Итерация №1

Отношения между операторами:

$SD =$

$$
\begin{array}{c|cccccccccccccccccccccccccccccccccccccccc}
 & S_1 & S_2 & S_3 & S_4 & S_5 & S_6 & S_7 & S_8 & S_9 & S_{10} & S_{11} & S_{12} & S_{13} & S_{14} & S_{15} & S_{16} & S_{17} & S_{18} & S_{19} & S_{20} & S_{21} & S_{22} & S_{23} & S_{24} & S_{25} & S_{26} & S_{27} & S_{28} & S_{29} & S_{30} & S_{31} & S_{32} & S_{33} & S_{34} & S_{35} & S_{36} & S_{37} & S_{38} & S_{39} & S_{40} \\
\hline
S_1 & 0&0&1&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0 \\
S_2 & 0&0&1&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0 \\
S_3 & 0&0&0&0&0&0&0&0&0&1&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&0&0&0&0&0&0&0&0 \\
S_4 & 0&0&0&0&0&1&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0 \\
S_5 & 0&0&0&0&0&1&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0 \\
S_6 & 0&0&0&0&0&0&0&0&0&0&1&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&0&1&0&0 \\
S_7 & 0&0&0&0&0&0&0&0&1&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0 \\
S_8 & 0&0&0&0&0&0&0&0&1&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0 \\
S_9 & 0&0&0&0&0&0&0&0&0&0&0&1&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&0&0 \\
S_{10} & 0&0&0&0&0&0&0&0&0&0&0&0&1&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0 \\
S_{11} & 0&0&0&0&0&0&0&0&0&0&0&0&0&1&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0 \\
S_{12} & 0&0&0&0&0&0&0&0&0&0&0&0&0&1&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0 \\
S_{13} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&1&1&1&1&1&1&1&1&1 \\
S_{14} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0 \\
S_{15} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0 \\
S_{16} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&0&0&0&0&0&0&0&0 \\
S_{17} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0 \\
S_{18} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0 \\
S_{19} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&0&0&0&0 \\
S_{20} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0 \\
S_{21} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0 \\
S_{22} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&0 \\
S_{23} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0 \\
S_{24} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0 \\
S_{25} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&0&0&0&0&0&0&0 \\
S_{26} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&0&0&0&0&0&0&0&0&0&0&0&0&0 \\
S_{27} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&0&0&0&0&0&0&0&0&0&0&0&0&0 \\
S_{28} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0 \\
S_{29} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&0&0&0&0&0&0&0&0&0&0 \\
S_{30} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&0&0&0&0&0&0&0&0&0&0 \\
S_{31} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1 \\
S_{32} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0 \\
S_{33} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0 \\
S_{34} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0 \\
S_{35} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0 \\
S_{36} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0 \\
S_{37} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0 \\
S_{38} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0 \\
S_{39} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0 \\
S_{40} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0 \\
\end{array}
$$

$WD =$

$$
\begin{array}{c|cccccccccccccccccccccccccccccccccccccccc}
 & S_1 & S_2 & S_3 & S_4 & S_5 & S_6 & S_7 & S_8 & S_9 & S_{10} & S_{11} & S_{12} & S_{13} & S_{14} & S_{15} & S_{16} & S_{17} & S_{18} & S_{19} & S_{20} & S_{21} & S_{22} & S_{23} & S_{24} & S_{25} & S_{26} & S_{27} & S_{28} & S_{29} & S_{30} & S_{31} & S_{32} & S_{33} & S_{34} & S_{35} & S_{36} & S_{37} & S_{38} & S_{39} & S_{40} \\
\hline
S_1 & 0&0&1&0&0&0&0&0&0&1&0&0&0&1&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&1&1&1&1&1&1&1&1 \\
S_2 & 0&0&1&0&0&0&0&0&0&1&0&0&0&1&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&1&1&1&1&1&1&1&1 \\
S_3 & 0&0&0&0&0&0&0&0&0&1&0&0&1&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&1&1&1&1&1&1&1&1 \\
S_4 & 0&0&0&0&0&1&0&0&0&0&1&0&1&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&1&1&1&1&1&1&1&1 \\
S_5 & 0&0&0&0&0&1&0&0&0&0&1&0&1&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&1&1&1&1&1&1&1&1 \\
S_6 & 0&0&0&0&0&0&0&0&0&0&1&0&1&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&1&1&1&1&1&1&1&1 \\
S_7 & 0&0&0&0&0&0&0&0&1&0&0&1&1&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&1&1&1&1&1&1&1&1 \\
S_8 & 0&0&0&0&0&0&0&0&1&0&0&1&1&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&1&1&1&1&1&1&1&1 \\
S_9 & 0&0&0&0&0&0&0&0&0&0&0&1&1&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&1&1&1&1&1&1&1&1 \\
S_{10} & 0&0&0&0&0&0&0&0&0&0&0&0&1&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&1&1&1&1&1&1&1&1 \\
S_{11} & 0&0&0&0&0&0&0&0&0&0&0&0&1&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&1&1&1&1&1&1&1&1 \\
S_{12} & 0&0&0&0&0&0&0&0&0&0&0&0&1&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&1&1&1&1&1&1&1&1 \\
S_{13} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&1&1&1&1&1&1&1&1 \\
S_{14} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&0&0&0&0&0&0&0&0 \\
S_{15} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&0&0&0&0&0&0&0&0 \\
S_{16} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&0&0&0&0&0&0&0&0 \\
S_{17} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&0&0&0&0 \\
S_{18} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&0&0&0&0 \\
S_{19} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&0&0&0&0 \\
S_{20} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&0&0&0 \\
S_{21} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&0&0&0 \\
S_{22} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&0&0&0 \\
S_{23} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&0&0&0&0&0&0&0&0&0&0&0&0&1&0&0&0 \\
S_{24} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&0&0&0&0&0&0&0&0&0&0&0&0&1&0&0&0 \\
S_{25} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&0&0&0&0&0&0&0&0&0&1&0&0&0 \\
S_{26} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&0&0&0&0&0&0&0&0&0&1&0&0&0 \\
S_{27} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&0&0&0&0&0&0&0&0&0&1&0&0&0 \\
S_{28} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0 \\
S_{29} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&0&0&0&0&0&0&0&0&0&1 \\
S_{30} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&0&0&0&0&0&0&0&0&0&1 \\
S_{31} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1 \\
S_{32} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0 \\
S_{33} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0 \\
S_{34} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0 \\
S_{35} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0 \\
S_{36} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0 \\
S_{37} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0 \\
S_{38} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0 \\
S_{39} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0 \\
S_{40} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0 \\
\end{array}
$$

$$C = $$

(матрица C размера 40×40 с заголовками столбцов $S_1 \ldots S_{40}$ и строк $S_1 \ldots S_{40}$)

$$SI = $$

(матрица SI размера 40×40 с заголовками столбцов $S_1 \ldots S_{40}$ и строк $S_1 \ldots S_{40}$)
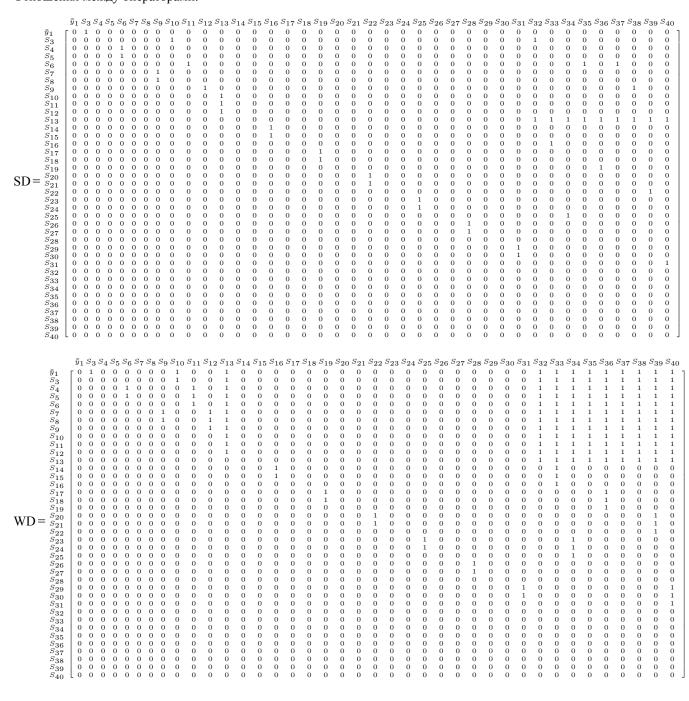
Проверка условия приводимости программы к ППФ (5 из 579):

1)$S_1 \nrightarrow S_4$

2)S_3

$E(S_1) = \{S_3, S_{10}, S_{13}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$

$E(S_4) = \{S_6, S_{11}, S_{13}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$

$N_1(S_1, S_4) = \{S_{13}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$

$N_2(S_1, S_4) = \{S_3, S_{10}, S_6, S_{11}\}$

$E(S_3) = \{S_{10}, S_{13}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$

$S_3 \in N_2(S_1, S_4)$ − выполняется

$N_1(S_1, S_4) \subseteq E(S_3)$ − выполняется

выполняется

1)$S_1 \nrightarrow S_5$

2)S_3

$E(S_1) = \{S_3, S_{10}, S_{13}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$

$E(S_5) = \{S_6, S_{11}, S_{13}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$

$N_1(S_1, S_5) = \{S_{13}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$

$N_2(S_1, S_5) = \{S_3, S_{10}, S_6, S_{11}\}$

$E(S_3) = \{S_{10}, S_{13}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$
$S_3 \in N_2(S_1, S_5) - \text{выполняется}$
$N_1(S_1, S_5) \subseteq E(S_3) - \text{выполняется}$
выполняется

1) $S_1 \nrightarrow S_6$
2) S_3
$E(S_1) = \{S_3, S_{10}, S_{13}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$
$E(S_6) = \{S_{11}, S_{13}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$
$N_1(S_1, S_6) = \{S_{13}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$
$N_2(S_1, S_6) = \{S_3, S_{10}, S_{11}\}$
$E(S_3) = \{S_{10}, S_{13}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$
$S_3 \in N_2(S_1, S_6) - \text{выполняется}$
$N_1(S_1, S_6) \subseteq E(S_3) - \text{выполняется}$
выполняется

1) $S_1 \nrightarrow S_7$
2) S_3
$E(S_1) = \{S_3, S_{10}, S_{13}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$
$E(S_7) = \{S_9, S_{12}, S_{13}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$
$N_1(S_1, S_7) = \{S_{13}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$
$N_2(S_1, S_7) = \{S_3, S_{10}, S_9, S_{12}\}$
$E(S_3) = \{S_{10}, S_{13}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$
$S_3 \in N_2(S_1, S_7) - \text{выполняется}$
$N_1(S_1, S_7) \subseteq E(S_3) - \text{выполняется}$
выполняется

1) $S_1 \nrightarrow S_8$
2) S_3
$E(S_1) = \{S_3, S_{10}, S_{13}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$
$E(S_8) = \{S_9, S_{12}, S_{13}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$
$N_1(S_1, S_8) = \{S_{13}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$
$N_2(S_1, S_8) = \{S_3, S_{10}, S_9, S_{12}\}$
$E(S_3) = \{S_{10}, S_{13}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$
$S_3 \in N_2(S_1, S_8) - \text{выполняется}$
$N_1(S_1, S_8) \subseteq E(S_3) - \text{выполняется}$
выполняется
На текущей итерации был выделен параллельный групповой оператор $\bar{\bar{y}}_1 = \{S_1, S_2\}$

Итерация №2

Отношения между операторами:

$$\mathrm{SD} =$$

Столбцы: $\bar{y}_1\ S_3\ S_4\ S_5\ S_6\ S_7\ S_8\ S_9\ S_{10}\ S_{11}\ S_{12}\ S_{13}\ S_{14}\ S_{15}\ S_{16}\ S_{17}\ S_{18}\ S_{19}\ S_{20}\ S_{21}\ S_{22}\ S_{23}\ S_{24}\ S_{25}\ S_{26}\ S_{27}\ S_{28}\ S_{29}\ S_{30}\ S_{31}\ S_{32}\ S_{33}\ S_{34}\ S_{35}\ S_{36}\ S_{37}\ S_{38}\ S_{39}\ S_{40}$

```
        ȳ₁ S₃ S₄ S₅ S₆ S₇ S₈ S₉ S₁₀S₁₁S₁₂S₁₃S₁₄S₁₅S₁₆S₁₇S₁₈S₁₉S₂₀S₂₁S₂₂S₂₃S₂₄S₂₅S₂₆S₂₇S₂₈S₂₉S₃₀S₃₁S₃₂S₃₃S₃₄S₃₅S₃₆S₃₇S₃₈S₃₉S₄₀
ȳ₁  [   0  1  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0 ]
S₃      0  0  0  0  0  0  0  0  1  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  1  0  0  0  0  0  0  0  0
S₄      0  0  0  1  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
S₅      0  0  0  0  1  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
S₆      0  0  0  0  0  0  0  1  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  1  0  1  0  0  0
S₇      0  0  0  0  0  0  1  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
S₈      0  0  0  0  0  0  1  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
S₉      0  0  0  0  0  0  0  0  0  1  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  1  0
S₁₀     0  0  0  0  0  0  0  0  0  0  1  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
S₁₁     0  0  0  0  0  0  0  0  0  0  0  1  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
S₁₂     0  0  0  0  0  0  0  0  0  0  1  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
S₁₃     0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  1  1  1  1  1  1  1  1  1
S₁₄     0  0  0  0  0  0  0  0  0  0  0  0  0  0  1  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
S₁₅     0  0  0  0  0  0  0  0  0  0  0  0  0  0  1  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
S₁₆     0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  1  0  0  0  0  0  0
S₁₇     0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  1  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
S₁₈     0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  1  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
S₁₉     0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  1  0  0  0  0  0
S₂₀     0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  1  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
S₂₁     0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  1  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
S₂₂     0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  1  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
S₂₃     0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  1  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
S₂₄     0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  1  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
S₂₅     0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  1  0  0  0  0  0
S₂₆     0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  1  0  0  0  0  0  0  0  0  0  0  0  0  0  0
S₂₇     0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  1  0  0  0  0  0  0  0  0  0  0  0  0  0
S₂₈     0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  1  0  0  0  0  0  0  0  0  0  0  0
S₂₉     0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  1  0  0  0  0  0  0  0  0  0  0  0
S₃₀     0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  1  0  0  0  0  0  0  0  0  0  0  0
S₃₁     0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  1
S₃₂     0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
S₃₃     0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
S₃₄     0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
S₃₅     0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
S₃₆     0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
S₃₇     0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
S₃₈     0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
S₃₉     0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
S₄₀ [   0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0 ]
```

$$\mathrm{WD} =$$

Столбцы: $\bar{y}_1\ S_3\ S_4\ S_5\ S_6\ S_7\ S_8\ S_9\ S_{10}\ S_{11}\ S_{12}\ S_{13}\ S_{14}\ S_{15}\ S_{16}\ S_{17}\ S_{18}\ S_{19}\ S_{20}\ S_{21}\ S_{22}\ S_{23}\ S_{24}\ S_{25}\ S_{26}\ S_{27}\ S_{28}\ S_{29}\ S_{30}\ S_{31}\ S_{32}\ S_{33}\ S_{34}\ S_{35}\ S_{36}\ S_{37}\ S_{38}\ S_{39}\ S_{40}$

```
        ȳ₁ S₃ S₄ S₅ S₆ S₇ S₈ S₉ S₁₀S₁₁S₁₂S₁₃S₁₄S₁₅S₁₆S₁₇S₁₈S₁₉S₂₀S₂₁S₂₂S₂₃S₂₄S₂₅S₂₆S₂₇S₂₈S₂₉S₃₀S₃₁S₃₂S₃₃S₃₄S₃₅S₃₆S₃₇S₃₈S₃₉S₄₀
ȳ₁  [   0  1  0  0  0  0  0  0  1  0  0  1  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  1  1  1  1  1  1  1  1  1 ]
S₃      0  0  0  0  0  0  0  0  1  0  0  1  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  1  1  1  1  1  1  1  1  1
S₄      0  0  0  1  0  0  0  0  0  1  0  1  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  1  1  1  1  1  1  1  1  1
S₅      0  0  0  1  0  0  0  0  0  1  0  1  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  1  1  1  1  1  1  1  1  1
S₆      0  0  0  0  0  0  0  0  1  0  0  1  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  1  1  1  1  1  1  1  1  1
S₇      0  0  0  0  0  0  1  0  0  1  1  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  1  1  1  1  1  1  1  1  1
S₈      0  0  0  0  0  0  1  0  0  1  1  1  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  1  1  1  1  1  1  1  1  1
S₉      0  0  0  0  0  0  0  0  1  1  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  1  1  1  1  1  1  1  1  1
S₁₀     0  0  0  0  0  0  0  0  0  1  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  1  1  1  1  1  1  1  1  1
S₁₁     0  0  0  0  0  0  0  0  0  0  1  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  1  1  1  1  1  1  1  1  1
S₁₂     0  0  0  0  0  0  0  0  0  0  1  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  1  1  1  1  1  1  1  1  1
S₁₃     0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  1  1  1  1  1  1  1  1  1
S₁₄     0  0  0  0  0  0  0  0  0  0  0  0  0  1  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  1  0  0  0  0  0  0  0  0
S₁₅     0  0  0  0  0  0  0  0  0  0  0  0  0  1  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  1  0  0  0  0  0  0  0  0
S₁₆     0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  1  0  0  0  0  0  0  0  0
S₁₇     0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  1  0  0  0  0  0  0  0  0  0  0  0  0  0  1  0  0  0  0  0  0  0  0
S₁₈     0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  1  0  0  0  0  0  0  0  0  0  0  0  0  0  1  0  0  0  0  0  0  0  0
S₁₉     0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  1  0  0  0  0  0  0  0  0
S₂₀     0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  1  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  1  0
S₂₁     0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  1  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  1  0
S₂₂     0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  1  0
S₂₃     0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  1  0  0  0  0  0  0  0  0  0  1  0  0  0  0  0  0  0  0
S₂₄     0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  1  0  0  0  0  0  0  0  0  0  1  0  0  0  0  0  0  0  0
S₂₅     0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  1  0  0  0  0  0  0  0  0
S₂₆     0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  1  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
S₂₇     0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  1  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
S₂₈     0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  1  0  0  0  0  0  0  0  0  0  1
S₂₉     0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  1  0  0  0  0  0  0  0  0  0  1
S₃₀     0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  1
S₃₁     0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
S₃₂     0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
S₃₃     0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
S₃₄     0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
S₃₅     0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
S₃₆     0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
S₃₇     0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
S₃₈     0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
S₃₉     0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
S₄₀ [   0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0 ]
```

$$C=\begin{array}{c|ccccccccccccccccccccccccccccccccccccccc}
 & \bar{\bar{y}}_1 & S_3 & S_4 & S_5 & S_6 & S_7 & S_8 & S_9 & S_{10} & S_{11} & S_{12} & S_{13} & S_{14} & S_{15} & S_{16} & S_{17} & S_{18} & S_{19} & S_{20} & S_{21} & S_{22} & S_{23} & S_{24} & S_{25} & S_{26} & S_{27} & S_{28} & S_{29} & S_{30} & S_{31} & S_{32} & S_{33} & S_{34} & S_{35} & S_{36} & S_{37} & S_{38} & S_{39} & S_{40} \\
\hline
\bar{\bar{y}}_1 & 1&0&1&1&1&1&1&1&0&1&1&0 & 1&1&1&1&1&1&1&1&1 & 1&1&1&1&1&1&1&1&1 & 0&0&0&0&0&0&0&0&0 \\
S_3 & 0&1&1&1&1&1&1&1&0&1&1&0 & 1&1&1&1&1&1&1&1&1 & 1&1&1&1&1&1&1&1&1 & 0&0&0&0&0&0&0&0&0 \\
S_4 & 1&1&1&1&0&1&1&1&1&0&1&0 & 1&1&1&1&1&1&1&1&1 & 1&1&1&1&1&1&1&1&1 & 0&0&0&0&0&0&0&0&0 \\
S_5 & 1&1&1&1&0&1&1&1&1&0&1&0 & 1&1&1&1&1&1&1&1&1 & 1&1&1&1&1&1&1&1&1 & 0&0&0&0&0&0&0&0&0 \\
S_6 & 1&1&0&0&1&1&1&1&1&0&1&0 & 1&1&1&1&1&1&1&1&1 & 1&1&1&1&1&1&1&1&1 & 0&0&0&0&0&0&0&0&0 \\
S_7 & 1&1&1&1&1&1&1&0&1&1&0&0 & 1&1&1&1&1&1&1&1&1 & 1&1&1&1&1&1&1&1&1 & 0&0&0&0&0&0&0&0&0 \\
S_8 & 1&1&1&1&1&1&1&0&1&1&0&0 & 1&1&1&1&1&1&1&1&1 & 1&1&1&1&1&1&1&1&1 & 0&0&0&0&0&0&0&0&0 \\
S_9 & 1&1&1&1&1&0&0&1&1&1&0&0 & 1&1&1&1&1&1&1&1&1 & 1&1&1&1&1&1&1&1&1 & 0&0&0&0&0&0&0&0&0 \\
S_{10} & 0&0&1&1&1&1&1&1&1&1&1&0 & 1&1&1&1&1&1&1&1&1 & 1&1&1&1&1&1&1&1&1 & 0&0&0&0&0&0&0&0&0 \\
S_{11} & 1&1&0&0&0&1&1&1&1&1&1&0 & 1&1&1&1&1&1&1&1&1 & 1&1&1&1&1&1&1&1&1 & 0&0&0&0&0&0&0&0&0 \\
S_{12} & 1&1&1&1&1&0&0&0&1&1&1&0 & 1&1&1&1&1&1&1&1&1 & 1&1&1&1&1&1&1&1&1 & 0&0&0&0&0&0&0&0&0 \\
S_{13} & 0&0&0&0&0&0&0&0&0&0&0&1 & 1&1&1&1&1&1&1&1&1 & 1&1&1&1&1&1&1&1&1 & 0&0&0&0&0&0&0&0&0 \\
S_{14} & 1&1&1&1&1&1&1&1&1&1&1&1 & 1&1&0&1&1&1&1&1&1 & 1&1&1&1&1&1&1&1&1 & 1&0&1&1&1&1&1&1&1 \\
S_{15} & 1&1&1&1&1&1&1&1&1&1&1&1 & 1&1&0&1&1&1&1&1&1 & 1&1&1&1&1&1&1&1&1 & 1&0&1&1&1&1&1&1&1 \\
S_{16} & 1&1&1&1&1&1&1&1&1&1&1&1 & 0&0&1&1&1&1&1&1&1 & 1&1&1&1&1&1&1&1&1 & 1&0&1&1&1&1&1&1&1 \\
S_{17} & 1&1&1&1&1&1&1&1&1&1&1&1 & 1&1&1&1&1&0&1&1&0 & 1&1&1&1&1&1&1&1&1 & 1&1&1&1&0&1&1&1&1 \\
S_{18} & 1&1&1&1&1&1&1&1&1&1&1&1 & 1&1&1&1&1&0&1&1&1 & 1&1&1&1&1&1&1&1&1 & 1&1&1&1&0&1&1&1&1 \\
S_{19} & 1&1&1&1&1&1&1&1&1&1&1&1 & 1&1&1&0&0&1&0&1&1 & 1&1&1&1&1&1&1&1&1 & 1&1&1&1&0&1&1&1&1 \\
S_{20} & 1&1&1&1&1&1&1&1&1&1&1&1 & 1&1&1&1&1&0&1&1&0 & 1&1&1&1&1&1&1&1&1 & 1&1&1&1&1&1&1&0&1 \\
S_{21} & 1&1&1&1&1&1&1&1&1&1&1&1 & 1&1&1&1&1&1&1&1&0 & 1&1&1&1&1&1&1&1&1 & 1&1&1&1&1&1&1&0&1 \\
S_{22} & 1&1&1&1&1&1&1&1&1&1&1&1 & 1&1&1&0&1&1&0&0&1 & 1&1&1&1&1&1&1&1&1 & 1&1&1&1&1&1&1&0&1 \\
S_{23} & 1&1&1&1&1&1&1&1&1&1&1&1 & 1&1&1&1&1&1&1&1&1 & 1&1&0&1&1&1&1&1&1 & 1&1&0&1&1&1&1&1&1 \\
S_{24} & 1&1&1&1&1&1&1&1&1&1&1&1 & 1&1&1&1&1&1&1&1&1 & 1&1&0&1&1&1&1&1&1 & 1&1&0&1&1&1&1&1&1 \\
S_{25} & 1&1&1&1&1&1&1&1&1&1&1&1 & 1&1&1&1&1&1&1&1&1 & 0&0&1&1&1&1&1&1&1 & 1&1&0&1&1&1&1&1&1 \\
S_{26} & 1&1&1&1&1&1&1&1&1&1&1&1 & 1&1&1&1&1&1&1&1&1 & 1&1&1&1&1&0&1&1&1 & 1&1&1&1&1&1&1&1&1 \\
S_{27} & 1&1&1&1&1&1&1&1&1&1&1&1 & 1&1&1&1&1&1&1&1&1 & 1&1&1&1&1&0&1&1&1 & 1&1&1&1&1&1&1&1&1 \\
S_{28} & 1&1&1&1&1&1&1&1&1&1&1&1 & 1&1&1&1&1&1&1&1&1 & 1&1&1&0&0&1&1&1&1 & 1&1&1&1&1&1&1&1&1 \\
S_{29} & 1&1&1&1&1&1&1&1&1&1&1&1 & 1&1&1&1&1&1&1&1&1 & 1&1&1&1&1&1&1&1&0 & 1&1&1&1&1&1&1&1&0 \\
S_{30} & 1&1&1&1&1&1&1&1&1&1&1&1 & 1&1&1&1&1&1&1&1&1 & 1&1&1&1&1&1&1&1&0 & 1&1&1&1&1&1&1&1&0 \\
S_{31} & 1&1&1&1&1&1&1&1&1&1&1&1 & 1&1&1&1&1&1&1&1&1 & 1&1&1&1&1&1&0&0&1 & 1&1&1&1&1&1&1&1&0 \\
S_{32} & 0&0&0&0&0&0&0&0&0&0&0&0 & 1&1&1&1&1&1&1&1&1 & 1&1&1&1&1&1&1&1&1 & 1&1&1&1&1&1&1&1&1 \\
S_{33} & 0&0&0&0&0&0&0&0&0&0&0&0 & 0&0&0&1&1&1&1&1&1 & 1&1&1&1&1&1&1&1&1 & 1&1&1&1&1&1&1&1&1 \\
S_{34} & 0&0&0&0&0&0&0&0&0&0&0&0 & 1&1&1&1&1&1&1&1&1 & 0&0&0&1&1&1&1&1&1 & 1&1&1&1&1&1&1&1&1 \\
S_{35} & 0&0&0&0&0&0&0&0&0&0&0&0 & 1&1&1&1&1&1&1&1&1 & 1&1&1&1&1&1&1&1&1 & 1&1&1&1&1&1&1&1&1 \\
S_{36} & 0&0&0&0&0&0&0&0&0&0&0&0 & 1&1&1&0&0&0&1&1&1 & 1&1&1&1&1&1&1&1&1 & 1&1&1&1&1&1&1&1&1 \\
S_{37} & 0&0&0&0&0&0&0&0&0&0&0&0 & 1&1&1&1&1&1&1&1&1 & 1&1&1&1&1&1&1&1&1 & 1&1&1&1&1&1&1&1&1 \\
S_{38} & 0&0&0&0&0&0&0&0&0&0&0&0 & 1&1&1&1&1&1&1&1&1 & 1&1&1&1&1&1&1&1&1 & 1&1&1&1&1&1&1&1&1 \\
S_{39} & 0&0&0&0&0&0&0&0&0&0&0&0 & 1&1&1&1&1&1&0&0&0 & 1&1&1&1&1&1&1&1&1 & 1&1&1&1&1&1&1&1&1 \\
S_{40} & 0&0&0&0&0&0&0&0&0&0&0&0 & 1&1&1&1&1&1&1&1&1 & 1&1&1&1&1&1&0&0&0 & 1&1&1&1&1&1&1&1&1
\end{array}$$

