



Compilers

Alignment

- Most modern machines are 32 or 64 bit
 - 8 bits in a byte
 - 4 or 8 bytes in a word
 - Machines are either byte or word addressable

- Data is *word aligned* if it begins at a word boundary
- Most machines have some alignment restrictions
 - Or performance penalties for poor alignment

- Example: A string

“Hello”

Takes 5 characters (without a terminating \0)

- To word align next word, add 3 “padding” characters to the string
- The padding is not part of the string, it’s just unused memory