Initiated Reset

Intent - each Phy keeps a status bit - Initiated_reset - which is true if the Phy initiated the last bus_reset; false if it simply repeated the bus_reset. This provides a "history" to enable bus management software to diagnose bus problems.

IEEE Standard 1394-1995 Re: Initiated Reset

Section 4.1.1.1 PHY control request (PH_CONTROL.request)

The node controller uses this service to request the PHY layer to perform specific actions and to specify PHY layer parameters. It may also be used to request status about the PHY layer. The PHY layer shall service the requests immediately upon receipt by the PHY layer. This service is confirmed.

The following actions shall be provided by this service:
a) Bus Reset. The PHY layer shall reset the bus and initialize itself.
...
d) Present Status. The PHY layer shall return status to the node controller. The PHY layer shall return status via the PHY control confirmation service.
...

Initiated Reset

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Section 4.1.1.2 PHY control confirmation (PH_CONTROL.confirmation)

The PHY layer uses this service to confirm the results of a PHY control request service. The PHY layer shall communicate this service to the node controller upon completion of a PHY control request. There are no actions provided by the service. When the corresponding control request is "Present Status," the following parameters are communicated via the service:

— Physical_ID. As described in 4.3.8.

...

— Initiated_reset. As described in 4.3.8.

Section 4.3.8 Each node has a set of variables that are set by the Bus Manager via PHY packets, the arbitration process, and/or the bus reset process."

Table 4-35 — Node variables

Variable name	Comment
...	...
initiated_reset	Set true if this node started the bus reset process (is not repeating it)

Initiated Reset

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Section 4.3.4.1 Self-ID packet

The cable PHY sends one to four self-ID packets at the base rate during the self-ID phase or arbitration. The number of self-ID packets sent depends on the maximum number of ports it has. The cable PHY self-ID packets have the format shown in figure 4-18.

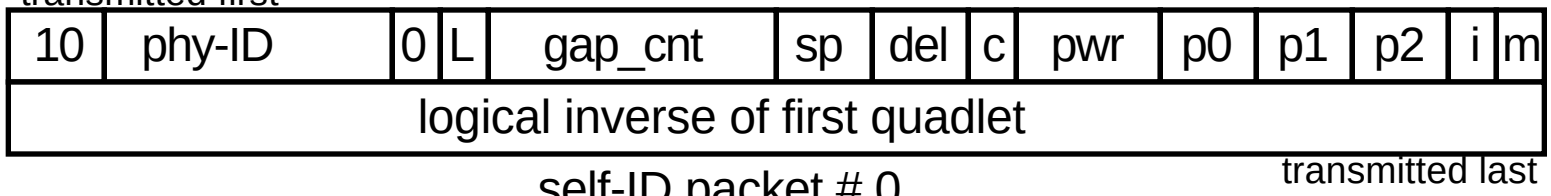

Figure 4-18 — Self-ID packet format

Table 4-29 — Self-ID packet fields

Field	Derived from	Comment
...	...	...
i	initiated_reset	If set, this node initiated the current bus reset (i.e., it started sending a bus_reset signal before it received one).[b] (Optional. If not implemented, this bit shall be returned as a zero.)

[b] There is no guarantee that exactly one node will have this bit set. More than one node may be requesting a bus reset at the same time.

Initiated Reset

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Annex J

(Informative)

PHY-link interface specification

no mention whatsoever of initiated_reset bit

P1394a Draft Standard Re: Initiated Reset

Still ambiguous:

a) Sections 4.1.1.2 and 4.3.8 are unaffected by P1394a

b) The i bit in the Self-ID packet is still optional (see Table 7-3, Draft 1.4)

c) initiated_reset is still a node variable (see Table 7-15, Draft 1.4)

d) The PHY register map still has no entry for initiated_reset (see Table 6.1, Draft 1.4)

e) There's no mention of initiated_reset in the C code

Clarification proposal for initiated_reset bit, P1394a

1) Make the i bit in the Self-ID packet mandatory (Table 7-3)

2) Add the initiated_reset variable to the C code
(Set or clear the bit – as appropriate – upon entry into R0: Reset Start.)

3) Adding i bit to the PHY register map open for discussion

Position against: Any entity that expects to manage bus performance will (should) store all the self-ID packets anyway.

Position for: ??