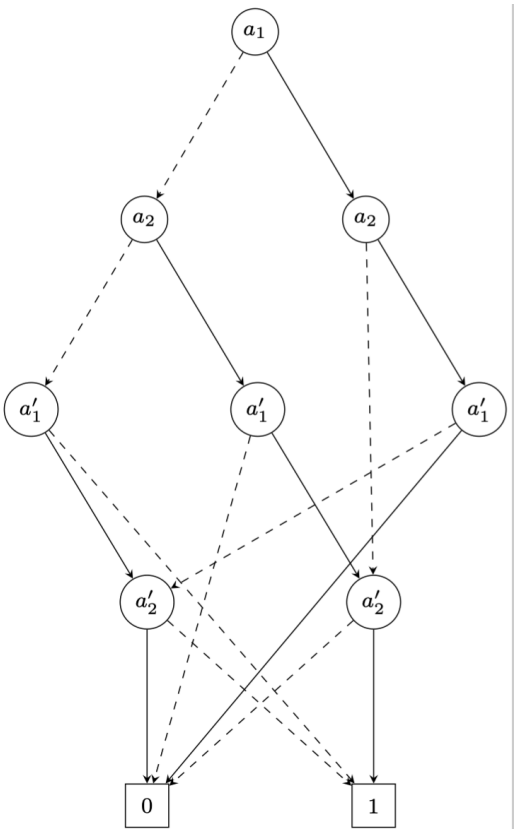
第5次作业

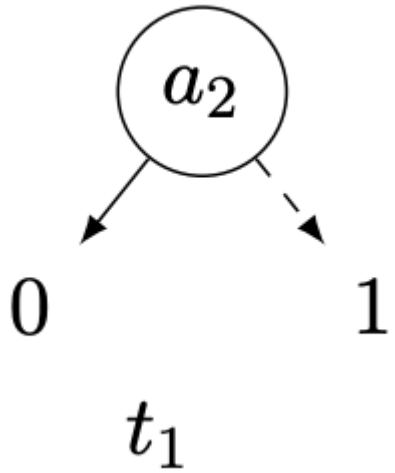
(1)

t2的计算

P1的ROBDD如下所示：

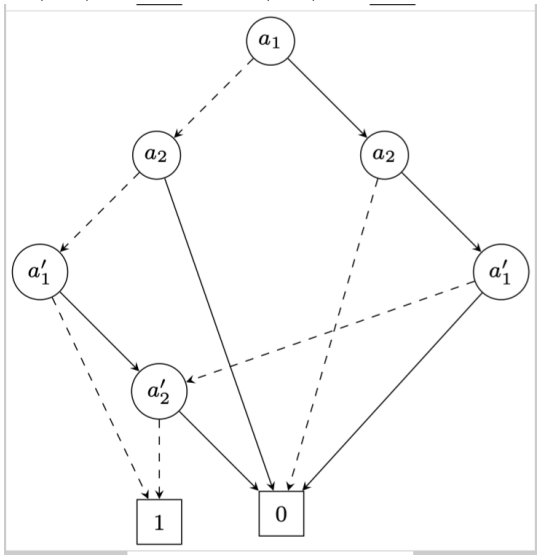


$P2$的$ROBDD$就是$t1$的$ROBDD$,将a_2修改为a_2'

