

Integrated Management of Building Subcontractors

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Some building construction firms fulfill their contracts using mainly subcontractors for the different project tasks. These firms depend heavily on an adequate management of the subcontracts and several methods have been tested and researched. The increased availability of computers and of sophisticated software have recently created new approaches to subcontractor management.

Building housing projects have typical characteristics that make them suitable for computerized management. An experience was implemented in a building construction firm for the integrated management of housing subcontractors. The package is composed of three parts composed of devoted software and commercial programs. The first part deals with the choice of the subcontractor, the second part plans the subproject and third is dedicated to the subproject control.

Subcontractors invited to bid are chosen from a pool where their performances on previous projects have been recorded. The choice is made after a computerized simulation is performed to assess the reliability of the proposal. The factors weighted are cost, quality and duration combined to obtain an unique index.

The second part of the integrated management package is the project and related subprojects planning. This planning is made using a commercial program. The tasks duration, manpower and resources are defined by the main contractor and subcontractors. During this phase the results about the subcontractors expected performance are also considered.

Control of the project execution is crucial and probably the main reason why this package was elaborated. The time and expertise required by the main contractor control staff are the two main obstacles to an adequate subcontractor proper management. Consequently, a friendly computer program was created. It is based on a mixture of ruled based programming and object oriented programming. These characteristics allow its use by computer unexperienced technicians and fast data analysis.