To: X3T10 Committee (SCSI)
From: George Penokie (IBM)
Subject: Clarification of Sleep Mode

In the description of sleep mode in the start/stop unit command of the SBC draft it appears as if a device can be changed from sleep mode to another mode on receipt of another start/stop command. Additionally, it appears like a command issued to a target in sleep mode should return a check condition status. However, elsewhere in the description of sleep mode it sounds as if once a target is in sleep mode, only a bus reset can bring it out with no indication as to what to do if a command is issued.

The current description of sleep mode could lead to an improper implementation. I propose the following change be made to the SBC draft to correct this problem:

In section 5.1.4 change:

"If the START/STOP UNIT command is issued with the Power Conditions field set to 1, 2, 3, or 5 the logical unit shall:

a) suspend any Power Condition timers that are active on receipt of the START/STOP UNIT command until a TARGET RESET task management function is received by the device server.

b) not respond to a task requests until a TARGET RESET task management function is received by the device server.

On receipt of a TARGET RESET task management function any previously active power conditions timers shall be restored to those values indicated by the saved power condition mode page parameters."


and add the following after the first abc list:

"If the START/STOP UNIT command is issued with the Power Conditions field set to 5 the device server shall:

a) suspend any Power Condition timers that are active on receipt of the START/STOP UNIT command until a TARGET RESET task management function is received by the device server.

b) not respond to a task requests until a TARGET RESET task management function is received by the device server.

On receipt of a TARGET RESET task management function any previously active power conditions timers shall be restored to those values indicated by the saved power condition mode page parameters."
Path 1: An IDLE timeout or a START STOP UNIT command with a power condition code of Ah.
Path 2: A START STOP UNIT command with a power condition code of Ah.
Path 3: A STANDBY timeout, or a START STOP UNIT command with a power condition code of Bh.
Path 4: A media access command or a START STOP UNIT command with a power condition code of 1h.
Path 5: A START STOP UNIT command with a power condition code 5h.
Path 6: A Target Reset Task Management function returns the device to the state defined by the saved power mode parameters.