

Princeton University
 COS 217: Introduction to Programming Systems
 SPARC Assembly Language “while” Statement
 Optimization

<p>C:</p> <pre> ... instruction0; while (test) { instruction1; instruction2; ... instructionN; } ... </pre>	
<p>Assembly Language:</p> <pre> ... instruction0 loopstart: cmp ... bnx loopend nop instruction1 instruction2 ... instructionN ba loopstart nop loopend: ... </pre>	<p>Optimized Assembly Language:</p> <pre> ... ba looptest instruction0 loopstart: instruction2 ... instructionN looptest: cmp ... bx,a loopstart instruction1 ... </pre>