SqueakCMI Notebook:
Projects, Tools, and Techniques

Introduction

Welcome to eToys/Squeak: an object-oriented programming language. This notebook was written to introduce Squeak to curious beginners with step-by-step descriptions of projects and how they were done.

Advice is freely given in the hope that the path you take to learning eToys/Squeak is quick and smooth. The Squeak community will be generous with their time, their knowledge, and their willingness to help newcomers. The Office for Mathematics, Science, and Technology Education at the University of Illinois Urbana-Champaign invites you to use these materials to the benefit of students everywhere.

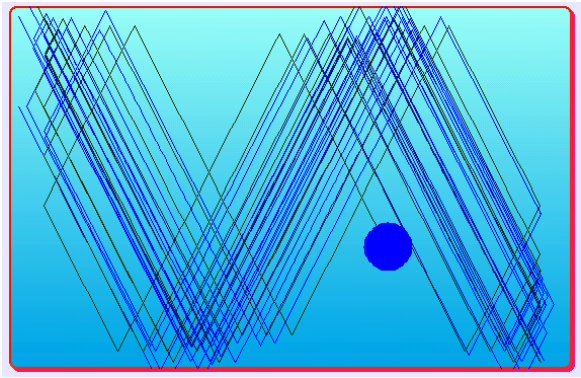
These projects can be explored on the computer by opening them from www.Squeakcmi.org. This dynamic experience of projects on the computer in conjunction with the written materials should give you a range of ideas and possibilities to combine in many ways and for many purposes.

Section I

This section contains two easy projects designed to help you get started with Squeak. They are followed by an extensive description of the rich resources, tools, icons, supplies, and conventions that make Squeak what it is.

Section II

This section explains more complicated projects. They are in alphabetical order by the name of a Squeak tool used predominantly in that project. The projects are not in sequential order by level of difficulty. The project's name can be used to locate that project atwww.Squeakcmi.org. So, if you wonder, "What is a scale factor and how could it be used in a Squeak project?" you can find out.



www.SqueakCMI.org
Resources, projects, tutorials, and standards-based lessons applying Squeak in math, science, language arts, social science, and art. Additional projects and essays can be found on the website. Tutorials developed by math specialists show the myriad ways Squeak enriches the study of geometry and trigonometry. The SqueakCMI community can answer questions, share ideas, and schedule workshops.

www.squeakland.org
The origin of Squeak: software, tutorials, and example projects. Get the most current versions of the software at Squeakland. The site includes interesting essays about the nature of learning, about programming and thinking.

www.squeak.org
Technical information for experienced programmers and developers

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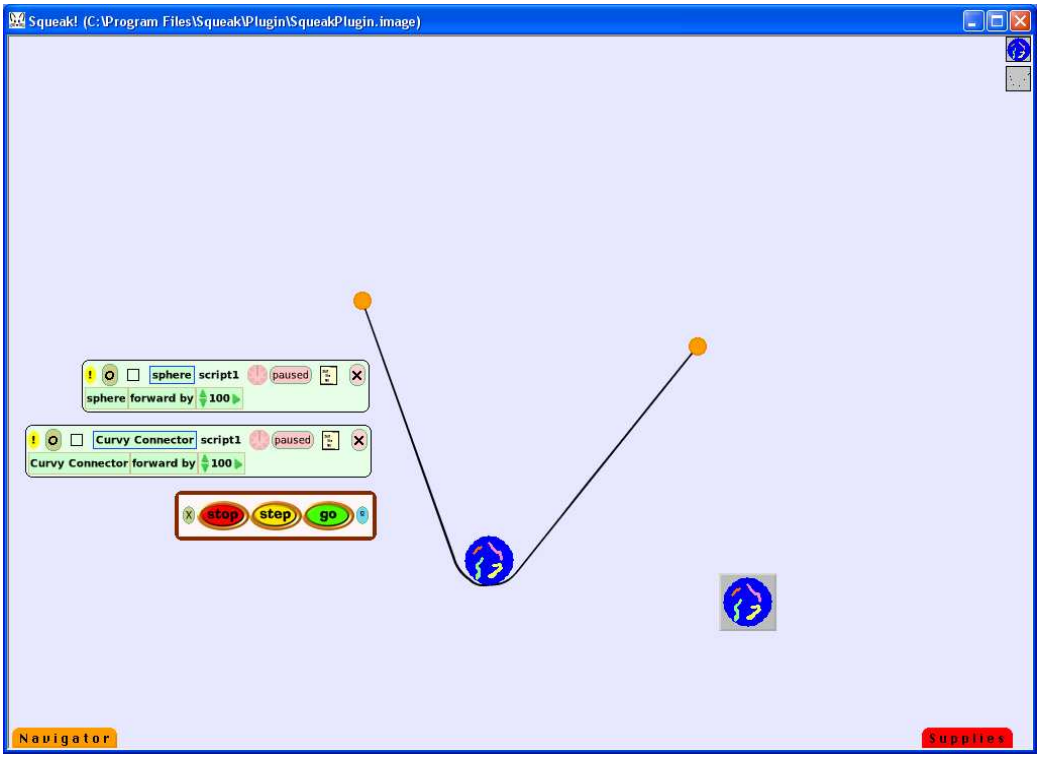
Connectors: connectorsslingnb

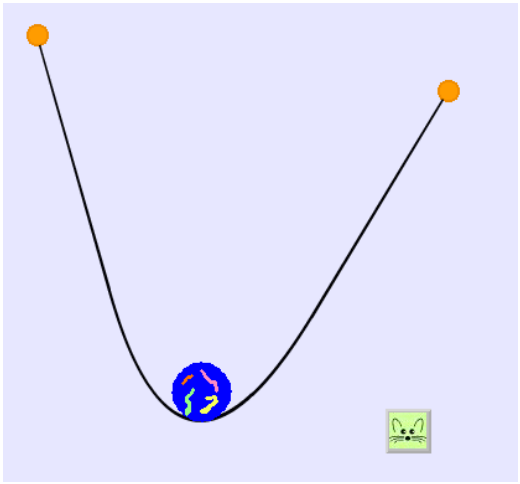
This project uses a few of the supplies in the Connectors tab of the Object Catalog.



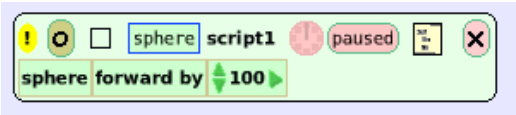
Open Supplies and drag out an Object Catalog and drop it on an empty part of the screen. Choose the Connectors category.

There are nineteen objects in this category. This project uses three of them: Pin, Curvy Connector, and Maker Button.

Here are two orange Pin's joined by a Curvy Connector which has been pulled out of its original as a straight line position. Click and drag to place the line.



The marble sphere was drawn using the paint tools. Get the halo for the blue sphere and write a script for it that makes it go forward. Try the script and pause it.



After the sphere's script has been written, put the sphere on the Maker Button and all the copies will have the same script.

Get the halo for the curvy connector line and write a script for the line to move forward. Start and pause the script.

Open Supplies and drag out a Stop-Step-Go button. Click on go to start both scripts at the same time.