

## IP Homework Assignment

*Due: Before Final*

**Directions:** Can discuss but must program individually. Each of you gets an individual grade.

- **Building a Multibit Trie:** Build the most optimal fixed stride trie (you can vary the stride at each level but not within a level) of height 4 for a given IP Lookup Database. You can assume the first level has a stride of 12 or more which means that you have to divide at most 20 bits among 3 strides. Thus you can even do the brute force method of trying all possible partitions though I will give some extra points for running time.

To grade your work, I will try and run your program on a different database. So I need your executable.

Also, please hand in your code running on the first database in:

<ftp://archive.routeviews.org/oix-route-views/2008.02/>

There are some issues to extracting the prefixes. There are also lines that have AS info and you may want to use `egrep` to first extract the prefix lines.