

# **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](http://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.

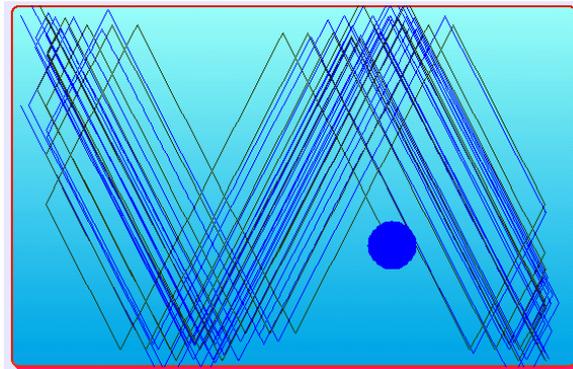
## **Section II**

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 at [www.Squeakcmi.org](http://www.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](http://www.Squeakcmi.org)

The Office for Mathematics, Science, and Technology Education  
University of Illinois Urbana-Champaign





[www.SqueakCMI.org](http://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](http://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](http://www.squeak.org)

Technical information for experienced programmers and developers

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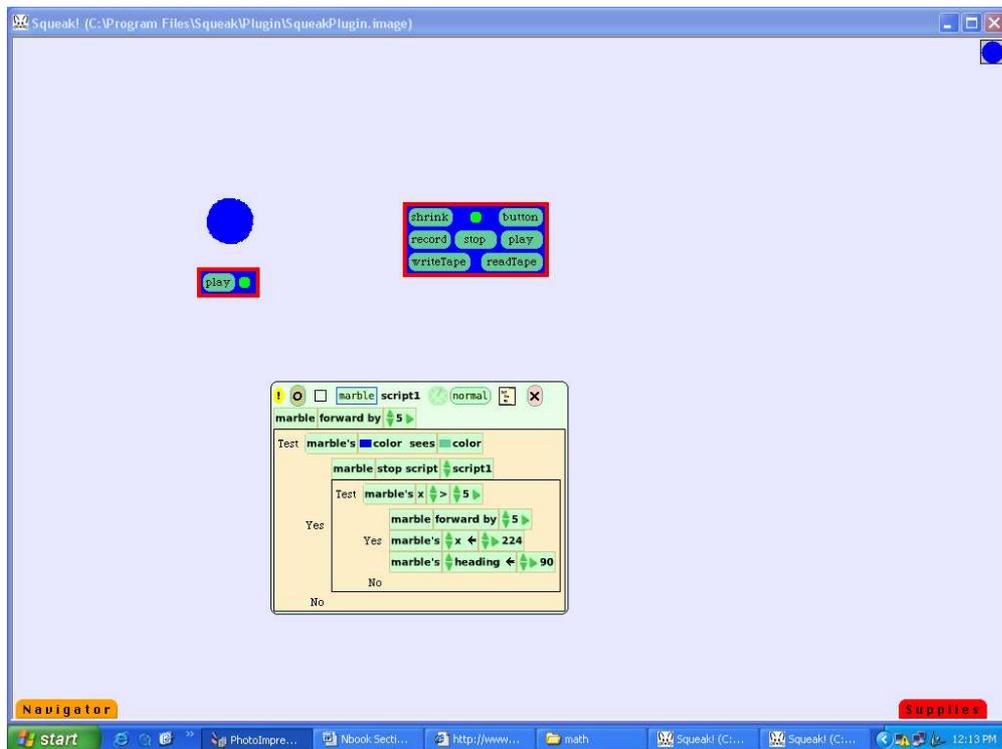
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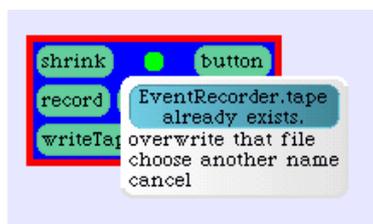
## Event Recorder: eventrecorder.nb

This project uses an Event Recorder to make a short film of the actions on the screen when a Squeak project is running.

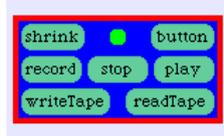


Open Supplies, drag out an Object Catalog and drop it on the screen. Click on the Presentation tab and then click on Event Recorder to place one on the screen.

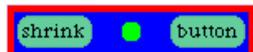
Write a script for an object you drag or drag from Supplies. Click on the word record. A menu will open asking whether to overwrite a script or choose a new name. Name each event with a meaningful name.



After you have named the tape you are about to record, move your cursor or the object on the screen and, when you have finished doing what you want a recording of, click on the word stop on the Event Recorder.



The event recorder will record (almost faithfully) the actions of your cursor and other objects on the screen. The Event Recorder is not a perfectly accurate film of the events on the screen. In spite of the inaccuracy, it is an interesting tool and can show a series of steps visually without need to resort to text.



The shrink button will compact the events recorded and make a smaller file.

The little round dot in the top row of the Event Recorder changes colors. It is red when recording, yellow when stopped, and green when playing the recording.

The button will make a button for you to include in a project so that all the mechanics of this process are hidden from the person using the project.



Here is the middle set of tools in the Event Recorder.



The bottom row of tools allows you to save a tape as a file on a disk or play one already stored.

