

PEN ART IN SNAP PROGRAMMING

Pen Art in Snap Programming

by Abhay B. Joshi & Sandesh R. Gaikwad

This book explores how the "Pen" feature of Snap can be used to create interesting designs. Pen programming (aka Turtle programming) provides a visual feedback by providing a clear trace of the sprite's movements.

This is very helpful, especially for those who are new to the world of programming. It helps in analyzing your own thinking and serves as a debugging tool. Turtle programming challenges students to recognize patterns and learn effective use of the divide-and-conquer approach to create seemingly complex designs. And last but not the least, it stimulates artistic creativity. Students are inspired to create interesting designs while simultaneously developing analytical and programming skills.

If art interprets our dreams, the computer executes them in the guise of programs!
-- Alan J. Perlis

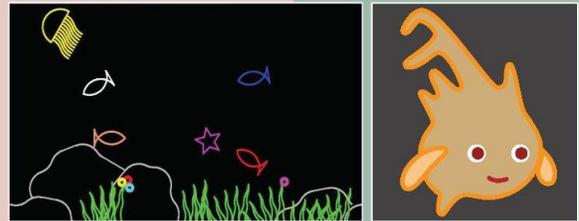
"Unleash the creative artist in you while enjoying the friendly Snap programming environment."

"Whether you are a beginner or an expert programmer, you will find turtle programming exciting and challenging."

"This book will take you on an entertaining and challenging journey beginning with simple line drawings to the complex world of recursive designs."

"A book like no other that activates your left and right brains simultaneously. Develop the analytical and logical skills that are the hallmark of a good programmer and also unleash the creative artist in you who appreciates the rhythm and beauty of man-made as well as natural creations."

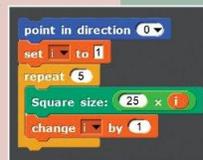
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the art of programming and the programming of art

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Introduction:

"Pen Art in Snap Programming" is a new exciting interactive book for middle- and high-school students and for beginner CS college students. This book focuses on the "Pen" feature of the popular Snap programming language.

It is assumed that the reader is familiar with the basic features of Snap, such as, motion commands and looping. There is a lot of material on Snap Programming on the Internet, including videos, online courses, projects, and so on. We highly recommend the book "Learn CS Concepts with Snap" in this book series, if you are a complete newcomer to Snap, or if you wish to brush up on your concepts.

However, as you will discover, you can become an accomplished "Pen Artist" (or "Turtle Programmer") without having to be an expert Snap programmer. The book explains relevant Snap commands and concepts wherever required.

Download a free chapter:

[Click here](#) to download a full chapter of this exciting book. If you like it, be sure to get your hands on the whole book.

How to get your copy:

This book is available worldwide on Amazon Kindle and in print in certain countries. To order your printed copy in India, write to abjoshi@yahoo.com.

More about the book:

This is book termed an "interactive book" because it is something between a traditional book – which is static and passive – and a fully interactive online course. It does look like a book: it has a series of chapters, diagrams, a lot of text, etc. But it also contains links to online Snap programs, code snippets, references, which the reader is expected to click and explore to fully benefit from the ideas presented.

Curriculum:

The book is organized as a series of chapters – each containing a bunch of concepts and associated programming

activities. Every chapter includes review questions and several programming assignments that will help you practice all the concepts learnt till then. Answers to all “review questions” and links to working programs for most of the programming exercises in the book are available online.

Authors' background

As a freelance teacher, Abhay's area of interest is teaching Computer Programming as "the exciting new magic" and also as "a medium for learning" in the constructivist tradition. He has been teaching regularly to elementary, middle, and high school students in WA, USA and Pune, India since 2008. He teaches at Aksharnandan School in Pune, India every summer, and works with TEALS (<http://tealsk12.org/>) to teach Computer Science to high school students in the US. Since 2011, he has authored or co-authored several programming books, which are based on Scratch, Snap, and Logo. Abhay has been associated with the Software Industry since 1988 as a programmer, product developer, entrepreneur, and teacher. After getting an MS in Computer Engineering from Syracuse University (USA), he worked as a software engineer for product companies that developed operating systems, network protocols, and secure software. In 1997, Abhay co-founded Disha Technologies, which grew to become a successful software services organization.

As a Project Management and ERP consultant, Sandesh is actively involved in the training, coaching and mentoring of software professionals on technical topics as well as on leadership, communication, and project management. Sandesh started his career in the software industry in 1991 and has worked across the globe in a variety of roles. Prior to that he was a lecturer and taught assembly language and Pascal programming to engineering students. He has been teaching computer programming to high school students since 2008.

Programming remains a favorite hobby of the authors, and they continue to explore the “entertaining, intellectual, and educational” aspects of programming.

Abhay lives in Seattle, USA and Sandesh lives in Pune, India.