

Active-HDL PDF Export



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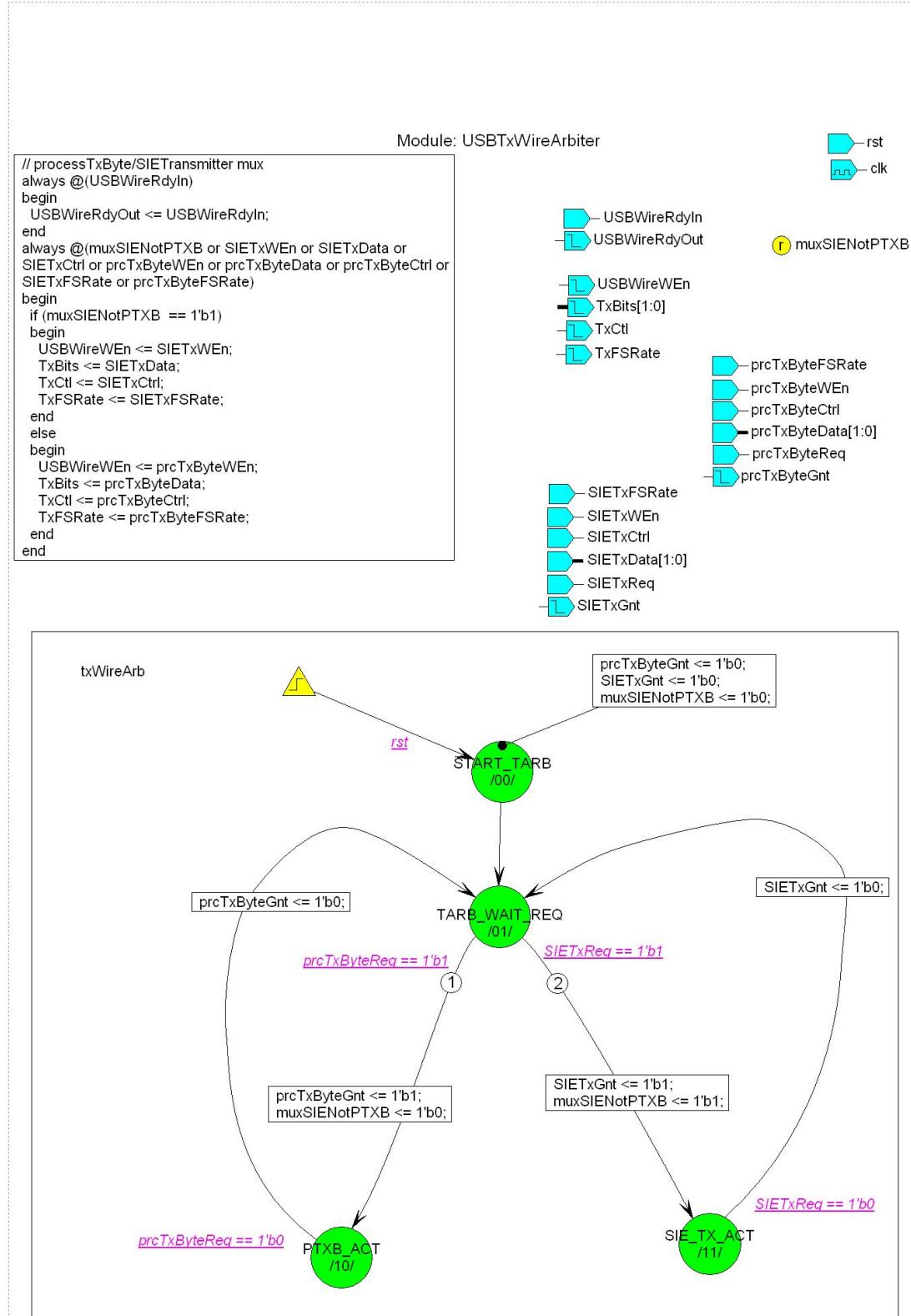
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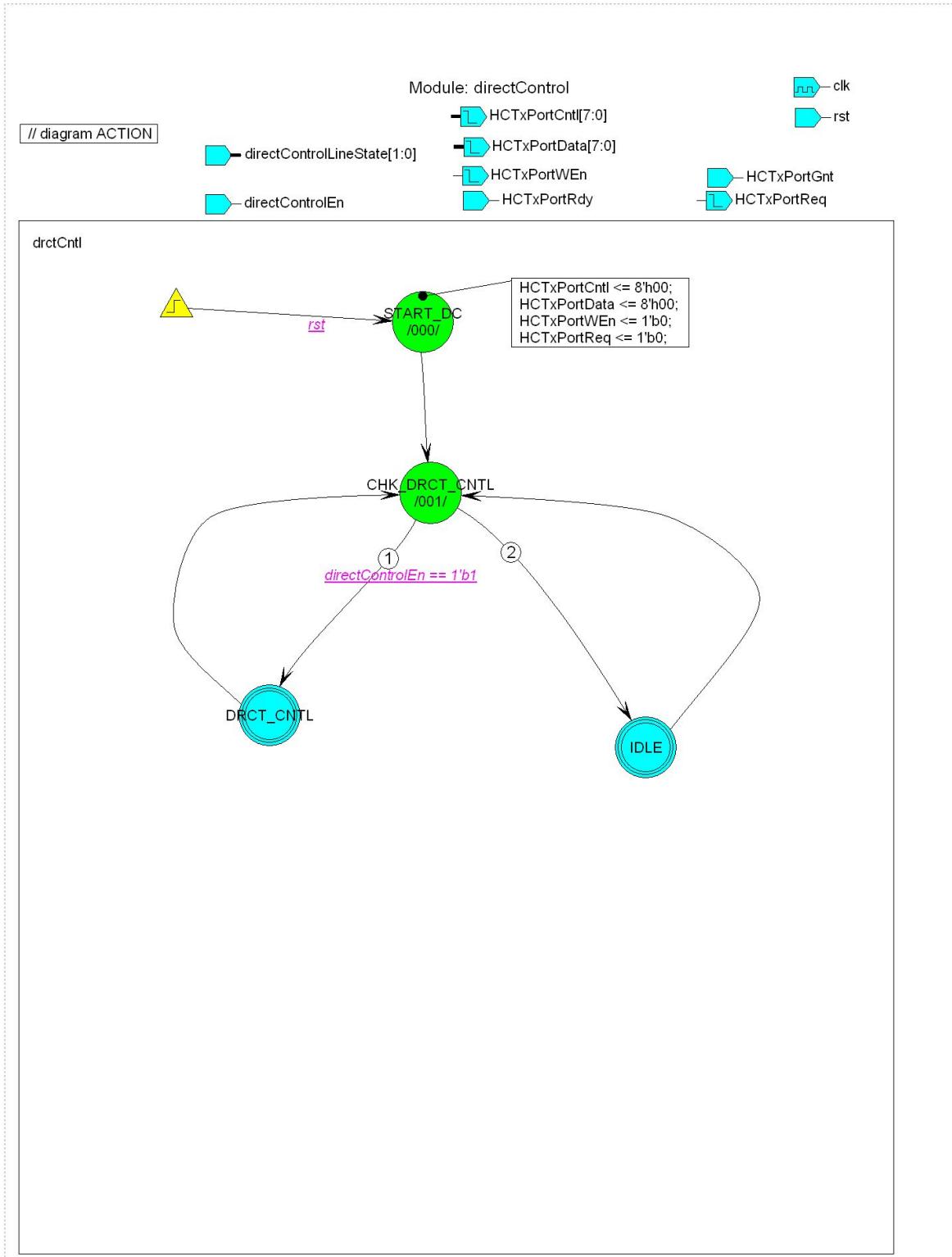
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2 usbhostslave

