

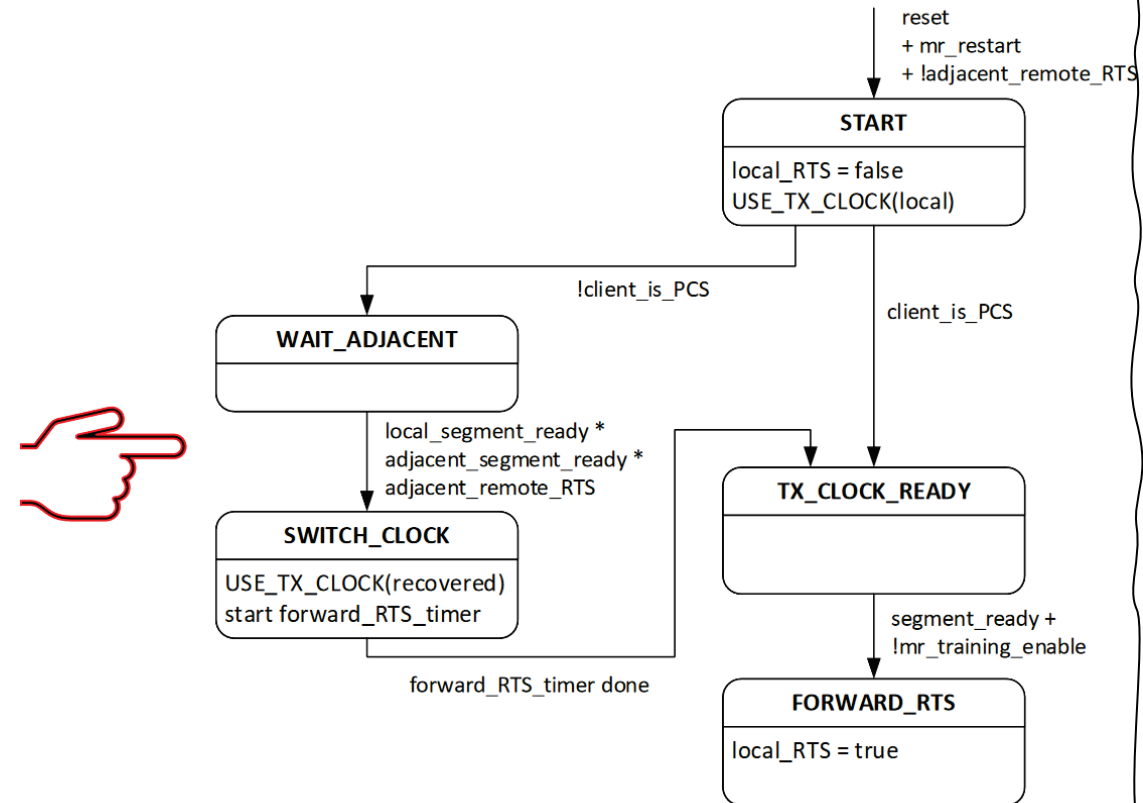
Correction to the RTS state diagram

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What

- The RTS state diagram is on slide 7 of the segment-by-segment training proposal, [ran 3dj 05a 2403](#) (adopted by motion #13, March 2024).
- It defines the process of asserting RTS by a device (PMA interface), including clock switching.
- ... and it has a problem in the “pointed” transition.

RTS state diagram (one instance per interface)

