

Compiling Faust with Ondemand

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Memory Signals

Memory signals are simplified signals using memory references to implement delay lines, recursions, and sharing of common subexpressions.

Definition

$$M \in \mathbb{S} ::= k \mid u \mid I_c \mid \star(S_1, S_2, \dots) \mid t \mid m \mid v[M_1, M_2]$$

where

- k is a number (integer or real)
- u is a user interface element (slider, button, etc.)
- I_c is the input channel c
- $\star(S_1, S_2, \dots)$ is a numerical operation on signals
- t : is a scalar memory variable corresponding to the current time
- m : is a scalar memory variable corresponding to a signal
- $v[M_1, M_2]$ is a vector memory variable where M_1 is the time and M_2 the delay.