**3. COST ESTIMATION MODELS**

* Software development efforts estimation is the process of predicating the most reside use

Of project use of effort required to develop or maintain software based on incomplete an

Cretin and for noisy input

* Efforts estimation may be used as input to project plan information plan, budgets,

Investment analysis, pricing process and binding rounders

MODELS OF COST ESTIMATION:

1. SDM-software development model

2. SLIM-software life cycle management

3. COCOMO-constructive cost model

4. COCOMO - COCOMO next version

5. COPMO-Cooperative programming model

ORGANIC, SEMIDATOCHADAND EMBEDDED SOFTWARE PROJECT:

Boehm postulated that any software development project can be classified info one the

Following there categories based on the development complexity

There are four steps that the used needs to flow, which are,

STEP 1: The user should fill the info domain table in which he\she can get the count total

(cct) which will be used in the FP equation the information domain is defined in the following

Manner

NUMBER OF USER INPUTS:

Each user inputs that provides distinct application oriented dates to the software is

Counted inputs should be distinguished from inquires which are counted separately

NUMBER OF USER OUTPUTS:

Each user output that provides distinct application oriented information to the user is

counted. In this context output refers to repots, screens, errors message and so on. Individual data

items with in a report are not counted.

NUMBER OF FILES:

Each logical master file ( i.e., a, logical grouping of data that may be one part large

database or a separate, file) is counted

NUMBER OF USER INTERFACE:

* All machine readable interface that are used to a transmit info to another system are

counted

* Once the above dates have been collected a complexity value is associated with each out,

once all the information are entered the count total (CT) is calculated

STEP 2: The end user calculate the "complexities adjustment values" (pi where I=1to14).

The user will give a value between 0 to 5

Once step 1 and step2 are calculated then there and user calculated the function

Points (FP) which is

FP=CT (0.65+0.01 \*SFD)

STEP 3: The end user should select a programming languages from the table found in

step 3 on the main Page that provide a rough estimates of average, number of

Lines of code requirement to build one function once the programming

Languages is selected then the end can calculate the line of code (LOC)

STEP 4: This is the find step of the basic COCOMO model the end user has to selected

One sof (3) types of models which are organic semidetached and embedded

ORGANIC MODE:

Relatives small, simple software project in which a small team with good application

experience work to a set of the equations for the Effort (E) and Development time (D) for this

model are:

E=2.4 (K LOC)^ 1.05

D=2.5\*(E) ^0.38

ENABELLED MODE:

Software project then be development with a set of light hardware, software and

operational constraints the equation for the efforts (E) and development time (D) for this model

for:

E=2.4\*(K LOC) ^1.05

D=2.5\*(E)^0.38

Once the end user selects his her model he\she calculates the (E) efforts and (D)

development time 2.Links (TOP)

CONSTRUCTIVE COST MODEL (COCOMO):

Used to predict of a project from measure of size (lines of code) basic model

specification

Basic Model is

Effort Project Specification Factors

E=a<b

Lines of code

Modelling process:

* Establish type of project(organic, semidetached, Embedded)
* This gives sets of values for a and b
* Identify the component modules and estimate L for each model

❖ Adjust has a model for adjusting

* COCOMO has a model for adjusting to how much design code integration dates is

resumed

* Compute efforts for each module using E=a<b adjust E according to difficulty of the

project

* COCOMO identifies 15 efforts multiple case to take in to account

PRODUCT ATTRIBUTES:

EG: Required reliability, complexity data base size

COMPUTER ATTRIBUTES:

EG: Execution time constraints storage constraints, storage constraints, etc.

PERSONAL ATTRIBUTES:

EG: Capability & Experience of analysis and programmers

Compute time using T-CED

C and d provided for different project types like a and b were

RESULT:

Thus the program was execute successfully