

# Sliding Window Flow Control

□ Not allowed to transmit

■ Allowed to transmit

■ Transmitted; not yet ACKed

■ ACKed

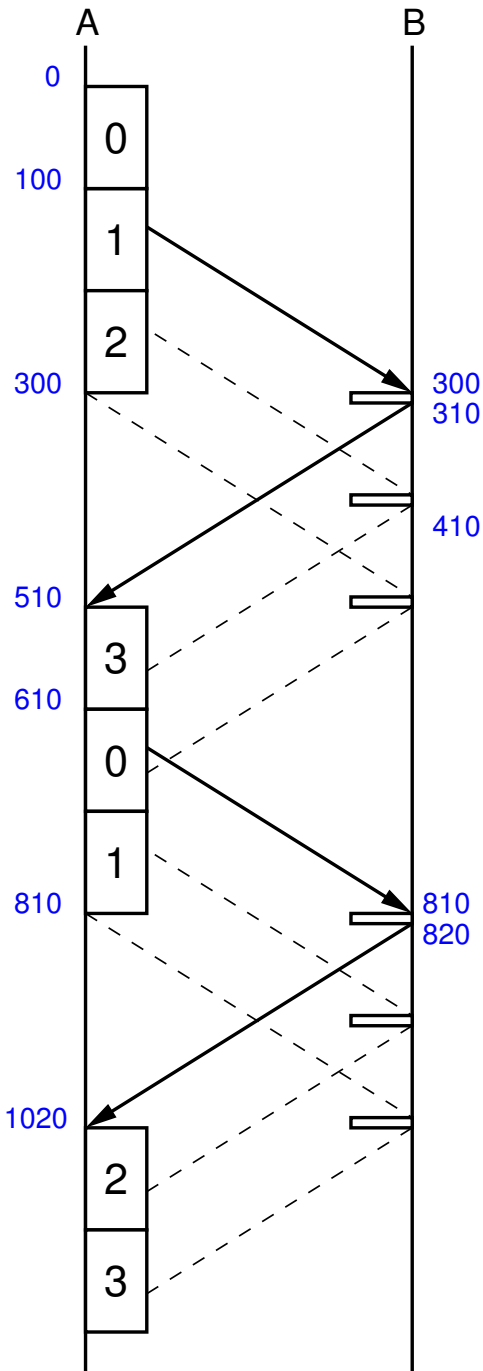
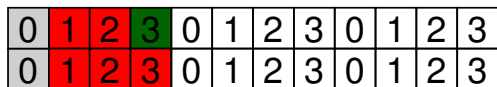
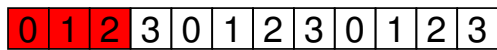
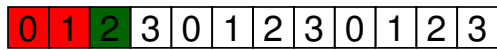
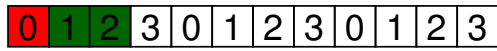
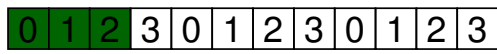
Propagation = 200

DATA transmission = 100  
(90 data, 10 header)

ACK transmission = 10

2-bit sequence number (W=3)

Note: units are not given



## Performance:

A sends 3 frames to B then must wait for ACK of 1st frame; then can send another 3 frames.

