Debug Mode is the Only Mode

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An Attractive Mirage

- Bret Victor simulated a live IDE
  - Not much on how to build one
  - Raised conciousness

Reifying an Illusion

* Bret Victor simulated a live IDE

  * Not much on how to build one

  * Raised conciousness

* How far are Smalltalk and its successors from this vision?

* In some respects, not too far.

Code and Data

* Editors, class browsers divorce code from data

* REPLs, workspaces, object inspectors, debuggers show data & code but code is de-emphasized.

* Idea: bring code & data together at all times

Demo: Associating Code & Data in Newspeak

Beyond 1980

- A Time Traveling Debugger is worth a Thousand Language Features

  - Query the history of the computation for events of interest and go back to the time of the event