

# An Example

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>

# An Example (Cont'd)

$$\text{VAF} = 52 * 0.01 + 0.65$$

$$= 1.17$$

$$\text{FP}_{\text{estimated}} = 318 \times 1.17$$

$$= 372$$

General System Characteristics (GSCs)	Degree of Influence (DI) 0 - 5
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>
Total Degree of Influence (TDI)	<u>52</u>
Value Adjustment Factor (VAF)	<u>1.17</u>

# Problems of FPA

- FPA has been criticized as not being universally applicable to all types of software.
  - For example, FPA doesn't capture all functional characteristics of real-time software

# Problems of FPA (Con'd)

- FP metrics are derived from a set of steps, rules and formulas. So they are algorithmic metrics and so, have these problems:
  - Algorithmic metrics are difficult to interpret and the reasons for the assignments of specific weights are not clear

# Problems of FPA (Con'd)

- The value of the output of the formula is useful only if the formula is based on a solid theory such as physics, but this is not the case for FP
- The FP definition itself, has not been clarified and has generated some confusion among both practitioners and academics
- What is a metric if it is only a number?

# Other Variants of FPA

- FP was originally designed to be applied to business information systems applications.
  - So, the data dimension was emphasized.
    - So, FPA was inadequate for many engineering and embedded systems.

# Other Variants of FPA (Cont'd)

- ***Feature Point***

- Is a superset of FP
- Suitable for real-time, process-control and embedded software applications tend to have high algorithmic complexity
- This method counts a new software characteristics: "*algorithms*"