

# Fast Track FP Sizing for Enterprise Solution Packaged Applications

>  
**accenture**

*High performance. Delivered.*

**ISMA 2011**

**Presenter: Pradip Naik**

**Accenture LLP**

**Suite 500, 1400, 16h Street,  
Denver, CO - 80202**





## Presenting

- Objective of Sizing (Estimation, Productivity Analysis, Baselining) and Guidelines on when, what, how to count?
- Configuration and Customization – Key differences!
- Standard Components of Enterprise Solution Packaged Applications
- How to Size & What to consider for Estimation & Productivity Analysis
- Fast Track Counting Approaches
- Few Limitations/Challenges
  
- Target Audience
  - Professionals & Project Managers having Intermediate to Advance understanding of IFPUG CPM
  - Productivity Analysts/Professionals



| Objective:  | Estimation                             | Productivity Analysis                |
|---|--|--------------------------------------|
| <b>Type of Function Point</b>                       | Development and/or Enhancements        | Application                          |
| <b>When to Perform: Project Lifecycle</b>           | Proposal stage of project              | End of project / Post Deployment     |
| <b>When to Perform: Project SDLC Phases</b>         | Start of each/applicable of SDLC phase | End of each/applicable SLDC phase    |
| <b>Function Point Counting Approach</b>             | Mostly Approximation                   | Detailed Function Point Counting     |
| <b>Identification of Reused Function Point Size</b> | Must be identified                     | Only if Client/Customer requests for |



| Configuration   | Customization   |
|---|---|
| Use of Standard Functionality 'AS IS'   | Create New or Modify/Enhance the Standard Application Functionality   |
| Functionality than can be Enabled or Disabled with Admin tool                                       | Functionality that need to be written with new code or code modification  |
| Global Roll-outs can comprise of both Configuration and/or Customization                            | Localization would always have customization  |
| Implementation Efforts contribute to only Enablement/Disablement, Testing and Deployment activities | Implementation Efforts contribute to ALL SDLC phases (Analysis, Design, Build/Code, Test and Deployment)  |
| Detailed Function Point size can be made available at any SDLC phase including 'Proposal' phase     | Function Point size can only be approximated till 'Proposal' phase and then detailed count/size can be made available in all subsequent SDLC phases |



## Components to Size:

- Core and/or Vanilla Implementation
- Configuration Functionality
- Customization Functionality
- Roll-Outs
- RICEFW
  - Reports
  - Interfaces (Inbound & Outbound)
  - Conversions
  - Extensions/Enhancements
  - Forms/SmartForms
  - Workflows
- Business Processes



| How to Size   | Estimation   | Productivity Analysis  |
|---|--|--|
| <b>Configuration Functionality</b>                    | Approximate the Size or based on in-house exercise develop Function Point Size for each configurable functionality | Based on in-house exercise develop Function Point Size for each configurable functionality                               |
| <b>Customized Functionality</b>                       | Approximate Function Point size separated as New Development & Reused functionality                                | Detailed Function Point size. Separated only in case requested by Client/Customer  |
| <b>How to Perform during Project Lifecycle</b>        | Mostly Approximation but can be detailed Function Point size if details available                                  | Detailed Function Point size at the end of project   |
| <b>How to Perform during each Project SDLC Phases</b> | Approximation till Requirements Gathering/Analysis phase, and later Detailed Function Point counting               | Normally initiated after Requirements Gathering/Analysis phase and thus would always be Detailed Function Point counting |



| Common Terms & Components                 | FP Association/Correlation   |
|---|--|
| <b>Core and/or Vanilla Implementation</b> | This would contribute to all 5 components of Function Point Analysis – EI, EO, EQ, ILF and EIF (Integration between modules)                         |
| <b>Configuration</b>                      | This would contribute to all 5 components of Function Point Analysis – EI, EO, EQ, ILF and EIF (assumed that legacy system interactions is in scope) |
| <b>Customization</b>                      | Based on each RICEFW component it would relate to each of the 5 Function Point components – EI, EO, EQ, ILF and EIF                                  |
| <b>Roll-Outs</b>                          | Roll-outs are majorly contributing to enhancement function points and would contribute to all 5 Function Point components – EI, EO, EQ, ILF and EIF  |



| Common Terms & Components | FP Association/Correlation   |
|---------------------------|--|
| <b>RICEFW</b>             | <p>These are required to be understood separately based on the nature of each component/category.</p> <ul style="list-style-type: none"> <li>● Reports: Qualifies as EO or EQ</li> <li>● Interfaces: Primarily there are 2 types – Inbound &amp; Outbound               <ul style="list-style-type: none"> <li>○ Inbound Interfaces map with EI or EIF (based on applicable scenarios listed in IFPUG Manual)</li> <li>○ Outbound Interfaces map with EO/EQ or ILF (based on applicable scenarios listed in IFPUG Manual)</li> </ul> </li> <li>● Conversions: Normally contribute to EIF</li> <li>● Extensions/Enhancements: Qualify for EO most often and can be EQ</li> <li>● Forms: Qualifies for EO or EQs</li> <li>● Workflow: Mostly these functionalities get covered by individual business processes</li> </ul> |
| <b>Business Processes</b> | <p>These would be classified as Transaction Functions – EI, EO and/or EQ</p>   |