A delivers 3 frames to B every 510

Each frame is 90 of real data

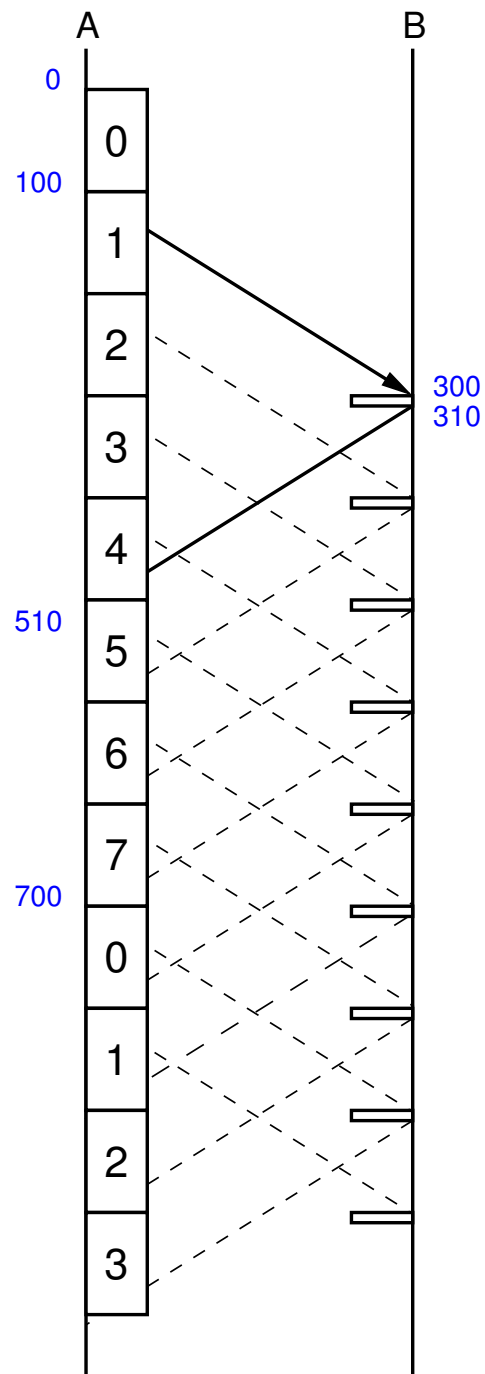
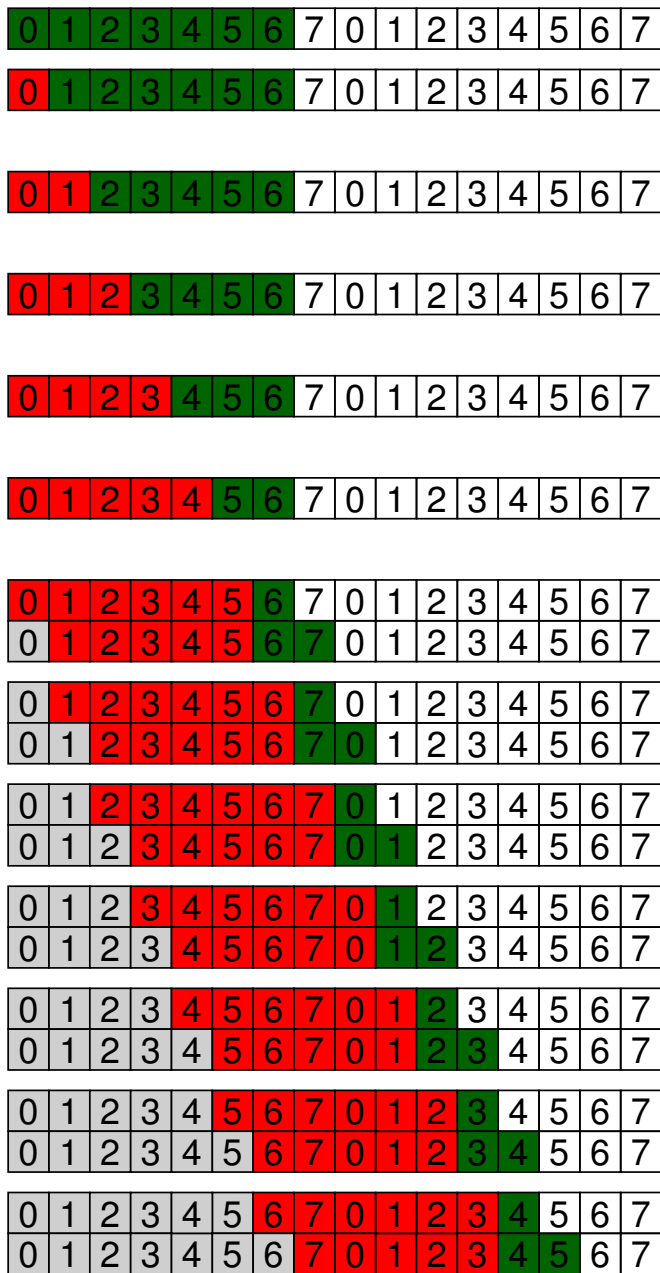
Efficiency:  $3 \times 90 / 510 = 52.94\%$

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Propagation = 200  
 DATA transmission = 100  
 (90 data, 10 header)  
 ACK transmission = 10  
 3-bit sequence number (W=7)

Note: units are not given



## Performance:

A continuously sends frames to B since an ACK of 1st frame is received before all allowed frames are sent allowing another frame to be sent. The only overhead is the header.

Efficiency: 90%