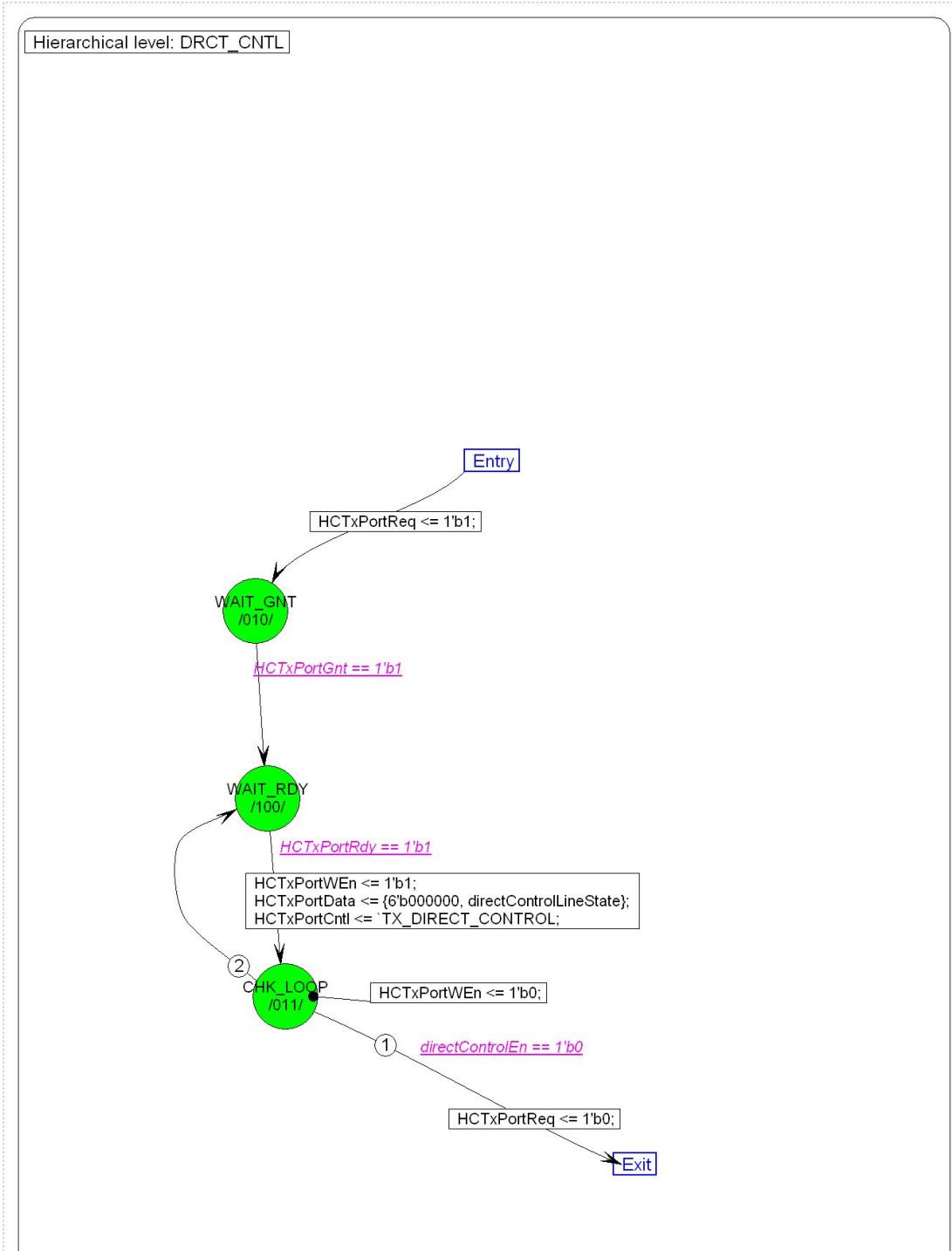
2.1 usbTxWireArbiter.asf



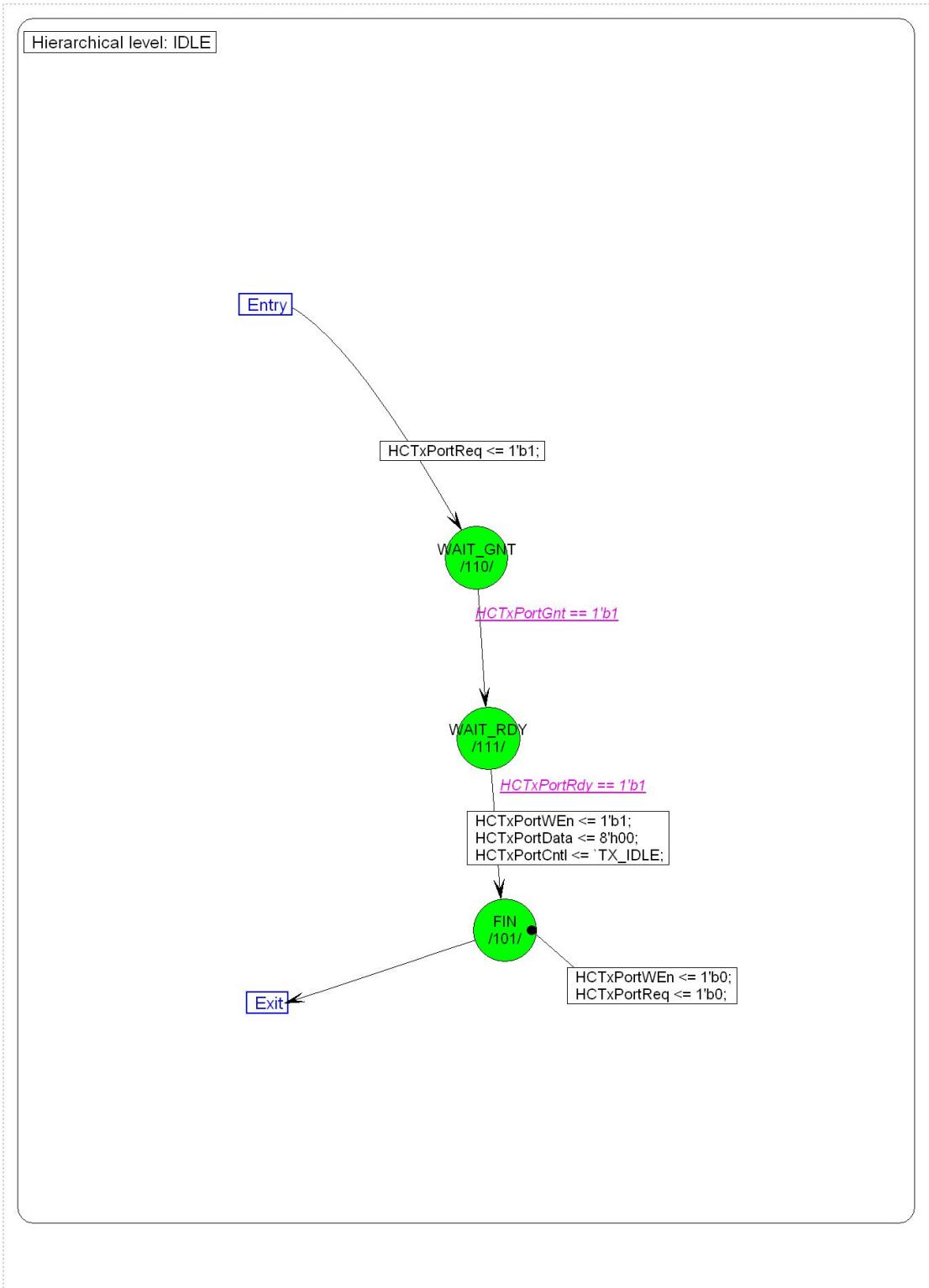
2.2 directcontrol.asf



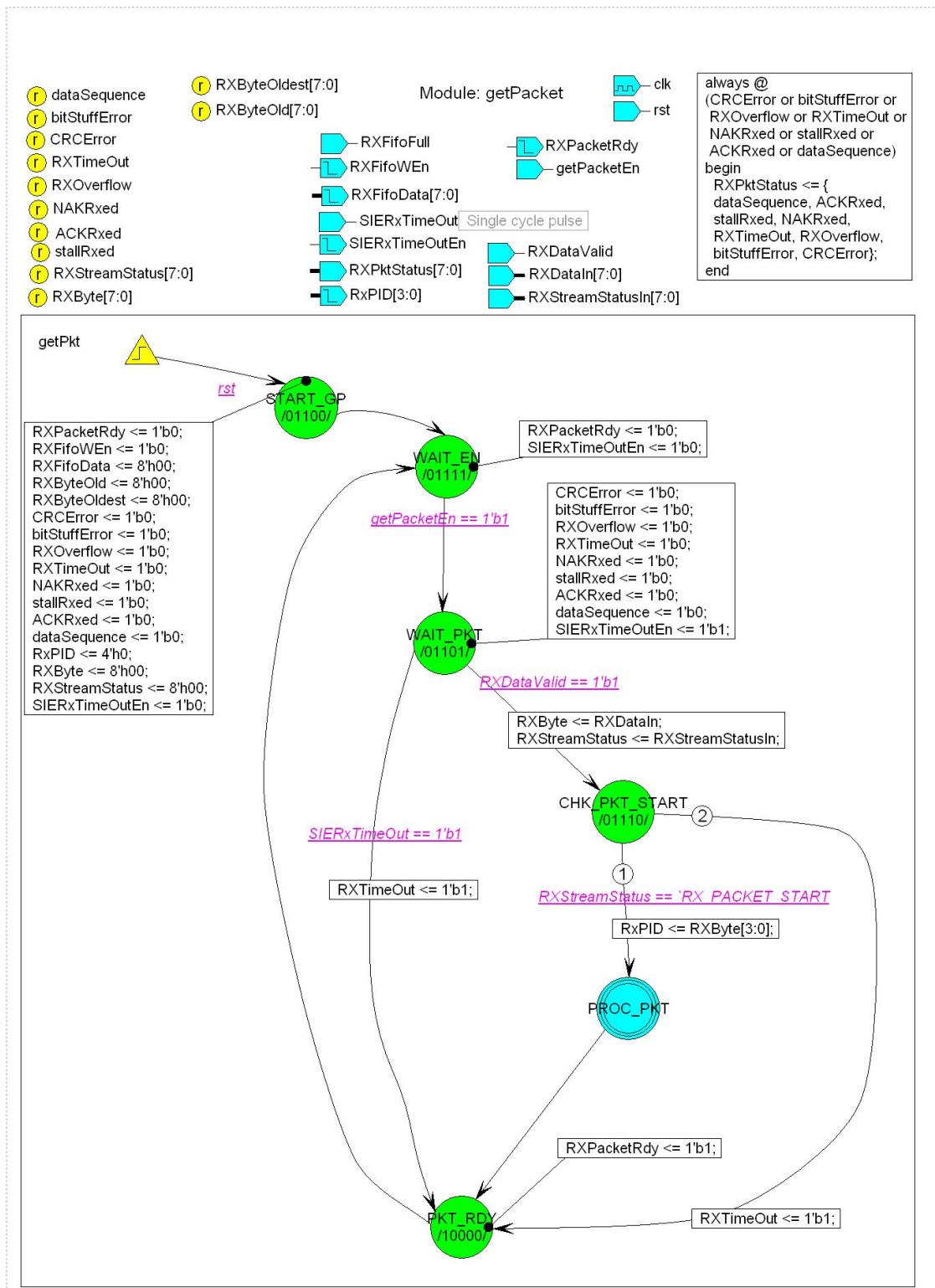
2.2.1 DRCT_CNTL



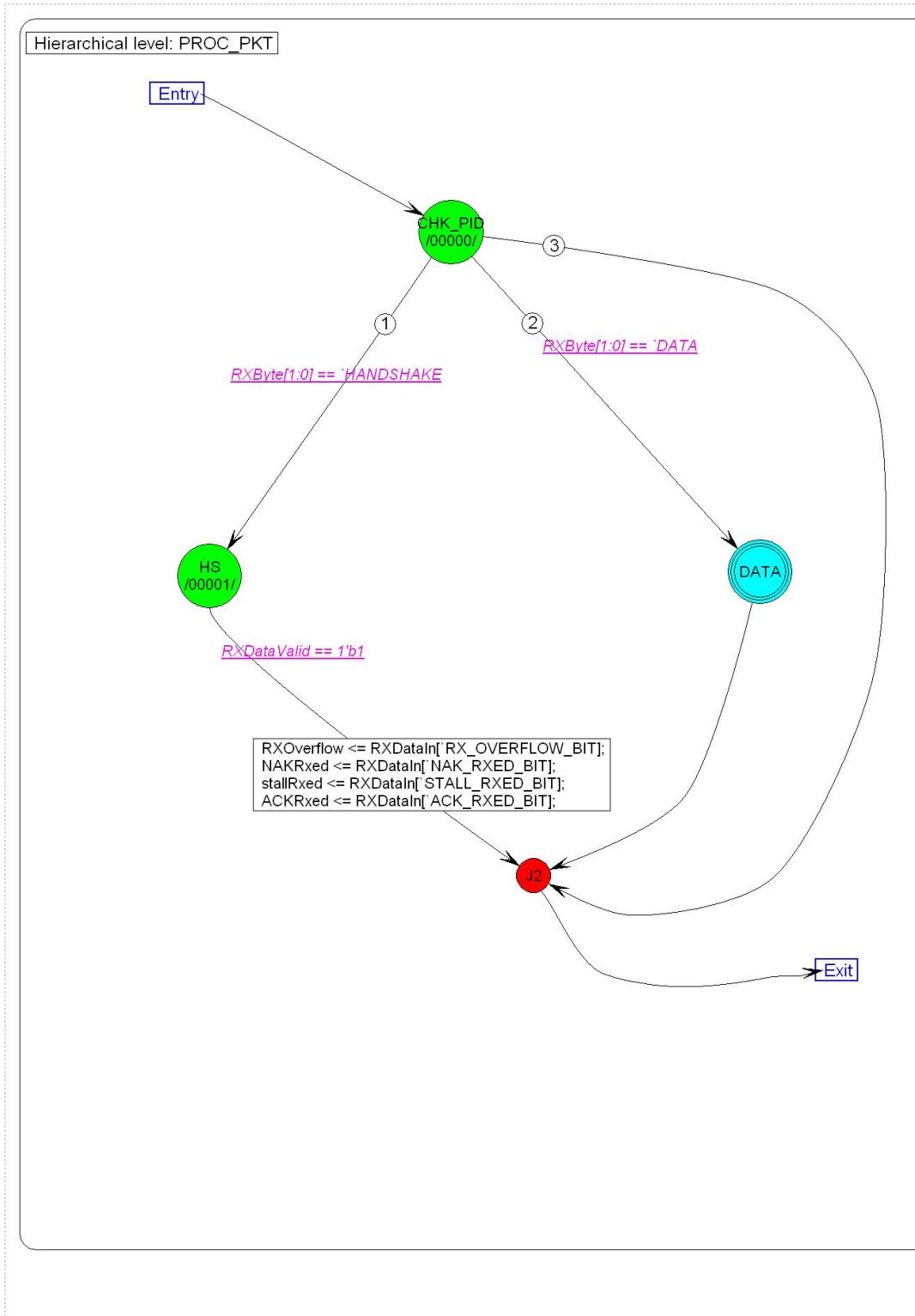
2.2.2 IDLE



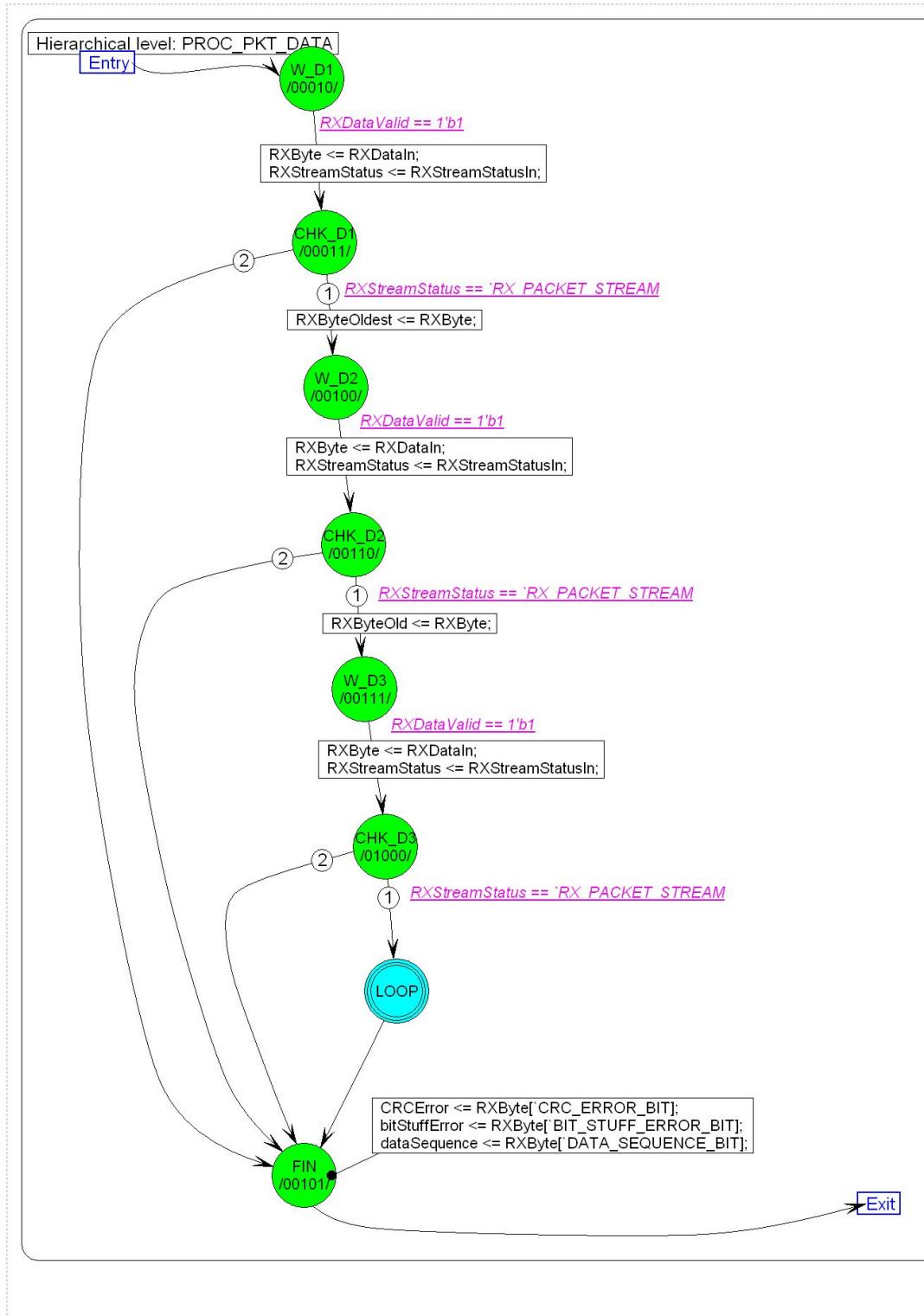
2.3 getpacket.asf



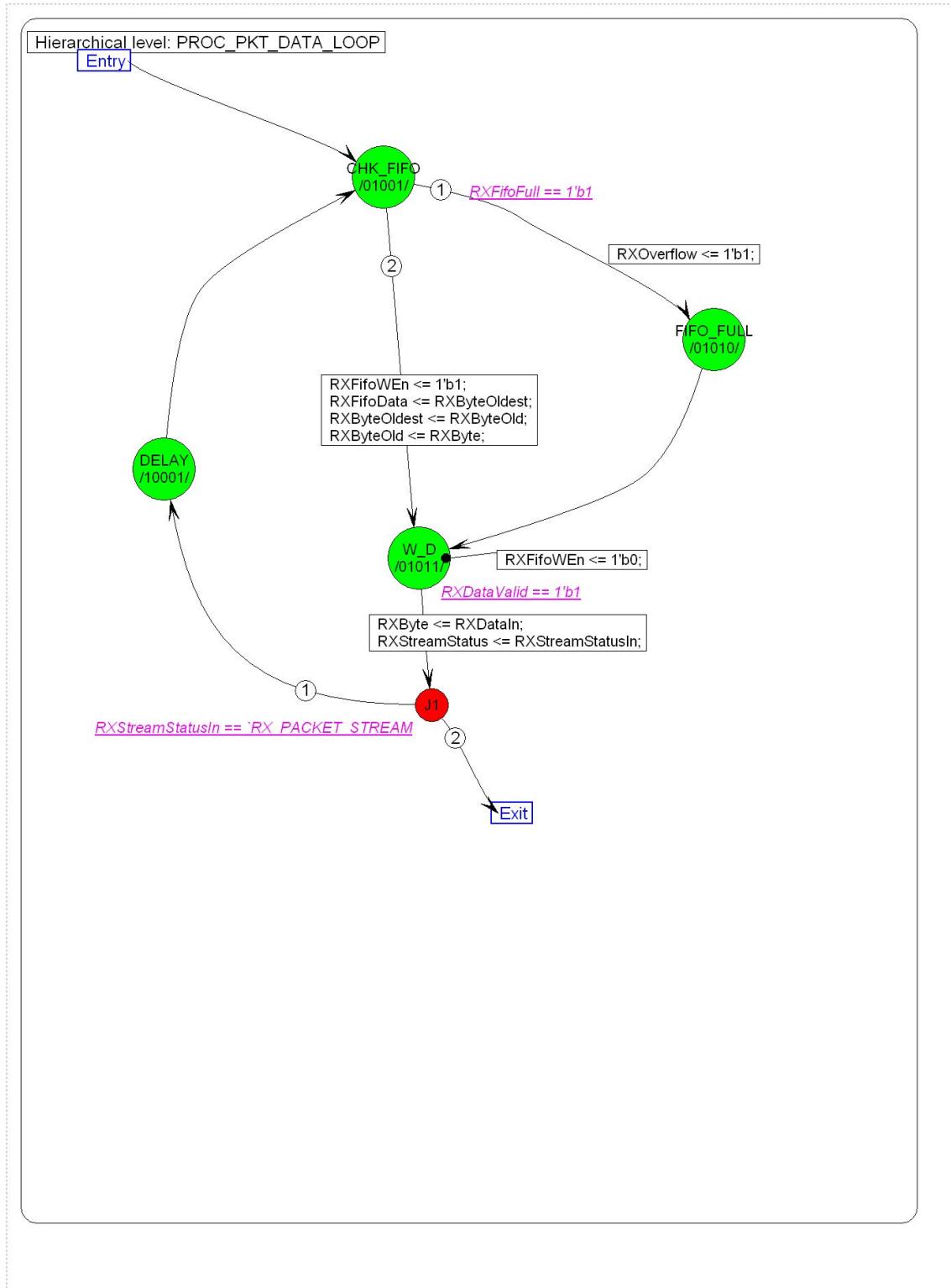
2.3.1 PROC_PKT



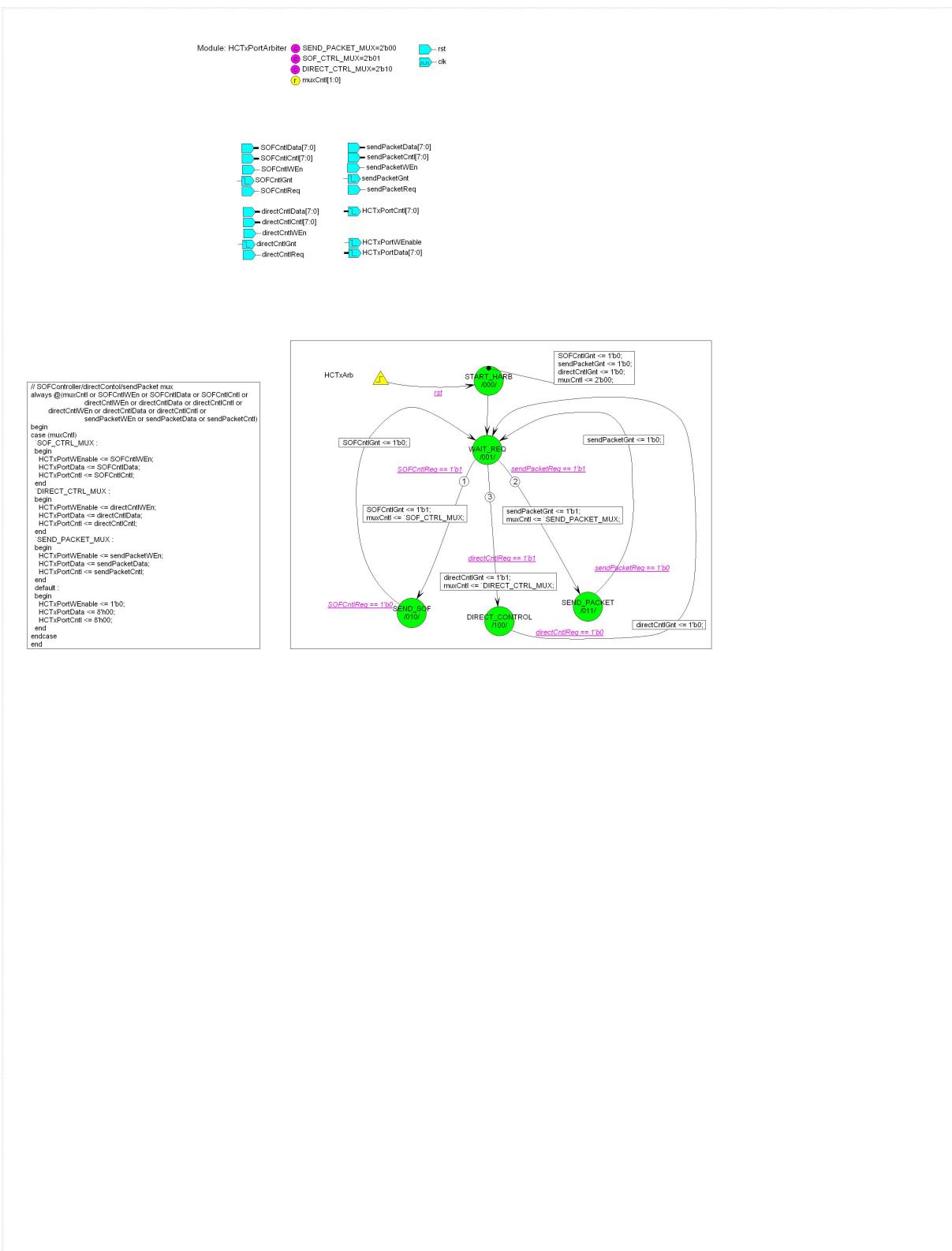
2.3.1.1 DATA



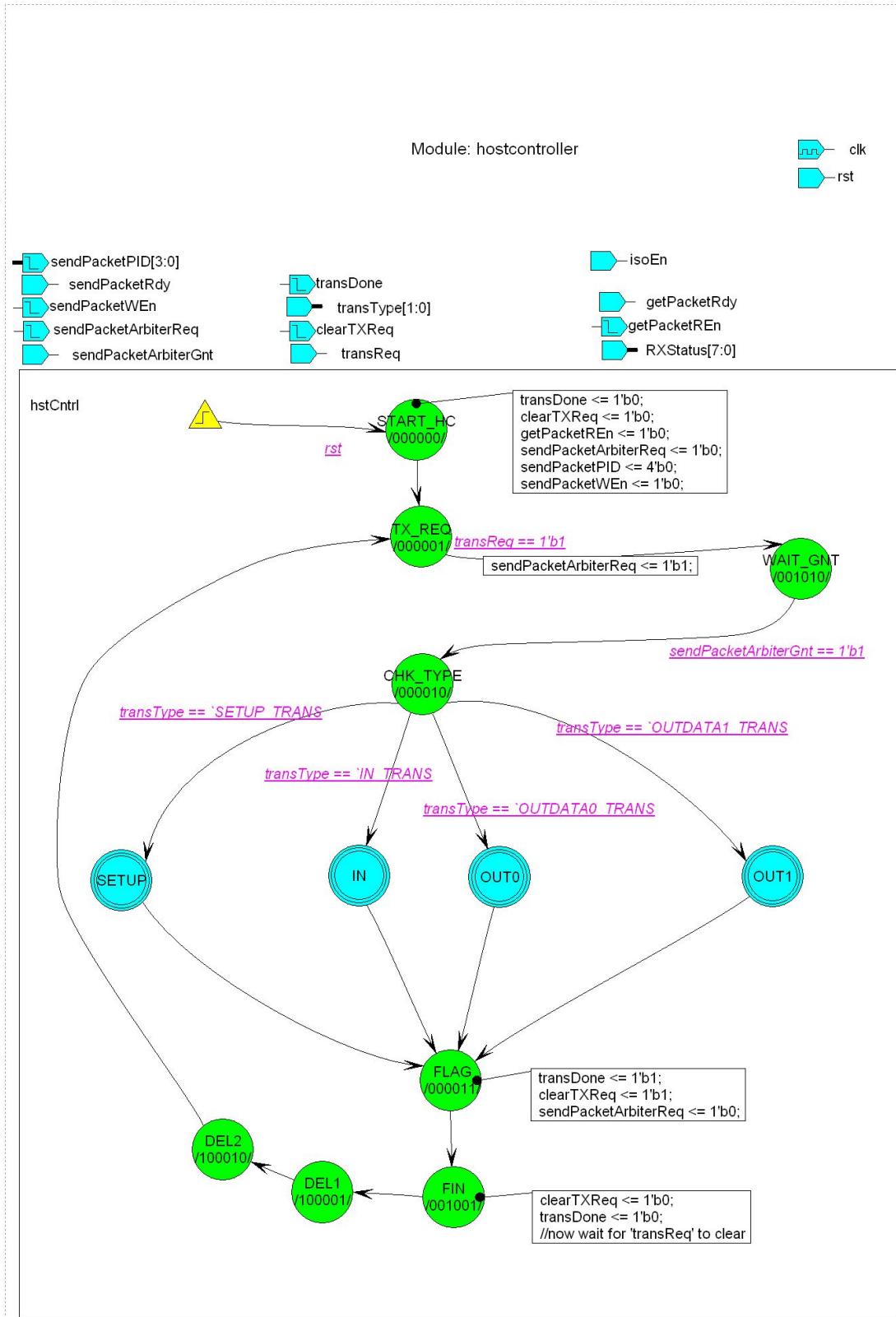
2.3.1.1.1 LOOP



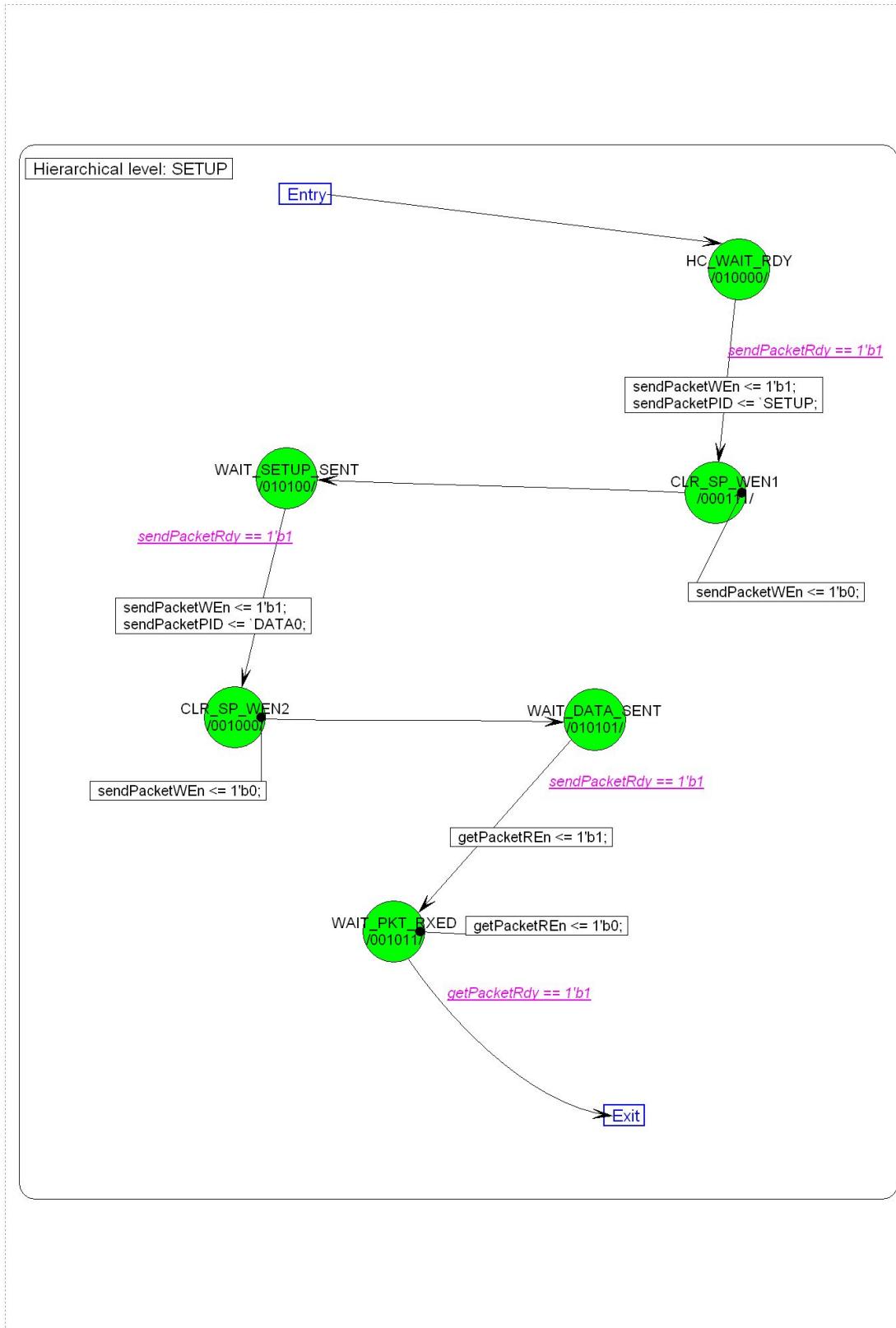
2.4 hctxportarbiter.asf



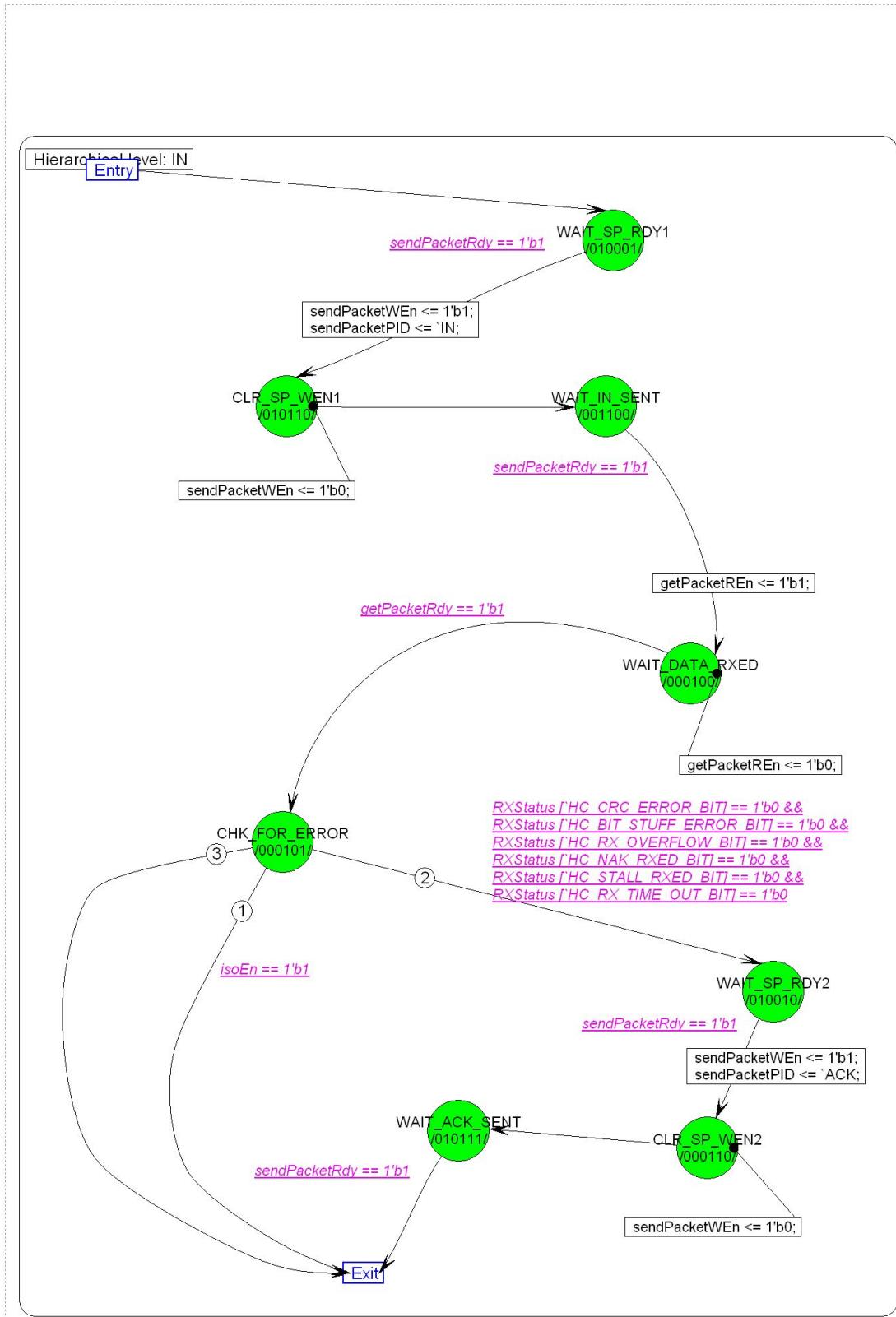
2.5 hostcontroller.asf



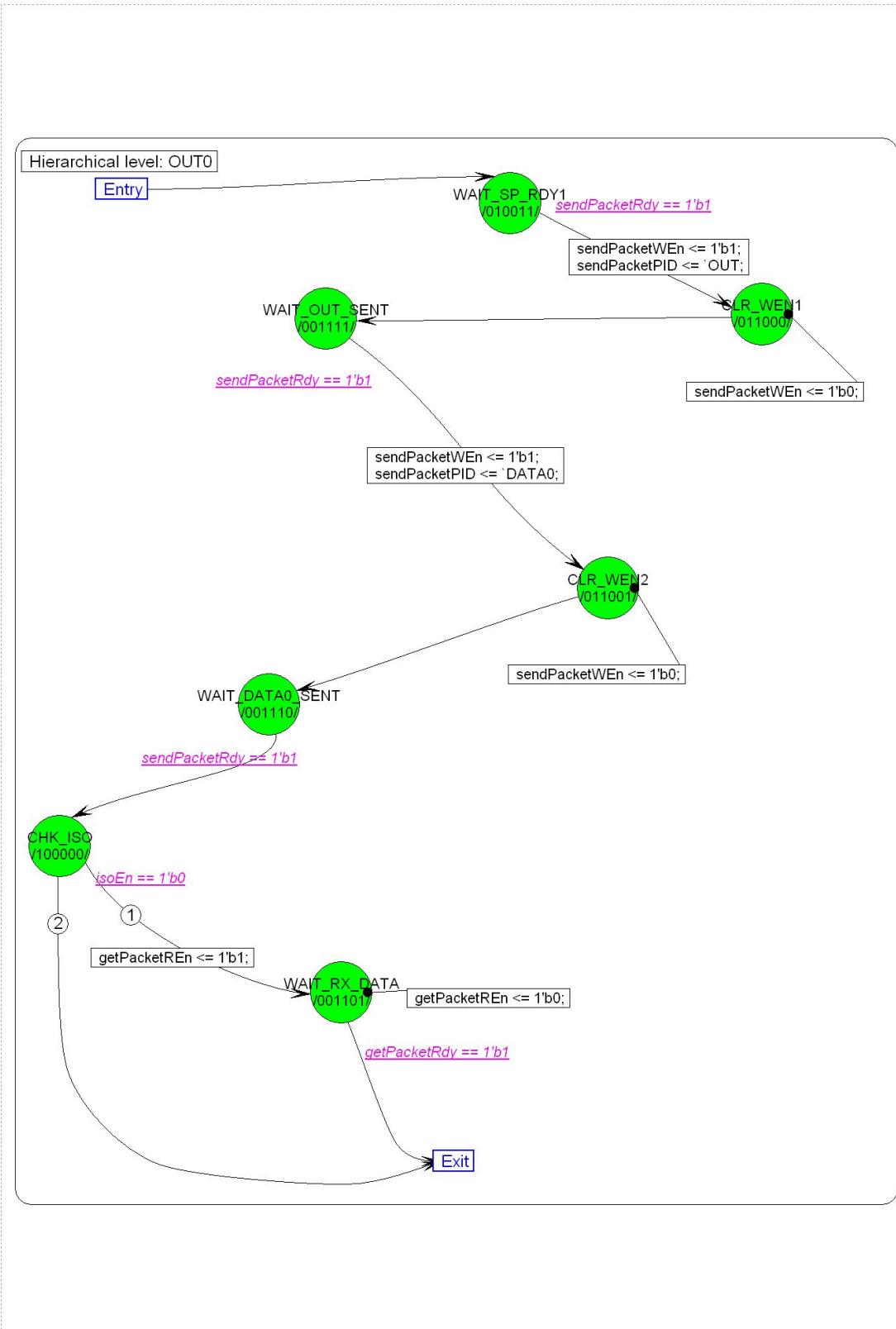
2.5.1 SETUP



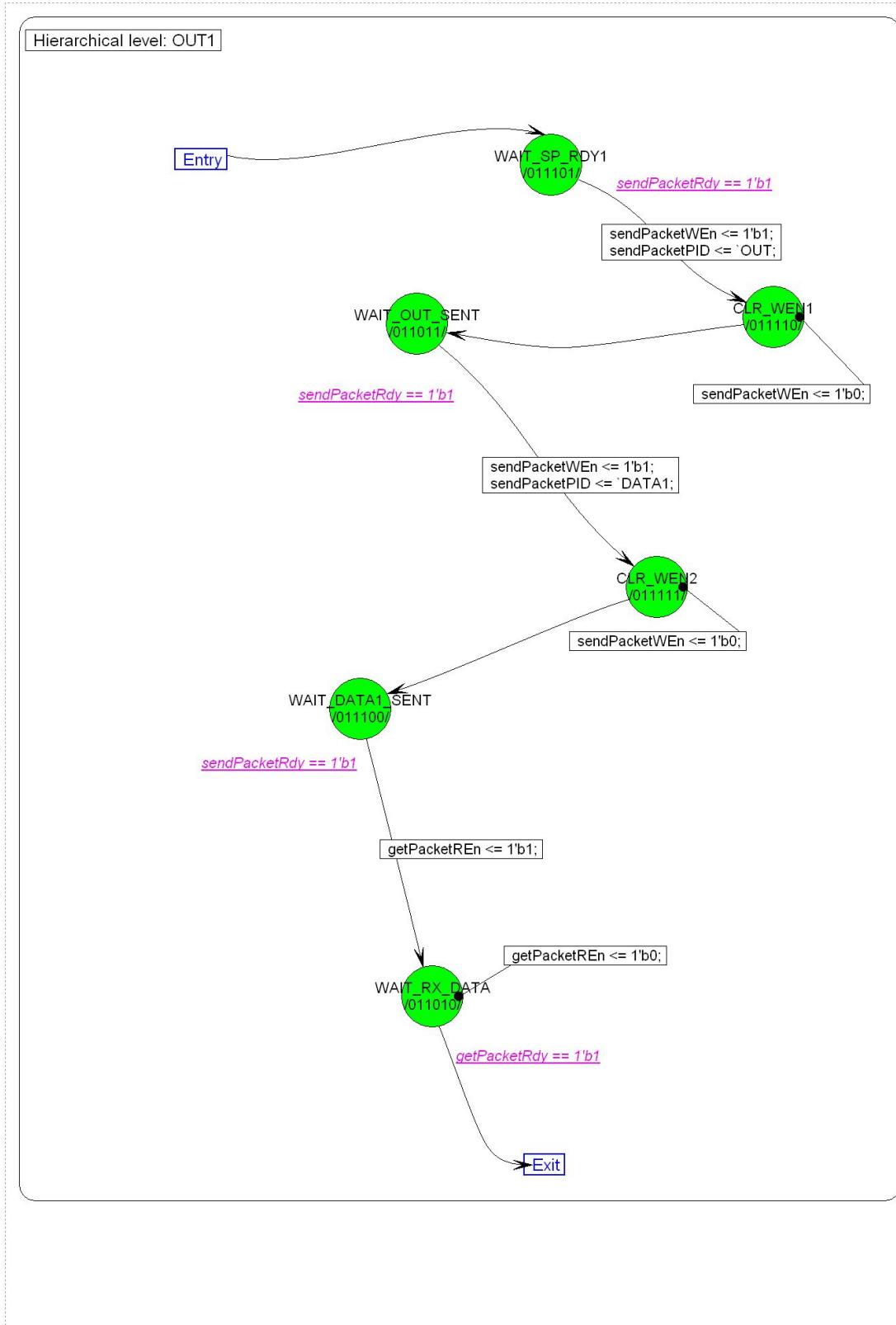
2.5.2 IN



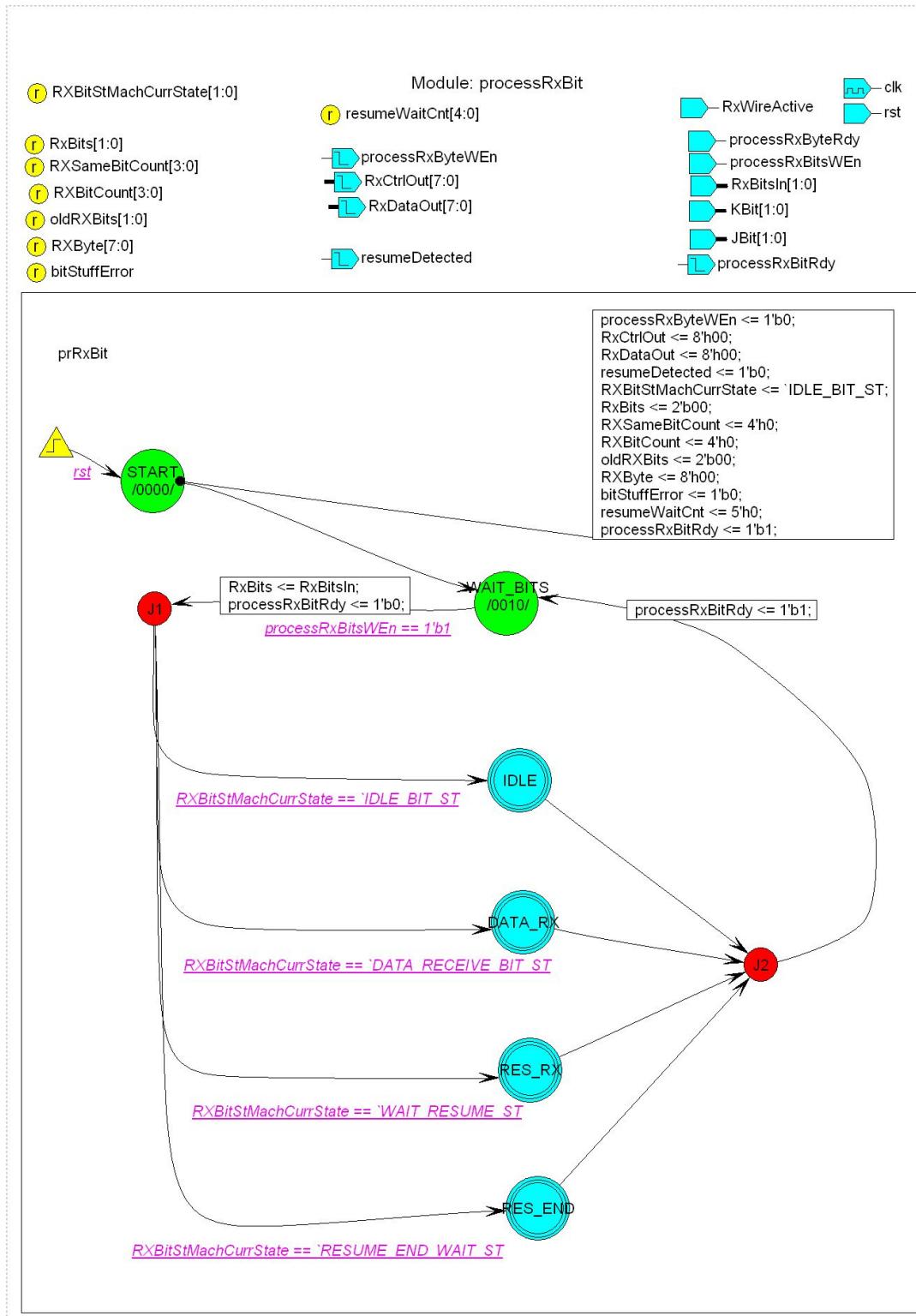
2.5.3 OUT0



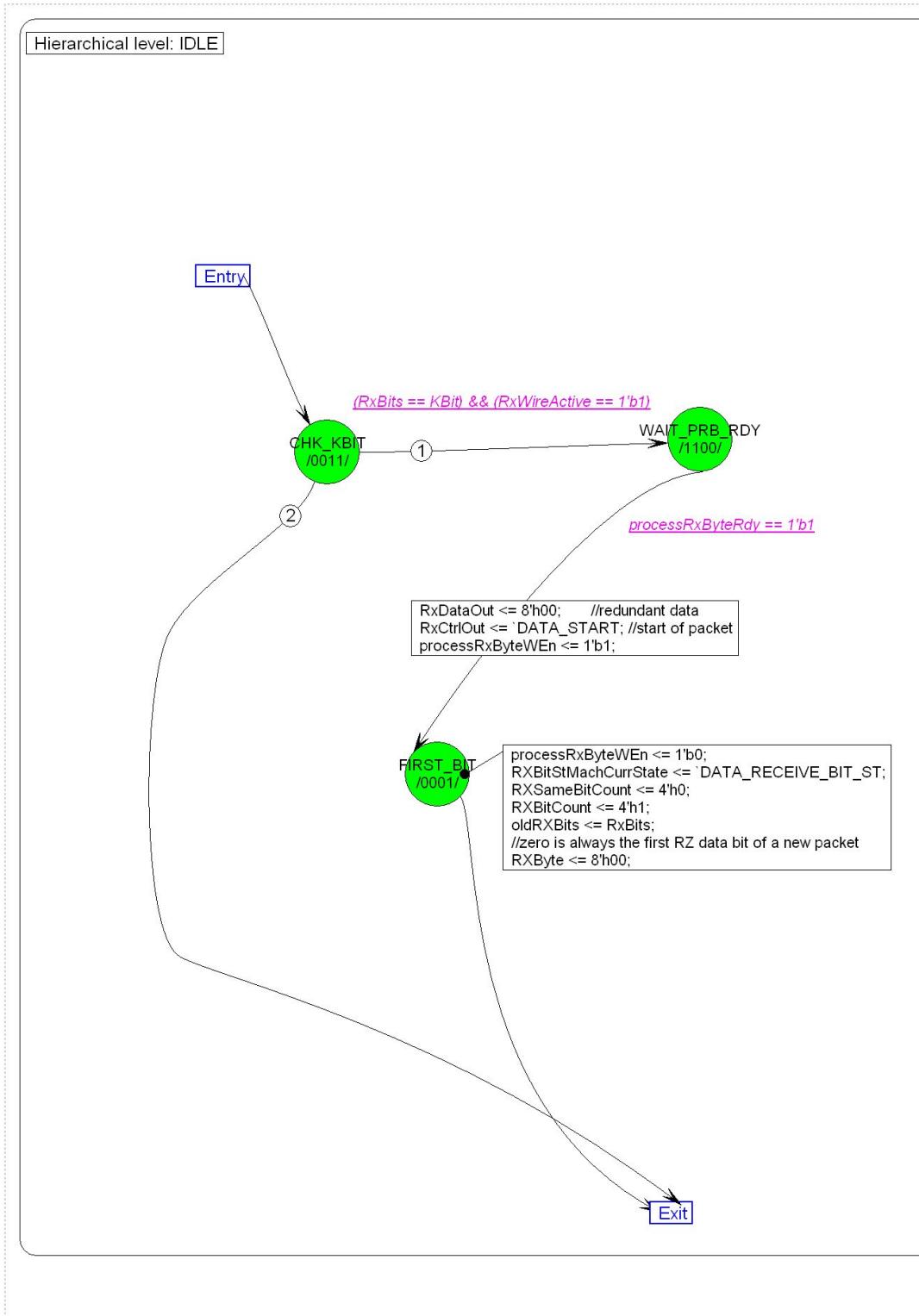
2.5.4 OUT1



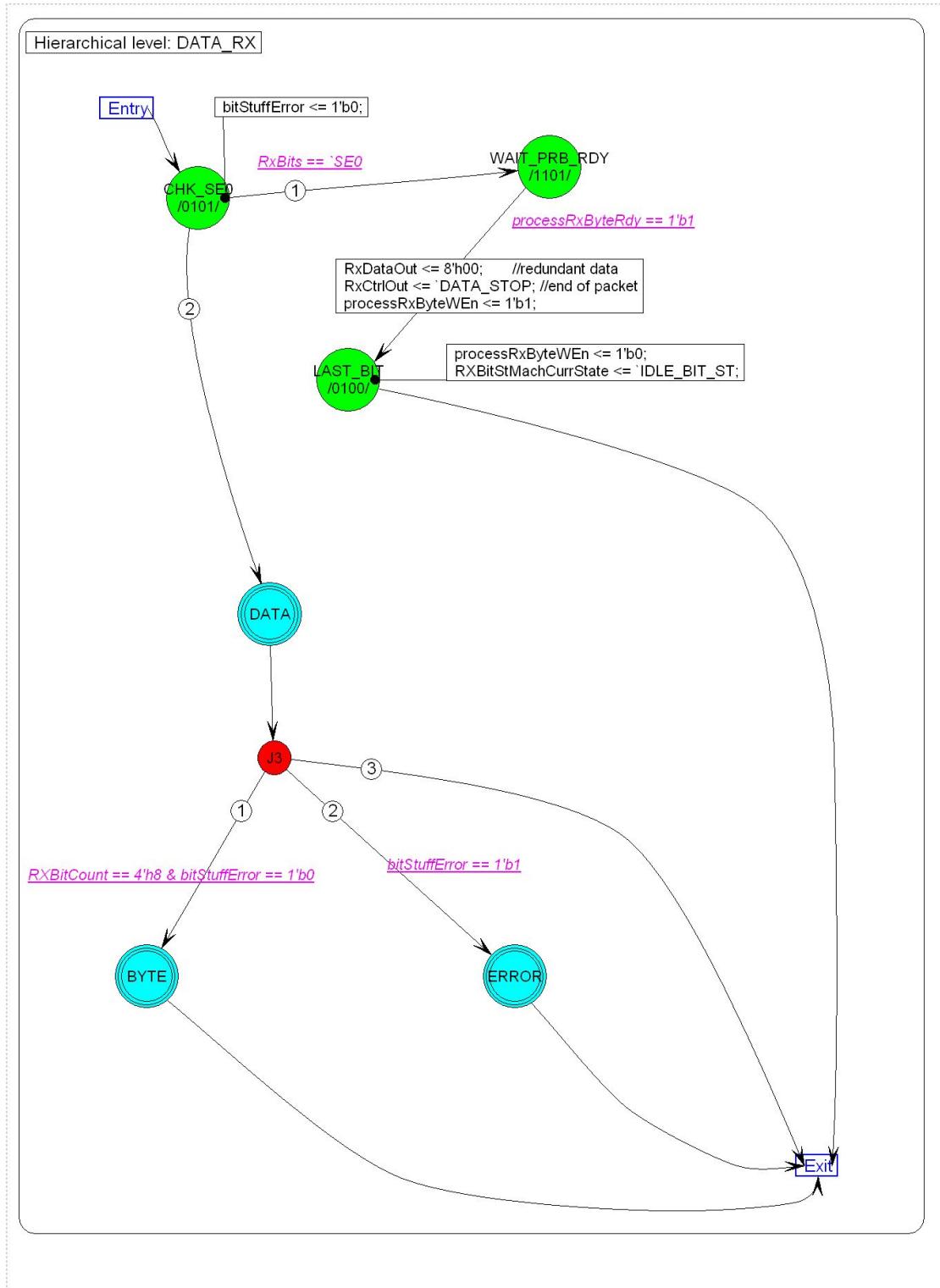
2.6 processRxBit.asf



2.6.1 IDLE



