Issues

- What if file is very large?

  - Heavy retransmissions

  - Very inefficient

- Requires splitting the file.

  - Split file into what units?

    - packets?

Packetised File Transmission

- At A:
  - Packetise file
  - Transmit each packet separately with its own error control
  - If erroneous retransmit

- At B:
  - Receive packet by packet
  - Check for errors
  - Acknowledge reception of packet
  - Assemble packets and save to a file

Packet based transmission: Issues

- A Protocol is required:
    - Start / end of a packet
    - Start / end of a file
    - Start / end of a byte
    - Error control mechanism used
    - Sequence number for each packet
        - Out of order arrival of packets

A Layered Approach to Error Control

- *files:* checksum

- *messages:* **?**

- *packets:* **CRC**

- *bytes:* parity

- *bits:* voltage levels

- *bare wire*

- Different error control mechanisms at different layers