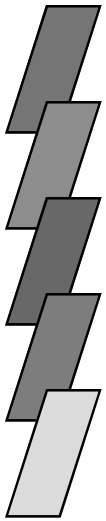

Canon

High Performance Transport *Concept* using Shared Memory Model

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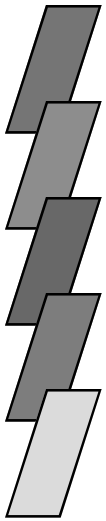
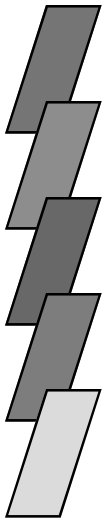


☆Transport for High Speed I/O

- Efficient Use of High Bandwidth
  - – Minimizing Protocol Overhead
    - ☒ “Data Movement(Copy)” bottleneck
      - – Wastes CPU power by *slow* Main Memory Access
      - – Cache miss by reduced locality of reference in Memory Access
    - ☒ OS involvement in all I/O activity
      - – Causing Drop in Throughput and Latency
  - ⇨Split control headers from data itself.
  - ⇨List delivery schedule.

☆Virtual Ports for Workgroup

- Continuous Evolution
  - – *Multiple* Uni-Directional Parallel Port Model
    - Basic & Common Function for ALL platforms
  - – *Multiple* Bi-Directional Parallel Port Model
    - Extends to Workgroup Environment
  - – *Multiple* Multi-channel Bi-Di Parallel Port Model
    - Multiple Logical Channel enables .....
  - ⇨One of transports shall cover above Areas



☆SBP-2 provides ...

- Shared Memory Model
  - Efficient use of IEEE 1394 *"BUS"* address
  - Implicit flow control by the Target
- Split Control Information List
  - Command Block ORB's split control headers from Data *itself* by indirect reference.
  - No OS involvement in Linked List execution.

☆SBP-2 itself is .... ? (issues)

- SBP-2 will work well with OpenHCI, *but* ...
- SBP-2 itself is poor in direction control
  - Command Set for direction control?
    - Needs Execution order control, command flow control?
  - Multiple Login for full duplex communication?
    - Is Login Resource large?
- Fairness or Priority of job submission in next layer?