

# ISO/IEC 23360-6:2006-12 (E)

## Linux Standard Base (LSB) core specification 3.1 - Part 6: Specification for PPC64 architecture

---

<b>Contents</b>		<b>Page</b>
<b>I</b>	<b>Introductory Elements .....</b>	<b>0</b>
<b>1</b>	<b>Scope .....</b>	<b>1</b>
1.1	General .....	1
1.2	Module Specific Scope .....	1
<b>2</b>	<b>References .....</b>	<b>2</b>
2.1	Normative References .....	2
2.2	Informative References/Bibliography .....	4
<b>3</b>	<b>Requirements .....</b>	<b>6</b>
3.1	Relevant Libraries .....	6
3.2	LSB Implementation Conformance .....	6
3.3	LSB Application Conformance .....	7
<b>4</b>	<b>Definitions .....</b>	<b>9</b>
<b>5</b>	<b>Terminology .....</b>	<b>10</b>
<b>6</b>	<b>Documentation Conventions .....</b>	<b>12</b>
<b>II</b>	<b>Executable and Linking Format (ELF) .....</b>	<b>13</b>
<b>7</b>	<b>Introduction .....</b>	<b>14</b>
<b>8</b>	<b>Low Level System Information .....</b>	<b>15</b>
8.1	Machine Interface .....	15
8.2	Function Calling Sequence .....	16
8.3	Traceback Tables .....	16
8.4	Process Initialization .....	16
8.5	Coding Examples .....	16
<b>9</b>	<b>Object Format .....</b>	<b>18</b>
9.1	Introduction .....	18
9.2	ELF Header .....	18
9.3	Special Sections .....	18
9.4	TOC .....	20
9.5	Symbol Table .....	20
9.6	Relocation .....	20
<b>10</b>	<b>Program Loading and Dynamic Linking .....</b>	<b>21</b>
10.1	Introduction .....	21
10.2	Program Loading .....	21
10.3	Dynamic Linking .....	21
<b>III</b>	<b>Base Libraries .....</b>	<b>22</b>
<b>11</b>	<b>Libraries .....</b>	<b>23</b>
11.1	Program Interpreter/Dynamic Linker .....	23
11.2	Interfaces for libc .....	23
11.3	Data Definitions for libc .....	37

11.4	Interfaces for libm .....	49
11.5	Data Definitions for libm .....	54
11.6	Interfaces for libpthread .....	55
11.7	Data Definitions for libpthread .....	57
11.8	Interfaces for libgcc_s .....	58
11.9	Data Definitions for libgcc_s .....	59
11.10	Interface Definitions for libgcc_s .....	59
11.11	Interfaces for libdl .....	65
11.12	Data Definitions for libdl .....	66
11.13	Interfaces for libcrypt .....	66
IV Utility Libraries .....		67
12	Libraries .....	68
Foreword .....		vii
Introduction .....		viii
12.1	Interfaces for libz .....	68
12.2	Data Definitions for libz .....	68
12.3	Interfaces for libncurses .....	68
12.4	Data Definitions for libncurses .....	69
12.5	Interfaces for libutil .....	69
V	Package Format and Installation .....	71
13	Software Installation .....	72
13.1	Package Dependencies .....	72
13.2	Package Architecture Considerations .....	72
A	Alphabetical Listing of Interfaces .....	73
A.1	libgcc_s .....	73
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 .....	19
11-1	libc Definition .....	23
11-2	libc - RPC Function Interfaces .....	23
11-3	libc - System Calls Function Interfaces .....	24
11-4	libc - Standard I/O Function Interfaces .....	26
11-5	libc - Standard I/O Data Interfaces .....	27
11-6	libc - Signal Handling Function Interfaces .....	27
11-7	libc - Signal Handling Data Interfaces .....	28
11-8	libc - Localization Functions Function Interfaces .....	28
11-9	libc - Localization Functions Data Interfaces .....	28
11-10	libc - Socket Interface Function Interfaces .....	29

11-11	<b>libc - Wide Characters Function Interfaces</b> .....	29
11-12	<b>libc - String Functions Function Interfaces</b> .....	31
11-13	<b>libc - IPC Functions Function Interfaces</b> .....	32
11-14	<b>libc - Regular Expressions Function Interfaces</b> .....	32
11-15	<b>libc - Character Type Functions Function Interfaces</b> .....	32
11-16	<b>libc - Time Manipulation Function Interfaces</b> .....	33
11-17	<b>libc - Time Manipulation Data Interfaces</b> .....	33
11-18	<b>libc - Terminal Interface Functions Function Interfaces</b> .....	33
11-19	<b>libc - System Database Interface Function Interfaces</b> .....	34
11-20	<b>libc - Language Support Function Interfaces</b> .....	34
11-21	<b>libc - Large File Support Function Interfaces</b> .....	35
11-22	<b>libc - Standard Library Function Interfaces</b> .....	35
11-23	<b>libc - Standard Library Data Interfaces</b> .....	37
11-24	<b>libm Definition</b> .....	49
11-25	<b>libm - Math Function Interfaces</b> .....	50
11-26	<b>libm - Math Data Interfaces</b> .....	53
11-27	<b>libpthread Definition</b> .....	55
11-28	<b>libpthread - Realtime Threads Function Interfaces</b> .....	55
11-29	<b>libpthread - Posix Threads Function Interfaces</b> .....	55
11-30	<b>libpthread - Thread aware versions of libc interfaces Function Interfaces</b> 57 11-31 <b>libgcc_s Definition</b> .....	58
11-32	<b>libgcc_s - Unwind Library Function Interfaces</b> .....	58
11-33	<b>libdl Definition</b> .....	65
11-34	<b>libdl - Dynamic Loader Function Interfaces</b> .....	65
11-35	<b>libcrypt Definition</b> .....	66
11-36	<b>libcrypt - Encryption Function Interfaces</b> .....	66
12-1	<b>libz Definition</b> .....	68
12-2	<b>libncurses Definition</b> .....	69
12-3	<b>libutil Definition</b> .....	69
12-4	<b>libutil - Utility Functions Function Interfaces</b> .....	70
A-1	<b>libgcc_s Function Interfaces</b> .....	73