

ISO/IEC 24570:2005-02 (E)

Software engineering - NESMA functional size measurement method version 2.1 - Definitions and counting guidelines for the application of Function Point Analysis

Contents		Page
Foreword		v
Introduction		vi
1	Scope	1
2	Overview	1
2.1	Objective of this International Standard	1
2.2	Focus of this International Standard	1
2.3	Organization of this International Standard	2
3	Introduction to FPA	3
3.1	Brief description of FPA	3
3.2	Use of FPA: application function point count versus project function point count	4
3.3	The types of function point counts	5
3.4	Function point counts during a project	5
3.5	Scope of the count and boundary of the application to be counted	5
3.6	Users	5
3.7	Functions and function types	6
3.8	The complexity of a function	6
3.9	The valuing of function types	7
3.10	The function point count	7
4	Guidelines to carry out an FPA	7
4.1	Step-by-step plan for carrying out an FPA	8
4.2	Types of function point counts and their accuracy	8
4.3	The role of the quality of the specifications	10
4.4	FPA during a project	11
4.5	Determining the application function point count	11
4.6	Determining the project function point count	13
4.7	FPA in specific situations	16
4.8	Illustration: FPA and the system life cycle	20
5	General counting guidelines	25
5.1	Counting from a logical perspective	25
5.2	Applying the rules	25
5.3	Built functionality, not requested functionality	25
5.4	Double counting	25
5.5	Production of re-usable code	26
5.6	Re-use of existing code	26
5.7	Screens and reports	26
5.8	Input and output records	26
5.9	Security and authorization	26
5.10	Operating systems and utilities	26
5.11	Report generators and query facilities	27
5.12	Graphs	27
5.13	Help facilities	27
5.14	Error messages and other messages	27
5.15	Menu structures	28
5.16	List functions	28
5.17	Browse and scroll functions	28

5.18	Cleaning functions	28
5.19	Completeness check on the function point count	29
5.20	FPA tables	29
5.21	Deriving logical files (data functions) from a normalized data model	30
5.22	Shared use of data	34
6	Internal Logical files	35
6.1	Definition of an internal logical file	35
6.2	Counting internal logical files	36
6.3	Determining the complexity of internal logical files	37
7	External Interface Files	38
7.1	Definition of an external interface file	38
7.2	Counting external interface files	38
7.3	Determining the complexity of external interface files	40
8	External inputs	40
8.1	Definition of an external input	41
8.2	Counting external inputs	42
8.3	Determining the complexity of external inputs	44
9	External Outputs	45
9.1	Definition of an external output	45
9.2	Counting external outputs	47
9.3	Determining the complexity of external outputs	50
10	External inquiries	51
10.1	Definition of an external inquiry	51
10.2	Counting external inquiries	52
10.3	Determining the complexity of external inquiries	53
11	Practical Situations and their solutions	54
11.1	Standard authorization functions	55
11.2	Specific authorization functions	55
11.3	Report generator and query facility	56
11.4	Help functions	56
11.5	Error messages	57
11.6	Menu structures	57
11.7	FPA tables	58
11.8	Denormalization	59
11.9	Counting logical files (data functions)	61
11.10	Combined external inputs	65
11.11	Counting a transaction file	66
11.12	Reports on different media	67
11.13	Daily and weekly processing	69
11.14	Conversion	69
11.15	External outputs with summary information	70
11.16	The number of data elements on a report	72
11.17	Combined external outputs	72
11.18	Combination effects with functions	77
11.19	Querying with several search keys	79
11.20	Screens with list function	81
11.21	Browse and scroll functions	82
11.22	Selection screens and changing data with a search key	85
11.23	Direct and delayed processing	89
11.24	Case study of a customer application	91
Annex A (normative)	The most important features and tables for valuing function types	95
Annex B (normative)	Function point analysis glossary	101
Annex C (informative)	Application of function point analysis including general system characteristics	106
Annex D (informative)	General system characteristics	113