2.6.2 DATA_RX



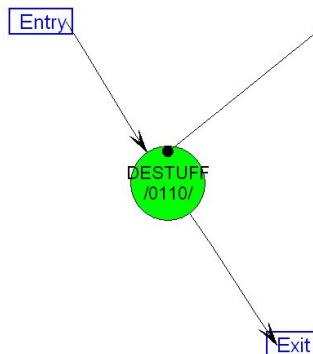
2.6.2.1 DATA

Hierarchical level: DATA_RX_DATA

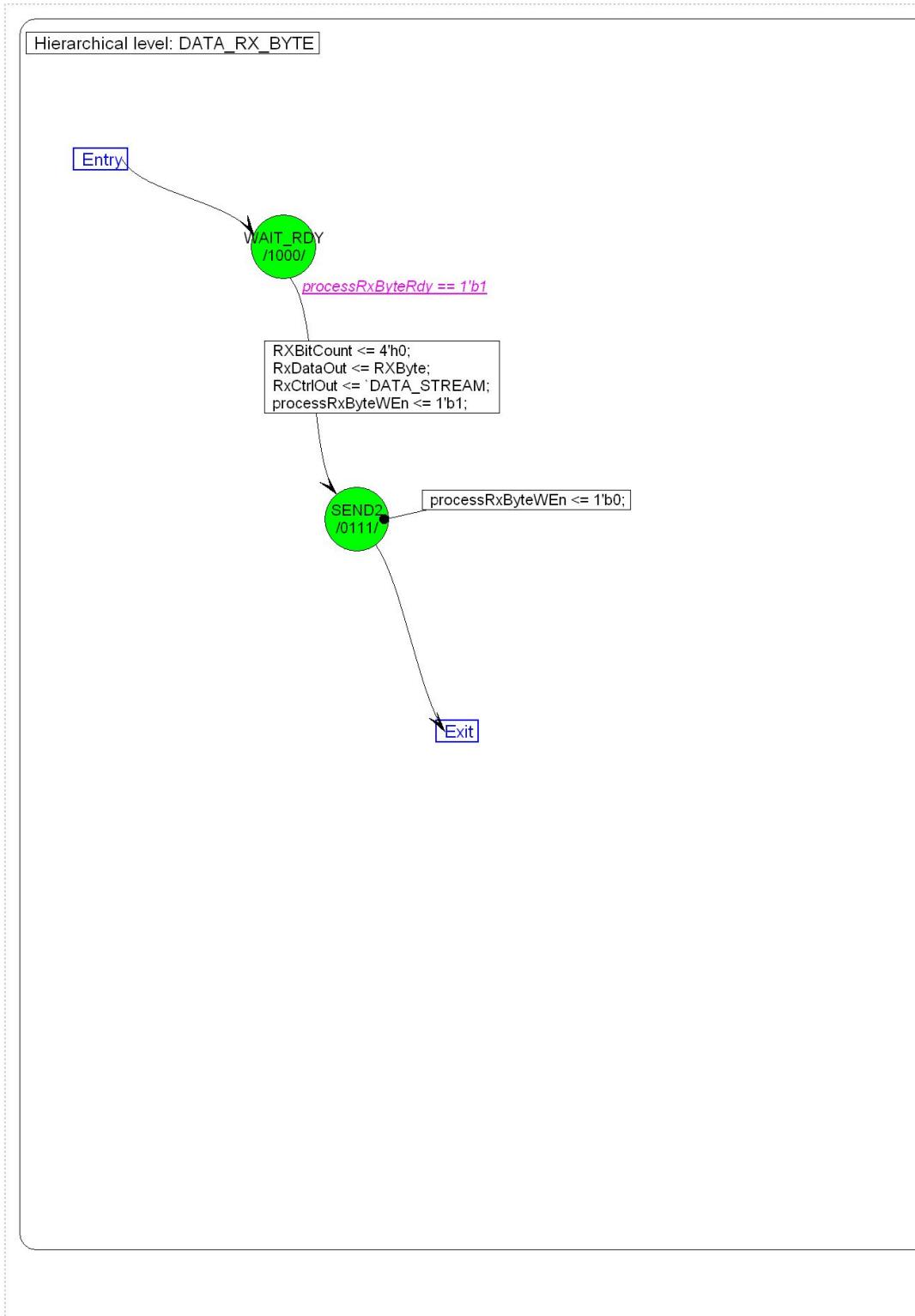
```

if (RxBits == oldRxBits)           //if the current 'RxBits' are the same as the old 'RxBits', then
begin
    RXSameBitCount <= RXSameBitCount + 1'b1; //inc 'RXSameBitCount'
    if (RXSameBitCount == `MAX_CONSEC_SAME_BITS) //if 'RXSameBitCount' == 6 there has been a bit stuff error
        bitStuffError <= 1'b1;                  //flag 'bitStuffError'
    else                                     //else no bit stuffing error
begin
    RXBitCount <= RXBitCount + 1'b1;
    if (RXBitCount != `MAX_CONSEC_SAME_BITS_PLUS1) begin
        processRxBitRdy <= 1'b1;            //early indication of ready
    end
    RXByte <= { 1'b1, RXByte[7:1]};          //RZ bit = 1 (ie no change in 'RxBits')
end
end
else                               //else current 'RxBits' are different from old 'RxBits'
