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.

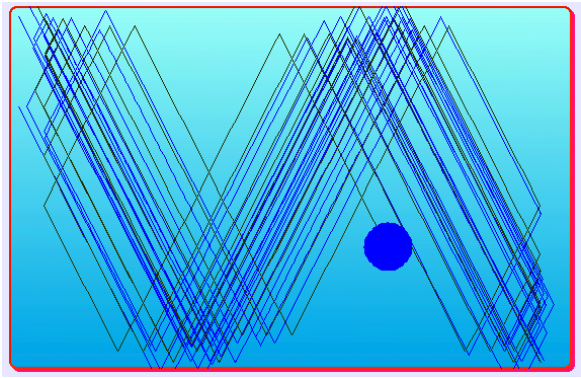
These projects can be explored on the computer by opening them from www.Squeakcmi.org. This dynamic experience of projects on the computer in conjunction with the written materials should give you a range of ideas and possibilities to combine in many ways and for many purposes.

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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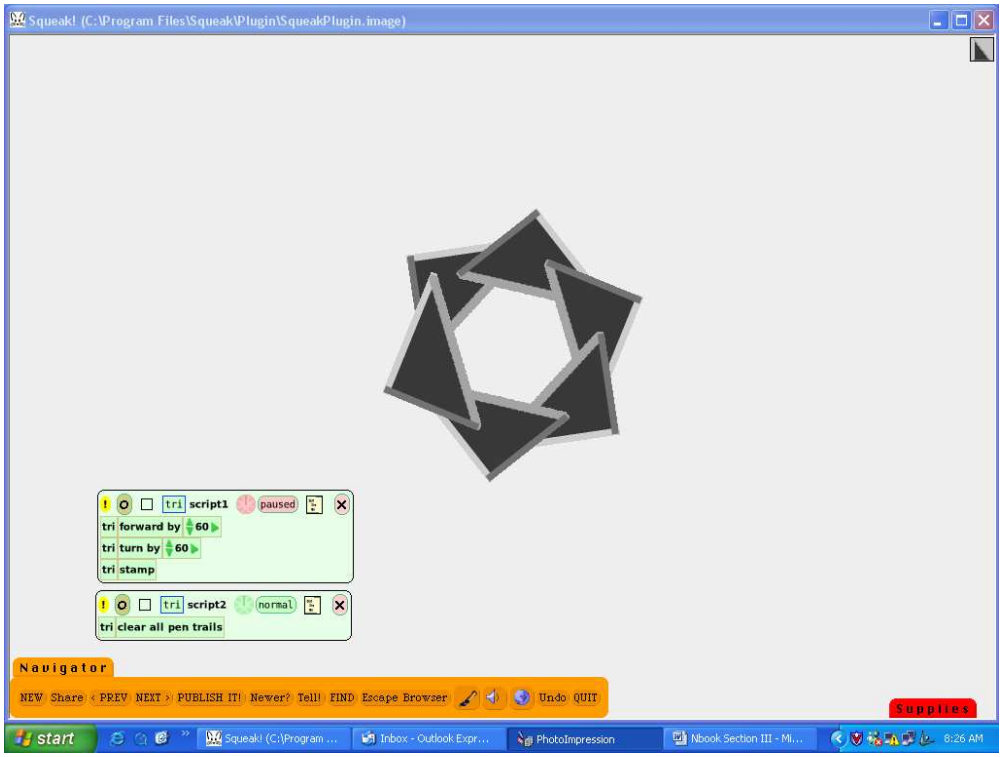
Stamp: grayStampnb

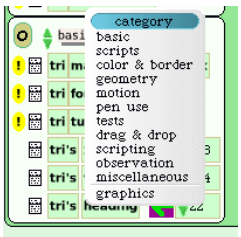
This project uses a script tile that will cause the object to stamp copies as it moves on the screen.



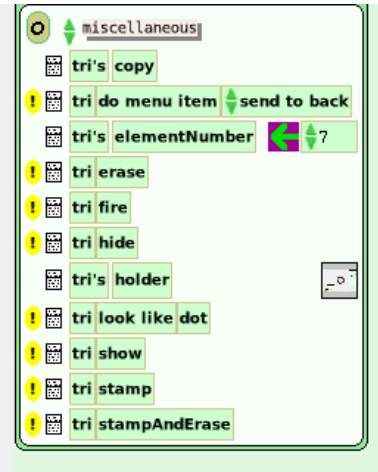
Draw an object using the paint brush tool in the Navigator flap. Keep it, get a halo for it and click on the cyan eye to open a viewer panel of script tiles.

Make one script with forward and turn in it from the basic category of tiles.

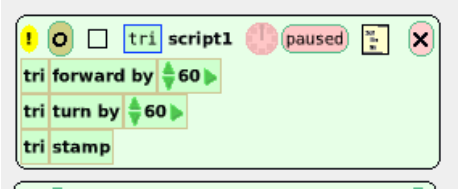
Click on the word basic to open a menu of other categories.



Choose miscellaneous to open this set of tiles.



Drag a copy of the phrase tri stamp into the script box that already includes forward and turn. This phrase will make the object leave a copy of it as it moves to a new position determined by the script.



This script is set to go forward by 60 so that the length of the line is long enough to see more of the pattern than would be seen if it were set at 5.

The turn by' number is set at 60 also because this makes a very nice hexagonal center to the finished stamp pattern. There many different combinations of forward and turn numbers to try and each will give a different pattern result.

Open the pen use category and drag out a copy of erase all pen trails and drop it on the screen. Just click on the yellow oval with a black exclamation mark in it to run the script one time and clear the old trail.