Course Materials for Today

**Hardcopy:**
- CS-322 Checklist
- Syllabus
- Paul - Chapter 2 (35 pages)
- SPARC Instruction Formats (1 page)
- SPARC Demo Programs (2 pages)
- ASCII Byte Encoding Chart (2 pages)

**Online:**
- Project 7 (4 pages)
- HW #1
- Coding Style for Java Programs (8 pages)
- PCAT Reference Manual
- Overview of SPARC Architecture (40 pages)
- Lecture Notes

Please Print These
Organization

Syllabus / Webpage

cs.pdx.edu/~harry/compilers/syllabus.html

Office Hours

Grader

Textbook

Required (from last term):
  Kenneth C. Louden, “Compiler Construction: Principles and Practice”

Optional (not ordered):
  Richard P. Paul, “SPARC Architecture, Assembly Language, and C”

Exams

  Closed book, same format

Grading (tentative!!!)

  10%  Homework
  29%  Programs
  29%  Midterm Exams (2)
  29%  Final
  3%   Attendance

Programming Projects

Four Programming Projects

Project 7:  SPARC Assembly Language
Project 8:  Generating Intermediate Code (part 1)
Project 9:  Generating Intermediate Code (part 2)
Project 10: Generating Intermediate Code (part 3)
Project 11: Final Code Generation

Optional:  Peephole Optimizer
Last Term

Covered first 6 chapters in textbook
   Lexical
   Parsing
   Attribute Grammars
   Types / Type Checking
   Abstract Syntax Trees

We are writing a compiler for the PCAT language.

You may use your code from CS-321, last term.
   (Note: subtle differences exist in the different PCAT versions.)

I will supply .jar files, as necessary.

For New Students

You may NOT use your code from CS-321.
   Subtle differences exist in the different PCAT versions.

I will supply .jar files, as necessary.

All course material is online through the web page.

Review the first term material, particularly
   Packet-10: Project 3 (parsing)
   Packet-12: Project 4 (building AST)
   Packet-16: Project 5 (type-checking, part 1)
   Packet-18: Project 6 (type-checking, part 2)

Print and read the associated assignment documents.
Misc Organization

MailMan E-Mail List
Subscribe to the mailing list named cs321-001

Class Account
E-mail projects to cs321-01
Subject: Project 7 - John Doe
The code should be in a plaintext attachment
Do not submit multiple times! (Unless instructed to do so.)

Make sure your files conform to my “style” guidelines.
Do not modify any of the other java files.

Work independently
Write the code yourself
...or come to my office for help!

Take roll.

check.c      and      hexdump.c

check
See if a file contains strange characters

hexdump
See exactly what bytes are in a file

Located in
cs.pdx.edu/~harry/compilers/bin
Webpage link: “Misc. Useful Programs”

Put them in your /bin directory and compile them.
cc -g hexdump.c -o hexdump
cc -g check.c -o check
Example

% more temp
Now is the time
for all good men to
abc^A^B^K^L^Ndef
come to the aid of their party.

% check < temp
The maximum line length is 36
The number of TAB characters is 6
The number of CR characters is 0
The number of LF characters is 3
The number of BS characters is 0
The number of DEL characters is 0
The number of other non-printable characters is 5

% hexdump < temp | more
00000000: 4E6F 7720 6973 2074 6865 2074 696D 6520  Now is the time
00000010: 0966 6F72 2061 6C6C 2067 6F6F 6420 6D65  .for all good me
00000020: 6E20 746F 0A61 6263 0102 0B0C 0E64 6566  n to.abc.....def
00000030: 0A63 6F6D 2074 6865 7220 7061 7274 792E  .come to the aid
00000040: 206F 6620 7468 6569 7220 7061 7274 792E  of their party.
00000050: 0909 0909 090A  ......