Assgn4: Notes

November 3, 2012

Notes on GORDIAN

1 Set up C

$$C_{\mu,\mu} = \sum_{\nu \in N(\mu)} \frac{2}{p_\nu} (p_\nu - 1)$$

$$C_{\mu,\lambda} = \sum_{\nu \in N(\mu) \cap N(\lambda)} -\frac{2}{p_\nu}$$

where, μ is a **movable block.** $N(\mu)$ is the set of all nets to which μ is connected.

p_ν is the number of terminals of net ν.

2 Set up d_x, d_y

$$dx_\mu = \sum_{\nu \in N(\mu)} \left[(p_\nu - 1) \frac{2}{p_\nu} XPO(\mu, \nu) - \sum_{\lambda \in MBCB} \frac{2}{p_\nu} XPO(\lambda, \nu) - \sum_{\lambda \in FBCB} \frac{2}{p_\nu} XP(\lambda, \nu) \right]$$

where, μ is a **movable block,** λ could be a movable/fixed block or a terminal_NI. $N(\mu)$ is the set of all nets to which μ is connected.

p_ν is the number of terminals of net ν.

$XPO(\mu, \nu)$ is the X Pin Offset of the pin connecting block μ to the net ν. $XP(\lambda, \nu)$ is the X Pin Position of the pin connecting λ, a fixed block or terminal_NI, to the net ν.

MBCB is acronym for "Movable Blocks Connected to Block μ through net ν"

FBCB is acronym for "Fixed Blocks Connected to Block μ through net ν"

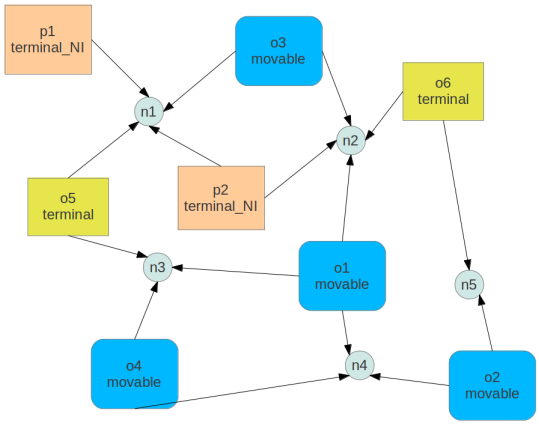

Figure 1: Toy example