

Concept Question 4-21: When a MOSFET is used in a buffer circuit, $v_{\text{out}} \approx v_s$, where v_s is the input signal voltage. So, why is it used?

To reduce the requirement for very large load resistance to a smaller value (ohms instead of kilohms). The MOSFET "looks like" a very large resistive load to whatever circuit is driving the buffer. This is desirable, as it means that even a weak circuit can "drive" the correct signal onto the input of the buffer.