ECGR 4101/5101 — LECTURE 4

Symbol table

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>a</td>
<td>4 bytes</td>
<td>float</td>
</tr>
<tr>
<td>b</td>
<td>4 bytes</td>
<td>int</td>
</tr>
<tr>
<td>c</td>
<td>4 bytes</td>
<td>int</td>
</tr>
</tbody>
</table>

float a;
int b;
int c;
\[ a = 2.5; \]
\[ c = 2; \]
\[ b = (\text{int})a \times c; \text{ vs } b = (\text{int})(a \times (\text{float})c); \]

give an example of where \( b \) would be different between these two

\[ b = 5 \]

How much RAM
\[ 0000 \ 0000 \ 0000 \ 0000 \ | 0001 \ 7FFF \ 7FFF \ 7FFF \]
\[ \Rightarrow 0x18000 \text{ bytes} \]
\[ 98 \ 304 \text{ bytes} \]
Things that make you go hmmm ("things to know")

ASCII

'O' = x30
'A' = x41
'a' = x61
'0' = x30

1k = 1024 = 2^{10}
1M = 1,048,576 = 2^{20}
64K = 65,536 = 2^{16}

Masking (slide 17)

\[
data = \text{(int)} \text{PORT1. PORT. BYTE} \& 7;
\]
So, data = 7 if nothing pressed