RENESAS Tool News

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Note on Using the M3S-T4-Tiny TCP/IP Stack for RX-Family

When using the M3S-T4-Tiny TCP/IP Stack for RX-Family, take note of the problem described in this note regarding the following point.

- Failure in cancelling UDP transmission and reception

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1. Applicable Products
   M3S-T4-Tiny TCP/IP Stack for RX-Family V.1.06 to V.2.05

2. Failure and Conditions
   UDP data transmission and reception become impossible after the cancelling API function (udp_can_cep()) is called to stop the UDP data transmission or reception API function (udp_snd_dat() or udp_rcv_dat()) and the callback function called by the cancelling API function includes a call of a function for UDP data transmission or reception (udp_snd_dat() or udp_rcv_dat()).

3. Workaround
   Do not call the API functions for UDP data transmission and reception (udp_snd_dat() or udp_rcv_dat()) from within the callback function for the UDP cancelling function.

   To transmit or receive at a communications terminal, use either of the following methods to avoid the conditions described in Section 2 above, even if you usually cancel reception by calling the cancelling API function and proceed with transmission.

   (1) Method not relying on the cancelling API function
      Only call the UDP transmission function from within the callback function in the state where the UDP reception function has not been called after receiving the TEV_UDP_RCV_DAT event code along with the indicator of polling (TMO_POL) from the UDP reception function.

(2) Method relying on the cancelling API function
Cancel the UDP reception function by calling the cancelling function, and call the functions for UDP transmission and reception from the application layer instead of from the callback function.

Note that the same failure does not arise with the cancelling API function (tcp_can_cep()) for TCP.

4. Schedule for Fixing the Problem
This problem will be fixed in a later version of the product.
