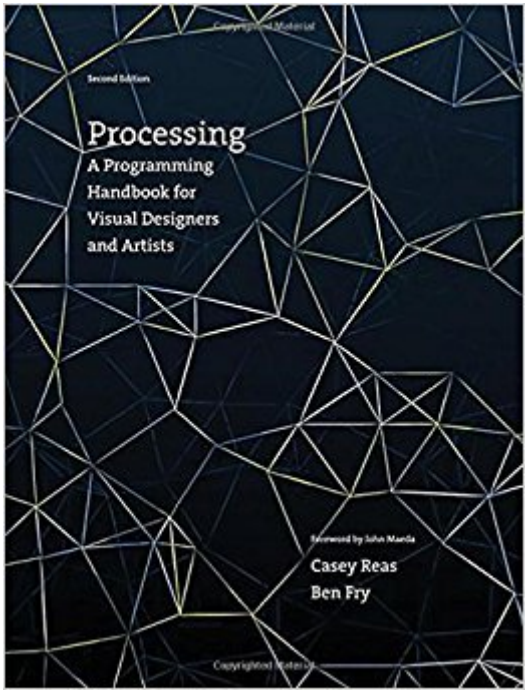
Processing: A Programming Handbook For Visual Designers And Artists (MIT Press)



Synopsis

The visual arts are rapidly changing as media moves into the web, mobile devices, and architecture. When designers and artists learn the basics of writing software, they develop a new form of literacy that enables them to create new media for the present, and to imagine future media that are beyond the capacities of current software tools. This book introduces this new literacy by teaching computer programming within the context of the visual arts. It offers a comprehensive reference and text for Processing (www.processing.org), an open-source programming language that can be used by students, artists, designers, architects, researchers, and anyone who wants to program images, animation, and interactivity. Written by Processing's cofounders, the book offers a definitive reference for students and professionals. Tutorial chapters make up the bulk of the book; advanced professional projects from such domains as animation, performance, and installation are discussed in interviews with their creators.This second edition has been thoroughly updated. It is the first book to offer in-depth coverage of Processing 2.0 and 3.0, and all examples have been updated for the new syntax. Every chapter has been revised, and new chapters introduce new ways to work with data and geometry. New "synthesis" chapters offer discussion and worked examples of such topics as sketching with code, modularity, and algorithms. New interviews have been added that cover a wider range of projects. "Extension" chapters are now offered online so they can be updated to keep pace with technological developments in such fields as computer vision and electronics.InterviewsSUE.C, Larry Cuba, Mark Hansen, Lynn Hershman Leeson, JÃ rg Lehni, LettError, Golan Levin and Zachary Lieberman, Benjamin Maus, Manfred Mohr, Ash Nehru, Josh On, Bob Sabiston, Jennifer Steinkamp, Jared Tarbell, Steph Thirion, Robert Winter

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Customer Reviews

This essential book is a tool for unlocking the power of Processing. With this completely revised edition, Casey Reas and Ben Fry show readers how to use Processing for thinking, making, and doing. This remarkable software environment has opened the world of code to designers, architects, musicians, and animators. Providing a powerful alternative to proprietary software, Processing speaks to self-education and networked engagement. (Ellen Lupton, Director of the graphic design MFA program at Maryland Institute College of Art, Baltimore, and author of Thinking with Type and Type on Screen)Processing has unlocked the potential of software as a creative medium by integrating a programming language and development environment and linking computation and the visual arts. This revised handbook provides expertly designed and invaluable tutorials that introduce the syntax and concepts of software and position it in the field of arts. Interviews with renowned artists give insight into the creation of their landmark software projects, illustrating how programming is applied in art. (Christiane Paul, Adjunct Curator of New Media Arts, Whitney Museum of American Art)In addition to what you can expect -- a great compendium explaining the software’s features and applications -- the second edition of Processing comes with a well-curated series of interviews with artists and designers for whom software is key to their work. These exceptional insights into artistic practice contribute to the writing of history of software-based art and design and contextualize Processing in an adequate way. (Joachim Sauter, University of the Arts Berlin, Founder and Creative Director of ART+COM)

Casey Reas is Professor of Design Media Arts at UCLA. Ben Fry is Principal of Fathom, a design and software consultancy in Boston. Together, Reas and Fry cofounded Processing in 2001.

My son decided he wanted to move up from Logo so we introduced him to processing. This book was purchased along with Getting Started with Processing and Processing: Creative Coding and Generative Art.This book was added to our collection specifically because it takes a more academic, detailed and complex approach, attempting to create a more serious introduction to software development through the lens of processing.For my son, once he was able to fluently move through processing and create wonderful and engaging sketches quickly this became his go

to book for deepening his applications and understanding of what is possible.Highly recommended but it is a little more advanced, but don’t let that stop you, its so much fun you will rise up to the challenge and be a better processing developer for it!

As a high school physics teacher with a lot of advanced students, I’ve been trying to work a bit of computer programming into the course over the last few years. I always wanted to do graphics programming with the students in order to help them visualize and simulate systems, because the pictures produced are a lot prettier and more rewarding than just the formulas on their own, but the languages I tried were just too difficult to teach from scratch in the time we had. Processing seems to be just what I’m looking for: it’s free so the kids can download it themselves, and it really doesn’t take much to produce stunning graphics. Now I would NOT recommend the book to someone with no programming experience at all - the emphasis of the book is clearly (and rightly) on how to get up to speed making images, not on what a variable is. That said, this book is a terrific resource for me; anyone with a basic programming course under their belt ought to have no trouble making sense of Processing’s syntax, and the power of the language is phenomenal. The authors have done a fine job of both explaining the use of the Processing language, and showing off what it can do with all the examples. Processing is letting me do what I always wanted to do with a computer - make stunning graphics from mathematical information - at a level high school students can understand. If you are at all interested in Processing, download the free software and go here next.