$$SI=\begin{array}{c|ccccccccccccccccccccccccccccccccccccccc}
 & \bar{\bar{y}}_1 & S_3 & S_4 & S_5 & S_6 & S_7 & S_8 & S_9 & S_{10} & S_{11} & S_{12} & S_{13} & S_{14} & S_{15} & S_{16} & S_{17} & S_{18} & S_{19} & S_{20} & S_{21} & S_{22} & S_{23} & S_{24} & S_{25} & S_{26} & S_{27} & S_{28} & S_{29} & S_{30} & S_{31} & S_{32} & S_{33} & S_{34} & S_{35} & S_{36} & S_{37} & S_{38} & S_{39} & S_{40} \\
\hline
\bar{\bar{y}}_1 & 1&0&1&1&1&1&1&1&0&1&1&0 & 1&1&1&1&1&1&1&1&1 & 1&1&1&1&1&1&1&1&1 & 0&0&0&0&0&0&0&0&0 \\
S_3 & 0&1&1&1&1&1&1&1&0&1&1&0 & 1&1&1&1&1&1&1&1&1 & 1&1&1&1&1&1&1&1&1 & 0&0&0&0&0&0&0&0&0 \\
S_4 & 1&1&1&1&0&1&1&1&1&0&1&0 & 1&1&1&1&1&1&1&1&1 & 1&1&1&1&1&1&1&1&1 & 0&0&0&0&0&0&0&0&0 \\
S_5 & 1&1&1&1&0&1&1&1&1&0&1&0 & 1&1&1&1&1&1&1&1&1 & 1&1&1&1&1&1&1&1&1 & 0&0&0&0&0&0&0&0&0 \\
S_6 & 1&1&0&0&1&1&1&1&1&0&1&0 & 1&1&1&1&1&1&1&1&1 & 1&1&1&1&1&1&1&1&1 & 0&0&0&0&0&0&0&0&0 \\
S_7 & 1&1&1&1&1&1&1&0&1&1&0&0 & 1&1&1&1&1&1&1&1&1 & 1&1&1&1&1&1&1&1&1 & 0&0&0&0&0&0&0&0&0 \\
S_8 & 1&1&1&1&1&1&1&0&1&1&0&0 & 1&1&1&1&1&1&1&1&1 & 1&1&1&1&1&1&1&1&1 & 0&0&0&0&0&0&0&0&0 \\
S_9 & 1&1&1&1&1&0&0&1&1&1&0&0 & 1&1&1&1&1&1&1&1&1 & 1&1&1&1&1&1&1&1&1 & 0&0&0&0&0&0&0&0&0 \\
S_{10} & 0&0&1&1&1&1&1&1&1&1&1&0 & 1&1&1&1&1&1&1&1&1 & 1&1&1&1&1&1&1&1&1 & 0&0&0&0&0&0&0&0&0 \\
S_{11} & 1&1&0&0&0&1&1&1&1&1&1&0 & 1&1&1&1&1&1&1&1&1 & 1&1&1&1&1&1&1&1&1 & 0&0&0&0&0&0&0&0&0 \\
S_{12} & 1&1&1&1&1&0&0&0&1&1&1&0 & 1&1&1&1&1&1&1&1&1 & 1&1&1&1&1&1&1&1&1 & 0&0&0&0&0&0&0&0&0 \\
S_{13} & 0&0&0&0&0&0&0&0&0&0&0&1 & 1&1&1&1&1&1&1&1&1 & 1&1&1&1&1&1&1&1&1 & 0&0&0&0&0&0&0&0&0 \\
S_{14} & 1&1&1&1&1&1&1&1&1&1&1&1 & 1&1&0&1&1&1&1&1&1 & 1&1&1&1&1&1&1&1&1 & 1&0&1&1&1&1&1&1&1 \\
S_{15} & 1&1&1&1&1&1&1&1&1&1&1&1 & 1&1&0&1&1&1&1&1&1 & 1&1&1&1&1&1&1&1&1 & 1&0&1&1&1&1&1&1&1 \\
S_{16} & 1&1&1&1&1&1&1&1&1&1&1&1 & 0&0&1&1&1&1&1&1&1 & 1&1&1&1&1&1&1&1&1 & 1&0&1&1&1&1&1&1&1 \\
S_{17} & 1&1&1&1&1&1&1&1&1&1&1&1 & 1&1&1&1&1&0&0&1&0 & 1&1&1&1&1&1&1&1&1 & 1&1&1&1&0&1&1&1&1 \\
S_{18} & 1&1&1&1&1&1&1&1&1&1&1&1 & 1&1&1&1&1&0&1&1&1 & 1&1&1&1&1&1&1&1&1 & 1&1&1&1&0&1&1&1&1 \\
S_{19} & 1&1&1&1&1&1&1&1&1&1&1&1 & 1&1&1&0&0&1&0&1&1 & 1&1&1&1&1&1&1&1&1 & 1&1&1&1&0&1&1&1&1 \\
S_{20} & 1&1&1&1&1&1&1&1&1&1&1&1 & 1&1&1&0&1&0&1&1&0 & 1&1&1&1&1&1&1&1&1 & 1&1&1&1&1&1&1&0&1 \\
S_{21} & 1&1&1&1&1&1&1&1&1&1&1&1 & 1&1&1&1&1&1&1&1&0 & 1&1&1&1&1&1&1&1&1 & 1&1&1&1&1&1&1&0&1 \\
S_{22} & 1&1&1&1&1&1&1&1&1&1&1&1 & 1&1&1&0&1&1&0&0&1 & 1&1&1&1&1&1&1&1&1 & 1&1&1&1&1&1&1&0&1 \\
S_{23} & 1&1&1&1&1&1&1&1&1&1&1&1 & 1&1&1&1&1&1&1&1&1 & 1&1&0&1&1&1&1&1&1 & 1&1&0&1&1&1&1&1&1 \\
S_{24} & 1&1&1&1&1&1&1&1&1&1&1&1 & 1&1&1&1&1&1&1&1&1 & 1&1&0&1&1&1&1&1&1 & 1&1&0&1&1&1&1&1&1 \\
S_{25} & 1&1&1&1&1&1&1&1&1&1&1&1 & 1&1&1&1&1&1&1&1&1 & 0&0&1&1&1&1&1&1&1 & 1&1&0&1&1&1&1&1&1 \\
S_{26} & 1&1&1&1&1&1&1&1&1&1&1&1 & 1&1&1&1&1&1&1&1&1 & 1&1&1&1&1&0&1&1&1 & 1&1&1&1&1&1&1&1&1 \\
S_{27} & 1&1&1&1&1&1&1&1&1&1&1&1 & 1&1&1&1&1&1&1&1&1 & 1&1&1&1&1&0&1&1&1 & 1&1&1&1&1&1&1&1&1 \\
S_{28} & 1&1&1&1&1&1&1&1&1&1&1&1 & 1&1&1&1&1&1&1&1&1 & 1&1&1&0&0&1&1&1&1 & 1&1&1&1&1&1&1&1&1 \\
S_{29} & 1&1&1&1&1&1&1&1&1&1&1&1 & 1&1&1&1&1&1&1&1&1 & 1&1&1&1&1&1&1&1&0 & 1&1&1&1&1&1&1&1&0 \\
S_{30} & 1&1&1&1&1&1&1&1&1&1&1&1 & 1&1&1&1&1&1&1&1&1 & 1&1&1&1&1&1&1&1&0 & 1&1&1&1&1&1&1&1&0 \\
S_{31} & 1&1&1&1&1&1&1&1&1&1&1&1 & 1&1&1&1&1&1&1&1&1 & 1&1&1&1&1&1&0&0&1 & 1&1&1&1&1&1&1&1&0 \\
S_{32} & 0&0&0&0&0&0&0&0&0&0&0&0 & 1&1&1&1&1&1&1&1&1 & 1&1&1&1&1&1&1&1&1 & 1&1&1&1&1&1&1&1&1 \\
S_{33} & 0&0&0&0&0&0&0&0&0&0&0&0 & 0&0&0&1&1&1&1&1&1 & 1&1&1&1&1&1&1&1&1 & 1&1&1&1&1&1&1&1&1 \\
S_{34} & 0&0&0&0&0&0&0&0&0&0&0&0 & 1&1&1&1&1&1&1&1&1 & 0&0&0&1&1&1&1&1&1 & 1&1&1&1&1&1&1&1&1 \\
S_{35} & 0&0&0&0&0&0&0&0&0&0&0&0 & 1&1&1&1&1&1&1&1&1 & 1&1&1&1&1&1&1&1&1 & 1&1&1&1&1&1&1&1&1 \\
S_{36} & 0&0&0&0&0&0&0&0&0&0&0&0 & 1&1&1&0&0&0&1&1&1 & 1&1&1&1&1&1&1&1&1 & 1&1&1&1&1&1&1&1&1 \\
S_{37} & 0&0&0&0&0&0&0&0&0&0&0&0 & 1&1&1&1&1&1&1&1&1 & 1&1&1&1&1&1&1&1&1 & 1&1&1&1&1&1&1&1&1 \\
S_{38} & 0&0&0&0&0&0&0&0&0&0&0&0 & 1&1&1&1&1&1&1&1&1 & 1&1&1&1&1&1&1&1&1 & 1&1&1&1&1&1&1&1&1 \\
S_{39} & 0&0&0&0&0&0&0&0&0&0&0&0 & 1&1&1&1&1&1&0&0&0 & 1&1&1&1&1&1&1&1&1 & 1&1&1&1&1&1&1&1&1 \\
S_{40} & 0&0&0&0&0&0&0&0&0&0&0&0 & 1&1&1&1&1&1&1&1&1 & 1&1&1&1&1&1&0&0&0 & 1&1&1&1&1&1&1&1&1
\end{array}$$

Проверка условия приводимости программы к ППФ (5 из 553):

1)$\bar{\bar{y}}_1 \not\twoheadrightarrow S_4$

2)S_3

$E(\bar{\bar{y}}_1) = \{S_3, S_{10}, S_{13}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$

$E(S_4) = \{S_6, S_{11}, S_{13}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$

$N_1(\bar{\bar{y}}_1, S_4) = \{S_{13}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$

$N_2(\bar{\bar{y}}_1, S_4) = \{S_3, S_{10}, S_6, S_{11}\}$

$E(S_3) = \{S_{10}, S_{13}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$

$S_3 \in N_2(\bar{\bar{y}}_1, S_4)$ – выполняется

$N_1(\bar{\bar{y}}_1, S_4) \subseteq E(S_3)$ – выполняется

выполняется

1)$\bar{\bar{y}}_1 \not\twoheadrightarrow S_5$

2)S_3

$E(\bar{\bar{y}}_1) = \{S_3, S_{10}, S_{13}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$

$E(S_5) = \{S_6, S_{11}, S_{13}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$

$N_1(\bar{\bar{y}}_1, S_5) = \{S_{13}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$

$N_2(\bar{\bar{y}}_1, S_5) = \{S_3, S_{10}, S_6, S_{11}\}$

$E(S_3) = \{S_{10}, S_{13}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$

$S_3 \in N_2(\bar{\bar{y}}_1, S_5)$ − выполняется
$N_1(\bar{\bar{y}}_1, S_5) \subseteq E(S_3)$ − выполняется
выполняется

1) $\bar{\bar{y}}_1 \nrightarrow S_6$
2) S_3
$E(\bar{\bar{y}}_1) = \{S_3, S_{10}, S_{13}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$
$E(S_6) = \{S_{11}, S_{13}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$
$N_1(\bar{\bar{y}}_1, S_6) = \{S_{13}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$
$N_2(\bar{\bar{y}}_1, S_6) = \{S_3, S_{10}, S_{11}\}$
$E(S_3) = \{S_{10}, S_{13}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$
$S_3 \in N_2(\bar{\bar{y}}_1, S_6)$ − выполняется
$N_1(\bar{\bar{y}}_1, S_6) \subseteq E(S_3)$ − выполняется
выполняется

1) $\bar{\bar{y}}_1 \nrightarrow S_7$
2) S_3
$E(\bar{\bar{y}}_1) = \{S_3, S_{10}, S_{13}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$
$E(S_7) = \{S_9, S_{12}, S_{13}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$
$N_1(\bar{\bar{y}}_1, S_7) = \{S_{13}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$
$N_2(\bar{\bar{y}}_1, S_7) = \{S_3, S_{10}, S_9, S_{12}\}$
$E(S_3) = \{S_{10}, S_{13}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$
$S_3 \in N_2(\bar{\bar{y}}_1, S_7)$ − выполняется
$N_1(\bar{\bar{y}}_1, S_7) \subseteq E(S_3)$ − выполняется
выполняется

1) $\bar{\bar{y}}_1 \nrightarrow S_8$
2) S_3
$E(\bar{\bar{y}}_1) = \{S_3, S_{10}, S_{13}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$
$E(S_8) = \{S_9, S_{12}, S_{13}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$
$N_1(\bar{\bar{y}}_1, S_8) = \{S_{13}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$
$N_2(\bar{\bar{y}}_1, S_8) = \{S_3, S_{10}, S_9, S_{12}\}$
$E(S_3) = \{S_{10}, S_{13}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$
$S_3 \in N_2(\bar{\bar{y}}_1, S_8)$ − выполняется
$N_1(\bar{\bar{y}}_1, S_8) \subseteq E(S_3)$ − выполняется
выполняется
На текущей итерации был выделен паралллельный групповой оператор $\bar{\bar{y}}_2 = \{S_3, S_4, S_5\}$

Итерация №3

Отношения между операторами:

SD =

	$\bar{y}_1$	$\bar{y}_2$	S_6	S_7	S_8	S_9	S_{10}	S_{11}	S_{12}	S_{13}	S_{14}	S_{15}	S_{16}	S_{17}	S_{18}	S_{19}	S_{20}	S_{21}	S_{22}	S_{23}	S_{24}	S_{25}	S_{26}	S_{27}	S_{28}	S_{29}	S_{30}	S_{31}	S_{32}	S_{33}	S_{34}	S_{35}	S_{36}	S_{37}	S_{38}	S_{39}	S_{40}
$\bar{y}_1$	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
$\bar{y}_2$	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
S_6	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0
S_7	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_8	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_9	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
S_{10}	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{11}	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{12}	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{13}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1
S_{14}	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{15}	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{16}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
S_{17}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{18}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{19}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
S_{20}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{21}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
S_{22}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{23}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{24}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{25}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
S_{26}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
S_{27}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
S_{28}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
S_{29}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
S_{30}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
S_{31}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
S_{32}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{33}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{34}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{35}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{36}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{37}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{38}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{39}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{40}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

WD =

	$\bar{y}_1$	$\bar{y}_2$	S_6	S_7	S_8	S_9	S_{10}	S_{11}	S_{12}	S_{13}	S_{14}	S_{15}	S_{16}	S_{17}	S_{18}	S_{19}	S_{20}	S_{21}	S_{22}	S_{23}	S_{24}	S_{25}	S_{26}	S_{27}	S_{28}	S_{29}	S_{30}	S_{31}	S_{32}	S_{33}	S_{34}	S_{35}	S_{36}	S_{37}	S_{38}	S_{39}	S_{40}
$\bar{y}_1$	0	1	1	0	0	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1
$\bar{y}_2$	0	0	1	0	0	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1
S_6	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1
S_7	0	0	0	0	0	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1
S_8	0	0	0	0	0	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1
S_9	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1
S_{10}	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1
S_{11}	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1
S_{12}	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1
S_{13}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1
S_{14}	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
S_{15}	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
S_{16}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
S_{17}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
S_{18}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
S_{19}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
S_{20}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
S_{21}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
S_{22}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
S_{23}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0
S_{24}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0
S_{25}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0
S_{26}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
S_{27}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
S_{28}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
S_{29}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
S_{30}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
S_{31}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
S_{32}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{33}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{34}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{35}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{36}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{37}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{38}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{39}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{40}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

$$C =$$

```
        ȳ̄₁ ȳ̄₂ S₆ S₇ S₈ S₉ S₁₀ S₁₁ S₁₂ S₁₃ S₁₄ S₁₅ S₁₆ S₁₇ S₁₈ S₁₉ S₂₀ S₂₁ S₂₂ S₂₃ S₂₄ S₂₅ S₂₆ S₂₇ S₂₈ S₂₉ S₃₀ S₃₁ S₃₂ S₃₃ S₃₄ S₃₅ S₃₆ S₃₇ S₃₈ S₃₉ S₄₀
ȳ̄₁  [ 1  0  0  1  1  1  0  0  1  0  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  0  0  0  0  0  0  0  0  0 ]
ȳ̄₂    0  1  0  1  1  1  0  1  0  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  0  0  0  0  0  0  0  0  0
S₆     0  0  1  1  1  1  1  0  1  0  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  0  0  0  0  0  0  0  0  0
S₇     1  1  1  1  0  0  1  0  1  0  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  0  0  0  0  0  0  0  0  0
S₈     1  1  1  1  1  0  1  0  1  0  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  0  0  0  0  0  0  0  0  0
S₉     1  1  1  0  0  1  1  0  1  0  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  0  0  0  0  0  0  0  0  0
S₁₀    0  0  1  1  1  1  1  0  1  0  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  0  0  0  0  0  0  0  0  0
S₁₁    0  0  0  1  1  1  1  1  1  0  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  0  0  0  0  0  0  0  0  0
S₁₂    1  1  1  0  0  0  1  0  1  0  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  0  0  0  0  0  0  0  0  0
S₁₃    0  0  0  0  0  0  0  0  0  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  0  0  0  0  0  0  0  0  0
S₁₄    1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  0  1  1  1  1  1  1  1
S₁₅    1  1  1  1  1  1  1  1  1  1  1  1  0  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  0  1  1  1  1  1  1  1
S₁₆    1  1  1  1  1  1  1  1  1  1  1  1  0  0  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  0  1  1  1  1  1  1  1
S₁₇    1  1  1  1  1  1  1  1  1  1  1  1  1  1  0  1  1  0  1  1  1  1  1  1  1  1  1  1  1  0  1  1  0  1  1  1  1
S₁₈    1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  0  1  1  0  1  1  1  1  1  1  1  1  1  1  0  1  1  0  1  1  1  1
S₁₉    1  1  1  1  1  1  1  1  1  1  1  1  1  0  0  1  0  1  1  1  1  1  1  1  1  1  1  1  1  0  1  1  0  1  1  1  1
S₂₀    1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  0  1  1  0  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  0  1
S₂₁    1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  0  1  1  0  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  0  1
S₂₂    1  1  1  1  1  1  1  1  1  1  1  1  1  0  1  1  0  0  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  0  1
S₂₃    1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  0  1  0  1  1  1  1  1  1  1  0  1  1  1  1  1  1  1
S₂₄    1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  0  1  1  1  1  1  1  1  1  0  1  1  1  1  1  1  1
S₂₅    1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  0  0  1  1  1  1  1  1  1  1  0  1  1  1  1  1  1  1
S₂₆    1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  0  1  1  1  1  1  1  0  1  1  1  1  1  1  1
S₂₇    1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  0  1  1  0  1  1  1  1  1  0  1  1  1  1  1  1  1
S₂₈    1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  0  0  1  1  1  1  1  1  1  1  1  1  1  0
S₂₉    1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  0  1  1  1  1  0  1  1  1  1  1  1  0
S₃₀    1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  0  0  1  1  1  1  1  1  1  1  1  1  0
S₃₁    1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  0  0  1  1  1  1  1  1  1  1  1  1  0
S₃₂    0  0  0  0  0  0  0  0  0  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1
S₃₃    0  0  0  0  0  0  0  0  0  1  1  1  0  0  0  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1
S₃₄    0  0  0  0  0  0  0  0  0  1  1  1  1  1  1  1  1  0  0  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1
S₃₅    0  0  0  0  0  0  0  0  0  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1
S₃₆    0  0  0  0  0  0  0  0  0  1  1  1  1  0  0  0  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1
S₃₇    0  0  0  0  0  0  0  0  0  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1
S₃₈    0  0  0  0  0  0  0  0  0  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1
S₃₉    0  0  0  0  0  0  0  0  0  1  1  1  1  1  1  1  1  1  0  0  0  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1
S₄₀    0  0  0  0  0  0  0  0  0  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  0  0  0  1  1  1  1  1  1  1  1  1  1
```

$$SI =$$

```
        ȳ̄₁ ȳ̄₂ S₆ S₇ S₈ S₉ S₁₀ S₁₁ S₁₂ S₁₃ S₁₄ S₁₅ S₁₆ S₁₇ S₁₈ S₁₉ S₂₀ S₂₁ S₂₂ S₂₃ S₂₄ S₂₅ S₂₆ S₂₇ S₂₈ S₂₉ S₃₀ S₃₁ S₃₂ S₃₃ S₃₄ S₃₅ S₃₆ S₃₇ S₃₈ S₃₉ S₄₀
ȳ̄₁  [ 1  0  0  1  1  1  0  0  1  0  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  0  0  0  0  0  0  0  0  0 ]
ȳ̄₂    0  1  0  1  1  1  0  1  0  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  0  0  0  0  0  0  0  0  0
S₆     0  0  1  1  1  1  1  0  1  0  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  0  0  0  0  0  0  0  0  0
S₇     1  1  1  1  0  0  1  0  1  0  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  0  0  0  0  0  0  0  0  0
S₈     1  1  1  1  1  0  1  0  1  0  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  0  0  0  0  0  0  0  0  0
S₉     1  1  1  0  0  1  1  0  1  0  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  0  0  0  0  0  0  0  0  0
S₁₀    0  0  1  1  1  1  1  0  1  0  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  0  0  0  0  0  0  0  0  0
S₁₁    0  0  0  1  1  1  1  1  1  0  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  0  0  0  0  0  0  0  0  0
S₁₂    1  1  1  0  0  0  1  0  1  0  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  0  0  0  0  0  0  0  0  0
S₁₃    0  0  0  0  0  0  0  0  0  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  0  0  0  0  0  0  0  0  0
S₁₄    1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  0  1  1  1  1  1  1  1
S₁₅    1  1  1  1  1  1  1  1  1  1  1  1  0  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  0  1  1  1  1  1  1  1
S₁₆    1  1  1  1  1  1  1  1  1  1  1  1  0  0  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  0  1  1  1  1  1  1  1
S₁₇    1  1  1  1  1  1  1  1  1  1  1  1  1  1  0  1  1  0  1  1  1  1  1  1  1  1  1  1  1  0  1  1  0  1  1  1  1
S₁₈    1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  0  1  1  0  1  1  1  1  1  1  1  1  1  1  0  1  1  0  1  1  1  1
S₁₉    1  1  1  1  1  1  1  1  1  1  1  1  1  0  0  1  0  1  1  1  1  1  1  1  1  1  1  1  1  0  1  1  0  1  1  1  1
S₂₀    1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  0  1  1  0  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  0  1
S₂₁    1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  0  1  1  0  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  0  1
S₂₂    1  1  1  1  1  1  1  1  1  1  1  1  1  0  1  1  0  0  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  0  1
S₂₃    1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  0  1  0  1  1  1  1  1  1  1  0  1  1  1  1  1  1  1
S₂₄    1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  0  1  1  1  1  1  1  1  1  0  1  1  1  1  1  1  1
S₂₅    1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  0  0  1  1  1  1  1  1  1  1  0  1  1  1  1  1  1  1
S₂₆    1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  0  1  1  1  1  1  1  0  1  1  1  1  1  1  1
S₂₇    1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  0  1  1  0  1  1  1  1  1  0  1  1  1  1  1  1  1
S₂₈    1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  0  0  1  1  1  1  1  1  1  1  1  1  1  0
S₂₉    1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  0  1  1  1  1  0  1  1  1  1  1  1  0
S₃₀    1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  0  0  1  1  1  1  1  1  1  1  1  1  0
S₃₁    1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  0  0  1  1  1  1  1  1  1  1  1  1  0
S₃₂    0  0  0  0  0  0  0  0  0  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1
S₃₃    0  0  0  0  0  0  0  0  0  1  1  1  0  0  0  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1
S₃₄    0  0  0  0  0  0  0  0  0  1  1  1  1  1  1  1  1  0  0  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1
S₃₅    0  0  0  0  0  0  0  0  0  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1
S₃₆    0  0  0  0  0  0  0  0  0  1  1  1  1  0  0  0  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1
S₃₇    0  0  0  0  0  0  0  0  0  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1
S₃₈    0  0  0  0  0  0  0  0  0  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1
S₃₉    0  0  0  0  0  0  0  0  0  1  1  1  1  1  1  1  1  1  0  0  0  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1
S₄₀    0  0  0  0  0  0  0  0  0  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  0  0  0  1  1  1  1  1  1  1  1  1  1
```

Проверка условия приводимости программы к ППФ (5 из 500):

1) $\bar{\bar{y}}_1 \nrightarrow S_7$

2) $\bar{\bar{y}}_2$

$E(\bar{\bar{y}}_1) = \{\bar{\bar{y}}_2, S_6, S_{10}, S_{11}, S_{13}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$

$E(S_7) = \{S_9, S_{12}, S_{13}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$

$N_1(\bar{\bar{y}}_1, S_7) = \{S_{13}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$

$N_2(\bar{\bar{y}}_1, S_7) = \{\bar{\bar{y}}_2, S_6, S_{10}, S_{11}, S_9, S_{12}\}$

$E(\bar{\bar{y}}_2) = \{S_6, S_{10}, S_{11}, S_{13}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$

$\bar{\bar{y}}_2 \in N_2(\bar{\bar{y}}_1, S_7)$ − выполняется

$N_1(\bar{\bar{y}}_1, S_7) \subseteq E(\bar{\bar{y}}_2)$ − выполняется

выполняется

1) $\bar{\bar{y}}_1 \nrightarrow S_8$

2) $\bar{\bar{y}}_2$

$E(\bar{\bar{y}}_1) = \{\bar{\bar{y}}_2, S_6, S_{10}, S_{11}, S_{13}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$

$E(S_8) = \{S_9, S_{12}, S_{13}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$

$N_1(\bar{\bar{y}}_1, S_8) = \{S_{13}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$

$N_2(\bar{\bar{y}}_1, S_8) = \{\bar{\bar{y}}_2, S_6, S_{10}, S_{11}, S_9, S_{12}\}$

$E(\bar{\bar{y}}_2) = \{S_6, S_{10}, S_{11}, S_{13}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$

$\bar{\bar{y}}_2 \in N_2(\bar{\bar{y}}_1, S_8)$ − выполняется

$N_1(\bar{\bar{y}}_1, S_8) \subseteq E(\bar{\bar{y}}_2)$ − выполняется

выполняется

1)$\bar{\bar{y}}_1 \nrightarrow S_9$
2)$\bar{\bar{y}}_2$
$E(\bar{\bar{y}}_1) = \{\bar{\bar{y}}_2, S_6, S_{10}, S_{11}, S_{13}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$
$E(S_9) = \{S_{12}, S_{13}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$
$N_1(\bar{\bar{y}}_1, S_9) = \{S_{13}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$
$N_2(\bar{\bar{y}}_1, S_9) = \{\bar{\bar{y}}_2, S_6, S_{10}, S_{11}, S_{12}\}$
$E(\bar{\bar{y}}_2) = \{S_6, S_{10}, S_{11}, S_{13}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$
$\bar{\bar{y}}_2 \in N_2(\bar{\bar{y}}_1, S_9) -$ выполняется
$N_1(\bar{\bar{y}}_1, S_9) \subseteq E(\bar{\bar{y}}_2) -$ выполняется
выполняется

1)$\bar{\bar{y}}_1 \nrightarrow S_{12}$
2)$\bar{\bar{y}}_2$
$E(\bar{\bar{y}}_1) = \{\bar{\bar{y}}_2, S_6, S_{10}, S_{11}, S_{13}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$
$E(S_{12}) = \{S_{13}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$
$N_1(\bar{\bar{y}}_1, S_{12}) = \{S_{13}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$
$N_2(\bar{\bar{y}}_1, S_{12}) = \{\bar{\bar{y}}_2, S_6, S_{10}, S_{11}\}$
$E(\bar{\bar{y}}_2) = \{S_6, S_{10}, S_{11}, S_{13}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$
$\bar{\bar{y}}_2 \in N_2(\bar{\bar{y}}_1, S_{12}) -$ выполняется
$N_1(\bar{\bar{y}}_1, S_{12}) \subseteq E(\bar{\bar{y}}_2) -$ выполняется
выполняется

