



The relevance of Function Points and CFPS in critical projects

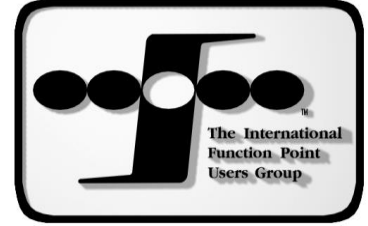
Christine Green



A bit about IFPUG & me



Current President Elect (Vice President) of
the International Function Points Users Group (IFPUG)
See more at www.ifpug.org



IFPUG is a non-profit, member governed organization that is dedicated to standard methodology for software sizing as well as utilization of methods using IFPUG Sizing Standards.

Thanks to all members, volunteers and advocates of IFPUG in this room.

Owner of IP_{by}Green – a Danish consultancy company

- Current assignment as Program/Project Manager for a critical program within Healthcare industry

See more at www.ipbygreen.com

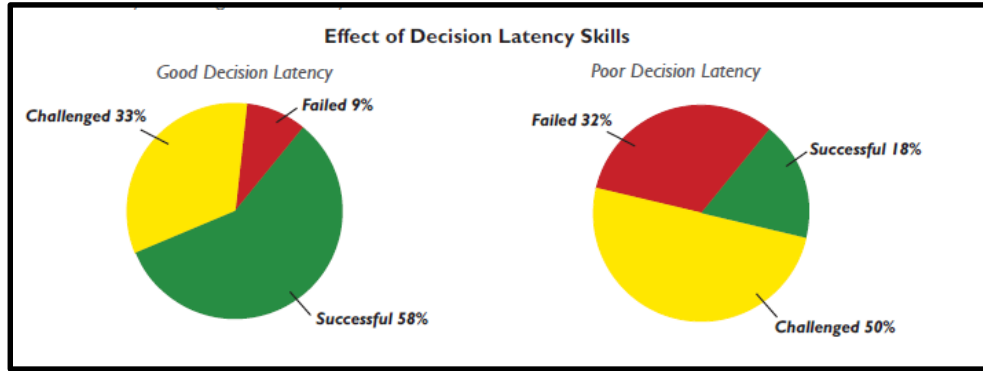


So what is a critical project?

- Strategic to Business
 - High business impact
 - Strategic to leadership
 - Strategic to the Leadership
 - Important depending Milestones
 - High complexity
 - Multiple stakeholders
 - Dependency to other projects
- Technology challenges
 - Data quality dependencies
 - Software quality
 - Interfaces (technology)

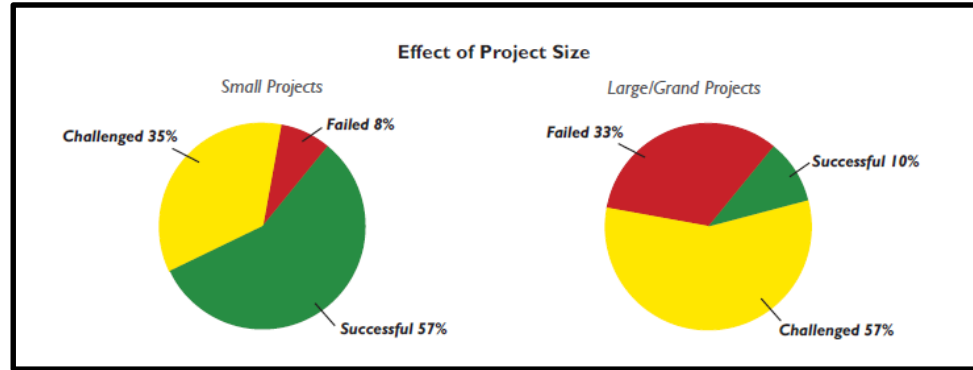


Standish Chaos - Decision Latency (Modern)



The traditional assessment had been “on time, on budget, and on target.”

The “modern” assessment defines success as on time, on budget, and with satisfied customers.

