

**“Project Management Using Earned Value”
Case Study Solution 9.5**



9.5

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Path Analysis Using Total Float

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1. The most important paths on which management should concentrate their attention, if the criterion of Least Float is used, varies from week to week. This is typical, since concentration on the most critical activities paths often results in their improvement while other activities lose float and become more critical. The most critical paths for each week were:

Week 1	Week 2	Week 3	Week 4
--	--	11-1	11-1
11-2	11-2	11-2	11-2
26-1	26-1	--	--
--	27-1	27-1	--
32-1	--	--	--
--	32-2(tie)	--	--
--	43-1(tie)	--	--
43-2	--	43-2	43-2

The table has been arranged to facilitate tracking the paths week-to-week. A total of eight paths were chosen over the four-week period and they occur in different patterns.

Other paths may have been chosen, however, using the criteria of change in float. That change might be large in one period, or a gradual change over time.

2. Total float could change for a variety of reasons. The primary reason Total Float is lost is a failure to work the activities as planned (durations too optimistic, lack of resources, concentration away from less critical paths, etc.). But Total Float on the current schedule may change more than five days (the work days in a normal work week) in one week for three major reasons:

- a. Changes in remaining durations.
- b. Addition or deletion of activities.
- c. Changes in logic.

These changes may occur on the path in question or on parallel or preceding paths. Often managers are forced to live with reduced float on their sections of the project when other areas of the project change outside their sphere of influence.