Creating Art, Animations, and Music

A proof of concept

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For ...

Acknowledgements

I would like to thank...

Preface

About this book:

Contents

Acknowledgements v

Preface vi

1 An Introduction to Snap! 1

1.1 Securing a Snap! Account 1
1.2 The Snap! Workspace 1
1.3 Snap! Menus 1
1.4 The Code Block Palette 1

Appendices

A Selected Hints 3

B Selected Solutions 4

C List of Symbols 5

Back Matter

Chapter 1

An Introduction to Snap!

This initial module provides an orientation to the Snap! programming language. Snap! was developed at the University of California, Berkeley, and is used in computer science (CS) for non-CS majors at that university. Because of its widespread use, a user community has developed around this programming language. The capabilities of this language make it well-suited to explorations in art and music.

1.1 Securing a Snap! Account

1.2 The Snap! Workspace

1.3 Snap! Menus

1.4 The Code Block Palette

Scripts are created in Snap! by snapping blocks of code together (such as the Move 10 Steps code block in the illustration). The types of code blocks available are displayed in a Code Block Palette at the top left-hand side of the screen. For example, the Motion code blocks are currently highlighted in the palette below. Other categories of code blocks include Looks, Sound, Pen, Control, Sensing, Operators, and Variables. Each category is a different color (e.g.. Motion code blocks are blue). Click on the different categories (Motion, Looks, etc.) to access the code blocks associated with that category.

Figure 1.4.1 The Snap! code block.

The Motion code blocks direct the movement of sprites (actors that can move about the stage on the right-hand side of the screen.) The Looks code blocks control the appearance of sprites. The Sound code blocks are used to play sounds. The Pen code blocks control the color and thickness of the turtle's pen. The Control code blocks provide control structures such as the Repeat command. The Sensing code blocks are used to sense the status of Snap! objects and monitor external inputs such as the keyboard and the microphone. The Operators code blocks provide mathematical and logical functions. The Variables palette is used to create and modify variables.

Exploration 1.4.1 The Code Block Pallete. Click on each of the categories in the Code Block Palette to get a sense of the types of commands that are found under each category.

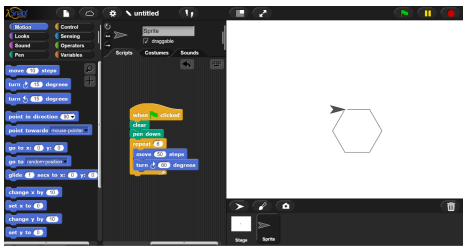

Figure 1.4.2 Interactive Snap applet

Appendix A

Selected Hints

Appendix B

Selected Solutions

Appendix C

List of Symbols

Symbol	Description	Page

Colophon

This book was authored in PreTeXt.