EECS 690

Project 1 Report

Program Profiling on a TI Tiva C TI\_TM4C1294NCPDT using FreeRTOS

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# Abstract

Many people write tasks for various computer systems every day without understanding how many resources that task will actually use. This report helps show how to calculate the amount of time each of those tasks will take, specifically on a TI\_TM4C1294NCPDT board using FreeRTOS.

# Revision History

The following table lists the revision history for this document.

**Table 2‑1 Revision History**

|  |  |  |
| --- | --- | --- |
| **Date** | **Revision** | **Description** |
| September 18, 2018 | 1.0 | Initial Release |

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# Principles of Operation (POP)

The POP shall describe the architecture and design of your project; it should start with an overall prose description of the project and goal and include a top-level block diagram; you should then describe your project in detail; you should list all modules you used or adapted from other sources

# Data Structure Descriptions

Table 7‑1 Data Structures

|  |  |  |
| --- | --- | --- |
| **Data Structure Name** | **Type** | **Data Structure Description** |
|  |  |  |

# Function Descriptions

Table 8‑1 Functions

|  |  |  |
| --- | --- | --- |
| **Function Name (Purpose)** | **Function Pseudo Code** | **Referenced External Functions** |
| **Task\_ProgramTrace**  This task purpose. |  |  |

# Parameters

Table 9‑1 Parameters

|  |  |  |  |
| --- | --- | --- | --- |
| **Parameter Name** | **Parameter Type** | **Parameter**  **Default Value** | **Parameter Description** |
| **Current\_PC** | uint32\_t | 0 | Contains the current Program Counter. |

# Testing

# Lessons Learned

Never write assembly, it is terrible…

# Appendix A – Program Source Code