Sistemas Reativos



reactive:

readily responsive to a stimulus

(Merriam-Webster)

Classificação de "Sistemas" (Berry 1989)

- Sistemas transformacionais
 - "compute results from a given set of inputs"
- Sistemas interativos
 - "interact at their own speed with users or with other programs"
- Sistemas reativos
 - "interact with their environment, but at a speed which is determined by the environment, not by the program itself"

gcc, gdb, quake, md5, shell, zip, http, gui

Environment / Ambiente

- Componente externo à aplicação
 - "mundo analógico" no qual a aplicação está inserida
- Input / Sensores
 - Teclado, Mouse, Botão, Sensores (luminosidade, temperatura, etc.), Temporizador
- Output / Atuadores
 - LED, Tela, Impressora, Motor
- Input<=>Output
 - Serial, Rádio

Artigos & Videos - 01

- Sistemas Reativos
 - David Harel "On the development of reactive systems"
 - Gerrard Berry "Real time programming: Special purpose or general purpose languages"