



Docs for Developers

An Engineer's Field Guide
to Technical Writing

Jared Bhatti
Sarah Corleissen
Jen Lambourne
David Nunez
Heidi Waterhouse

Foreword by Kelsey Hightower

Apress®

Docs for Developers

An Engineer's Field Guide to Technical Writing

Jared Bhatti
Sarah Corleissen
Jen Lambourne
David Nunez
Heidi Waterhouse

Foreword by Kelsey Hightower

Apress®

Docs for Developers: An Engineer's Field Guide to Technical Writing

Jared Bhatti
Berkeley, CA, USA

Jen Lambourne
Cornwall, UK

Heidi Waterhouse
Mounds View, MN, USA

Sarah Corleissen
Victoria, BC, Canada

David Nunez
San Francisco, CA, USA

ISBN-13 (pbk): 978-1-4842-7216-9
<https://doi.org/10.1007/978-1-4842-7217-6>

ISBN-13 (electronic): 978-1-4842-7217-6

Copyright © 2021 by Jared Bhatti, Sarah Corleissen, Jen Lambourne, David Nunez, Heidi Waterhouse

This work is subject to copyright. All rights are reserved by the Publisher, whether the whole or part of the material is concerned, specifically the rights of translation, reprinting, reuse of illustrations, recitation, broadcasting, reproduction on microfilms or in any other physical way, and transmission or information storage and retrieval, electronic adaptation, computer software, or by similar or dissimilar methodology now known or hereafter developed.

Trademarked names, logos, and images may appear in this book. Rather than use a trademark symbol with every occurrence of a trademarked name, logo, or image we use the names, logos, and images only in an editorial fashion and to the benefit of the trademark owner, with no intention of infringement of the trademark.

The use in this publication of trade names, trademarks, service marks, and similar terms, even if they are not identified as such, is not to be taken as an expression of opinion as to whether or not they are subject to proprietary rights.

While the advice and information in this book are believed to be true and accurate at the date of publication, neither the authors nor the editors nor the publisher can accept any legal responsibility for any errors or omissions that may be made. The publisher makes no warranty, express or implied, with respect to the material contained herein.

Managing Director, Apress Media LLC: Welmoed Spahr
Acquisitions Editor: Louise Corrigan
Development Editor: James Markham
Coordinating Editor: Jessica Vakili

Cover designed by eStudioCalamar
Cover image designed by Freepik (www.freepik.com)

Illustrations by Neiko Ng

Diagrams by Tegan Broderick and Eleni Fragkiadaki

Code samples by Eleni Fragkiadaki

Distributed to the book trade worldwide by Springer Science+Business Media New York, 1 New York Plaza, New York, NY 10004. Phone 1-800-SPRINGER, fax (201) 348-4505, e-mail orders-ny@springer-sbm.com, or visit www.springeronline.com. Apress Media, LLC is a California LLC and the sole member (owner) is Springer Science + Business Media Finance Inc (SSBM Finance Inc). SSBM Finance Inc is a **Delaware** corporation.

For information on translations, please e-mail booktranslations@springernature.com; for reprint, paperback, or audio rights, please e-mail bookpermissions@springernature.com.

Apress titles may be purchased in bulk for academic, corporate, or promotional use. eBook versions and licenses are also available for most titles. For more information, reference our Print and eBook Bulk Sales web page at <http://www.apress.com/bulk-sales>.

Any source code or other supplementary material referenced by the author in this book is available to readers on GitHub via the book's product page, located at www.apress.com/9781484272169. For more detailed information, please visit <http://www.apress.com/source-code>.

Printed on acid-free paper

Praise for *Docs for Developers*

“Add documentation” is a step in every product release plan, and “we need more docs” is an action item from every internal developer productivity survey, but it’s surprisingly difficult to translate those concise goals into useful documentation. Docs for Developers reveals the repeatable process behind incredible documentation.

—Will Larson, CTO at Calm, author of *An Elegant Puzzle*
and *Staff Engineer*

Great documentation is an often overlooked yet critical component for ensuring the success and large scale adoption of a software project. Docs for Developers is a must-read for developers and technical writers who want to rapidly accelerate their ability to create documentation that is easy to consume, brings joy to end users, and is capable of dramatically improving business results.

—Brad Topol, IBM Distinguished Engineer, Open
Technology and Developer Advocacy. Co-author of
Kubernetes in the Enterprise, and *Hybrid Cloud Apps*
with *OpenShift and Kubernetes*

PRAISE FOR DOCS FOR DEVELOPERS

No matter your starting point, you can find techniques and advice to improve your documentation in Docs for Developers. This book does for dev docs what The Phoenix Project does for devops - makes your aspirations attainable. The API startup story kept me reading and the cute corgi pictures made me smile.

—Anne Gentle, Developer Experience Manager
at Cisco. Author of the book *Docs Like Code*
and website docslikecode.com.

Good documentation is a multiplier that helps people onboard and explore software. Docs for Developers guides developers and technical writers to document what their users care about, organize content to help users find what they need, and measure how documentation helps users understand and adopt their software.

—Stephanie Blotner, Technical Writing
Manager at Uber

Docs for Devs condenses years of knowledge from multiple industry leaders into a concise, actionable framework. This book guides you from planning to production, with hard won insights on every page. Read it today; your users will thank you.

