



The FRAME Selection Tool – A Short Guide

Overview

The FRAME Selection Tool supports the FRAME Methodology – see Figure 1.

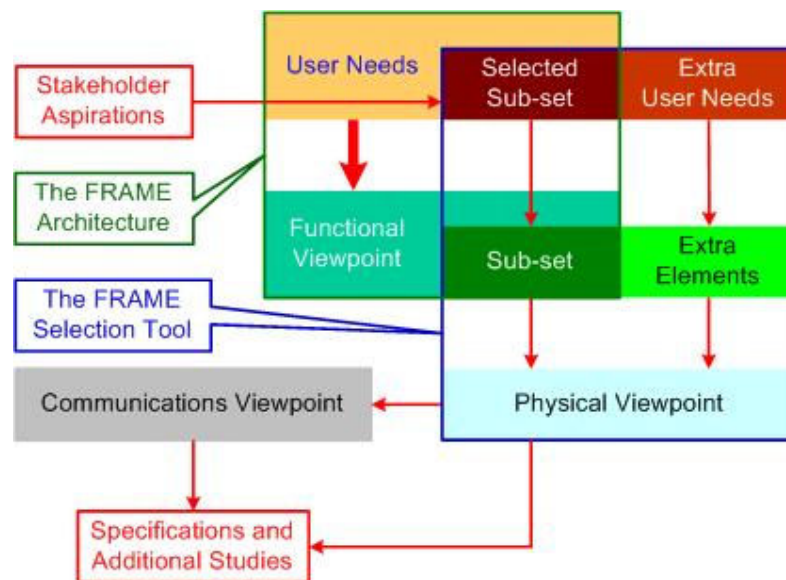


Figure 1 – The FRAME Methodology

The basic process comprises a sequence of choices which, together, build up the required sub-set of the Functional Viewpoint. One or more Physical Viewpoints can then be created using this sub-set. Once a Physical Viewpoint has been created, no further changes can be made to the Functional Viewpoint upon which it is based. If changes are required, then a “Clone” (copy) may be made of that Functional Viewpoint which can then be modified as desired.

Since there will almost certainly be logical inconsistencies as the Functional Viewpoint is created, the reasons for them need to be investigated, e.g. using the Browsing Tool, and additions/corrections made as appropriate. Note that a logically correct Functional Viewpoint is not guaranteed to be semantically correct.

A detailed description of the full process can be found in the *Selection Tool User Reference Manual*, which also explains how Extra User Needs and Elements can be added.



The Basic Process – Functional Viewpoint

Select User Needs

The User Needs are a “technical” way of stating the Stakeholders’ Aspirations. It is recommended that they are chosen using a normal list of the User Needs in which adjacent ones can be seen simultaneously, and the results then transferred into the Selection Tool.

Select Low Level Functions

First time – There is not a one-to-one relationship between the User Needs and the Low Level Functions of the FRAME Architecture, nor is their cross reference an exact science, in particular only the primary functions will be offered. It is therefore necessary to confirm or reject each of the Functions that are offered.

Other times – All the Low Level Functions are offered so that any secondary function can be selected for inclusion in the sub-set.

Select Data Flows

Only the data flows to/from the selected Functions are offered. Each data flow should only be selected if it is relevant for this sub-set Functional Viewpoint.

Select Data Stores

Only the data stores connected to selected data flows are offered. Before they are selected, their relevance to this sub-set Functional Viewpoint should be confirmed.

Select Data Flows for Data Stores

Only the data flows to/from the selected Data Stores are offered. Additional data flows should only be selected if they are relevant for this sub-set Functional Viewpoint.

Select Terminators and Actors

First time – Only the Terminators and Actors connected to selected data flows are offered. Before they are selected, their relevance to this sub-set Functional Viewpoint should be confirmed.

Other times – All the Terminators and Actors are offered so that any others that are needed can be selected for inclusion in the sub-set.

Errors and Warnings

Basic logical checks are performed on the selection that has been made. Errors, in particular that the elements at both ends of a data flow have not been selected, must be corrected. Warnings, e.g. that a Function only has one data flow associated with it, should be corrected before proceeding to the Physical Viewpoint.

Corrections are made by returning to the relevant part of the sequence of tasks described above, until no further errors (or warnings) appear.



The Basic Process – Physical Viewpoint

Create Sub-systems

Create as many sub-systems as necessary – one for each generic location.

Allocate Functions and Data Stores to Sub-systems

Allocate each Function and Data store to its corresponding sub-system.

Create Modules

Some sub-systems may need to be split into modules. If so, create as many modules as are necessary for one or more of the sub-systems. Note that it is not essential to create modules.

Allocate Functions and Data Stores to Modules

If some modules have been created, allocate each Function and Data store within those Sub-systems, to its corresponding module.

Physical Data Flows

The Selection Tool “calculates” the Physical Data Flows that result from the above choices. Whilst a summary is reported on the screen, a full description is only available from the corresponding report, as follows:

- Tools → Report on Physical Viewpoint → Physical Data Flows
- Select “Save” and then provide a suitable file name (the one offered MUST be changed). The file will be saved as a CSV file.
- To convert the CSV file to something “more useful”
 1. Run Microsoft Excel and open a new Workbook.
 2. On the "Data" menu for the first spreadsheet, point to "Import External Data", and then click "Import Data".
 3. In the "Files of type" box, click "Text Files (*.txt; *.prn; *.csv; *.tab;...)".
 4. In the "Look in" list, locate and double-click the CSV file with the "report" that needs to be display
 5. The Text Import Wizard should then open. On the first page, select "Delimited" to define the type of data and click "Next". Then specify "Other" for the "Delimiter" and add the "|" (vertical bar – shift \ key[†]) as the actual delimiting character. The "Data Preview" window should now show the data arranged in columns. Click on "Next" but make no changes before clicking on "Finish".
 6. In the "Import Data" dialog box, do not click on anything except "OK".
 7. The new Workbook should now contain the "report" data as the first spreadsheet with the different parts of the information about the elements arranged in different columns. Any comma "," characters will have been replaced by "^" (shift 6[†]) characters.

[†] On a UK keyboard