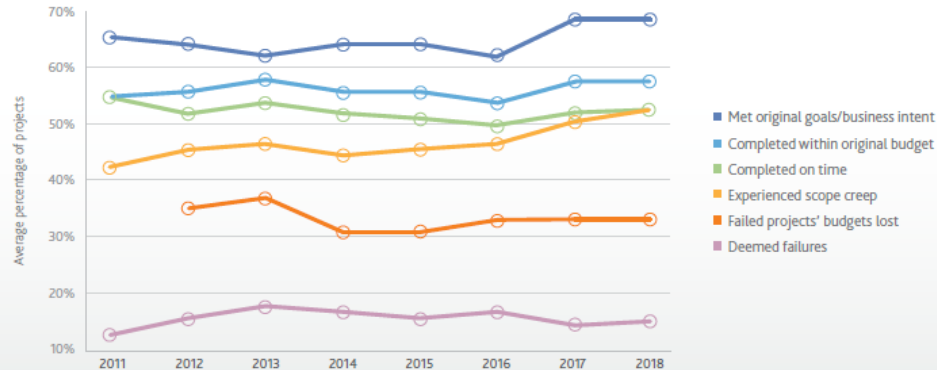


Source: Standish Chaos report – Decision Latency

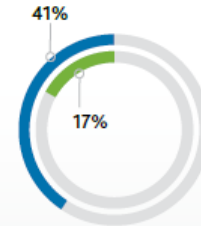
The Success of Scope Management

1. Investing in actively engaged executive sponsors
2. Avoiding scope creep or uncontrolled changes
3. Maturing value delivery capabilities

Figure 6: Project Performance Metrics



Inadequate Sponsor Support Is a Primary Cause of Project Failure



- 41% of Underperformers say inadequate sponsor support is a primary cause of their failed projects
- 17% of Champions say inadequate sponsor support is a primary cause of their failed projects

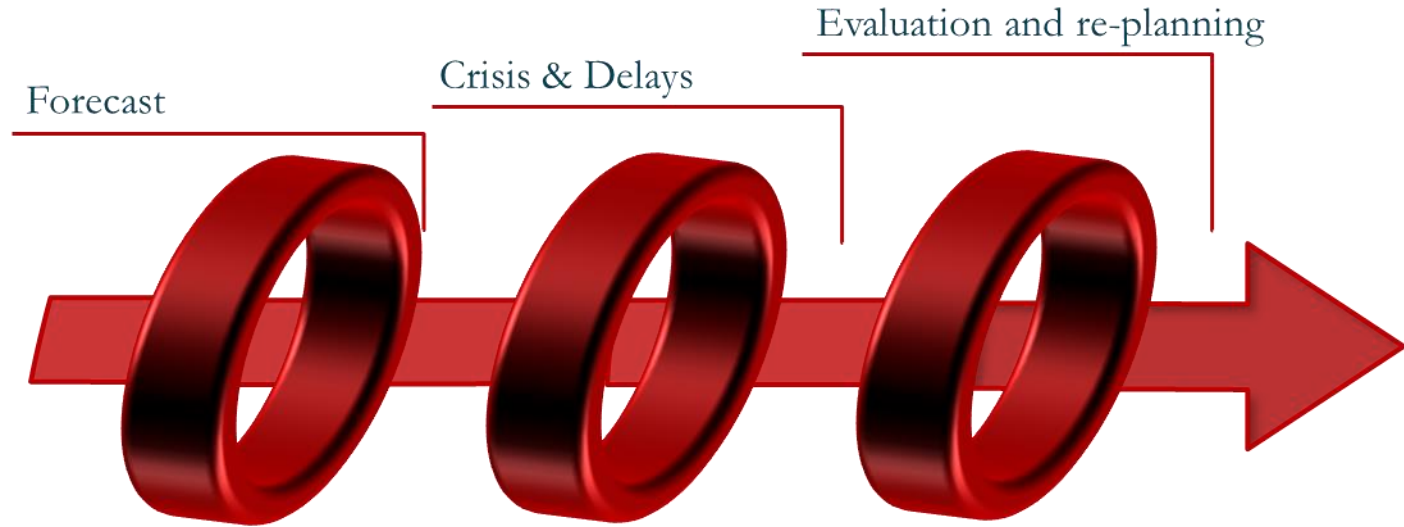
Source: PMI – PULSE 2018 – Factors for Successful projects

Why do Critical Project fail

- Scope Creep
- Poor Planning
- Re-starts (Re-planning)
- Poor monitoring
- Lack of Progress
- Lack of decision making
- Lack of ability to verify
- Lack of Delivery

For challenged projects (over-budget, over time and scope creep), more than a quarter were completed with only 25% to 49% of originally-specified features and functions.
(PMI Pulse)

Critical projects – way to often ends up in this situation



This is when you need a resource that can assess the scope, Evaluate the scope, Assess impact, Evaluate and recommend estimates, scope changes etc.

