Name Alex Lundin

Class SE 4381.OU1 Project Management

Assignment Homework #2

COCOMO II

See pages 2 and 3 for mathematical work and rational for value choices.

|  |  |  |  |
| --- | --- | --- | --- |
| Effort Multipliers | |  |  |
| EM | Description | Category | Value |
| RELY | required software reliability |  | 1.26 |
| DATA | database size |  | 1 |
| CPLX | product complexity |  | 1 |
| RUSE | develop for reuse |  | 1.15 |
| DOCU | documentation match to LC needs |  | 1 |
| TIME | time constraint |  | 1 |
| STOR | storage constraint |  | 1 |
| PVOL | platform volatility |  | 1 |
| ACAP | analyst capability |  | 1 |
| PCAP | programmer capability |  | 1 |
| APEX | applications experience |  | 1 |
| PLEX | platform experience |  | 1 |
| LTEX | language and tool experience |  | 1 |
| PCON | personnel continuity |  | 1 |
| TOOL | use of software tools |  | 1 |
| SITE | multi-site development |  | 0.86 |
| SCED | required development schedule |  | 1 |
|  |  |  |  |
| Scaling Factors | | | |
| SF | Description Category Value |  |  |
| PREC | precedentedness |  | 3.72 |
| FLEX | development flexibility |  | 3.04 |
| RESL | architecture and risk resolution |  | 4.24 |
| TEAM | team cohesion |  | 1.1 |
| PMAT | process maturity |  | 1.56 |

**Equations**

**Person\_months = A \* (Size ^ E) \* Π (EMi)**

A = 2.94 (can be calibrated)

Person\_months = 288

**TDEV**

TDEV = C \* [PMNS ^ (D + 0.2 \* <E – B>)] \* SCED% / 100

20.8

See excel sheet for mathematical work

**Rational**

Effort Multipliers

RELY required software reliability, life critical system, so very high which is the highest for this multiplier

DATA database size, no information given, nominal value

CPLX product complexity, no information given, this system seems straightforward, nominal value

RUSE develop for reuse, this is the third product in the series, so this will probably be reused, High value

DOCU documentation match to LC needs, no information given, nominal value

TIME time constraint, no information given, nominal value

STOR storage constraint, no information given, nominal value

PVOL platform volatility, no information given, nominal value

ACAP analyst capability, no information given, nominal value

PCAP programmer capability, no information given, nominal value

APEX applications experience, no information given, nominal value

PLEX platform experience, no information given, nominal value

LTEX language and tool experience, no information given, nominal value

PCON personnel continuity, no information given, nominal value

TOOL use of software tools, no information given, nominal value

SITE multi-site development, there is a virtual team, high value

SCED required development schedule, no information given, nominal value

Scaling Factors

PREC precedentedness, no information given, nominal value

FLEX development flexibility, no information given, nominal value

RESL architecture and risk resolution, no information given, nominal value

TEAM team cohesion, advanced team, high value

PMAT process maturity, CMM Level 4, highest value