Debug Printing Module

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This module provides a lightweight printf function that can be enabled or disabled via configuration macros. Code can be declared to be within a "debug unit" (usually a module) and prints can be enabled/disabled per debug unit.

1 API

To use this module, include module_logging in the application's USED_MODULES list and include the debug_print.h header file.

debug_printf()

A limited functionality version of printf that is low memory.

This function works like C-standard printf except that it only accepts d, x, s, u and c format specifiers with no conversions. The function uses the functions from print.h to do the underlying printing.

Unlike printf this function has no return value.

Whether the function does any output can be controlled via defines such as DEBUG_PRINT_ENABLE or DEBUG_PRINT_ENABLE_[debug unit name] in the application's debug_conf.h

Type

```
void debug_printf(char fmt[], ...)
```

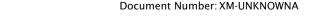
2 Debug Units

A source file can be added to a debug unit by defining the DEBUG_UNIT macro before inclusion of debug_print.h. For example:

```
#define DEBUG_UNIT ETHERNET_MODULE
#include "debug_print.h"
```

To include all source files in a module in a particular debug unit, it is convenient to do it in the module_build_info file of the module e.g.:

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MODULE_XCC_FLAGS = \$(XCC_FLAGS) -DDEBUG_UNIT=ETHERNET_MODULE

If no DEBUG UNIT is defined then the default debug unit is APPLICATION.

3 Enabling Printing

By default, debug printing is turned off. To enable printing you need to include a file called debug_conf.h in your application. Within this file you can set the following defines:

DEBUG PRINT ENABLE

Setting this define to 1 or 0 will control whether debug prints are output.

DEBUG_PRINT_ENABLE_[debug unit]

Enabling this define will cause printing to be enabled for a specific debug unit. If set to 1, this will override the default set by DEBUG_PRINT_ENABLE.

DEBUG_PRINT_DISABLE_[debug unit]

Enabling this define will cause printing to be disabled for a specific debug unit. If set to 1, this will override the default set by DEBUG_PRINT_ENABLE.



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