I2C protocol refinement for implementation Condition-Action markers Start Stop Last Stop Start again ACK ACK Interface **SDIN SCLK** 100 Reference signals 0 f_div 26 19 0... bent 0... wcnt after each non-special bit shift the register at the begining if each non-special bit when BCNT=0 and f_div=25 do SDIN='1 when all counters =0 then deadlock all other conditions exclude this one!! if bcnt=28 and f_div=250 then SDIN<=0 but on reset: f_div<=499;bcnt=28;wcnt=28 at the end of the word when fdiv=0 and if ACK, i.e. bcnt=19,10 or 1, SDIN<=0 only if not at the end of the word!!! if f_div=0 then f_div<=499; bent bcnt=0 load bcnt<=28 and went SDIN<=sr(MSB)