

# ArchLab Release Notes

**10/19/2016**

- Fixed a bug in pipe/correctness.pl that allowed programs that are too long to get full credit. *Thanks to Jenna MacCarly, Carnegie Mellon*

**4/1/2015**

**This is a major update of the Arch Lab that reflects the changes in Chapter 4 of CS:APP3e.**

- Updated all tools and programs from Y86 (32-bit) to Y86-64 (64-bit).

**7/29/2013**

- Updated autograders to compute and summarize all autograded scores on the gradesheets.
- Fixed some typos in the writeup and the slides.
- In the writeup, updated references to problem numbers for `iaddl` and `leave` to include the corresponding problem numbers for the international version.

**5/1/2011**

**This is a major update of the Arch Lab that reflects the changes in Chapter 4 of CS:APP2e.**

- Students can now use the conditional move instructions to avoid the performance problems of conditional jumps.
- The benchmark test has a random selection of positive vs. negative numbers. So, conditional moves are really the way to go.
- The correctness check is more robust, looking for things like overshooting the array bounds.
- Added a 1000-byte limit on the size of the object code for the `ncopy` function.
- Added Perl scripts in `src/ptest` that provide comprehensive regression testing of the different Y86 simulators:
  - Tests each individual instruction type.
  - Tests all of the jump types under different conditions.
  - Tests different pipeline control combinations.
  - Tests many different hazard possibilities.
- Incorporated the regression tests in `src/ptest` into the autograding of the student solutions for parts B and C.

**11/04/2004**

- Fixed problem that caused some newer Linux distributions to get `tk.h` from `/usr/local/include` instead of `/usr/include`. *Thanks to Prof. Dr. Gerd Doebe-Henisch, Fachhochschule Frankfurt.*

**12/22/2003**

- Fixed minor bug that caused some compilers to complain. Changed type of return value from `getopt()` from `char` to `int`. *Thanks to Morgan Harvey, Portland State University.*

**8/5/2002**

- Initial release.