This book is, quite simply, a godsend. If you are an artist that enjoys tinkering with all things technological (especially an artist that enjoyed mathematics or beating up your computer in high school lab class) than it’s certainly for you. If, on the other hand, you are the type of person that hopes to breeze though this and start applying "techie things" to your video art, then you are in for a let-down...it IS a bit tough for someone that has never played with a computer programming language. No way around it, you’re going to have to WORK!!But, that’s the thing. You’re supposed to work, massage, twist, graft, apply, subtract and otherwise mangle these functions and commands until they do some (random, unexpected) beautiful thing. This is exactly what the authors want you to do. Take their simple equations and use your imagination to change them up a bit and make your own.And, a big plus is how the whole book is structured. It starts with simple enough topics and progressively increases in difficulty, BUT, and here is the stroke of genius for artsy types, it does so by switching the topics here and there from shapes, to type, to math, to random, to trig, to type again, back to shapes...etc. So, you see, it’s structured (if you read from cover to cover in a linear

fashion) in a way that will NOT bore the reader in any way. It’s as if Reas and Fry knew that most of us artsy types were (completely and hopelessly) ADHD and needed this kind of variety to keep our interest (lord knows they probably wish they did, coming from artistic backgrounds before entering MIT as grads). And, as an added bonus, if you are the kind of person that likes the topics all neatly together, there is a second topical index behind the main index so you can jump through the book by topic.In closing, Reas and Fry have done us "new media" types a great service by developing a trimmed-down form of Java programming so that we don’t have to do the heavy work and learn full-blown Java or C++ on our own (though, after using this language, the hope is that it WILL get us "artsies" to learn those higher level languages and make genre-smashing art). So, get going!P.S. The only thing I wish this book had were MORE Exercises at the end of each topic. Or, a workbook that had more problems to solve, like my old Calculus text that had 30 problems after each section. Guys, could we, just maybe, extend the problem sets in a future edition, from three to maybe 10? It would be much appreciated! :)

Clear, concise, plenty of example code. Excellent.

Very well written with more explanation on the language than other books I’ve read. Highly recommended.

This is a great text, from the authors of the software itself. I’m only through the first hundred pages or so, but it’s a fairly well-presented volume of information split into easily digested chapters, on everything from the command structure for creating graphics to the math that governs such efforts. The authors cover not only the rationale behind their own programming language, but also touch on the thinking behind digital graphic and artworks as a whole...While the chapters are a little scattered for the linear reader (e.g., certain of the mathematical function chapters are broken and split into chapters that would flow a little better with no break between them), the authors are fairly clear in their intro and table of contents that the text is meant to be read and digested in a variety of ways, linear being only one method.There are a few problems with the explanations of some of the syntax and command structure, but overall, the book is a sound investment for a newby like myself, who hasn’t visited programming in a number of years, and needs a primer/refresher, as well as a source for the more advanced coding artist. I recommend the book without reservation.

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Programming Handbook for Visual Designers and Artists Python Programming: Python Programming for Beginners, Python Programming for Intermediates, Python Programming for Advanced C++: The Ultimate Crash Course to Learning the Basics of C++ (C programming, C++ in easy steps, C++ programming, Start coding today) (CSS,C Programming, ... Programming,PHP, Coding, Java Book 1) Grid Systems in Graphic Design: A Visual Communication Manual for Graphic Designers, Typographers and Three Dimensional Designers (German and English Edition) C++ and Python Programming: 2 Manuscript Bundle: Introductory Beginners Guide to Learn C++ Programming and Python Programming C++ and Python Programming 2 Bundle Manuscript. Introductory Beginners Guide to Learn C++ Programming and Python Programming Python Programming: The Complete Step By Step Guide to Master Python Programming and Start Coding Today! (Computer Programming Book 4) Natural Surfaces: Visual Research for Artists, Architects, and Designers (Surfaces Series) Introduction to Computation and Programming Using Python: With Application to Understanding Data (MIT Press) The Audio Programming Book (MIT Press) Visual Phenomenology (MIT Press) Eyewitness Visual Dictionaries: The Visual Dictionary of the Human Body (DK Visual Dictionaries) The Linux Programming Interface: A Linux and UNIX System Programming Handbook The Rights of Authors, Artists, and other Creative People, Second Edition: A Basic Guide to the Legal Rights of Authors and Artists (ACLU Handbook) Fabrics: A Guide for Interior Designers and Architects (Norton Professional Books for Architects & Designers) Ingenious Mechanisms for Designers and Inventors, 1930-67 (Volume 1) (Ingenious Mechanisms for Designers & Inventors) Bearings and Lubrication: A Mechanical Designers Workbook (Mcgraw-Hill Mechanical Designers Workbook Series) Society of Publication Designers: 34th Publication Design Annual (Society of Publication Designers' Publication Design Annual) (Vol 34) Thinking with Type: A Primer for Designers: A Critical Guide for Designers, Writers, Editors, & Students