You need a business analyst, Forecast and estimation expert

Staffing a Critical Projects

- Business Analyst
 - Project and Process specialist
 - Estimation and Planning
 - Analytic and Lean
- Project Management Professional
 - Lean & Six Sigma
 - Certified Function Point Specialist
 - Agile focussed
 - Measurement Specialist
 - Software Cost Estimation Expert
 - Experienced

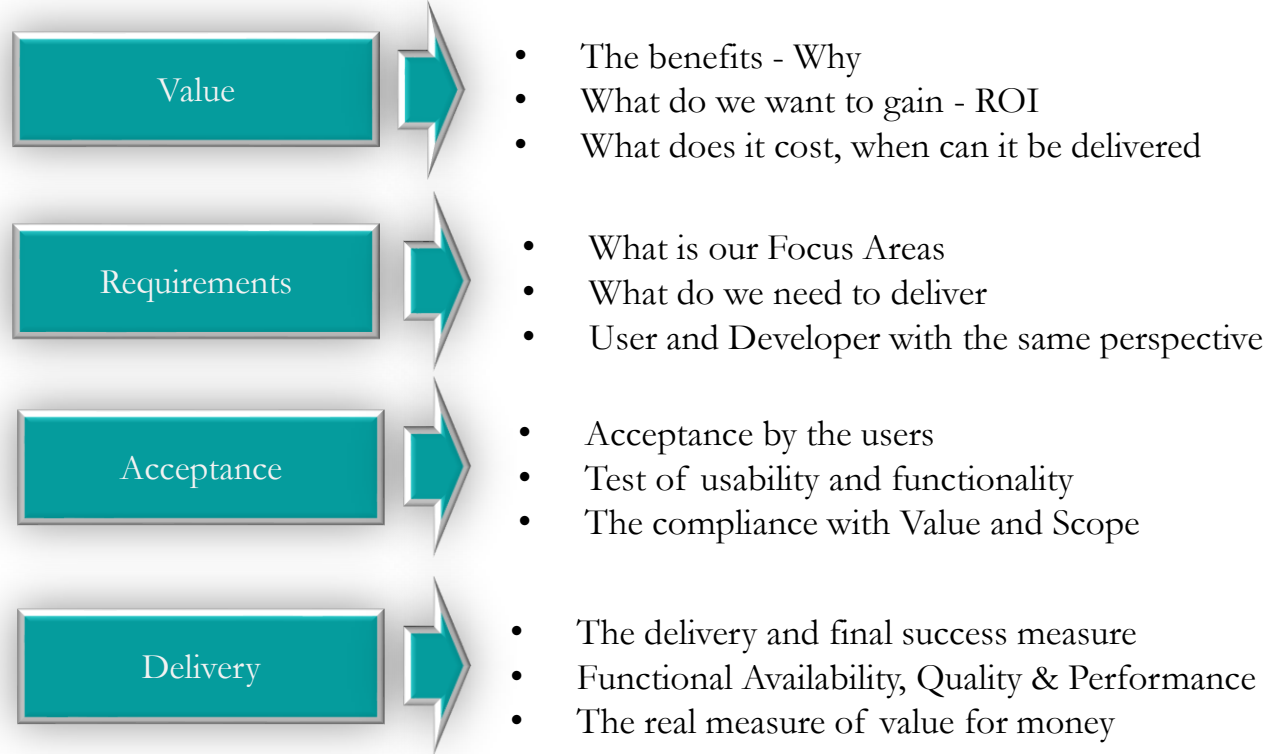
In my mind we
have around 500
ish of these
around the globe
that can cover
ALL

Forecast excellence

Complex projects

Work with both Product
and Project Managers

The traceability of scope



Prediction of the Cost, Effort and Duration

Depends on

- Productivity of the team
- Methodology used for delivery
- Quality requirements
- Communication

And Scope

Will evolve

Setting the expectations (realistic)

Consequence of changes

Relevant for all stakeholders

Software Size Measure – the most important normaliser

Let's face it – in order to get software measurement practices to work for everybody there need to be this normalisation factor that can be used to quantify the scope of the work.

