









MEMORY MODEL



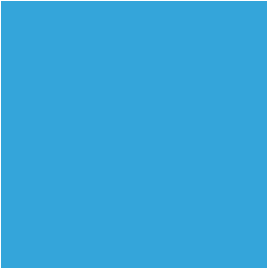
**PROCESS**  
**A**

























**PROCESS**  
**B**









OxOODOO.







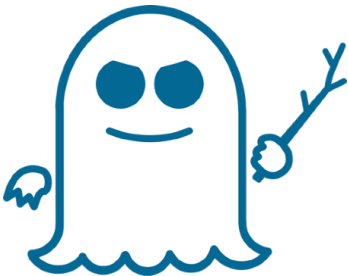


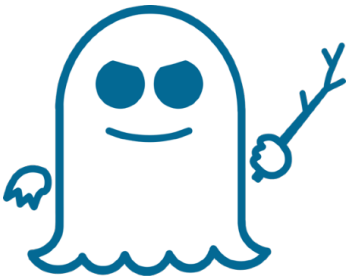










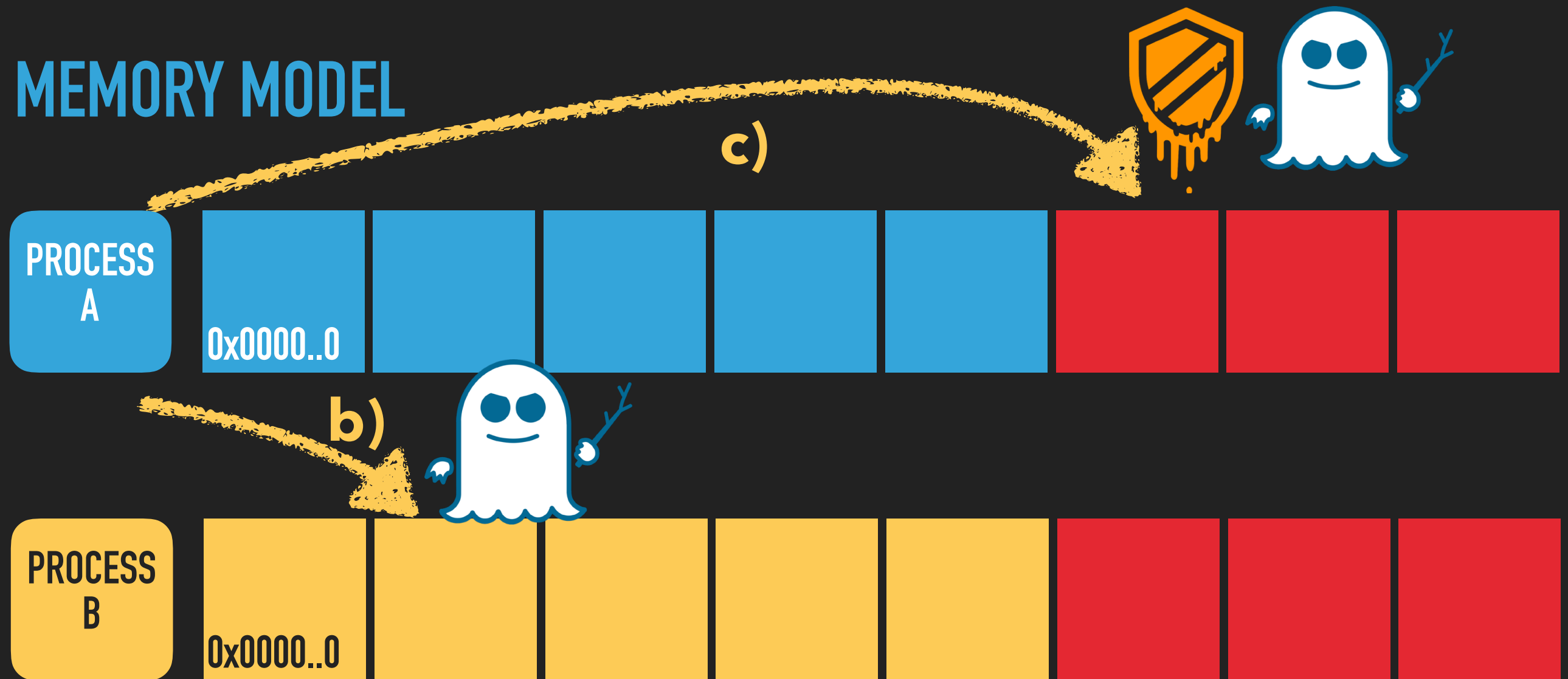




▶ c) is vulnerable to Meltdown and Spectre

▶ b) is vulnerable to Spectre

## MEMORY MODEL



- ▶ **c)** is vulnerable to Meltdown and Spectre
- ▶ **b)** is vulnerable to Spectre

## MEMORY MODEL

- ▶ Virtual memory is backed by physical RAM
- ▶ Virtual memory is much, much larger than physical RAM
- ▶ Not all virtual memory is backed by RAM, e.g. 