uncertain event, and a risk may affect the project for good or for bad. When risks are assessed, the project manager usually has to assess several things: How likely will the risk happen, how will it affect the project if it happens, and how much will it cost

if it happens? The project manager will use a lot of risk analysis tools and techniques to answer these questions. Procurement Management This area focuses on a set of processes performed to obtain goods or services from an outside organization.

The project manager plans purchases and acquisitions of products and services that can't be provided by the project manager's own organization. It includes preparing procurement documents, requesting vendor responses, selecting the vendors, and creating and administering contracts with each outside vendor. As you can see there are many knowledge areas that a project manager must excel at. Even though some areas are more important than others, each area must be executed with care and professionalism in order for any project to be successful.

Work Breakdown Structure, WBS Chart and Project Management WBS Work Breakdown Structure, WBS, Term Definition Work breakdown structure, WBS, is a project management technique initially developed by the US Defense Establishment, which deconstructs a project with the intent to identify the deliverables required to complete the project. The project management work breakdown structure, WBS, is utilized at the beginning of the project to define the scope, estimate costs and organize Gantt schedules.

Work breakdown structure, WBS, captures all the elements of a project in an organized fashion. Breaking down large, complex projects into smaller project pieces provides a better framework for organizing and managing the project. WBS can facilitate resource allocation, task assignment, responsibilities, measurement and control of the project. The project management work breakdown structure, WBS, is utilized at the beginning of

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the project to define the scope, estimate costs and organize Gantt schedules.

When creating a WBS, the project manager defines the key objectives first and then identifies the tasks required to reach those goals. A WBS takes the form of a tree diagram with the "trunk" at the top and the "branches" below. The primary requirement or objective is shown at the top, with increasingly specific details shown as the observer reads down. When completed, a well-structured WBS resembles a flowchart in which all elements are logically connected, redundancy is avoided and no critical elements are left out. Elements can be rendered as plain text or as text within boxes.

The elements at the bottom of the diagram represent tasks small enough to be easily understood and carried out. Interactions are shown as lines connecting the elements. A change in one of the critical elements may affect one or more of the others. If necessary, these lines can include arrowheads to indicate time progression or cause-and-effect. A well-organized, detailed WBS can assist key personnel in the effective allocation of resources, project budgeting, procurement management, scheduling, quality assurance, quality control, risk management, product delivery and service oriented management.

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