

# Deadlock Detection

Several Instances of a Resource Type

Tape drives  
Plotters  
Scanners  
CD Roms

$$E = (4 \quad 2 \quad 3 \quad 1)$$

Tape drives  
Plotters  
Scanners  
CD Roms

$$A = (2 \quad 1 \quad 0 \quad 0)$$

$$\begin{aligned} & \overset{A}{(2 \ 1 \ 0 \ 0)} \geq \overset{R}{R_3}, (2 \ 1 \ 0 \ 0) \\ & (2 \ 2 \ 2 \ 0) \geq R_2, (1 \ 0 \ 1 \ 0) \end{aligned}$$

Current allocation matrix

$$C = \begin{bmatrix} 0 & 0 & 1 & 0 \\ 2 & 0 & 0 & 1 \\ 0 & 1 & 2 & 0 \end{bmatrix}$$

Request matrix

$$R = \begin{bmatrix} 2 & 0 & 0 & 1 \\ 1 & 0 & 1 & 0 \\ 2 & 1 & 0 & 0 \end{bmatrix}$$