1)$\bar{\bar{y}}_1 \nrightarrow S_{14}$
2)$\bar{\bar{y}}_2$
$E(\bar{\bar{y}}_1) = \{\bar{\bar{y}}_2, S_6, S_{10}, S_{11}, S_{13}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$
$E(S_{14}) = \{S_{16}, S_{33}\}$
$N_1(\bar{\bar{y}}_1, S_{14}) = \{S_{33}\}$
$N_2(\bar{\bar{y}}_1, S_{14}) = \{\bar{\bar{y}}_2, S_6, S_{10}, S_{11}, S_{13}, S_{32}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}, S_{16}\}$
$E(\bar{\bar{y}}_2) = \{S_6, S_{10}, S_{11}, S_{13}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$
$\bar{\bar{y}}_2 \in N_2(\bar{\bar{y}}_1, S_{14}) -$ выполняется
$N_1(\bar{\bar{y}}_1, S_{14}) \subseteq E(\bar{\bar{y}}_2) -$ выполняется
выполняется
На текущей итерации был выделен паралллельный групповой оператор $\bar{\bar{y}}_3 = \{S_6, S_7, S_8\}$

Отношения между операторами:

$$SD =$$

	$\bar{y}_1$	$\bar{y}_2$	$\bar{y}_3$	S_9	S_{10}	S_{11}	S_{12}	S_{13}	S_{14}	S_{15}	S_{16}	S_{17}	S_{18}	S_{19}	S_{20}	S_{21}	S_{22}	S_{23}	S_{24}	S_{25}	S_{26}	S_{27}	S_{28}	S_{29}	S_{30}	S_{31}	S_{32}	S_{33}	S_{34}	S_{35}	S_{36}	S_{37}	S_{38}	S_{39}	S_{40}
$\bar{y}_1$	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
$\bar{y}_2$	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
$\bar{y}_3$	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0
S_9	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
S_{10}	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{11}	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{12}	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{13}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1
S_{14}	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{15}	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{16}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
S_{17}	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{18}	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{19}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
S_{20}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{21}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{22}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
S_{23}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{24}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{25}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
S_{26}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{27}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{28}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{29}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
S_{30}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
S_{31}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
S_{32}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{33}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{34}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{35}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{36}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{37}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{38}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{39}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{40}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

$$WD =$$

	$\bar{y}_1$	$\bar{y}_2$	$\bar{y}_3$	S_9	S_{10}	S_{11}	S_{12}	S_{13}	S_{14}	S_{15}	S_{16}	S_{17}	S_{18}	S_{19}	S_{20}	S_{21}	S_{22}	S_{23}	S_{24}	S_{25}	S_{26}	S_{27}	S_{28}	S_{29}	S_{30}	S_{31}	S_{32}	S_{33}	S_{34}	S_{35}	S_{36}	S_{37}	S_{38}	S_{39}	S_{40}
$\bar{y}_1$	0	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1
$\bar{y}_2$	0	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1
$\bar{y}_3$	0	0	0	1	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1
S_9	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1
S_{10}	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1
S_{11}	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1
S_{12}	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1
S_{13}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1
S_{14}	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
S_{15}	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
S_{16}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
S_{17}	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
S_{18}	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
S_{19}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
S_{20}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
S_{21}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
S_{22}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
S_{23}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
S_{24}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
S_{25}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0
S_{26}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{27}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{28}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{29}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
S_{30}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
S_{31}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
S_{32}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{33}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{34}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{35}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{36}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{37}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{38}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{39}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{40}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

$$C =$$

	$\bar{y}_1$	$\bar{y}_2$	$\bar{y}_3$	S_9	S_{10}	S_{11}	S_{12}	S_{13}	S_{14}	S_{15}	S_{16}	S_{17}	S_{18}	S_{19}	S_{20}	S_{21}	S_{22}	S_{23}	S_{24}	S_{25}	S_{26}	S_{27}	S_{28}	S_{29}	S_{30}	S_{31}	S_{32}	S_{33}	S_{34}	S_{35}	S_{36}	S_{37}	S_{38}	S_{39}	S_{40}
$\bar{y}_1$	1	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0
$\bar{y}_2$	0	1	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0
$\bar{y}_3$	0	0	1	0	1	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0
S_9	0	0	0	1	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0
S_{10}	0	0	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0
S_{11}	0	0	0	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0
S_{12}	0	0	0	0	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0
S_{13}	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0
S_{14}	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1
S_{15}	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1
S_{16}	1	1	1	1	1	1	1	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1
S_{17}	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	0	1	1	1	1	1	1	1	1	1	1	0	1	1	0	1	1	1	1	1
S_{18}	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	0	1	1	1	1
S_{19}	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	0	1	1	1	1	1	1	1	1	1	1	0	1	1	0	1	1	1	1	1
S_{20}	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	0	1
S_{21}	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	0	1
S_{22}	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	0	0	1	1	0	1	1	1	1	1	1	0	1	1	1	1	1	1	0	1
S_{23}	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	0	1	1	1	1	1	1	1	0	1	0	1	1	1	1	1	1
S_{24}	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	0	1	1	1	1	1	1	1	0	1	0	1	1	1	1	1	1
S_{25}	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	1	1	1	0	1	0	1	1	0	1	1	1	1	1
S_{26}	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	0	1	1	1	1	1	1	1	1
S_{27}	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	0	1	1	1	1	1	1	1	1
S_{28}	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	1	0	1	1	1	1	1	1	1	1
S_{29}	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	0	1	1	1	1	1	1	1	0
S_{30}	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	0	1	1	1	1	1	1	1	0
S_{31}	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	1	1	1	1	1	1	0
S_{32}	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1
S_{33}	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1
S_{34}	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	1	1	0	1	1	1	1	1	1	1	1
S_{35}	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1
S_{36}	0	0	0	0	0	0	0	0	1	1	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1
S_{37}	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1
S_{38}	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1
S_{39}	0	0	0	0	0	0	0	0	1	1	1	1	1	1	0	0	0	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1
S_{40}	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	1	1	1	1	1	1	1	1	1

$$SI =$$

	$\bar{\bar{y}}_1$	$\bar{\bar{y}}_2$	$\bar{\bar{y}}_3$	S_9	S_{10}	S_{11}	S_{12}	S_{13}	S_{14}	S_{15}	S_{16}	S_{17}	S_{18}	S_{19}	S_{20}	S_{21}	S_{22}	S_{23}	S_{24}	S_{25}	S_{26}	S_{27}	S_{28}	S_{29}	S_{30}	S_{31}	S_{32}	S_{33}	S_{34}	S_{35}	S_{36}	S_{37}	S_{38}	S_{39}	S_{40}
$\bar{\bar{y}}_1$	1	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0
$\bar{\bar{y}}_2$	0	1	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0
$\bar{\bar{y}}_3$	0	0	1	0	1	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0
S_9	0	0	1	1	1	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0
S_{10}	0	0	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0
S_{11}	0	0	0	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0
S_{12}	0	0	0	0	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0
S_{13}	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0
S_{14}	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1
S_{15}	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1
S_{16}	1	1	1	1	1	1	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1
S_{17}	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1
S_{18}	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1
S_{19}	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1
S_{20}	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1
S_{21}	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1
S_{22}	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	0	1	1	1	0	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1
S_{23}	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	0	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1
S_{24}	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	0	1	1	1	1	1	1	1	0	1	1	1	1	1
S_{25}	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	0	1	1	1	1	1	1	1	0	1	1	1	1	1
S_{26}	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	0	1	1	1	1	1	1	1	0	1	1	1	1	1
S_{27}	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1
S_{28}	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1
S_{29}	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	0
S_{30}	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	0
S_{31}	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	1	1	1	1	1	1	1	0
S_{32}	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
S_{33}	0	0	0	0	0	0	0	0	1	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
S_{34}	0	0	0	0	0	0	0	0	1	1	1	1	1	0	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
S_{35}	0	0	0	0	0	0	0	0	1	1	1	1	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
S_{36}	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
S_{37}	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
S_{38}	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
S_{39}	0	0	0	0	0	0	0	0	1	1	1	1	1	1	0	0	0	1	1	1	1	1	1	1	0	0	1	1	1	1	1	1	1	1	1
S_{40}	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	1	1	1	1	1	1	1	1	1

Проверка условия приводимости программы к ППФ (5 из 449):

1) $\bar{\bar{y}}_1 \nrightarrow S_{14}$

2) $\bar{\bar{y}}_2$

$E(\bar{\bar{y}}_1) = \{\bar{\bar{y}}_2, \bar{\bar{y}}_3, S_9, S_{10}, S_{11}, S_{12}, S_{13}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$

$E(S_{14}) = \{S_{16}, S_{33}\}$

$N_1(\bar{\bar{y}}_1, S_{14}) = \{S_{33}\}$

$N_2(\bar{\bar{y}}_1, S_{14}) = \{\bar{\bar{y}}_2, \bar{\bar{y}}_3, S_9, S_{10}, S_{11}, S_{12}, S_{13}, S_{32}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}, S_{16}\}$

$E(\bar{\bar{y}}_2) = \{\bar{\bar{y}}_3, S_9, S_{10}, S_{11}, S_{12}, S_{13}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$

$\bar{\bar{y}}_2 \in N_2(\bar{\bar{y}}_1, S_{14})$ — выполняется

$N_1(\bar{\bar{y}}_1, S_{14}) \subseteq E(\bar{\bar{y}}_2)$ — выполняется

выполняется

1) $\bar{\bar{y}}_1 \nrightarrow S_{15}$

2) $\bar{\bar{y}}_2$

$E(\bar{\bar{y}}_1) = \{\bar{\bar{y}}_2, \bar{\bar{y}}_3, S_9, S_{10}, S_{11}, S_{12}, S_{13}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$

$E(S_{15}) = \{S_{16}, S_{33}\}$

$N_1(\bar{\bar{y}}_1, S_{15}) = \{S_{33}\}$

$N_2(\bar{\bar{y}}_1, S_{15}) = \{\bar{\bar{y}}_2, \bar{\bar{y}}_3, S_9, S_{10}, S_{11}, S_{12}, S_{13}, S_{32}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}, S_{16}\}$

$E(\bar{\bar{y}}_2) = \{\bar{\bar{y}}_3, S_9, S_{10}, S_{11}, S_{12}, S_{13}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$

$\bar{\bar{y}}_2 \in N_2(\bar{\bar{y}}_1, S_{15})$ — выполняется

$N_1(\bar{\bar{y}}_1, S_{15}) \subseteq E(\bar{\bar{y}}_2)$ — выполняется

выполняется

1) $\bar{\bar{y}}_1 \nrightarrow S_{16}$

2) $\bar{\bar{y}}_2$

$E(\bar{\bar{y}}_1) = \{\bar{\bar{y}}_2, \bar{\bar{y}}_3, S_9, S_{10}, S_{11}, S_{12}, S_{13}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$

$E(S_{16}) = \{S_{33}\}$

$N_1(\bar{\bar{y}}_1, S_{16}) = \{S_{33}\}$

$N_2(\bar{\bar{y}}_1, S_{16}) = \{\bar{\bar{y}}_2, \bar{\bar{y}}_3, S_9, S_{10}, S_{11}, S_{12}, S_{13}, S_{32}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$

$E(\bar{\bar{y}}_2) = \{\bar{\bar{y}}_3, S_9, S_{10}, S_{11}, S_{12}, S_{13}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$

$\bar{\bar{y}}_2 \in N_2(\bar{\bar{y}}_1, S_{16})$ — выполняется

$N_1(\bar{\bar{y}}_1, S_{16}) \subseteq E(\bar{\bar{y}}_2)$ — выполняется

выполняется

1) $\bar{\bar{y}}_1 \nrightarrow S_{17}$

2) $\bar{\bar{y}}_2$

$E(\bar{\bar{y}}_1) = \{\bar{\bar{y}}_2, \bar{\bar{y}}_3, S_9, S_{10}, S_{11}, S_{12}, S_{13}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$

$E(S_{17}) = \{S_{19}, S_{36}\}$

$N_1(\bar{\bar{y}}_1, S_{17}) = \{S_{36}\}$

$N_2(\bar{\bar{y}}_1, S_{17}) = \{\bar{\bar{y}}_2, \bar{\bar{y}}_3, S_9, S_{10}, S_{11}, S_{12}, S_{13}, S_{32}, S_{33}, S_{34}, S_{35}, S_{37}, S_{38}, S_{39}, S_{40}, S_{19}\}$

$E(\bar{\bar{y}}_2) = \{\bar{\bar{y}}_3, S_9, S_{10}, S_{11}, S_{12}, S_{13}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$

$\bar{\bar{y}}_2 \in N_2(\bar{\bar{y}}_1, S_{17}) -$ выполняется
$N_1(\bar{\bar{y}}_1, S_{17}) \subseteq E(\bar{\bar{y}}_2) -$ выполняется
выполняется

$1)\bar{\bar{y}}_1 \nrightarrow S_{18}$
$2)\bar{\bar{y}}_2$
$E(\bar{\bar{y}}_1) = \{\bar{\bar{y}}_2, \bar{\bar{y}}_3, S_9, S_{10}, S_{11}, S_{12}, S_{13}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$
$E(S_{18}) = \{S_{19}, S_{36}\}$
$N_1(\bar{\bar{y}}_1, S_{18}) = \{S_{36}\}$
$N_2(\bar{\bar{y}}_1, S_{18}) = \{\bar{\bar{y}}_2, \bar{\bar{y}}_3, S_9, S_{10}, S_{11}, S_{12}, S_{13}, S_{32}, S_{33}, S_{34}, S_{35}, S_{37}, S_{38}, S_{39}, S_{40}, S_{19}\}$
$E(\bar{\bar{y}}_2) = \{\bar{\bar{y}}_3, S_9, S_{10}, S_{11}, S_{12}, S_{13}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$
$\bar{\bar{y}}_2 \in N_2(\bar{\bar{y}}_1, S_{18}) -$ выполняется
$N_1(\bar{\bar{y}}_1, S_{18}) \subseteq E(\bar{\bar{y}}_2) -$ выполняется
выполняется
На текущей итерации был выделен паралллельный групповой оператор $\bar{\bar{y}}_4 = \{S_9, S_{10}, S_{11}\}$

Итерация №5

Отношения между операторами:

$$
SD = \begin{array}{c|ccccccccccccccccccccccccccccccccc}
 & \bar{y}_1 & \bar{y}_2 & \bar{y}_3 & \bar{y}_4 & S_{12} & S_{13} & S_{14} & S_{15} & S_{16} & S_{17} & S_{18} & S_{19} & S_{20} & S_{21} & S_{22} & S_{23} & S_{24} & S_{25} & S_{26} & S_{27} & S_{28} & S_{29} & S_{30} & S_{31} & S_{32} & S_{33} & S_{34} & S_{35} & S_{36} & S_{37} & S_{38} & S_{39} & S_{40} \\
\hline
\bar{y}_1 & 0&1&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0 \\
\bar{y}_2 & 0&0&1&1&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&0&0&0&0&0&0&0&0&0 \\
\bar{y}_3 & 0&0&0&1&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&0&1&0&0&0&0&0 \\
\bar{y}_4 & 0&0&0&0&1&1&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&0&0&0 \\
S_{12} & 0&0&0&0&0&1&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0 \\
S_{13} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&1&1&1&1&1&1&1&1 \\
S_{14} & 0&0&0&0&0&0&0&1&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0 \\
S_{15} & 0&0&0&0&0&0&0&0&1&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0 \\
S_{16} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&0&0&0&0&0&0&0&0 \\
S_{17} & 0&0&0&0&0&0&0&0&0&0&1&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0 \\
S_{18} & 0&0&0&0&0&0&0&0&0&0&0&1&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0 \\
S_{19} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&0&0&0&0 \\
S_{20} & 0&0&0&0&0&0&0&0&0&0&0&0&0&1&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0 \\
S_{21} & 0&0&0&0&0&0&0&0&0&0&0&0&0&1&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0 \\
S_{22} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&0 \\
S_{23} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0 \\
S_{24} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0 \\
S_{25} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&0&0&0&0&0&0&0&0 \\
S_{26} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&0&0&0&0&0&0&0&0&0&0&0&0&0&0 \\
S_{27} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&0&0&0&0&0&0&0&0&0&0&0&0&0 \\
S_{28} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0 \\
S_{29} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&0&0&0&0&0&0&0&0&0&0&0 \\
S_{30} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&0&0&0&0&0&0&0&0&0&0&0 \\
S_{31} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1 \\
S_{32} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0 \\
S_{33} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0 \\
S_{34} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0 \\
S_{35} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0 \\
S_{36} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0 \\
S_{37} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0 \\
S_{38} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0 \\
S_{39} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0 \\
S_{40} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0 \\
\end{array}
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WD = \begin{array}{c|ccccccccccccccccccccccccccccccccc}
 & \bar{y}_1 & \bar{y}_2 & \bar{y}_3 & \bar{y}_4 & S_{12} & S_{13} & S_{14} & S_{15} & S_{16} & S_{17} & S_{18} & S_{19} & S_{20} & S_{21} & S_{22} & S_{23} & S_{24} & S_{25} & S_{26} & S_{27} & S_{28} & S_{29} & S_{30} & S_{31} & S_{32} & S_{33} & S_{34} & S_{35} & S_{36} & S_{37} & S_{38} & S_{39} & S_{40} \\
\hline
\bar{y}_1 & 0&1&1&1&1&1&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&1&1&1&1&1&1&1&1 \\
\bar{y}_2 & 0&0&1&1&1&1&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&1&1&1&1&1&1&1&1 \\
\bar{y}_3 & 0&0&0&1&1&1&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&1&1&1&1&1&1&1&1 \\
\bar{y}_4 & 0&0&0&0&1&1&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&1&1&1&1&1&1&1&1 \\
S_{12} & 0&0&0&0&0&1&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&1&1&1&1&1&1&1&1 \\
S_{13} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&1&1&1&1&1&1&1&1 \\
S_{14} & 0&0&0&0&0&0&0&1&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&0&0&0&0&0&0&0 \\
S_{15} & 0&0&0&0&0&0&0&0&1&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&0&0&0&0&0&0&0 \\
S_{16} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&0&0&0&0&0&0&0 \\
S_{17} & 0&0&0&0&0&0&0&0&0&0&1&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&0&0&0&0&0 \\
S_{18} & 0&0&0&0&0&0&0&0&0&0&0&1&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&0&0&0&0&0 \\
S_{19} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&0&0&0&0&0 \\
S_{20} & 0&0&0&0&0&0&0&0&0&0&0&0&0&1&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&0 \\
S_{21} & 0&0&0&0&0&0&0&0&0&0&0&0&0&1&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&0 \\
S_{22} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&0 \\
S_{23} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&0&0&0&0&0&0&0&0&0&1&0&0&0&0&0&0&0 \\
S_{24} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&0&0&0&0&0&0&0&0&1&0&0&0&0&0&0&0 \\
S_{25} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&0&0&0&0&0&0&0 \\
S_{26} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&0&0&0&0&0&0&0&0&0&0&0&0&0&0 \\
S_{27} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&0&0&0&0&0&0&0&0&0&0&0&0&0 \\
S_{28} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0 \\
S_{29} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&0&0&0&0&0&0&0&1 \\
S_{30} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&0&0&0&0&0&0&0&1 \\
S_{31} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1 \\
S_{32} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0 \\
S_{33} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0 \\
S_{34} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0 \\
S_{35} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0 \\
S_{36} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0 \\
S_{37} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0 \\
S_{38} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0 \\
S_{39} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0 \\
S_{40} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0 \\
\end{array}
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C = \begin{array}{c|ccccccccccccccccccccccccccccccccc}
 & \bar{y}_1 & \bar{y}_2 & \bar{y}_3 & \bar{y}_4 & S_{12} & S_{13} & S_{14} & S_{15} & S_{16} & S_{17} & S_{18} & S_{19} & S_{20} & S_{21} & S_{22} & S_{23} & S_{24} & S_{25} & S_{26} & S_{27} & S_{28} & S_{29} & S_{30} & S_{31} & S_{32} & S_{33} & S_{34} & S_{35} & S_{36} & S_{37} & S_{38} & S_{39} & S_{40} \\
\hline
\bar{y}_1 & 1&0&0&0&0&0&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&0&0&0&0&0&0&0&0&0 \\
\bar{y}_2 & 0&1&0&0&0&0&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&0&0&0&0&0&0&0&0&0 \\
\bar{y}_3 & 0&0&1&0&0&0&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&0&0&0&0&0&0&0&0&0 \\
\bar{y}_4 & 0&0&0&1&0&0&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&0&0&0&0&0&0&0&0&0 \\
S_{12} & 0&0&0&0&1&0&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&0&0&0&0&0&0&0&0&0 \\
S_{13} & 0&0&0&0&0&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&0&0&0&0&0&0&0&0&0 \\
S_{14} & 1&1&1&1&1&1&1&1&0&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&0&1&1&1&1&1&1&1&1 \\
S_{15} & 1&1&1&1&1&1&1&1&0&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&0&1&1&1&1&1&1&1&1 \\
S_{16} & 1&1&1&1&1&1&0&0&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&0&1&1&1&1&1&1&1&1 \\
S_{17} & 1&1&1&1&1&1&1&1&1&1&0&1&1&0&1&1&1&1&1&1&1&1&1&1&1&1&1&0&1&1&1&1&1 \\
S_{18} & 1&1&1&1&1&1&1&1&1&1&1&0&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&0&1&1&1&1&1 \\
S_{19} & 1&1&1&1&1&1&1&1&1&1&0&0&1&0&1&1&1&1&1&1&1&1&1&1&1&1&1&0&1&1&1&1&1 \\
S_{20} & 1&1&1&1&1&1&1&1&1&1&1&1&0&1&1&0&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&0&1 \\
S_{21} & 1&1&1&1&1&1&1&1&1&1&1&1&0&1&1&0&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&0&1 \\
S_{22} & 1&1&1&1&1&1&1&1&1&1&0&1&1&0&0&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&0&1 \\
S_{23} & 1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&0&1&1&1&1&1&1&1&1&1&1&0&1&1&1&1&1&1 \\
S_{24} & 1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&0&1&1&1&1&1&1&1&1&1&0&1&1&1&1&1&1 \\
S_{25} & 1&1&1&1&1&1&1&1&1&1&1&1&1&1&0&0&0&1&1&1&1&1&1&1&1&1&0&1&1&1&1&1&1 \\
S_{26} & 1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&0&1&1&1&1&1&1&1&1&1&1&1&1&1&1 \\
S_{27} & 1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&0&1&1&1&1&1&1&1&1&1&1&1&1&1 \\
S_{28} & 1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&0&0&1&1&1&1&1&1&1&1&1&1&1 \\
S_{29} & 1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&0&1&1&1&1&1&1&1&1&1&0 \\
S_{30} & 1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&0&1&1&1&1&1&1&1&1&1&0 \\
S_{31} & 1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&0&0&1&1&1&1&1&1&1&1&0 \\
S_{32} & 0&0&0&0&0&0&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1 \\
S_{33} & 0&0&0&0&0&0&0&0&0&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1 \\
S_{34} & 0&0&0&0&0&0&1&1&1&1&1&1&1&1&0&0&0&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1 \\
S_{35} & 0&0&0&0&0&0&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1 \\
S_{36} & 0&0&0&0&0&0&1&1&1&0&0&0&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1 \\
S_{37} & 0&0&0&0&0&0&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1 \\
S_{38} & 0&0&0&0&0&0&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1 \\
S_{39} & 0&0&0&0&0&0&1&1&1&1&1&1&0&0&0&1&1&1&1&1&1&1&1&0&0&0&1&1&1&1&1&1&1 \\
S_{40} & 0&0&0&0&0&0&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&0&0&1&1&1&1&1&1&1&1&1 \\
\end{array}
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SI = \begin{array}{c} \\ \bar{\bar{y}}_1 \\ \bar{\bar{y}}_2 \\ \bar{\bar{y}}_3 \\ \bar{\bar{y}}_4 \\ S_{12} \\ S_{13} \\ S_{14} \\ S_{15} \\ S_{16} \\ S_{17} \\ S_{18} \\ S_{19} \\ S_{20} \\ S_{21} \\ S_{22} \\ S_{23} \\ S_{24} \\ S_{25} \\ S_{26} \\ S_{27} \\ S_{28} \\ S_{29} \\ S_{30} \\ S_{31} \\ S_{32} \\ S_{33} \\ S_{34} \\ S_{35} \\ S_{36} \\ S_{37} \\ S_{38} \\ S_{39} \\ S_{40} \end{array}
\begin{array}{c} \bar{\bar{y}}_1\,\bar{\bar{y}}_2\,\bar{\bar{y}}_3\,\bar{\bar{y}}_4\,S_{12}\,S_{13}\,S_{14}\,S_{15}\,S_{16}\,S_{17}\,S_{18}\,S_{19}\,S_{20}\,S_{21}\,S_{22}\,S_{23}\,S_{24}\,S_{25}\,S_{26}\,S_{27}\,S_{28}\,S_{29}\,S_{30}\,S_{31}\,S_{32}\,S_{33}\,S_{34}\,S_{35}\,S_{36}\,S_{37}\,S_{38}\,S_{39}\,S_{40} \\
\left[\begin{smallmatrix}
1&0&0&0&0&0&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&0&0&0&0&0&0&0&0&0\\
0&1&0&0&0&0&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&0&0&0&0&0&0&0&0&0\\
0&0&1&0&0&0&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&0&0&0&0&0&0&0&0&0\\
0&0&0&1&0&0&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&0&0&0&0&0&0&0&0&0\\
0&0&0&0&1&0&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&0&0&0&0&0&0&0&0&0\\
0&0&0&0&0&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&0&0&0&0&0&0&0&0&0\\
1&1&1&1&1&1&1&1&0&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&0&1&1&1&1&1&1&1\\
1&1&1&1&1&1&1&1&0&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&0&1&1&1&1&1&1&1\\
1&1&1&1&1&1&0&0&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1\\
1&1&1&1&1&1&1&1&1&1&0&0&1&0&1&1&1&1&1&1&1&1&1&1&1&1&1&1&0&1&1&1&1\\
1&1&1&1&1&1&1&1&1&1&1&0&1&0&1&1&1&1&1&1&1&1&1&1&1&1&1&1&0&1&1&1&1\\
1&1&1&1&1&1&1&1&0&0&0&1&0&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&0&1&1&1&1\\
1&1&1&1&1&1&1&1&0&1&0&1&0&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&0&1\\
1&1&1&1&1&1&1&1&1&1&0&1&0&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&0&1\\
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1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&0&1&1&1&1&1&1&1&1&0&1&1&1&1\\
1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&0&1&1&1&1&1&1&1&1&1&0&1&1&1&1\\
1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&0&0&1&0&1&1&1&1&1&1&1&0&1&1&1&1\\
1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&0&1&1&1&1&1&1&0&1&1&1&1\\
1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&0&1&1&1&1&1&1&0&1&1&1&1\\
1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&0&0&1&1&1&1&1&0&1&1&1&1\\
1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&0&1&1&1&1&1&1&1&1&1&0\\
1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&0&1&1&1&1&1&1&1&1&1&0\\
1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&0&0&1&1&1&1&1&1&1&1&0\\
0&0&0&0&0&0&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1\\
0&0&0&0&0&0&0&0&0&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1\\
0&0&0&0&0&0&1&1&1&1&1&1&1&1&1&1&1&0&0&0&1&1&1&1&1&1&1&1&1&1&1&1\\
0&0&0&0&0&0&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1\\
0&0&0&0&0&0&1&1&0&0&0&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1\\
0&0&0&0&0&0&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1\\
0&0&0&0&0&0&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1\\
0&0&0&0&0&0&1&1&1&1&1&1&0&0&0&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1\\
0&0&0&0&0&0&1&1&1&1&1&1&1&1&1&1&1&1&0&0&0&1&1&1&1&1&1&1&1&1&1&1
\end{smallmatrix}\right]
\end{array}
$$