Software size measure is this normalising factor.

It enables comparison without consideration to areas such as technology, clients, provider, team, methods, process, quality etc.

It enables sizing, traceability of Scope and expectations as well as Scope changes.

Trying to find
The Magic
number
#

Function Point Analysis



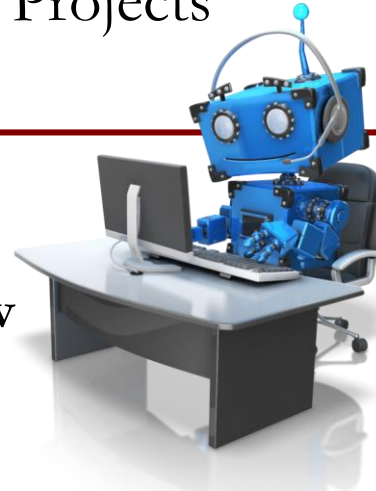
FPA

Function Point Analysis

CONSISTENT AND STABLE SOFTWARE SIZE

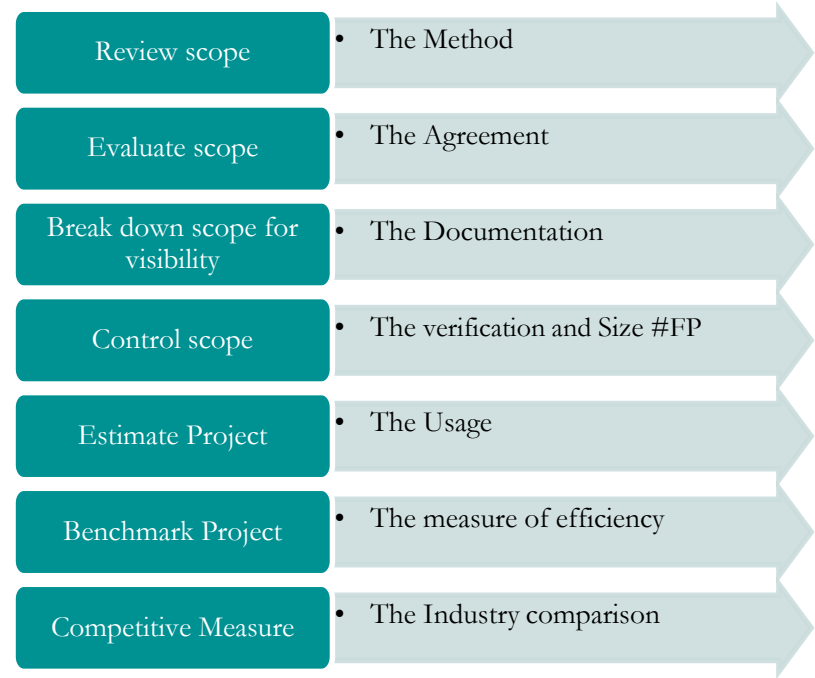
- Business Process & Requirements Breakdown
- Scope Control from a Business perspective
- Scope of work for Teams and Projects
- Estimation input

