

RTOS

Copyright (c) 2016 Young W. Lim.

Permission is granted to copy, distribute and/or modify this document under the terms of the GNU Free Documentation License, Version 1.2 or any later version published by the Free Software Foundation; with no Invariant Sections, no Front-Cover Texts, and no Back-Cover Texts. A copy of the license is included in the section entitled "GNU Free Documentation License".

Please send corrections (or suggestions) to youngwlim@hotmail.com.

This document was produced by using OpenOffice.

Useful Links

RTOS Lecture Notes

<http://www.isis.vanderbilt.edu/akos/eece6354>

http://eecs.vanderbilt.edu/courses/ee276/Fall06_lectures/10%20RTOS%20basics.pdf

UCOS II User's Manual (API Ref Manual is included)

<https://doc.micrium.com/display/osiidoc/home>

Getting Started Article (2 simple examples)

http://ftp1.digi.com/support/documentation/0220047_e.pdf

Traffic Light Controller Example using uCOS

<http://people.cst.cmich.edu/yelam1k/asee/proceedings/2012/Full%20Papers/Jochum.pdf>

I.RTOS

Vanderbilt, EE276,

http://eecs.vanderbilt.edu/Courses/ee276/Fall06_lectures/10%20RTOS%20basics.pdf

Task, TCB, Task States,
RTOS Tasks, Reentrant functions

Vanderbilt, EECE6354,

<http://www.isis.vanderbilt.edu/sites/default/files/GettingStarted.ppt>

Multitasking, RTK,

<http://www.isis.vanderbilt.edu/sites/default/files/Tasks.pptx>

Multitasking, Task, Task Creating & Initializing an Application,
OS Initialization, Task creation, Initial Task, Critical Sections,
Semaphores, Binary Semaphore, Counting Semaphore

Getting Started Tutorial

- * Code Analysis of the two examples



- * Simple description and usage exan

OSTaskCreate()

OSSemCreate()

OSStart()

OSSemPend()

OSSemPost()

OSSTimeDlySec()

TN205

How to Get a C/OS-II Application Running

- * What is 512 & 1024 argument in OSTaskCreat call?

- * What would be the possible output result?

- * Why can't the standard c library function rand() is called without semaphore consturcts?

Traffic Light Controller Tutorial

Traffic Light Implementation Using uC/OS- a project in Real time systems Course

Gerald Jochum, Emmanuel Tuazon and Subramaniam Ganesan

Oakland University, Rochester, MI 48309

gjochum@oakland.edu, etuazon@oakland.edu, ganesan@oakland.edu,

- * Short description and usage examples for the API in the listing 1, and Figure 2
- * Code analysis for listing2 and listing3 (How the scheduling is programmed?)

References

- [1] <http://www.isis.vanderbilt.edu/akos/eece6354>
- [2] http://eecs.vanderbilt.edu/courses/ee276/Fall06_lectures/10%20RTOS%20basics.pdf
- [3] <https://doc.micrium.com/display/osiidoc/home>
- [4] http://ftp1.digi.com/support/documentation/0220047_e.pdf
- [5] <http://people.cst.cmich.edu/yelam1k/asee/proceedings/2012/Full%20Papers/Jochum.pdf>