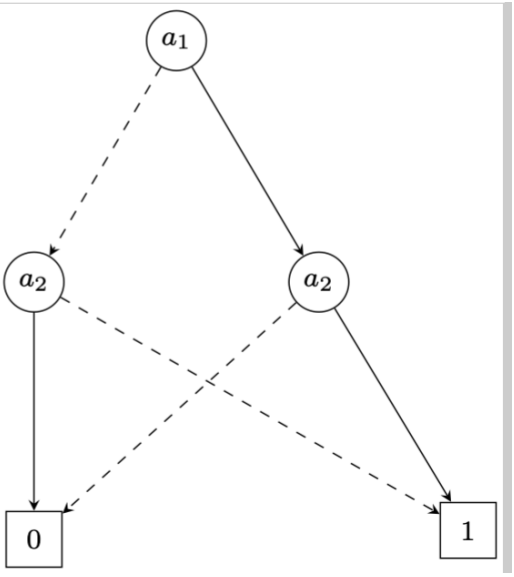


故$t_2 = \exists a_1', a_2' \ \ ROBDD(P1) \wedge ROBDD(P2)$

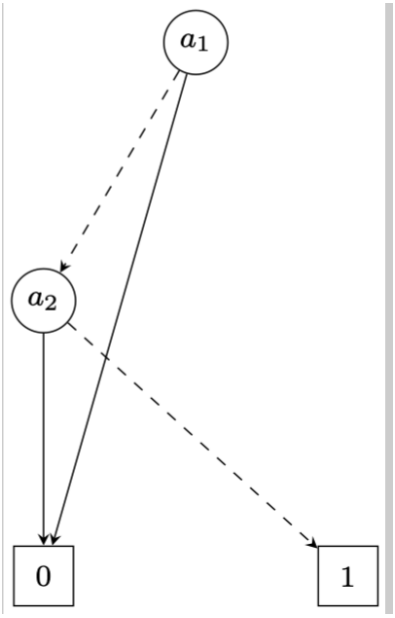
先计算$ROBDD(P) = ROBDD(P1) \wedge ROBDD(P2)$,所得ROBDD如下



再计算$ROBDD(S_{p_e}) = ROBDD(\exists a_1' a_2' \ \ P)$



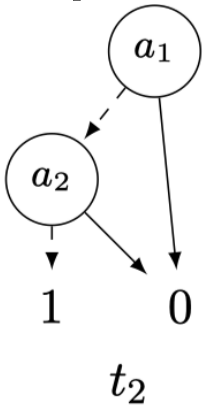
最后再计算$ROBDD(S_{p_2 \wedge} T)$，得t_2



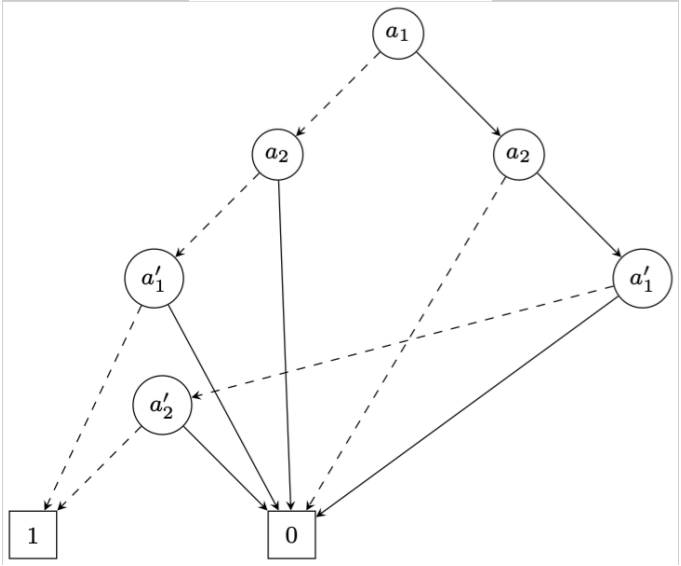
t3的计算

P1的ROBDD不变

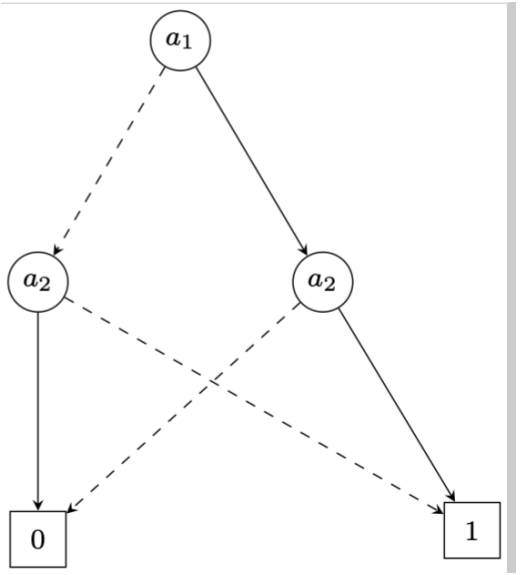
$P2$的$ROBDD$就是$t2$的$ROBDD$,将a_1修改为a_1',a_2修改为a_2'



