

Operating Systems

CMPT 424

-Lab 6

Goals	Memory protection with base and limit tracking This approximately one-hour active learning exercise will help you make progress on the practical aspects of developing your operating system.
Instructions	<ol style="list-style-type: none">1. Add the <i>iProject 3</i> functional requirements as Issues in GitHub as element of an “<i>iProject 3</i>” milestone.2. Increase your memory from 256 bytes to 768 bytes. Be sure that you can map a memory partition number (0,1,2) to the appropriate base address (0, 256, 512).3. Add to your Process Control Block as necessary to keep track of where a given process is held in memory.4. Add memory protection fields (base and limit memory addresses) to your PCB as well.5. Add other new features as specified in your Issues and <i>iProject 3</i>.6. Test. (You should be really good at this by now. You better be!)7. Read chapter 8.3 again.8. Read chapters 14.1 and 14.3.3
Questions	<ol style="list-style-type: none">1. What?2. Why?
Resources	<ul style="list-style-type: none">• http://lwn.net/Articles/250967/• http://duartes.org/gustavo/blog/post/memory-translation-and-segmentation/• Chapter 13 in http://pages.cs.wisc.edu/%7Eremzi/OSTEP/• Chapter 15 in http://pages.cs.wisc.edu/%7Eremzi/OSTEP/• Code to test memory limits: A9 A9 A2 01 EC 13 00 AC 0B 00 8D 14 00 EE 0B 00 D0 F5 00 00
Grading	Your work on this lab will contribute to your grade for <i>iProject3</i> .
Submitting	Commit your work to your private GitHub account in an appropriately-named folder. Make sure to tag your commit messages with the Issue number they address.