

COCOMO

System Type = Organic (c = 2.4, k = 1.05)
Size = KLOC (1000 lines of code) = 8

Effort = c x size^k
= 2.4 x 8^1.05
= **21.30 person months**

COCOMO II

Person months = A(size)^(sf) x (em1) x (em2) x (em3)

A = 2.94
Size = KLOC (1000 lines of code) = 8
Sf = scale factor
Em = effort multiplier

There are no examples of an existing system that we can reference to during development
PREC = 6.20 [Very Low]

Our requirements are not greatly strict, we decide with client on what is required.
FLEX = 2.03 [High]

We have a low level of certainty regarding requirements.
RESL = 5.65 [Low]

Team is working as normal
TEAM = 3.29 [Nominal]

Our software processes are below average level of formality.
PMAT = 6.24 [Low]

Scale Factor = B + 0.01 x ∑ scale factor values
= 0.91 + 0.01 x (6.20 + 2.03 + 5.65 + 3.29 + 6.24)
= 1.1441

Estimated effort = A x size^(sf)
= 2.94 x 8^(1.1441)
= 31.73 person months

RCPX = Product Reliability and Complexity
= 1.33 [High]

RUSE = Reuse Required
= 1.07 [High]

PDIF = Platform Difficulty
= 1 [Nominal]

PERS = Personnel Capability
= 0.50 [Extra High] (they're developers)

FCIL = Facilities Available
= 0.73 [Very High] (very available at uni, however travel for some members hinders accessibility)

SCED = Schedule Pressure
= 1 [Very High]

Adjusted Estimated Effort = 31.73 x 1.33 x 1.07 x 0.50 x 0.73
= **16.48 person months**

Albrecht

ILF: 2 (1 medium, 1 high) [25]
EIF: 1 (1 low) [5]
EI: 6 (3 low, 3 medium) [21]
EO: 1 (1 low) [4]
EQ: 3 (1 low, 1 medium, 1 high) [13]
= [68]

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|--------------------------------|---|-----|
| 1. Data Communications | = | 7 |
| 2. Distributed Data Processing | = | 8 |
| 3. Performance | = | 7 |
| 4. Heavily Used Configuration | = | 8 |
| 5. Transaction Role | = | 2 |
| 6. Online Data Entry | = | 5 |
| 7. End-User Efficiency | = | 9 |
| 8. Online Update | = | 7 |
| 9. Complex Processing | = | 6 |
| 10. Reusability | = | 8 |
| 11. Installation Ease | = | 8 |
| 12. Operational Ease | = | 9 |
| 13. Multiple Sites | = | 3 |
| 13. Facilitate Change | = | 8 |
| Total Degree of Influence | = | 95 |
| Value Adjustment Factor | = | 1.6 |

VAF = TDI x 0.01 + 0.65
= 1.6

FP = 68 x 1.6
= 108.8