From the user view

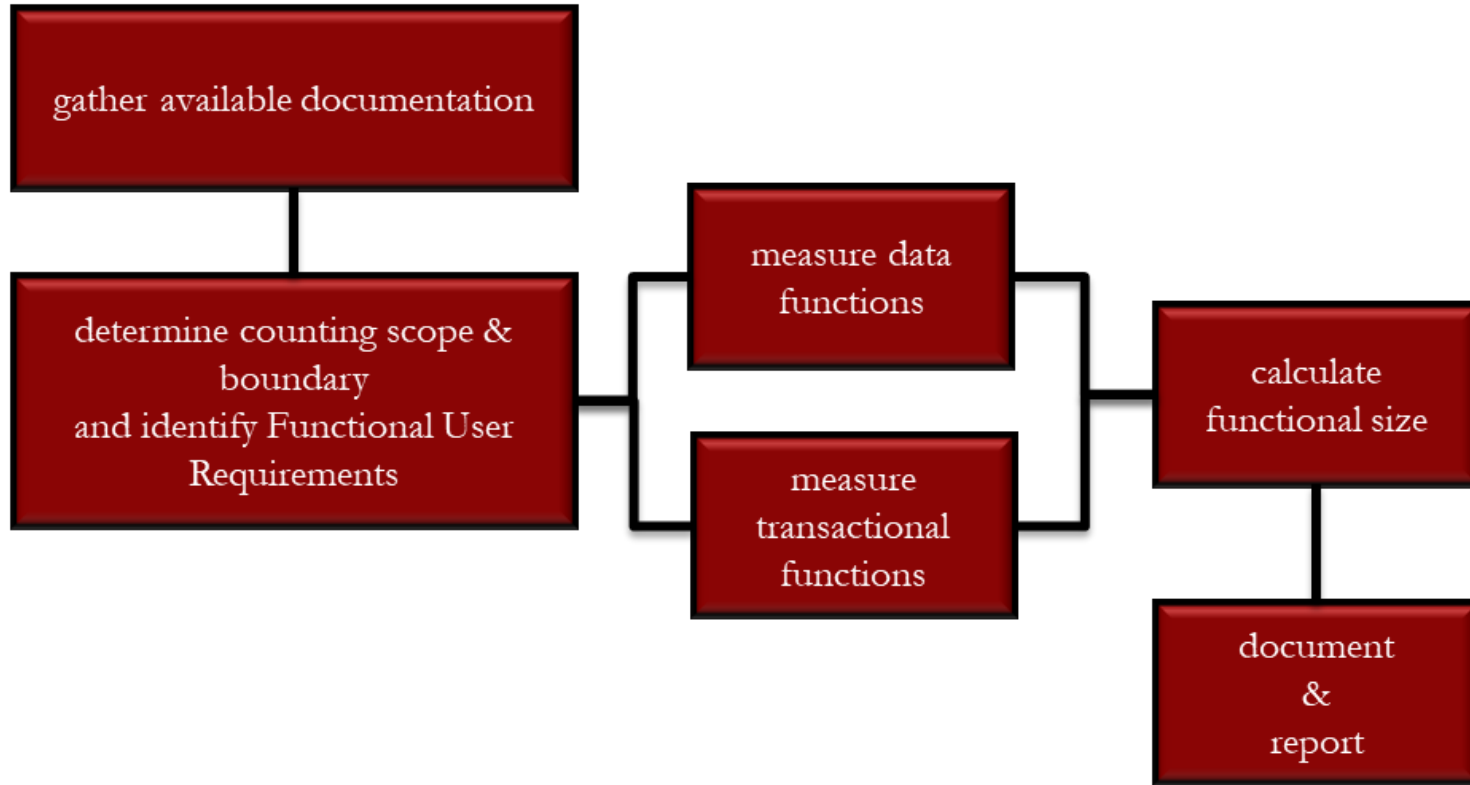


Function Point Analysis

- Functional Sizing from the perspective of Function Point Analysis (FPA) is the measure of the functionality that an application provides to the user
- Function Point Analysis (FPA) provides a good size measure that depicts the software requirements by functionality
- A visual way of breaking down complex projects into smaller components
- A method to quantify the size of these components from top to detail level



