MoPiX  (v1 and 2.0)

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EC FP6 ReMath Project
http://www.lkl.ac.uk/mopix  http://remath.cti.gr
Welcome to MoPiX. Drag out squares, give them equations, and then press the triangular PLAY button.

-------------- Horizontal Motion Equations ------------------

\[ Vx(ME,0) = 3 \]
\[ x(ME,t) = x(ME,t - 1) + Vx(ME,t) \]
\[ Ax(ME,t) = 0 \]
A little background

- Building animations, simulations and games with equations
- Tradition of software construction kits
- ‘A-level’, 15/16 years old
- Exploring some novel ideas
  - *All* modelling is done with equations
  - Completely web-based
  - Support for mobile and f2f
Functionality

- Object are given equations to
  - Move, resize, rotate, change appearance
- Objects can interact
- Objects can respond to user events
  - Enabling interactive simulation, small games
Pedagogic Objectives

• Focus on understanding of equations
  – Design
  – Structure
  – Composition
• Equations can be used creatively
• Bridging the home/school gap
Typical scenarios

• Task-oriented
  – Make a ball bounce
• Exploratory
  – Student creativity
• F2F group collaborative activity