Basic network terminology

4. Only the basic elements of networks are covered to start with, other more complex features are introduced as required in later chapters.

Activity

This is a task or job of work which takes time and resources e.g. Build a Wall, Verify the debtors in a sales ledger, Dig foundations etc. An activity is represented in a network by an arrow thus:

The head of the arrow indicates where the task ends and the tail where the tasks begins. The arrow points from left to right but is ***not*** drawn to scale. An essential preliminary to the use of network analysis is establishing.

a) what activities are involved in the project.

b) their logical relationship e.g. the activity of Building a Wall must take place after the activity, Dig Foundations.

c) an estimate of the time the activity is expected to take. Note that the basic time estimate is always necessary but in addition other estimates of times, costs, resources, probabilities etc may also be required. These other factors are dealt with later.

Event

This is a point in time and indicates the start or finish of an activity, or activities, e.g. Wall built, Debtors verified, Foundations Dug etc. An event is represented in a network by a *circle* or node thus:

It will be noted that the establishment of activities automatically determines events because they are the start and finish of activities and represent the achievement of a specific stage of a project.

Dummy activity

This is an activity which does not consume time or resources. It is used merely to show clear, logical dependencies between activities so as not to violate the rules for drawing networks. It is represented on a network by a ***dotted arrow*** thus:

Note that dummy activities are not usually listed with the real activities but become necessary as the network is drawn. Dummy activity examples are given after the rules for drawing networks have been discussed.

Network

This is the combination of activities, dummy activities and events in logical sequence according to the rules for drawing networks. Thus a small network might appear as follows: