Useful Classes of Dataflow Actors

“Synchronous” dataflow (SDF):

The actors are enabled by fixed integer numbers of accumulated tokens, and produce fixed integer numbers of tokens.

Boolean dataflow (BDF):

Production and/or consumption is variable.
“Delays” — Initial Tokens

For each initial token, there is a one-token offset between the tokens produced and consumed:
Sources and Sinks

Always enabled:

There is nothing special about sources:

Similarly, there is nothing special about sinks.
Sequential Functions Implemented as FSMs

Each state corresponds to a blocking read. Example: select actor:
Firing Rules

In any state of an FSM, can require any fixed number of tokens from any fixed set of inputs.

SDF then is simply the one-state special case.