

EENG 426/CPSC 459/ENAS 876

Silicon Compilation

Syntax-directed translation

Computer Systems Lab

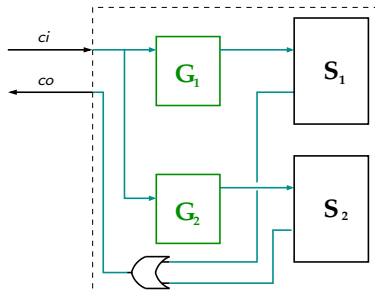
<http://csl.yale.edu/~rajit>

Fall 2018

Guards that are built out of local variables:

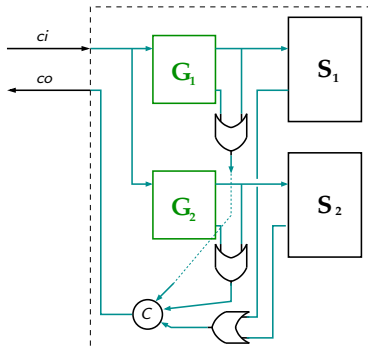
- Variable interface:
 - A channel to *start the operation*
 - A dual-rail (dualrail) value that holds the value of the variable
 - For reads:
 - A dual-rail data channel (a1of2) to send the value out
 - For writes:
 - A dual-rail data channel to receive the value

Syntax-directed translation

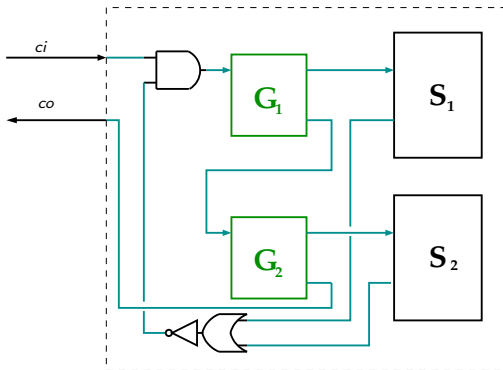


(In this version, only local variables are used)

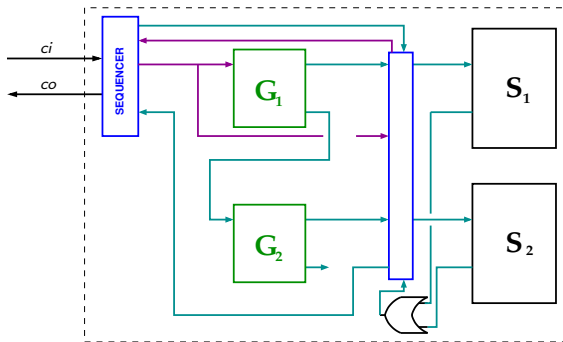
Alternative compilation of selection



Loops



What if S_i changes G_i ?



Probed guards

How do we handle probes?

- Probes are the request line for the channel
 - The probed end is *passive*
 - If there is data, OR the two data rails
- Evaluate all the guards in parallel
- Combine them with the probe