Introducing the Rappture Toolkit

Michael McLennan

HUBzero® Platform for Scientific Collaboration

Purdue University
Take a trip back to 1985…

- Back to the Future
- The Boys of Summer
- Superbowl XIX: 49ers vs Miami
- Tetris for IBM PC
- Resonant Tunneling Diode

Semiconductor Electrostatics QUantum AnaLysis
SEQAL 2.1 - 7862 lines of Fortran 77
Now back to the present...

**Magnetic Tape: $10**

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**SEQUAL 2.1**

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**Purdue University**

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August 1989

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**SEQUAL: input deck**

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**Fortran F77**

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**Live Tool: Priceless**

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**10.0 RANKING**

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- Intermediate-Advanced
- 1185 user(s), detailed usage
- 2 questions (Ask a question)
- 2 review(s) (Review this)
- 0 wish(es) (Add a new wish)
- 4 Citation(s)

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Add to your favorites!

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Introducing: The Rappture Toolkit

- **Rapid Application Infrastructure**
- **Released in May 2005**
- **Open Source** ([rappture.org](http://rappture.org))
- **Create standard desktop apps**
- **Works with your favorite programming language**
Used to deploy hundreds of tools
Three parts

Builder
- Builder Runner Tester

`rappture -build` tool.xml
  Generates tool description

`rappture -run` run.xml
  Reads tool description
  Generates simulation results

`rappture -test` tests
  Reads tool description
  Runs tests and compares results
Drag controls from the palette and drop in inputs/outputs.

1. Drag controls from the palette and drop in inputs/outputs.
2. Click on a control and edit its parameters.
3. Click on the “Preview” tab to preview your tool.
• Takes a name and an “enthusiasm” level
• Enthusiasm adds an exclamation point
• Produces a “hello, world” string

Build two ways:
Assignment #1: Build a simple Addition tool

v1 + v2

v1 integer

v2 integer

sum integer

Pick your favorite language:

Python

Fortran

C

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