

Princeton University

COS 217: Introduction to Programming Systems

Assembler Output for hello.S

Symbol Table

Label	Section	Offset	Local/Global	Sequence #
pcGreeting	rodata	0	local	0
main	text	0	global	1
printf	?	?	global	2

Rodata Section

Offset	Contents (binary)	Contents (hex)	Explanation
0	01001000	48	.asciz "Hello\n"
1	01100101	65	
2	01101100	6C	
3	01101100	6C	
4	01101111	6F	
5	00001010	0A	
6	00000000	00	

Text Section

Offset	Contents (binary)	Contents (hex)	Explanation
0-3	10 01110 111100 01110 1 1111110100000	9DE3BFA0	save %sp,-96,%sp
4-7	00 01000 100 ??????????????????????	11000000	sethi %hi(pcGreeting),%o0
8-11	10 01000 000010 01000 1 ??????????????	90122000	or %o0,%lo(pcGreeting),%o0
12-15	01 ??????????????????????????????	40000000	call printf
16-19	00 00000 100 0000000000000000000000	01000000	nop
20-23	10 11000 000010 00000 1 00000000000000	B0102000	or %g0,0,%i0
24-27	10 00000 111000 11111 1 0000000001000	81C7E008	jmp1 %i7+8,%g0
28-31	10 00000 111101 00000 0 00000000 00000	81E80000	restore %g0, %g0, %g0

Relocation Records

Offset	Relocation Type	Label Sequence #
4	R_SPARC_HI22	0
8	R_SPARC_LO10	0
12	R_SPARC_WDISP30	2

(Note: Relocation type R_SPARC_WDISP22 is used to mark **branch** instructions for resolution)