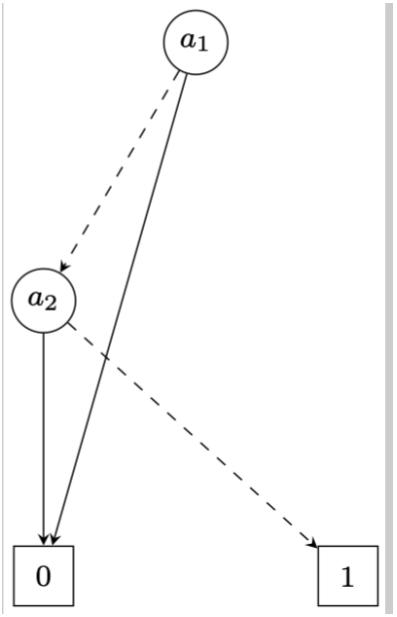
先计算$ROBDD(P) = ROBDD(P1) \wedge ROBDD(P2)$,所得ROBDD如下:



再计算$ROBDD(S_{p_e}) = ROBDD(\exists a_1' a_2' \ P)$,所得如下



最后再计算$ROBDD(S_{p_2 \wedge} T)$，得t_3



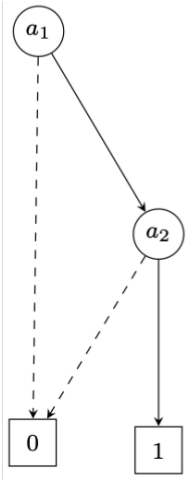
(2)$\mathcal{M}, s_0 \vDash \mathsf{EG}p$

$T = (1, 1)$

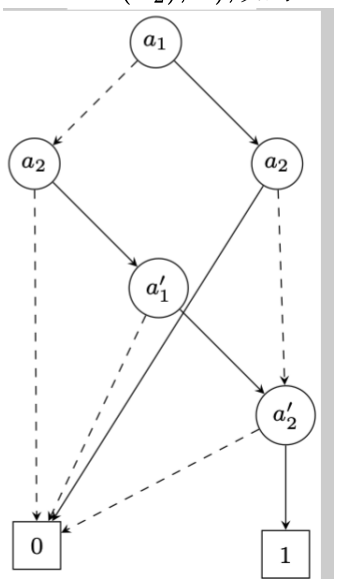
P_1仍保持不变

计算t1

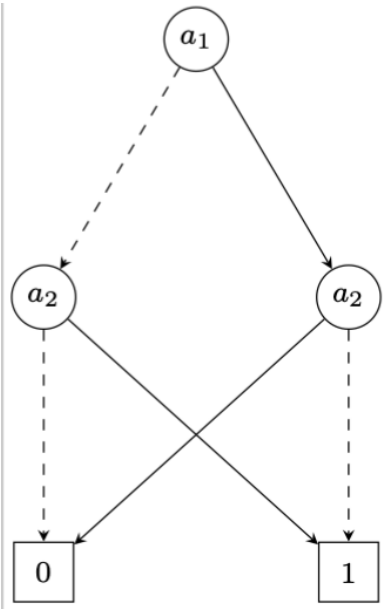
$ROBDD(P_2)$如下：



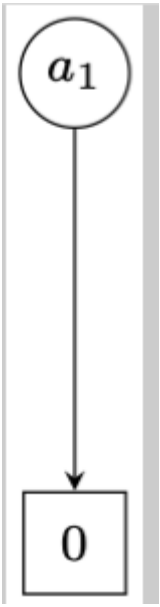
$ROBDD(P) = apply(ROBDD(P_1), ROBDD(P_2), \wedge)$,如下



再计算$ROBDD(S_{p_e}) = ROBDD(\exists a_1' a_2' \ P)$,所得如下



最后再计算$ROBDD(S_{p_2 \wedge} T)$，得t_1



所以最终

$S_{\mathrm{EG}p} = \emptyset$