IFPUG FPA Process Diagram



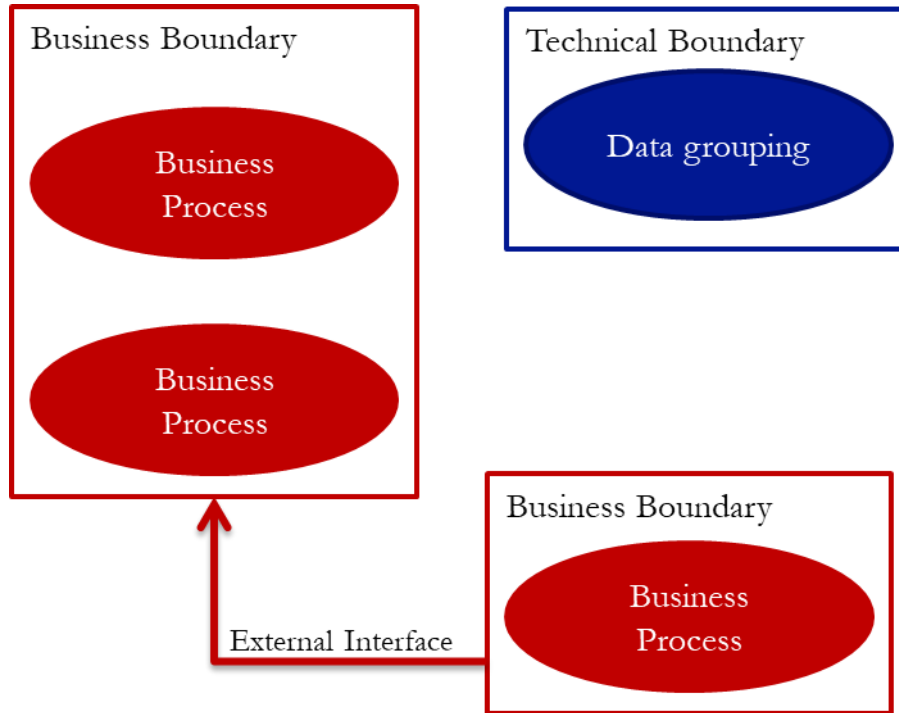
What are the Boundaries all about?

- Act as a way to group the perspective into logical business areas
- Always have one boundary as the focus
 - Identifies internal and external data and transactions

Guidelines:

- User or Business Perspective
- Think about what business problem is being solved
- In a language that users and/or understand
- Move above the technical solution

The Management Perspective– 1000 feet



Business perspective

Landscape

Size of business areas

– based on FPA or CFPS experience

Boundaries from a business perspective

- business Process Focus

Changes when new interfaces or business areas are included – other than that it is fixed for the project

Why even go down this road?

Haven't we all tried it?

Scope is creeping, Project is slipping, Client and Delivery organization losing money and time, End users does not feel they get what they need. Business perspective is lost in the detail. Decisions and escalations is required on a Business level.

Scope creep is the most common reason for

- Cancelled or Failed projects
- Poor Estimation, Costing, Pricing and Planning

Poor Documentation and Traceability of scope is the most common reason for

- Defects and Rework

Scope Control, Analysis and Management

- Scope Traceability
- Change Management
- Measuring of size
- Delivered vs Touched

Knowing what is in scope, or what could be in scope.
Monitoring of scope during from high level wish list to delivered business functionality

Unclear or poorly defined and controlled Scope is the most common reason for

- Cancelled or Failed projects
- Poor Estimation, Costing, Pricing and Planning
- Defects and Rework
- Escalations and delays

Function Point Process
and measure can guide and
help

Function Point Analysis –500 feet

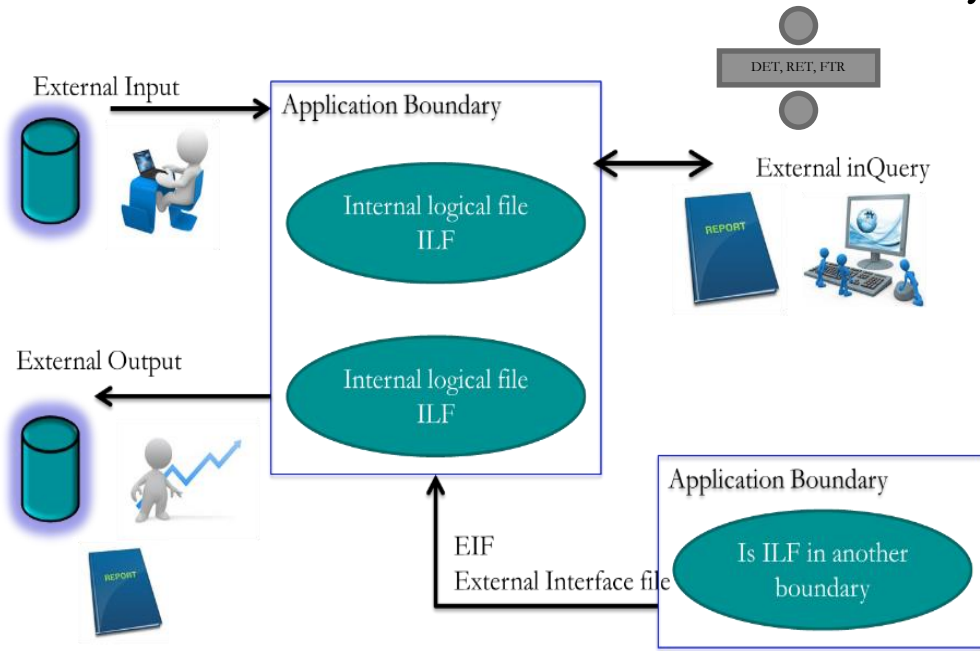
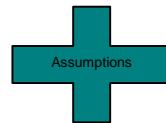