begin
    if (RXSameBitCount != `MAX_CONSEC_SAME_BITS) //if this is not the RZ 0 bit after 6 consecutive RZ 1s, then
begin
    RXBitCount <= RXBitCount + 1'b1;
    if (RXBitCount != 4'h7) begin
        processRxBitRdy <= 1'b1;            //early indication of ready
    end
    RXByte <= {1'b0, RXByte[7:1]};          //RZ bit = 0 (ie current'RxBits' is different than old 'RxBits')
end
    RXSameBitCount <= 4'h0;                //reset 'RXSameBitCount'
end
oldRxBits <= RxBits;

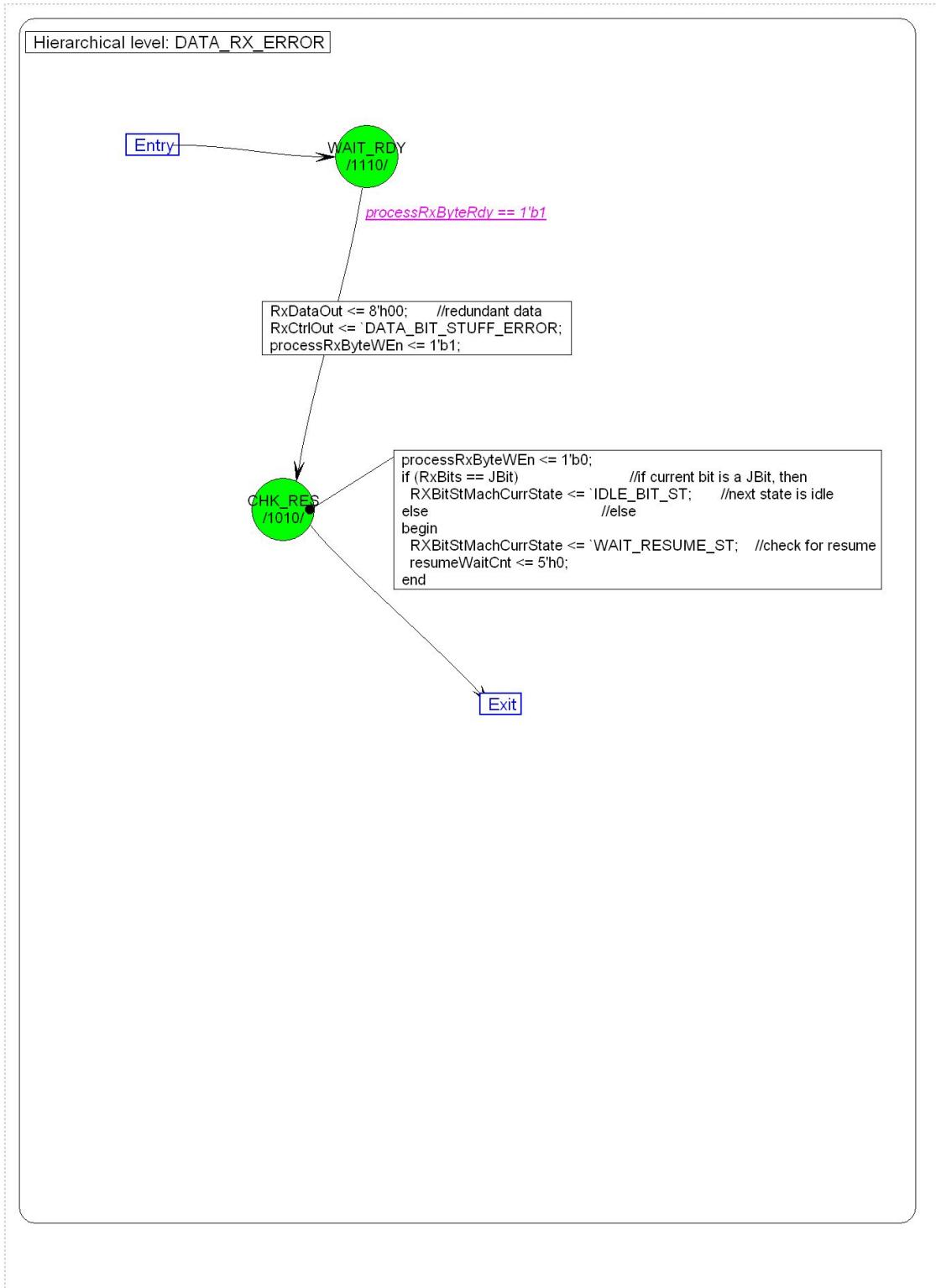
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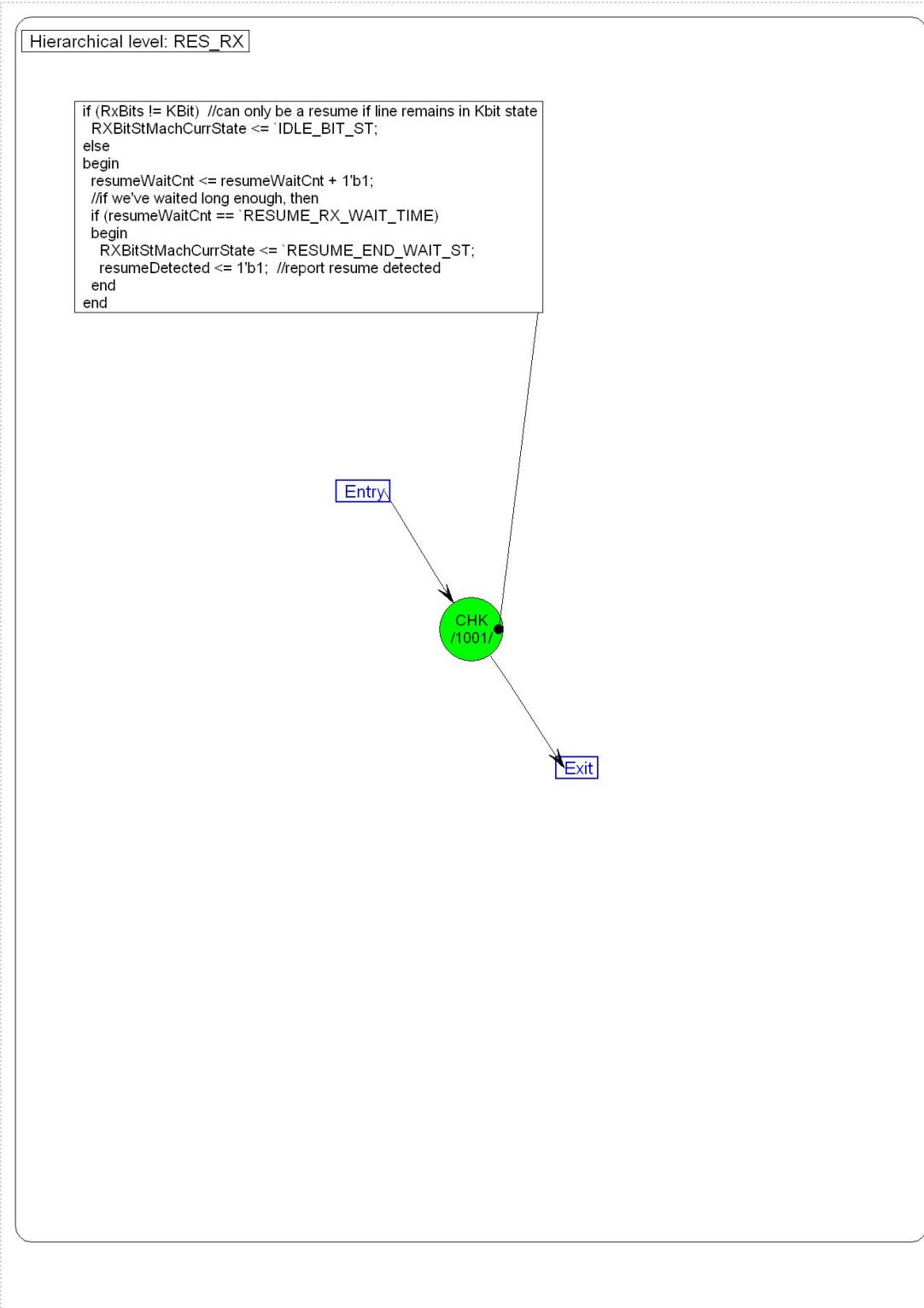
2.6.2.2 BYTE



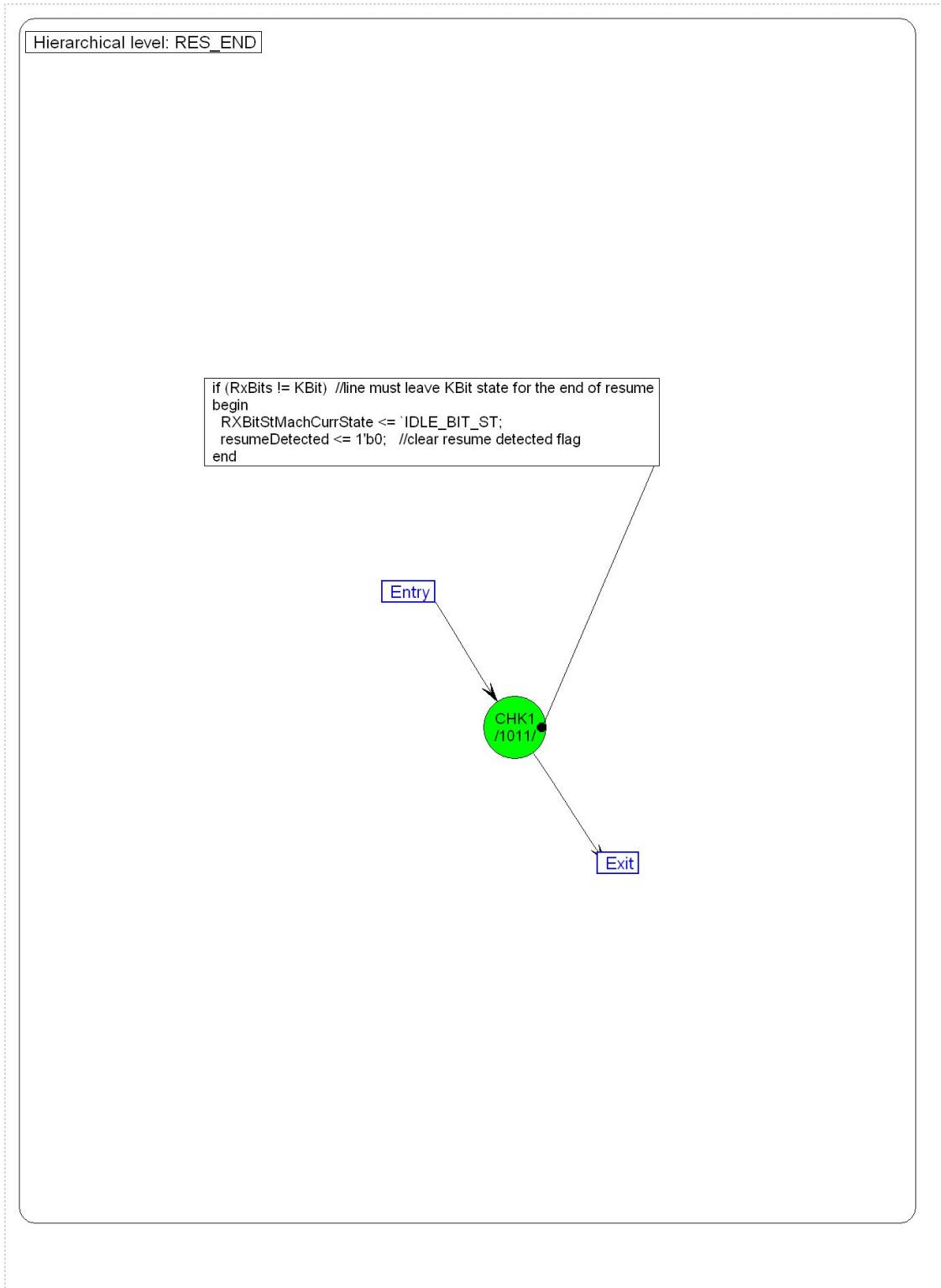
2.6.2.3 ERROR



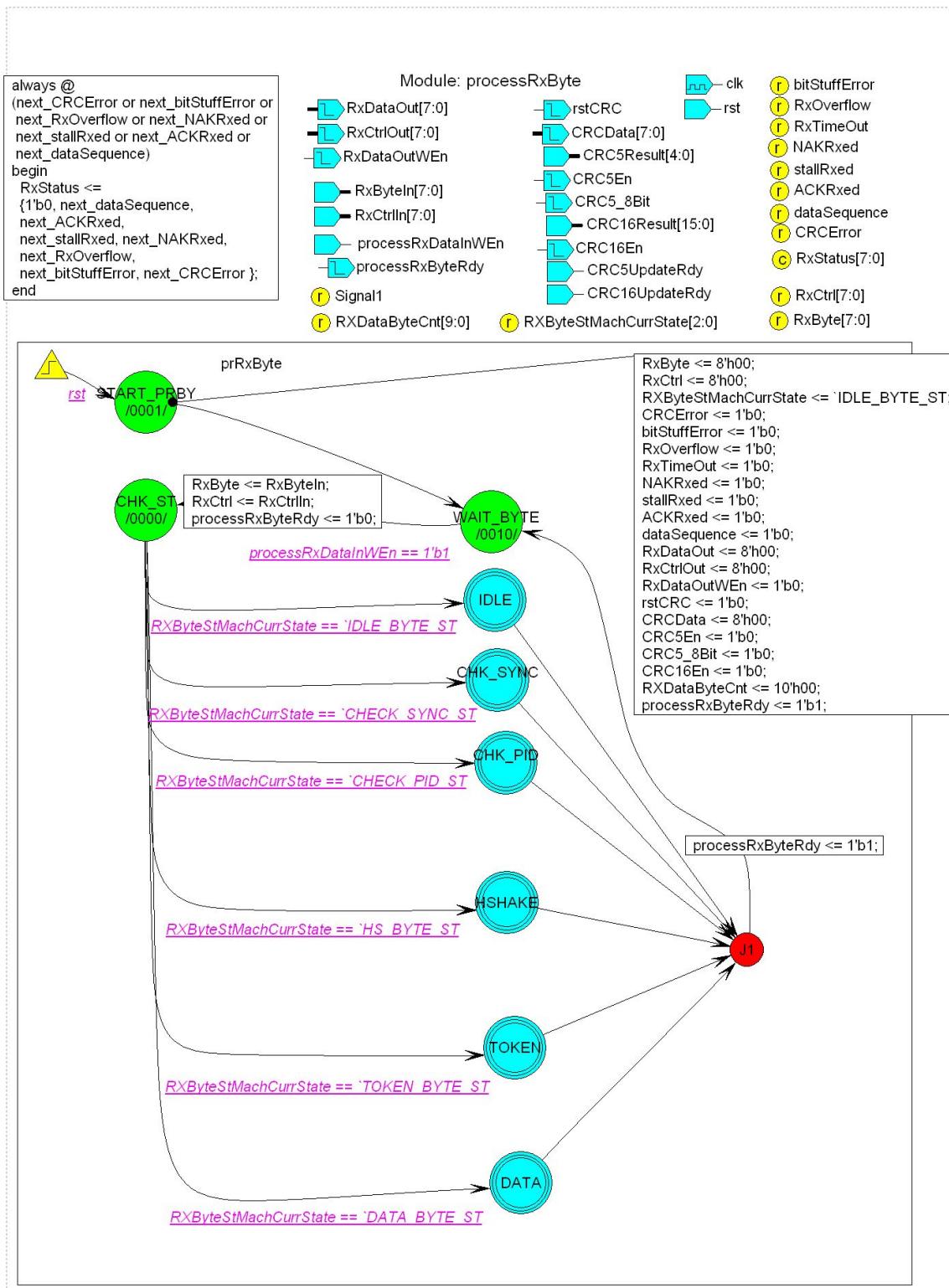
2.6.3 RES_RX



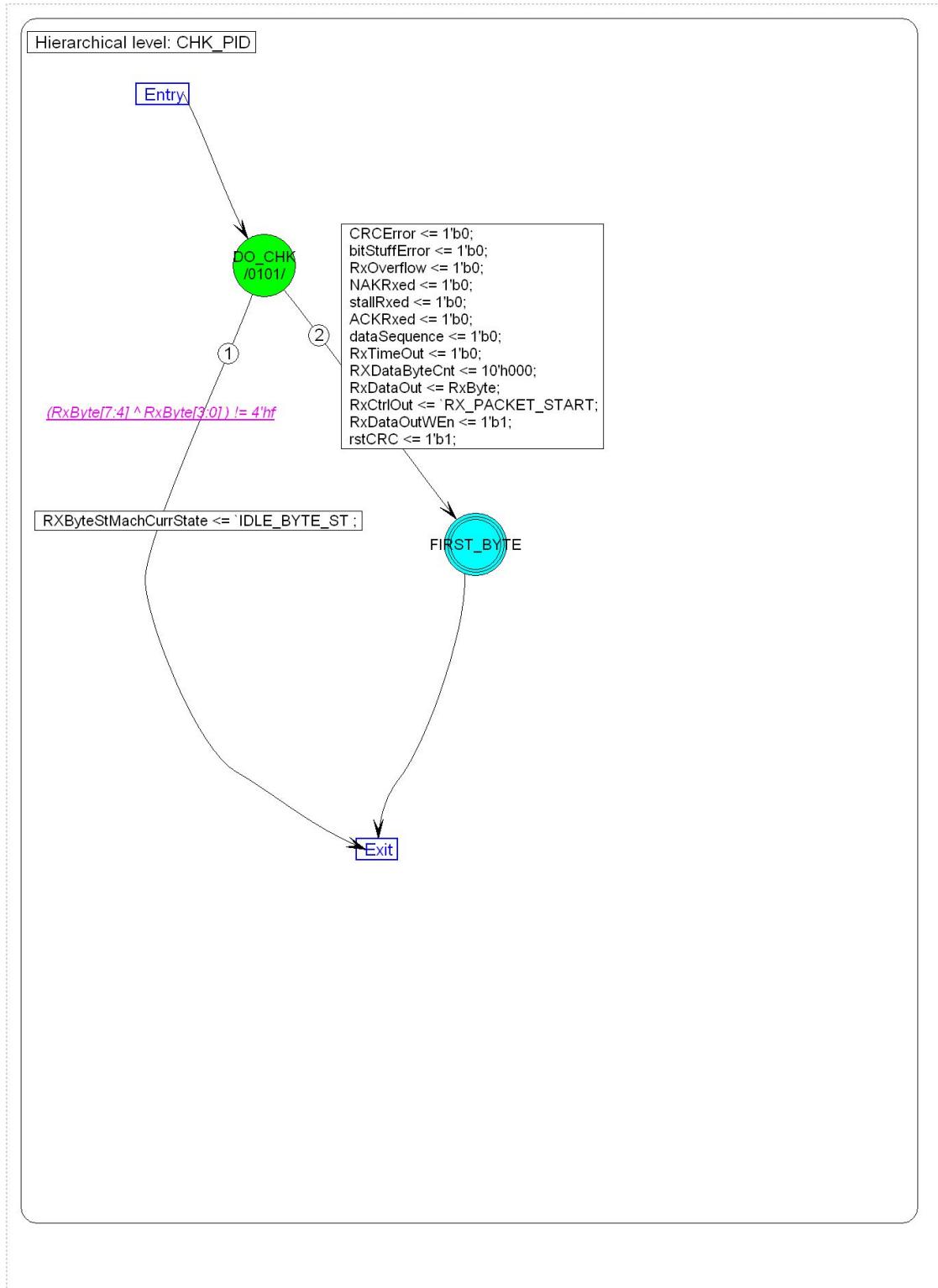
2.6.4 RES_END



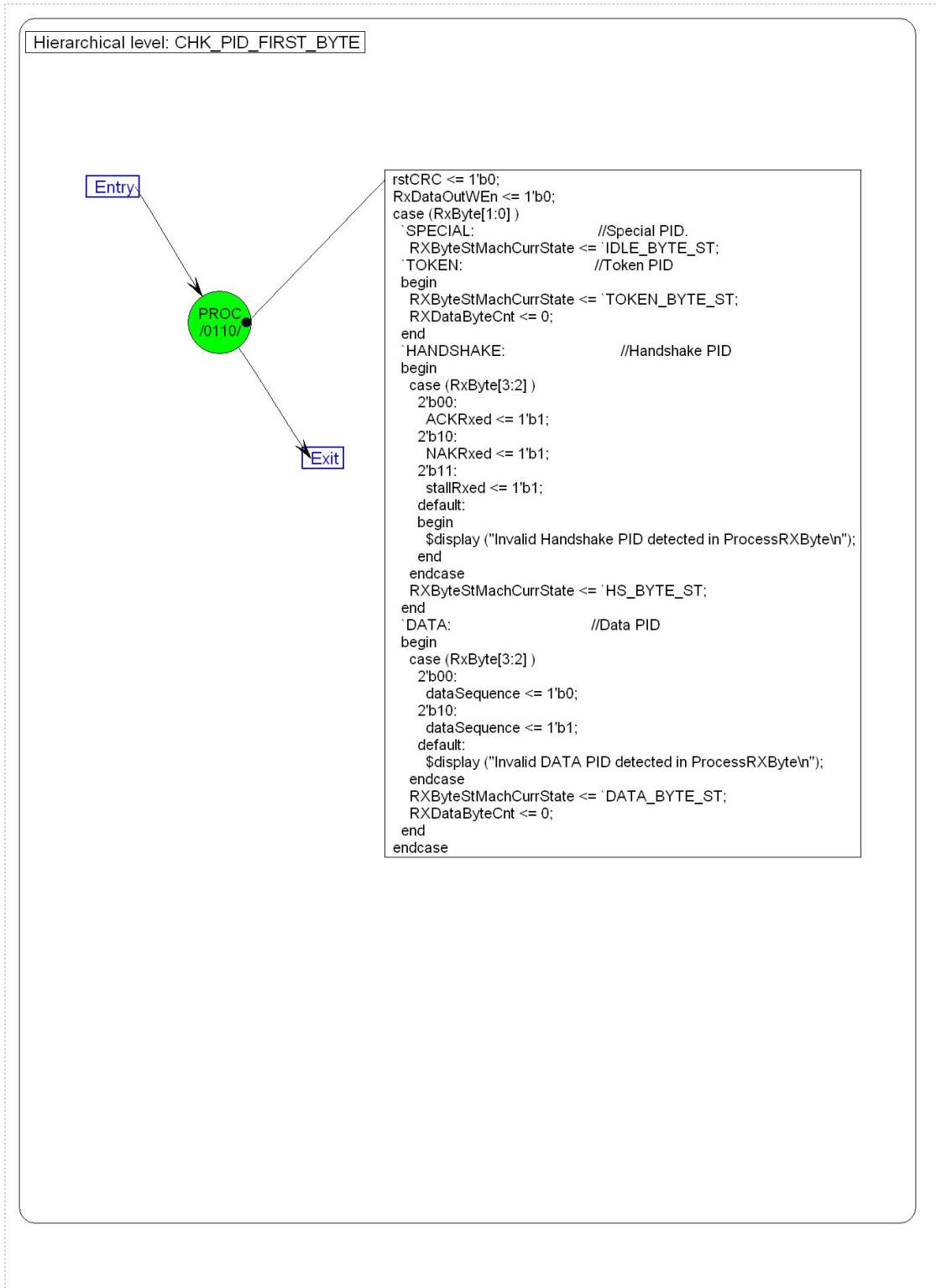
2.7 processRxByte.asf



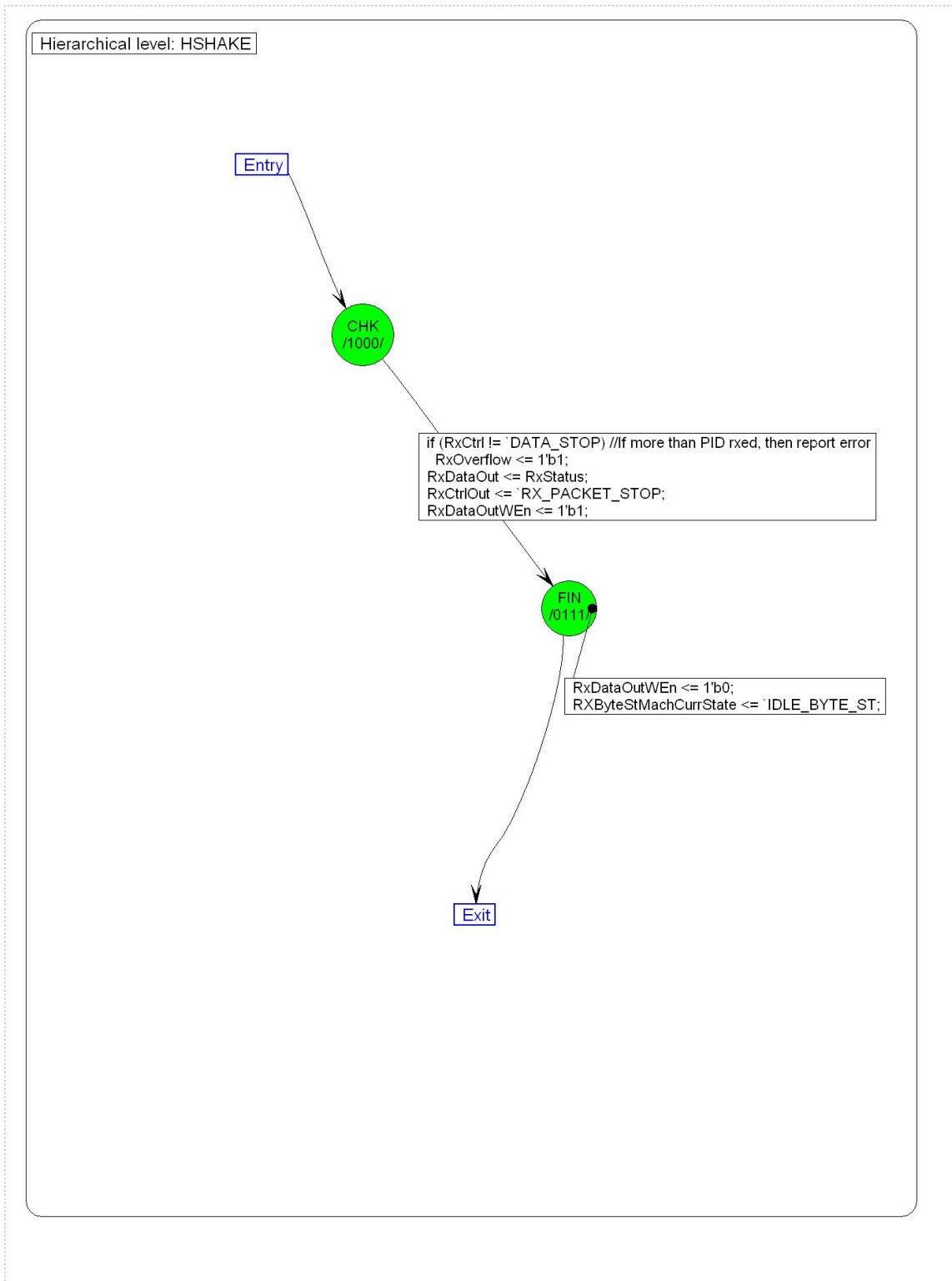
