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# Software Analysis for Conditional and Exit statements in Acyclic graph

***Abstract:***
In this creative component study, code was added to a Software Analysis tool that is implemented in Java language. The additional code reads 400 configuration graphs, analyzes each graph if they are cyclic or acyclic and calculates the total number of execution paths, total number of exits and the number of returns out of those exit paths. An execution path can be seen as each software execution route from START node to END node in all cases of existence or non-existence of conditions irrespective of entry value to the conditional statements. Exit path(s) can be seen as the number of immediate parent node(s) of END node executed in the program. Out of the exit paths the number of paths that uses return values to transfer control back to the main program can be seen as the total number of returns to the END node