

# EXHIBIT 4

# Function Point Counting Practices Manual

Release 4.2

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**International Function Point  
Users Group (IFPUG)**

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**Release 4.2**

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This release replaces Release 4.1.1, which is now obsolete. Changes are made periodically to the information within.

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## Overview of Function Point Analysis

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**Introduction** This chapter presents an overview of the function point counting process. It includes the objectives of function point counting and presents a summary and example of the function point counting procedures.

**Contents** This chapter includes the following sections:

Topic	See Page
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## Objectives and Benefits of Function Point Analysis

Function point analysis is a standard method for measuring software development from the user's point of view.

### Objectives of Function Point Analysis

Function point analysis measures software by quantifying the functionality the software provides to the user based primarily on logical design. With this in mind, the objectives of function point analysis are to:

- Measure functionality that the user requests and receives
- Measure software development and maintenance independently of technology used for implementation

In addition to meeting the above objectives, the process of counting function points should be:

- Simple enough to minimize the overhead of the measurement process
- A consistent measure among various projects and organizations

### Benefits of Function Point Analysis

Organizations can apply function point analysis as:

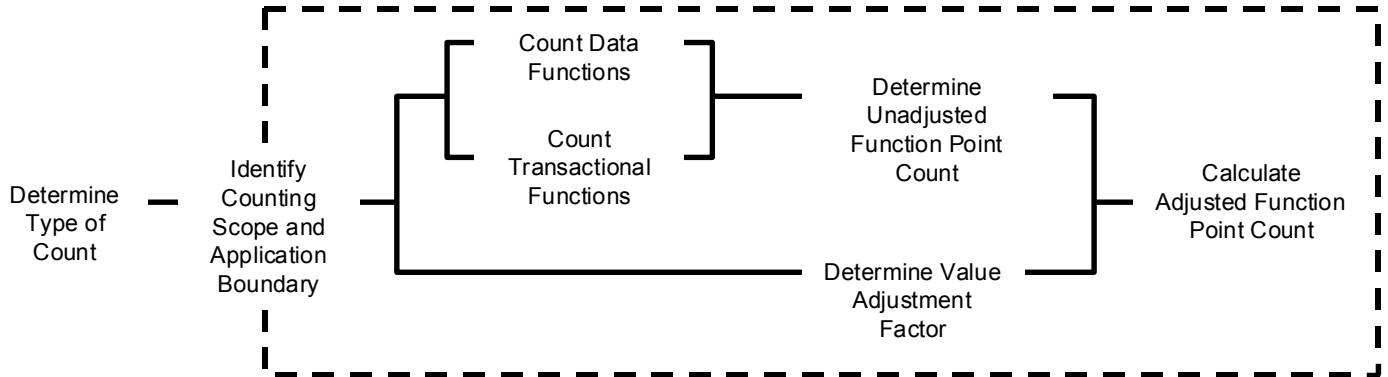
- A tool to determine the size of a purchased application package by counting all the functions included in the package
- A tool to help users determine the benefit of an application package to their organization by counting functions that specifically match their requirements
- A tool to measure the units of a software product to support quality and productivity analysis
- A vehicle to estimate cost and resources required for software development and maintenance
- A normalization factor for software comparison

Refer to other IFPUG documents such as *Function Points as an Asset* for additional information about the benefits of function point analysis, or see the IFPUG web site at <http://www.ifpug.org> for additional information.

# Function Point Counting Procedure

This section presents the high-level procedure for function point counting.

## Procedure Diagram



## Procedure by Chapter

The following table shows the function point counting procedures as they are explained in the remaining chapters of the manual.

**Note:** A summary example of the counting procedures is presented on the following pages in this chapter.

Chapter	Procedure
4	Determine the type of function point count.
5	Identify the counting scope and application boundary.
6	Count the data functions to determine their contribution to the unadjusted function point count.
7	Count the transactional functions to determine their contribution to the unadjusted function point count.
8	Determine the value adjustment factor.
9	Calculate the adjusted function point count.