2.7.1 CHK_PID



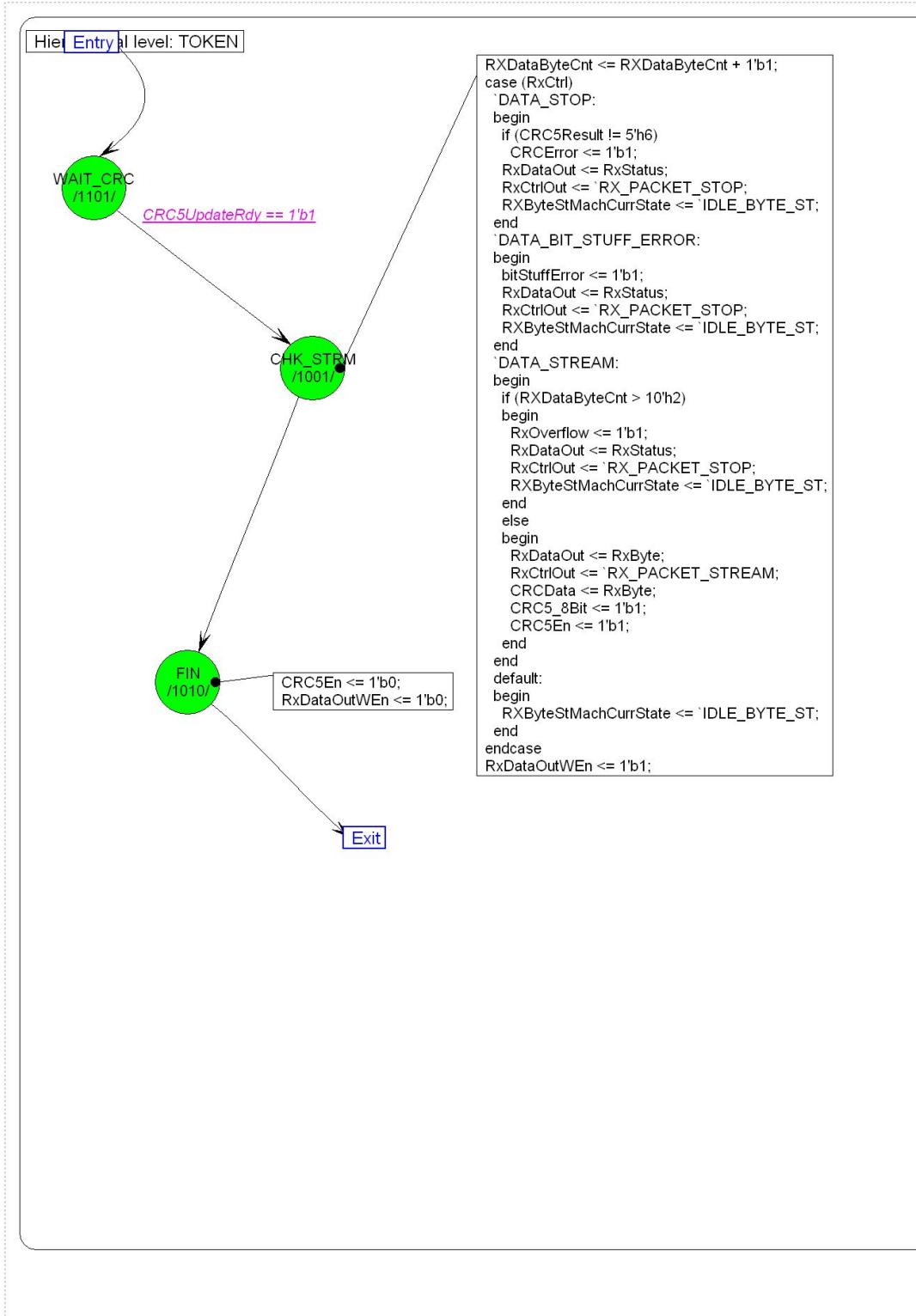
2.7.1.1 FIRST_BYTE



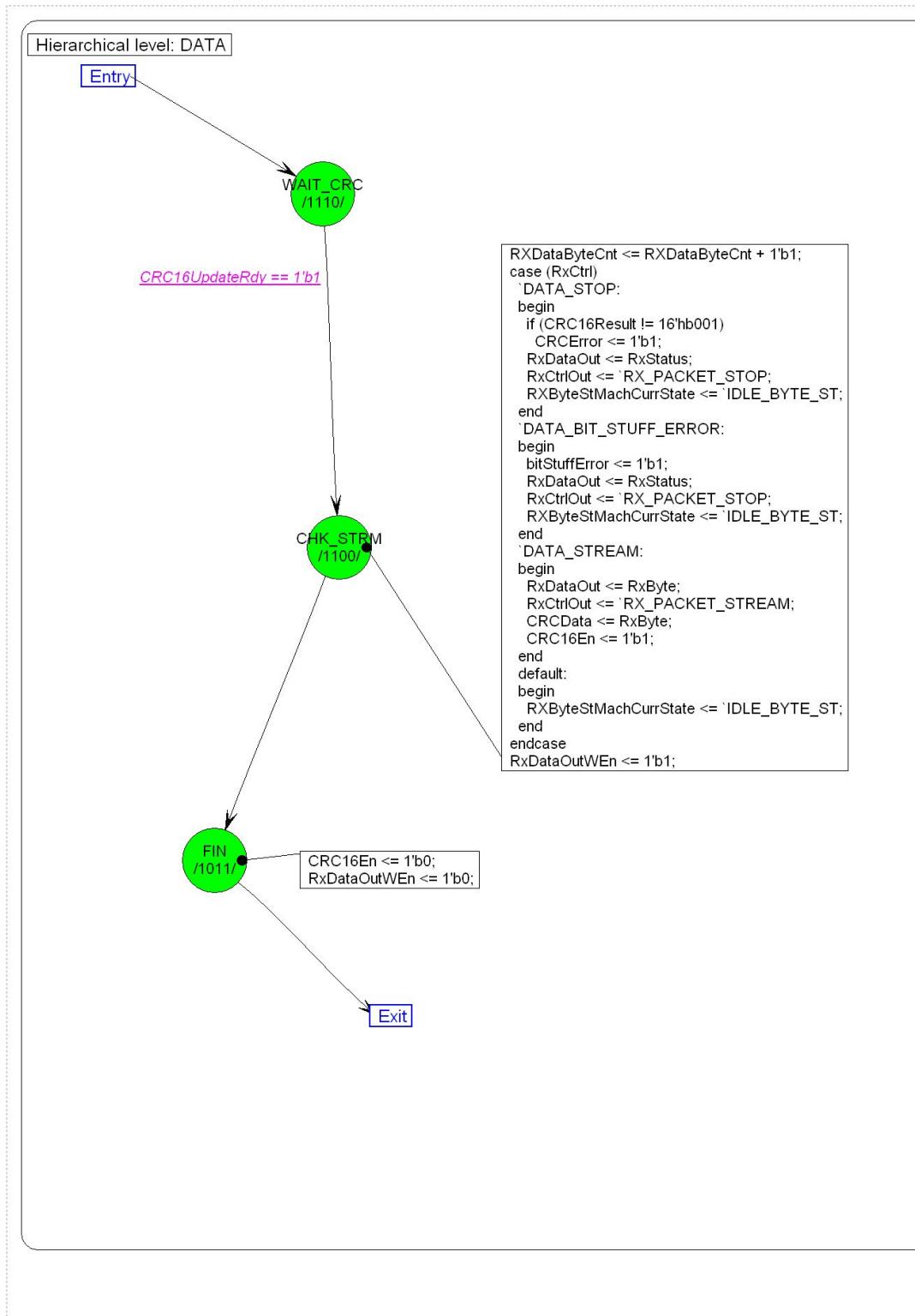
2.7.2 HSHAKE



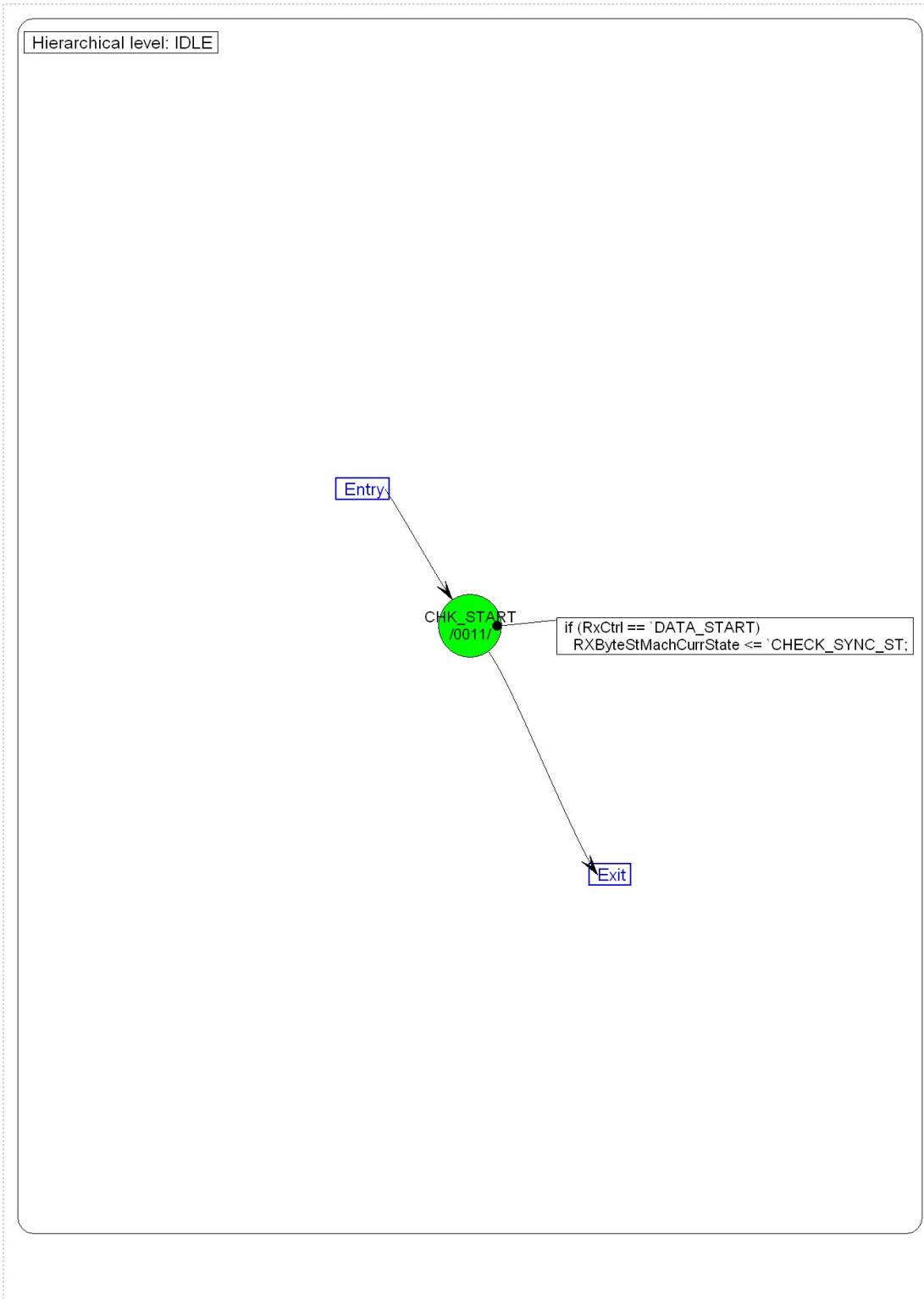
2.7.3 TOKEN



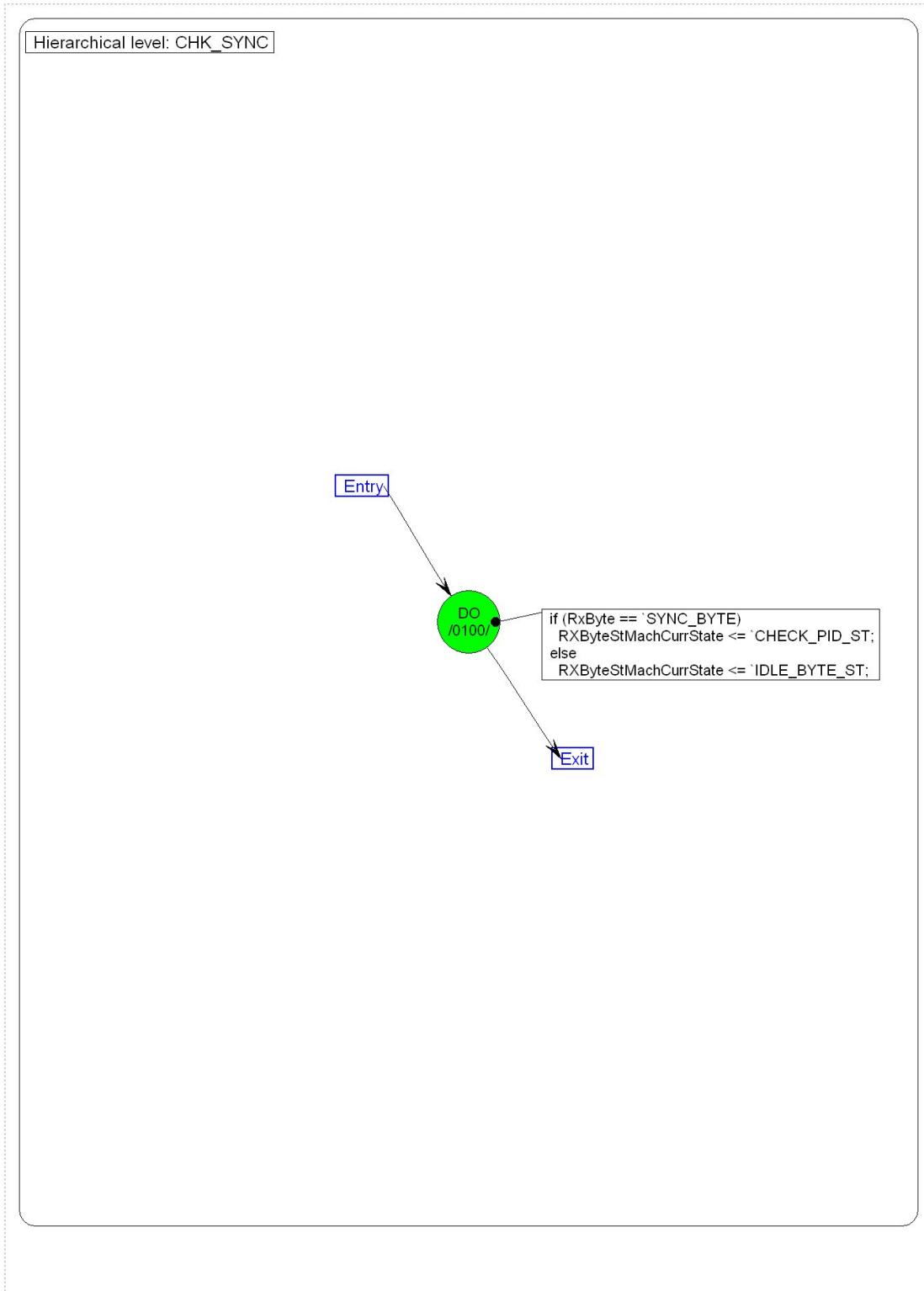
2.7.4 DATA



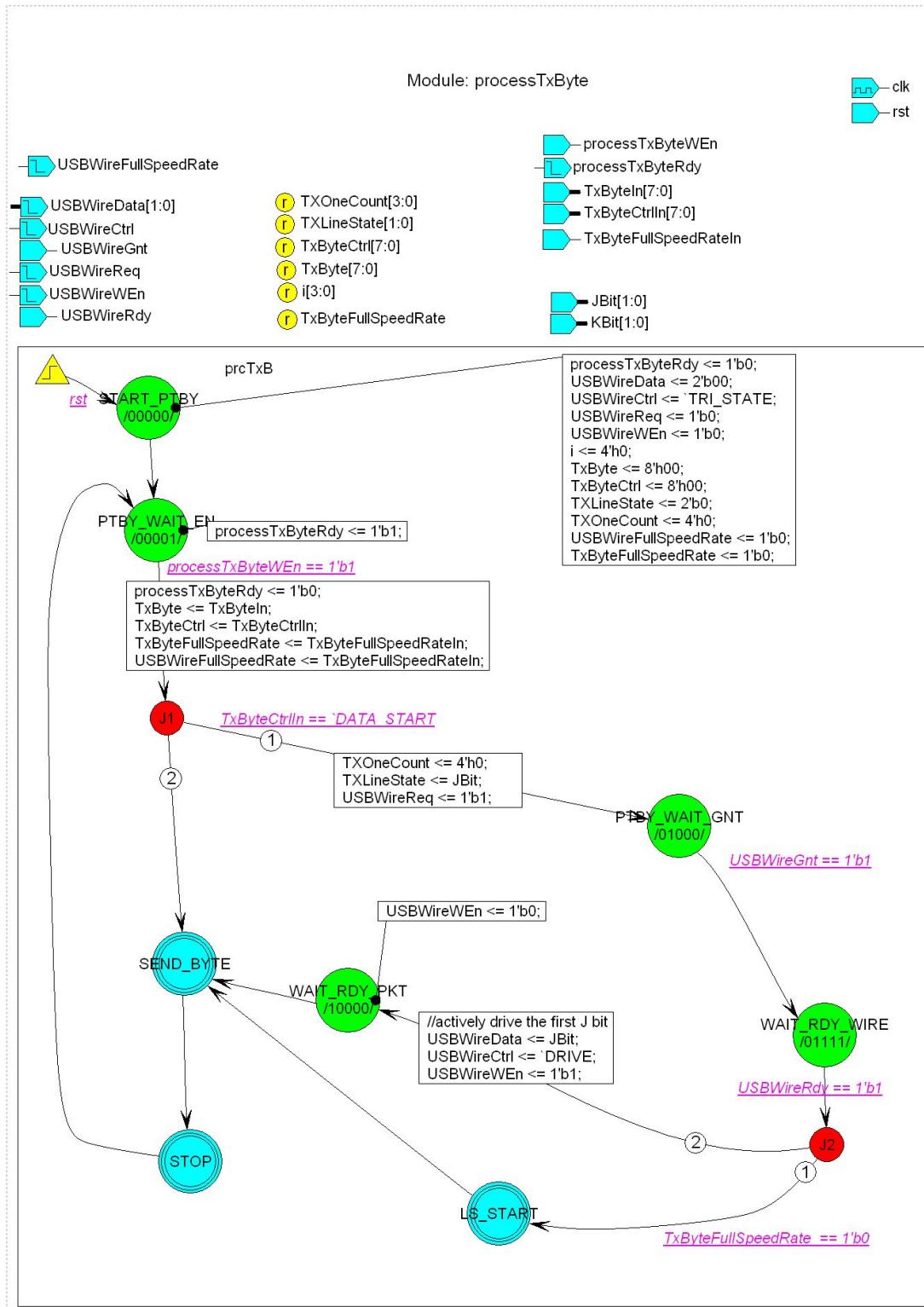
2.7.5 IDLE



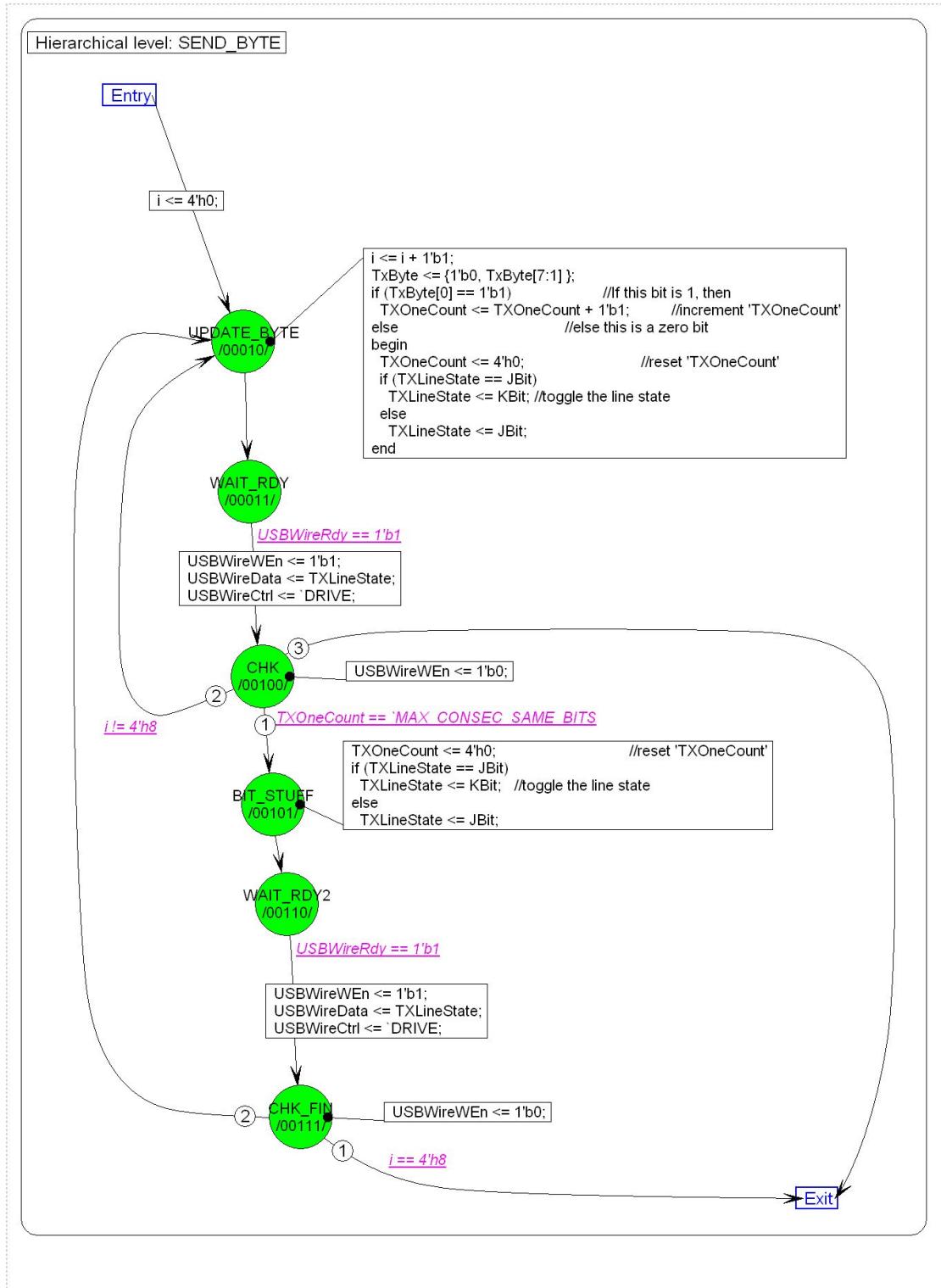
2.7.6 CHK_SYNC



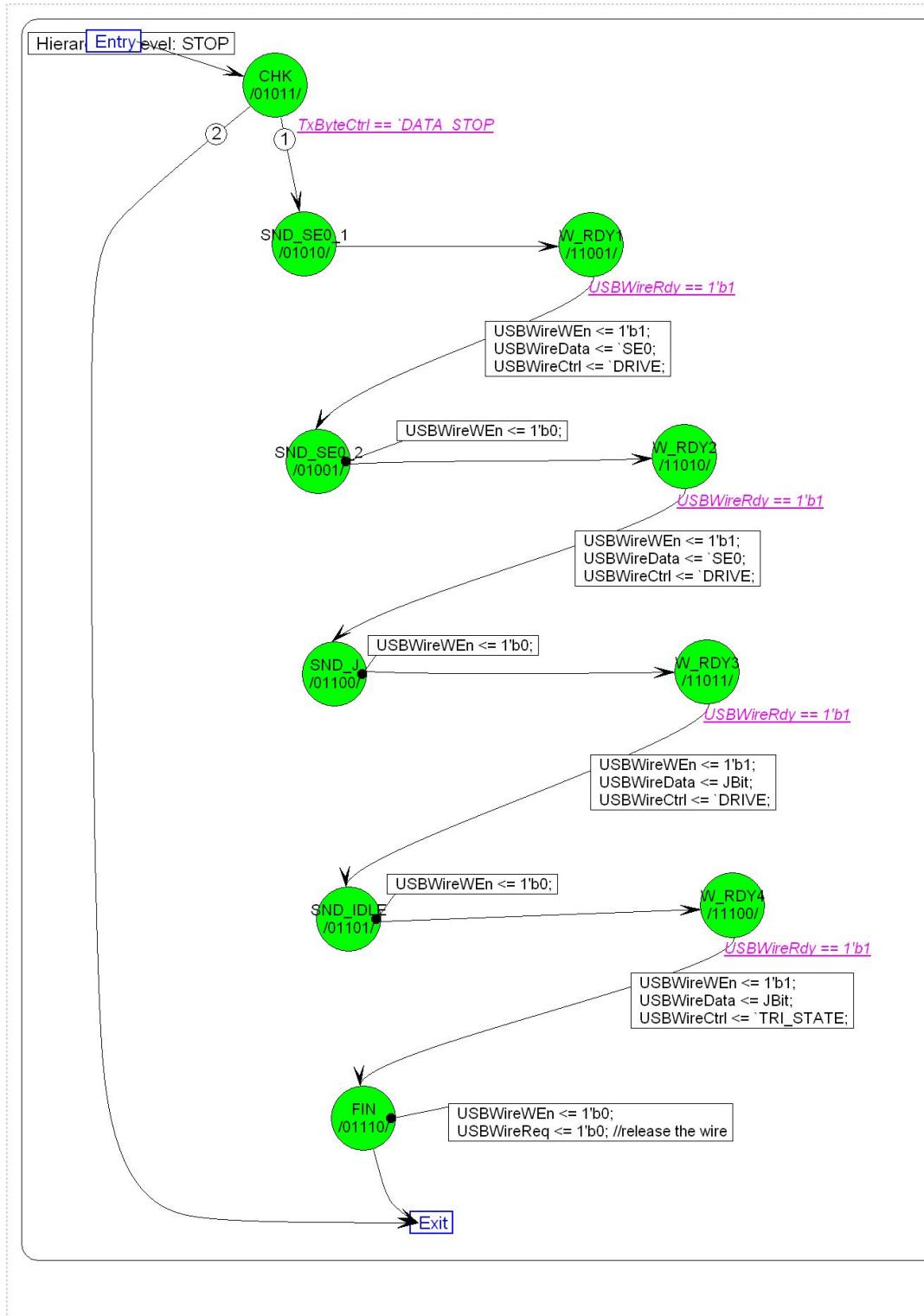
2.8 processTxByte.asf



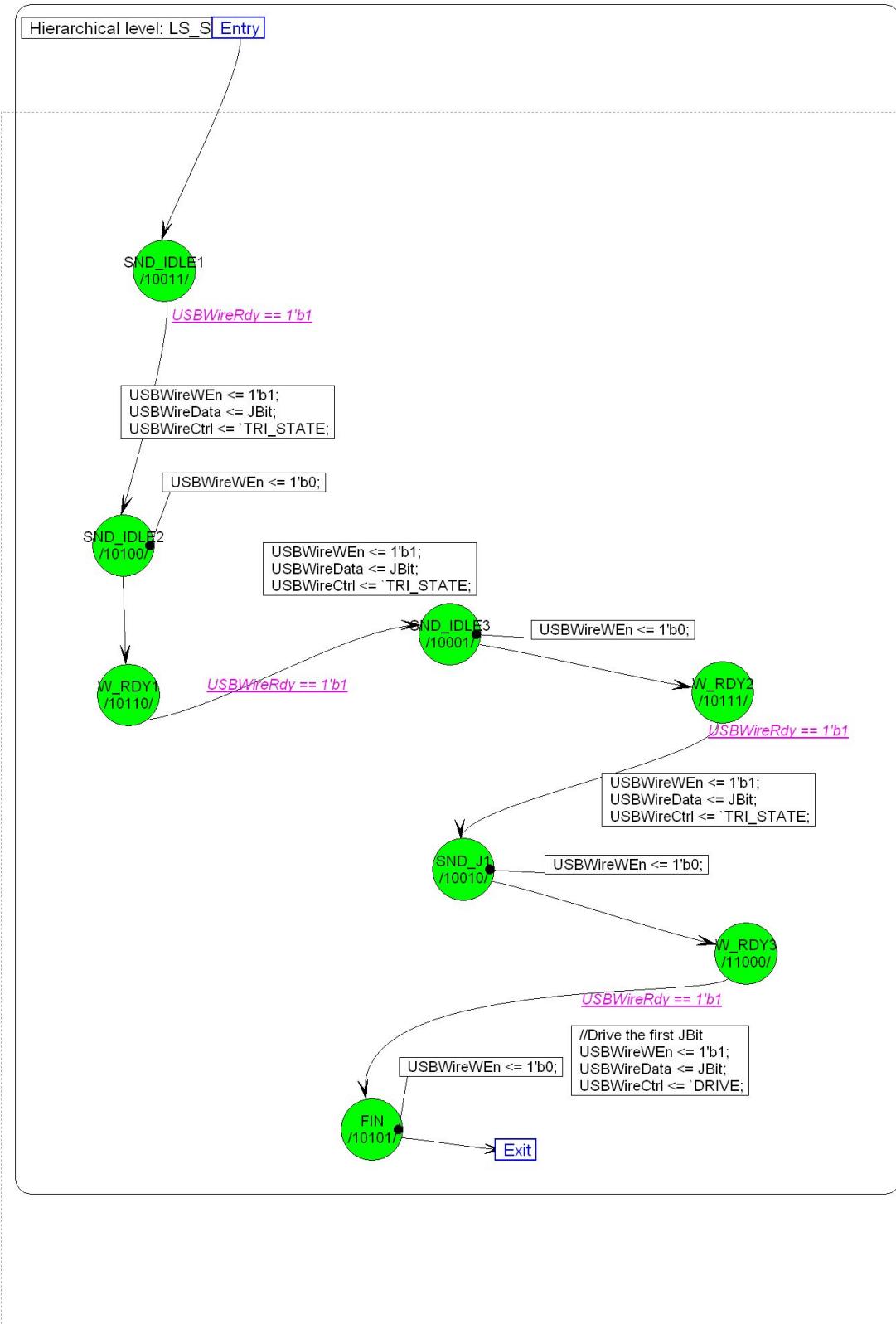
2.8.1 SEND_BYT



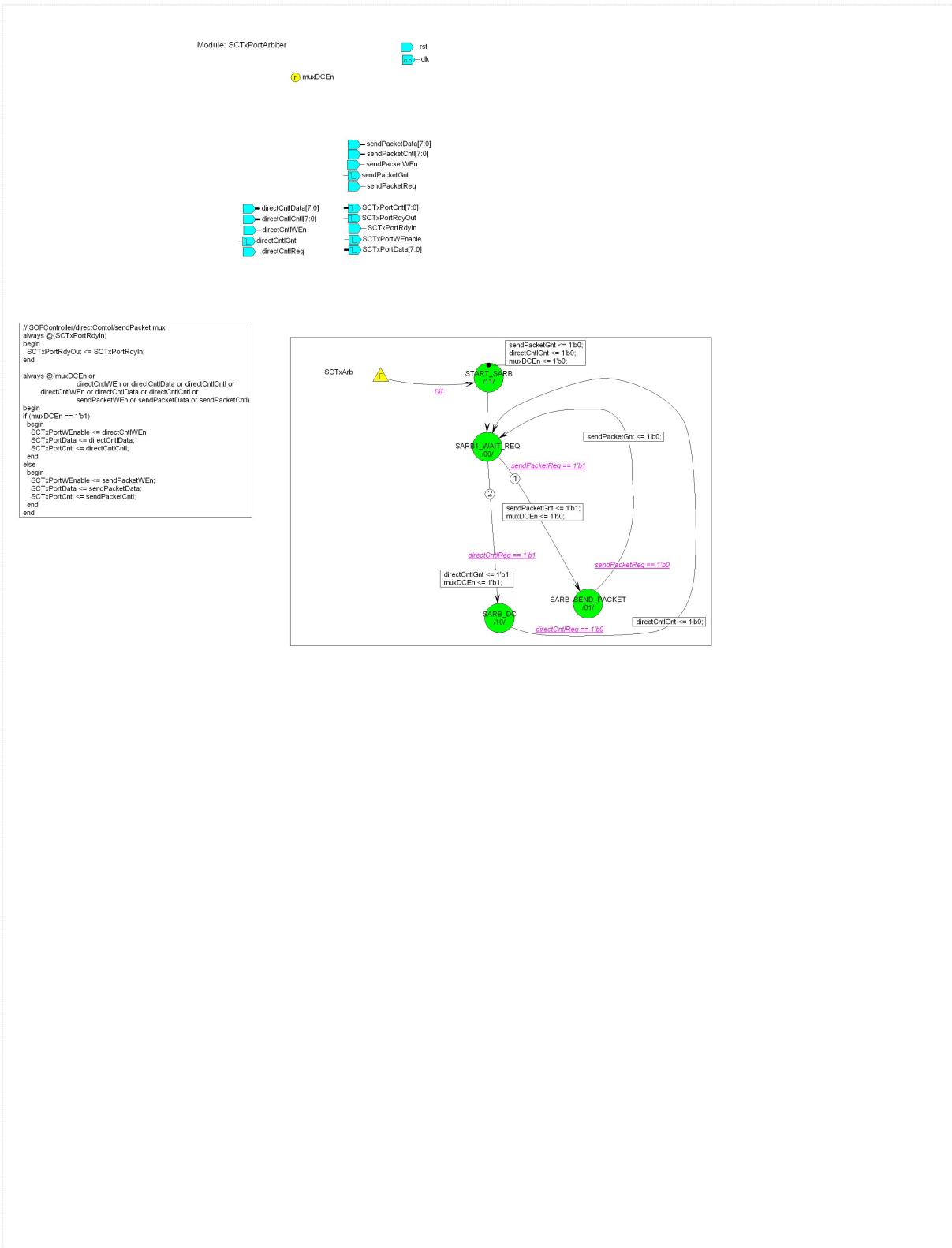
2.8.2 STOP



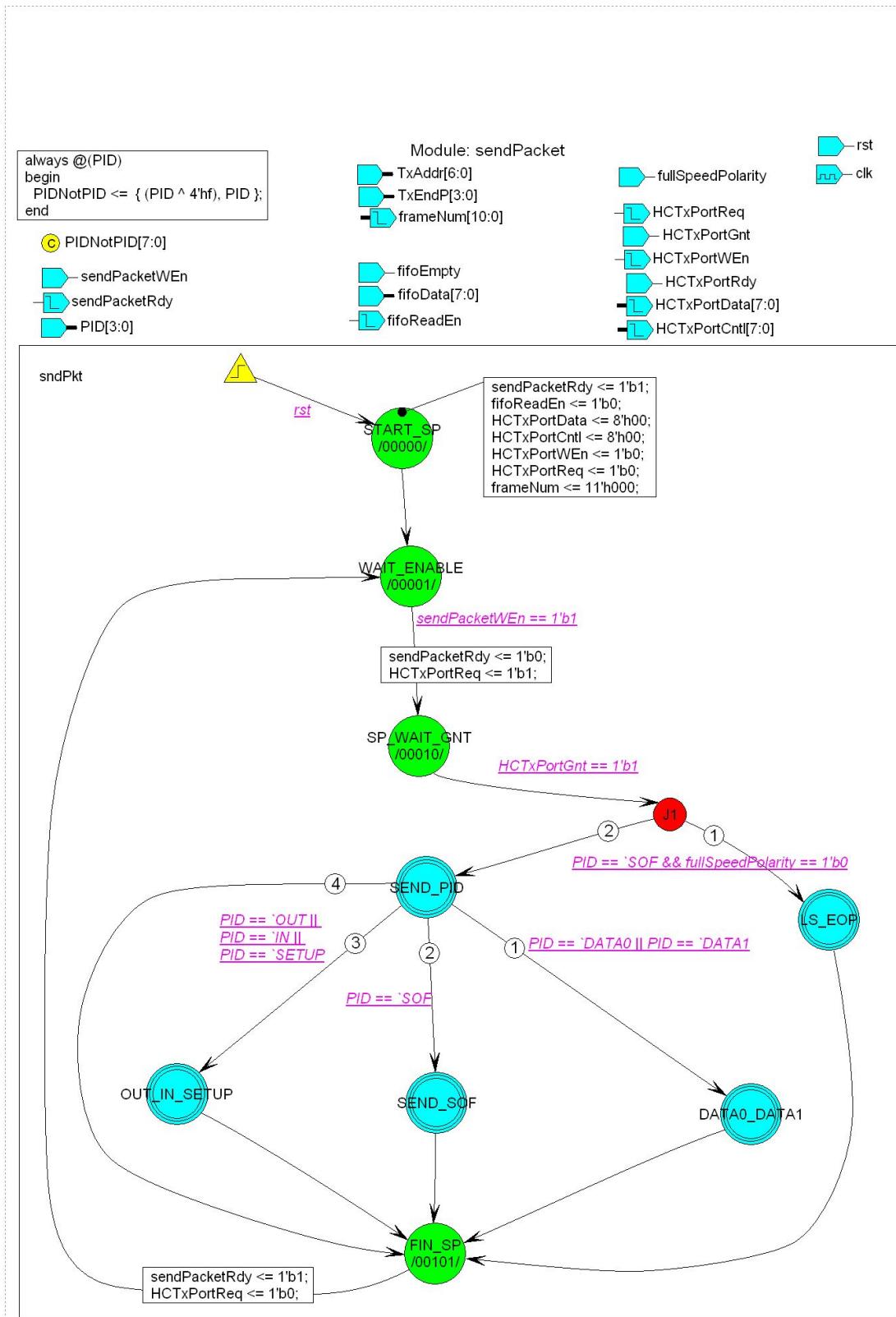
2.8.3 LS_START



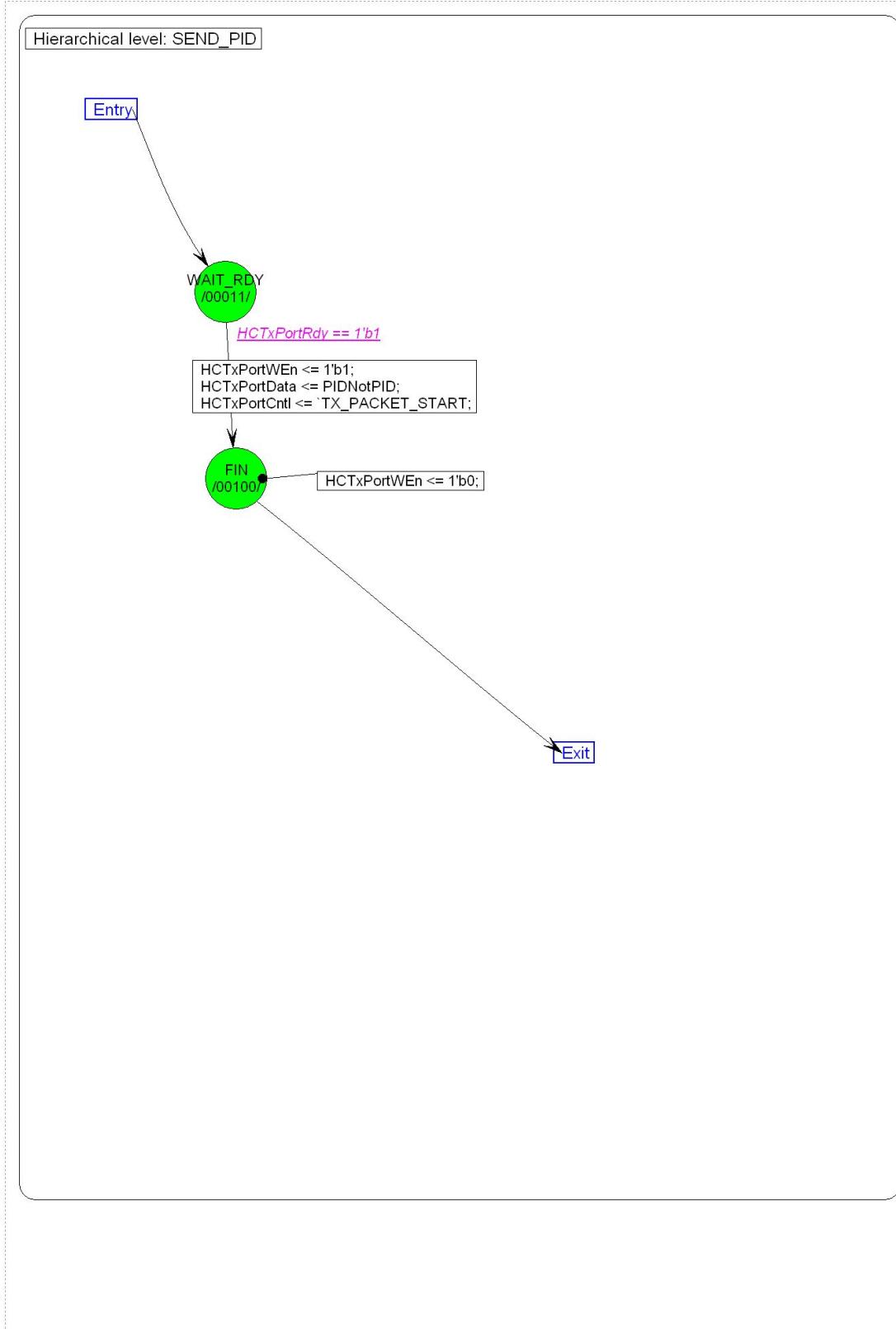
2.9 sctxportarbiter.asf



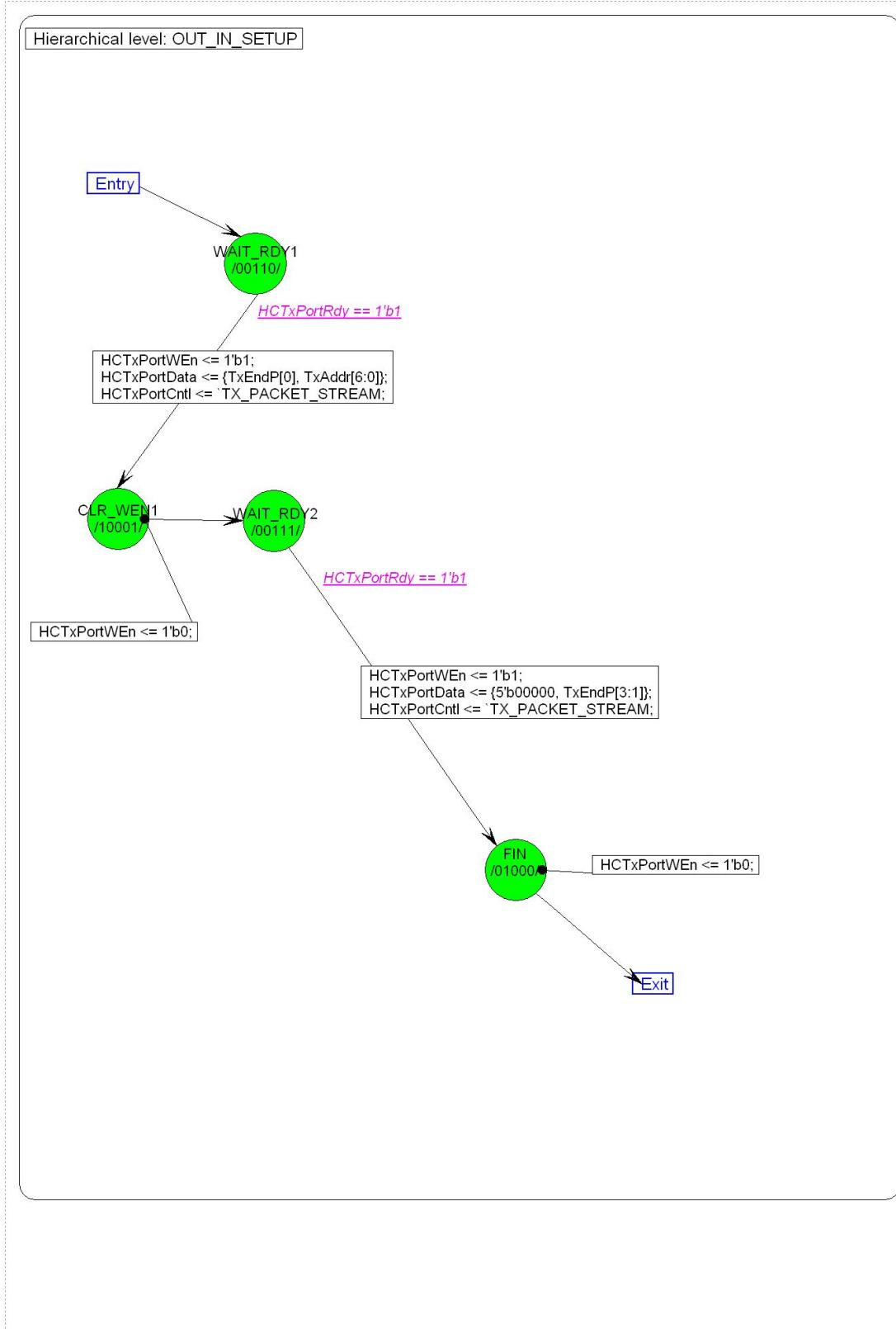
2.10 sendpacket.asp



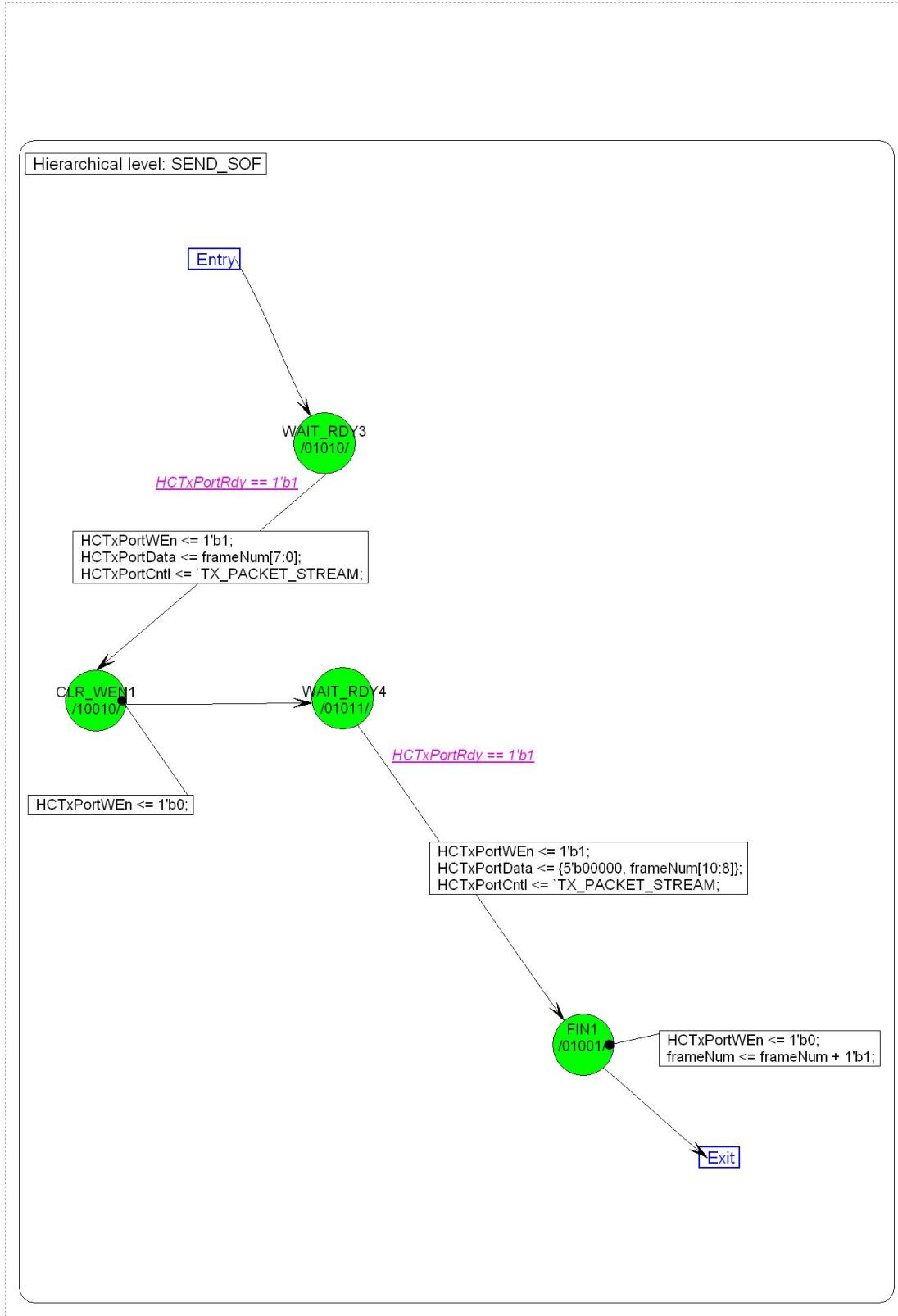
2.10.1 SEND_PID



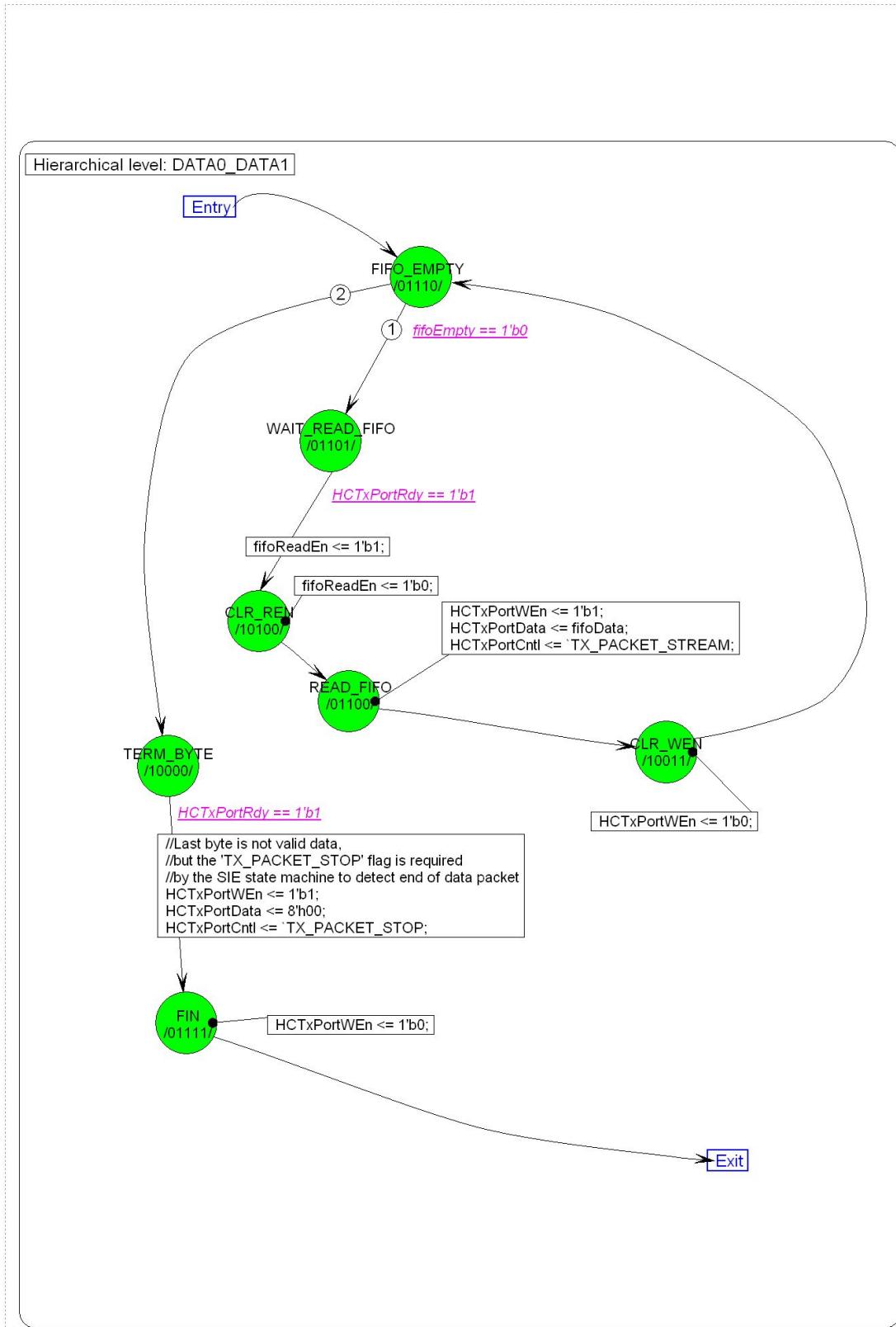
2.10.2 OUT_IN_SETUP



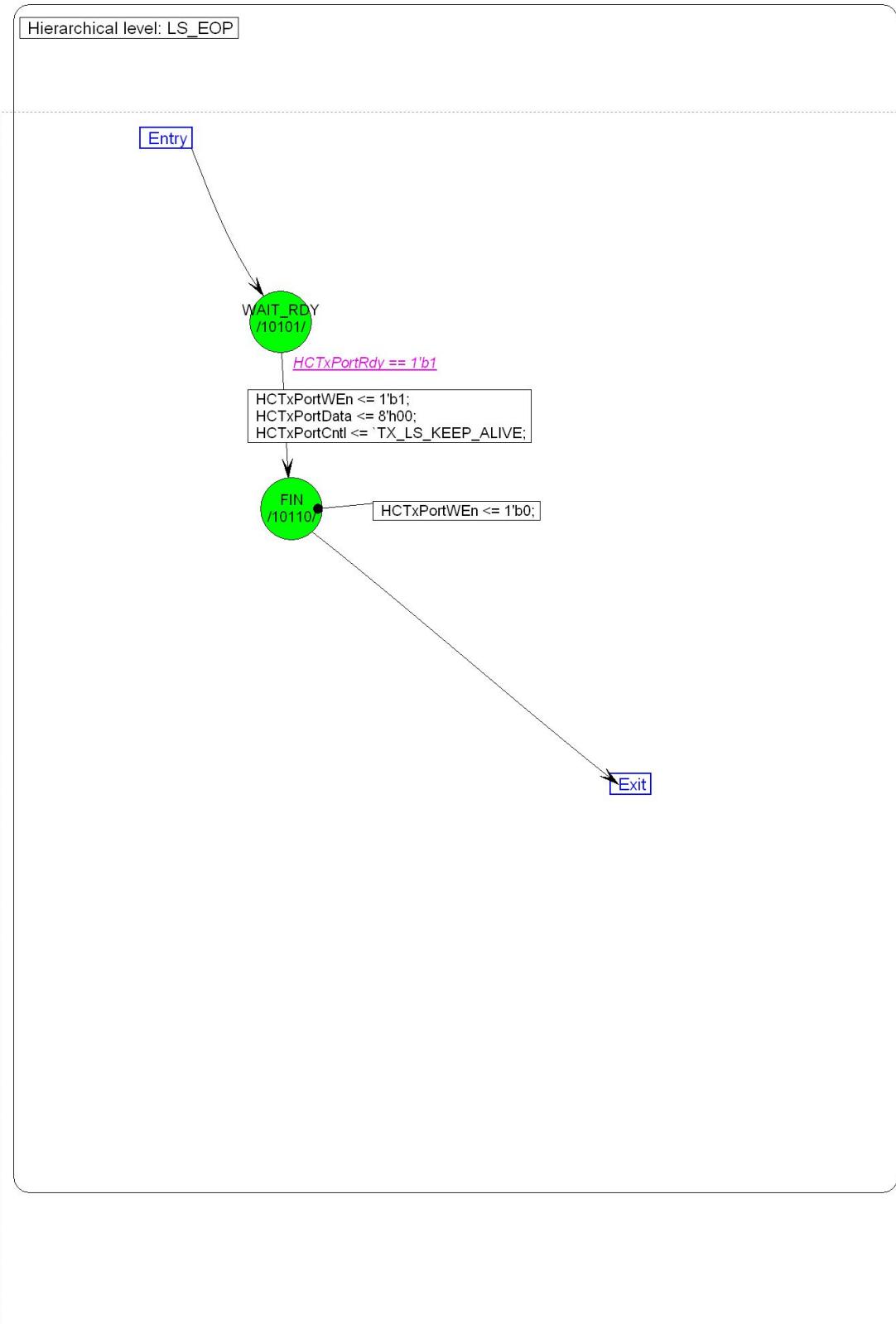
2.10.3 SEND_SOF



