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.

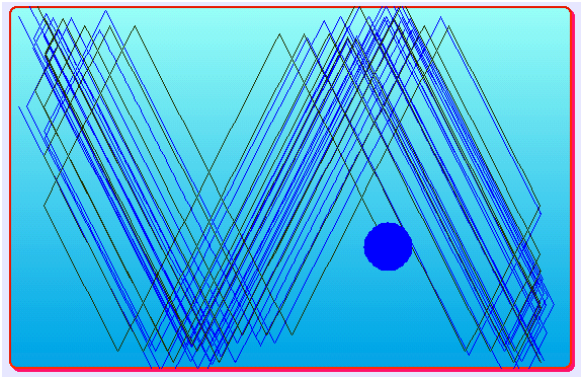
These projects can be explored on the computer by opening them from www.Squeakcmi.org. This dynamic experience of projects on the computer in conjunction with the written materials should give you a range of ideas and possibilities to combine in many ways and for many purposes.

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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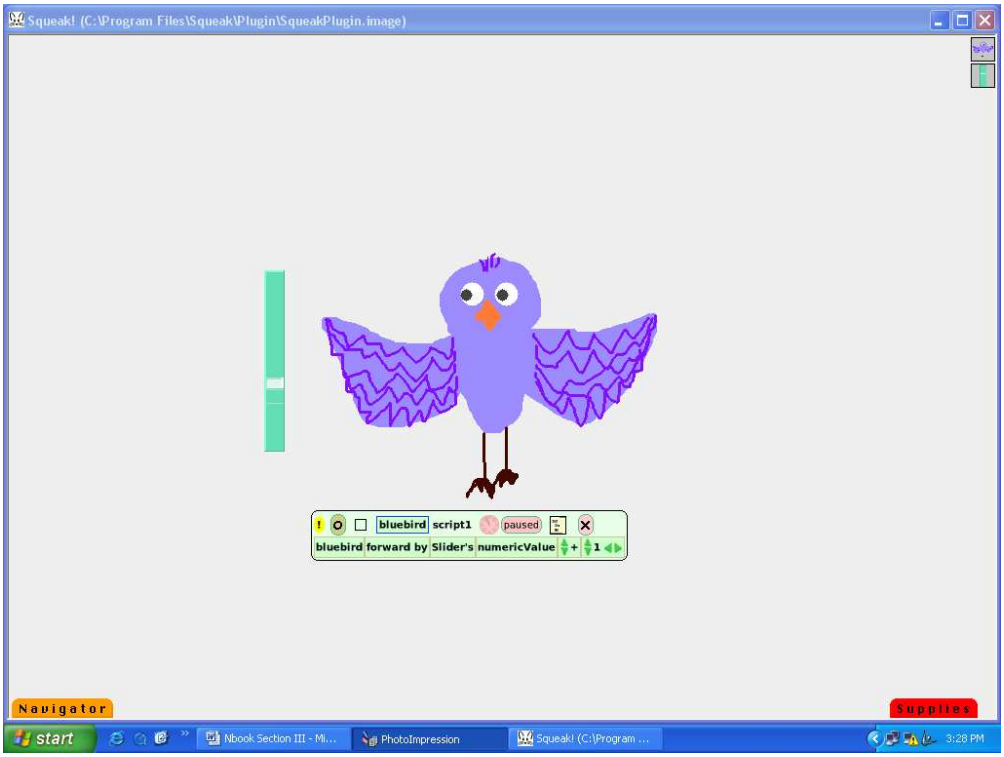
Slider: bluebirdnb

This project includes the use of a slider bar to control the bird's movement up and down on the screen.

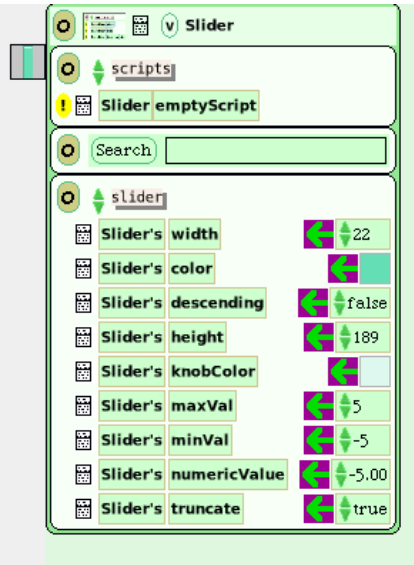


The bird's script started with a forward by 5 tile.

Open the Supplies and drag out a copy of a slider and drop it on the screen. The slider looks like this. It comes with a special category of script commands in the viewer panel. Get the halo for the slider and click on the cyan eye to open the scripts panel.

These script tiles are used to change various features of the slider bar and the knob. Here the minimum and maximum values have been set to 5 and negative 5. And the tile Slider's numericValue has been dragged from the

viewer panel and dropped onto bright green target area that appears when that tile is near the script box.



The slider's maximum value is set to 5 and the minimum value is set to negative five. In the script box, the numericValue has been changed using the tiny green left/right arrow so that the script includes -1.

This means the bird moves up and down by the slider's value minus one. The finished script tile looks like this.