Diagram – The high-level perspective
Changes - Scope changes significantly

Requirement discussion input with users.
Test input for test cases.
Priority, delivery and progress verification



Assumptions

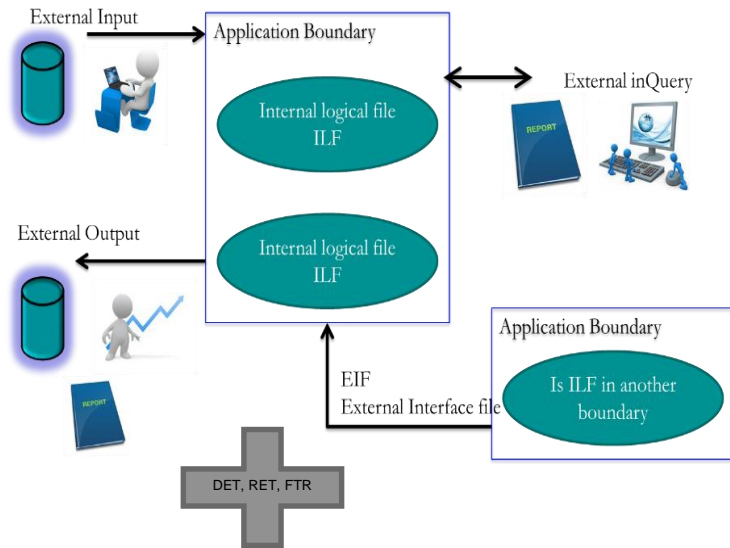
Tip - Early Function Point Analysis
and Consistent Cost Estimating

Early Function Point Analysis
500 Feet

Early scope
assessment

Function Point Analysis – 100 Feet

Counting Practices Manual
(CPM)
- Rules, Definition and
Guidelines



Required, when we want to analyze the scope down to the level of $\pm 5\%$ of accuracy

FPA for test management and requirement traceability during execution of critical projects