Проверка условия приводимости программы к ППФ (5 из 410):

1)$\bar{\bar{y}}_1 \nrightarrow S_{14}$
2)$\bar{\bar{y}}_2$
$E(\bar{\bar{y}}_1) = \{\bar{\bar{y}}_2, \bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, S_{13}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$
$E(S_{14}) = \{S_{16}, S_{33}\}$
$N_1(\bar{\bar{y}}_1, S_{14}) = \{S_{33}\}$
$N_2(\bar{\bar{y}}_1, S_{14}) = \{\bar{\bar{y}}_2, \bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, S_{13}, S_{32}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}, S_{16}\}$
$E(\bar{\bar{y}}_2) = \{\bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, S_{13}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$
$\bar{\bar{y}}_2 \in N_2(\bar{\bar{y}}_1, S_{14})$ − выполняется
$N_1(\bar{\bar{y}}_1, S_{14}) \subseteq E(\bar{\bar{y}}_2)$ − выполняется
выполняется

1)$\bar{\bar{y}}_1 \nrightarrow S_{15}$
2)$\bar{\bar{y}}_2$
$E(\bar{\bar{y}}_1) = \{\bar{\bar{y}}_2, \bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, S_{13}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$
$E(S_{15}) = \{S_{16}, S_{33}\}$
$N_1(\bar{\bar{y}}_1, S_{15}) = \{S_{33}\}$
$N_2(\bar{\bar{y}}_1, S_{15}) = \{\bar{\bar{y}}_2, \bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, S_{13}, S_{32}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}, S_{16}\}$
$E(\bar{\bar{y}}_2) = \{\bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, S_{13}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$
$\bar{\bar{y}}_2 \in N_2(\bar{\bar{y}}_1, S_{15})$ − выполняется
$N_1(\bar{\bar{y}}_1, S_{15}) \subseteq E(\bar{\bar{y}}_2)$ − выполняется
выполняется

1)$\bar{\bar{y}}_1 \nrightarrow S_{16}$
2)$\bar{\bar{y}}_2$
$E(\bar{\bar{y}}_1) = \{\bar{\bar{y}}_2, \bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, S_{13}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$
$E(S_{16}) = \{S_{33}\}$
$N_1(\bar{\bar{y}}_1, S_{16}) = \{S_{33}\}$
$N_2(\bar{\bar{y}}_1, S_{16}) = \{\bar{\bar{y}}_2, \bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, S_{13}, S_{32}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$
$E(\bar{\bar{y}}_2) = \{\bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, S_{13}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$
$\bar{\bar{y}}_2 \in N_2(\bar{\bar{y}}_1, S_{16})$ − выполняется
$N_1(\bar{\bar{y}}_1, S_{16}) \subseteq E(\bar{\bar{y}}_2)$ − выполняется
выполняется

1)$\bar{\bar{y}}_1 \nrightarrow S_{17}$
2)$\bar{\bar{y}}_2$
$E(\bar{\bar{y}}_1) = \{\bar{\bar{y}}_2, \bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, S_{13}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$
$E(S_{17}) = \{S_{19}, S_{36}\}$
$N_1(\bar{\bar{y}}_1, S_{17}) = \{S_{36}\}$
$N_2(\bar{\bar{y}}_1, S_{17}) = \{\bar{\bar{y}}_2, \bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, S_{13}, S_{32}, S_{33}, S_{34}, S_{35}, S_{37}, S_{38}, S_{39}, S_{40}, S_{19}\}$
$E(\bar{\bar{y}}_2) = \{\bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, S_{13}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$
$\bar{\bar{y}}_2 \in N_2(\bar{\bar{y}}_1, S_{17})$ − выполняется
$N_1(\bar{\bar{y}}_1, S_{17}) \subseteq E(\bar{\bar{y}}_2)$ − выполняется

выполняется

1)$\bar{\bar{y}}_1 \nrightarrow S_{18}$
2)$\bar{\bar{y}}_2$
$E(\bar{\bar{y}}_1) = \{\bar{\bar{y}}_2, \bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, S_{13}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$
$E(S_{18}) = \{S_{19}, S_{36}\}$
$N_1(\bar{\bar{y}}_1, S_{18}) = \{S_{36}\}$
$N_2(\bar{\bar{y}}_1, S_{18}) = \{\bar{\bar{y}}_2, \bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, S_{13}, S_{32}, S_{33}, S_{34}, S_{35}, S_{37}, S_{38}, S_{39}, S_{40}, S_{19}\}$
$E(\bar{\bar{y}}_2) = \{\bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, S_{13}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$
$\bar{\bar{y}}_2 \in N_2(\bar{\bar{y}}_1, S_{18}) -$ выполняется
$N_1(\bar{\bar{y}}_1, S_{18}) \subseteq E(\bar{\bar{y}}_2) -$ выполняется

выполняется

На текущей итерации был выделен паралллельный групповой оператор $\bar{\bar{y}}_5 = \{S_{13}, S_{14}, S_{15}\}$

1)$\bar{\bar{y}}_1 \nrightarrow S_{18}$
2)$\bar{\bar{y}}_2$
$E(\bar{\bar{y}}_1) = \{\bar{\bar{y}}_2, \bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, S_{13}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$
$E(S_{18}) = \{S_{19}, S_{36}\}$
$N_1(\bar{\bar{y}}_1, S_{18}) = \{S_{36}\}$
$N_2(\bar{\bar{y}}_1, S_{18}) = \{\bar{\bar{y}}_2, \bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, S_{13}, S_{32}, S_{33}, S_{34}, S_{35}, S_{37}, S_{38}, S_{39}, S_{40}, S_{19}\}$
$E(\bar{\bar{y}}_2) = \{\bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, S_{13}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$

Отношения между операторами:

$$
SD =
\begin{array}{c|ccccccccccccccccccccccccccccccc}
 & \bar{y}_1 & \bar{y}_2 & \bar{y}_3 & \bar{y}_4 & S_{12} & \bar{y}_5 & S_{16} & S_{17} & S_{18} & S_{19} & S_{20} & S_{21} & S_{22} & S_{23} & S_{24} & S_{25} & S_{26} & S_{27} & S_{28} & S_{29} & S_{30} & S_{31} & S_{32} & S_{33} & S_{34} & S_{35} & S_{36} & S_{37} & S_{38} & S_{39} & S_{40} \\
\hline
\bar{y}_1 & 0&1&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0 \\
\bar{y}_2 & 0&0&1&1&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&0&0&0&0&0&0&0&0 \\
\bar{y}_3 & 0&0&0&1&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&0&1&0&0&0&0 \\
\bar{y}_4 & 0&0&0&0&1&1&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&0&0&0 \\
S_{12} & 0&0&0&0&0&1&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0 \\
\bar{y}_5 & 0&0&0&0&0&0&1&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&1&1&1&1&1&1&1&1 \\
S_{16} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&0&0&0&0&0&0&0&0 \\
S_{17} & 0&0&0&0&0&0&0&0&0&1&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0 \\
S_{18} & 0&0&0&0&0&0&0&0&0&1&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0 \\
S_{19} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&0&0&0&0 \\
S_{20} & 0&0&0&0&0&0&0&0&0&0&0&0&1&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0 \\
S_{21} & 0&0&0&0&0&0&0&0&0&0&0&1&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&0 \\
S_{22} & 0&0&0&0&0&0&0&0&0&0&0&0&0&1&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0 \\
S_{23} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0 \\
S_{24} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0 \\
S_{25} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&0&0&0&0&0&0&0&0&0 \\
S_{26} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&0&0&0&0&0&0&0&0&0&0&0&0&0&0 \\
S_{27} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&0&0&0&0&0&0&0&0&0&0&0&0&0 \\
S_{28} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&0&0&0&0&0&0&0&0&0 \\
S_{29} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&0&0&0&0&0&0&0&0&0 \\
S_{30} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&0&0&0&0&0&0&0&0&0 \\
S_{31} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1 \\
S_{32} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0 \\
S_{33} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0 \\
S_{34} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0 \\
S_{35} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0 \\
S_{36} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0 \\
S_{37} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0 \\
S_{38} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0 \\
S_{39} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0 \\
S_{40} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0 \\
\end{array}
$$

$$
WD =
\begin{array}{c|ccccccccccccccccccccccccccccccc}
 & \bar{y}_1 & \bar{y}_2 & \bar{y}_3 & \bar{y}_4 & S_{12} & \bar{y}_5 & S_{16} & S_{17} & S_{18} & S_{19} & S_{20} & S_{21} & S_{22} & S_{23} & S_{24} & S_{25} & S_{26} & S_{27} & S_{28} & S_{29} & S_{30} & S_{31} & S_{32} & S_{33} & S_{34} & S_{35} & S_{36} & S_{37} & S_{38} & S_{39} & S_{40} \\
\hline
\bar{y}_1 & 0&1&1&1&1&1&1&1&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&1&1&1&1&1&1&1 \\
\bar{y}_2 & 0&0&1&1&1&1&1&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&1&1&1&1&1&1&1 \\
\bar{y}_3 & 0&0&0&1&1&1&1&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&1&1&1&1&1&1&1 \\
\bar{y}_4 & 0&0&0&0&1&1&1&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&1&1&1&1&1&1&1 \\
S_{12} & 0&0&0&0&0&1&1&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&1&1&1&1&1&1&1 \\
\bar{y}_5 & 0&0&0&0&0&0&1&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&1&1&1&1&1&1&1 \\
S_{16} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&0&0&0&0&0&0&0&0 \\
S_{17} & 0&0&0&0&0&0&0&0&0&1&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&0&0&0&0&0 \\
S_{18} & 0&0&0&0&0&0&0&0&0&1&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&0&0&0&0&0 \\
S_{19} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&0&0&0&0&0 \\
S_{20} & 0&0&0&0&0&0&0&0&0&0&0&0&1&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&0 \\
S_{21} & 0&0&0&0&0&0&0&0&0&0&0&1&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&0 \\
S_{22} & 0&0&0&0&0&0&0&0&0&0&0&0&0&1&0&0&0&0&0&0&0&0&0&1&0&0&0&0&0&0&0 \\
S_{23} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&0&0&0&0&0&0&0&0&1&0&0&0&0&0&0&0 \\
S_{24} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&0&0&0&0&0&0&0&1&0&0&0&0&0&0&0 \\
S_{25} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&0&0&0&0&0&0&0&0&0&0&0&0&0&0 \\
S_{26} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&0&0&0&0&0&0&0&0&0&0&0&0&0 \\
S_{27} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&0&0&0&0&0&0&0&0&0&0&1&0 \\
S_{28} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&0&0&0&0&0&0&0&0&0&0&1 \\
S_{29} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1&0&0&0&0&0&0&0&0&0&1 \\
S_{30} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&1 \\
S_{31} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0 \\
S_{32} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0 \\
S_{33} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0 \\
S_{34} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0 \\
S_{35} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0 \\
S_{36} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0 \\
S_{37} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0 \\
S_{38} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0 \\
S_{39} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0 \\
S_{40} & 0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0&0 \\
\end{array}
$$

$$
C =
\begin{array}{c|ccccccccccccccccccccccccccccccc}
 & \bar{y}_1 & \bar{y}_2 & \bar{y}_3 & \bar{y}_4 & S_{12} & \bar{y}_5 & S_{16} & S_{17} & S_{18} & S_{19} & S_{20} & S_{21} & S_{22} & S_{23} & S_{24} & S_{25} & S_{26} & S_{27} & S_{28} & S_{29} & S_{30} & S_{31} & S_{32} & S_{33} & S_{34} & S_{35} & S_{36} & S_{37} & S_{38} & S_{39} & S_{40} \\
\hline
\bar{y}_1 & 1&0&0&0&0&0&0&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&0&0&0&0&0&0&0&0 \\
\bar{y}_2 & 0&1&0&0&0&0&0&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&0&0&0&0&0&0&0&0 \\
\bar{y}_3 & 0&0&1&0&0&0&0&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&0&0&0&0&0&0&0&0 \\
\bar{y}_4 & 0&0&0&1&0&0&0&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&0&0&0&0&0&0&0&0 \\
S_{12} & 0&0&0&0&1&0&0&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&0&0&0&0&0&0&0&0 \\
\bar{y}_5 & 0&0&0&0&0&1&0&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&0&0&0&0&0&0&0&0 \\
S_{16} & 0&0&0&0&0&0&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&0&1&1&1&1&1&1&1&1 \\
S_{17} & 1&1&1&1&1&1&1&1&1&0&1&1&0&1&1&1&1&1&1&1&1&1&1&1&1&0&1&1&1&1&1 \\
S_{18} & 1&1&1&1&1&1&1&1&1&0&1&1&0&1&1&1&1&1&1&1&1&1&1&1&1&0&1&1&1&1&1 \\
S_{19} & 1&1&1&1&1&1&1&0&0&1&0&1&1&1&1&1&1&1&1&1&1&1&1&1&1&0&1&1&1&1&1 \\
S_{20} & 1&1&1&1&1&1&1&1&1&0&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&0&1&1 \\
S_{21} & 1&1&1&1&1&1&1&1&1&1&1&1&0&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&0&1 \\
S_{22} & 1&1&1&1&1&1&0&1&1&0&0&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&0&1 \\
S_{23} & 1&1&1&1&1&1&1&1&1&1&1&1&1&0&1&1&1&1&1&1&1&1&1&0&1&1&1&1&1&1 \\
S_{24} & 1&1&1&1&1&1&1&1&1&1&1&1&1&1&0&1&1&1&1&1&1&1&1&0&1&1&1&1&1&1 \\
S_{25} & 1&1&1&1&1&1&1&1&1&1&1&1&1&0&0&1&1&1&1&1&1&1&1&0&1&1&1&1&1&1 \\
S_{26} & 1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&0&1&1&1&1&1&1&1&0&1&1&1&1&1&1 \\
S_{27} & 1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&0&1&1&1&1&1&1&1&1&1&1&1&1&1&1 \\
S_{28} & 1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&0&0&1&1&1&1&1&1&1&1&1&1&1&1 \\
S_{29} & 1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&0&1&1&1&1&1&1&1&1&1&1&1&0 \\
S_{30} & 1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&0&1&1&1&1&1&1&1&1&1&1&0 \\
S_{31} & 1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&0&0&1&1&1&1&1&1&1&1&1&0 \\
S_{32} & 0&0&0&0&0&0&0&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1 \\
S_{33} & 0&0&0&0&0&0&0&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1 \\
S_{34} & 0&0&0&0&0&0&0&1&1&1&1&1&1&1&0&0&1&1&1&1&1&1&1&1&1&1&1&1&1&1 \\
S_{35} & 0&0&0&0&0&0&0&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1 \\
S_{36} & 0&0&0&0&0&0&1&0&0&0&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1 \\
S_{37} & 0&0&0&0&0&0&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1 \\
S_{38} & 0&0&0&0&0&0&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1 \\
S_{39} & 0&0&0&0&0&0&1&1&1&1&0&0&0&1&1&1&1&1&1&1&0&0&0&1&1&1&1&1&1&1&1 \\
S_{40} & 0&0&0&0&0&0&1&1&1&1&0&1&1&1&1&1&1&1&0&0&0&1&1&1&1&1&1&1&1&1 \\
\end{array}
$$

$$\text{SI} = \begin{array}{c|ccccccccccccccccccccccccccccccc}
 & \bar{\bar{y}}_1 & \bar{\bar{y}}_2 & \bar{\bar{y}}_3 & \bar{\bar{y}}_4 & S_{12} & \bar{\bar{y}}_5 & S_{16} & S_{17} & S_{18} & S_{19} & S_{20} & S_{21} & S_{22} & S_{23} & S_{24} & S_{25} & S_{26} & S_{27} & S_{28} & S_{29} & S_{30} & S_{31} & S_{32} & S_{33} & S_{34} & S_{35} & S_{36} & S_{37} & S_{38} & S_{39} & S_{40} \\
\hline
\bar{\bar{y}}_1 & 1&0&0&0&0&0&0&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&0&0&0&0&0&0&0&0&0 \\
\bar{\bar{y}}_2 & 0&1&0&0&0&0&0&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&0&0&0&0&0&0&0&0&0 \\
\bar{\bar{y}}_3 & 0&0&1&0&0&0&0&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&0&0&0&0&0&0&0&0&0 \\
\bar{\bar{y}}_4 & 0&0&0&1&0&0&0&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&0&0&0&0&0&0&0&0&0 \\
S_{12} & 0&0&0&0&1&0&0&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&0&0&0&0&0&0&0&0&0 \\
\bar{\bar{y}}_5 & 0&0&0&0&0&1&0&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&0&0&0&0&0&0&0&0&0 \\
S_{16} & 0&0&0&0&0&0&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&0&1&1&1&1&1&1&1 \\
S_{17} & 1&1&1&1&1&1&1&1&1&0&0&0&1&0&1&1&1&1&1&1&1&1&1&1&1&0&1&1&1&1&1 \\
S_{18} & 1&1&1&1&1&1&1&1&1&0&0&1&0&1&1&1&1&1&1&1&1&1&1&1&1&0&1&1&1&1&1 \\
S_{19} & 1&1&1&1&1&1&1&0&0&1&0&1&1&1&1&1&1&1&1&1&1&1&1&1&1&0&1&1&1&1&1 \\
S_{20} & 1&1&1&1&1&1&1&0&1&0&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&0&1 \\
S_{21} & 1&1&1&1&1&1&1&0&1&1&1&0&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&0&1 \\
S_{22} & 1&1&1&1&1&1&1&0&1&1&0&0&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&0&1 \\
S_{23} & 1&1&1&1&1&1&1&1&1&1&1&1&1&0&1&1&1&1&1&1&1&1&1&1&0&1&1&1&1&1&1 \\
S_{24} & 1&1&1&1&1&1&1&1&1&1&1&1&1&0&0&1&1&1&1&1&1&1&1&1&0&1&1&1&1&1&1 \\
S_{25} & 1&1&1&1&1&1&1&1&1&1&1&1&1&1&0&0&1&1&1&1&1&1&1&1&0&1&1&1&1&1&1 \\
S_{26} & 1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&0&0&1&1&1&1&1&1&1&0&1&1&1&1&1&1 \\
S_{27} & 1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&0&0&1&1&1&1&1&1&0&1&1&1&1&1&1 \\
S_{28} & 1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&0&0&0&1&1&1&1&1&1&1&1&1&1&1 \\
S_{29} & 1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&0&1&1&1&1&1&1&1&1&1&1&0 \\
S_{30} & 1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&0&1&1&1&1&1&1&1&1&1&0 \\
S_{31} & 1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&0&0&0&1&1&1&1&1&1&1&1&0 \\
S_{32} & 0&0&0&0&0&0&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1 \\
S_{33} & 0&0&0&0&0&0&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1 \\
S_{34} & 0&0&0&0&0&0&1&1&1&1&1&1&1&1&0&0&0&1&1&1&1&1&1&1&1&1&1&1&1&1&1 \\
S_{35} & 0&0&0&0&0&0&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1 \\
S_{36} & 0&0&0&0&0&0&1&1&0&0&0&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1 \\
S_{37} & 0&0&0&0&0&0&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1 \\
S_{38} & 0&0&0&0&0&0&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1 \\
S_{39} & 0&0&0&0&0&0&1&1&1&1&0&0&0&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1&1 \\
S_{40} & 0&0&0&0&0&0&1&1&1&1&1&1&1&1&1&0&0&0&1&1&1&1&1&1&1&1&1&1&1&1&1 \\
\end{array}$$

Проверка условия приводимости программы к ППФ (5 из 347):

1) $\bar{\bar{y}}_1 \nrightarrow S_{17}$

2) $\bar{\bar{y}}_2$

$E(\bar{\bar{y}}_1) = \{\bar{\bar{y}}_2, \bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, \bar{\bar{y}}_5, S_{16}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$

$E(S_{17}) = \{S_{19}, S_{36}\}$

$N_1(\bar{\bar{y}}_1, S_{17}) = \{S_{36}\}$

$N_2(\bar{\bar{y}}_1, S_{17}) = \{\bar{\bar{y}}_2, \bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, \bar{\bar{y}}_5, S_{16}, S_{32}, S_{33}, S_{34}, S_{35}, S_{37}, S_{38}, S_{39}, S_{40}, S_{19}\}$

$E(\bar{\bar{y}}_2) = \{\bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, \bar{\bar{y}}_5, S_{16}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$

$\bar{\bar{y}}_2 \in N_2(\bar{\bar{y}}_1, S_{17})$ — выполняется

$N_1(\bar{\bar{y}}_1, S_{17}) \subseteq E(\bar{\bar{y}}_2)$ — выполняется

выполняется

1) $\bar{\bar{y}}_1 \nrightarrow S_{18}$

2) $\bar{\bar{y}}_2$

$E(\bar{\bar{y}}_1) = \{\bar{\bar{y}}_2, \bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, \bar{\bar{y}}_5, S_{16}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$

$E(S_{18}) = \{S_{19}, S_{36}\}$

$N_1(\bar{\bar{y}}_1, S_{18}) = \{S_{36}\}$

$N_2(\bar{\bar{y}}_1, S_{18}) = \{\bar{\bar{y}}_2, \bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, \bar{\bar{y}}_5, S_{16}, S_{32}, S_{33}, S_{34}, S_{35}, S_{37}, S_{38}, S_{39}, S_{40}, S_{19}\}$

$E(\bar{\bar{y}}_2) = \{\bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, \bar{\bar{y}}_5, S_{16}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$

$\bar{\bar{y}}_2 \in N_2(\bar{\bar{y}}_1, S_{18})$ — выполняется

$N_1(\bar{\bar{y}}_1, S_{18}) \subseteq E(\bar{\bar{y}}_2)$ — выполняется

выполняется

1) $\bar{\bar{y}}_1 \nrightarrow S_{19}$

2) $\bar{\bar{y}}_2$

$E(\bar{\bar{y}}_1) = \{\bar{\bar{y}}_2, \bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, \bar{\bar{y}}_5, S_{16}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$

$E(S_{19}) = \{S_{36}\}$

$N_1(\bar{\bar{y}}_1, S_{19}) = \{S_{36}\}$

$N_2(\bar{\bar{y}}_1, S_{19}) = \{\bar{\bar{y}}_2, \bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, \bar{\bar{y}}_5, S_{16}, S_{32}, S_{33}, S_{34}, S_{35}, S_{37}, S_{38}, S_{39}, S_{40}\}$

$E(\bar{\bar{y}}_2) = \{\bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, \bar{\bar{y}}_5, S_{16}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$

$\bar{\bar{y}}_2 \in N_2(\bar{\bar{y}}_1, S_{19})$ — выполняется

$N_1(\bar{\bar{y}}_1, S_{19}) \subseteq E(\bar{\bar{y}}_2)$ — выполняется

выполняется

1) $\bar{\bar{y}}_1 \nrightarrow S_{20}$

2) $\bar{\bar{y}}_2$

$E(\bar{\bar{y}}_1) = \{\bar{\bar{y}}_2, \bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, \bar{\bar{y}}_5, S_{16}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$

$E(S_{20}) = \{S_{22}, S_{39}\}$

$N_1(\bar{\bar{y}}_1, S_{20}) = \{S_{39}\}$

$N_2(\bar{\bar{y}}_1, S_{20}) = \{\bar{\bar{y}}_2, \bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, \bar{\bar{y}}_5, S_{16}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{40}, S_{22}\}$

$E(\bar{\bar{y}}_2) = \{\bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, \bar{\bar{y}}_5, S_{16}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$

$\bar{\bar{y}}_2 \in N_2(\bar{\bar{y}}_1, S_{20})$ — выполняется

$N_1(\bar{\bar{y}}_1, S_{20}) \subseteq E(\bar{\bar{y}}_2)$ — выполняется

выполняется

$1) \bar{\bar{y}}_1 \nrightarrow S_{21}$

$2) \bar{\bar{y}}_2$

$E(\bar{\bar{y}}_1) = \{\bar{\bar{y}}_2, \bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, \bar{\bar{y}}_5, S_{16}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$

$E(S_{21}) = \{S_{22}, S_{39}\}$

$N_1(\bar{\bar{y}}_1, S_{21}) = \{S_{39}\}$

$N_2(\bar{\bar{y}}_1, S_{21}) = \{\bar{\bar{y}}_2, \bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, \bar{\bar{y}}_5, S_{16}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{40}, S_{22}\}$

$E(\bar{\bar{y}}_2) = \{\bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, \bar{\bar{y}}_5, S_{16}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$

$\bar{\bar{y}}_2 \in N_2(\bar{\bar{y}}_1, S_{21}) - $ выполняется

$N_1(\bar{\bar{y}}_1, S_{21}) \subseteq E(\bar{\bar{y}}_2) - $ выполняется

выполняется

На текущей итерации был выделен паралллельный групповой оператор $\bar{\bar{y}}_6 = \{S_{16}, S_{17}, S_{18}\}$

Итерация №7

Отношения между операторами:

$$\text{SD} =$$

	$\bar{\bar{y}}_1$	$\bar{\bar{y}}_2$	$\bar{\bar{y}}_3$	$\bar{\bar{y}}_4$	S_{12}	$\bar{\bar{y}}_5$	$\bar{\bar{y}}_6$	S_{19}	S_{20}	S_{21}	S_{22}	S_{23}	S_{24}	S_{25}	S_{26}	S_{27}	S_{28}	S_{29}	S_{30}	S_{31}	S_{32}	S_{33}	S_{34}	S_{35}	S_{36}	S_{37}	S_{38}	S_{39}	S_{40}
$\bar{\bar{y}}_1$	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
$\bar{\bar{y}}_2$	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
$\bar{\bar{y}}_3$	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0
$\bar{\bar{y}}_4$	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
S_{12}	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
$\bar{\bar{y}}_5$	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1
$\bar{\bar{y}}_6$	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
S_{19}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
S_{20}	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{21}	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{22}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
S_{23}	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{24}	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{25}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
S_{26}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
S_{27}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
S_{28}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{29}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
S_{30}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
S_{31}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
S_{32}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{33}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{34}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{35}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{36}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{37}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{38}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{39}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{40}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

$$
\text{WD} =
\begin{array}{c}
\\
\bar{\bar{y}}_1 \\ \bar{\bar{y}}_2 \\ \bar{\bar{y}}_3 \\ \bar{\bar{y}}_4 \\ S_{12} \\ \bar{\bar{y}}_5 \\ \bar{\bar{y}}_6 \\ S_{19} \\ S_{20} \\ S_{21} \\ S_{22} \\ S_{23} \\ S_{24} \\ S_{25} \\ S_{26} \\ S_{27} \\ S_{28} \\ S_{29} \\ S_{30} \\ S_{31} \\ S_{32} \\ S_{33} \\ S_{34} \\ S_{35} \\ S_{36} \\ S_{37} \\ S_{38} \\ S_{39} \\ S_{40}
\end{array}
$$

