This is Dual-Ported. Simultaneous Read/Write
Many pins if we only Read or Write each cycle.

**Tri-State Buffers**

Act like a switch

<table>
<thead>
<tr>
<th>$EN$</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>$0$</td>
<td>Output is disconnected</td>
</tr>
<tr>
<td>$1$</td>
<td>Act like a wire</td>
</tr>
</tbody>
</table>

**Example**

Select

Key: Only 1 tri-state is enabled at a time

This is a Mux!
Verilog

Tri State Value: Z

eg.
assign data = en ? A : 16'hZ;
assign data = en ? 16'hZ : B;

This is the only time you can have 2 assigns to one value.

Z in simulator means signal is not connected.