Micriµm

Empowering Embedded Systems

µC/LIB

V1.24

Release Notes

Revision History

Version	Date	Description
V1.24	2007 May	Improvements
V1.23	2007 Mar	Bug fixes & improvements
V1.22	2006 Sep	Improvements
V1.21	2006 Aug	New features & improvements
V1.20	2006 Jun	New features & improvements
V1.19	2006 Apr	Improvements
V1.18	2005 Oct	Bug fixes & improvements First version with release history
V1.17	2005 Jul	Improvements
V1.16	2005 Jun	Improvements
V1.15	2005 May	Improvements
V1.14	2005 Apr	Improvements
V1.13	2005 Feb	Improvements
V1.12	2004 Dec	Improvements
V1.11	2004 Nov	Improvements
V1.10	2004 Sep	Improvements
V1.00	2004 Feb	First release

Requires the following versions of needed Modules

Version 1.24
µC/CPU Version 1.17

Version 1.23
µC/CPU Version 1.16

Version 1.22
µC/CPU Version 1.15

Version 1.21
µC/CPU Version 1.14

Version 1.20
µC/CPU Version 1.14

Version 1.19
µC/CPU Version 1.14

Version 1.18
µC/CPU Version 1.13

Version 1.17
µC/CPU Version 1.12

Version 1.16
µC/CPU Version 1.12

New Features

Version 1.24
V1.24-001

Added new CPU-related integer defines :

```
DEF_INT_CPU_NBR_BITS
DEF_INT_CPU_MASK
DEF_INT_CPU_U_MIN_VAL
DEF_INT_CPU_U_MAX_VAL
DEF_INT_CPU_S_MIN_VAL
DEF_INT_CPU_S_MAX_VAL
DEF_INT_CPU_S_MIN_VAL_ONES_CPL
DEF_INT_CPU_S_MAX_VAL_ONES_CPL
```

Version 1.23
N/A

Version 1.22
N/A

Version 1.21
V1.21-001

Added new memory data value macro's :

`MEM_VAL_GET_xxx()`	decode data values from any memory address.
`MEM_VAL_SET_xxx()`	encode data values to any memory address.
`MEM_VAL_COPY_GET_xxx()`	copy & decode data values from any memory address to any other memory address.
`MEM_VAL_COPY_SET_xxx()`	copy & encode data values from any memory address to any other memory address.
`MEM_VAL_COPY_xxx()`	copy data values from any memory address to any other memory address.

Version 1.20
V1.20-001
Added new string functions :

       `Str_Copy_N()`   copies a string up to a maximum number of characters.

       `Str_Cat_N()`   concatenates two strings up to a maximum number of characters.

       `Str_Char_N()`   searches a string up to a maximum number of characters.

Version 1.19
N/A

Version 1.18
N/A

Improvements

Version 1.24
V1.24-001
Added `LIB_VERSION` to indicate current library module software version number.

V1.24-002
Improved several `DEF_BIT_???()` macro's to handle overflow boundary conditions.

V1.24-003
Added several `LIB_STR_???` common string defines.

Version 1.23
V1.23-001
Removed `malloc()` & all other references to standard library memory functions.

Version 1.22
N/A

Version 1.21
N/A

Version 1.20
V1.20-001
Improved ARM assembly port files to be compatible for both ARM & Thumb modes.

Version 1.19
N/A

Version 1.18
V1.18-001
Added macro function headers for all `lib_def.h` macros.

V1.18-002
Improved consistency for all `lib_str.c` functions.

Changes

Version 1.24
N/A

Version 1.23
N/A

Version 1.22
N/A

Version 1.21
N/A

Version 1.20
V1.20-001

The following macro names in `lib_str.h` have been changed to comply with standard naming conventions :

```
Is_Alpha()    changed to Str_IsAlpha()
Is_Digit()    changed to Str_IsDigit()
Is_Space()    changed to Str_IsSpace()
Is_Print()    changed to Str_IsPrint()
Is_Upper()    changed to Str_IsUpper()
Is_Lower()    changed to Str_IsLower()

To_Upper()    changed to Str_ToUpper()
To_Lower()    changed to Str_ToLower()

Str_To_Long()         changed to Str_ToLong()
Str_Format_Print()    changed to Str_FmtPrint()
Str_Format_Scan()     changed to Str_FmtScan()
```

Version 1.19
V1.19-001

Macros `Str_Format_Print()` and `Str_Format_Scan()`in `lib_str.h` have been corrected to be compatible with some compilers.

Version 1.18
V1.18-001

`DEF_BIT_MASK()` macro and `DEF_BIT_FIELD()` macro switched names.

V1.18-002

`Str_Char_R()` changed name to `Str_Char_Last()`.

Corrections

Version 1.24
N/A

Version 1.23
V1.23-001
ARM assembly port files were not completely compatible for both ARM & Thumb modes (see 'Improvements V1.20-001'). Corrected by using only ARM & Thumb mode instructions.

Version 1.22
N/A

Version 1.21
N/A

Version 1.20
N/A

Version 1.19
N/A

Version 1.18
V1.18-001
`Str_Str()` incorrectly assigned unsigned string lengths to signed variables. Corrected by assigning string lengths to unsigned variables.

V1.18-002
`lib_mem_a.asm` did not correctly terminate the memory copy during the `Pre_Copy_1` label if no more data octets to copy. Corrected by terminating the memory copy if no more data octets.

Known Problems

Version 1.24
V1.18-001b (Unresolved)

Version 1.23
V1.18-001b (Unresolved)

Version 1.22
V1.18-001a (Unresolved)
V1.18-001b (Unresolved)

Version 1.21
V1.18-001a (Unresolved)
V1.18-001b (Unresolved)

Version 1.20
V1.18-001a (Unresolved)
V1.18-001b (Unresolved)

Version 1.19
V1.18-001a (Unresolved)
V1.18-001b (Unresolved)

Version 1.18
V1.18-001a

`lib_mem.h` includes some standard library files and functions. ALL references to standard library files and functions SHOULD be removed once all custom library functions are implemented.

V1.18-001b

`lib_str.h` includes some standard library files and functions. ALL references to standard library files and functions SHOULD be removed once all custom library functions are implemented.

Limitations

001
Does not support variable argument library functions

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