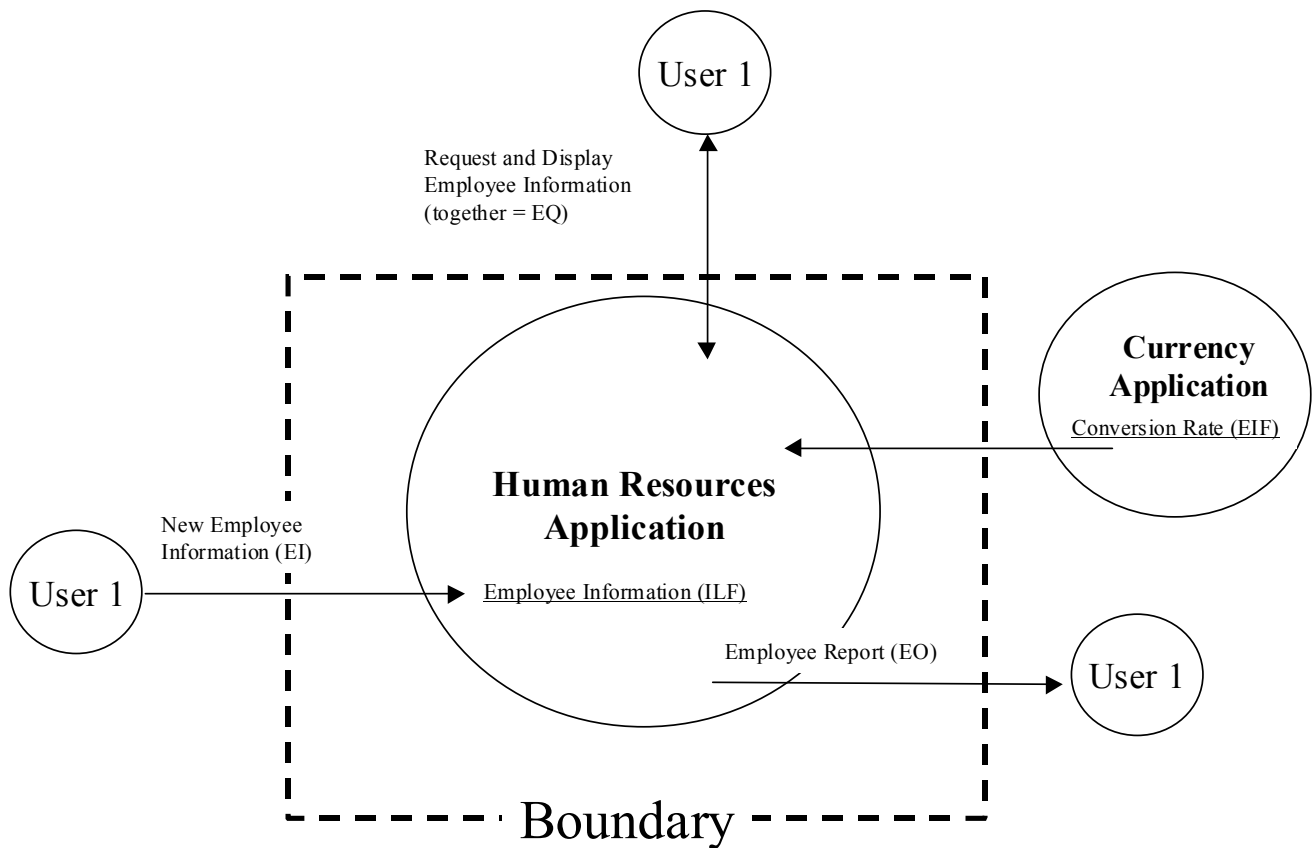


# Summary Counting Example

This section presents a summary example of the function point counting procedure and the components that comprise the count.

## Summary Diagram

The following diagram shows the components for the example function point count for a Human Resources Application. Refer to the diagram while reading the remaining paragraphs in this chapter.



## Determine the Type of Function Point Count

The first step in the function point counting procedure is to determine the type of function point count.

Function point counts can be associated with either projects or applications. There are three types of function point counts:

- Development project function point count
- Enhancement project function point count
- Application function point count

The example on page 2-4 is for a project function point count, which will also evolve into an application function point count.

Chapter 4 includes detailed definitions of each type of function point count. Chapter 9, the last chapter in Part 1, explains the formulas to calculate the adjusted function point count for each of the three types of counts.

## Identify the Counting Scope and Application Boundary

The counting scope defines the functionality which will be included in a particular function point count.

The application boundary indicates the border between the software being measured and the user.

The example on page 2-4 shows the application boundary between the Human Resources Application being measured and the external Currency Application. It also shows the application boundary between the Human Resources Application and the user.

Chapter 5 explains counting scope and application boundary.