	$\bar{\bar{y}}_1$	$\bar{\bar{y}}_2$	$\bar{\bar{y}}_3$	$\bar{\bar{y}}_4$	S_{12}	$\bar{\bar{y}}_5$	$\bar{\bar{y}}_6$	S_{19}	S_{20}	S_{21}	S_{22}	S_{23}	S_{24}	S_{25}	S_{26}	S_{27}	S_{28}	S_{29}	S_{30}	S_{31}	S_{32}	S_{33}	S_{34}	S_{35}	S_{36}	S_{37}	S_{38}	S_{39}	S_{40}
$\bar{\bar{y}}_1$	0	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1
$\bar{\bar{y}}_2$	0	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1
$\bar{\bar{y}}_3$	0	0	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1
$\bar{\bar{y}}_4$	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1
S_{12}	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1
$\bar{\bar{y}}_5$	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1
$\bar{\bar{y}}_6$	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0
S_{19}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
S_{20}	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
S_{21}	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
S_{22}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
S_{23}	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
S_{24}	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
S_{25}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
S_{26}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{27}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{28}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{29}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
S_{30}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
S_{31}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
S_{32}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{33}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{34}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{35}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{36}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{37}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{38}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{39}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{40}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

$$C =$$

	$\bar{\bar{y}}_1$	$\bar{\bar{y}}_2$	$\bar{\bar{y}}_3$	$\bar{\bar{y}}_4$	S_{12}	$\bar{\bar{y}}_5$	$\bar{\bar{y}}_6$	S_{19}	S_{20}	S_{21}	S_{22}	S_{23}	S_{24}	S_{25}	S_{26}	S_{27}	S_{28}	S_{29}	S_{30}	S_{31}	S_{32}	S_{33}	S_{34}	S_{35}	S_{36}	S_{37}	S_{38}	S_{39}	S_{40}
$\bar{\bar{y}}_1$	1	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0
$\bar{\bar{y}}_2$	0	1	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0
$\bar{\bar{y}}_3$	0	0	1	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0
$\bar{\bar{y}}_4$	0	0	0	1	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0
S_{12}	0	0	0	0	1	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0
$\bar{\bar{y}}_5$	0	0	0	0	0	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0
$\bar{\bar{y}}_6$	0	0	0	0	0	0	1	0	1	1	0	1	1	1	1	1	1	1	1	1	1	0	1	1	0	1	1	1	1
S_{19}	0	0	0	0	0	0	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1
S_{20}	1	1	1	1	1	1	1	0	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1
S_{21}	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1
S_{22}	1	1	1	1	1	1	0	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1
S_{23}	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1
S_{24}	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1
S_{25}	1	1	1	1	1	1	1	1	1	1	1	0	0	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1
S_{26}	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1
S_{27}	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1
S_{28}	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1
S_{29}	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	0
S_{30}	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	0
S_{31}	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	1	1	1	1	1	1	1	0
S_{32}	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
S_{33}	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
S_{34}	0	0	0	0	0	0	1	1	1	1	1	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
S_{35}	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
S_{36}	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
S_{37}	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
S_{38}	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
S_{39}	0	0	0	0	0	0	1	1	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
S_{40}	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	0	0	0	1	1	1	1	1	1	1	1	1

$$
\text{SI} =
\begin{array}{c|ccccccccccccccccccccccccccccc}
 & \bar{\bar{y}}_1 & \bar{\bar{y}}_2 & \bar{\bar{y}}_3 & \bar{\bar{y}}_4 & S_{12} & \bar{\bar{y}}_5 & \bar{\bar{y}}_6 & S_{19} & S_{20} & S_{21} & S_{22} & S_{23} & S_{24} & S_{25} & S_{26} & S_{27} & S_{28} & S_{29} & S_{30} & S_{31} & S_{32} & S_{33} & S_{34} & S_{35} & S_{36} & S_{37} & S_{38} & S_{39} & S_{40} \\
\hline
\bar{\bar{y}}_1 & 1 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\
\bar{\bar{y}}_2 & 0 & 1 & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\
\bar{\bar{y}}_3 & 0 & 0 & 1 & 0 & 0 & 0 & 0 & 0 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\
\bar{\bar{y}}_4 & 0 & 0 & 0 & 1 & 0 & 0 & 0 & 0 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\
S_{12} & 0 & 0 & 0 & 0 & 1 & 0 & 0 & 0 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\
\bar{\bar{y}}_5 & 0 & 0 & 0 & 0 & 0 & 1 & 0 & 0 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\
\bar{\bar{y}}_6 & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 0 & 0 & 1 & 0 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 0 & 1 & 1 & 0 & 1 & 1 & 1 & 1 & 1 \\
S_{19} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 0 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 0 & 1 & 1 & 1 & 1 & 1 & 1 \\
S_{20} & 1 & 1 & 1 & 1 & 1 & 1 & 0 & 0 & 1 & 1 & 0 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 0 & 1 \\
S_{21} & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 0 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 0 & 1 \\
S_{22} & 1 & 1 & 1 & 1 & 1 & 1 & 0 & 1 & 0 & 0 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 0 & 1 \\
S_{23} & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 0 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 0 & 1 & 1 & 1 & 1 & 1 & 1 & 1 \\
S_{24} & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 0 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 0 & 1 & 1 & 1 & 1 & 1 & 1 & 1 \\
S_{25} & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 0 & 0 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 0 & 1 & 1 & 1 & 1 & 1 & 1 & 1 \\
S_{26} & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 0 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 \\
S_{27} & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 0 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 \\
S_{28} & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 0 & 0 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 \\
S_{29} & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 0 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 0 \\
S_{30} & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 0 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 0 \\
S_{31} & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 0 & 0 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 0 \\
S_{32} & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 \\
S_{33} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 \\
S_{34} & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 1 & 1 & 1 & 1 & 0 & 0 & 0 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 \\
S_{35} & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 \\
S_{36} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 \\
S_{37} & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 \\
S_{38} & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 \\
S_{39} & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 1 & 0 & 0 & 0 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 \\
S_{40} & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 0 & 0 & 0 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 \\
\end{array}
$$

Проверка условия приводимости программы к ППФ (5 из 286):

1) $\bar{\bar{y}}_1 \not\rightarrow S_{20}$

2) $\bar{\bar{y}}_2$

$E(\bar{\bar{y}}_1) = \{\bar{\bar{y}}_2, \bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, \bar{\bar{y}}_5, \bar{\bar{y}}_6, S_{19}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$

$E(S_{20}) = \{S_{22}, S_{39}\}$

$N_1(\bar{\bar{y}}_1, S_{20}) = \{S_{39}\}$

$N_2(\bar{\bar{y}}_1, S_{20}) = \{\bar{\bar{y}}_2, \bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, \bar{\bar{y}}_5, \bar{\bar{y}}_6, S_{19}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{40}, S_{22}\}$

$E(\bar{\bar{y}}_2) = \{\bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, \bar{\bar{y}}_5, \bar{\bar{y}}_6, S_{19}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$

$\bar{\bar{y}}_2 \in N_2(\bar{\bar{y}}_1, S_{20})$ − выполняется

$N_1(\bar{\bar{y}}_1, S_{20}) \subseteq E(\bar{\bar{y}}_2)$ − выполняется

выполняется

1) $\bar{\bar{y}}_1 \not\rightarrow S_{21}$

2) $\bar{\bar{y}}_2$

$E(\bar{\bar{y}}_1) = \{\bar{\bar{y}}_2, \bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, \bar{\bar{y}}_5, \bar{\bar{y}}_6, S_{19}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$

$E(S_{21}) = \{S_{22}, S_{39}\}$

$N_1(\bar{\bar{y}}_1, S_{21}) = \{S_{39}\}$

$N_2(\bar{\bar{y}}_1, S_{21}) = \{\bar{\bar{y}}_2, \bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, \bar{\bar{y}}_5, \bar{\bar{y}}_6, S_{19}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{40}, S_{22}\}$

$E(\bar{\bar{y}}_2) = \{\bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, \bar{\bar{y}}_5, \bar{\bar{y}}_6, S_{19}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$

$\bar{\bar{y}}_2 \in N_2(\bar{\bar{y}}_1, S_{21})$ − выполняется

$N_1(\bar{\bar{y}}_1, S_{21}) \subseteq E(\bar{\bar{y}}_2)$ − выполняется

выполняется

1) $\bar{\bar{y}}_1 \not\rightarrow S_{22}$

2) $\bar{\bar{y}}_2$

$E(\bar{\bar{y}}_1) = \{\bar{\bar{y}}_2, \bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, \bar{\bar{y}}_5, \bar{\bar{y}}_6, S_{19}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$

$E(S_{22}) = \{S_{39}\}$

$N_1(\bar{\bar{y}}_1, S_{22}) = \{S_{39}\}$

$N_2(\bar{\bar{y}}_1, S_{22}) = \{\bar{\bar{y}}_2, \bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, \bar{\bar{y}}_5, \bar{\bar{y}}_6, S_{19}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{40}\}$

$E(\bar{\bar{y}}_2) = \{\bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, \bar{\bar{y}}_5, \bar{\bar{y}}_6, S_{19}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$

$\bar{\bar{y}}_2 \in N_2(\bar{\bar{y}}_1, S_{22})$ — выполняется
$N_1(\bar{\bar{y}}_1, S_{22}) \subseteq E(\bar{\bar{y}}_2)$ — выполняется
выполняется

$1)\bar{\bar{y}}_1 \nrightarrow S_{23}$
$2)\bar{\bar{y}}_2$
$E(\bar{\bar{y}}_1) = \{\bar{\bar{y}}_2, \bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, \bar{\bar{y}}_5, \bar{\bar{y}}_6, S_{19}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$
$E(S_{23}) = \{S_{25}, S_{34}\}$
$N_1(\bar{\bar{y}}_1, S_{23}) = \{S_{34}\}$
$N_2(\bar{\bar{y}}_1, S_{23}) = \{\bar{\bar{y}}_2, \bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, \bar{\bar{y}}_5, \bar{\bar{y}}_6, S_{19}, S_{32}, S_{33}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}, S_{25}\}$
$E(\bar{\bar{y}}_2) = \{\bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, \bar{\bar{y}}_5, \bar{\bar{y}}_6, S_{19}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$
$\bar{\bar{y}}_2 \in N_2(\bar{\bar{y}}_1, S_{23})$ — выполняется
$N_1(\bar{\bar{y}}_1, S_{23}) \subseteq E(\bar{\bar{y}}_2)$ — выполняется
выполняется

$1)\bar{\bar{y}}_1 \nrightarrow S_{24}$
$2)\bar{\bar{y}}_2$
$E(\bar{\bar{y}}_1) = \{\bar{\bar{y}}_2, \bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, \bar{\bar{y}}_5, \bar{\bar{y}}_6, S_{19}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$
$E(S_{24}) = \{S_{25}, S_{34}\}$
$N_1(\bar{\bar{y}}_1, S_{24}) = \{S_{34}\}$
$N_2(\bar{\bar{y}}_1, S_{24}) = \{\bar{\bar{y}}_2, \bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, \bar{\bar{y}}_5, \bar{\bar{y}}_6, S_{19}, S_{32}, S_{33}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}, S_{25}\}$
$E(\bar{\bar{y}}_2) = \{\bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, \bar{\bar{y}}_5, \bar{\bar{y}}_6, S_{19}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$
$\bar{\bar{y}}_2 \in N_2(\bar{\bar{y}}_1, S_{24})$ — выполняется
$N_1(\bar{\bar{y}}_1, S_{24}) \subseteq E(\bar{\bar{y}}_2)$ — выполняется
выполняется
На текущей итерации был выделен паралллельный групповой оператор $\bar{\bar{y}}_7 = \{S_{20}, S_{21}\}$

Итерация №8

Отношения между операторами:

$$
SD = \begin{array}{c|cccccccccccccccccccccccccccc}
 & \bar{\bar{y}}_1 & \bar{\bar{y}}_2 & \bar{\bar{y}}_3 & \bar{\bar{y}}_4 & S_{12} & \bar{\bar{y}}_5 & \bar{\bar{y}}_6 & S_{19} & \bar{\bar{y}}_7 & S_{22} & S_{23} & S_{24} & S_{25} & S_{26} & S_{27} & S_{28} & S_{29} & S_{30} & S_{31} & S_{32} & S_{33} & S_{34} & S_{35} & S_{36} & S_{37} & S_{38} & S_{39} & S_{40} \\
\hline
\bar{\bar{y}}_1 & 0 & 1 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\
\bar{\bar{y}}_2 & 0 & 0 & 1 & 1 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\
\bar{\bar{y}}_3 & 0 & 0 & 0 & 1 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 0 & 1 & 0 & 0 & 0 & 0 \\
\bar{\bar{y}}_4 & 0 & 0 & 0 & 0 & 1 & 1 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 0 & 0 & 0 \\
S_{12} & 0 & 0 & 0 & 0 & 0 & 1 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\
\bar{\bar{y}}_5 & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 \\
\bar{\bar{y}}_6 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\
S_{19} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 0 & 0 & 0 & 0 & 0 \\
\bar{\bar{y}}_7 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\
S_{22} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 0 \\
S_{23} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\
S_{24} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\
S_{25} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\
S_{26} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\
S_{27} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\
S_{28} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\
S_{29} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\
S_{30} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\
S_{31} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 1 \\
S_{32} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\
S_{33} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\
S_{34} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\
S_{35} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\
S_{36} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\
S_{37} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\
S_{38} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\
S_{39} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\
S_{40} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\
\end{array}
$$

$$WD =$$

	$\bar{\bar{y}}_1$	$\bar{\bar{y}}_2$	$\bar{\bar{y}}_3$	$\bar{\bar{y}}_4$	S_{12}	$\bar{\bar{y}}_5$	$\bar{\bar{y}}_6$	S_{19}	$\bar{\bar{y}}_7$	S_{22}	S_{23}	S_{24}	S_{25}	S_{26}	S_{27}	S_{28}	S_{29}	S_{30}	S_{31}	S_{32}	S_{33}	S_{34}	S_{35}	S_{36}	S_{37}	S_{38}	S_{39}	S_{40}
$\bar{\bar{y}}_1$	0	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1
$\bar{\bar{y}}_2$	0	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1
$\bar{\bar{y}}_3$	0	0	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1
$\bar{\bar{y}}_4$	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1
S_{12}	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1
$\bar{\bar{y}}_5$	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1
$\bar{\bar{y}}_6$	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0
S_{19}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
$\bar{\bar{y}}_7$	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
S_{22}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
S_{23}	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
S_{24}	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
S_{25}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
S_{26}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
S_{27}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
S_{28}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{29}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
S_{30}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
S_{31}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
S_{32}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{33}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{34}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{35}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{36}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{37}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{38}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{39}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{40}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

$$C =$$

	$\bar{\bar{y}}_1$	$\bar{\bar{y}}_2$	$\bar{\bar{y}}_3$	$\bar{\bar{y}}_4$	S_{12}	$\bar{\bar{y}}_5$	$\bar{\bar{y}}_6$	S_{19}	$\bar{\bar{y}}_7$	S_{22}	S_{23}	S_{24}	S_{25}	S_{26}	S_{27}	S_{28}	S_{29}	S_{30}	S_{31}	S_{32}	S_{33}	S_{34}	S_{35}	S_{36}	S_{37}	S_{38}	S_{39}	S_{40}
$\bar{\bar{y}}_1$	1	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0
$\bar{\bar{y}}_2$	0	1	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0
$\bar{\bar{y}}_3$	0	0	1	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0
$\bar{\bar{y}}_4$	0	0	0	1	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0
S_{12}	0	0	0	0	1	0	0	0	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0
$\bar{\bar{y}}_5$	0	0	0	0	0	1	0	0	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0
$\bar{\bar{y}}_6$	0	0	0	0	0	0	1	0	1	0	1	1	1	1	1	1	1	1	1	0	1	1	0	1	1	1	1	1
S_{19}	0	0	0	0	0	0	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1
$\bar{\bar{y}}_7$	1	1	1	1	1	1	1	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1
S_{22}	1	1	1	1	1	1	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1
S_{23}	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1
S_{24}	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1
S_{25}	1	1	1	1	1	1	1	1	1	1	0	0	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1
S_{26}	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1
S_{27}	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1
S_{28}	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1
S_{29}	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	0
S_{30}	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	0
S_{31}	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	1	1	1	1	1	1	1	1	0
S_{32}	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
S_{33}	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
S_{34}	0	0	0	0	0	0	1	1	1	1	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
S_{35}	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
S_{36}	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
S_{37}	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
S_{38}	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
S_{39}	0	0	0	0	0	0	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
S_{40}	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	0	0	0	1	1	1	1	1	1	1	1

$$SI = \begin{array}{c|cccccccccccccccccccccccccccc}
 & \bar{\bar{y}}_1 & \bar{\bar{y}}_2 & \bar{\bar{y}}_3 & \bar{\bar{y}}_4 & S_{12} & \bar{\bar{y}}_5 & \bar{\bar{y}}_6 & S_{19} & \bar{\bar{y}}_7 & S_{22} & S_{23} & S_{24} & S_{25} & S_{26} & S_{27} & S_{28} & S_{29} & S_{30} & S_{31} & S_{32} & S_{33} & S_{34} & S_{35} & S_{36} & S_{37} & S_{38} & S_{39} & S_{40}
\end{array}$$

	$\bar{\bar{y}}_1$	$\bar{\bar{y}}_2$	$\bar{\bar{y}}_3$	$\bar{\bar{y}}_4$	S_{12}	$\bar{\bar{y}}_5$	$\bar{\bar{y}}_6$	S_{19}	$\bar{\bar{y}}_7$	S_{22}	S_{23}	S_{24}	S_{25}	S_{26}	S_{27}	S_{28}	S_{29}	S_{30}	S_{31}	S_{32}	S_{33}	S_{34}	S_{35}	S_{36}	S_{37}	S_{38}	S_{39}	S_{40}
$\bar{\bar{y}}_1$	1	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0
$\bar{\bar{y}}_2$	0	1	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0
$\bar{\bar{y}}_3$	0	0	1	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0
$\bar{\bar{y}}_4$	0	0	0	1	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0
S_{12}	0	0	0	0	1	0	0	0	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0
$\bar{\bar{y}}_5$	0	0	0	0	0	1	0	0	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0
$\bar{\bar{y}}_6$	0	0	0	0	0	0	1	0	0	0	1	1	1	1	1	1	1	1	1	1	0	1	1	0	1	1	1	1
S_{19}	0	0	0	0	0	0	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1
$\bar{\bar{y}}_7$	1	1	1	1	1	1	0	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1
S_{22}	1	1	1	1	1	1	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1
S_{23}	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	0	1	1	1	1	1	1
S_{24}	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	0	1	1	1	1	1	1
S_{25}	1	1	1	1	1	1	1	1	1	1	0	0	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1
S_{26}	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1
S_{27}	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1
S_{28}	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1
S_{29}	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	0
S_{30}	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	0
S_{31}	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	1	1	1	1	1	1	1	1	0
S_{32}	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
S_{33}	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
S_{34}	0	0	0	0	0	0	1	1	1	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
S_{35}	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
S_{36}	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
S_{37}	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
S_{38}	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
S_{39}	0	0	0	0	0	0	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
S_{40}	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	0	0	0	1	1	1	1	1	1	1	1

Проверка условия приводимости программы к ППФ (5 из 261):

1) $\bar{\bar{y}}_1 \nrightarrow \bar{\bar{y}}_7$

2) $\bar{\bar{y}}_2$

$E(\bar{\bar{y}}_1) = \{\bar{\bar{y}}_2, \bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, \bar{\bar{y}}_5, \bar{\bar{y}}_6, S_{19}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$

$E(\bar{\bar{y}}_7) = \{S_{22}, S_{39}\}$

$N_1(\bar{\bar{y}}_1, \bar{\bar{y}}_7) = \{S_{39}\}$

$N_2(\bar{\bar{y}}_1, \bar{\bar{y}}_7) = \{\bar{\bar{y}}_2, \bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, \bar{\bar{y}}_5, \bar{\bar{y}}_6, S_{19}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{40}, S_{22}\}$

$E(\bar{\bar{y}}_2) = \{\bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, \bar{\bar{y}}_5, \bar{\bar{y}}_6, S_{19}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$

$\bar{\bar{y}}_2 \in N_2(\bar{\bar{y}}_1, \bar{\bar{y}}_7)$ − выполняется

$N_1(\bar{\bar{y}}_1, \bar{\bar{y}}_7) \subseteq E(\bar{\bar{y}}_2)$ − выполняется

выполняется

1) $\bar{\bar{y}}_1 \nrightarrow S_{22}$

2) $\bar{\bar{y}}_2$

$E(\bar{\bar{y}}_1) = \{\bar{\bar{y}}_2, \bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, \bar{\bar{y}}_5, \bar{\bar{y}}_6, S_{19}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$

$E(S_{22}) = \{S_{39}\}$

$N_1(\bar{\bar{y}}_1, S_{22}) = \{S_{39}\}$

$N_2(\bar{\bar{y}}_1, S_{22}) = \{\bar{\bar{y}}_2, \bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, \bar{\bar{y}}_5, \bar{\bar{y}}_6, S_{19}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{40}\}$

$E(\bar{\bar{y}}_2) = \{\bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, \bar{\bar{y}}_5, \bar{\bar{y}}_6, S_{19}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$

$\bar{\bar{y}}_2 \in N_2(\bar{\bar{y}}_1, S_{22})$ − выполняется

$N_1(\bar{\bar{y}}_1, S_{22}) \subseteq E(\bar{\bar{y}}_2)$ − выполняется

выполняется

1) $\bar{\bar{y}}_1 \nrightarrow S_{23}$

2) $\bar{\bar{y}}_2$

$E(\bar{\bar{y}}_1) = \{\bar{\bar{y}}_2, \bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, \bar{\bar{y}}_5, \bar{\bar{y}}_6, S_{19}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$

$E(S_{23}) = \{S_{25}, S_{34}\}$

$N_1(\bar{\bar{y}}_1, S_{23}) = \{S_{34}\}$

$N_2(\bar{\bar{y}}_1, S_{23}) = \{\bar{\bar{y}}_2, \bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, \bar{\bar{y}}_5, \bar{\bar{y}}_6, S_{19}, S_{32}, S_{33}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}, S_{25}\}$

$E(\bar{\bar{y}}_2) = \{\bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, \bar{\bar{y}}_5, \bar{\bar{y}}_6, S_{19}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$

$\bar{\bar{y}}_2 \in N_2(\bar{\bar{y}}_1, S_{23})$ − выполняется

$N_1(\bar{\bar{y}}_1, S_{23}) \subseteq E(\bar{\bar{y}}_2) -$ выполняется

выполняется

1)$\bar{\bar{y}}_1 \nrightarrow S_{24}$
2)$\bar{\bar{y}}_2$
$E(\bar{\bar{y}}_1) = \{\bar{\bar{y}}_2, \bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, \bar{\bar{y}}_5, \bar{\bar{y}}_6, S_{19}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$
$E(S_{24}) = \{S_{25}, S_{34}\}$
$N_1(\bar{\bar{y}}_1, S_{24}) = \{S_{34}\}$
$N_2(\bar{\bar{y}}_1, S_{24}) = \{\bar{\bar{y}}_2, \bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, \bar{\bar{y}}_5, \bar{\bar{y}}_6, S_{19}, S_{32}, S_{33}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}, S_{25}\}$
$E(\bar{\bar{y}}_2) = \{\bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, \bar{\bar{y}}_5, \bar{\bar{y}}_6, S_{19}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$
$\bar{\bar{y}}_2 \in N_2(\bar{\bar{y}}_1, S_{24}) -$ выполняется
$N_1(\bar{\bar{y}}_1, S_{24}) \subseteq E(\bar{\bar{y}}_2) -$ выполняется

выполняется

1)$\bar{\bar{y}}_1 \nrightarrow S_{25}$
2)$\bar{\bar{y}}_2$
$E(\bar{\bar{y}}_1) = \{\bar{\bar{y}}_2, \bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, \bar{\bar{y}}_5, \bar{\bar{y}}_6, S_{19}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$
$E(S_{25}) = \{S_{34}\}$
$N_1(\bar{\bar{y}}_1, S_{25}) = \{S_{34}\}$
$N_2(\bar{\bar{y}}_1, S_{25}) = \{\bar{\bar{y}}_2, \bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, \bar{\bar{y}}_5, \bar{\bar{y}}_6, S_{19}, S_{32}, S_{33}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$
$E(\bar{\bar{y}}_2) = \{\bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, \bar{\bar{y}}_5, \bar{\bar{y}}_6, S_{19}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$
$\bar{\bar{y}}_2 \in N_2(\bar{\bar{y}}_1, S_{25}) -$ выполняется
$N_1(\bar{\bar{y}}_1, S_{25}) \subseteq E(\bar{\bar{y}}_2) -$ выполняется

выполняется

На текущей итерации был выделен паралллельный групповой оператор $\bar{\bar{y}}_8 = \{S_{22}, S_{23}, S_{24}\}$

Итерация №9

Отношения между операторами:

$$\text{SD} =$$

	$\bar{\bar{y}}_1$	$\bar{\bar{y}}_2$	$\bar{\bar{y}}_3$	$\bar{\bar{y}}_4$	S_{12}	$\bar{\bar{y}}_5$	$\bar{\bar{y}}_6$	S_{19}	$\bar{\bar{y}}_7$	$\bar{\bar{y}}_8$	S_{25}	S_{26}	S_{27}	S_{28}	S_{29}	S_{30}	S_{31}	S_{32}	S_{33}	S_{34}	S_{35}	S_{36}	S_{37}	S_{38}	S_{39}	S_{40}
$\bar{\bar{y}}_1$	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
$\bar{\bar{y}}_2$	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
$\bar{\bar{y}}_3$	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0
$\bar{\bar{y}}_4$	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
S_{12}	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
$\bar{\bar{y}}_5$	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1
$\bar{\bar{y}}_6$	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
S_{19}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
$\bar{\bar{y}}_7$	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
$\bar{\bar{y}}_8$	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
S_{25}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
S_{26}	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
S_{27}	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
S_{28}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{29}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
S_{30}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
S_{31}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
S_{32}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{33}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{34}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{35}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{36}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{37}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{38}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{39}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{40}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

$$\text{WD} =$$

	$\bar{\bar{y}}_1$	$\bar{\bar{y}}_2$	$\bar{\bar{y}}_3$	$\bar{\bar{y}}_4$	S_{12}	$\bar{\bar{y}}_5$	$\bar{\bar{y}}_6$	S_{19}	$\bar{\bar{y}}_7$	$\bar{\bar{y}}_8$	S_{25}	S_{26}	S_{27}	S_{28}	S_{29}	S_{30}	S_{31}	S_{32}	S_{33}	S_{34}	S_{35}	S_{36}	S_{37}	S_{38}	S_{39}	S_{40}
$\bar{\bar{y}}_1$	0	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1
$\bar{\bar{y}}_2$	0	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1
$\bar{\bar{y}}_3$	0	0	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1
$\bar{\bar{y}}_4$	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1
S_{12}	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1
$\bar{\bar{y}}_5$	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1
$\bar{\bar{y}}_6$	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0
S_{19}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
$\bar{\bar{y}}_7$	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0
$\bar{\bar{y}}_8$	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0
S_{25}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
S_{26}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
S_{27}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
S_{28}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{29}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
S_{30}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
S_{31}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
S_{32}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{33}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{34}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{35}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{36}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{37}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{38}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{39}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{40}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

$$C =$$

	$\bar{\bar{y}}_1$	$\bar{\bar{y}}_2$	$\bar{\bar{y}}_3$	$\bar{\bar{y}}_4$	S_{12}	$\bar{\bar{y}}_5$	$\bar{\bar{y}}_6$	S_{19}	$\bar{\bar{y}}_7$	$\bar{\bar{y}}_8$	S_{25}	S_{26}	S_{27}	S_{28}	S_{29}	S_{30}	S_{31}	S_{32}	S_{33}	S_{34}	S_{35}	S_{36}	S_{37}	S_{38}	S_{39}	S_{40}
$\bar{\bar{y}}_1$	1	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0
$\bar{\bar{y}}_2$	0	1	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0
$\bar{\bar{y}}_3$	0	0	1	0	0	0	0	0	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0
$\bar{\bar{y}}_4$	0	0	0	1	0	0	0	0	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0
S_{12}	0	0	0	0	1	0	0	0	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0
$\bar{\bar{y}}_5$	0	0	0	0	0	1	0	0	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0
$\bar{\bar{y}}_6$	0	0	0	0	0	0	1	0	1	0	1	1	1	1	1	1	1	1	0	1	1	0	1	1	1	1
S_{19}	0	0	0	0	0	0	0	1	0	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1
$\bar{\bar{y}}_7$	1	1	1	1	1	1	1	0	1	0	0	1	1	1	1	1	1	1	0	1	1	1	1	0	1	1
$\bar{\bar{y}}_8$	1	1	1	1	1	1	0	1	0	1	0	1	1	1	1	1	1	1	0	1	1	1	1	0	1	1
S_{25}	1	1	1	1	1	1	1	1	0	0	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1
S_{26}	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1
S_{27}	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1
S_{28}	1	1	1	1	1	1	1	1	1	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1
S_{29}	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	0
S_{30}	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	0
S_{31}	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	1	1	1	1	1	1	1	1	0
S_{32}	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
S_{33}	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
S_{34}	0	0	0	0	0	0	1	1	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
S_{35}	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
S_{36}	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
S_{37}	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
S_{38}	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
S_{39}	0	0	0	0	0	0	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
S_{40}	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	0	0	0	1	1	1	1	1	1	1	1

$$SI =$$

	$\bar{\bar{y}}_1$	$\bar{\bar{y}}_2$	$\bar{\bar{y}}_3$	$\bar{\bar{y}}_4$	S_{12}	$\bar{\bar{y}}_5$	$\bar{\bar{y}}_6$	S_{19}	$\bar{\bar{y}}_7$	$\bar{\bar{y}}_8$	S_{25}	S_{26}	S_{27}	S_{28}	S_{29}	S_{30}	S_{31}	S_{32}	S_{33}	S_{34}	S_{35}	S_{36}	S_{37}	S_{38}	S_{39}	S_{40}
$\bar{\bar{y}}_1$	1	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0
$\bar{\bar{y}}_2$	0	1	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0
$\bar{\bar{y}}_3$	0	0	1	0	0	0	0	0	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0
$\bar{\bar{y}}_4$	0	0	0	1	0	0	0	0	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0
S_{12}	0	0	0	0	1	0	0	0	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0
$\bar{\bar{y}}_5$	0	0	0	0	0	1	0	0	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0
$\bar{\bar{y}}_6$	0	0	0	0	0	0	1	0	0	0	1	1	1	1	1	1	1	1	0	1	1	0	1	1	1	1
S_{19}	0	0	0	0	0	0	0	1	0	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1
$\bar{\bar{y}}_7$	1	1	1	1	1	1	0	0	1	0	0	1	1	1	1	1	1	1	0	1	1	1	1	0	1	1
$\bar{\bar{y}}_8$	1	1	1	1	1	1	0	1	0	1	0	1	1	1	1	1	1	1	0	1	1	1	1	0	1	1
S_{25}	1	1	1	1	1	1	1	1	0	0	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1
S_{26}	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1
S_{27}	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1
S_{28}	1	1	1	1	1	1	1	1	1	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1
S_{29}	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	0
S_{30}	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	0
S_{31}	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	1	1	1	1	1	1	1	1	0
S_{32}	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
S_{33}	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
S_{34}	0	0	0	0	0	0	1	1	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
S_{35}	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
S_{36}	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
S_{37}	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
S_{38}	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
S_{39}	0	0	0	0	0	0	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
S_{40}	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	0	0	0	1	1	1	1	1	1	1	1

