

Name:.....

ID:.....

### Exercise 1: Estimation for Project A

Description:

Calculate UFP

Function Type	Estimated Count	Weight	FP-Count
EI	24	(Average) 4	96
EO	16	(Average) 5	80
EQ	22	(Average) 4	88
ILF	4	(Average) 10	40
ELF	2	(Average) 7	14
<b>UFP count</b>			<b>318</b>

### Exercise 2: Estimation for Project B

Description:

#### **External Inputs**

Data Stream

#### **Complexity**

High

Configuration files

Low

User Selection

Medium

User Input

Low

#### **External Output**

Telemetry Data1 screen

#### **Complexity**

Medium

Telemetry timing screen

Low

Telemetry Data2 Screen

Medium

Status Screen

Medium

#### **Internal Logical Files**

Storage file

#### **Complexity**

Medium

Intermediate buffer

High

Intermediate Result

Low

Channel Files

Low

#### **External Interface Files**

#### **Complexity**

External Interface for Data2

Low

### External Queries

Not Any.

1. Data Communications	<u>2</u>
2. Distributed Data Processing	<u>0</u>
3. Performance	<u>5</u>
4. Heavily Used Configuration	<u>5</u>
5. Transaction Rate	<u>2</u>
6. Online Data Entry	<u>4</u>
7. End-User Efficiency	<u>3</u>
8. Online Update	<u>5</u>
9. Complex Processing	<u>4</u>
10. Reusability	<u>5</u>
11. Installation Ease	<u>4</u>
12. Operational Ease	<u>3</u>
13. Multiple Sites	<u>4</u>
14. Facilitate Change	<u>5</u>

Calculate UFP, FP

Parameters	Low	Medium	High
External Inputs	$2*3=6$	$1*4=4$	$1*6=6$
External Outputs	$1*4=4$	$3*5=15$	$0*7=0$
External Queries	$0*3=0$	$0*4=0$	$0*6=0$
Internal Logical Files	$2*7=14$	$1*10=10$	$1*15=15$
External Interface Files	$1*5=5$	$0*7=0$	$0*10=0$

$$UFP = 16 + 19 + 0 + 39 + 5 = 79$$

$$CAF = 0.65 + 0.01*51 = 1.16$$

$$FP = UP * CAF = 79 * 1.16 = 91,64$$

#### Exercise 4: Estimation for Project D

Calculate the function score value for a project with the information field characteristic as follows:

- Input: 32
- Output: 60
- Inquiry: 24
- Logical file: 8
- External interface: 27

Assume all complexity adjustment values are average. Calculate the feature point value under the same conditions.

Calculate FP

$$FP = UFP * CAF.$$

$$UFP = 32*4 + 60*5 + 24*4 + 8*10 + 27*7 = 793$$

$$CAF = (0.65 + 0.01*(14*3)) = 1.07$$

$$FP = 793 * 1.07 = 848,51$$

Exercise 4: Based on the functional score in Exercise 3, calculate the conductivity measures:

- Productivity
- Quality
- Cost
- Data

Of which: person = 12, month = 4, number of errors = 1000, total cost = \$ 150,000,000, number of data pages = 200.

$$\text{Productivity} = FP / (\text{Person} * \text{month}) = 848,51/(12*4) = 17,678.$$

$$\text{Quality} = \text{number of errors} / FP = 1000/ 848,51 = 1.18$$

$$\text{Cost} = \text{total cost} / FP = 150.000.000/848,51 = 176.780,5$$

$$\text{Data} = \text{number of data pages} / FP = 200/ 848,51 = 0.2356$$

Exercise 6:

Assuming:

Estimated FP = 401

Organisation average productivity (similar project type) = 6.5 FP/p-m (person-month)

Burdened labour rate = 8000 \$/p-m

Then

Estimated effort = ?

Cost per FP = ?

Project cost = ?

$$\text{Estimated effort} = 401/6.5 = (61.65) = 62 \text{ p-m}$$

$$\text{Cost per FP} = 8000/6.5 = 1231 \$/\text{FP}$$

$$\text{Project cost} = 8000 * 62 = 496000 \$$$