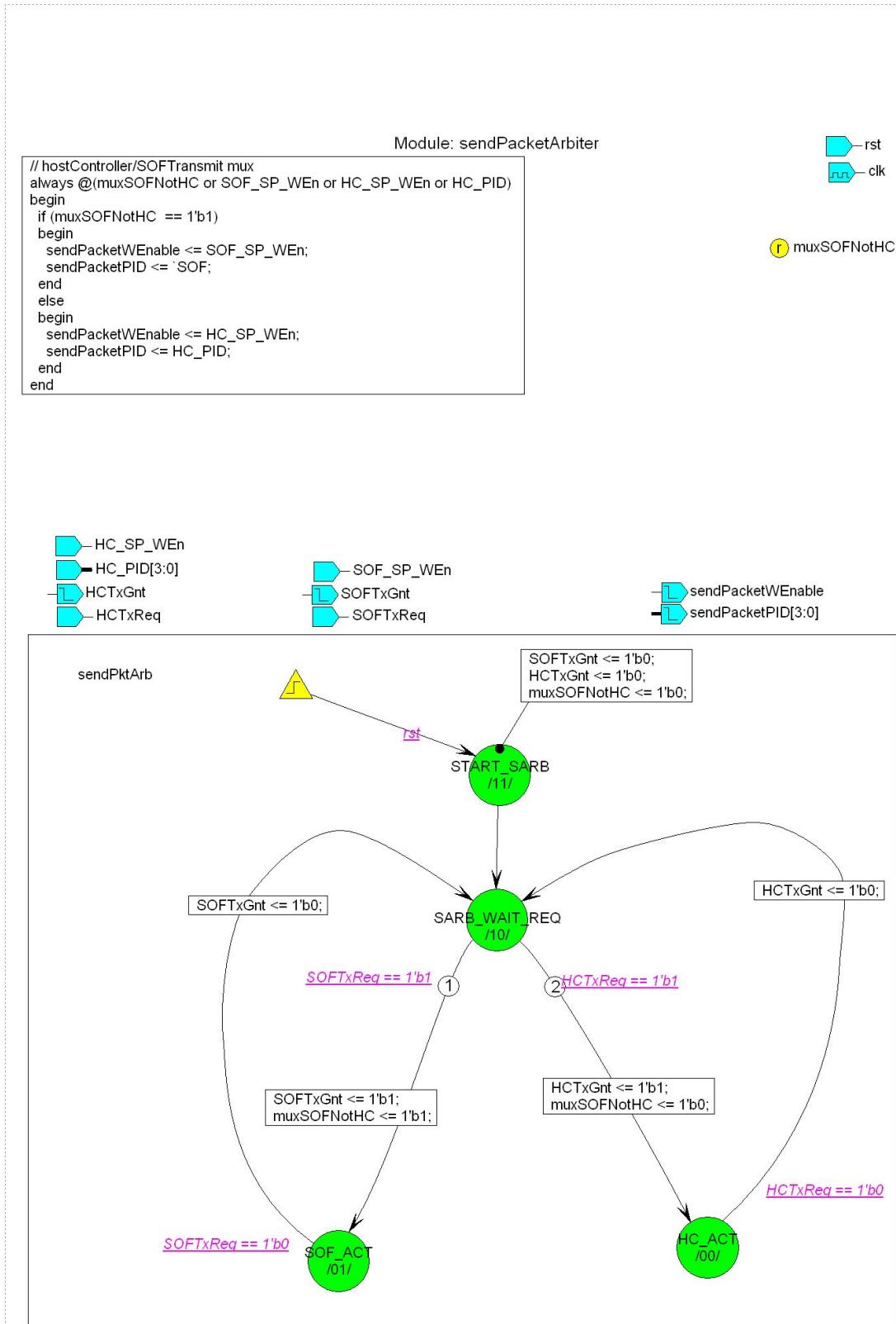
2.10.4 DATA0_DATA1



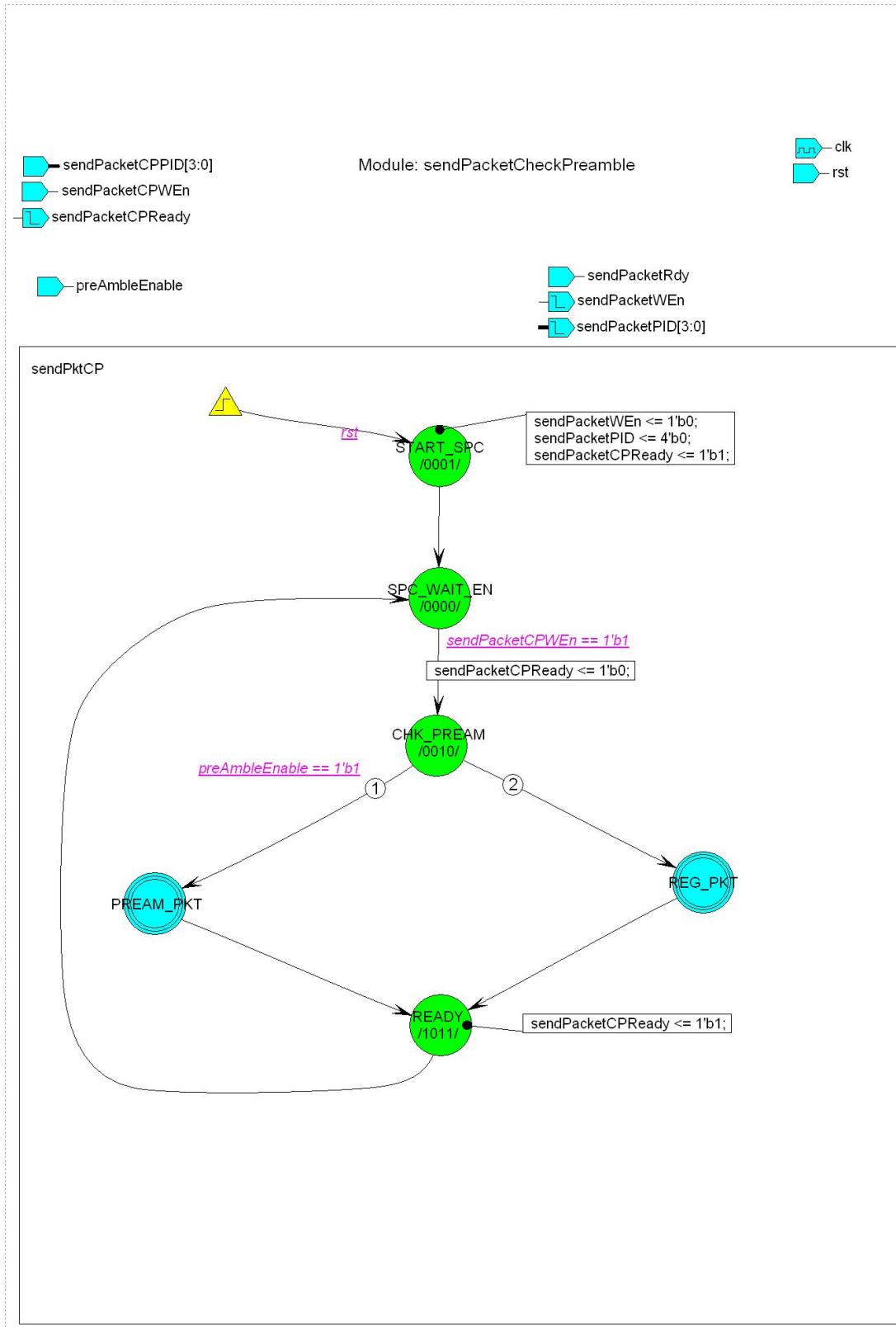
2.10.5 LS_EOP



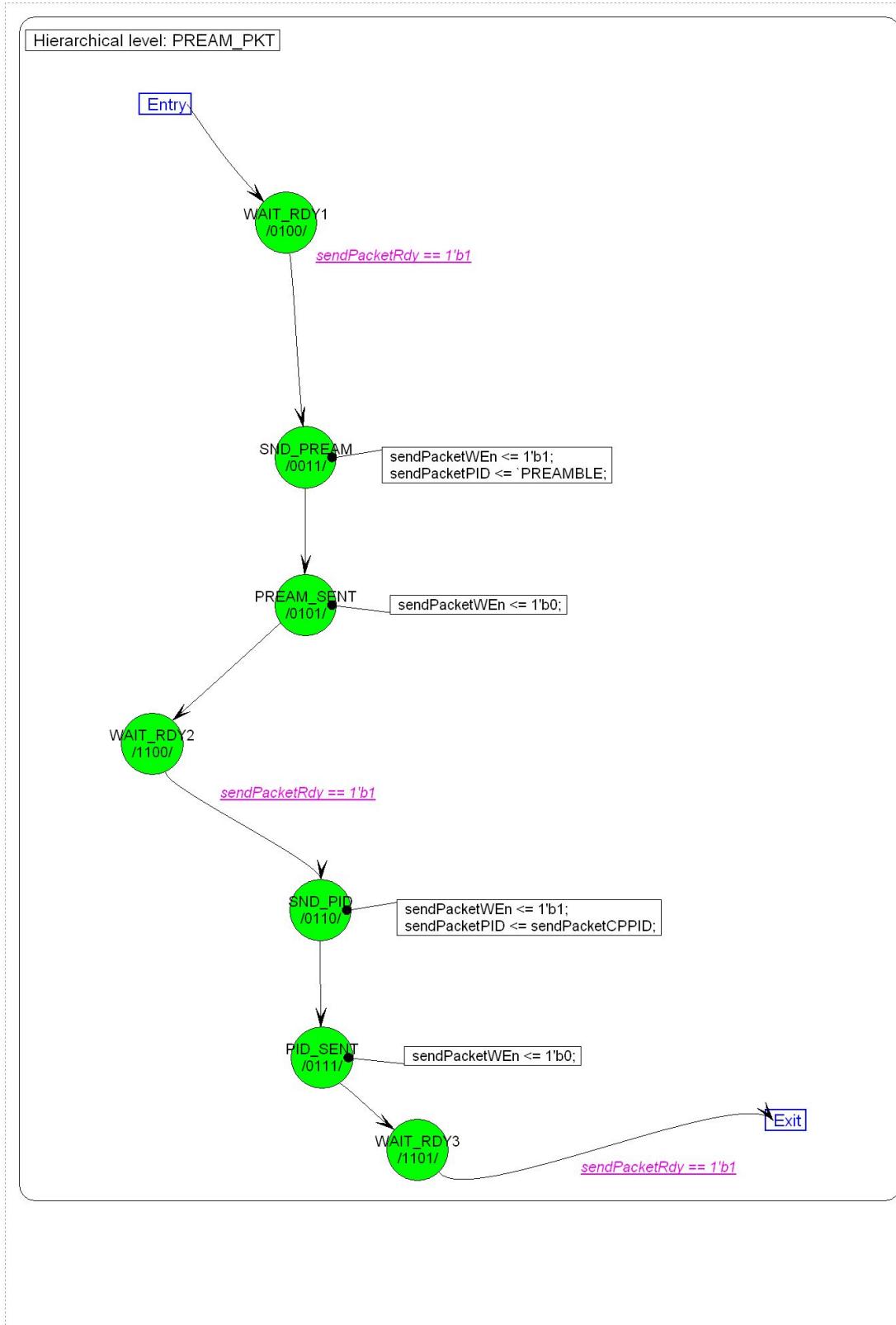
2.11 sendpacketarbiter.asf



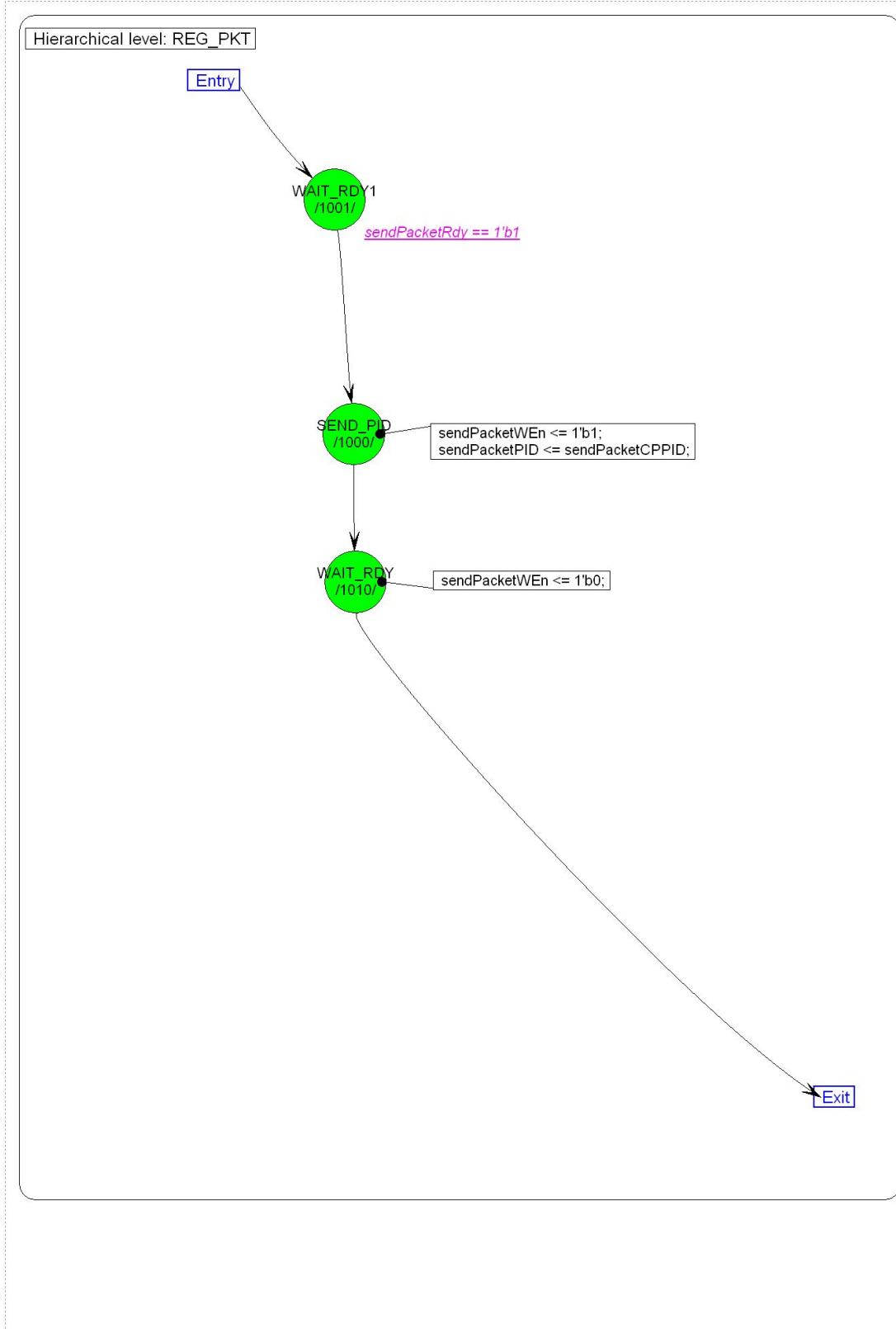
2.12 sendpacketcheckpreamble.asf



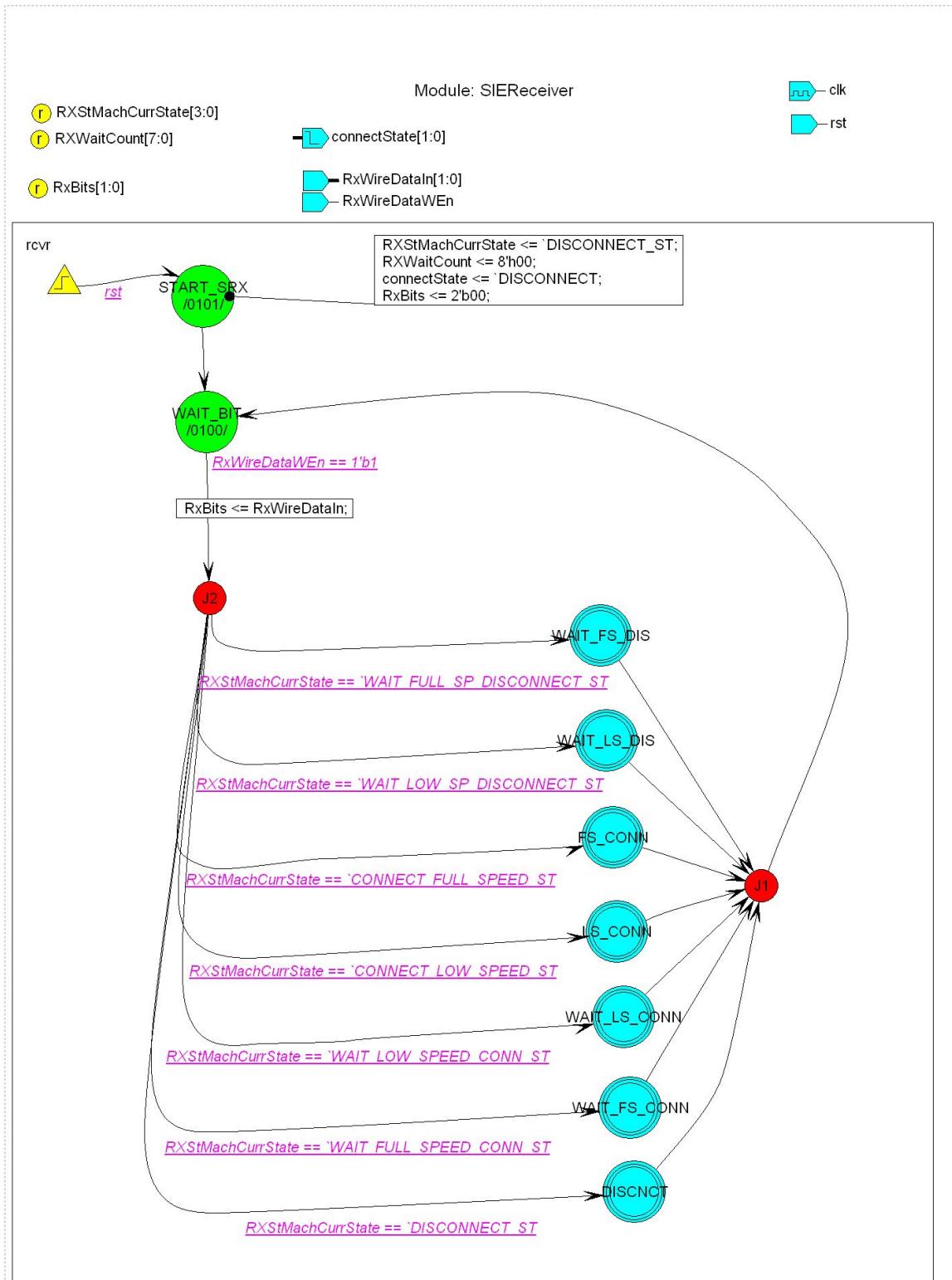
2.12.1 PREAM_PKT



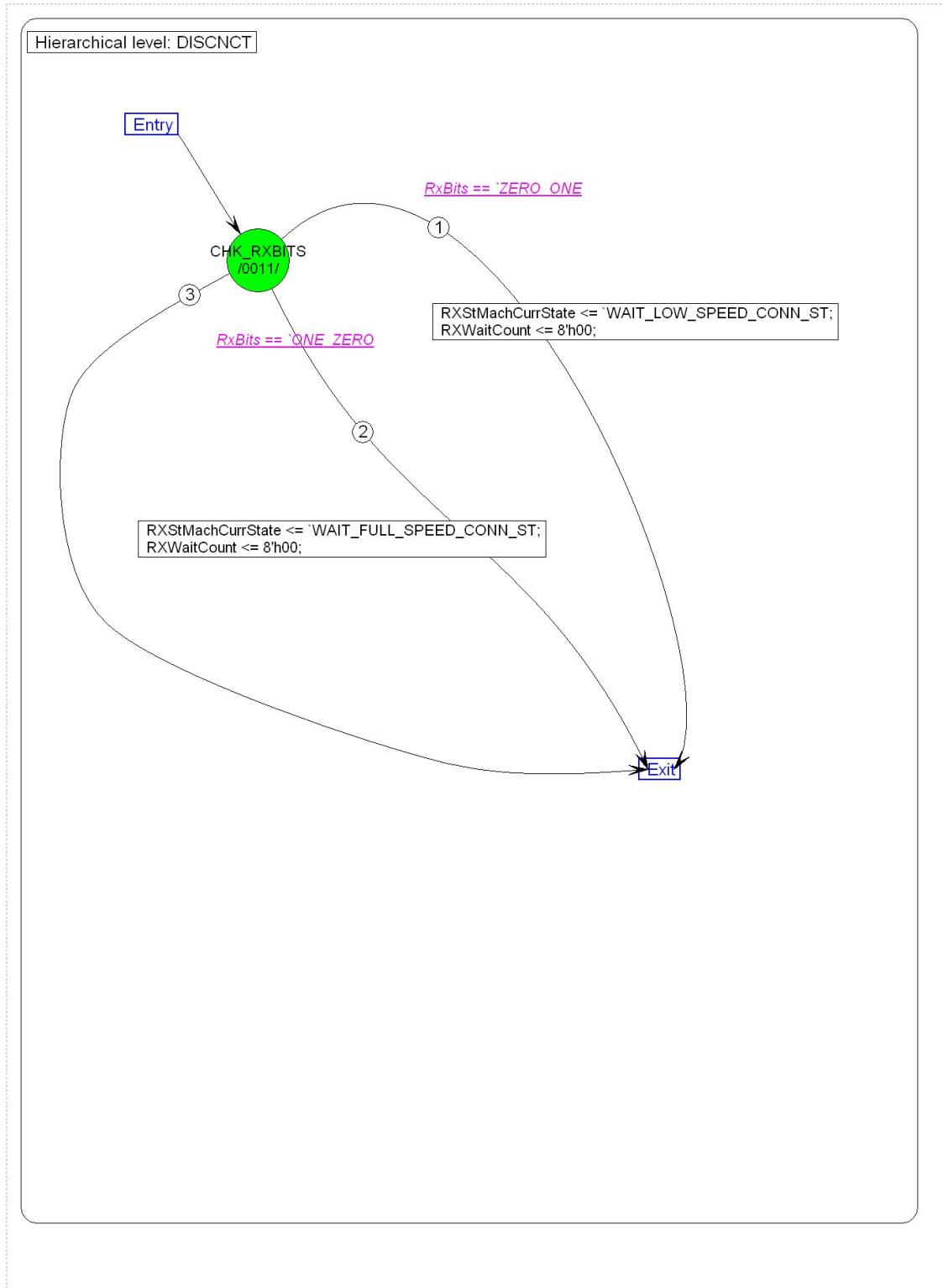
2.12.2 REG_PKT



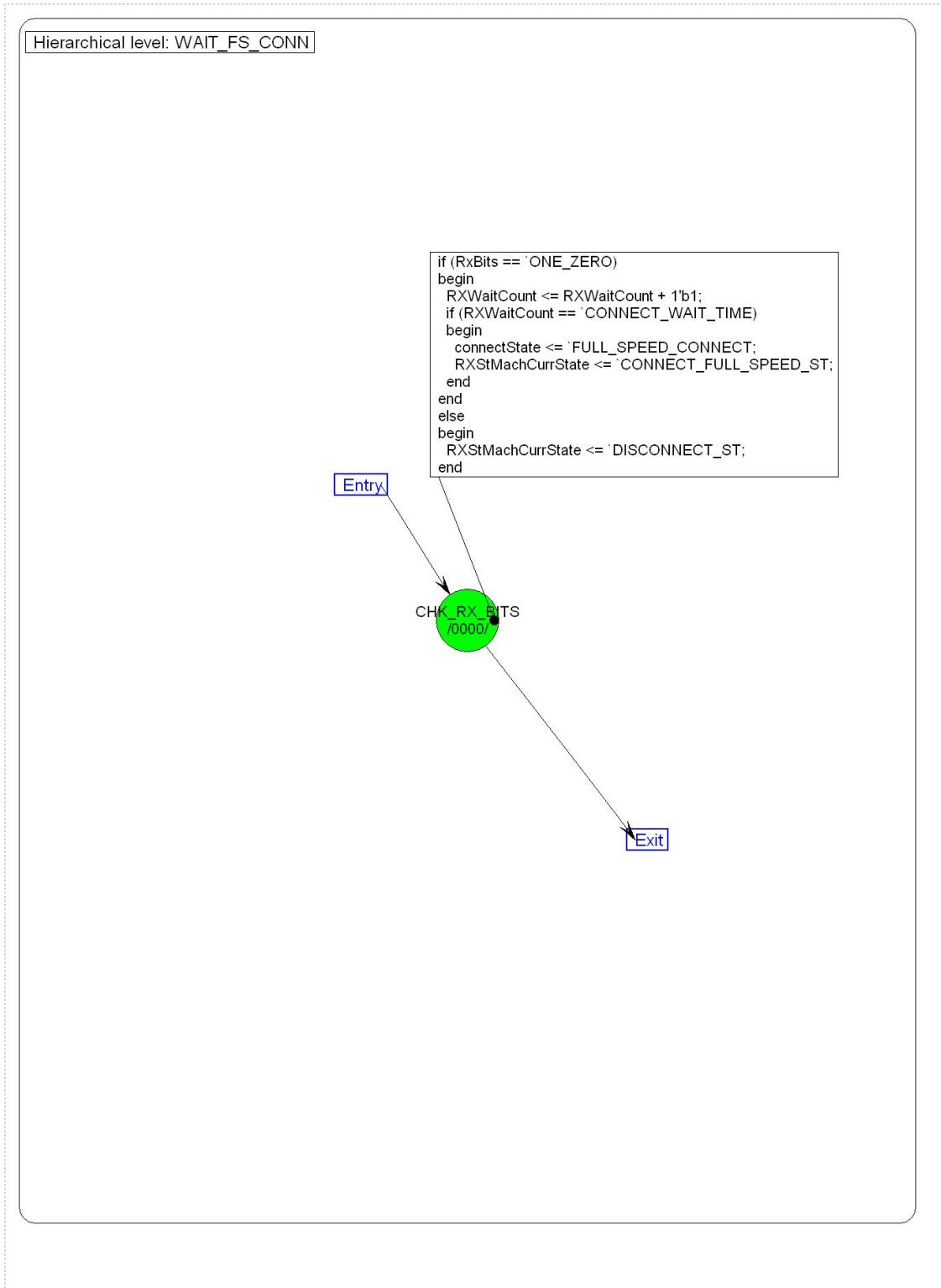
2.13 sierceiver.asf



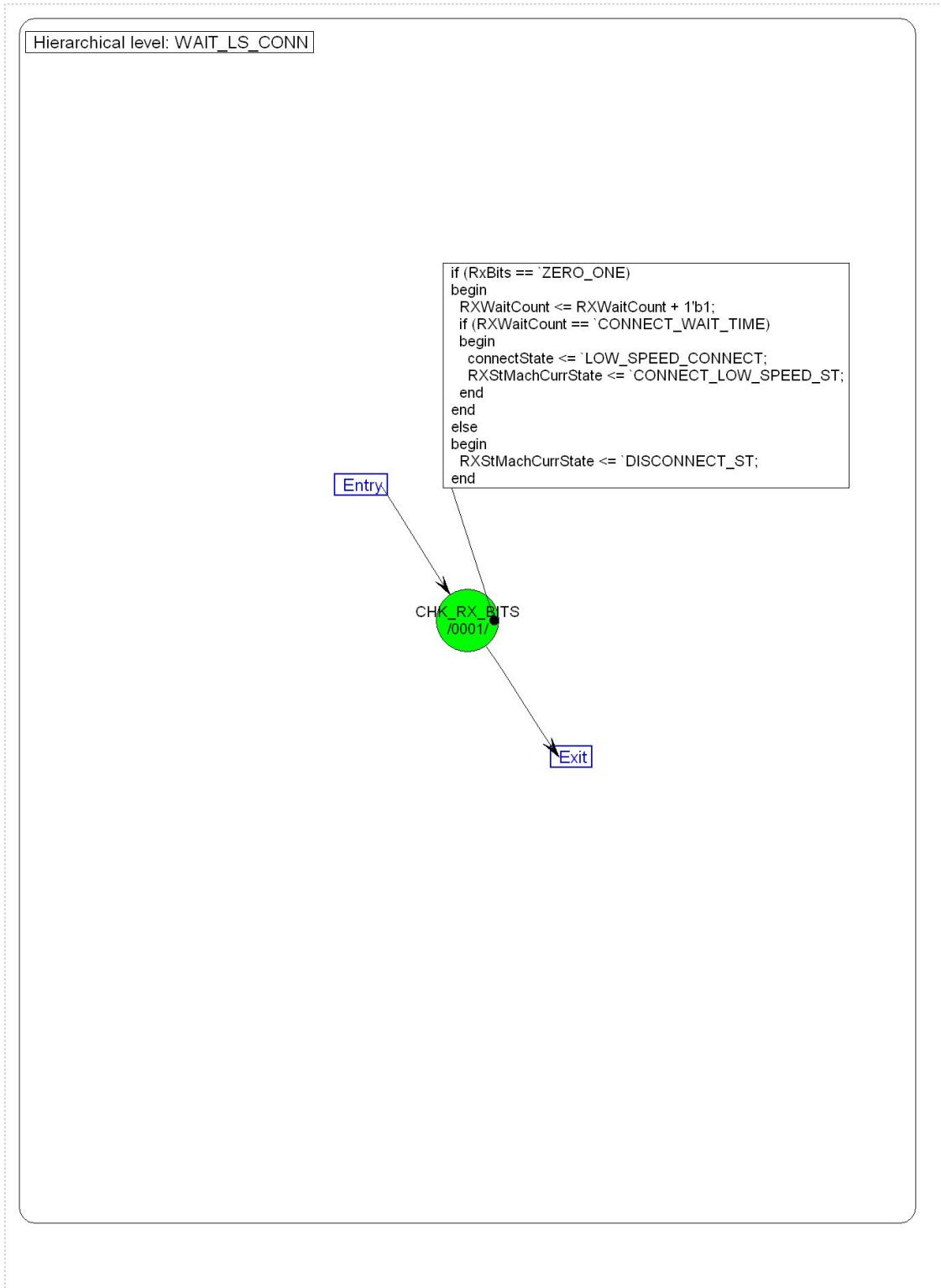
2.13.1 DISCNCT



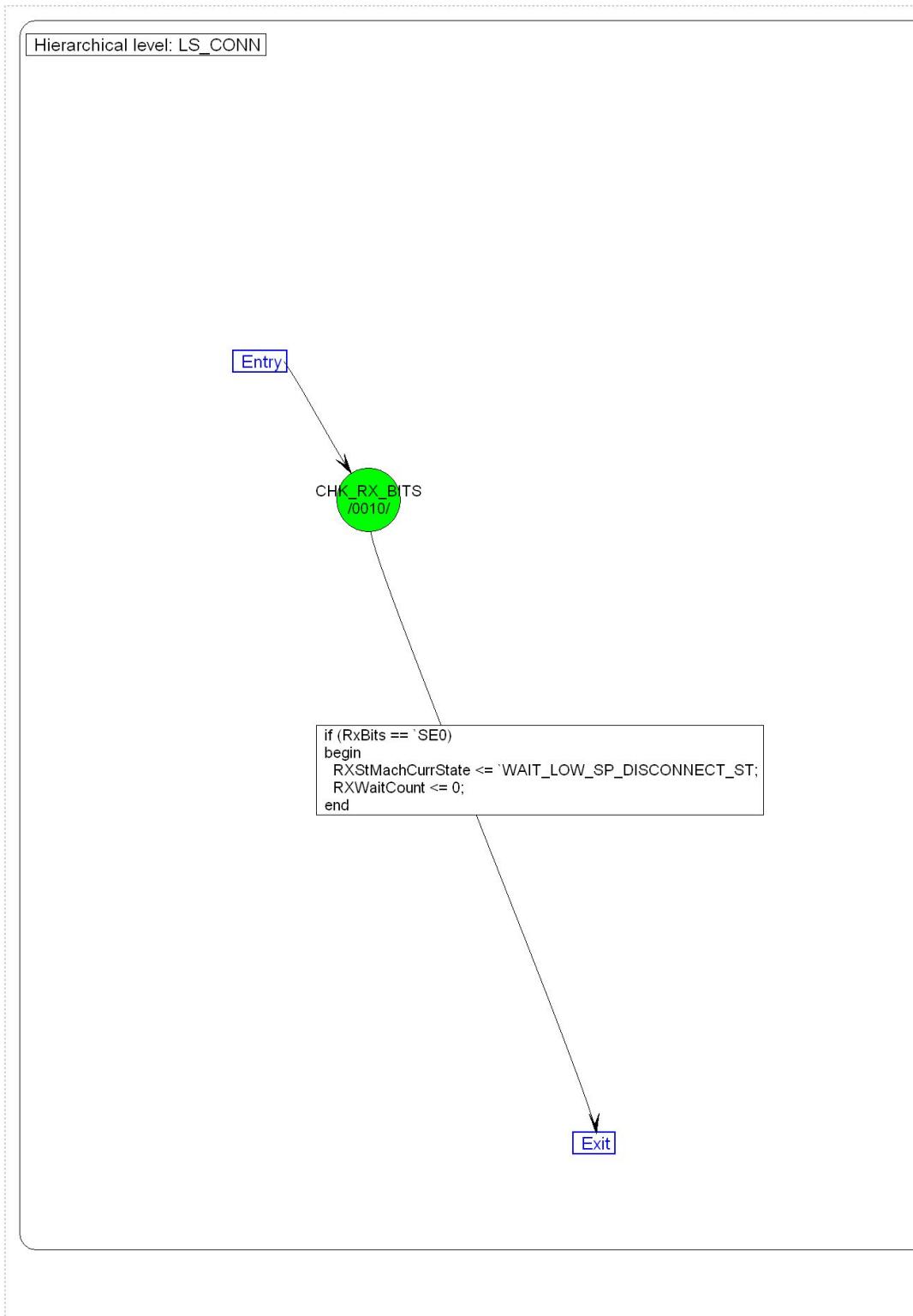
2.13.2 WAIT_FS_CONN



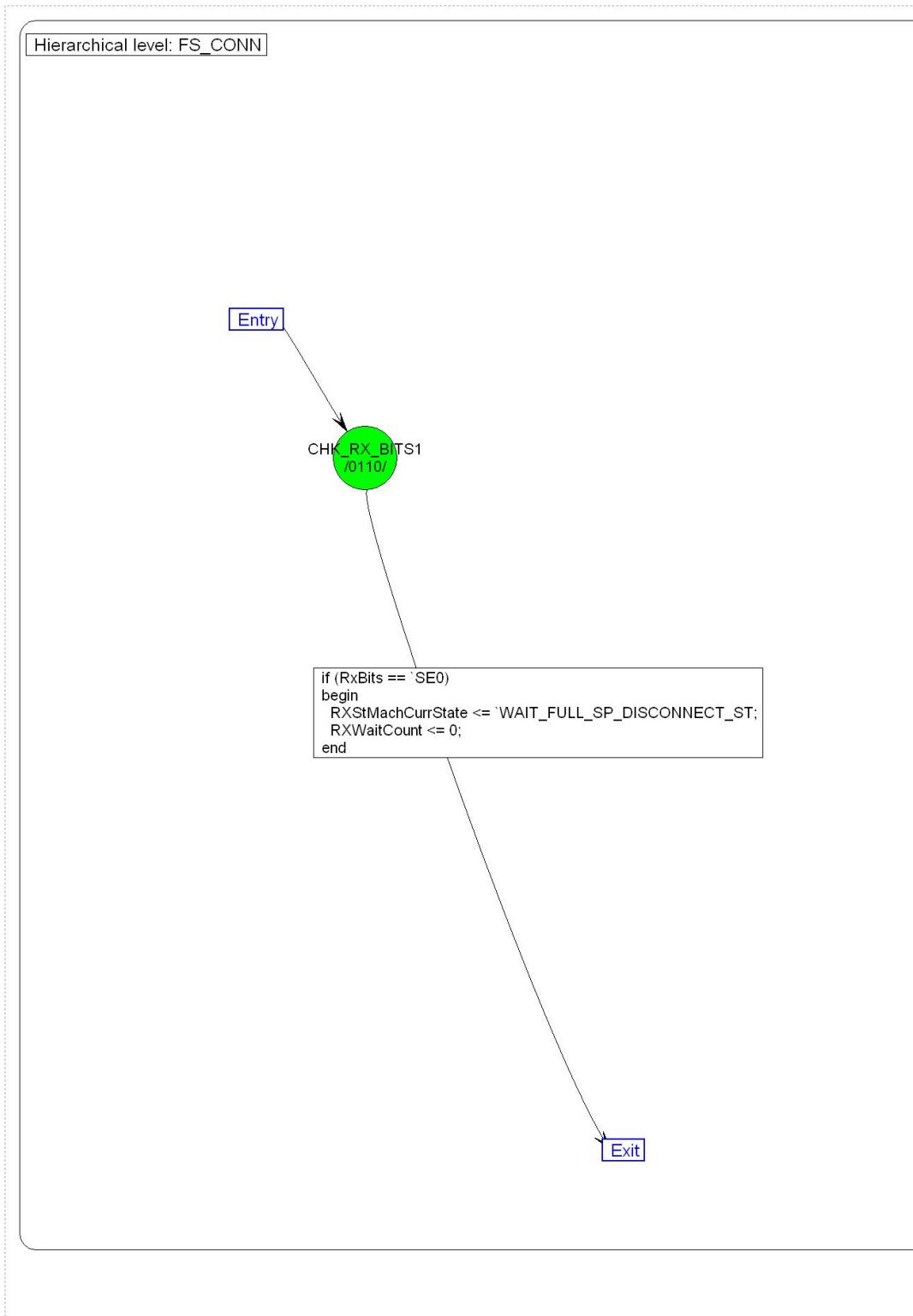
2.13.3 WAIT_LS_CONN



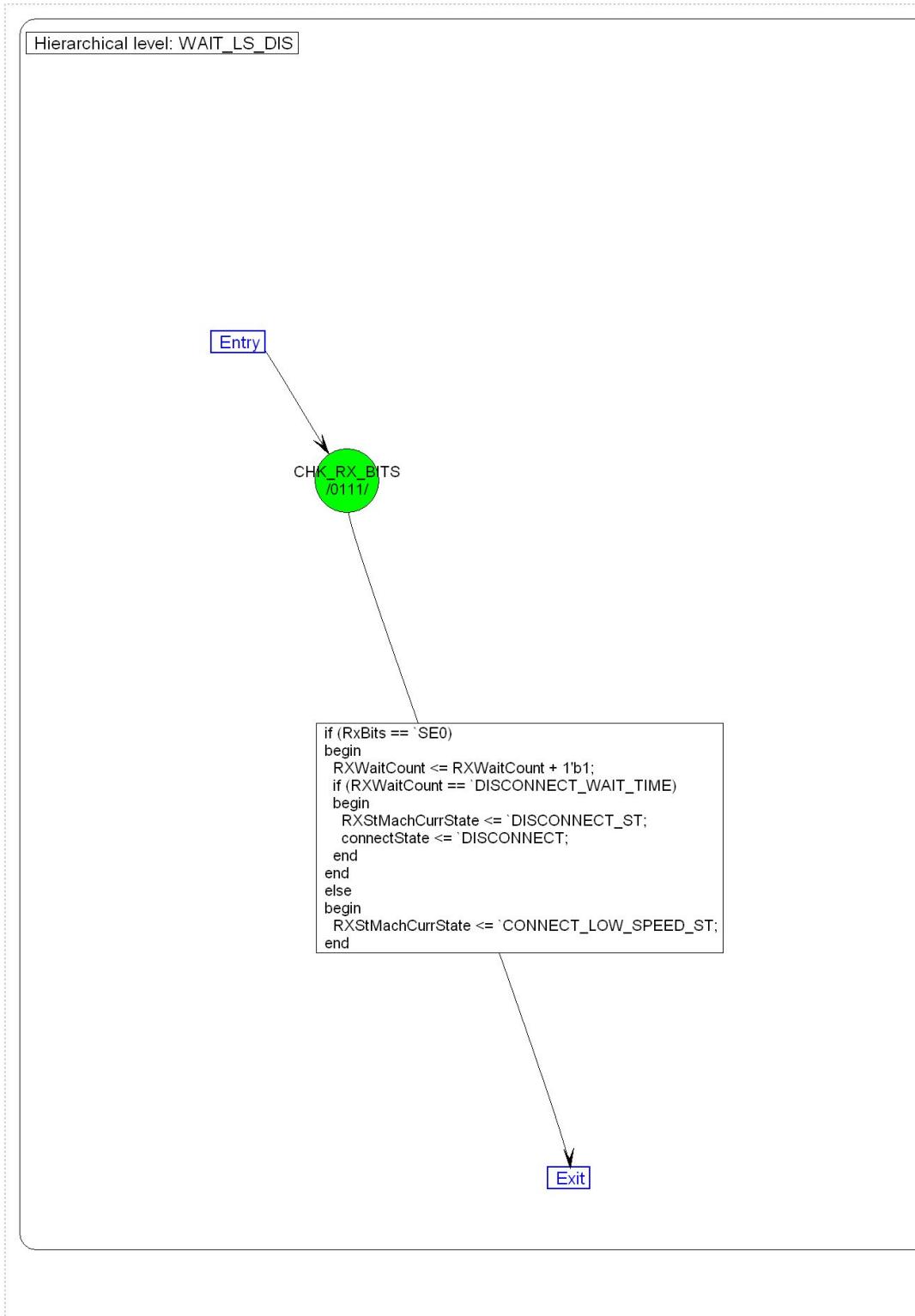
2.13.4 LS_CONN



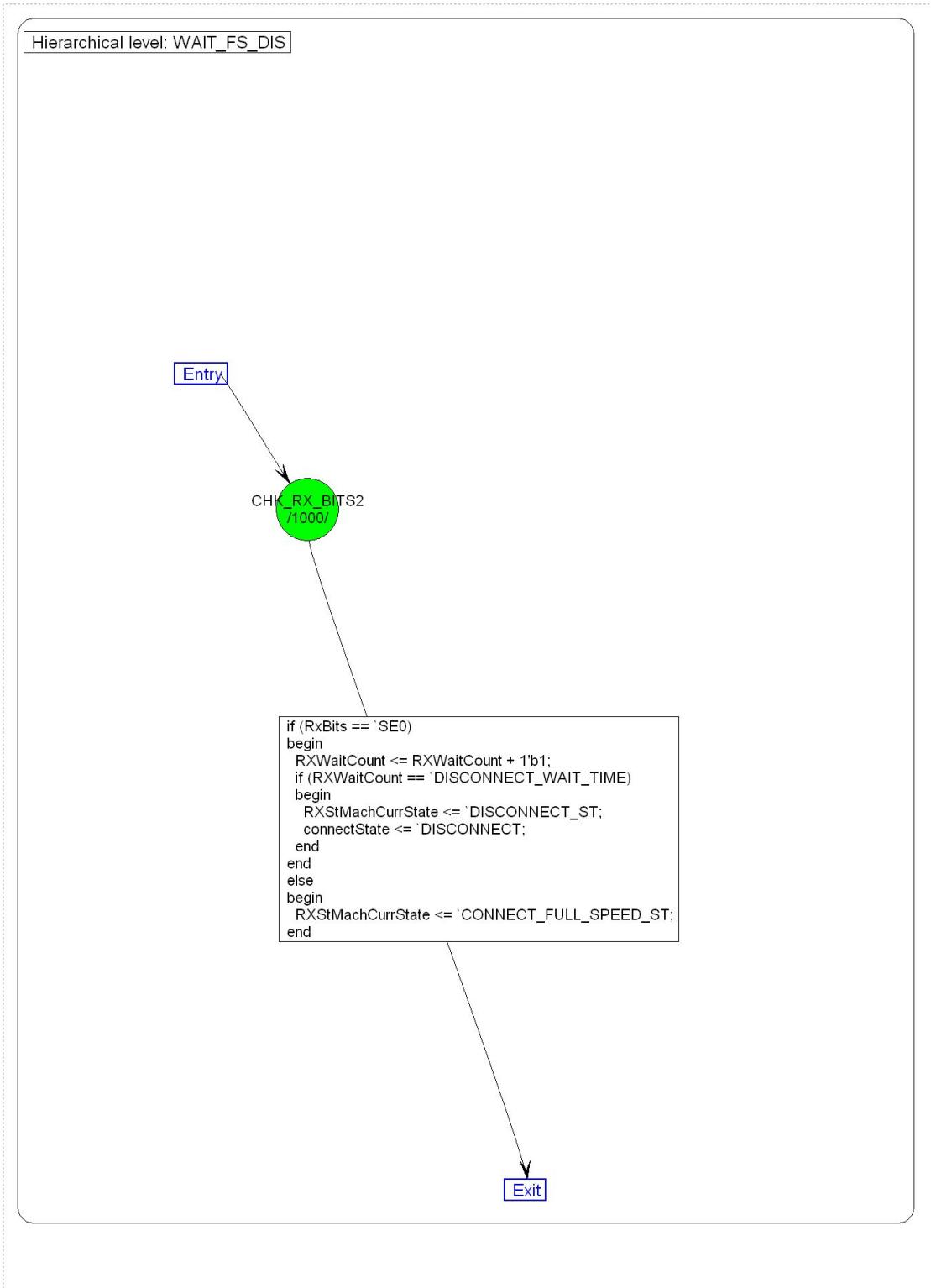
2.13.5 FS_CONN



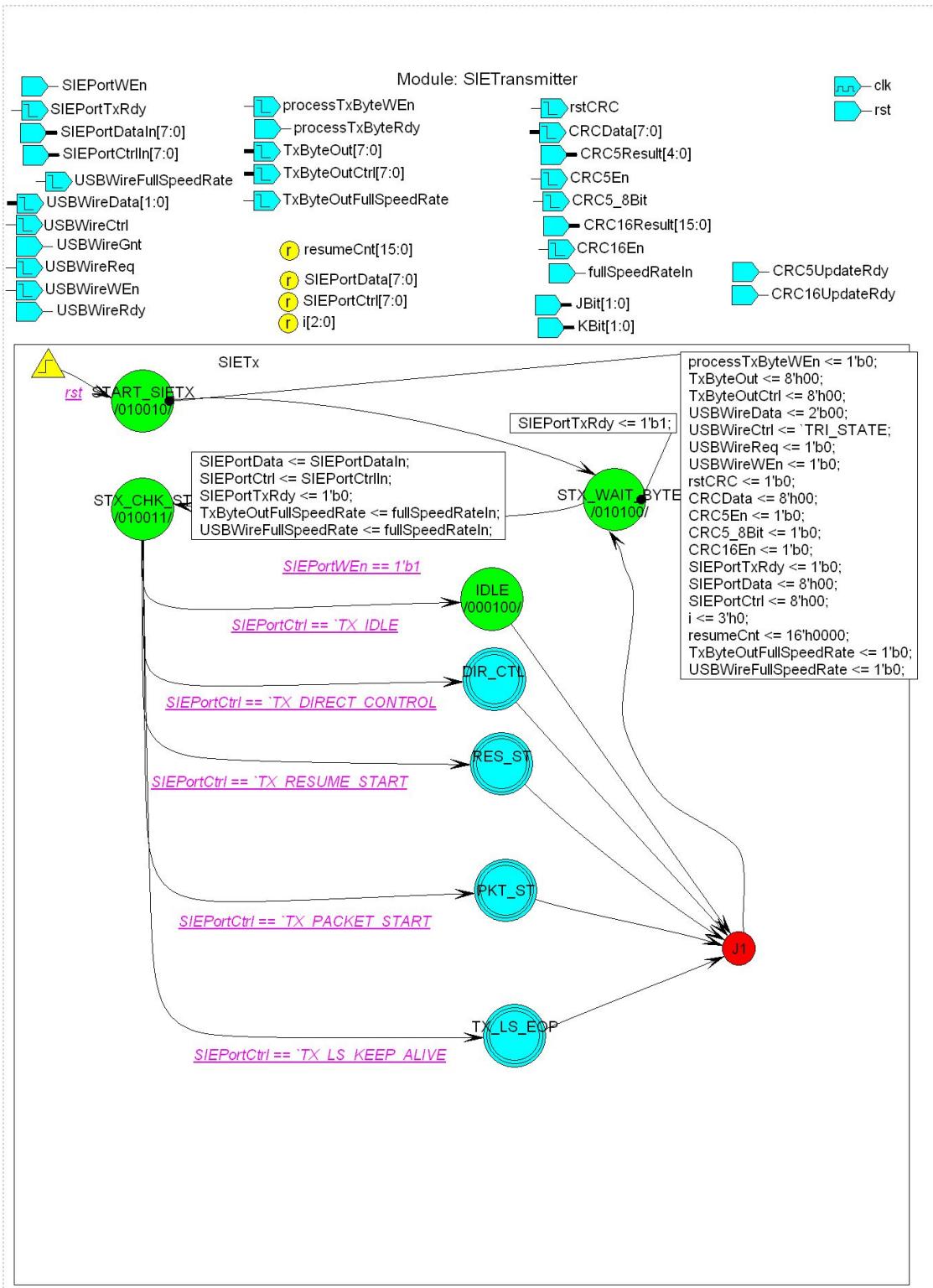
2.13.6 WAIT_LS_DIS



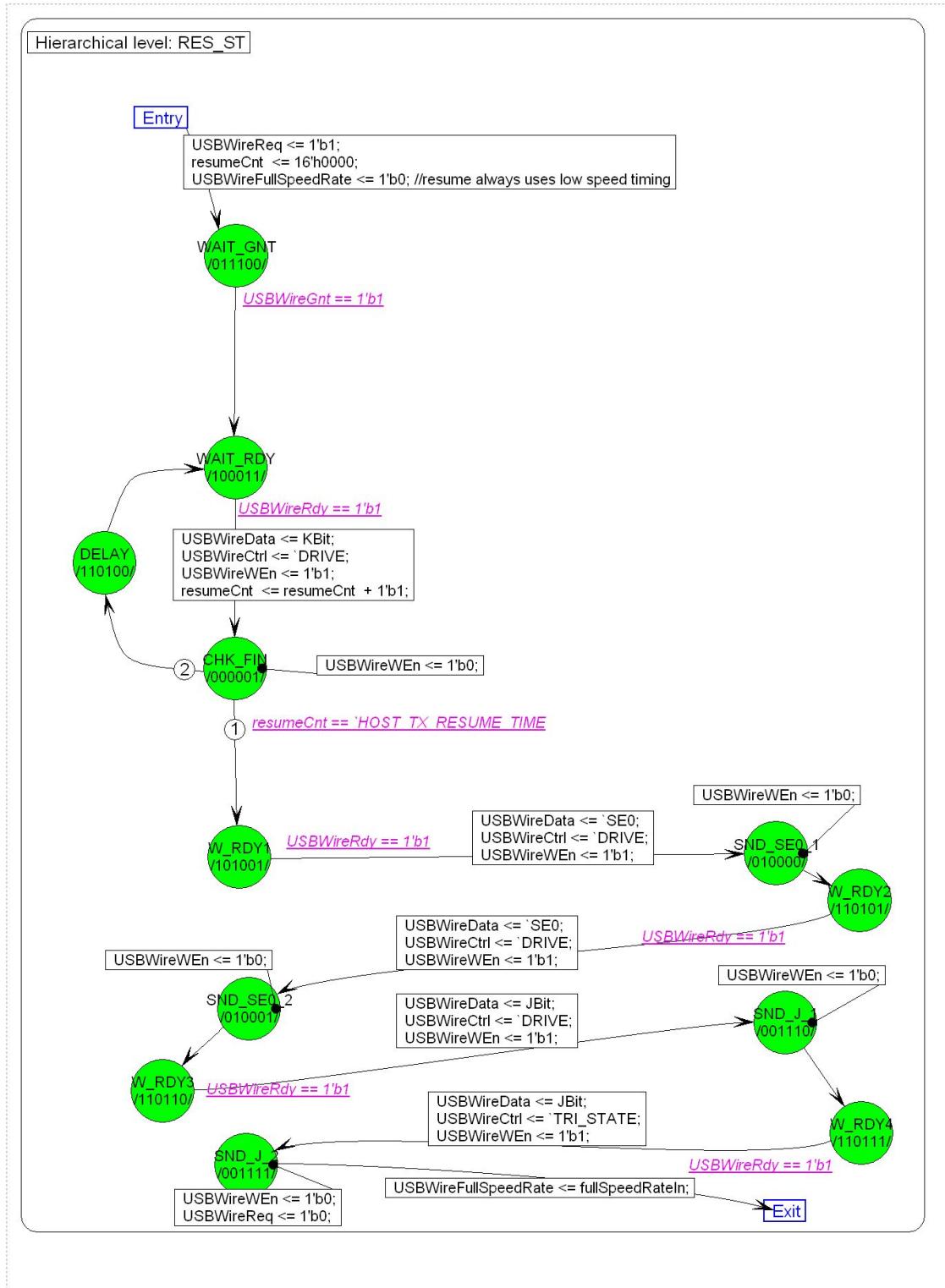
2.13.7 WAIT_FS_DIS



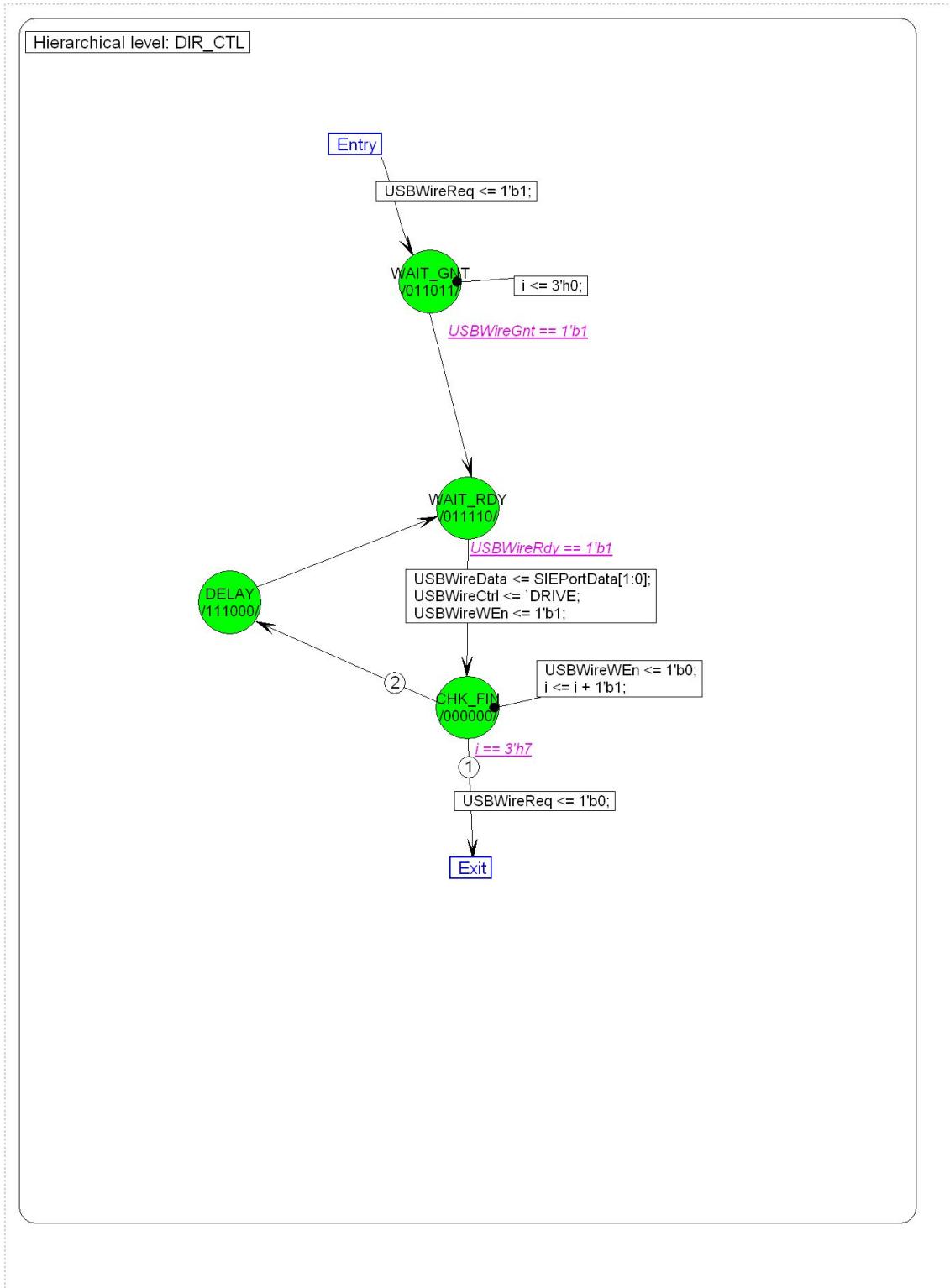