Word of advice regarding Software Size Measure

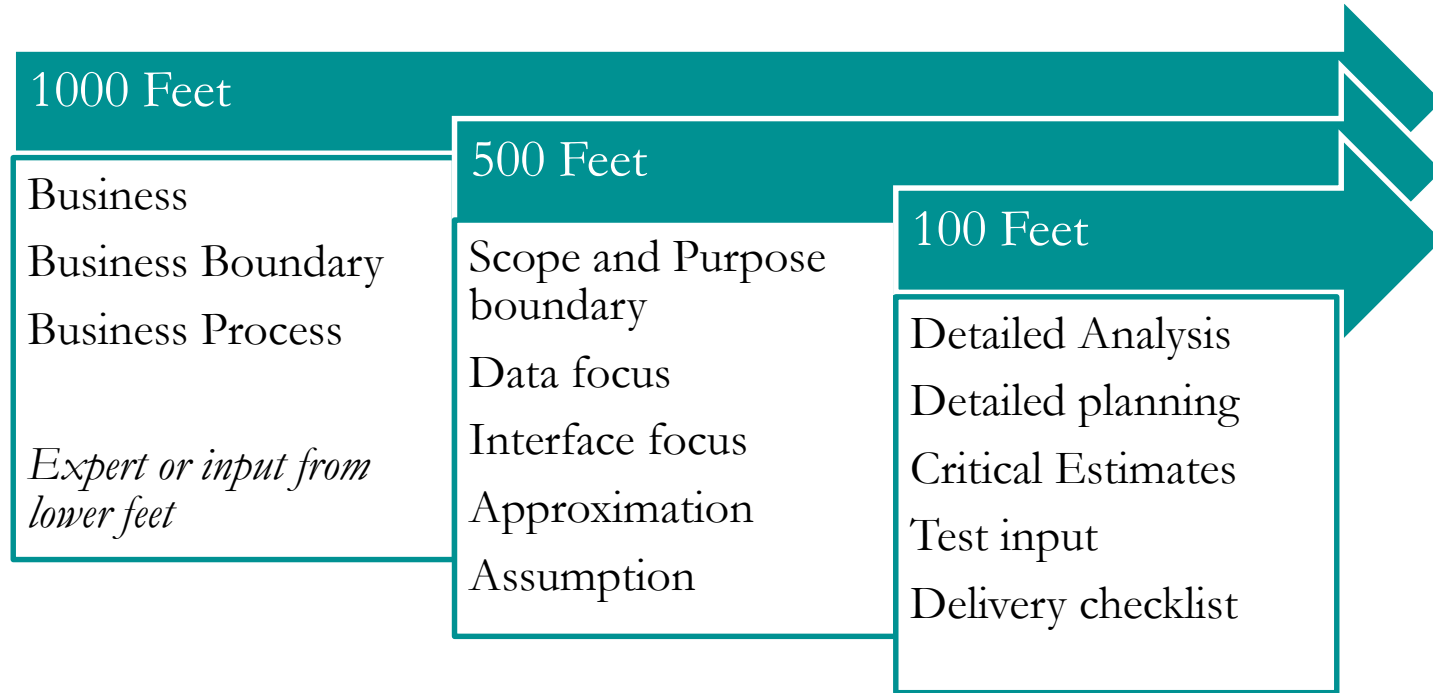
When do we NOT need to do the deep dive?

- If the risk associated with inaccuracy of other measures is higher
- If some of the other measures is not 100% accurate
- If you are looking at what needs a further deep dive
- If you are okay with making assumptions that can be validated and verified

Bear in mind that without using proper resources to decide when a deep dive is required will add to the inaccuracy of the lack of information.



Function Point Elevations



Function Point Analysis – more than a number

- A Process more than a single number
- Strengths are in its definition and usage
- Strength is in the consistency (Choose qualified resources)
- The best scope management and control methodology in the world
- The high-level perspective of landscape and business coverage
- Early, detailed and controlled – can evolve and change based on needs
- The visibility that is required from Business Process to Software delivery acceptance

Using an experienced CFPS gives you much more than JUST the size and process

Myth bust about IFPUG FPA

Works Perfectly in Iterative projects (Agile)

Welcome changing requirements, even late development. Agile processes change for the customer's competitive advantage

- FPA quantify the size of requirement and the size of changes.

Working software is the primary measure of progress.

- FPA can measure Size of Estimating Requirement as well as Size of delivered requirements
- FPA break downs the barrier between user perspective and development perspective

At regular intervals, the team reflects on to become more effective, then tunes and its behavior accordingly.

- FPA can help measure the effectiveness of a team or a project compared to other teams or projects

Traditional – but
used in a modern
world



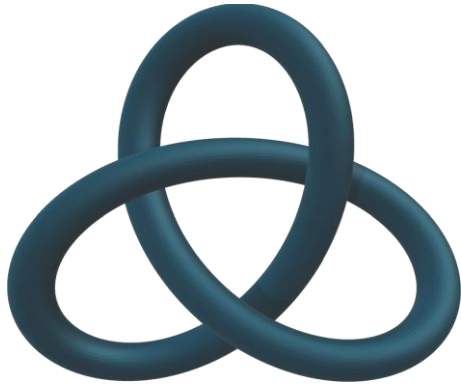
It is not difficult to use!

For a new resource that is technical the method requires you to think logical and user perspective. That can be hard for some!

Used on all types of technology or business areas

And yes – sometimes a twist is required in order to map from Scope to Effort – but “twisting” the right way can be done without compromising the FPA for external references.

QUESTIONS?



IP_{by}Green

www.ipbygreen.com

Skype: christine.green

LinkedIn: christinegreendk



Christine Green

Owner of IP_{by}Green

Mobile: +45 81 72 11 22

Email: info@ipbygreen.com