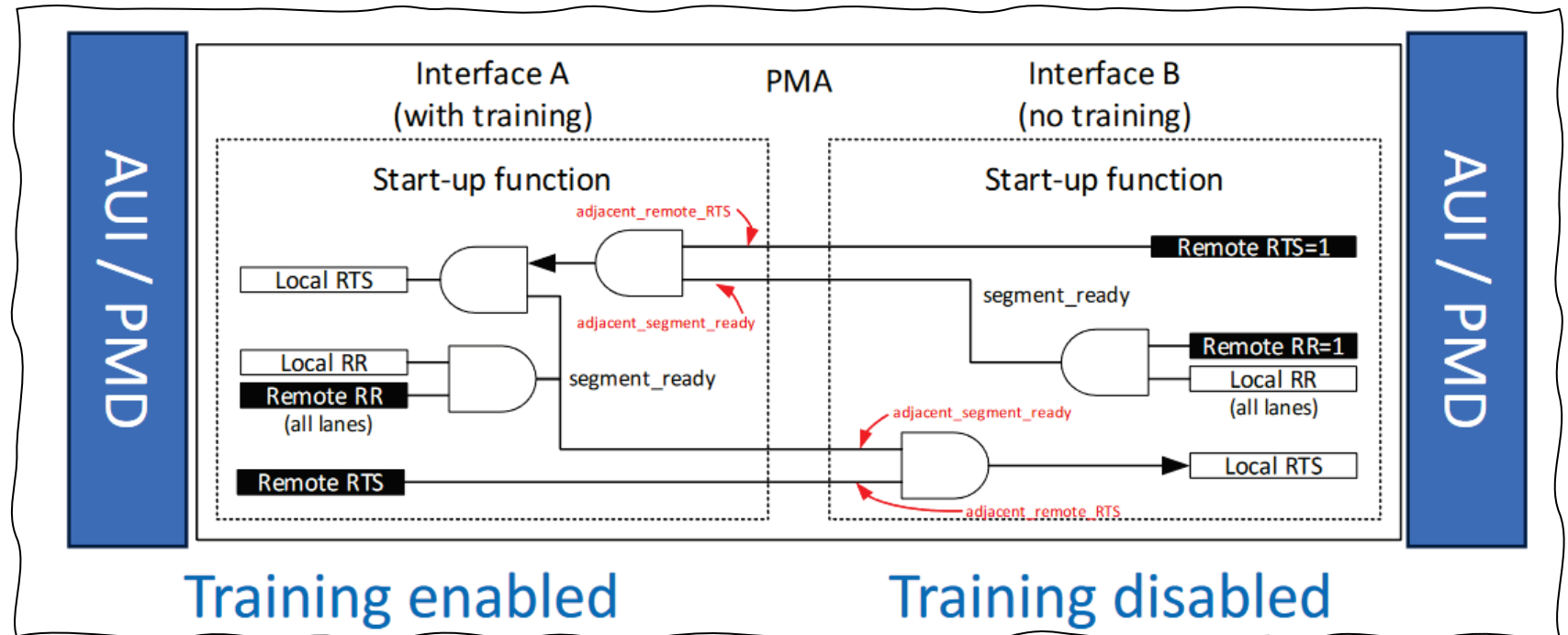


Why

- The condition for the pointed transition includes the variable **segment_ready**.
 - The purpose is to ensure that clock switching is not done while the partner is training.
- In the case where training is not enabled/available on an interface, RTS is communicated by unquenching the transmitter.
 - In this case, unquenching should be conditional only on the RTS on the adjacent segment.
 - Making it conditional on `segment_ready` would cause a deadlock.

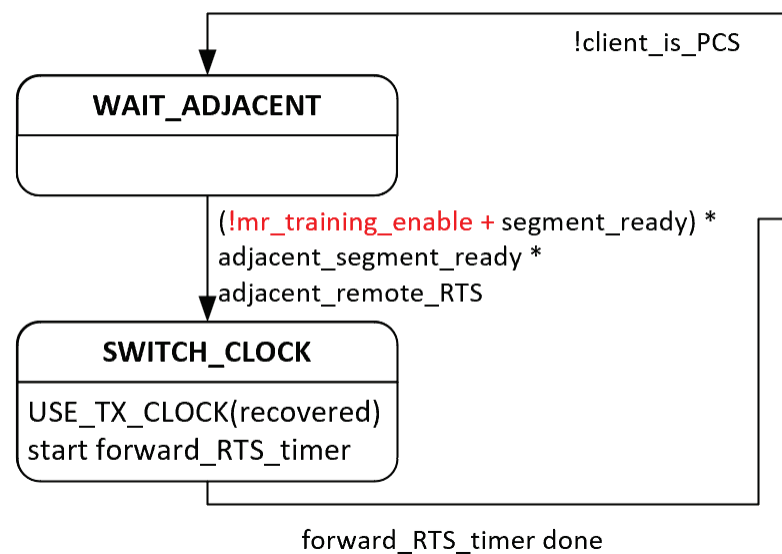
The correct logic (without **segment_ready**) is shown in the block diagram on slide 11 of [ran 3dj 04 2403](#) (adopted by the same motion).

The RTS state diagram should be made consistent with this logic.



How

- The condition for this transition should include **segment_ready** only when training is enabled.
- When training is disabled, the clock switching process is conditional only on **adjacent_segment_ready** AND **adjacent_RTS**.
 - This means all previous segments are ready to send data.



Proposal

- Change the state diagram as shown on slide 4.
- Add an editor's note in D1.0 that the change from the adopted baseline is based on this presentation.

That's all

Discussion / questions