

PA8 – Load in Place (Grad Only)

Due Date

- See Piazza for due date and time
 - Grading the next day
- Submit program to perform in your student directory
 - Sub directory called:
 - /PA8/...
 - Fill out your **PA8 Submission Report.pdf**
 - Place it in the same directory as your solution
 - Enter the final Changelist number of your submission
 - Write up a quick discussion in the report
 - What you learned from this assignment so far

Goals

- Learn
 - File Basics
 - fopen, fread, fclose, fseek,
 - (hopefully it's a review)
 - Load a dynamic memory in-place file for fast reload and run

Assignments

Section 1: Create your contiguous memory

- Create your contiguous memory footprint
- Needs to be:
 - in one contiguous memory footprint
 - offsets instead of pointers
 - See sample print out
 - append to existing output file

Section 2: Write Contiguous memory footprint to a new binary file

(No credit- if Section 1 isn't 100% complete)

- Write Contiguous memory footprint to a new binary file
 - add any extra data necessary for pointer fix-up
- Load this data from a binary file into ONE memory block
 - perform pointer fix-up
- print the linked list data
 - your pointers will be pointing to address within block
 - data will be the same as before, everything has to come from binary file
 - append to existing output file

General:

- Write all programs in cross-platform C or C++.
 - Optimize for execution speed and robustness.
- Create a programming file for each problem, for example
 - Student directory
 - /PA8/...
 - Make sure that each problem can be compiled and run through the checked in solution
- Do all your work by yourself
 - Feel free to talk with others about setup, version control, ideas
 - But do not copy your friend's code.
 - Please don't - I can tell with my difference tools
 - Feel free to share ideas
- Check in the problems multiple times, at least 3 times per problem
 - Have reasonable check-in comments
 - Seriously, I'm checking
- Make sure that your program compiles and runs
 - Warning level 4, some times that is not possible due to MS headers...
 - Your code should be squeaky clean.
- We are using Perforce
 - You should have received the document describing how to login.
 - Please look at the documentation and videos under the reference directory
 - Submit program to perforce in your student directory
 - Sub directory called: /PA8/...
 - As described above
 - All your code must compile from perforce with no modifications.
 - Otherwise it's a 0, no exceptions

Validation

Simple check list to make sure that everything is checked in correctly

- Did you do all Section 1?
- Do they compile and run without any errors?
- Warning level 4 free (or as close as you can go)?
- Submitted it into /PA8 directory?
- Can you delete you local drive, regrab the /PA8 directory?
 - Is all the code there, Does it compile?
- Did you check in your text files?

Hints

Most assignments will have hints in a section like this.

- Practice your file system stuff
- Create several example solutions with different file patterns – fopen, fread, fwrite
- Make sure your are using the binary operation and not the text mode.
 - 'wt' – write text
 - 'wb' – write binary
 - Same for read
- Look up file read / write examples from the internet or out of the book
 - I like the fopen, fwrite way of doing stuff as opposed to the streams.
 - Either way works, see what is easier for you.
- Use the FORUMs
 - This is much harder than the last assignment.
 - See me during office hours.
 - Read, explore, ask questions in class