Проверка условия приводимости программы к ППФ (5 из 210):

1) $\bar{\bar{y}}_1 \nrightarrow \bar{\bar{y}}_7$

2) $\bar{\bar{y}}_2$

$E(\bar{\bar{y}}_1) = \{\bar{\bar{y}}_2, \bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, \bar{\bar{y}}_5, \bar{\bar{y}}_6, S_{19}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$

$E(\bar{\bar{y}}_7) = \{\bar{\bar{y}}_8, S_{25}, S_{34}, S_{39}\}$

$N_1(\bar{\bar{y}}_1, \bar{\bar{y}}_7) = \{S_{34}, S_{39}\}$
$N_2(\bar{\bar{y}}_1, \bar{\bar{y}}_7) = \{\bar{\bar{y}}_2, \bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, \bar{\bar{y}}_5, \bar{\bar{y}}_6, S_{19}, S_{32}, S_{33}, S_{35}, S_{36}, S_{37}, S_{38}, S_{40}, \bar{\bar{y}}_8, S_{25}\}$
$E(\bar{\bar{y}}_2) = \{\bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, \bar{\bar{y}}_5, \bar{\bar{y}}_6, S_{19}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$
$\bar{\bar{y}}_2 \in N_2(\bar{\bar{y}}_1, \bar{\bar{y}}_7) -$ выполняется
$N_1(\bar{\bar{y}}_1, \bar{\bar{y}}_7) \subseteq E(\bar{\bar{y}}_2) -$ выполняется
выполняется

1)$\bar{\bar{y}}_1 \nrightarrow \bar{\bar{y}}_8$
2)$\bar{\bar{y}}_2$
$E(\bar{\bar{y}}_1) = \{\bar{\bar{y}}_2, \bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, \bar{\bar{y}}_5, \bar{\bar{y}}_6, S_{19}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$
$E(\bar{\bar{y}}_8) = \{S_{25}, S_{34}, S_{39}\}$
$N_1(\bar{\bar{y}}_1, \bar{\bar{y}}_8) = \{S_{34}, S_{39}\}$
$N_2(\bar{\bar{y}}_1, \bar{\bar{y}}_8) = \{\bar{\bar{y}}_2, \bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, \bar{\bar{y}}_5, \bar{\bar{y}}_6, S_{19}, S_{32}, S_{33}, S_{35}, S_{36}, S_{37}, S_{38}, S_{40}, S_{25}\}$
$E(\bar{\bar{y}}_2) = \{\bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, \bar{\bar{y}}_5, \bar{\bar{y}}_6, S_{19}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$
$\bar{\bar{y}}_2 \in N_2(\bar{\bar{y}}_1, \bar{\bar{y}}_8) -$ выполняется
$N_1(\bar{\bar{y}}_1, \bar{\bar{y}}_8) \subseteq E(\bar{\bar{y}}_2) -$ выполняется
выполняется

1)$\bar{\bar{y}}_1 \nrightarrow S_{25}$
2)$\bar{\bar{y}}_2$
$E(\bar{\bar{y}}_1) = \{\bar{\bar{y}}_2, \bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, \bar{\bar{y}}_5, \bar{\bar{y}}_6, S_{19}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$
$E(S_{25}) = \{S_{34}\}$
$N_1(\bar{\bar{y}}_1, S_{25}) = \{S_{34}\}$
$N_2(\bar{\bar{y}}_1, S_{25}) = \{\bar{\bar{y}}_2, \bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, \bar{\bar{y}}_5, \bar{\bar{y}}_6, S_{19}, S_{32}, S_{33}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$
$E(\bar{\bar{y}}_2) = \{\bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, \bar{\bar{y}}_5, \bar{\bar{y}}_6, S_{19}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$
$\bar{\bar{y}}_2 \in N_2(\bar{\bar{y}}_1, S_{25}) -$ выполняется
$N_1(\bar{\bar{y}}_1, S_{25}) \subseteq E(\bar{\bar{y}}_2) -$ выполняется
выполняется

1)$\bar{\bar{y}}_1 \nrightarrow S_{26}$
2)$\bar{\bar{y}}_2$
$E(\bar{\bar{y}}_1) = \{\bar{\bar{y}}_2, \bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, \bar{\bar{y}}_5, \bar{\bar{y}}_6, S_{19}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$
$E(S_{26}) = \{S_{28}\}$
$N_1(\bar{\bar{y}}_1, S_{26}) = \varnothing$
$N_2(\bar{\bar{y}}_1, S_{26}) = \{\bar{\bar{y}}_2, \bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, \bar{\bar{y}}_5, \bar{\bar{y}}_6, S_{19}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}, S_{28}\}$
$E(\bar{\bar{y}}_2) = \{\bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, \bar{\bar{y}}_5, \bar{\bar{y}}_6, S_{19}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$
$\bar{\bar{y}}_2 \in N_2(\bar{\bar{y}}_1, S_{26}) -$ выполняется
$N_1(\bar{\bar{y}}_1, S_{26}) \subseteq E(\bar{\bar{y}}_2) -$ выполняется
выполняется

1)$\bar{\bar{y}}_1 \nrightarrow S_{27}$
2)$\bar{\bar{y}}_2$
$E(\bar{\bar{y}}_1) = \{\bar{\bar{y}}_2, \bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, \bar{\bar{y}}_5, \bar{\bar{y}}_6, S_{19}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$
$E(S_{27}) = \{S_{28}\}$
$N_1(\bar{\bar{y}}_1, S_{27}) = \varnothing$
$N_2(\bar{\bar{y}}_1, S_{27}) = \{\bar{\bar{y}}_2, \bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, \bar{\bar{y}}_5, \bar{\bar{y}}_6, S_{19}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}, S_{28}\}$
$E(\bar{\bar{y}}_2) = \{\bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, \bar{\bar{y}}_5, \bar{\bar{y}}_6, S_{19}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$
$\bar{\bar{y}}_2 \in N_2(\bar{\bar{y}}_1, S_{27}) -$ выполняется
$N_1(\bar{\bar{y}}_1, S_{27}) \subseteq E(\bar{\bar{y}}_2) -$ выполняется
выполняется
На текущей итерации был выделен паралллельный групповой оператор $\bar{\bar{y}}_9 = \{S_{25}, S_{26}, S_{27}\}$

Итерация №10

Отношения между операторами:

$$SD =$$

	$\bar{\bar{y}}_1$	$\bar{\bar{y}}_2$	$\bar{\bar{y}}_3$	$\bar{\bar{y}}_4$	S_{12}	$\bar{\bar{y}}_5$	$\bar{\bar{y}}_6$	S_{19}	$\bar{\bar{y}}_7$	$\bar{\bar{y}}_8$	$\bar{\bar{y}}_9$	S_{28}	S_{29}	S_{30}	S_{31}	S_{32}	S_{33}	S_{34}	S_{35}	S_{36}	S_{37}	S_{38}	S_{39}	S_{40}
$\bar{\bar{y}}_1$	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
$\bar{\bar{y}}_2$	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
$\bar{\bar{y}}_3$	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0
$\bar{\bar{y}}_4$	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
S_{12}	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
$\bar{\bar{y}}_5$	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1
$\bar{\bar{y}}_6$	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
S_{19}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
$\bar{\bar{y}}_7$	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
$\bar{\bar{y}}_8$	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0
$\bar{\bar{y}}_9$	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0
S_{28}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{29}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
S_{30}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
S_{31}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
S_{32}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{33}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{34}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{35}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{36}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{37}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{38}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{39}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{40}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

$$WD =$$

	$\bar{\bar{y}}_1$	$\bar{\bar{y}}_2$	$\bar{\bar{y}}_3$	$\bar{\bar{y}}_4$	S_{12}	$\bar{\bar{y}}_5$	$\bar{\bar{y}}_6$	S_{19}	$\bar{\bar{y}}_7$	$\bar{\bar{y}}_8$	$\bar{\bar{y}}_9$	S_{28}	S_{29}	S_{30}	S_{31}	S_{32}	S_{33}	S_{34}	S_{35}	S_{36}	S_{37}	S_{38}	S_{39}	S_{40}
$\bar{\bar{y}}_1$	0	1	1	1	1	1	1	1	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1
$\bar{\bar{y}}_2$	0	0	1	1	1	1	1	1	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1
$\bar{\bar{y}}_3$	0	0	0	1	1	1	1	1	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1
$\bar{\bar{y}}_4$	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1
S_{12}	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1
$\bar{\bar{y}}_5$	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1
$\bar{\bar{y}}_6$	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0
S_{19}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
$\bar{\bar{y}}_7$	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	1	0	0	0	0	1	0
$\bar{\bar{y}}_8$	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1	0	0	0	0	1	0
$\bar{\bar{y}}_9$	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0
S_{28}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{29}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
S_{30}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
S_{31}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
S_{32}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{33}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{34}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{35}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{36}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{37}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{38}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{39}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{40}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

$$C =$$

	$\bar{\bar{y}}_1$	$\bar{\bar{y}}_2$	$\bar{\bar{y}}_3$	$\bar{\bar{y}}_4$	S_{12}	$\bar{\bar{y}}_5$	$\bar{\bar{y}}_6$	S_{19}	$\bar{\bar{y}}_7$	$\bar{\bar{y}}_8$	$\bar{\bar{y}}_9$	S_{28}	S_{29}	S_{30}	S_{31}	S_{32}	S_{33}	S_{34}	S_{35}	S_{36}	S_{37}	S_{38}	S_{39}	S_{40}
$\bar{\bar{y}}_1$	1	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0
$\bar{\bar{y}}_2$	0	1	0	0	0	0	0	0	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0
$\bar{\bar{y}}_3$	0	0	1	0	0	0	0	0	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0
$\bar{\bar{y}}_4$	0	0	0	1	0	0	0	0	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0
S_{12}	0	0	0	0	1	0	0	0	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0
$\bar{\bar{y}}_5$	0	0	0	0	0	1	0	0	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0
$\bar{\bar{y}}_6$	0	0	0	0	0	0	1	0	1	0	1	1	1	1	1	1	0	1	1	0	1	1	1	1
S_{19}	0	0	0	0	0	0	0	1	0	1	1	1	1	1	1	1	0	1	1	0	1	1	1	1
$\bar{\bar{y}}_7$	1	1	1	1	1	1	1	0	1	0	0	0	1	1	1	1	0	1	1	1	1	1	0	1
$\bar{\bar{y}}_8$	1	1	1	1	1	1	0	1	0	1	0	0	1	1	1	1	0	1	1	1	1	1	0	1
$\bar{\bar{y}}_9$	1	1	1	1	1	1	1	1	0	0	1	0	1	1	1	1	0	1	1	1	1	1	1	1
S_{28}	1	1	1	1	1	1	1	1	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1
S_{29}	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	0
S_{30}	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	0
S_{31}	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	1	1	1	1	1	1	1	1	0
S_{32}	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
S_{33}	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
S_{34}	0	0	0	0	0	0	1	1	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1
S_{35}	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
S_{36}	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
S_{37}	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
S_{38}	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
S_{39}	0	0	0	0	0	0	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1
S_{40}	0	0	0	0	0	0	1	1	1	1	1	1	0	0	0	1	1	1	1	1	1	1	1	1

$$SI =$$

	$\bar{\bar{y}}_1$	$\bar{\bar{y}}_2$	$\bar{\bar{y}}_3$	$\bar{\bar{y}}_4$	S_{12}	$\bar{\bar{y}}_5$	$\bar{\bar{y}}_6$	S_{19}	$\bar{\bar{y}}_7$	$\bar{\bar{y}}_8$	$\bar{\bar{y}}_9$	S_{28}	S_{29}	S_{30}	S_{31}	S_{32}	S_{33}	S_{34}	S_{35}	S_{36}	S_{37}	S_{38}	S_{39}	S_{40}
$\bar{\bar{y}}_1$	1	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0
$\bar{\bar{y}}_2$	0	1	0	0	0	0	0	0	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0
$\bar{\bar{y}}_3$	0	0	1	0	0	0	0	0	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0
$\bar{\bar{y}}_4$	0	0	0	1	0	0	0	0	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0
S_{12}	0	0	0	0	1	0	0	0	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0
$\bar{\bar{y}}_5$	0	0	0	0	0	1	0	0	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0
$\bar{\bar{y}}_6$	0	0	0	0	0	0	1	0	0	0	1	1	1	1	1	1	0	1	1	0	1	1	1	1
S_{19}	0	0	0	0	0	0	0	1	0	1	1	1	1	1	1	1	0	1	1	0	1	1	1	1
$\bar{\bar{y}}_7$	1	1	1	1	1	1	0	0	1	0	0	0	1	1	1	1	0	1	1	1	1	1	0	1
$\bar{\bar{y}}_8$	1	1	1	1	1	1	0	1	0	1	0	0	1	1	1	1	0	1	1	1	1	1	0	1
$\bar{\bar{y}}_9$	1	1	1	1	1	1	1	1	0	0	1	0	1	1	1	1	0	1	1	1	1	1	1	1
S_{28}	1	1	1	1	1	1	1	1	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1
S_{29}	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	0
S_{30}	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	0
S_{31}	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	1	1	1	1	1	1	1	1	0
S_{32}	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
S_{33}	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
S_{34}	0	0	0	0	0	0	1	1	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1
S_{35}	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
S_{36}	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
S_{37}	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
S_{38}	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
S_{39}	0	0	0	0	0	0	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1
S_{40}	0	0	0	0	0	0	1	1	1	1	1	1	0	0	0	1	1	1	1	1	1	1	1	1

Проверка условия приводимости программы к ППФ (5 из 162):

1) $\bar{\bar{y}}_1 \nrightarrow \bar{\bar{y}}_7$

2) $\bar{\bar{y}}_2$

$E(\bar{\bar{y}}_1) = \{\bar{\bar{y}}_2, \bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, \bar{\bar{y}}_5, \bar{\bar{y}}_6, S_{19}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$

$E(\bar{\bar{y}}_7) = \{\bar{\bar{y}}_8, \bar{\bar{y}}_9, S_{28}, S_{34}, S_{39}\}$

$N_1(\bar{\bar{y}}_1, \bar{\bar{y}}_7) = \{S_{34}, S_{39}\}$

$N_2(\bar{\bar{y}}_1, \bar{\bar{y}}_7) = \{\bar{\bar{y}}_2, \bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, \bar{\bar{y}}_5, \bar{\bar{y}}_6, S_{19}, S_{32}, S_{33}, S_{35}, S_{36}, S_{37}, S_{38}, S_{40}, \bar{\bar{y}}_8, \bar{\bar{y}}_9, S_{28}\}$

$E(\bar{\bar{y}}_2) = \{\bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, \bar{\bar{y}}_5, \bar{\bar{y}}_6, S_{19}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$

$\bar{\bar{y}}_2 \in N_2(\bar{\bar{y}}_1, \bar{\bar{y}}_7)$ — выполняется

$N_1(\bar{\bar{y}}_1, \bar{\bar{y}}_7) \subseteq E(\bar{\bar{y}}_2)$ — выполняется

выполняется

1) $\bar{\bar{y}}_1 \nrightarrow \bar{\bar{y}}_8$

2) $\bar{\bar{y}}_2$

$E(\bar{\bar{y}}_1) = \{\bar{\bar{y}}_2, \bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, \bar{\bar{y}}_5, \bar{\bar{y}}_6, S_{19}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$

$E(\bar{\bar{y}}_8) = \{\bar{\bar{y}}_9, S_{28}, S_{34}, S_{39}\}$

$N_1(\bar{\bar{y}}_1, \bar{\bar{y}}_8) = \{S_{34}, S_{39}\}$

$N_2(\bar{\bar{y}}_1, \bar{\bar{y}}_8) = \{\bar{\bar{y}}_2, \bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, \bar{\bar{y}}_5, \bar{\bar{y}}_6, S_{19}, S_{32}, S_{33}, S_{35}, S_{36}, S_{37}, S_{38}, S_{40}, \bar{\bar{y}}_9, S_{28}\}$

$E(\bar{\bar{y}}_2) = \{\bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, \bar{\bar{y}}_5, \bar{\bar{y}}_6, S_{19}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$

$\bar{\bar{y}}_2 \in N_2(\bar{\bar{y}}_1, \bar{\bar{y}}_8)$ − выполняется
$N_1(\bar{\bar{y}}_1, \bar{\bar{y}}_8) \subseteq E(\bar{\bar{y}}_2)$ − выполняется
выполняется

$1)\bar{\bar{y}}_1 \nrightarrow \bar{\bar{y}}_9$
$2)\bar{\bar{y}}_2$
$E(\bar{\bar{y}}_1) = \{\bar{\bar{y}}_2, \bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, \bar{\bar{y}}_5, \bar{\bar{y}}_6, S_{19}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$
$E(\bar{\bar{y}}_9) = \{S_{28}, S_{34}\}$
$N_1(\bar{\bar{y}}_1, \bar{\bar{y}}_9) = \{S_{34}\}$
$N_2(\bar{\bar{y}}_1, \bar{\bar{y}}_9) = \{\bar{\bar{y}}_2, \bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, \bar{\bar{y}}_5, \bar{\bar{y}}_6, S_{19}, S_{32}, S_{33}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}, S_{28}\}$
$E(\bar{\bar{y}}_2) = \{\bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, \bar{\bar{y}}_5, \bar{\bar{y}}_6, S_{19}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$
$\bar{\bar{y}}_2 \in N_2(\bar{\bar{y}}_1, \bar{\bar{y}}_9)$ − выполняется
$N_1(\bar{\bar{y}}_1, \bar{\bar{y}}_9) \subseteq E(\bar{\bar{y}}_2)$ − выполняется
выполняется

$1)\bar{\bar{y}}_1 \nrightarrow S_{28}$
$2)\bar{\bar{y}}_2$
$E(\bar{\bar{y}}_1) = \{\bar{\bar{y}}_2, \bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, \bar{\bar{y}}_5, \bar{\bar{y}}_6, S_{19}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$
$E(S_{28}) = \varnothing$
$N_1(\bar{\bar{y}}_1, S_{28}) = \varnothing$
$N_2(\bar{\bar{y}}_1, S_{28}) = \{\bar{\bar{y}}_2, \bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, \bar{\bar{y}}_5, \bar{\bar{y}}_6, S_{19}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$
$E(\bar{\bar{y}}_2) = \{\bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, \bar{\bar{y}}_5, \bar{\bar{y}}_6, S_{19}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$
$\bar{\bar{y}}_2 \in N_2(\bar{\bar{y}}_1, S_{28})$ − выполняется
$N_1(\bar{\bar{y}}_1, S_{28}) \subseteq E(\bar{\bar{y}}_2)$ − выполняется
выполняется

$1)\bar{\bar{y}}_1 \nrightarrow S_{29}$
$2)\bar{\bar{y}}_2$
$E(\bar{\bar{y}}_1) = \{\bar{\bar{y}}_2, \bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, \bar{\bar{y}}_5, \bar{\bar{y}}_6, S_{19}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$
$E(S_{29}) = \{S_{31}, S_{40}\}$
$N_1(\bar{\bar{y}}_1, S_{29}) = \{S_{40}\}$
$N_2(\bar{\bar{y}}_1, S_{29}) = \{\bar{\bar{y}}_2, \bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, \bar{\bar{y}}_5, \bar{\bar{y}}_6, S_{19}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{31}\}$
$E(\bar{\bar{y}}_2) = \{\bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, \bar{\bar{y}}_5, \bar{\bar{y}}_6, S_{19}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$
$\bar{\bar{y}}_2 \in N_2(\bar{\bar{y}}_1, S_{29})$ − выполняется
$N_1(\bar{\bar{y}}_1, S_{29}) \subseteq E(\bar{\bar{y}}_2)$ − выполняется
выполняется
На текущей итерации был выделен паралллельный групповой оператор $\bar{\bar{y}}_{10} = \{S_{28}, S_{29}, S_{30}\}$

Итерация №11

Отношения между операторами:

$$SD =$$

	$\bar{\bar{y}}_1$	$\bar{\bar{y}}_2$	$\bar{\bar{y}}_3$	$\bar{\bar{y}}_4$	S_{12}	$\bar{\bar{y}}_5$	$\bar{\bar{y}}_6$	S_{19}	$\bar{\bar{y}}_7$	$\bar{\bar{y}}_8$	$\bar{\bar{y}}_9$	$\bar{\bar{y}}_{10}$	S_{31}	S_{32}	S_{33}	S_{34}	S_{35}	S_{36}	S_{37}	S_{38}	S_{39}	S_{40}
$\bar{\bar{y}}_1$	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
$\bar{\bar{y}}_2$	0	0	1	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
$\bar{\bar{y}}_3$	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0
$\bar{\bar{y}}_4$	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
S_{12}	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
$\bar{\bar{y}}_5$	0	0	0	0	0	0	1	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1
$\bar{\bar{y}}_6$	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0
S_{19}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
$\bar{\bar{y}}_7$	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
$\bar{\bar{y}}_8$	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0
$\bar{\bar{y}}_9$	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0
$\bar{\bar{y}}_{10}$	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
S_{31}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
S_{32}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{33}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{34}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{35}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{36}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{37}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{38}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{39}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{40}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

$$WD =$$

	$\bar{\bar{y}}_1$	$\bar{\bar{y}}_2$	$\bar{\bar{y}}_3$	$\bar{\bar{y}}_4$	S_{12}	$\bar{\bar{y}}_5$	$\bar{\bar{y}}_6$	S_{19}	$\bar{\bar{y}}_7$	$\bar{\bar{y}}_8$	$\bar{\bar{y}}_9$	$\bar{\bar{y}}_{10}$	S_{31}	S_{32}	S_{33}	S_{34}	S_{35}	S_{36}	S_{37}	S_{38}	S_{39}	S_{40}
$\bar{\bar{y}}_1$	0	1	1	1	1	1	1	1	0	0	0	0	0	1	1	1	1	1	1	1	1	1
$\bar{\bar{y}}_2$	0	0	1	1	1	1	1	1	0	0	0	0	0	1	1	1	1	1	1	1	1	1
$\bar{\bar{y}}_3$	0	0	0	1	1	1	1	1	0	0	0	0	0	1	1	1	1	1	1	1	1	1
$\bar{\bar{y}}_4$	0	0	0	0	1	1	1	1	0	0	0	0	0	1	1	1	1	1	1	1	1	1
S_{12}	0	0	0	0	0	1	1	1	0	0	0	0	0	1	1	1	1	1	1	1	1	1
$\bar{\bar{y}}_5$	0	0	0	0	0	0	1	1	0	0	0	0	0	1	1	1	1	1	1	1	1	1
$\bar{\bar{y}}_6$	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0
S_{19}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
$\bar{\bar{y}}_7$	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0	1	0	0	0	0	1	1
$\bar{\bar{y}}_8$	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	1	0	0	0	0	1	1
$\bar{\bar{y}}_9$	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	1	0	0	0	0	0	1
$\bar{\bar{y}}_{10}$	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
S_{31}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
S_{32}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{33}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{34}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{35}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{36}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{37}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{38}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{39}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S_{40}	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

$$C =$$

	$\bar{\bar{y}}_1$	$\bar{\bar{y}}_2$	$\bar{\bar{y}}_3$	$\bar{\bar{y}}_4$	S_{12}	$\bar{\bar{y}}_5$	$\bar{\bar{y}}_6$	S_{19}	$\bar{\bar{y}}_7$	$\bar{\bar{y}}_8$	$\bar{\bar{y}}_9$	$\bar{\bar{y}}_{10}$	S_{31}	S_{32}	S_{33}	S_{34}	S_{35}	S_{36}	S_{37}	S_{38}	S_{39}	S_{40}
$\bar{\bar{y}}_1$	1	0	0	0	0	0	0	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0
$\bar{\bar{y}}_2$	0	1	0	0	0	0	0	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0
$\bar{\bar{y}}_3$	0	0	1	0	0	0	0	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0
$\bar{\bar{y}}_4$	0	0	0	1	0	0	0	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0
S_{12}	0	0	0	0	1	0	0	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0
$\bar{\bar{y}}_5$	0	0	0	0	0	1	0	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0
$\bar{\bar{y}}_6$	0	0	0	0	0	0	1	0	1	0	1	1	1	1	0	1	0	1	1	1	1	1
S_{19}	0	0	0	0	0	0	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1
$\bar{\bar{y}}_7$	1	1	1	1	1	1	1	0	1	0	0	0	0	1	1	0	1	1	1	1	0	0
$\bar{\bar{y}}_8$	1	1	1	1	1	1	0	1	0	1	0	0	0	1	1	0	1	1	1	1	0	0
$\bar{\bar{y}}_9$	1	1	1	1	1	1	1	0	0	1	0	0	1	1	0	1	1	1	1	1	1	0
$\bar{\bar{y}}_{10}$	1	1	1	1	1	1	1	0	0	0	1	0	1	1	1	1	1	1	1	1	1	0
S_{31}	1	1	1	1	1	1	1	0	0	0	0	1	1	1	1	1	1	1	1	1	1	0
S_{32}	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
S_{33}	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
S_{34}	0	0	0	0	0	0	1	1	0	0	0	1	1	1	1	1	1	1	1	1	1	1
S_{35}	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
S_{36}	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
S_{37}	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
S_{38}	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
S_{39}	0	0	0	0	0	0	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1
S_{40}	0	0	0	0	0	0	1	1	0	0	0	0	0	1	1	1	1	1	1	1	1	1

$$\text{SI} = \begin{array}{c|cccccccccccccccccccccc}
 & \bar{\bar{y}}_1 & \bar{\bar{y}}_2 & \bar{\bar{y}}_3 & \bar{\bar{y}}_4 & S_{12} & \bar{\bar{y}}_5 & \bar{\bar{y}}_6 & S_{19} & \bar{\bar{y}}_7 & \bar{\bar{y}}_8 & \bar{\bar{y}}_9 & \bar{\bar{y}}_{10} & S_{31} & S_{32} & S_{33} & S_{34} & S_{35} & S_{36} & S_{37} & S_{38} & S_{39} & S_{40} \\
\hline
\bar{\bar{y}}_1 & 1 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 1 & 1 & 1 & 1 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\
\bar{\bar{y}}_2 & 0 & 1 & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 1 & 1 & 1 & 1 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\
\bar{\bar{y}}_3 & 0 & 0 & 1 & 0 & 0 & 0 & 0 & 0 & 1 & 1 & 1 & 1 & 1 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\
\bar{\bar{y}}_4 & 0 & 0 & 0 & 1 & 0 & 0 & 0 & 0 & 1 & 1 & 1 & 1 & 1 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\
S_{12} & 0 & 0 & 0 & 0 & 1 & 0 & 0 & 0 & 1 & 1 & 1 & 1 & 1 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\
\bar{\bar{y}}_5 & 0 & 0 & 0 & 0 & 0 & 1 & 0 & 0 & 1 & 1 & 1 & 1 & 1 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\
\bar{\bar{y}}_6 & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 0 & 0 & 0 & 1 & 1 & 1 & 1 & 0 & 1 & 1 & 0 & 1 & 1 & 1 & 1 \\
S_{19} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 0 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 0 & 1 & 1 & 1 & 1 & 1 \\
\bar{\bar{y}}_7 & 1 & 1 & 1 & 1 & 1 & 1 & 0 & 0 & 1 & 0 & 0 & 0 & 0 & 1 & 1 & 0 & 1 & 1 & 1 & 1 & 0 & 0 \\
\bar{\bar{y}}_8 & 1 & 1 & 1 & 1 & 1 & 1 & 0 & 1 & 0 & 1 & 0 & 0 & 0 & 1 & 1 & 0 & 1 & 1 & 1 & 1 & 0 & 0 \\
\bar{\bar{y}}_9 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 0 & 0 & 1 & 0 & 0 & 1 & 1 & 0 & 1 & 1 & 1 & 1 & 1 & 0 \\
\bar{\bar{y}}_{10} & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 0 & 0 & 0 & 1 & 0 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 0 \\
S_{31} & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 0 & 0 & 0 & 0 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 0 \\
S_{32} & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 \\
S_{33} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 \\
S_{34} & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 1 & 0 & 0 & 0 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 \\
S_{35} & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 \\
S_{36} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 \\
S_{37} & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 \\
S_{38} & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 \\
S_{39} & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 1 & 0 & 0 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 \\
S_{40} & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 1 & 0 & 0 & 0 & 0 & 0 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 \\
\end{array}$$

