



Guidance from the
Functional Sizing
Standards Committee on
topics important to you



Integrated Queries

iTip # 08 – (Version # 1.0 12/05/2017)

iTips provide guidance on topics important to the Function Point Analysis (FPA) community. They explain the application of IFPUG FPA method in a particular situation. iTips are not rules, but interpretation of the rules, and provide guidance using a realistic example to explain the topic being covered.

This iTip is focused on describing the IFPUG FPA method as it applies to Integrated EQ/EOs in a typical application. This iTip includes a series of examples, but is not an exhaustive examination of the subject.

Background

There are many instances where External Inquiries (EQs) or External Outputs (EOs) are integrated or embedded, in the physical implementation, within another transactional function. The main examples illustrated in the CPM are drop-down selection lists where the data is retrieved from an ILF or EIF. This paper will explore additional scenarios of integrated queries that may be treated as separate EQs or EOs because the user specifically invokes an action incidental to the primary function, can make a decision to stop due to information provided, or can revise input parameters before continuing.

Example 1

In a web-based ordering function, the user has the requirement to view the shopping cart prior to submitting the order to verify the minimum for free shipping has been met. Other than the number of items in the cart, there is no further information on the screen regarding items placed in the cart. The user must take specific action (excluding scrolling) to view the contents of the cart. While there is a separate elementary process (EP) to submit an order, the view of the shopping cart is a unique and separate query. As such, it is identified as an additional elementary process. It is classified as an EO based on the primary intent (i.e., to present data) and the calculation of the order total.

Note: For purposes of this example, we referred to www.amazon.com. Functionality to view the shopping cart on other websites may be counted differently.

Example 2

In a web-based ordering function, the user has the requirement to determine the shipping cost as it may influence their decision to submit the order. A link is provided while viewing the shopping cart to view shipping charges based on zip code entered and shipping mode selected. This is an integrated query and is classified as an EQ if only a table (ILF/EIF) lookup is performed. However, if the function performs any calculation in order to determine the shipping cost, then it is classified as an EO.

Note: For purposes of this example, we referred to www.amazon.com. Functionality to view shipping charges on other websites may be counted differently.

Example 3

In a Web-based video selection application, the user can select from a number of DVD titles. As part of that selection process, the user can mouse-over to read a brief abstract of the video. Since the application maintains information about each video in a data store, this popup is an integrated query and is counted as an EQ. The user can also click on the DVD image to view even more information about the video via a popup with a link for additional data. This, too, is an integrated query and since it has additional DETs, it is counted as a unique EQ.

Note: For purposes of this example, we referred to www.netflix.com. Functionality to view video information on other websites may be counted differently.

Example 4

An automobile insurance sales application provides an optional button for the user to obtain the applicant's credit rating information. The query sends a request to the credit application which returns rating information. The data is displayed in a popup. This query is counted as an EQ as long as the sales application does not maintain an ILF with the data received, perform a calculation, or create derived data. If the credit application performs any of these forms of processing logic in order to provide the information requested, its response would be counted as an EO (see [iTip #06 – Shared Data Real-Time Responses](#)).

Summary

Integrated queries are similar to list boxes or drop-down selection lists described in the IFPUG Counting Practices Manual (CPM) version 4.3.1. They are separate functional user requirements (FURs) that are commonly implemented as online screens or web pages. The primary intent of the query is to present information to the user, and is triggered when the user specifically invokes an action incidental to the primary function, can make a decision to stop due to information provided up to that point, or can revise input parameters before continuing. Similar to a selection

list, each unique integrated query is counted once for the application, even if it is invoked using multiple screens, panels or web pages. In Example 1, during the checkout process (also known as submit order,) the shopping cart can also be displayed and is not to be counted again as it is part of placing an order. (This is consistent with the CPM concept of counting each unique elementary process only once per application regardless of the number of times it may be physically implemented in a software application.)

Frequently Asked Questions (FAQ)

What if the information provided is solely from hard coded data?

If the information displayed only consists of hard coded data or data from a code table, then neither an EQ nor an EO can be counted.

What if the shopping cart information displayed is retained in a scratch pad or temporary area?

Even if the shopping cart data is retained in a scratch pad area, the base information – item number, description and price has been retrieved from an ILF originally. The intent of the rule stating that to be counted as an EQ, data must be retrieved from an ILF or an EIF was to ensure that presenting only code data or hard-coded data is not counted. This data is clearly neither. The fact that it is stored temporarily in a scratch pad area is simply an implementation decision where there is no requirement for persistence of the shopping cart information.

Further Reading

IFPUG Counting Practices Manual (CPM 4.3.1), Part 1, Section 5.5 – Measure Transactional Functions.

IFPUG CPM 4.3.1, Part 2, Chapter 7 – Measure Transactional Functions.

IFPUG offers iTips at no charge to the international function point community to stimulate the further promulgation and consistent application of the IFPUG FPA Method. IFPUG would appreciate if you or your organization would support IFPUG in its mission by becoming a member. For further information please visit www.ifpug.org or send an email to ifpug@ifpug.org. IFPUG thanks you for your support.