ISO/IEC 23360-8:2006-12 (E)

Linux Standard Base (LSB) core specification 3.1 - Part 8: Specification for S390X architecture

Contents

Page

I Introductory Elements 0

1 Scope 1
1.1 General 1
1.2 Module Specific Scope 1

2 References 2
2.1 Normative References 2
2.2 Informative References/Bibliography 3

3 Requirements 6
3.1 Relevant Libraries 6
3.2 LSB Implementation Conformance 6
3.3 LSB Application Conformance 7

4 Definitions 9

5 Terminology 10

6 Documentation Conventions 12

II Executable and Linking Format (ELF) 13

7 Introduction 14

8 Low Level System Information 15
8.1 Machine Interface 15
8.2 Function Calling Sequence 15
8.3 Operating System Interface 16
8.4 Process Initialization 17
8.5 Coding Examples 17
8.6 Debug Information 17

9 Object Format 18
9.1 Introduction 18
9.2 ELF Header 18
9.3 Sections 18
9.4 Symbol Table 19
9.5 Relocation 19

10 Program Loading and Dynamic Linking 20
10.1 Introduction 20
10.2 Program Loading 20
10.3 Dynamic Linking 20

III Base Libraries 21

11 Libraries 22
11.1 Program Interpreter/Dynamic Linker 22
11.2 Interfaces for libc 22
11.3 Data Definitions for libc 36

11.4 Interfaces for libm ... 48
11.5 Data Definitions for libm ... 52
11.6 Interfaces for libpthread ... 54
11.7 Data Definitions for libpthread ... 56
11.8 Interfaces for libgcc_s ... 57
11.9 Data Definitions for libgcc_s ... 57
11.10 Interface Definitions for libgcc_s ... 58
11.11 Interfaces for libdl ... 64
11.12 Data Definitions for libdl ... 65
11.13 Interfaces for libcrypt ... 65

IV Utility Libraries ... 66

12 Libraries ... 67

Foreword ... vii

Introduction ... viii
12.1 Interfaces for libz ... 67
12.2 Data Definitions for libz ... 67
12.3 Interfaces for libncurses ... 67
12.4 Data Definitions for libncurses ... 68
12.5 Interfaces for libutil ... 68

V Package Format and Installation ... 70

13 Software Installation ... 71
13.1 Package Dependencies ... 71
13.2 Package Architecture Considerations ... 71

A Alphabetical Listing of Interfaces ... 72
A.1 libgcc_s ... 72

List of Tables 2-1 Normative References ... 2

2-2 Other References ... 4

3-1 Standard Library Names ... 6

9-1 ELF Special Sections ... 18

9-2 Additional Special Sections ... 18

11-1 libc Definition ... 22

11-2 libc - RPC Function Interfaces ... 22

11-3 libc - System Calls Function Interfaces ... 23

11-4 libc - Standard I/O Function Interfaces ... 25

11-5 libc - Standard I/O Data Interfaces ... 26

11-6 libc - Signal Handling Function Interfaces ... 26

11-7 libc - Signal Handling Data Interfaces ... 27

11-8 libc - Localization Functions Function Interfaces ... 27

11-9 libc - Localization Functions Data Interfaces ... 27

11-10 libc - Socket Interface Function Interfaces ... 28

11-11 libc - Wide Characters Function Interfaces 28
11-12 libc - String Functions Function Interfaces 30
11-13 libc - IPC Functions Function Interfaces 31
11-14 libc - Regular Expressions Function Interfaces 31
11-15 libc - Character Type Functions Function Interfaces 31
11-16 libc - Time Manipulation Function Interfaces 32
11-17 libc - Time Manipulation Data Interfaces 32
11-18 libc - Terminal Interface Functions Function Interfaces 32
11-19 libc - System Database Interface Function Interfaces 33
11-20 libc - Language Support Function Interfaces 33
11-21 libc - Large File Support Function Interfaces 34
11-22 libc - Standard Library Function Interfaces 34
11-23 libc - Standard Library Data Interfaces 36
11-24 libm Definition 48
11-25 libm - Math Function Interfaces 49
11-26 libm - Math Data Interfaces 52
11-27 libpthread Definition 54
11-28 libpthread - Realtime Threads Function Interfaces 54
11-29 libpthread - Posix Threads Function Interfaces 54
11-30 libpthread - Thread aware versions of libc interfaces Function Interfaces 56 11-31
libgcc_s Definition 57
11-32 libgcc_s - Unwind Library Function Interfaces 57
11-33 libdl Definition 64
11-34 libdl - Dynamic Loader Function Interfaces 64
11-35 libcrypt Definition 65
11-36 libcrypt - Encryption Function Interfaces 65
12-1 libz Definition 67
12-2 libncurses Definition 68
12-3 libutil Definition 68
12-4 libutil - Utility Functions Function Interfaces 69
A-1 libgcc_s Function Interfaces 72