Проверка условия приводимости программы к ППФ (5 из 115):

1)$\bar{\bar{y}}_1 \nrightarrow \bar{\bar{y}}_7$

2)$\bar{\bar{y}}_2$

$E(\bar{\bar{y}}_1) = \{\bar{\bar{y}}_2, \bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, \bar{\bar{y}}_5, \bar{\bar{y}}_6, S_{19}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$

$E(\bar{\bar{y}}_7) = \{\bar{\bar{y}}_8, \bar{\bar{y}}_9, \bar{\bar{y}}_{10}, S_{31}, S_{34}, S_{39}, S_{40}\}$

$N_1(\bar{\bar{y}}_1, \bar{\bar{y}}_7) = \{S_{34}, S_{39}, S_{40}\}$

$N_2(\bar{\bar{y}}_1, \bar{\bar{y}}_7) = \{\bar{\bar{y}}_2, \bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, \bar{\bar{y}}_5, \bar{\bar{y}}_6, S_{19}, S_{32}, S_{33}, S_{35}, S_{36}, S_{37}, S_{38}, \bar{\bar{y}}_8, \bar{\bar{y}}_9, \bar{\bar{y}}_{10}, S_{31}\}$

$E(\bar{\bar{y}}_2) = \{\bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, \bar{\bar{y}}_5, \bar{\bar{y}}_6, S_{19}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$

$\bar{\bar{y}}_2 \in N_2(\bar{\bar{y}}_1, \bar{\bar{y}}_7) -$ выполняется

$N_1(\bar{\bar{y}}_1, \bar{\bar{y}}_7) \subseteq E(\bar{\bar{y}}_2) -$ выполняется

выполняется

1)$\bar{\bar{y}}_1 \nrightarrow \bar{\bar{y}}_8$

2)$\bar{\bar{y}}_2$

$E(\bar{\bar{y}}_1) = \{\bar{\bar{y}}_2, \bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, \bar{\bar{y}}_5, \bar{\bar{y}}_6, S_{19}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$

$E(\bar{\bar{y}}_8) = \{\bar{\bar{y}}_9, \bar{\bar{y}}_{10}, S_{31}, S_{34}, S_{39}, S_{40}\}$

$N_1(\bar{\bar{y}}_1, \bar{\bar{y}}_8) = \{S_{34}, S_{39}, S_{40}\}$

$N_2(\bar{\bar{y}}_1, \bar{\bar{y}}_8) = \{\bar{\bar{y}}_2, \bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, \bar{\bar{y}}_5, \bar{\bar{y}}_6, S_{19}, S_{32}, S_{33}, S_{35}, S_{36}, S_{37}, S_{38}, \bar{\bar{y}}_9, \bar{\bar{y}}_{10}, S_{31}\}$

$E(\bar{\bar{y}}_2) = \{\bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, \bar{\bar{y}}_5, \bar{\bar{y}}_6, S_{19}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$

$\bar{\bar{y}}_2 \in N_2(\bar{\bar{y}}_1, \bar{\bar{y}}_8) -$ выполняется

$N_1(\bar{\bar{y}}_1, \bar{\bar{y}}_8) \subseteq E(\bar{\bar{y}}_2) -$ выполняется

выполняется

1)$\bar{\bar{y}}_1 \nrightarrow \bar{\bar{y}}_9$

2)$\bar{\bar{y}}_2$

$E(\bar{\bar{y}}_1) = \{\bar{\bar{y}}_2, \bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, \bar{\bar{y}}_5, \bar{\bar{y}}_6, S_{19}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$

$E(\bar{\bar{y}}_9) = \{\bar{\bar{y}}_{10}, S_{31}, S_{34}, S_{40}\}$

$N_1(\bar{\bar{y}}_1, \bar{\bar{y}}_9) = \{S_{34}, S_{40}\}$

$N_2(\bar{\bar{y}}_1, \bar{\bar{y}}_9) = \{\bar{\bar{y}}_2, \bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, \bar{\bar{y}}_5, \bar{\bar{y}}_6, S_{19}, S_{32}, S_{33}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, \bar{\bar{y}}_{10}, S_{31}\}$

$E(\bar{\bar{y}}_2) = \{\bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, \bar{\bar{y}}_5, \bar{\bar{y}}_6, S_{19}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$

$\bar{\bar{y}}_2 \in N_2(\bar{\bar{y}}_1, \bar{\bar{y}}_9) -$ выполняется

$N_1(\bar{\bar{y}}_1, \bar{\bar{y}}_9) \subseteq E(\bar{\bar{y}}_2) -$ выполняется

выполняется

1)$\bar{\bar{y}}_1 \nrightarrow \bar{\bar{y}}_{10}$

2)$\bar{\bar{y}}_2$

$E(\bar{\bar{y}}_1) = \{\bar{\bar{y}}_2, \bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, \bar{\bar{y}}_5, \bar{\bar{y}}_6, S_{19}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$

$E(\bar{\bar{y}}_{10}) = \{S_{31}, S_{40}\}$

$N_1(\bar{\bar{y}}_1, \bar{\bar{y}}_{10}) = \{S_{40}\}$

$N_2(\bar{\bar{y}}_1, \bar{\bar{y}}_{10}) = \{\bar{\bar{y}}_2, \bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, \bar{\bar{y}}_5, \bar{\bar{y}}_6, S_{19}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{31}\}$

$E(\bar{\bar{y}}_2) = \{\bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, \bar{\bar{y}}_5, \bar{\bar{y}}_6, S_{19}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$
$\bar{\bar{y}}_2 \in N_2(\bar{\bar{y}}_1, \bar{\bar{y}}_{10})$ — выполняется
$N_1(\bar{\bar{y}}_1, \bar{\bar{y}}_{10}) \subseteq E(\bar{\bar{y}}_2)$ — выполняется
выполняется

$1) \bar{\bar{y}}_1 \nrightarrow S_{31}$
$2) \bar{\bar{y}}_2$
$E(\bar{\bar{y}}_1) = \{\bar{\bar{y}}_2, \bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, \bar{\bar{y}}_5, \bar{\bar{y}}_6, S_{19}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$
$E(S_{31}) = \{S_{40}\}$
$N_1(\bar{\bar{y}}_1, S_{31}) = \{S_{40}\}$
$N_2(\bar{\bar{y}}_1, S_{31}) = \{\bar{\bar{y}}_2, \bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, \bar{\bar{y}}_5, \bar{\bar{y}}_6, S_{19}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}\}$
$E(\bar{\bar{y}}_2) = \{\bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, \bar{\bar{y}}_5, \bar{\bar{y}}_6, S_{19}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}, S_{40}\}$
$\bar{\bar{y}}_2 \in N_2(\bar{\bar{y}}_1, S_{31})$ — выполняется
$N_1(\bar{\bar{y}}_1, S_{31}) \subseteq E(\bar{\bar{y}}_2)$ — выполняется
выполняется
На текущей итерации был выделен паралллельный групповой оператор $\bar{\bar{y}}_{11} = \{S_{31}, S_{32}, S_{33}, S_{34}, S_{35}, S_{36}, S_{37}, S_{38}, S_{39}\}$

Итерация №12

Отношения между операторами:

$$
SD = \begin{array}{c} \\ \bar{\bar{y}}_1 \\ \bar{\bar{y}}_2 \\ \bar{\bar{y}}_3 \\ \bar{\bar{y}}_4 \\ S_{12} \\ \bar{\bar{y}}_5 \\ \bar{\bar{y}}_6 \\ S_{19} \\ \bar{\bar{y}}_7 \\ \bar{\bar{y}}_8 \\ \bar{\bar{y}}_9 \\ \bar{\bar{y}}_{10} \\ \bar{\bar{y}}_{11} \\ S_{40} \end{array}
\begin{array}{c} \bar{\bar{y}}_1\ \bar{\bar{y}}_2\ \bar{\bar{y}}_3\ \bar{\bar{y}}_4\ S_{12}\ \bar{\bar{y}}_5\ \bar{\bar{y}}_6\ S_{19}\ \bar{\bar{y}}_7\ \bar{\bar{y}}_8\ \bar{\bar{y}}_9\ \bar{\bar{y}}_{10}\ \bar{\bar{y}}_{11}\ S_{40} \\
\left[\begin{array}{cccccccccccccc}
0 & 1 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\
0 & 0 & 1 & 1 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 0 \\
0 & 0 & 0 & 1 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 0 \\
0 & 0 & 0 & 0 & 1 & 1 & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 0 \\
0 & 0 & 0 & 0 & 0 & 1 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\
0 & 0 & 0 & 0 & 0 & 0 & 1 & 0 & 0 & 0 & 0 & 0 & 1 & 1 \\
0 & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 0 & 0 & 0 & 0 & 1 & 0 \\
0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 0 \\
0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 0 & 0 & 0 & 0 \\
0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 0 & 1 & 0 \\
0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 1 & 0 \\
0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 0 \\
0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 1 \\
0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0
\end{array} \right]
\end{array}
$$

$$
WD = \begin{array}{c} \\ \bar{\bar{y}}_1 \\ \bar{\bar{y}}_2 \\ \bar{\bar{y}}_3 \\ \bar{\bar{y}}_4 \\ S_{12} \\ \bar{\bar{y}}_5 \\ \bar{\bar{y}}_6 \\ S_{19} \\ \bar{\bar{y}}_7 \\ \bar{\bar{y}}_8 \\ \bar{\bar{y}}_9 \\ \bar{\bar{y}}_{10} \\ \bar{\bar{y}}_{11} \\ S_{40} \end{array}
\begin{array}{c} \bar{\bar{y}}_1\ \bar{\bar{y}}_2\ \bar{\bar{y}}_3\ \bar{\bar{y}}_4\ S_{12}\ \bar{\bar{y}}_5\ \bar{\bar{y}}_6\ S_{19}\ \bar{\bar{y}}_7\ \bar{\bar{y}}_8\ \bar{\bar{y}}_9\ \bar{\bar{y}}_{10}\ \bar{\bar{y}}_{11}\ S_{40} \\
\left[\begin{array}{cccccccccccccc}
0 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 0 & 0 & 0 & 0 & 1 & 1 \\
0 & 0 & 1 & 1 & 1 & 1 & 1 & 1 & 0 & 0 & 0 & 0 & 1 & 1 \\
0 & 0 & 0 & 1 & 1 & 1 & 1 & 1 & 0 & 0 & 0 & 0 & 1 & 1 \\
0 & 0 & 0 & 0 & 1 & 1 & 1 & 1 & 0 & 0 & 0 & 0 & 1 & 1 \\
0 & 0 & 0 & 0 & 0 & 1 & 1 & 1 & 0 & 0 & 0 & 0 & 1 & 1 \\
0 & 0 & 0 & 0 & 0 & 0 & 1 & 1 & 0 & 0 & 0 & 0 & 1 & 1 \\
0 & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 0 & 0 & 0 & 0 & 1 & 1 \\
0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 1 \\
0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 1 & 1 & 1 & 1 \\
0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 1 & 1 & 1 \\
0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 1 & 1 \\
0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 1 \\
0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 1 \\
0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0
\end{array} \right]
\end{array}
$$

$$
C = \begin{array}{c} \\ \bar{\bar{y}}_1 \\ \bar{\bar{y}}_2 \\ \bar{\bar{y}}_3 \\ \bar{\bar{y}}_4 \\ S_{12} \\ \bar{\bar{y}}_5 \\ \bar{\bar{y}}_6 \\ S_{19} \\ \bar{\bar{y}}_7 \\ \bar{\bar{y}}_8 \\ \bar{\bar{y}}_9 \\ \bar{\bar{y}}_{10} \\ \bar{\bar{y}}_{11} \\ S_{40} \end{array}
\begin{array}{c} \bar{\bar{y}}_1\ \bar{\bar{y}}_2\ \bar{\bar{y}}_3\ \bar{\bar{y}}_4\ S_{12}\ \bar{\bar{y}}_5\ \bar{\bar{y}}_6\ S_{19}\ \bar{\bar{y}}_7\ \bar{\bar{y}}_8\ \bar{\bar{y}}_9\ \bar{\bar{y}}_{10}\ \bar{\bar{y}}_{11}\ S_{40} \\
\left[\begin{array}{cccccccccccccc}
1 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 1 & 1 & 1 & 0 & 0 \\
0 & 1 & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 1 & 1 & 1 & 0 & 0 \\
0 & 0 & 1 & 0 & 0 & 0 & 0 & 0 & 1 & 1 & 1 & 1 & 0 & 0 \\
0 & 0 & 0 & 1 & 0 & 0 & 0 & 0 & 1 & 1 & 1 & 1 & 0 & 0 \\
0 & 0 & 0 & 0 & 1 & 0 & 0 & 0 & 1 & 1 & 1 & 1 & 0 & 0 \\
0 & 0 & 0 & 0 & 0 & 1 & 0 & 0 & 1 & 1 & 1 & 1 & 0 & 0 \\
0 & 0 & 0 & 0 & 0 & 0 & 1 & 0 & 1 & 0 & 1 & 1 & 0 & 0 \\
0 & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 0 & 1 & 1 & 1 & 0 & 0 \\
1 & 1 & 1 & 1 & 1 & 1 & 1 & 0 & 1 & 0 & 0 & 0 & 0 & 0 \\
1 & 1 & 1 & 1 & 1 & 1 & 0 & 1 & 0 & 1 & 0 & 0 & 0 & 0 \\
1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 0 & 0 & 1 & 0 & 0 & 0 \\
1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 0 & 0 & 0 & 1 & 0 & 0 \\
0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 0 \\
0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 1
\end{array} \right]
\end{array}
$$

$$\text{SI} = \begin{array}{c} \\ \bar{\bar{y}}_1 \\ \bar{\bar{y}}_2 \\ \bar{\bar{y}}_3 \\ \bar{\bar{y}}_4 \\ S_{12} \\ \bar{\bar{y}}_5 \\ \bar{\bar{y}}_6 \\ S_{19} \\ \bar{\bar{y}}_7 \\ \bar{\bar{y}}_8 \\ \bar{\bar{y}}_9 \\ \bar{\bar{y}}_{10} \\ \bar{\bar{y}}_{11} \\ S_{40} \end{array} \begin{array}{c} \begin{array}{cccccccccccccc} \bar{\bar{y}}_1 & \bar{\bar{y}}_2 & \bar{\bar{y}}_3 & \bar{\bar{y}}_4 & S_{12} & \bar{\bar{y}}_5 & \bar{\bar{y}}_6 & S_{19} & \bar{\bar{y}}_7 & \bar{\bar{y}}_8 & \bar{\bar{y}}_9 & \bar{\bar{y}}_{10} & \bar{\bar{y}}_{11} & S_{40} \end{array} \\ \left[\begin{array}{cccccccccccccc} 1 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 1 & 1 & 1 & 0 & 0 \\ 0 & 1 & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 1 & 1 & 1 & 0 & 0 \\ 0 & 0 & 1 & 0 & 0 & 0 & 0 & 0 & 1 & 1 & 1 & 1 & 0 & 0 \\ 0 & 0 & 0 & 1 & 0 & 0 & 0 & 0 & 1 & 1 & 1 & 1 & 0 & 0 \\ 0 & 0 & 0 & 0 & 1 & 0 & 0 & 0 & 1 & 1 & 1 & 1 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 1 & 0 & 0 & 1 & 1 & 1 & 1 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 1 & 0 & 0 & 0 & 1 & 1 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 0 & 1 & 1 & 1 & 0 & 0 \\ 1 & 1 & 1 & 1 & 1 & 1 & 0 & 0 & 1 & 0 & 0 & 0 & 0 & 0 \\ 1 & 1 & 1 & 1 & 1 & 1 & 0 & 1 & 0 & 1 & 0 & 0 & 0 & 0 \\ 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 0 & 0 & 1 & 0 & 0 & 0 \\ 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 0 & 0 & 0 & 1 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 1 \end{array} \right] \end{array}$$

Проверка условия приводимости программы к ППФ (5 из 30):

1)$\bar{\bar{y}}_1 \nrightarrow \bar{\bar{y}}_7$
2)$\bar{\bar{y}}_2$
$E(\bar{\bar{y}}_1) = \{\bar{\bar{y}}_2, \bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, \bar{\bar{y}}_5, \bar{\bar{y}}_6, S_{19}, \bar{\bar{y}}_{11}, S_{40}\}$
$E(\bar{\bar{y}}_7) = \{\bar{\bar{y}}_8, \bar{\bar{y}}_9, \bar{\bar{y}}_{10}, \bar{\bar{y}}_{11}, S_{40}\}$
$N_1(\bar{\bar{y}}_1, \bar{\bar{y}}_7) = \{\bar{\bar{y}}_{11}, S_{40}\}$
$N_2(\bar{\bar{y}}_1, \bar{\bar{y}}_7) = \{\bar{\bar{y}}_2, \bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, \bar{\bar{y}}_5, \bar{\bar{y}}_6, S_{19}, \bar{\bar{y}}_8, \bar{\bar{y}}_9, \bar{\bar{y}}_{10}\}$
$E(\bar{\bar{y}}_2) = \{\bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, \bar{\bar{y}}_5, \bar{\bar{y}}_6, S_{19}, \bar{\bar{y}}_{11}, S_{40}\}$
$\bar{\bar{y}}_2 \in N_2(\bar{\bar{y}}_1, \bar{\bar{y}}_7)$ − выполняется
$N_1(\bar{\bar{y}}_1, \bar{\bar{y}}_7) \subseteq E(\bar{\bar{y}}_2)$ − выполняется
выполняется

1)$\bar{\bar{y}}_1 \nrightarrow \bar{\bar{y}}_8$
2)$\bar{\bar{y}}_2$
$E(\bar{\bar{y}}_1) = \{\bar{\bar{y}}_2, \bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, \bar{\bar{y}}_5, \bar{\bar{y}}_6, S_{19}, \bar{\bar{y}}_{11}, S_{40}\}$
$E(\bar{\bar{y}}_8) = \{\bar{\bar{y}}_9, \bar{\bar{y}}_{10}, \bar{\bar{y}}_{11}, S_{40}\}$
$N_1(\bar{\bar{y}}_1, \bar{\bar{y}}_8) = \{\bar{\bar{y}}_{11}, S_{40}\}$
$N_2(\bar{\bar{y}}_1, \bar{\bar{y}}_8) = \{\bar{\bar{y}}_2, \bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, \bar{\bar{y}}_5, \bar{\bar{y}}_6, S_{19}, \bar{\bar{y}}_9, \bar{\bar{y}}_{10}\}$
$E(\bar{\bar{y}}_2) = \{\bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, \bar{\bar{y}}_5, \bar{\bar{y}}_6, S_{19}, \bar{\bar{y}}_{11}, S_{40}\}$
$\bar{\bar{y}}_2 \in N_2(\bar{\bar{y}}_1, \bar{\bar{y}}_8)$ − выполняется
$N_1(\bar{\bar{y}}_1, \bar{\bar{y}}_8) \subseteq E(\bar{\bar{y}}_2)$ − выполняется
выполняется

1)$\bar{\bar{y}}_1 \nrightarrow \bar{\bar{y}}_9$
2)$\bar{\bar{y}}_2$
$E(\bar{\bar{y}}_1) = \{\bar{\bar{y}}_2, \bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, \bar{\bar{y}}_5, \bar{\bar{y}}_6, S_{19}, \bar{\bar{y}}_{11}, S_{40}\}$
$E(\bar{\bar{y}}_9) = \{\bar{\bar{y}}_{10}, \bar{\bar{y}}_{11}, S_{40}\}$
$N_1(\bar{\bar{y}}_1, \bar{\bar{y}}_9) = \{\bar{\bar{y}}_{11}, S_{40}\}$
$N_2(\bar{\bar{y}}_1, \bar{\bar{y}}_9) = \{\bar{\bar{y}}_2, \bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, \bar{\bar{y}}_5, \bar{\bar{y}}_6, S_{19}, \bar{\bar{y}}_{10}\}$
$E(\bar{\bar{y}}_2) = \{\bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, \bar{\bar{y}}_5, \bar{\bar{y}}_6, S_{19}, \bar{\bar{y}}_{11}, S_{40}\}$
$\bar{\bar{y}}_2 \in N_2(\bar{\bar{y}}_1, \bar{\bar{y}}_9)$ − выполняется
$N_1(\bar{\bar{y}}_1, \bar{\bar{y}}_9) \subseteq E(\bar{\bar{y}}_2)$ − выполняется
выполняется

1)$\bar{\bar{y}}_1 \nrightarrow \bar{\bar{y}}_{10}$
2)$\bar{\bar{y}}_2$
$E(\bar{\bar{y}}_1) = \{\bar{\bar{y}}_2, \bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, \bar{\bar{y}}_5, \bar{\bar{y}}_6, S_{19}, \bar{\bar{y}}_{11}, S_{40}\}$
$E(\bar{\bar{y}}_{10}) = \{\bar{\bar{y}}_{11}, S_{40}\}$
$N_1(\bar{\bar{y}}_1, \bar{\bar{y}}_{10}) = \{\bar{\bar{y}}_{11}, S_{40}\}$
$N_2(\bar{\bar{y}}_1, \bar{\bar{y}}_{10}) = \{\bar{\bar{y}}_2, \bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, \bar{\bar{y}}_5, \bar{\bar{y}}_6, S_{19}\}$
$E(\bar{\bar{y}}_2) = \{\bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, \bar{\bar{y}}_5, \bar{\bar{y}}_6, S_{19}, \bar{\bar{y}}_{11}, S_{40}\}$
$\bar{\bar{y}}_2 \in N_2(\bar{\bar{y}}_1, \bar{\bar{y}}_{10})$ − выполняется
$N_1(\bar{\bar{y}}_1, \bar{\bar{y}}_{10}) \subseteq E(\bar{\bar{y}}_2)$ − выполняется
выполняется

$1) \bar{\bar{y}}_2 \nrightarrow \bar{\bar{y}}_7$

$2) \bar{\bar{y}}_3$

$E(\bar{\bar{y}}_2) = \{\bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, \bar{\bar{y}}_5, \bar{\bar{y}}_6, S_{19}, \bar{\bar{y}}_{11}, S_{40}\}$

$E(\bar{\bar{y}}_7) = \{\bar{\bar{y}}_8, \bar{\bar{y}}_9, \bar{\bar{y}}_{10}, \bar{\bar{y}}_{11}, S_{40}\}$

$N_1(\bar{\bar{y}}_2, \bar{\bar{y}}_7) = \{\bar{\bar{y}}_{11}, S_{40}\}$

$N_2(\bar{\bar{y}}_2, \bar{\bar{y}}_7) = \{\bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, \bar{\bar{y}}_5, \bar{\bar{y}}_6, S_{19}, \bar{\bar{y}}_8, \bar{\bar{y}}_9, \bar{\bar{y}}_{10}\}$

$E(\bar{\bar{y}}_3) = \{\bar{\bar{y}}_4, S_{12}, \bar{\bar{y}}_5, \bar{\bar{y}}_6, S_{19}, \bar{\bar{y}}_{11}, S_{40}\}$

$\bar{\bar{y}}_3 \in N_2(\bar{\bar{y}}_2, \bar{\bar{y}}_7)$ − выполняется

$N_1(\bar{\bar{y}}_2, \bar{\bar{y}}_7) \subseteq E(\bar{\bar{y}}_3)$ − выполняется

выполняется

На текущей итерации был выделен последовательный групповой оператор $\bar{y}_1 = \{\bar{\bar{y}}_1, \bar{\bar{y}}_2, \bar{\bar{y}}_3, \bar{\bar{y}}_4, S_{12}, \bar{\bar{y}}_5, \bar{\bar{y}}_6, S_{19}\}$

