Project Resource Estimates

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Why, What, & When?

➤ Why do we estimate?
  • To determine feasibility
  • To support control
  • To develop understanding

➤ What do we estimate?
  • Resources — how much
  • Durations — how long

➤ When do we estimate?
  • Daily, weekly, monthly, annually

What Is a (Good) Estimate?

A prediction of future results that is:

➤ Accurate (if not precise)

➤ Defensible (but not guaranteed)

A Difference of Opinion ...

173,293 hours of effort
116,398
79,303
...
41,545
35,600
Pressure ... Under Pressure

Start

No History

No Time to Track

Job Pressure

Poor Estimate

Constant Revisions

Belief

Start

User Pressure

S.T.E.P.wise Estimating

Project

Task

S cope
T echnique
E ffort
P eriod

With Following Characteristics:

- Detail to estimate (directly comparable experience)
- Well-defined completion criteria (quality requirements)

Work Breakdown Structure

Project

Project Mgmt

Deliv’ble Deliv’ble

Deliv’ble Deliv’ble

Process Process Process

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Good Assumptions?

- Estimate is mean of normal distribution
- Overs and unders will net out over time

Need Consistent Units for Labor

- Resource estimates and actual costs should be in the same units to minimize distortion
- Units may be affected by:
  - Availability (% of week devoted to project)
  - Productivity (% of day devoted to projects)
  - Individual variations (start and stop time, skill level)