

## Function Point Analysis

Functional → 5

Non – Functional → 14

[ 3 inputs (simple) / 5 ( complex)

$$3 \times 3 + 5 \times 6 = 39 \text{ (UFP for user input)}$$

| UFP = summation ( count x weight)

Functional -> Complexity Weight (Low, Medium, High )

Pre defined weights for each characteristic (functional) i.e. for each category.

External

Step 2 Summation of each factor UFP gives you the total value of UFP

Step 3 : Calculate the VAF ( by this formula)

$$\text{VAF} = [0.65 + 0.01 \times 42]$$

Ci = 14 questions answers (on scale of 0 -5)

0 -> No Influence

1 -> Incidental

2 = Moderate

3 Average

4 Significant

5 Essential

$$3 \times 14 = 42$$

All the factors for non functional requirement are significant except 2 which are average and one which is moderate

$$11 \times 4 = 44$$

$$2 \times 3 = 6$$

$$1 \times 2 = 2$$

$$52 \text{ Ci } [$$

$$\text{VAF} = [ 0.65 + 0.01 (\text{Ci})$$

$$\text{F.P} = \text{UFP} \times \text{VAF}$$

A given project has **5 user inputs**, **10 user outputs**, **7 inquiries**, **5 files** and **3 external interfaces**. All of these are average complexity except 2 of the inputs are complex 2 of the outputs are complex and one of the outputs is simple. Adjustment factor are all **moderate** except that system will require a **significant** amount of the online data entry and it is **essential** that the code is designed with reuse. Calculate the Function Point for the system

**TABLE 1: Function point complexity weights.**

Measurement parameter	Weighting factor		
	Simple	Average	Complex
Number of user inputs <b>5</b>	3	4	6
Number of user outputs <b>10</b>	4	5	7
Number of user inquiries <b>7</b>	3	4	6
Number of files <b>5</b>	7	10	15
Number of external interfaces <b>3</b>	5	7	10

$$UI = (2 \times 6) + (3 \times 4) = 24$$

$$UO = (2 \times 7) + (4) + 7 \times 5 = 53$$

$$\text{Inquiry} = 7 \times 4 = 28$$

$$\text{Files} = 10 \times 5 = 50$$

$$EI = 3 \times 7 = 21$$

$$UFP = 176$$

$$Ci = 12 \times 2 + 1 \times 4 + 1 \times 5 = 33$$

$$VAF = [0.65 + 0.01 \times 33]$$

$$VAF = 0.98$$

$$\mathbf{F.P = 0.98 \times 176 = 172.48}$$