Итерация №13

Отношения между операторами:

$$
SD = \begin{array}{c}
\\ \bar{y}_1 \\ \bar{\bar{y}}_7 \\ \bar{\bar{y}}_8 \\ \bar{\bar{y}}_9 \\ \bar{\bar{y}}_{10} \\ \bar{\bar{y}}_{11} \\ S_{40}
\end{array}
\begin{array}{c}
\bar{y}_1\ \bar{\bar{y}}_7\ \bar{\bar{y}}_8\ \bar{\bar{y}}_9\ \bar{\bar{y}}_{10}\ \bar{\bar{y}}_{11}\ S_{40} \\
\left[\begin{array}{ccccccc}
0 & 0 & 0 & 0 & 0 & 1 & 1 \\
0 & 0 & 1 & 0 & 0 & 0 & 0 \\
0 & 0 & 0 & 1 & 0 & 1 & 0 \\
0 & 0 & 0 & 0 & 1 & 1 & 0 \\
0 & 0 & 0 & 0 & 0 & 1 & 0 \\
0 & 0 & 0 & 0 & 0 & 0 & 1 \\
0 & 0 & 0 & 0 & 0 & 0 & 0
\end{array}\right]
\end{array}
$$

$$
WD = \begin{array}{c}
\\ \bar{y}_1 \\ \bar{\bar{y}}_7 \\ \bar{\bar{y}}_8 \\ \bar{\bar{y}}_9 \\ \bar{\bar{y}}_{10} \\ \bar{\bar{y}}_{11} \\ S_{40}
\end{array}
\begin{array}{c}
\bar{y}_1\ \bar{\bar{y}}_7\ \bar{\bar{y}}_8\ \bar{\bar{y}}_9\ \bar{\bar{y}}_{10}\ \bar{\bar{y}}_{11}\ S_{40} \\
\left[\begin{array}{ccccccc}
0 & 0 & 0 & 0 & 0 & 1 & 1 \\
0 & 0 & 1 & 1 & 1 & 1 & 1 \\
0 & 0 & 0 & 1 & 1 & 1 & 1 \\
0 & 0 & 0 & 0 & 1 & 1 & 1 \\
0 & 0 & 0 & 0 & 0 & 1 & 1 \\
0 & 0 & 0 & 0 & 0 & 0 & 1 \\
0 & 0 & 0 & 0 & 0 & 0 & 0
\end{array}\right]
\end{array}
$$

$$
C = \begin{array}{c}
\\ \bar{y}_1 \\ \bar{\bar{y}}_7 \\ \bar{\bar{y}}_8 \\ \bar{\bar{y}}_9 \\ \bar{\bar{y}}_{10} \\ \bar{\bar{y}}_{11} \\ S_{40}
\end{array}
\begin{array}{c}
\bar{y}_1\ \bar{\bar{y}}_7\ \bar{\bar{y}}_8\ \bar{\bar{y}}_9\ \bar{\bar{y}}_{10}\ \bar{\bar{y}}_{11}\ S_{40} \\
\left[\begin{array}{ccccccc}
1 & 0 & 0 & 1 & 1 & 0 & 0 \\
0 & 1 & 0 & 0 & 0 & 0 & 0 \\
0 & 0 & 1 & 0 & 0 & 0 & 0 \\
1 & 0 & 0 & 1 & 0 & 0 & 0 \\
1 & 0 & 0 & 0 & 1 & 0 & 0 \\
0 & 0 & 0 & 0 & 0 & 1 & 0 \\
0 & 0 & 0 & 0 & 0 & 0 & 1
\end{array}\right]
\end{array}
$$

$$
SI = \begin{array}{c}
\\ \bar{y}_1 \\ \bar{\bar{y}}_7 \\ \bar{\bar{y}}_8 \\ \bar{\bar{y}}_9 \\ \bar{\bar{y}}_{10} \\ \bar{\bar{y}}_{11} \\ S_{40}
\end{array}
\begin{array}{c}
\bar{y}_1\ \bar{\bar{y}}_7\ \bar{\bar{y}}_8\ \bar{\bar{y}}_9\ \bar{\bar{y}}_{10}\ \bar{\bar{y}}_{11}\ S_{40} \\
\left[\begin{array}{ccccccc}
1 & 0 & 0 & 1 & 1 & 0 & 0 \\
0 & 1 & 0 & 0 & 0 & 0 & 0 \\
0 & 0 & 1 & 0 & 0 & 0 & 0 \\
1 & 0 & 0 & 1 & 0 & 0 & 0 \\
1 & 0 & 0 & 0 & 1 & 0 & 0 \\
0 & 0 & 0 & 0 & 0 & 1 & 0 \\
0 & 0 & 0 & 0 & 0 & 0 & 1
\end{array}\right]
\end{array}
$$

Проверка условия приводимости программы к ППФ (2 из 2):

1) $\bar{y}_1 \nrightarrow \bar{\bar{y}}_9$

2) $\bar{\bar{y}}_8$

$E(\bar{y}_1) = \{\bar{\bar{y}}_{11}, S_{40}\}$

$E(\bar{\bar{y}}_9) = \{\bar{\bar{y}}_{10}, \bar{\bar{y}}_{11}, S_{40}\}$

$N_1(\bar{y}_1, \bar{\bar{y}}_9) = \{\bar{\bar{y}}_{11}, S_{40}\}$

$N_2(\bar{y}_1, \bar{\bar{y}}_9) = \{\bar{\bar{y}}_{10}\}$

$E(\bar{\bar{y}}_8) = \{\bar{\bar{y}}_9, \bar{\bar{y}}_{10}, \bar{\bar{y}}_{11}, S_{40}\}$

$\bar{\bar{y}}_8 \in N_2(\bar{y}_1, \bar{\bar{y}}_9) -$ не выполняется

$N_1(\bar{y}_1, \bar{\bar{y}}_9) \subseteq E(\bar{\bar{y}}_8) -$ выполняется

не выполняется

1) $\bar{y}_1 \nrightarrow \bar{\bar{y}}_{10}$

2) $\bar{\bar{y}}_9$

$E(\bar{y}_1) = \{\bar{\bar{y}}_{11}, S_{40}\}$

$E(\bar{\bar{y}}_{10}) = \{\bar{\bar{y}}_{11}, S_{40}\}$

$N_1(\bar{y}_1, \bar{\bar{y}}_{10}) = \{\bar{\bar{y}}_{11}, S_{40}\}$

$N_2(\bar{y}_1, \bar{\bar{y}}_{10}) = \varnothing$

$E(\bar{\bar{y}}_9) = \{\bar{\bar{y}}_{10}, \bar{\bar{y}}_{11}, S_{40}\}$

$\bar{\bar{y}}_9 \in N_2(\bar{y}_1, \bar{\bar{y}}_{10}) -$ не выполняется

$N_1(\bar{y}_1, \bar{\bar{y}}_{10}) \subseteq E(\bar{\bar{y}}_9) -$ выполняется

не выполняется

На текущей итерации был выделен последовательный групповой оператор $\bar{y}_2 = \{\bar{\bar{y}}_7, \bar{\bar{y}}_8, \bar{\bar{y}}_9, \bar{\bar{y}}_{10}\}$

Итерация №14

Отношения между операторами:

$$
\text{SD} = \begin{array}{c} \\ \bar{y}_1 \\ \bar{y}_2 \\ \bar{\bar{y}}_{11} \\ S_{40} \end{array}
\begin{array}{cccc} \bar{y}_1 & \bar{y}_2 & \bar{\bar{y}}_{11} & S_{40} \\ \left[\begin{array}{cccc} 0 & 1 & 1 & 1 \\ 0 & 0 & 1 & 0 \\ 0 & 0 & 0 & 1 \\ 0 & 0 & 0 & 0 \end{array} \right] \end{array}
$$

$$
\text{WD} = \begin{array}{c} \\ \bar{y}_1 \\ \bar{y}_2 \\ \bar{\bar{y}}_{11} \\ S_{40} \end{array}
\begin{array}{cccc} \bar{y}_1 & \bar{y}_2 & \bar{\bar{y}}_{11} & S_{40} \\ \left[\begin{array}{cccc} 0 & 1 & 1 & 1 \\ 0 & 0 & 1 & 1 \\ 0 & 0 & 0 & 1 \\ 0 & 0 & 0 & 0 \end{array} \right] \end{array}
$$

$$
\text{C} = \begin{array}{c} \\ \bar{y}_1 \\ \bar{y}_2 \\ \bar{\bar{y}}_{11} \\ S_{40} \end{array}
\begin{array}{cccc} \bar{y}_1 & \bar{y}_2 & \bar{\bar{y}}_{11} & S_{40} \\ \left[\begin{array}{cccc} 1 & 0 & 0 & 0 \\ 0 & 1 & 0 & 0 \\ 0 & 0 & 1 & 0 \\ 0 & 0 & 0 & 1 \end{array} \right] \end{array}
$$

$$
\text{SI} = \begin{array}{c} \\ \bar{y}_1 \\ \bar{y}_2 \\ \bar{\bar{y}}_{11} \\ S_{40} \end{array}
\begin{array}{cccc} \bar{y}_1 & \bar{y}_2 & \bar{\bar{y}}_{11} & S_{40} \\ \left[\begin{array}{cccc} 1 & 0 & 0 & 0 \\ 0 & 1 & 0 & 0 \\ 0 & 0 & 1 & 0 \\ 0 & 0 & 0 & 1 \end{array} \right] \end{array}
$$

Проверка условия приводимости программы к ППФ (0 из 0):

На текущей итерации был выделен последовательный групповой оператор $\bar{y}_3 = \{\bar{y}_1, \bar{y}_2, \bar{\bar{y}}_{11}, S_{40}\}$

S_1

$C(S_1) = \{a_{2233}\}$

$R(S_1) = \{a_{22}, a_{33}\}$

$I(S_1) = \{a_{22}, a_{33}\}$

$O(S_1) = \{a_{2233}\}$

S_2

$C(S_2) = \{a_{2332}\}$

$R(S_2) = \{a_{23}, a_{32}\}$

$I(S_2) = \{a_{23}, a_{32}\}$

$O(S_2) = \{a_{2332}\}$

S_3

$C(S_3) = \{A_{11}\}$

$R(S_3) = \{a_{2233}, a_{2332}\}$

$I(S_3) = \varnothing$

$O(S_3) = \{A_{11}\}$

S_4

$C(S_4) = \{a_{2133}\}$

$R(S_4) = \{a_{21}, a_{33}\}$

$I(S_4) = \{a_{21}, a_{33}\}$

$O(S_4) = \{a_{2133}\}$

S_5

$C(S_5) = \{a_{2331}\}$

$R(S_5) = \{a_{23}, a_{31}\}$

$I(S_5) = \{a_{23}, a_{31}\}$

$O(S_5) = \{a_{2331}\}$

S_6

$C(S_6) = \{A_{12}\}$

$R(S_6) = \{a_{2133}, a_{2331}\}$

$I(S_6) = \varnothing$

$O(S_6) = \{A_{12}\}$

S_7

$C(S_7) = \{a_{2132}\}$

$R(S_7) = \{a_{21}, a_{32}\}$

$I(S_7) = \{a_{21}, a_{32}\}$

$O(S_7) = \{a_{2132}\}$

S_8

$C(S_8) = \{a_{2232}\}$

$R(S_8) = \{a_{22}, a_{32}\}$

$I(S_8) = \{a_{22}, a_{32}\}$

$O(S_8) = \{a_{2232}\}$

S_9

$C(S_9) = \{A_{13}\}$

$R(S_9) = \{a_{2132}, a_{2232}\}$

$I(S_9) = \varnothing$

$O(S_9) = \{A_{13}\}$

S_{10}

$C(S_{10}) = \{aA_{1111}\}$

$R(S_{10}) = \{a_{11}, A_{11}\}$

$I(S_{10}) = \{a_{11}\}$

$O(S_{10}) = \{aA_{1111}\}$

S_{11}

$C(S_{11}) = \{aA_{1212}\}$

$R(S_{11}) = \{a_{12}, A_{12}\}$

$I(S_{11}) = \{a_{12}\}$

$O(S_{11}) = \{aA_{1212}\}$

S_{12}

$C(S_{12}) = \{aA_{1313}\}$

$R(S_{12}) = \{a_{13}, A_{13}\}$

$I(S_{12}) = \{a_{13}\}$

$O(S_{12}) = \{aA_{1313}\}$
S_{13}
$C(S_{13}) = \{\Delta\}$
$R(S_{13}) = \{aA_{1111}, aA_{1212}, aA_{1313}\}$
$I(S_{13}) = \varnothing$
$O(S_{13}) = \{\Delta\}$
S_{14}
$C(S_{14}) = \{a_{1233}\}$
$R(S_{14}) = \{a_{12}, a_{33}\}$
$I(S_{14}) = \{a_{12}, a_{33}\}$
$O(S_{14}) = \{a_{1233}\}$
S_{15}
$C(S_{15}) = \{a_{1332}\}$
$R(S_{15}) = \{a_{13}, a_{32}\}$
$I(S_{15}) = \{a_{13}, a_{32}\}$
$O(S_{15}) = \{a_{1332}\}$
S_{16}
$C(S_{16}) = \{A_{21}\}$
$R(S_{16}) = \{a_{1233}, a_{1332}\}$
$I(S_{16}) = \varnothing$
$O(S_{16}) = \{A_{21}\}$
S_{17}
$C(S_{17}) = \{a_{1133}\}$
$R(S_{17}) = \{a_{11}, a_{33}\}$
$I(S_{17}) = \{a_{11}, a_{33}\}$
$O(S_{17}) = \varnothing$
S_{18}
$C(S_{18}) = \{a_{1331}\}$
$R(S_{18}) = \{a_{13}, a_{31}\}$
$I(S_{18}) = \{a_{13}, a_{31}\}$
$O(S_{18}) = \{a_{1331}\}$
S_{19}
$C(S_{19}) = \{A_{22}\}$
$R(S_{19}) = \{a_{1133}, a_{1331}\}$
$I(S_{19}) = \varnothing$
$O(S_{19}) = \{A_{22}\}$
S_{20}
$C(S_{20}) = \{a_{1133}\}$
$R(S_{20}) = \{a_{11}, a_{33}\}$
$I(S_{20}) = \{a_{11}, a_{33}\}$
$O(S_{20}) = \{a_{1133}\}$
S_{21}
$C(S_{21}) = \{a_{1231}\}$
$R(S_{21}) = \{a_{12}, a_{31}\}$
$I(S_{21}) = \{a_{12}, a_{31}\}$
$O(S_{21}) = \{a_{1231}\}$
S_{22}
$C(S_{22}) = \{A_{23}\}$
$R(S_{22}) = \{a_{1133}, a_{1231}\}$
$I(S_{22}) = \varnothing$
$O(S_{22}) = \{A_{23}\}$
S_{23}
$C(S_{23}) = \{a_{1223}\}$
$R(S_{23}) = \{a_{12}, a_{23}\}$
$I(S_{23}) = \{a_{12}, a_{23}\}$
$O(S_{23}) = \{a_{1223}\}$
S_{24}
$C(S_{24}) = \{a_{1322}\}$
$R(S_{24}) = \{a_{13}, a_{22}\}$
$I(S_{24}) = \{a_{13}, a_{22}\}$
$O(S_{24}) = \{a_{1322}\}$

S_{25}
$C(S_{25}) = \{A_{31}\}$
$R(S_{25}) = \{a_{1223}, a_{1322}\}$
$I(S_{25}) = \varnothing$
$O(S_{25}) = \{A_{31}\}$
S_{26}
$C(S_{26}) = \{a_{1123}\}$
$R(S_{26}) = \{a_{11}, a_{23}\}$
$I(S_{26}) = \{a_{11}, a_{23}\}$
$O(S_{26}) = \{a_{1123}\}$
S_{27}
$C(S_{27}) = \{a_{1321}\}$
$R(S_{27}) = \{a_{13}, a_{21}\}$
$I(S_{27}) = \{a_{13}, a_{21}\}$
$O(S_{27}) = \{a_{1321}\}$
S_{28}
$C(S_{28}) = \{A_{32}\}$
$R(S_{28}) = \{a_{1123}, a_{1321}\}$
$I(S_{28}) = \varnothing$
$O(S_{28}) = \{A_{32}\}$
S_{29}
$C(S_{29}) = \{a_{1122}\}$
$R(S_{29}) = \{a_{11}, a_{22}\}$
$I(S_{29}) = \{a_{11}, a_{22}\}$
$O(S_{29}) = \{a_{1122}\}$
S_{30}
$C(S_{30}) = \{a_{1221}\}$
$R(S_{30}) = \{a_{12}, a_{21}\}$
$I(S_{30}) = \{a_{12}, a_{21}\}$
$O(S_{30}) = \{a_{1221}\}$
S_{31}
$C(S_{31}) = \{A_{33}\}$
$R(S_{31}) = \{a_{1122}, a_{1221}\}$
$I(S_{31}) = \varnothing$
$O(S_{31}) = \{A_{33}\}$
S_{32}
$C(S_{32}) = \{a_{11}^{-1}\}$
$R(S_{32}) = \{A_{11}, \Delta\}$
$I(S_{32}) = \varnothing$
$O(S_{32}) = \{a_{11}^{-1}\}$
S_{33}
$C(S_{33}) = \{a_{12}^{-1}\}$
$R(S_{33}) = \{A_{21}, \Delta\}$
$I(S_{33}) = \varnothing$
$O(S_{33}) = \{a_{12}^{-1}\}$
S_{34}
$C(S_{34}) = \{a_{13}^{-1}\}$
$R(S_{34}) = \{A_{31}, \Delta\}$
$I(S_{34}) = \varnothing$
$O(S_{34}) = \{a_{13}^{-1}\}$
S_{35}
$C(S_{35}) = \{a_{21}^{-1}\}$
$R(S_{35}) = \{A_{12}, \Delta\}$
$I(S_{35}) = \varnothing$
$O(S_{35}) = \{a_{21}^{-1}\}$
S_{36}
$C(S_{36}) = \{a_{22}^{-1}\}$
$R(S_{36}) = \{A_{22}, \Delta\}$
$I(S_{36}) = \varnothing$
$O(S_{36}) = \{a_{22}^{-1}\}$
S_{37}

$C(S_{37}) = \{a_{23}^{-1}\}$
$R(S_{37}) = \{A_{12}, \Delta\}$
$I(S_{37}) = \varnothing$
$O(S_{37}) = \{a_{23}^{-1}\}$
S_{38}
$C(S_{38}) = \{a_{31}^{-1}\}$
$R(S_{38}) = \{A_{13}, \Delta\}$
$I(S_{38}) = \varnothing$
$O(S_{38}) = \{a_{31}^{-1}\}$
S_{39}
$C(S_{39}) = \{a_{32}^{-1}\}$
$R(S_{39}) = \{A_{23}, \Delta\}$
$I(S_{39}) = \varnothing$
$O(S_{39}) = \{a_{32}^{-1}\}$
S_{40}
$C(S_{40}) = \{a_{33}^{-1}\}$
$R(S_{40}) = \{A_{33}, \Delta\}$
$I(S_{40}) = \varnothing$
$O(S_{40}) = \{a_{33}^{-1}\}$
$\bar{\bar{y}}_1$
$C(\bar{\bar{y}}_1) = \{a_{2233}, a_{2332}\}$
$R(\bar{\bar{y}}_1) = \{a_{22}, a_{33}, a_{23}, a_{32}\}$
$I(\bar{\bar{y}}_1) = \{a_{22}, a_{33}, a_{23}, a_{32}\}$
$O(\bar{\bar{y}}_1) = \{a_{2233}, a_{2332}\}$
$\bar{\bar{y}}_2$
$C(\bar{\bar{y}}_2) = \{A_{11}, a_{2133}, a_{2331}\}$
$R(\bar{\bar{y}}_2) = \{a_{2233}, a_{2332}, a_{21}, a_{33}, a_{23}, a_{31}\}$
$I(\bar{\bar{y}}_2) = \{a_{21}, a_{33}, a_{23}, a_{31}\}$
$O(\bar{\bar{y}}_2) = \{A_{11}, a_{2133}, a_{2331}\}$
$\bar{\bar{y}}_3$
$C(\bar{\bar{y}}_3) = \{A_{12}, a_{2132}, a_{2232}\}$
$R(\bar{\bar{y}}_3) = \{a_{2133}, a_{2331}, a_{21}, a_{32}, a_{22}\}$
$I(\bar{\bar{y}}_3) = \{a_{21}, a_{32}, a_{22}\}$
$O(\bar{\bar{y}}_3) = \{A_{12}, a_{2132}, a_{2232}\}$
$\bar{\bar{y}}_4$
$C(\bar{\bar{y}}_4) = \{A_{13}, aA_{1111}, aA_{1212}\}$
$R(\bar{\bar{y}}_4) = \{a_{2132}, a_{2232}, a_{11}, A_{11}, a_{12}, A_{12}\}$
$I(\bar{\bar{y}}_4) = \{a_{11}, a_{12}\}$
$O(\bar{\bar{y}}_4) = \{A_{13}, aA_{1111}, aA_{1212}\}$
$\bar{\bar{y}}_5$
$C(\bar{\bar{y}}_5) = \{\Delta, a_{1233}, a_{1332}\}$
$R(\bar{\bar{y}}_5) = \{aA_{1111}, aA_{1212}, aA_{1313}, a_{12}, a_{33}, a_{13}, a_{32}\}$
$I(\bar{\bar{y}}_5) = \{a_{12}, a_{33}, a_{13}, a_{32}\}$
$O(\bar{\bar{y}}_5) = \{\Delta, a_{1233}, a_{1332}\}$
$\bar{\bar{y}}_6$
$C(\bar{\bar{y}}_6) = \{A_{21}, a_{1133}, a_{1331}\}$
$R(\bar{\bar{y}}_6) = \{a_{1233}, a_{1332}, a_{11}, a_{33}, a_{13}, a_{31}\}$
$I(\bar{\bar{y}}_6) = \{a_{11}, a_{33}, a_{13}, a_{31}\}$
$O(\bar{\bar{y}}_6) = \{A_{21}, a_{1331}\}$
$\bar{\bar{y}}_7$
$C(\bar{\bar{y}}_7) = \{a_{1133}, a_{1231}\}$
$R(\bar{\bar{y}}_7) = \{a_{11}, a_{33}, a_{12}, a_{31}\}$
$I(\bar{\bar{y}}_7) = \{a_{11}, a_{33}, a_{12}, a_{31}\}$
$O(\bar{\bar{y}}_7) = \{a_{1133}, a_{1231}\}$
$\bar{\bar{y}}_8$
$C(\bar{\bar{y}}_8) = \{A_{23}, a_{1223}, a_{1322}\}$
$R(\bar{\bar{y}}_8) = \{a_{1133}, a_{1231}, a_{12}, a_{23}, a_{13}, a_{22}\}$
$I(\bar{\bar{y}}_8) = \{a_{12}, a_{23}, a_{13}, a_{22}\}$
$O(\bar{\bar{y}}_8) = \{A_{23}, a_{1223}, a_{1322}\}$
$\bar{\bar{y}}_9$
$C(\bar{\bar{y}}_9) = \{A_{31}, a_{1123}, a_{1321}\}$

$R(\bar{\bar{y}}_9) = \{a_{1223}, a_{1322}, a_{11}, a_{23}, a_{13}, a_{21}\}$

$I(\bar{\bar{y}}_9) = \{a_{11}, a_{23}, a_{13}, a_{21}\}$

$O(\bar{\bar{y}}_9) = \{A_{31}, a_{1123}, a_{1321}\}$

$\bar{\bar{y}}_{10}$

$C(\bar{\bar{y}}_{10}) = \{A_{32}, a_{1122}, a_{1221}\}$

$R(\bar{\bar{y}}_{10}) = \{a_{1123}, a_{1321}, a_{11}, a_{22}, a_{12}, a_{21}\}$

$I(\bar{\bar{y}}_{10}) = \{a_{11}, a_{22}, a_{12}, a_{21}\}$

$O(\bar{\bar{y}}_{10}) = \{A_{32}, a_{1122}, a_{1221}\}$

$\bar{\bar{y}}_{11}$

$C(\bar{\bar{y}}_{11}) = \{A_{33}, a_{11}^{-1}, a_{12}^{-1}, a_{13}^{-1}, a_{21}^{-1}, a_{22}^{-1}, a_{23}^{-1}, a_{31}^{-1}, a_{32}^{-1}\}$

$R(\bar{\bar{y}}_{11}) = \{a_{1122}, a_{1221}, A_{11}, \Delta, A_{21}, A_{31}, A_{12}, A_{22}, A_{13}, A_{23}\}$

$I(\bar{\bar{y}}_{11}) = \varnothing$

$O(\bar{\bar{y}}_{11}) = \{A_{33}, a_{11}^{-1}, a_{12}^{-1}, a_{13}^{-1}, a_{21}^{-1}, a_{22}^{-1}, a_{23}^{-1}, a_{31}^{-1}, a_{32}^{-1}\}$

$\bar{y}_1$

$C(\bar{y}_1) = \{a_{2233}, a_{2332}, A_{11}, a_{2133}, a_{2331}, A_{12}, a_{2132}, a_{2232}, A_{13}, aA_{1111}, aA_{1212}, aA_{1313}, \Delta, a_{1233}, a_{1332}, A_{21}, a_{1133}, a_{1331}, A_{22}\}$

$R(\bar{y}_1) = \{a_{22}, a_{33}, a_{23}, a_{32}, a_{2233}, a_{2332}, a_{21}, a_{31}, a_{2133}, a_{2331}, a_{2132}, a_{2232}, a_{11}, A_{11}, a_{12}, A_{12}, a_{13}, A_{13}, aA_{1111}, aA_{1212}, aA_{1313}, a_{1233}, a_{1332}, a_{1133}, a_{1331}\}$

$I(\bar{y}_1) = \{a_{22}, a_{33}, a_{23}, a_{32}, a_{2233}, a_{2332}, a_{21}, a_{31}, a_{2133}, a_{2331}, a_{2132}, a_{2232}, a_{11}, A_{11}, a_{12}, A_{12}, a_{13}, A_{13}, aA_{1111}, aA_{1212}, aA_{1313}, a_{1233}, a_{1332}, a_{1133}, a_{1331}\}$

$O(\bar{y}_1) = \{a_{2233}, a_{2332}, A_{11}, a_{2133}, a_{2331}, A_{12}, a_{2132}, a_{2232}, A_{13}, aA_{1111}, aA_{1212}, aA_{1313}, \Delta, a_{1233}, a_{1332}, A_{21}, a_{1331}, A_{22}\}$

$\bar{y}_2$

$C(\bar{y}_2) = \{a_{1133}, a_{1231}, A_{23}, a_{1223}, a_{1322}, A_{31}, a_{1123}, a_{1321}, A_{32}, a_{1122}, a_{1221}\}$

$R(\bar{y}_2) = \{a_{11}, a_{33}, a_{12}, a_{31}, a_{1133}, a_{1231}, a_{23}, a_{13}, a_{22}, a_{1223}, a_{1322}, a_{21}, a_{1123}, a_{1321}\}$

$I(\bar{y}_2) = \{a_{11}, a_{33}, a_{12}, a_{31}, a_{1231}, a_{23}, a_{13}, a_{22}, a_{1223}, a_{1322}, a_{21}, a_{1123}, a_{1321}\}$

$O(\bar{y}_2) = \{a_{1133}, a_{1231}, A_{23}, a_{1223}, a_{1322}, A_{31}, a_{1123}, a_{1321}, A_{32}, a_{1122}, a_{1221}\}$

$\bar{y}_3$

$C(\bar{y}_3) = \{a_{2233}, a_{2332}, A_{11}, a_{2133}, a_{2331}, A_{12}, a_{2132}, a_{2232}, A_{13}, aA_{1111}, aA_{1212}, aA_{1313}, \Delta, a_{1233}, a_{1332}, A_{21}, a_{1133}, a_{1331}, A_{22}, a_{1231}, A_{23}, a_{1223}, a_{1322}, A_{31}, a_{1123}, a_{1321}, A_{32}, a_{1122}, a_{1221}, A_{33}, a_{11}^{-1}, a_{12}^{-1}, a_{13}^{-1}, a_{21}^{-1}, a_{22}^{-1}, a_{23}^{-1}, a_{31}^{-1}, a_{32}^{-1}, a_{33}^{-1}\}$

$R(\bar{y}_3) = \{a_{22}, a_{33}, a_{23}, a_{32}, a_{2233}, a_{2332}, a_{21}, a_{31}, a_{2133}, a_{2331}, a_{2132}, a_{2232}, a_{11}, A_{11}, a_{12}, A_{12}, a_{13}, A_{13}, aA_{1111}, aA_{1212}, aA_{1313}, a_{1233}, a_{1332}, a_{1133}, a_{1331}, a_{1231}, a_{1223}, a_{1322}, a_{1123}, a_{1321}, a_{1122}, a_{1221}, \Delta, A_{21}, A_{31}, A_{22}, A_{23}, A_{33}\}$

$I(\bar{y}_3) = \{a_{22}, a_{33}, a_{23}, a_{32}, a_{2233}, a_{2332}, a_{21}, a_{31}, a_{2133}, a_{2331}, a_{2132}, a_{2232}, a_{11}, A_{11}, a_{12}, A_{12}, a_{13}, A_{13}, aA_{1111}, aA_{1212}, aA_{1313}, a_{1233}, a_{1332}, a_{1133}, a_{1331}, a_{1231}, a_{1223}, a_{1322}, a_{1123}, a_{1321}, a_{1122}, a_{1221}, \Delta, A_{21}, A_{31}, A_{22}, A_{23}, A_{33}\}$

$O(\bar{y}_3) = \{a_{2233}, a_{2332}, A_{11}, a_{2133}, a_{2331}, A_{12}, a_{2132}, a_{2232}, A_{13}, aA_{1111}, aA_{1212}, aA_{1313}, \Delta, a_{1233}, a_{1332}, A_{21}, a_{1133}, a_{1331}, A_{22}, a_{1231}, A_{23}, a_{1223}, a_{1322}, A_{31}, a_{1123}, a_{1321}, A_{32}, a_{1122}, a_{1221}, A_{33}, a_{11}^{-1}, a_{12}^{-1}, a_{13}^{-1}, a_{21}^{-1}, a_{22}^{-1}, a_{23}^{-1}, a_{31}^{-1}, a_{32}^{-1}, a_{33}^{-1}\}$