2.14 SIETransmitter.asf



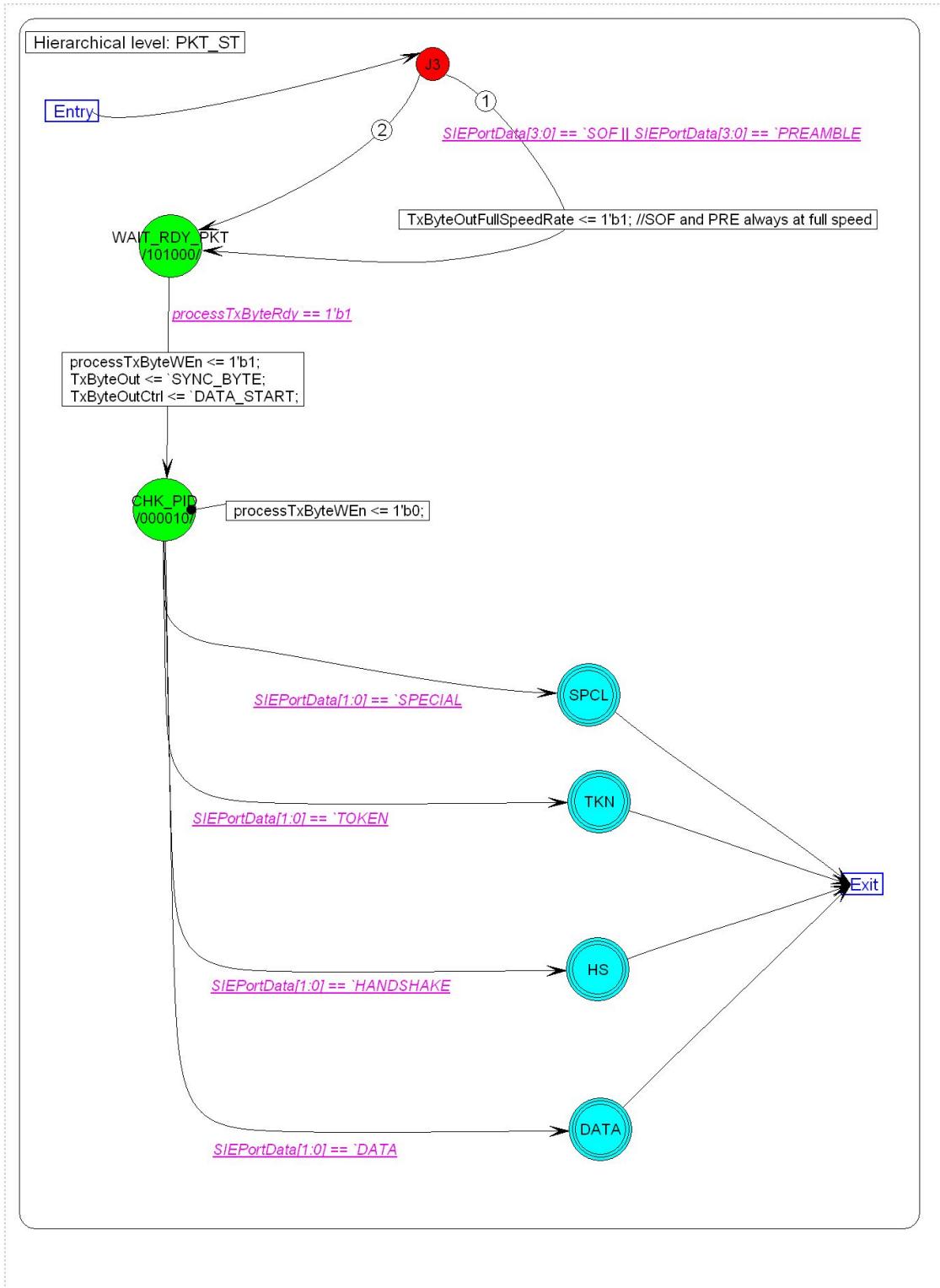
2.14.1 RES_ST



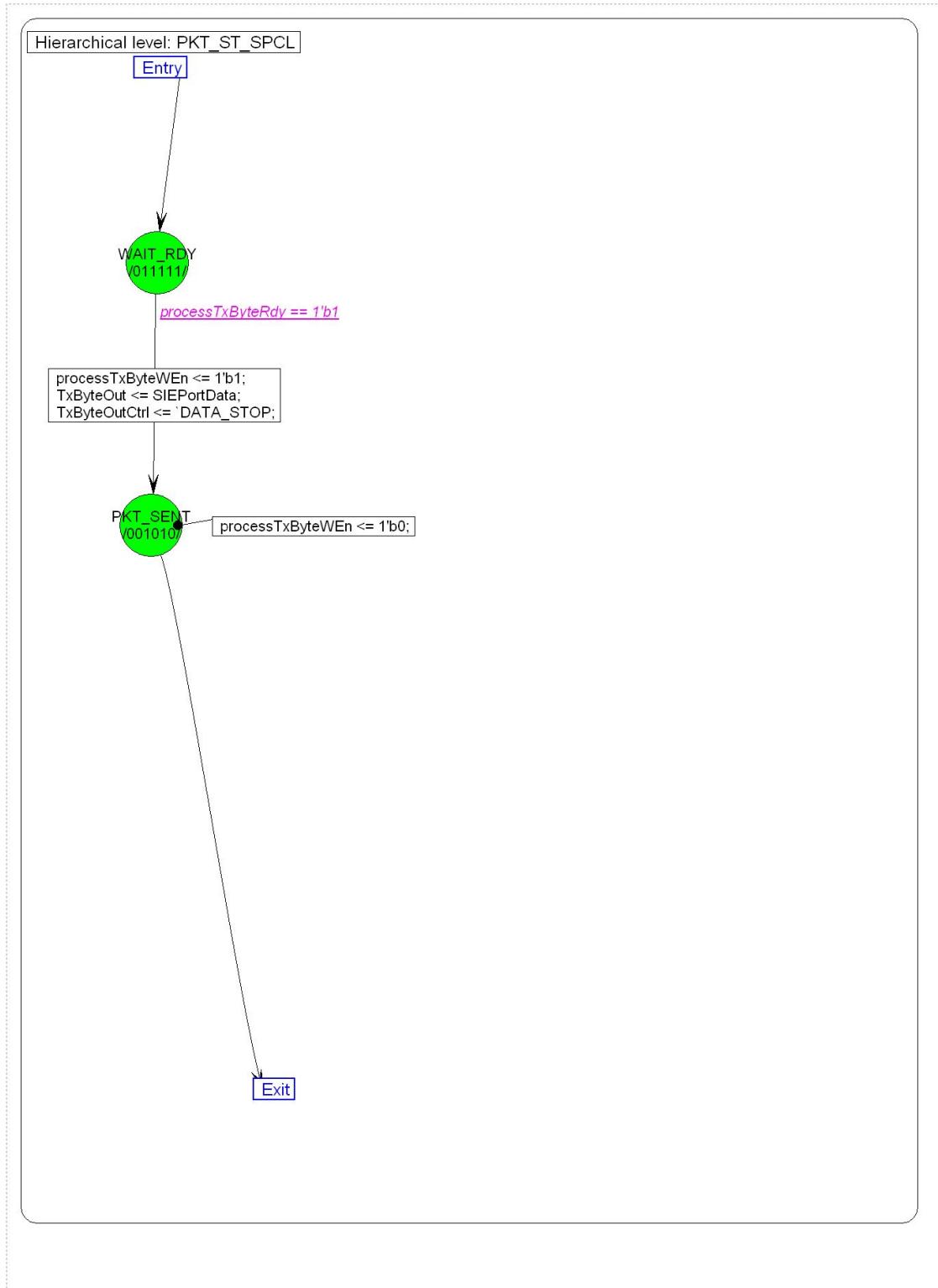
2.14.2 DIR_CTL



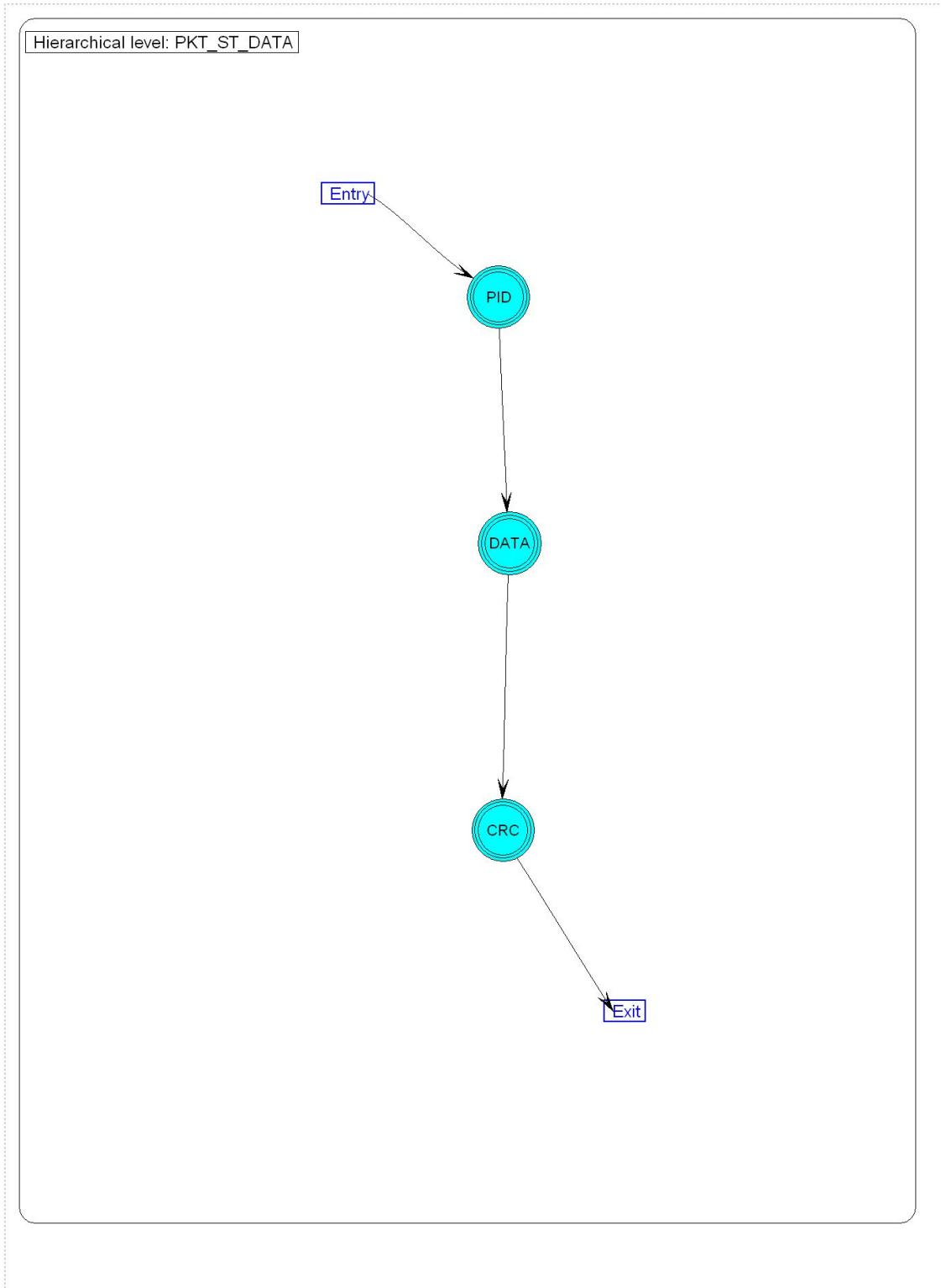
2.14.3 PKT_ST



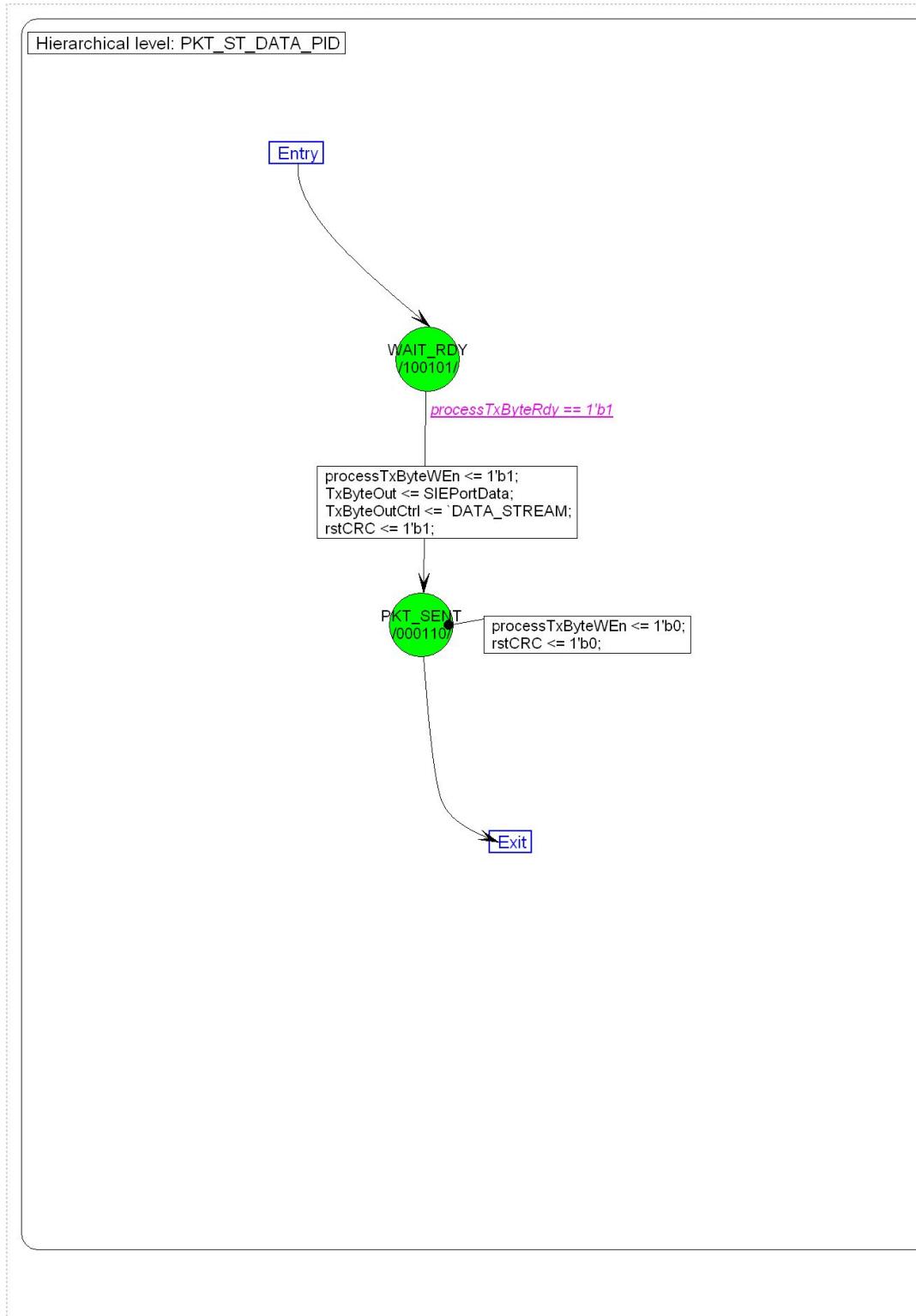
2.14.3.1 SPCL



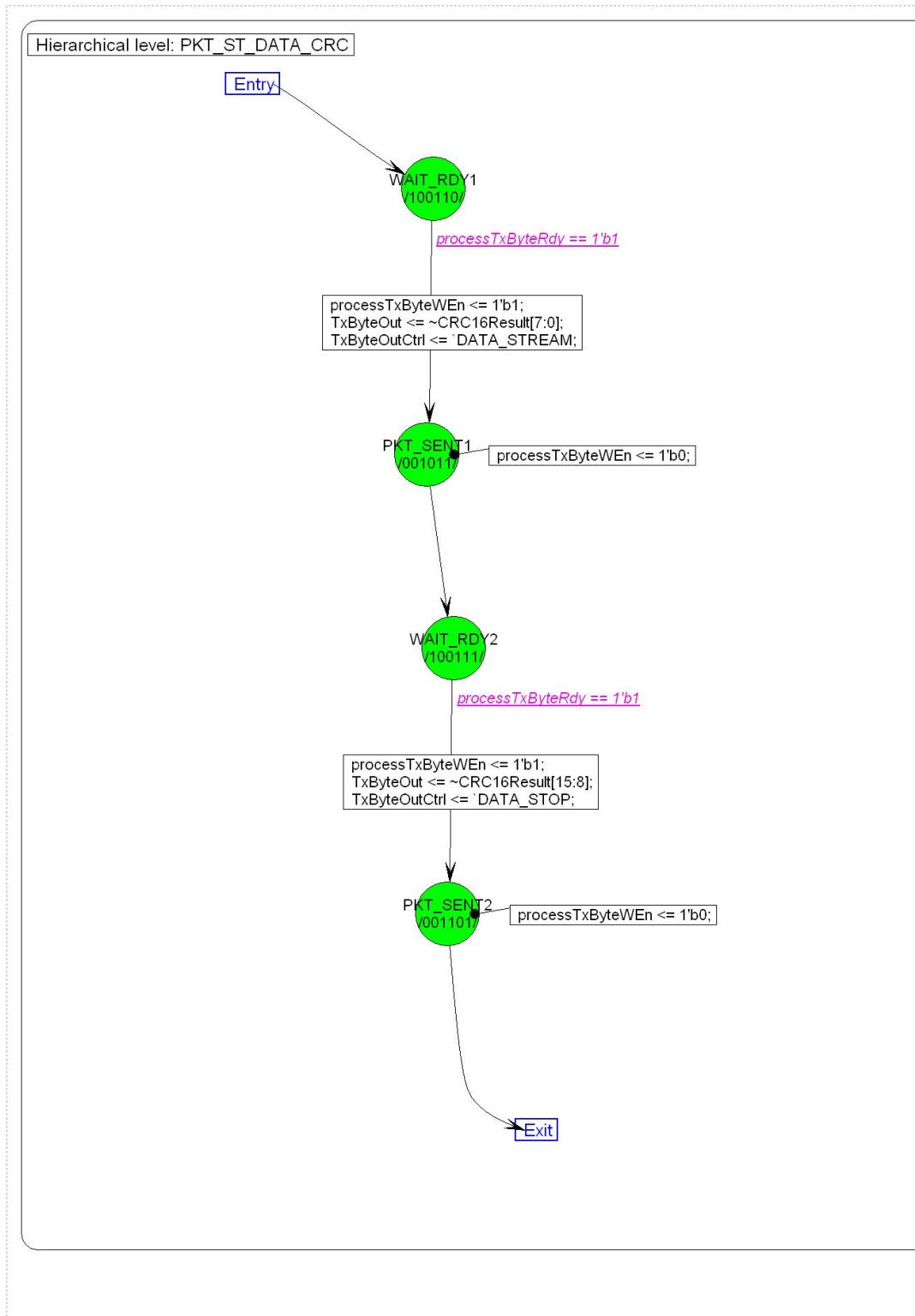
2.14.3.2 DATA



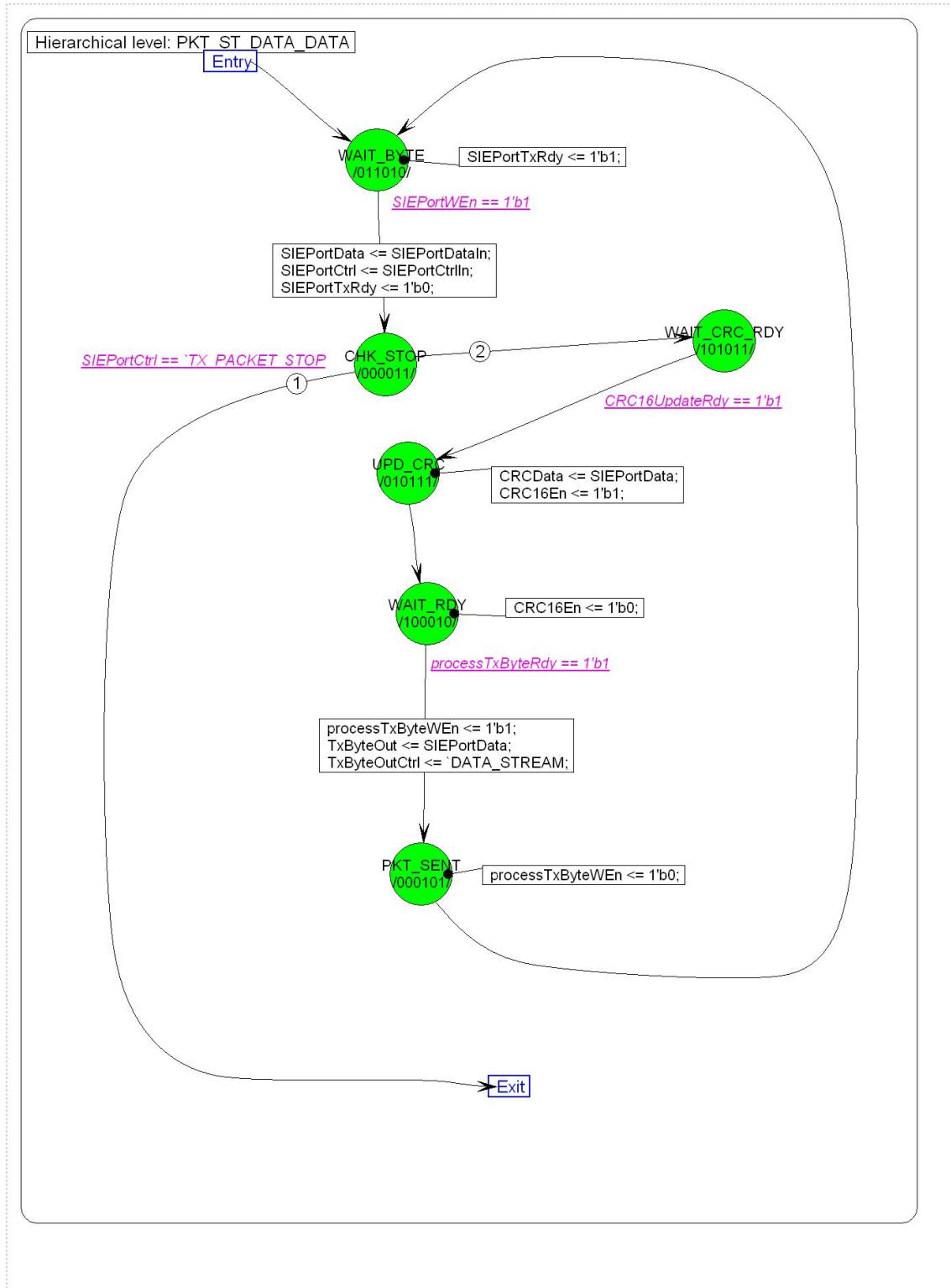
2.14.3.2.1 PID



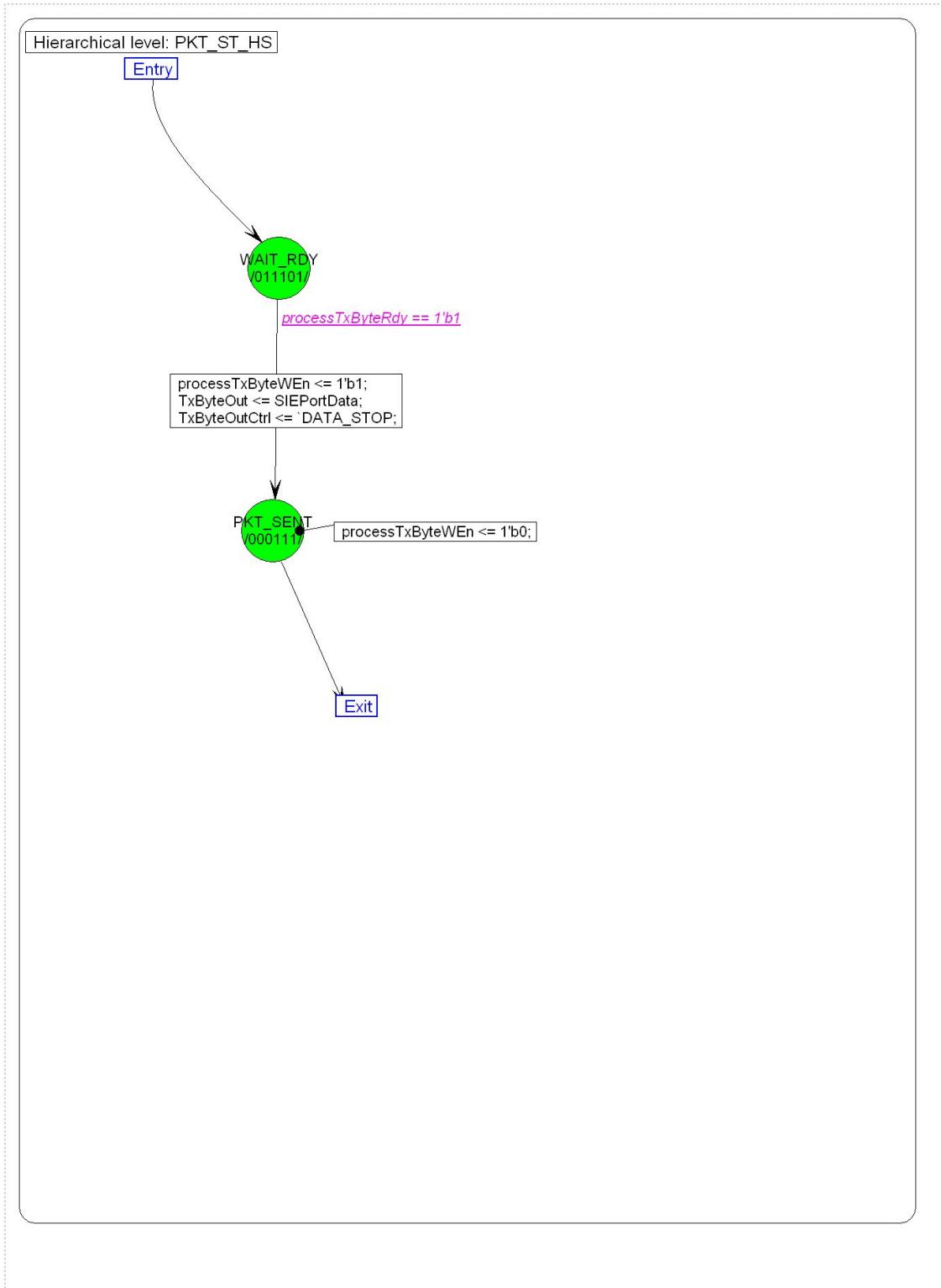
2.14.3.2.2 CRC



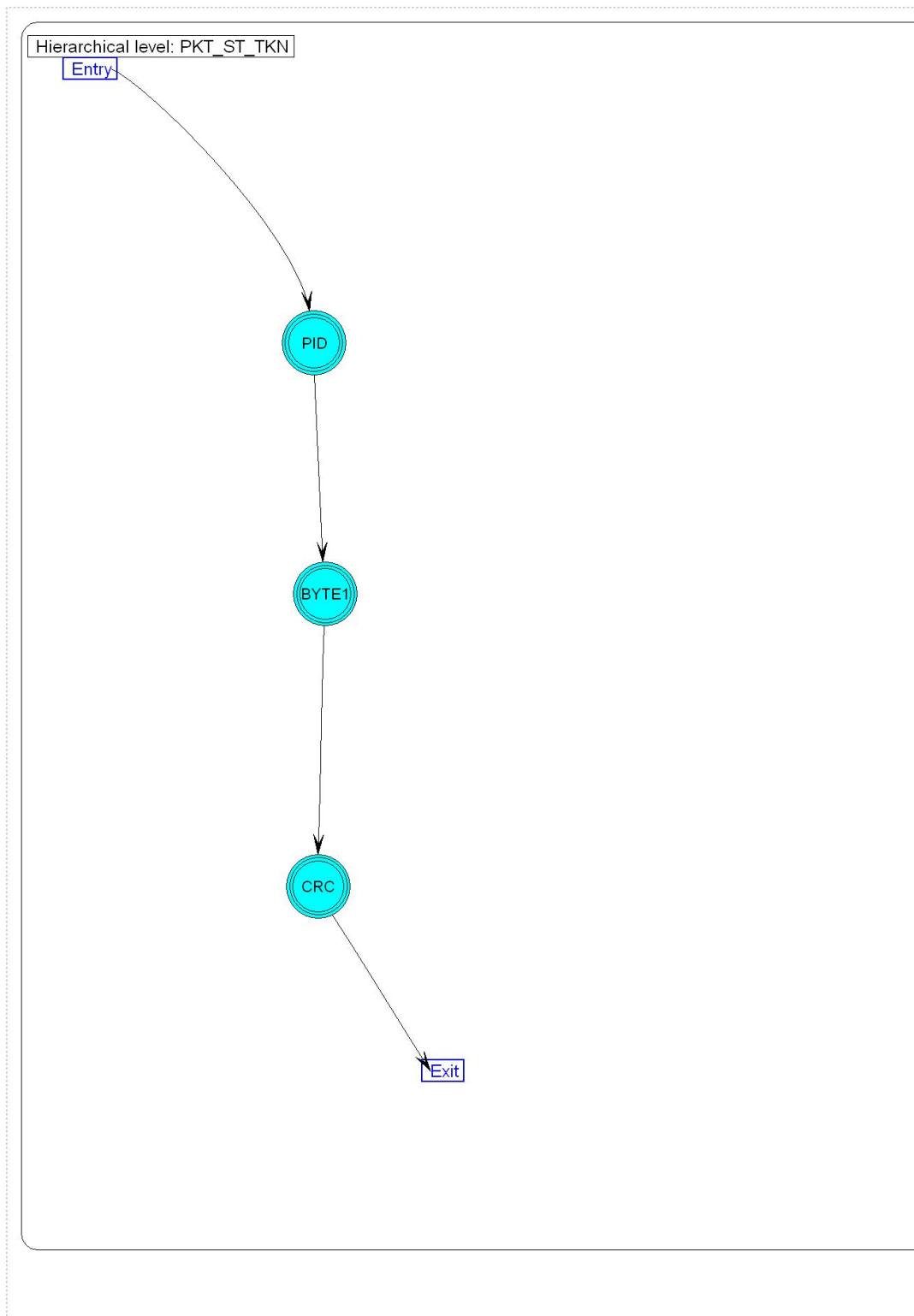
2.14.3.2.3 DATA



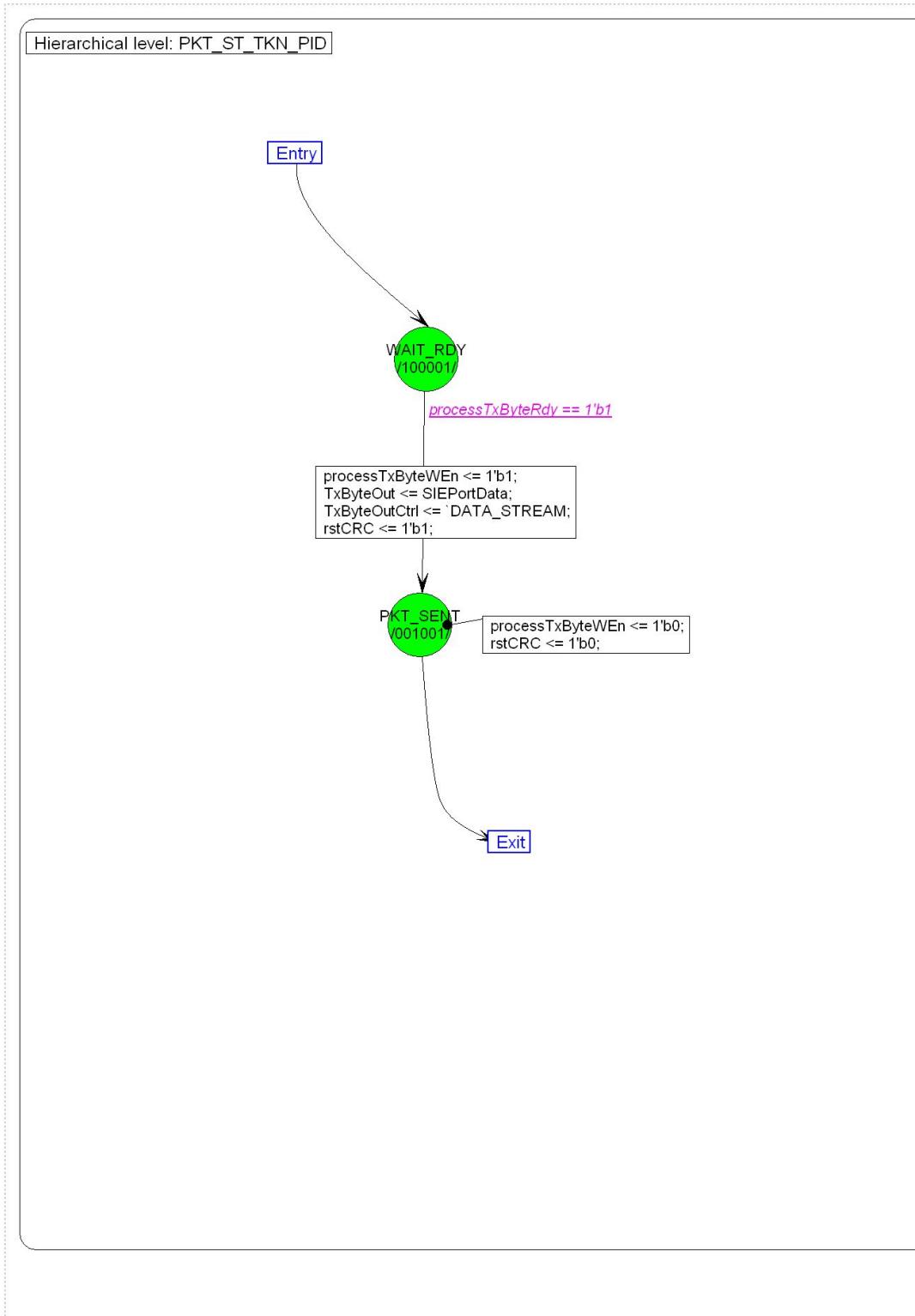
2.14.3.3 HS



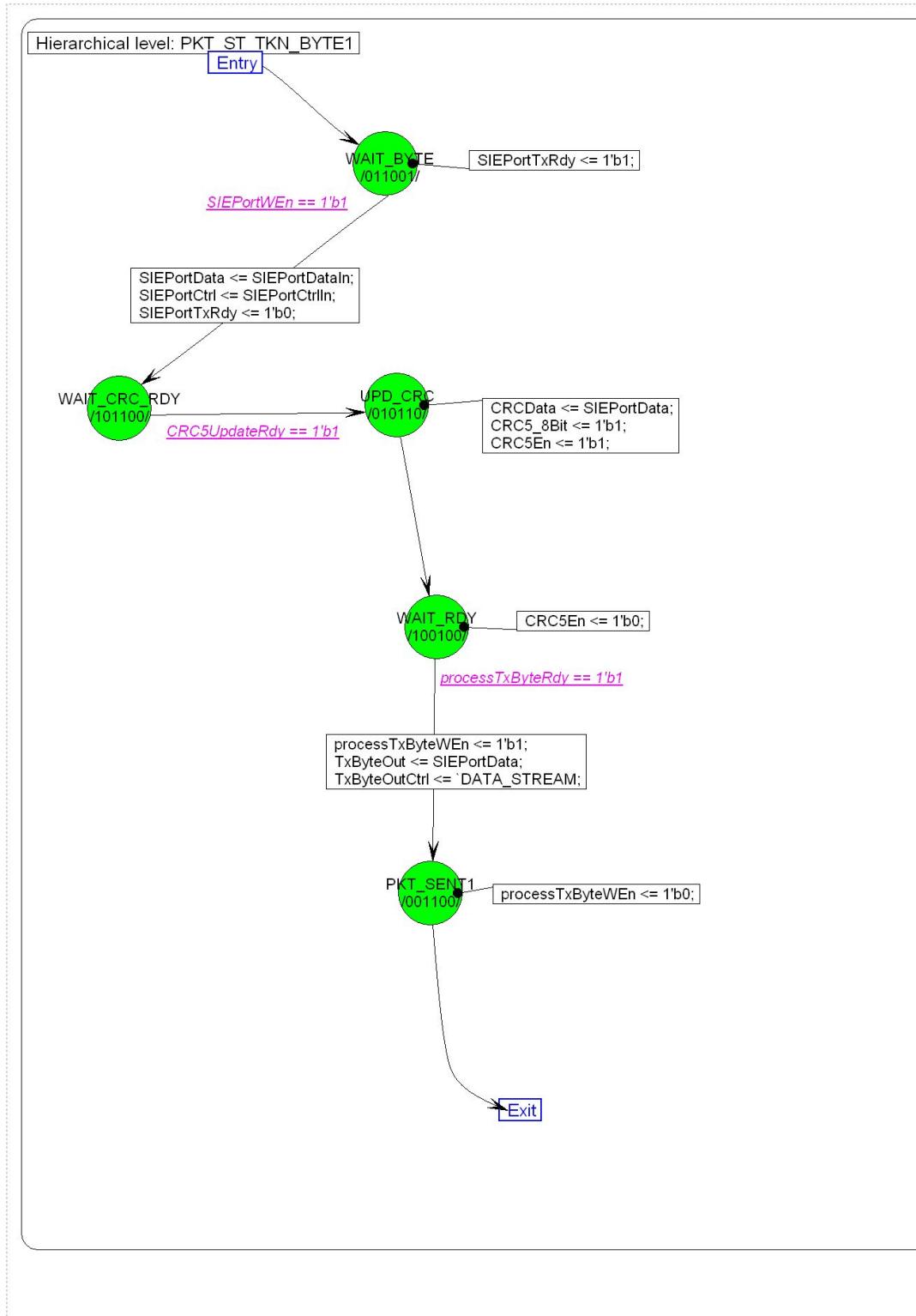
2.14.3.4 TKN



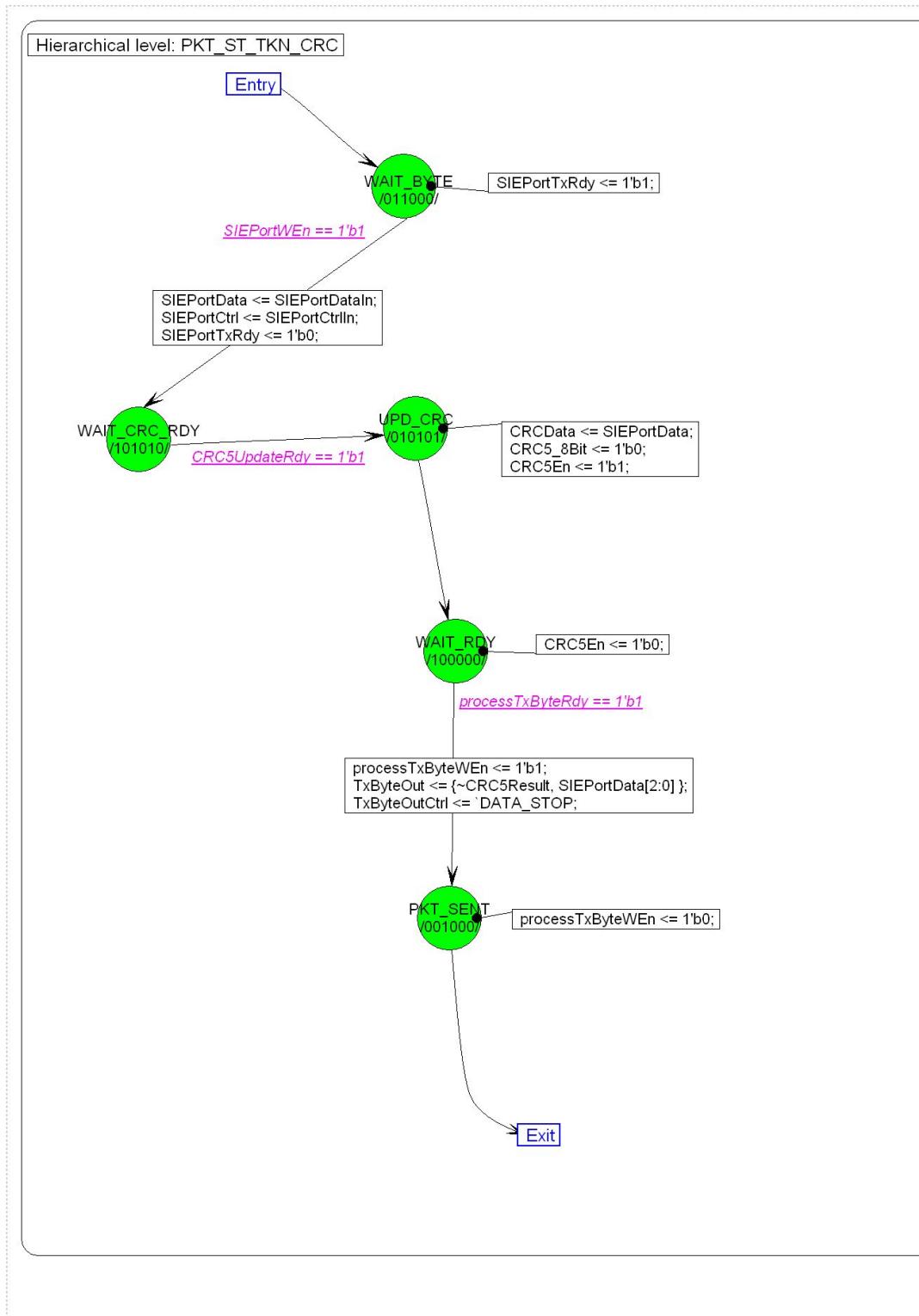
2.14.3.4.1 PID



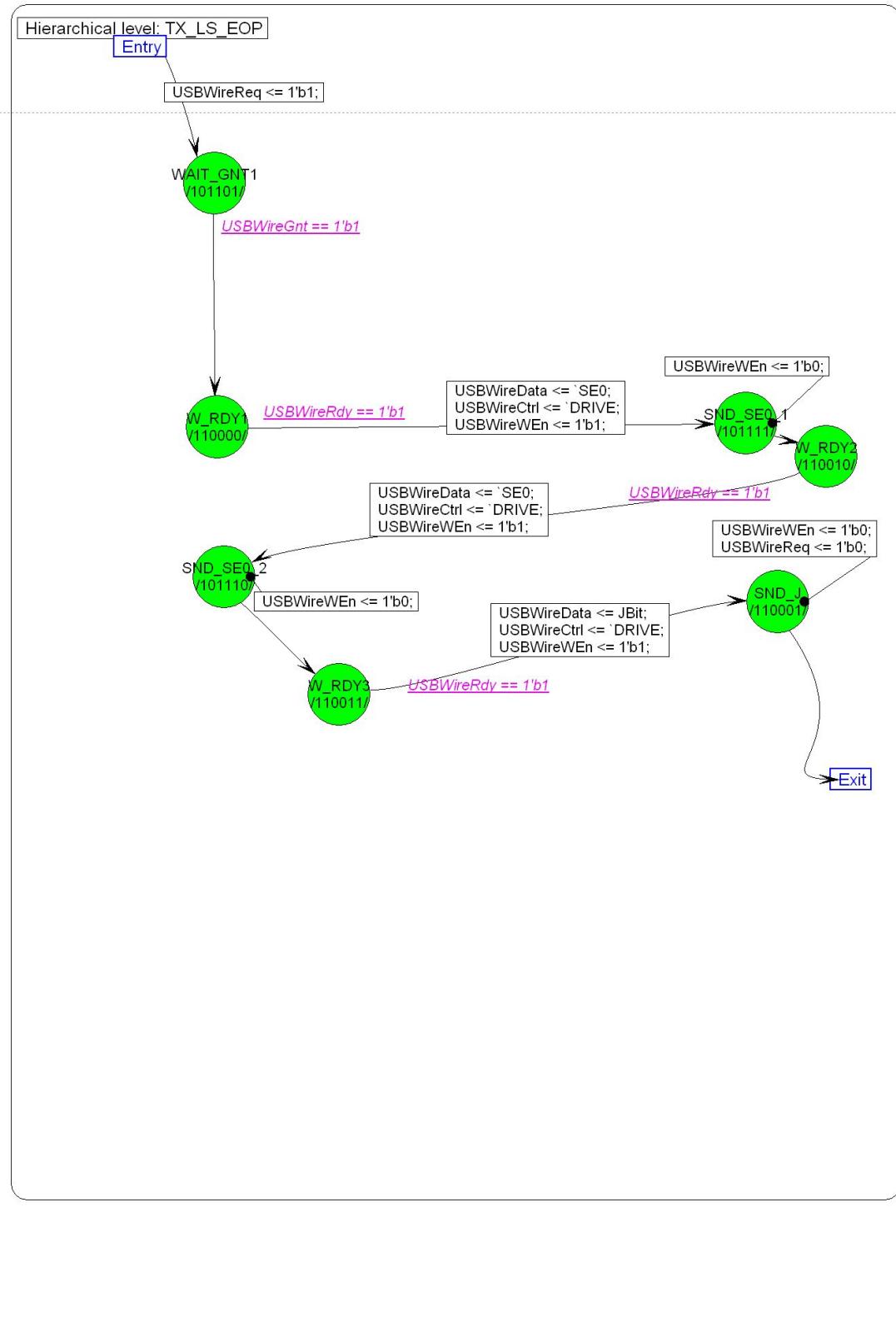
2.14.3.4.2 BYTE1



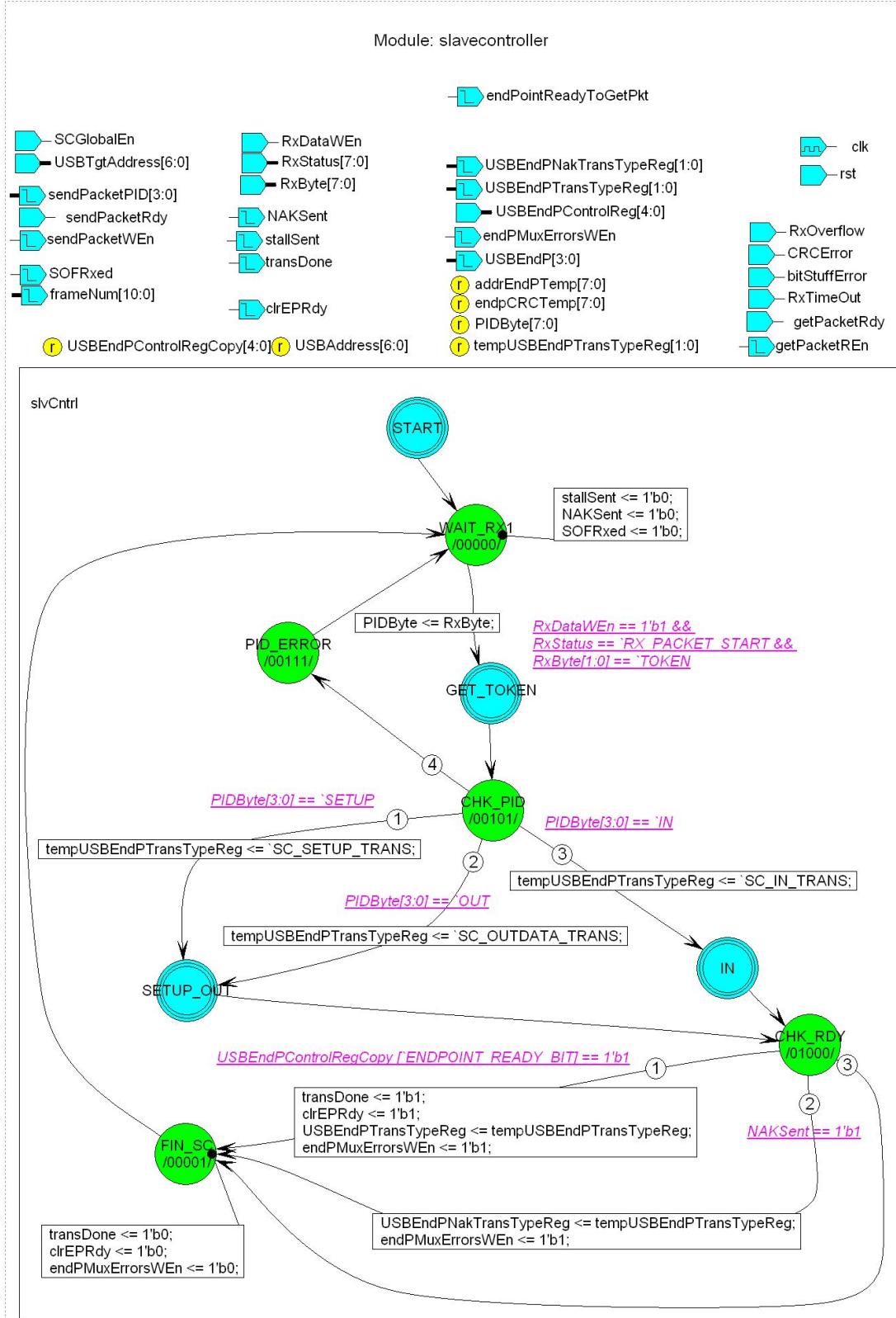
2.14.3.4.3 CRC



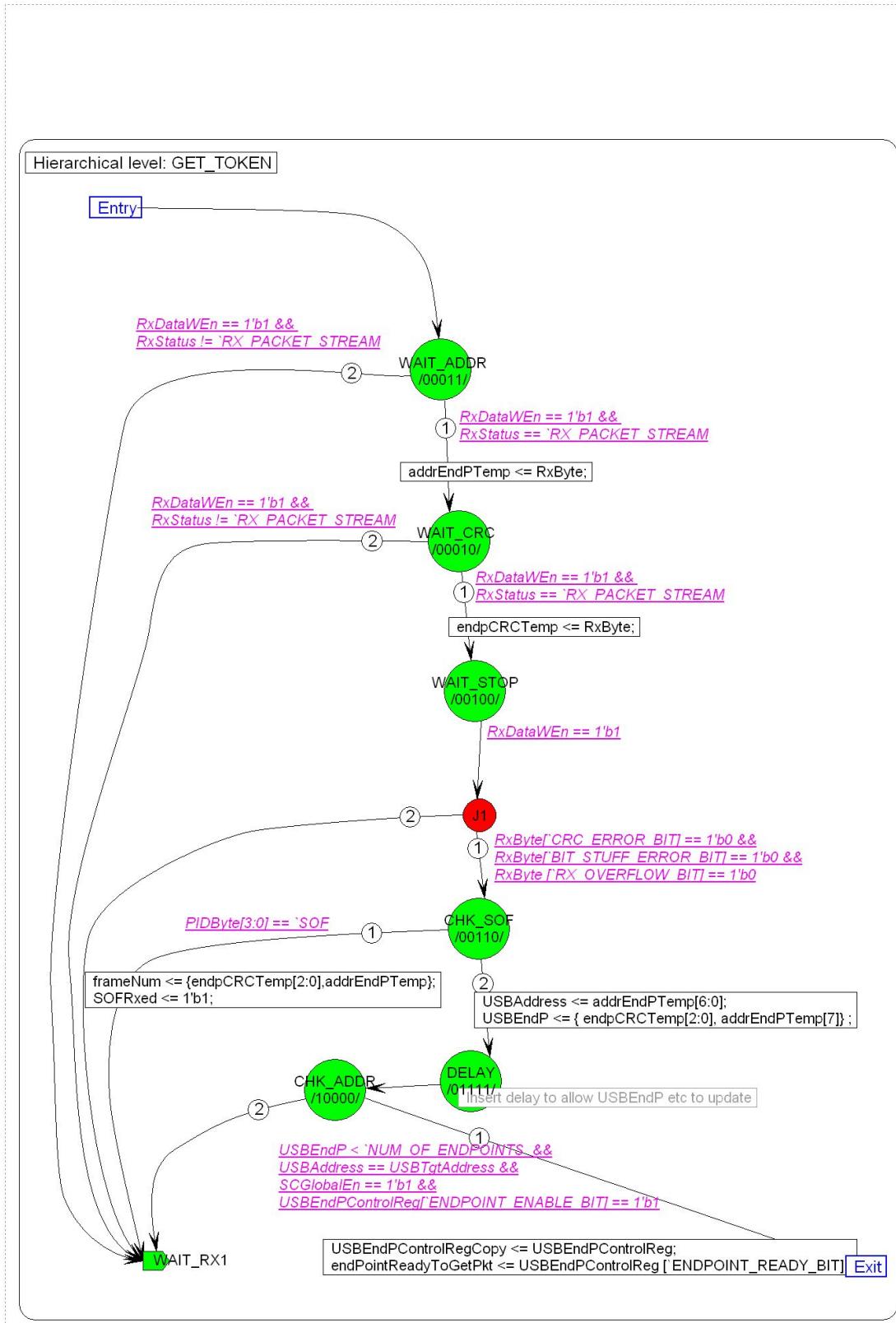
2.14.4 TX_LS_EOP



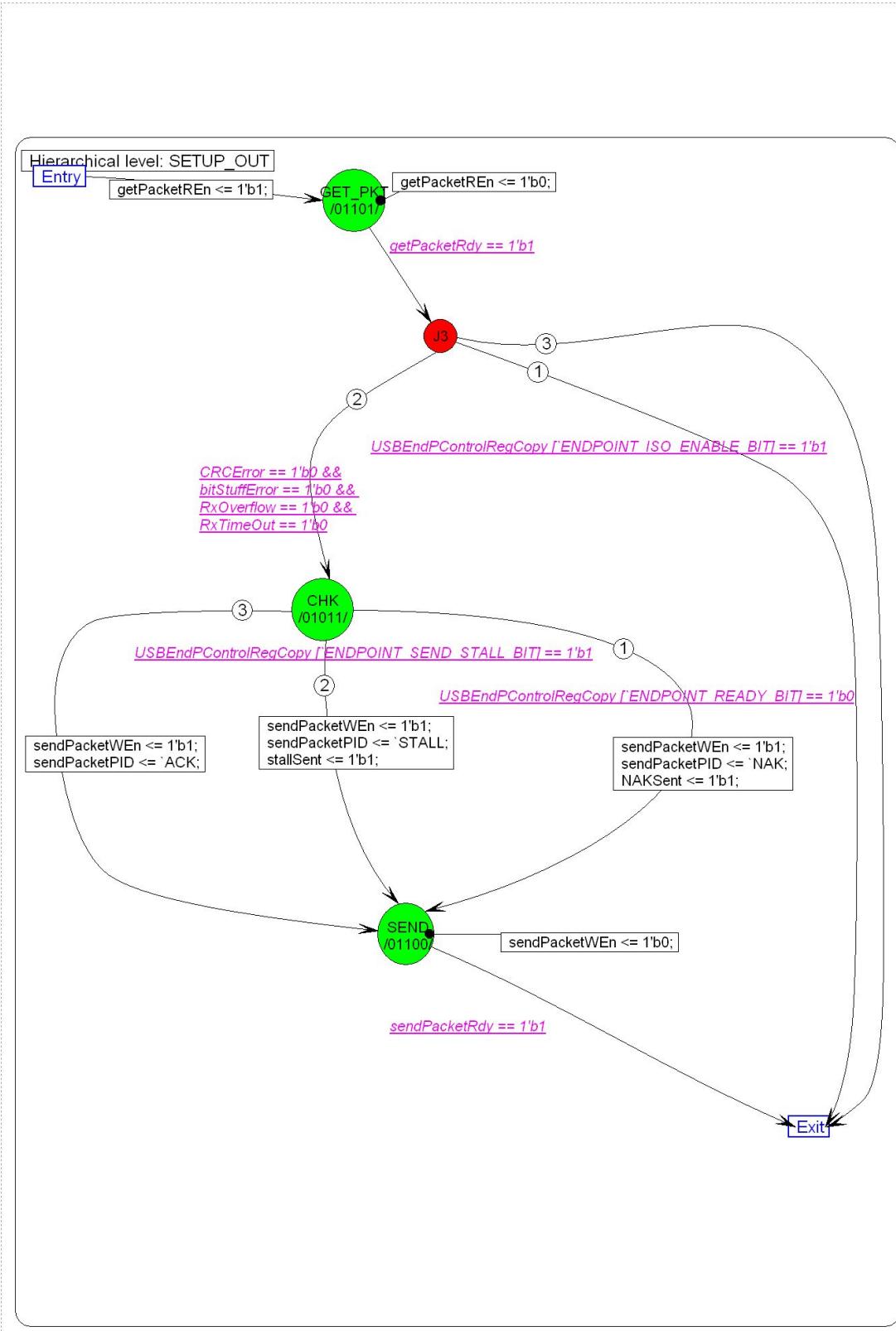
2.15 slavecontroller.asf



