

# Proposal to Move Host Protocols to Volume One

To: T13 Technical committee  
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## 1 Introduction

The purpose of this proposal is to MOVE the host-side protocols from volume 2 to volume 1 so that they may be shared by both serial and parallel implementations, and to make the device-side protocols in volumes 2 and 3 symmetrically mate with the (now) shared host protocols.

Given that this is a complex endeavour, this proposal is expected to go through several draft revisions before committee acceptance.

All section numbers mentioned below refer to the draft ATA/ATAPI-7 documents, revision 2a, available on the T13 web/ftp site.

d1532v1r2a	volume 1
d1532v2r2a	volume 2
d1532v3r2a	volume 3

## 2 Proposed Specification Changes

1. In volume 2 (parallel implementation):
  - a. Split the host and device protocols in these clauses:
    - i. 11.1 Power-on and hardware reset protocol
    - ii. 11.2 Software reset protocol
    - iii. 11.3 Bus idle protocol
    - iv. 11.4 Non-data command protocol
    - v. 11.5 PIO data-in command protocol
    - vi. 11.6 PIO data-out command protocol
    - vii. 11.7 DMA command protocol
    - viii. 11.8 Packet command protocol
    - ix. 11.9 READ/WRITE DMA QUEUED command protocol
    - x. 11.10 EXECUTE DEVICE DIAGNOSTIC command protocol
    - xi. 11.11 DEVICE RESET command protocol
    - xii. 11.12 Ultra DMA data-in commands
    - xiii. 11.13 Ultra DMA data-out commands
  - b. Cleanup the device-side protocols so that they make sense standing alone, and when placed next to the host-side protocols.
2. In volume 1:

- a. Expand clause "11 Transport Protocols" to contain actual content, and not just a reference to another volume.
  - b. Create new introductory material (in volume 1, clause 11) to illustrate how the host protocol is shared, and fits neatly into either parallel or serial implementations.
  - c. Move these sections from volume 2 to volume 1, clause 11:
    - i. Figure 33 – Overall host protocol state sequence
    - ii. The newly-separated host protocols in volume 2:
      1. 11.1 Power-on and hardware reset protocol
      2. 11.2 Software reset protocol
      3. 11.3 Bus idle protocol
      4. 11.4 Non-data command protocol
      5. 11.5 PIO data-in command protocol
      6. 11.6 PIO data-out command protocol
      7. 11.7 DMA command protocol
      8. 11.8 Packet command protocol
      9. 11.9 READ/WRITE DMA QUEUED command protocol
      10. 11.10 EXECUTE DEVICE DIAGNOSTIC command protocol
      11. 11.11 DEVICE RESET command protocol
      12. 11.12 Ultra DMA data-in commands
      13. 11.13 Ultra DMA data-out commands
3. In volume 3 (serial implementation)
    - a. cleanup the device-side protocols so that they mate well with the host-side protocols