| Scenario   | Estimation  | Productivity   |
|--|---|--|
| <b>No In-House Configuration</b><br><b>FP size available</b> | <ul style="list-style-type: none"> <li>•Identify Transaction Functions to each activity</li> <li>•Assign 1 ILF to each EI</li> <li>•Consider each report as EO</li> <li>•Approximate size using 'Average' Complexity</li> </ul> | <ul style="list-style-type: none"> <li>•Refer to Application and identify transaction &amp; data function</li> <li>•Apply applicable complexity in stead of 'Average'</li> </ul> |
| <b>Configuration</b><br><b>FP size</b>                       | <ul style="list-style-type: none"> <li>•Contribute to Configuration, Testing &amp; Deployment phase</li> <li>•Apply % to arrive with 'Effective FP Size'</li> </ul>   | <ul style="list-style-type: none"> <li>•Contribute to All the SDLC phases</li> <li>•Apply % to arrive 'Effective Efforts'</li> </ul>   |
| <b>Customization: Reports</b>                                | <ul style="list-style-type: none"> <li>•Consider EQ if details available else EO always</li> <li>•Assume 'Average' complexity if no details</li> </ul>  | <ul style="list-style-type: none"> <li>•Identify EQ &amp; EO separately</li> <li>•Apply appropriate complexity</li> </ul>  |
| <b>Customization: Inbound Interfaces</b>                     | <ul style="list-style-type: none"> <li>•If Transaction Data (Add/Change/Delete) then 1 EI &amp; 1 ILF, else 1 EIF</li> <li>•Assume 1 EI + 1 ILF with 'Average' complexity f no details available</li> </ul>                     | <ul style="list-style-type: none"> <li>•Identify applicable IFPUG scenarios and identify transaction &amp; data functions</li> <li>•Assign appropriate complexity</li> </ul>     |



| Scenario                                  | Estimation   | Productivity   |
|---|--|--|
| <b>Customization: Outbound Interfaces</b> | <ul style="list-style-type: none"> <li>•If Transaction Data (Add/Change/Delete) then 1 EO &amp; 1 ILF, else 1 ILF</li> <li>•Assume 1 EO + 1 ILF with 'Average' complexity if no details available</li> </ul> | <ul style="list-style-type: none"> <li>•Identify applicable IFPUG scenarios and identify transaction &amp; data functions</li> <li>•Assign appropriate complexity</li> </ul> |
| <b>Customization: Conversion</b>          | <ul style="list-style-type: none"> <li>•Assume 1 EIF with 'Average' complexity if no details available</li> </ul>  | <ul style="list-style-type: none"> <li>•1 EIF with applicable complexity</li> </ul>  |
| <b>Customization: Extensions</b>          | <ul style="list-style-type: none"> <li>•Reused FP – Applicable Transaction with 'Average' complexity if no details available</li> </ul>  | <ul style="list-style-type: none"> <li>•Applicable Transaction with applicable complexity</li> </ul>   |
| <b>Customization: Forms</b>               | <ul style="list-style-type: none"> <li>•Consider EQ if details available else EO always</li> <li>•Assume 'Average' complexity if no details</li> </ul>   | <ul style="list-style-type: none"> <li>•Identify EQ &amp; EO separately</li> <li>•Apply appropriate complexity</li> </ul>  |
| <b>Workflows</b>                          | <ul style="list-style-type: none"> <li>•Normally covered by individual process</li> </ul>  | <ul style="list-style-type: none"> <li>•Normally covered by individual process</li> </ul>  |



- Application Boundary identification as it can be defined either at application level or at module level
  - Recommending considering each module as a separate application
- Identification of ‘USER’ – The end user identification can be challenging based on nature of application. The users can be other modules or other applications.
  - Recommending considering each module as separate application and thus each module would be considered as a user.
- Applicable scenarios from CPM as well as Transaction & Data Functions for Configured Functionality
  - Requesting IFPUG to help address this either by releasing configurable activity-wise Function Point count for each of the currently available Enterprise Solution Packaged Applications



- References:
  - Work Experience
  - IFPUG Counting Practice Manual
  
- Glossary:
  - IFPUG - International Function Point User's Group
  - FP - Function Point
  - ILF – Internal Logical File
  - EIF – External Interface File
  - EI – External Input
  - EO – External Output
  - EQ – External Inquiry
  - CPM – Counting Practices Manual
  - SDLC – Software Development Life Cycle



- Pradip Naik ([pradip.m.naik@accenture.com](mailto:pradip.m.naik@accenture.com))

- Education:

- Masters Degree in ‘Accounting & Auditing’
- Certified Function Point Specialist (CFPS)
- Certified in ‘BusinessObjects Web Intelligence XI 3.0’
- Certified in ‘Oracle 9i DBA’



- Work Experience:

- 10 years (7.5 years in IT – Techno-Functional Specialist)
- With Accenture for last 5 years
- Function Point Specialist for last 2 years with Sizing & Productivity Baselining
- Last 1 year as Parametric Estimation Expert



Questions ??