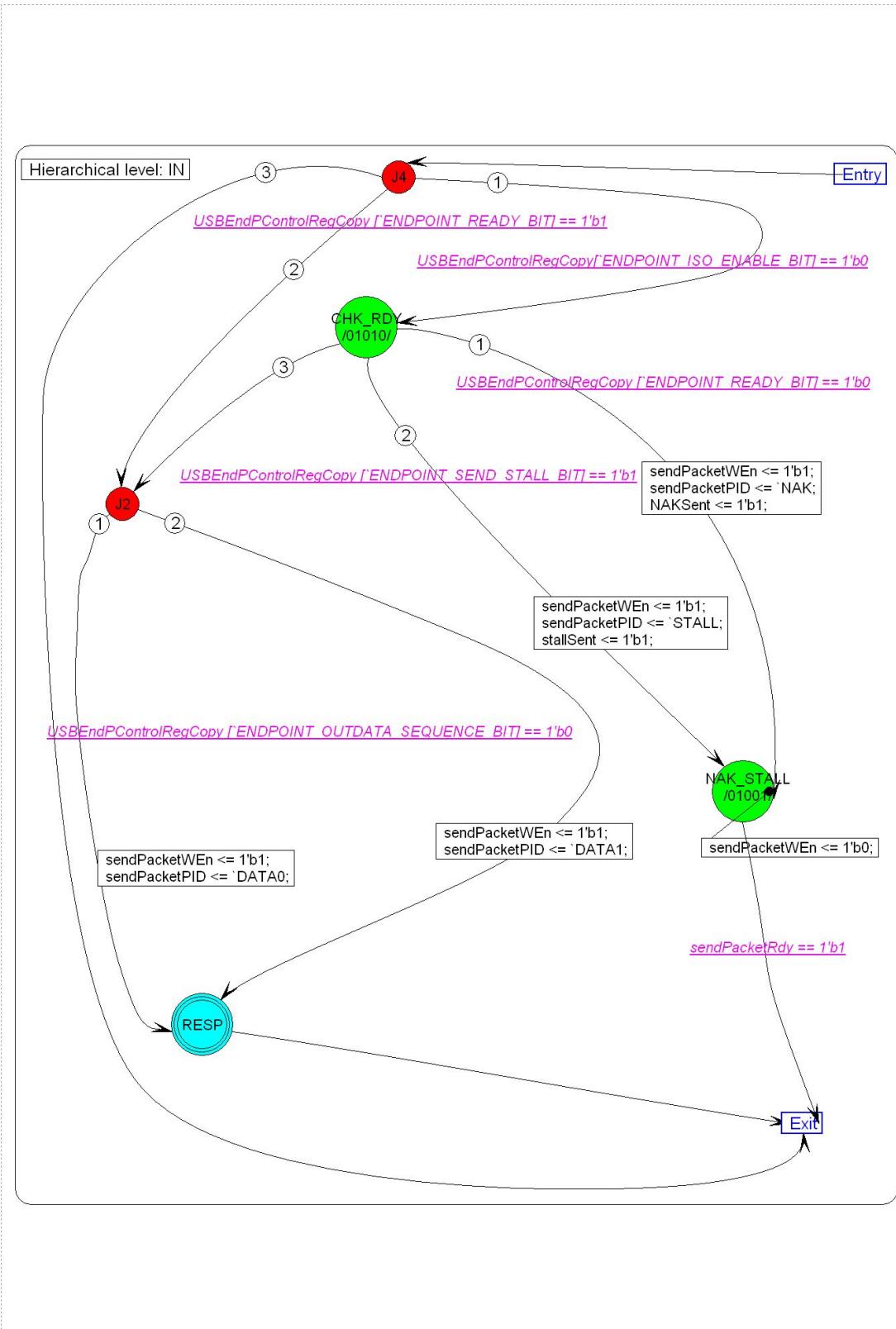
2.15.1 GET_TOKEN



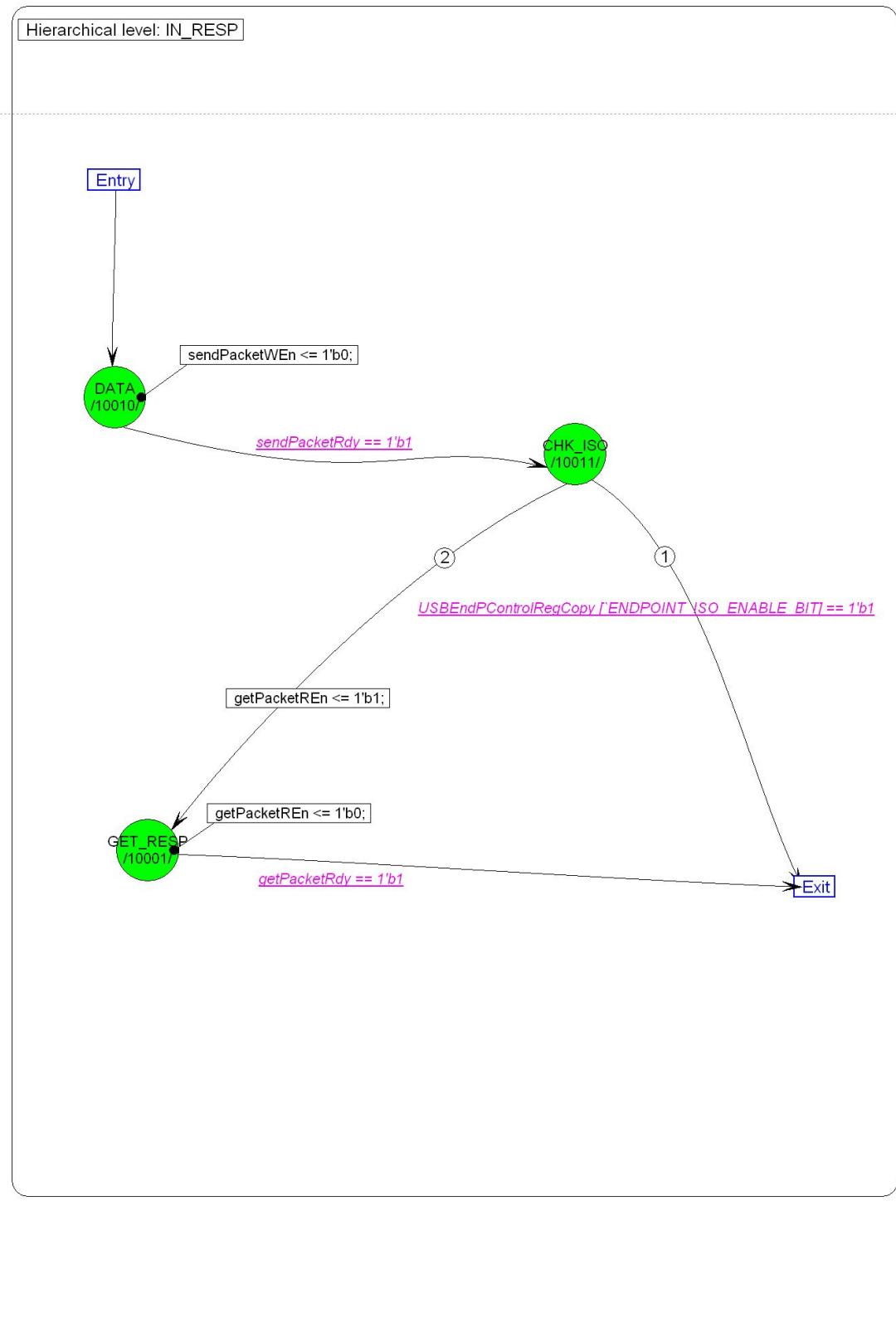
2.15.2 SETUP_OUT



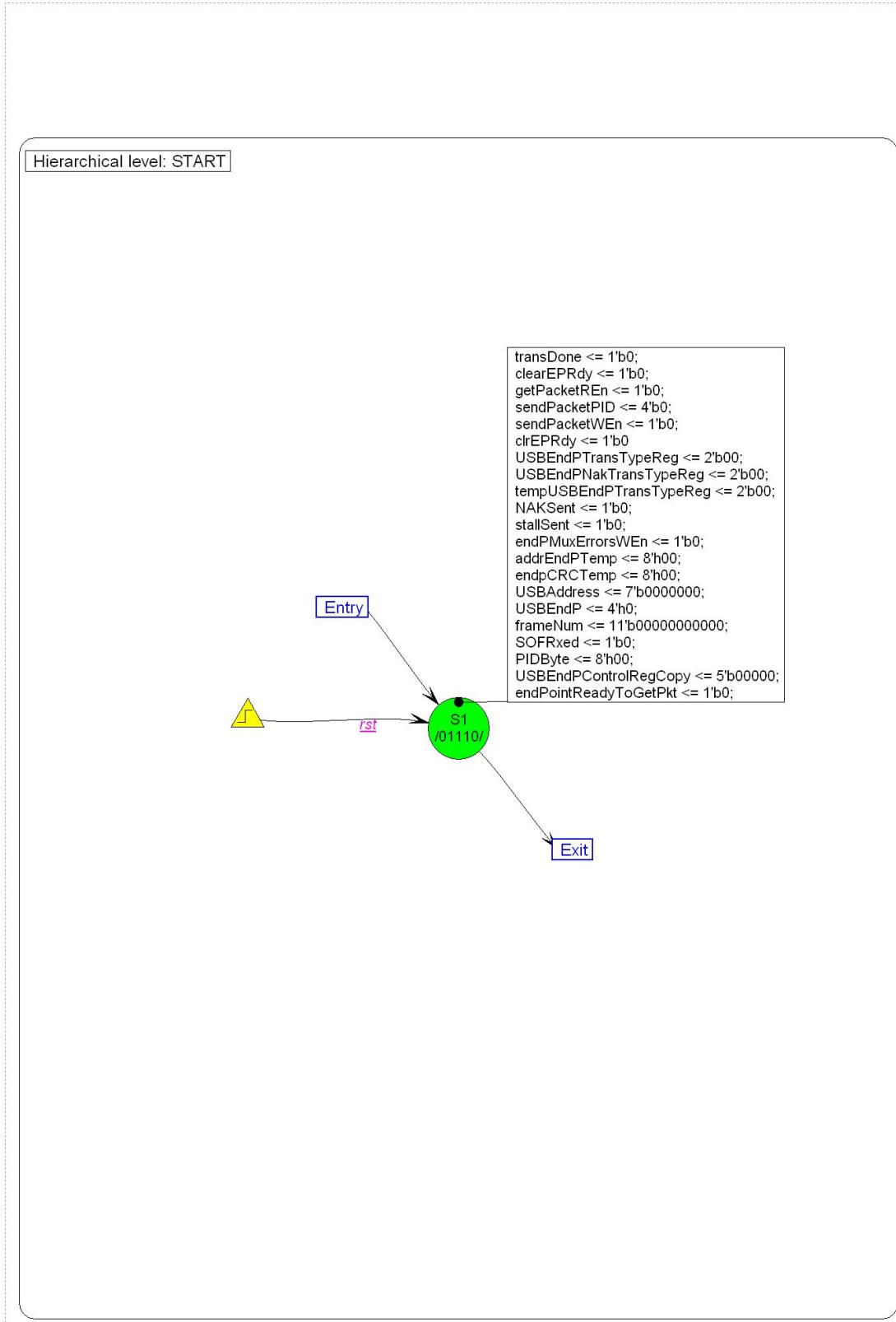
2.15.3 IN



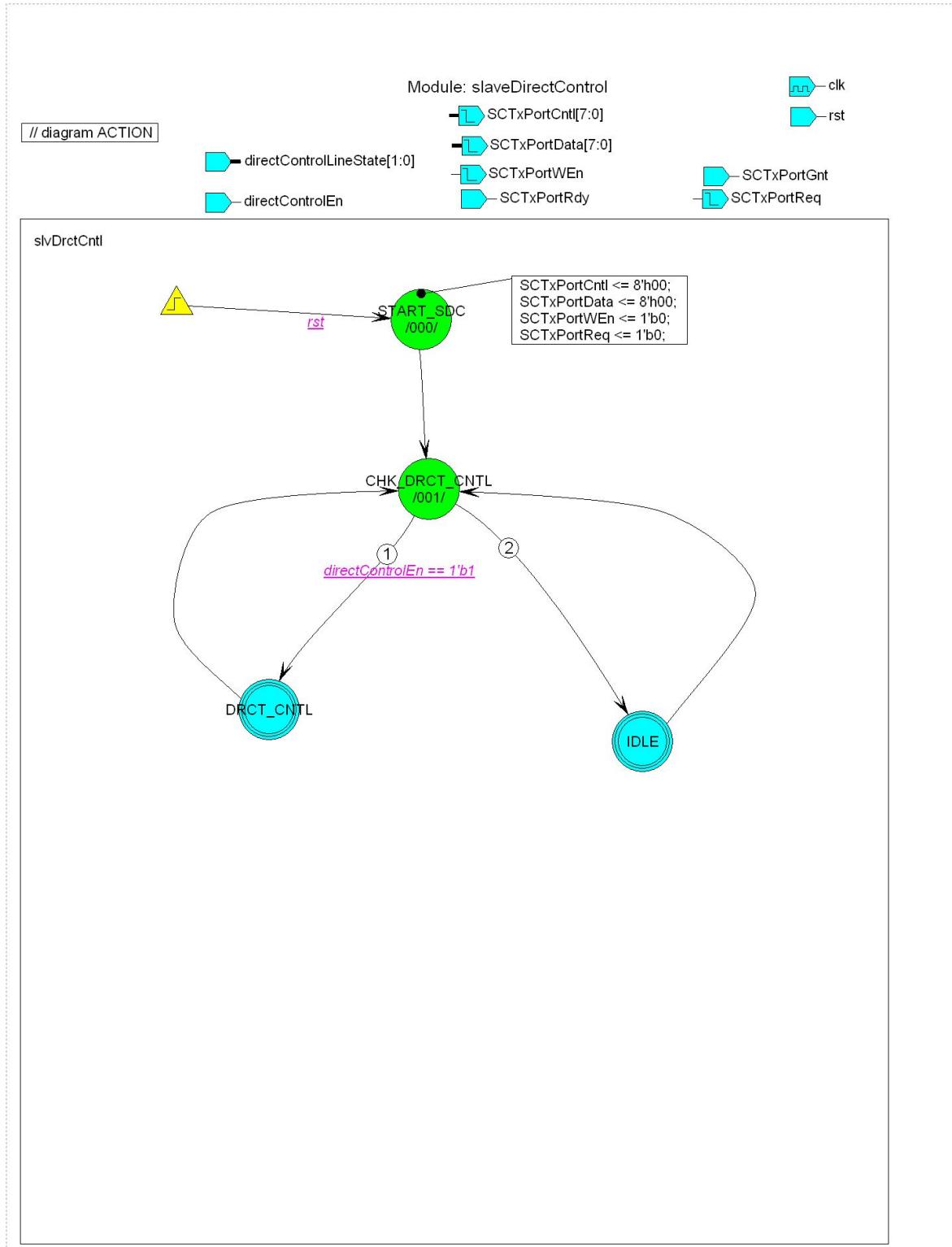
2.15.3.1 RESP



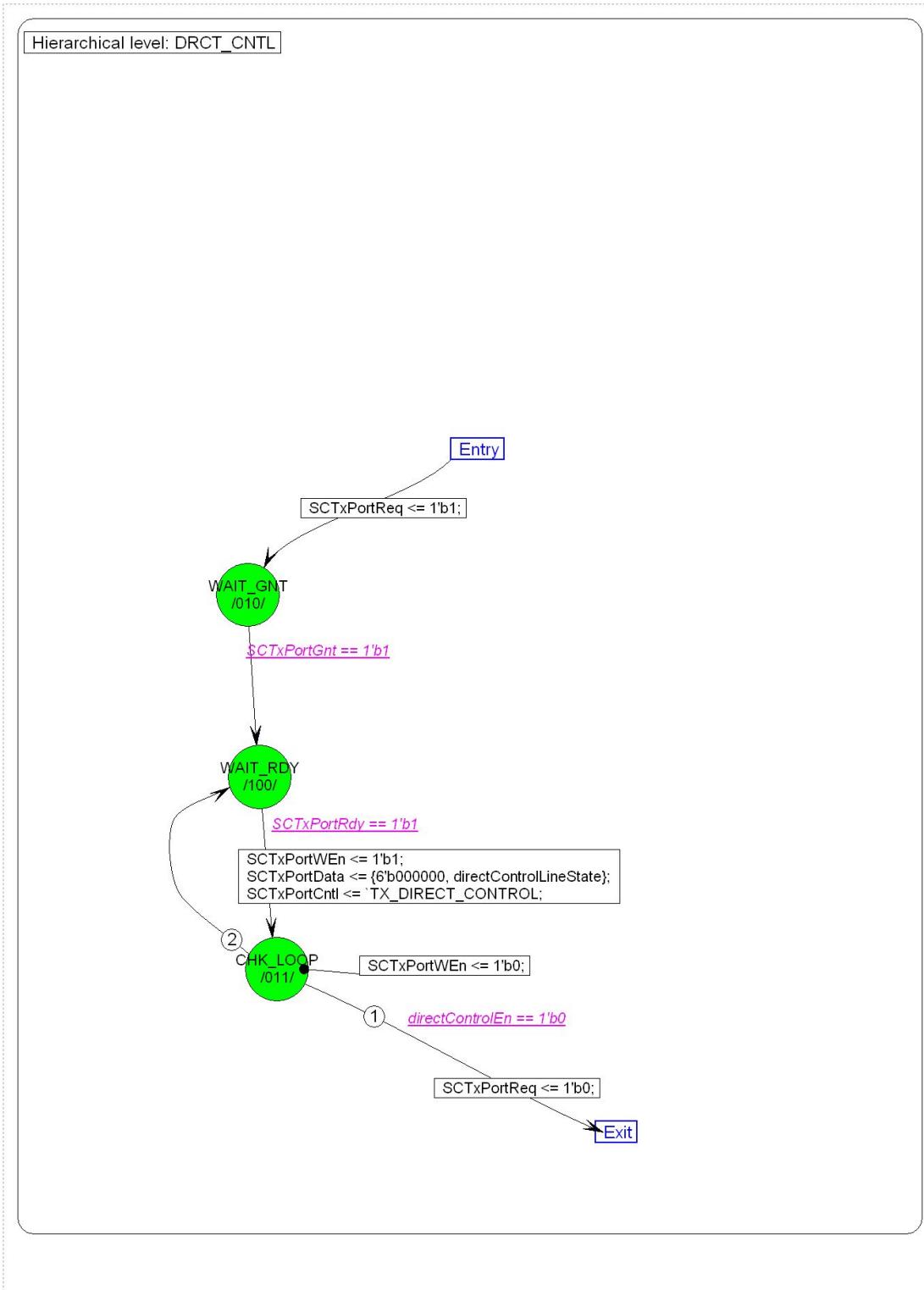
2.15.4 START



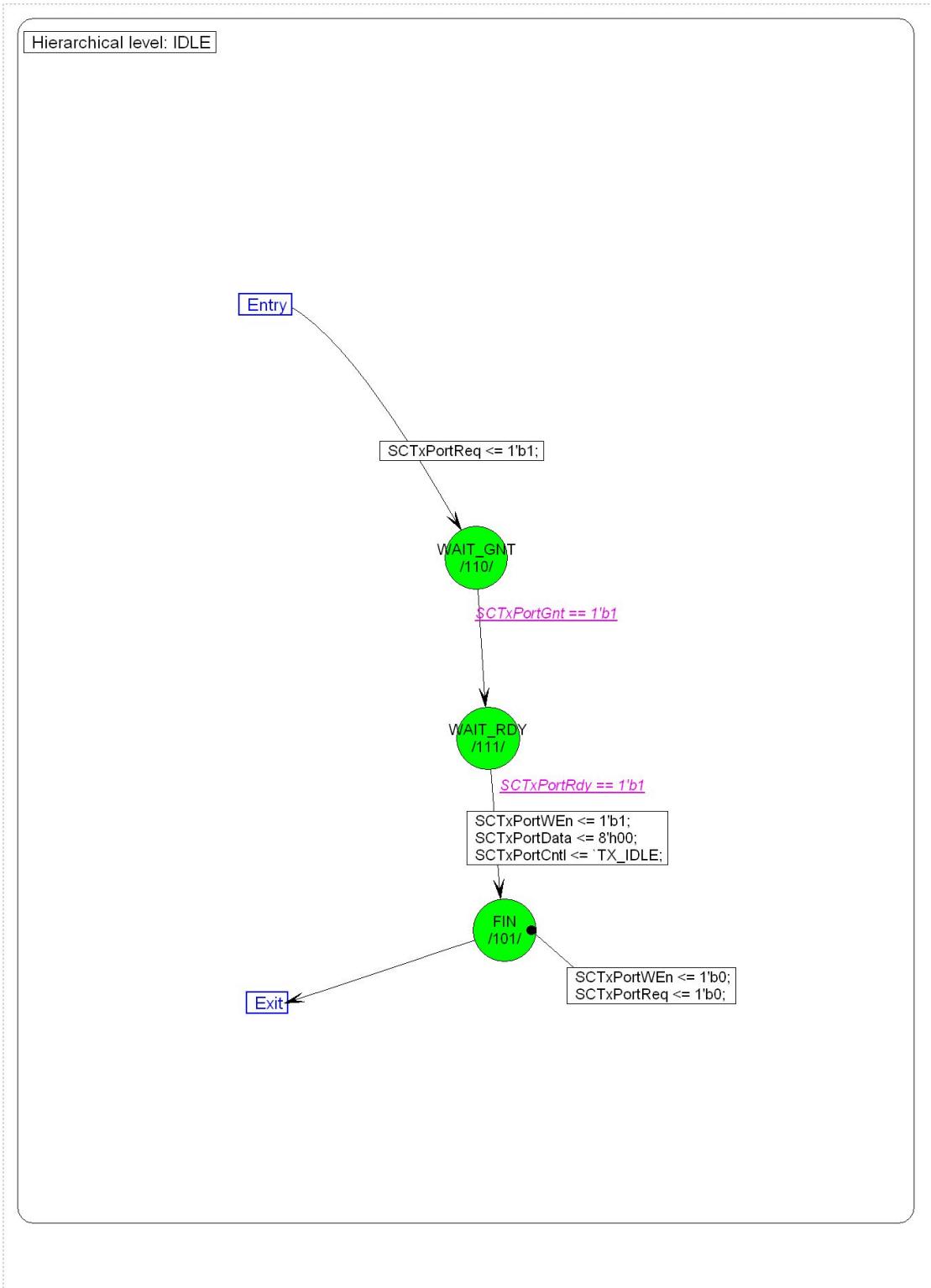
2.16 slaveDirectcontrol.asf



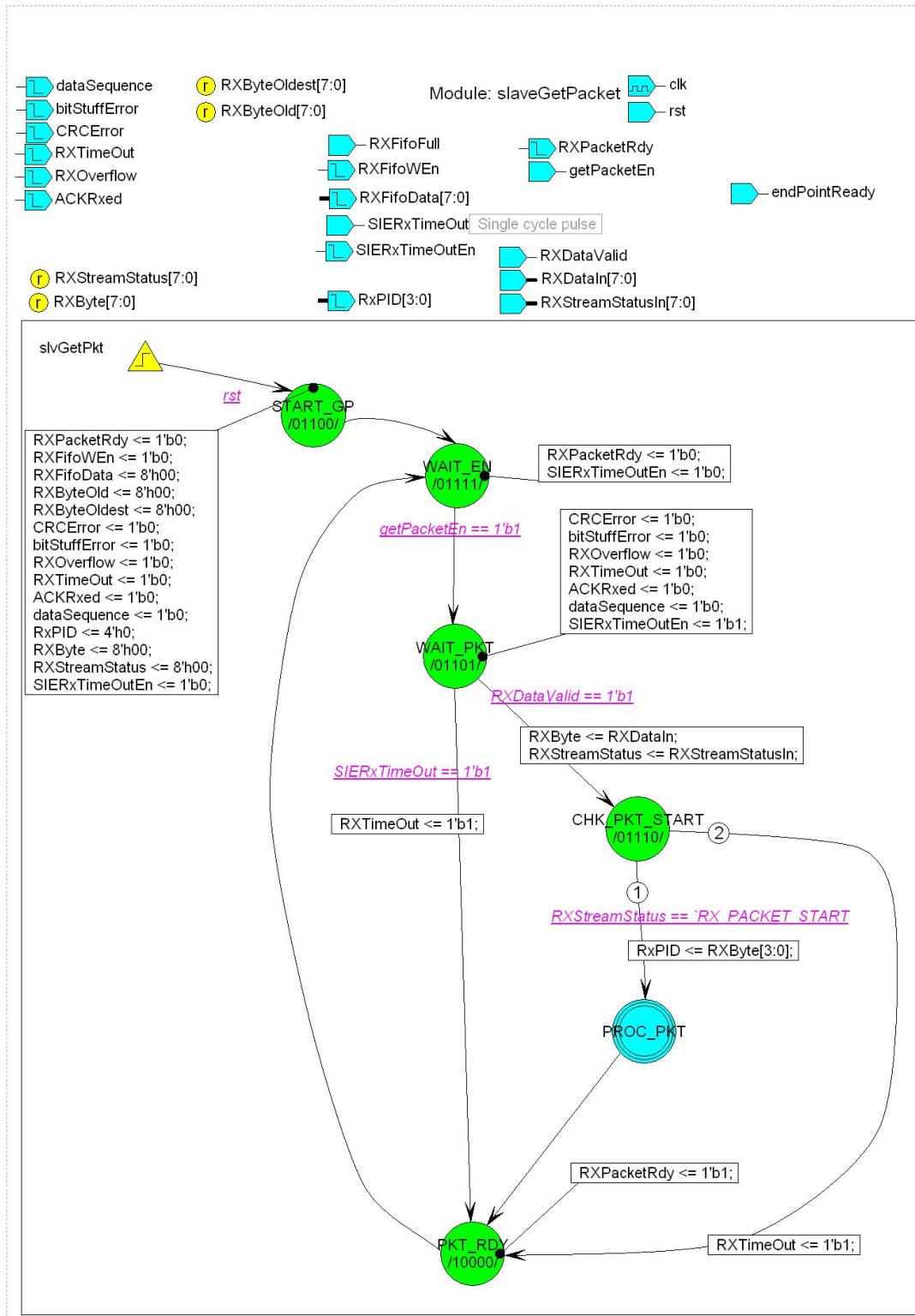
2.16.1 DRCT_CNTL



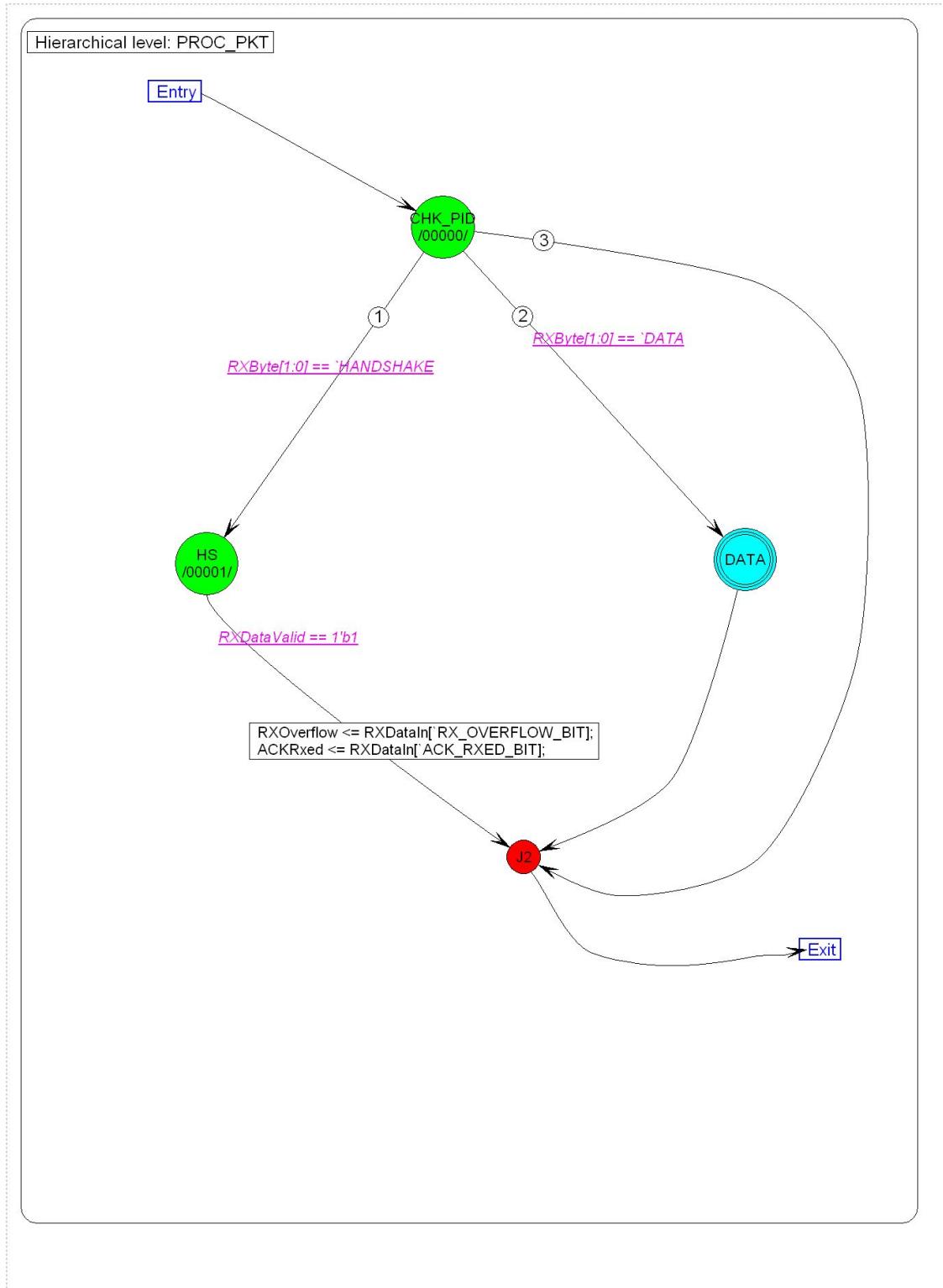
2.16.2 IDLE



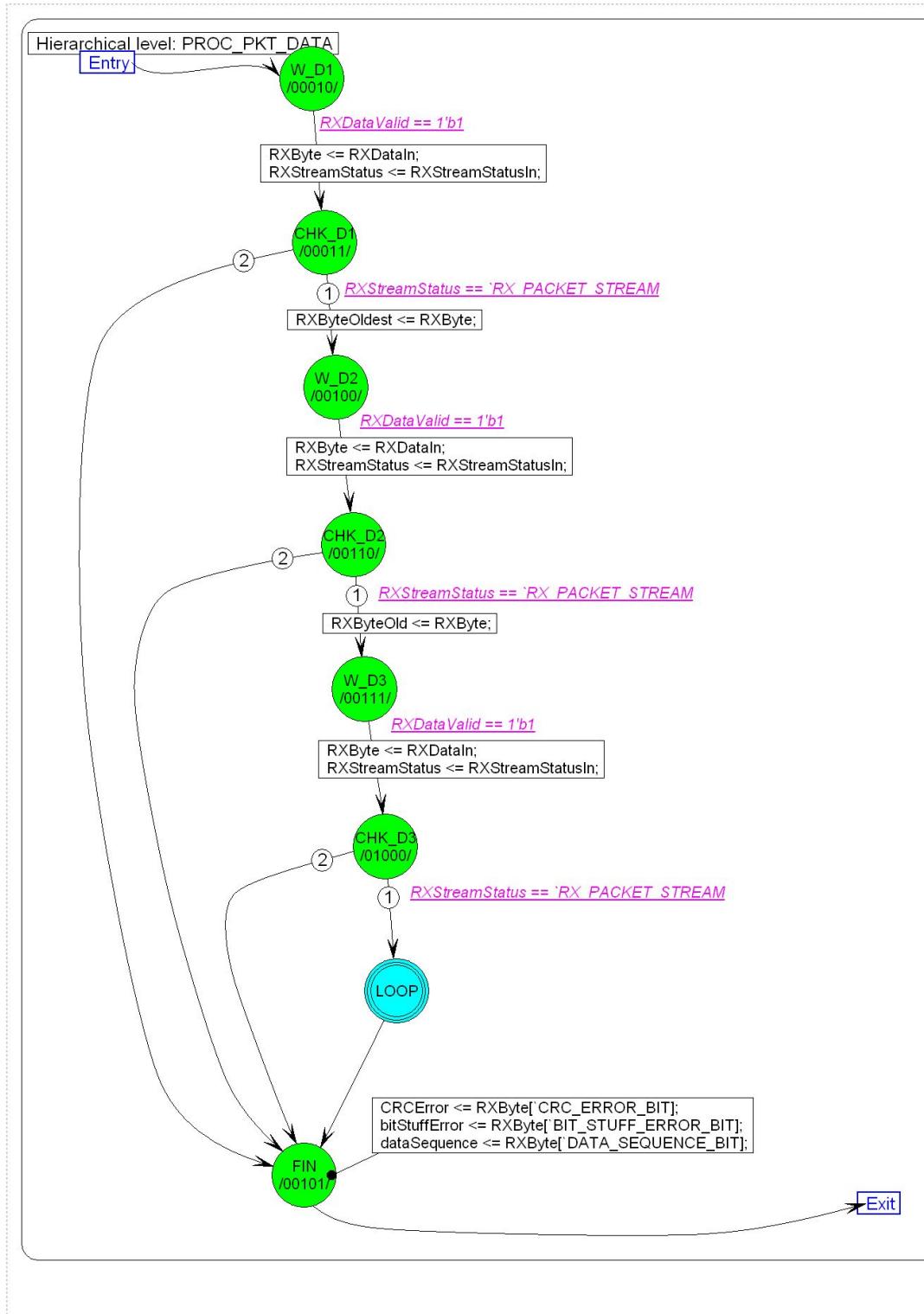
2.17 slaveGetpacket.asf



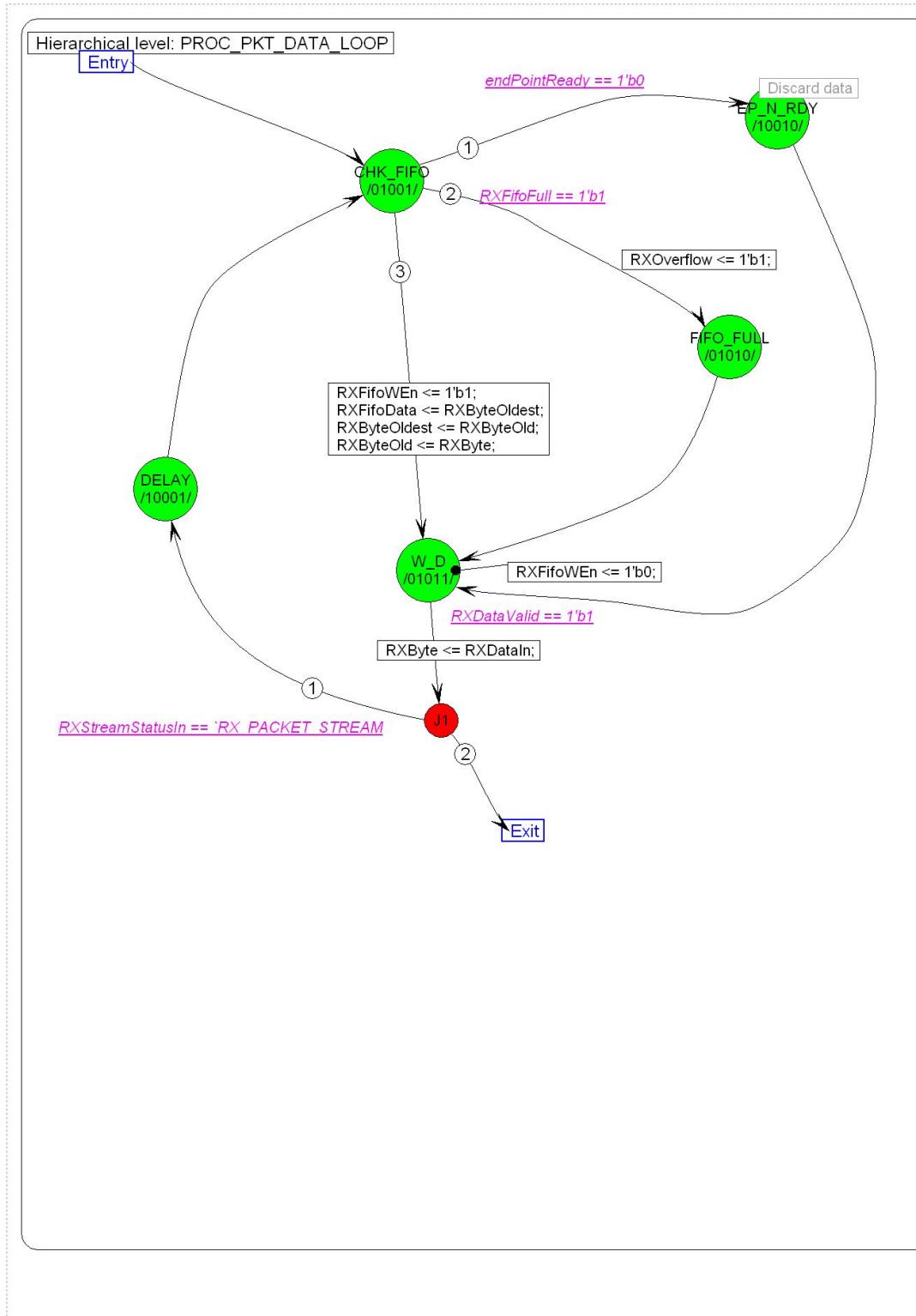
2.17.1 PROC_PKT



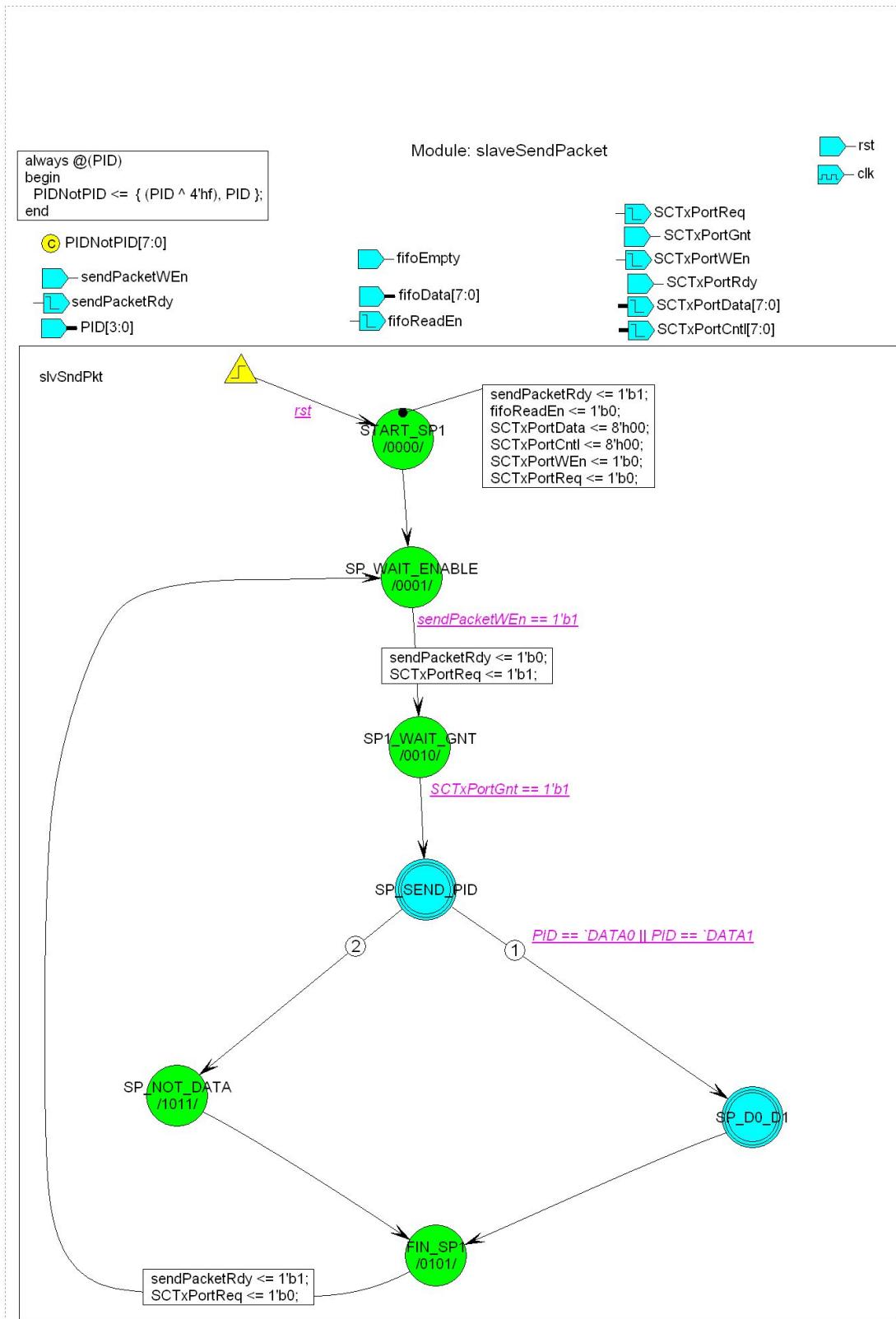
2.17.1.1 DATA



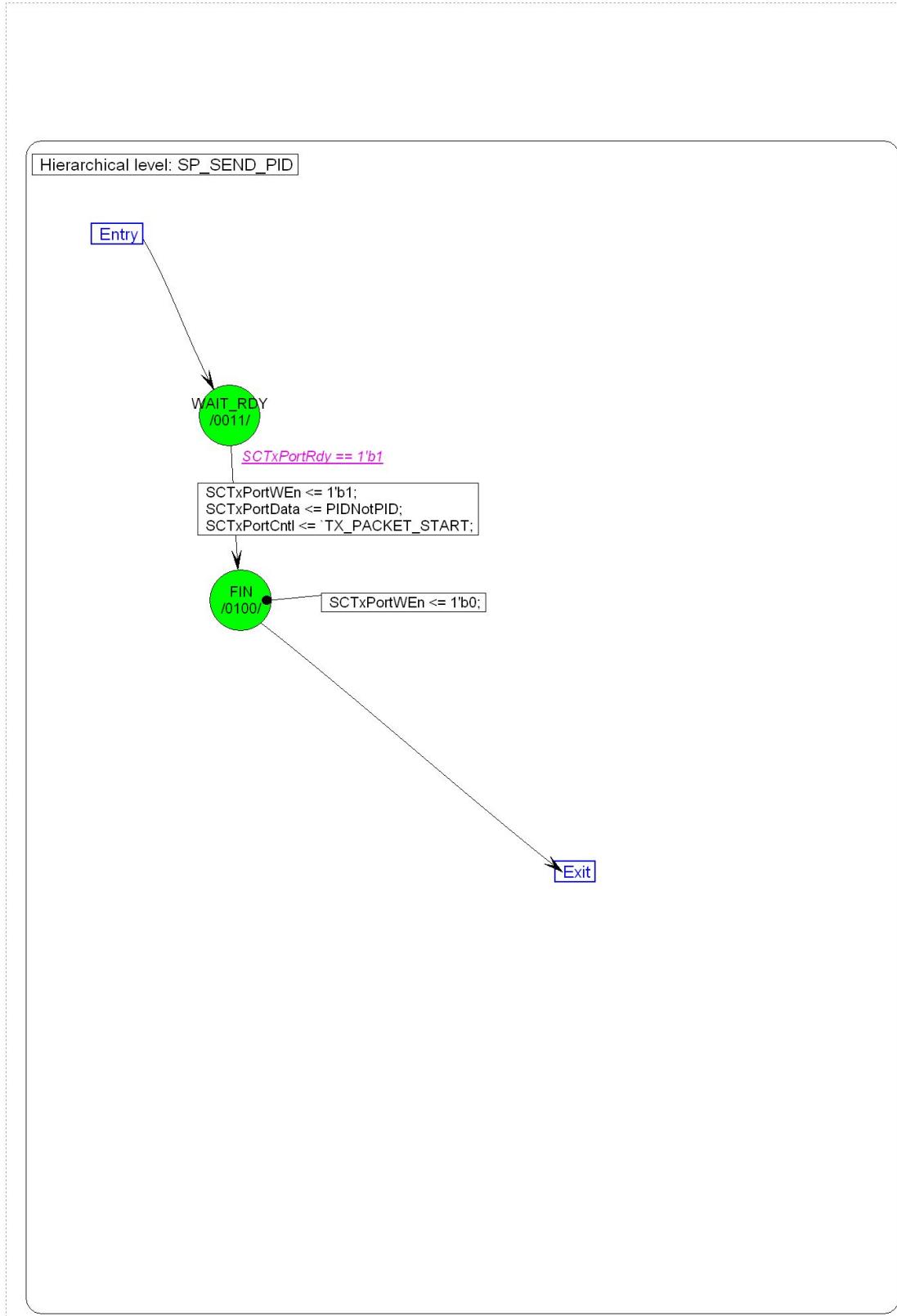
2.17.1.1.1 LOOP



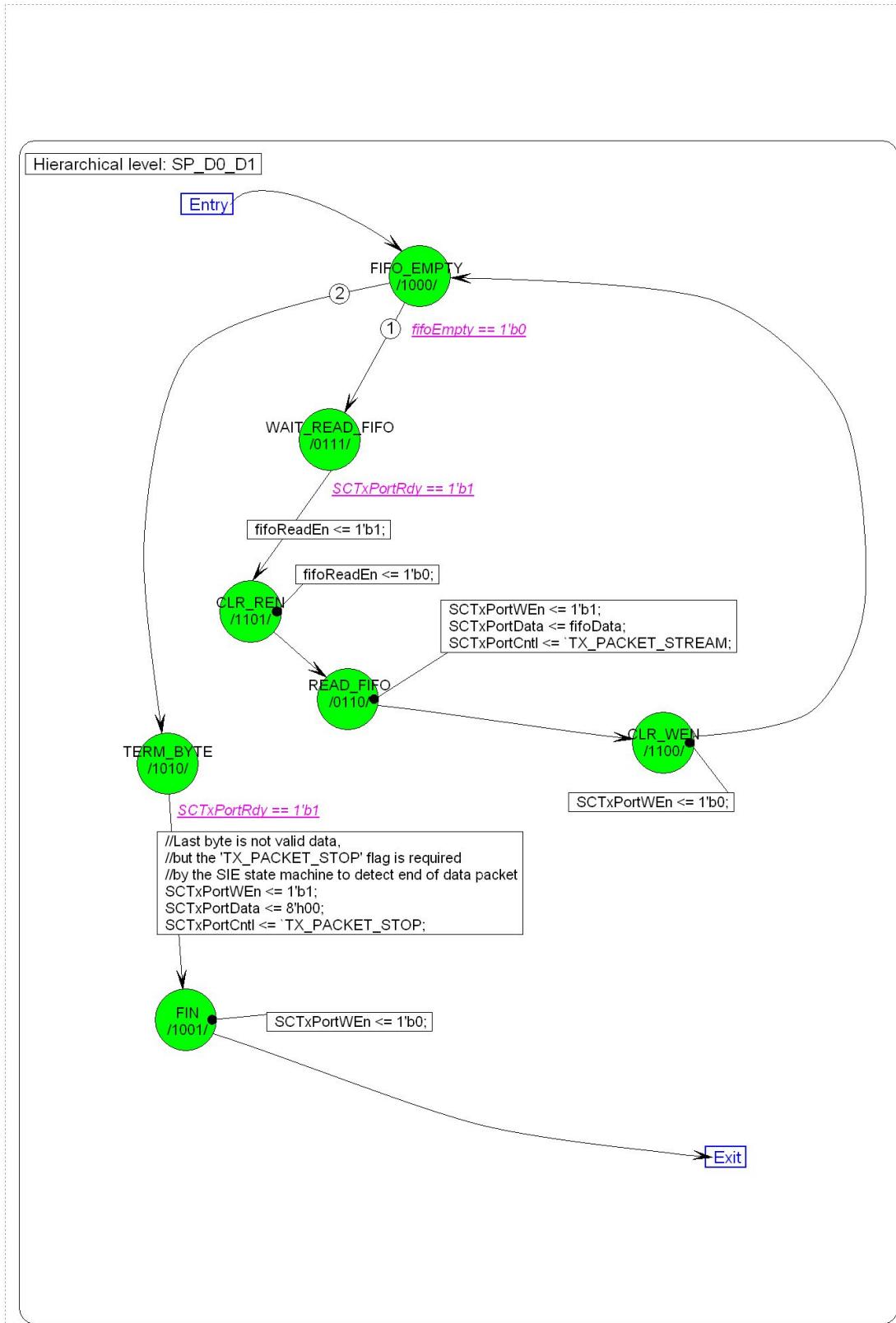
2.18 slaveSendpacket.asf



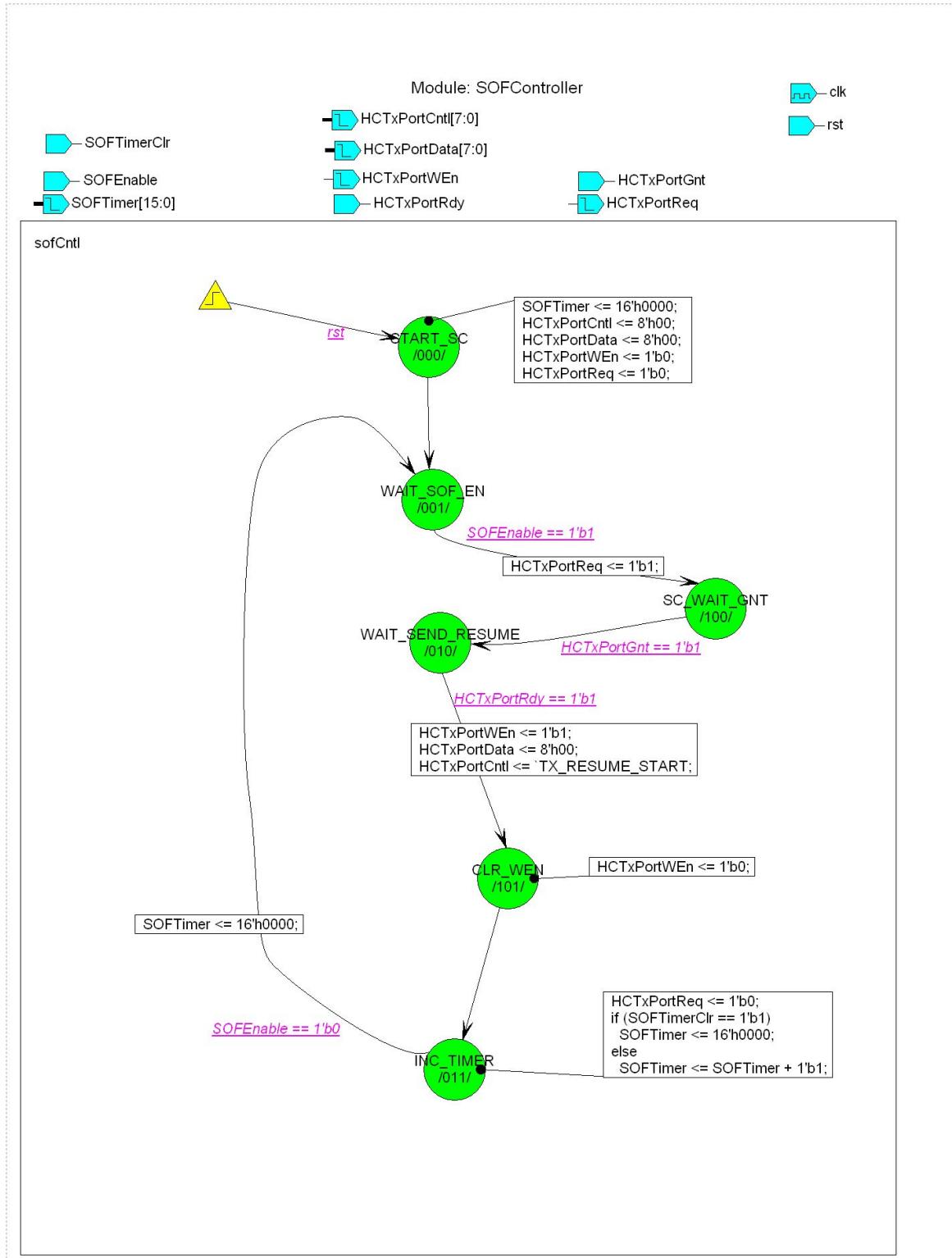
2.18.1 SP_SEND_PID



2.18.2 SP_D0_D1



2.19 sofcontroller.asf



2.20 softransmit.asf

