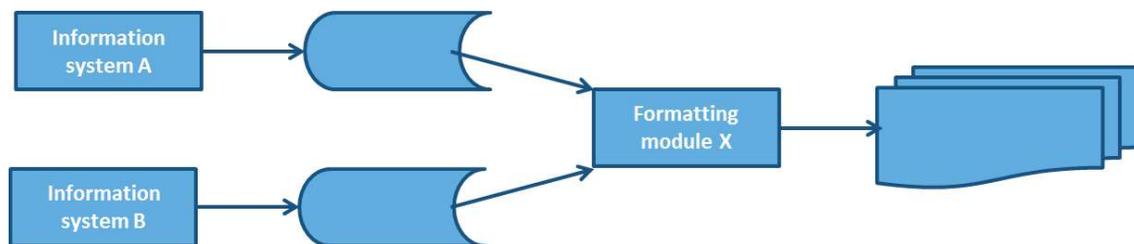


27 GENERIC FORMATTING SYSTEM

27.1 Technically generic

Problem description

A company uses multiple back-office information systems (A, B, etc.) for performing different statutory duties. Out of each information system, regularly large quantities of letters are created. These letters are described in the designs of the back-office information systems. The IT department has decided to resolve the formatting function and the sending of letters generically and to put it in a separate formatting module, see the figure below.



For each letter, the fixed letter texts are stored in the formatting module X. The format is defined in a number of design patterns. Also parts like the salutation and the signature are included therein. The back-office information systems (A and B) supply all variable data in a transfer file. This includes the address information.

The question is, how are the letters counted? Do we identify multiple user functions per letter or do we identify only one EO per letter, and to which information system does this function belong?

Discussion

Each letter that is created from a back-office information system counts as an EO. Upon a change of a letter in information system A, a number of situations may occur:

1. The content of one or more variables used in the letter is calculated differently. This means a change in the EO in information system A. The formatting module X does not need to be modified, because the variables already exist, only the content is determined differently.
2. New data (variable) must be added to the letter. In this case the EO must be modified in information system A, but also in the formatting module X a modification has to be made in order to read the new data and place it on the letter.
3. There is a modification to the fixed text of the letter. For this change, only formatting module X needs to be modified. The variables, or the content are not referenced, so the EO in information system A does not change.

In addition, there can also be additional modifications introduced to the design patterns (layout, corporate identity, logo, font, etc.), which apply to all letters. In these cases, only formatting module X is affected.

Every type of letter that exists in the back-office information systems thus has a counterpart in the formatting module X. Does this mean that every EO in the back office information system is followed by an EI and EO in formatting module X? The texts and design patterns in module X are maintained by specialized programmers. Therefore, extra effort is to be delivered.

From the end-user perspective, creating a letter is one output process. The end user does not know that there is a separate formatting module where all letters are collected to be formatted and sent. From this perspective, there is one EO per letter. Any modification of the letter means a modification of this EO, regardless whether the modifications must be applied to information system A, formatting module X, or both. In the project planning both types of effort must be estimated.

Solution

The end-user has not explicitly asked for formatting module X, therefore this is regarded as a technical solution. Count 1 EO per letter. When a generic modification is made, count as many EO as the number of changed letters.

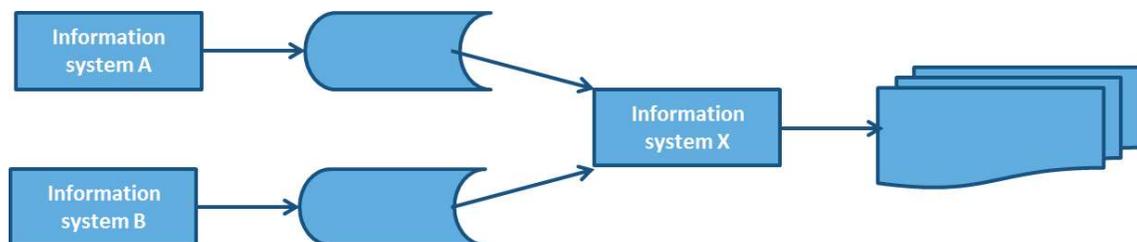
References to the standard

3.5.1, 4.1 and 4.22

27.2 Functionally generic

Problem description

The same situation as above, but now the end-user explicitly asks for a solution where the formatting of letters can be maintained in a simple and generic way. A functional design is drafted for the recognized information system X with the purpose of easy maintenance of letter formatting.



Discussion

Count 1 EO per letter for the back-office information systems.

Perform a function point analysis on the functional design of information system X. Assuming that the history of letters is recorded, count at least 1 EI and 1 EO, plus all maintenance functions to be realized.

In case of modifications, count all changed functions.

Solution

Count one external output per letter for the back-office information systems.

Perform a function point analysis on the functional design of information system X. Assuming that the history of letters is recorded, count at least one external input and one external output, plus all maintenance functions to be realized.

In case of modifications, count all changed functions.

References to the standard

3.5.1, 4.1 and 4.22

27.3 Comments on the two variants

The choice to use a formatting module to maintain letters in variant 1 is made by the IT department in order to carry out the maintenance more profitable. Initially a separate formatting system must be purchased, but changes that affect all letters concern can be applied simpler and that is how the investment is recouped.

In variant 2, the choice to use a formatting module to maintain letters, is made by the end-user. Here the reason was also here that the investment would be recouped in the maintenance of the letters.

In terms of function points: in variant 1 less function points are counted for the construction project than in variant 2. When modifications to the letters occur, in variant 1 more function points are counted than in variant 2.

In terms of productivity: in variant 1, relatively more hours are required per function point for the construction, and less in maintenance. In variant 2, the number of hours per function point is relatively normal, and also during maintenance.

The above shows the effect of the choice that can be made on the boundaries of an information system. The same (technical) solutions produce a different result for function point analyses.