Meeting Report

1up

Author: Logan Coulson

03/04/2011 -(12:30-3:18)

Attendance Logan Coulson Josh Green, Andrew Groot.

Recorder: Logan Coulson

Location Caldwell 183

Goal: *Plan how we are going to do the lab.*

TASKS:

.ENT and .EXT -> fairly easy, alter line and extractor, as well as make a .EXT symbol table

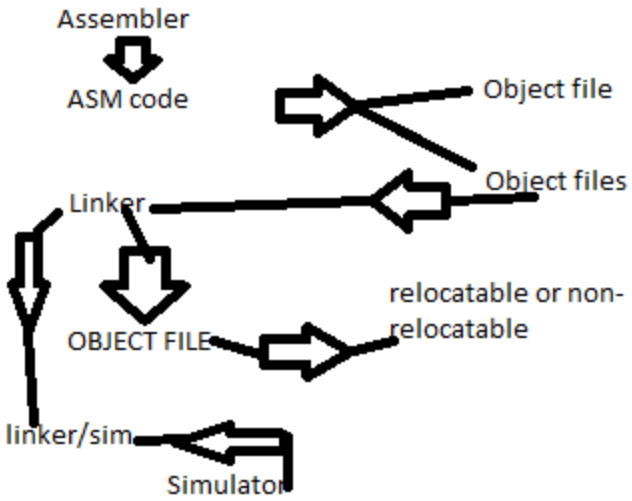
Linking -> More Complex: need to write new code

Integration -> easy, just create a new main that calls the other mains in order.

Objectives -> try to make use as much like the gcc compiler as possible.

Link<-.o, .o takes multiple .o and makes a large .o cmd -o, out.o

Main checks command line arguments for input, so use flags. Default be to use everything



s->o->l source->object->linked

-d debug

-l listing

-o output object file

CHECKS

Prompts for address

Validity of address

Accepts non-relocatable

Check pages

Absolute program crashes

Combine-> linker/simulator, have linker return a text file

Linker returns a filename, avoid re-writing the simulator, possible deleting the file

Linking->knows .ENT and >EXT conventions, reads files, creates 1 .o file, relocatable iff one or more files in it are relocatable.

Cases of relocation

1 absolute, relocatables-> memory huge, relocatables anywhere, absolute static, should not be too hard to implement

n absolutes-> must

n relocatables -> must

n of both-> memory huge, relocatables anywhere, absolutes static, should not be too hard to implement

Programs limited to one page? yes.

Let absolutes overlap, but give a warning, relocatables are limited to one page

Flags

-a just assemble

-d debug-> exe only

-l listing-> linking

-o output .o file name -> linking

-x execute -> simulator

-s#

-t

-ox output and execute

If there is an o, do not execute, unless there is an x as well

Schedule

Thursday-> design

Friday-> individual

Saturday-> SEL

Sunday-> compile/code/test

Monday-> test, find bugs

Tuesday-> fix them

Wednesday-> finalize documentation

Thursday-> confirm everything is done

Friday-> turn in

Josh-> get simulator going, programmers guide

Green-> code, testing, combine, .ENT .EXT

Canale-> users guide

Logan-> meeting minutes

Ryan-> testing

Test-> try division as a subroutine

getopt-> c++ portable maybe, tell it how to set up command line, it sets it up. May be useful.

bison: parser generator

C

ASM .S->assembler

.obj .o(s)->Linker->.o->simulator

binary .exe

Programmers guide track changes, .intro, .EXT and .ENT, linker returns a file name, command line

Action: Do tasks listed above

03/06/2011 - (10:00am to 6:00pm)

Attendance: Josh Green, Andrew Groot, Andrew Canale

Recorder: Andrew Groot

Location: SEL 4th floor

Goal: General Work Day

Josh & I:
Did a good deal of the revising of the Simulator and Assembler, respectively.
Wrote a main function for the integrated "wi11".
Finalized several design decisions:

- Assembling of single files done one at a time, similar to the assembler alone worked. This way the user can specify a name.
- M instead of an H in header for Main file -- designated by the .MAIN pseudo-op.

- SymbolTable::Contains became "IsSymbol". Added "IsExternal".
- A label can be defined as an external multiple times
- External labels must be used as must be relative
- External Records follow this format when assembled:
  - X|ADDR|INST|
    SYMBOL
- A lower-case x is used for pgoffset9's, the capital X would be for the whole value (as in a .FILL)
- Entry Records follow this format when assembled:
  - N|SYMBOL|ADDR

Andrew Canale:
Revised the lab2 user's guide.
Worked with Josh and I and used previous guides to begin created the lab3 user's guide.

Finished on schedule.

03/06/2011 - (10:00am to 6:00pm)

Attendance: Josh Green, Andrew Groot

Recorder: Andrew Groot

Location: SEL 4th floor

Goal: Finish up from Saturday

Finished the work leftover from the day before.
Developed an algorithm for the linker and created the FileArray class to aid in writing it.
Some early debugging for sections that were coded and rewriting of part of the main function to make the parsing of command line arguments more correct.
Discussion of the tmpnam function and its potential "dangerousness". These concerns were dropped consider it would take more effort to fix than the likelihood that Sivilotti or one of the graders would try to harm the school computer.

Action: Finished mainly on schedule (I had to finish the Linker later that night).
Action: Testing the next couple of days and documentation swapping Wednesday and Thursday.

Action: Get Meeting Minutes up by Tuesday