—Eric Holscher, Co-founder of Write the
Docs and Read the Docs

Table of Contents

| | |
|---|--------------|
| About the Authors | xv |
| Acknowledgments | xvii |
| Foreword | xix |
| Introduction | xxiii |
| Chapter 1: Understanding your audience | 1 |
| Corg.ly: One month to launch | 1 |
| The curse of knowledge..... | 3 |
| Creating an initial sketch of your users | 4 |
| Defining your users' goals..... | 4 |
| Understanding who your users are | 6 |
| Outline your users' needs..... | 7 |
| Validate your user understanding | 8 |
| Using existing data sources | 9 |
| Collecting new data..... | 10 |
| Condensing user research findings | 14 |
| User personas..... | 15 |
| User stories | 16 |
| User journey maps | 17 |
| Creating a friction log | 19 |
| Summary..... | 21 |

TABLE OF CONTENTS

| | |
|---|-----------|
| Chapter 2: Planning your documentation | 23 |
| Corg.ly: Creating a plan | 23 |
| Plans and patterns | 24 |
| Content types | 25 |
| Code comments..... | 25 |
| READMEs | 27 |
| Getting started documentation..... | 29 |
| Conceptual documentation..... | 30 |
| Procedural documentation | 31 |
| Reference documentation | 35 |
| Planning your documentation | 41 |
| Summary..... | 44 |
| Chapter 3: Drafting documentation | 45 |
| Corg.ly: First drafts..... | 45 |
| Confronting the blank page (or screen) | 45 |
| Setting yourself up for writing success | 46 |
| Choosing your writing tools..... | 47 |
| Breaking through the blank page | 47 |
| Defining your document’s title and goal..... | 48 |
| Creating your outline..... | 49 |
| Meeting your reader’s expectations | 50 |
| Completing your outline | 51 |
| Creating your draft..... | 52 |
| Headers | 53 |
| Paragraphs | 54 |
| Procedures | 54 |
| Lists | 55 |
| Callouts..... | 56 |

| | |
|--|-----------|
| Writing for skimming | 57 |
| State your most important information first..... | 58 |
| Break up large blocks of text..... | 59 |
| Break up long documents..... | 59 |
| Strive for simplicity and clarity..... | 60 |
| Getting unstuck..... | 60 |
| Let go of perfectionism..... | 61 |
| Ask for help | 61 |
| Highlight missing content..... | 62 |
| Write out of sequence | 62 |
| Change your medium | 63 |
| Working from templates | 63 |
| Finishing your first draft..... | 65 |
| Summary..... | 66 |
| Chapter 4: Editing documentation | 67 |
| Corg.ly: Editing content | 67 |
| Editing to meet your user's needs | 68 |
| Different approaches to editing | 69 |
| Editing for technical accuracy | 70 |
| Editing for completeness..... | 71 |
| Editing for structure..... | 72 |
| Editing for clarity and brevity | 73 |
| Creating an editing process | 75 |
| Reviewing your document first..... | 75 |
| Requesting a peer review..... | 76 |
| Requesting a technical review | 77 |

TABLE OF CONTENTS

Receiving and integrating feedback 78

Giving good feedback 79

Summary..... 81

Chapter 5: Integrating code samples 83

 Corg.ly: Showing how it works..... 83

 Using code samples..... 84

 Types of code samples..... 85

 Principles of good code samples 86

 Explained 87

 Concise 90

 Clear 92

 Usable (and extensible) 93

 Trustworthy..... 94

 Designing code samples 95

 Choosing a language 95

 Highlighting a range of complexity 95

 Presenting your code..... 96

 Tooling for code samples 96

 Testing code samples 97

 Sandboxing code 98

 Autogenerating samples..... 98

 Summary..... 99

Chapter 6: Adding visual content 101

 Corg.ly: Worth a thousand words 101

 When words aren't enough 102

 Why visual content is hard to create..... 103

 Comprehension 104

| | |
|--|------------|
| Accessibility | 105 |
| Performance | 106 |
| Using screenshots..... | 106 |
| Common types of diagrams | 108 |
| Boxes and arrows..... | 108 |
| Flowcharts..... | 110 |
| Swimlanes..... | 111 |
| Drawing diagrams..... | 112 |
| Start on paper..... | 116 |
| Find a starting point for your reader..... | 116 |
| Use labels | 116 |
| Use colors consistently..... | 117 |
| Place the diagram | 117 |
| Publishing a diagram..... | 117 |
| Get help with diagrams | 117 |
| Creating video content..... | 118 |
| Reviewing visual content..... | 119 |
| Maintaining visual content..... | 120 |
| Summary..... | 120 |
| Chapter 7: Publishing documentation | 121 |
| Corg.ly: Ship it!..... | 121 |
| Putting your content out there | 122 |
| Building a content release process..... | 123 |
| Creating a publishing timeline | 124 |
| Coordinate with code releases | 126 |
| Finalize and approve publication..... | 126 |

TABLE OF CONTENTS

- Decide how to deliver content..... 128
- Announce your docs 129
- Planning for the future 129
- Summary..... 130
- Chapter 8: Gathering and integrating feedback 133**
- Corg.ly: Initial feedback..... 133
- Listening to your users 134
- Creating feedback channels 135
- Accept feedback directly through documentation pages 136
- Monitor support issues..... 137
- Collect document sentiment..... 138
- Create user surveys..... 139
- Create a user council..... 140
- Converting feedback into action 141
- Triaging feedback 141
- Following up with users 145
- Summary..... 145
- Chapter 9: Measuring documentation quality 147**
- Corg.ly: Tuesday after the launch..... 147
- Is my documentation any good? 148
- Understanding documentation quality 148
- Functional quality 149
- Structural quality 155
- How functional and structural quality relate 158
- Creating a strategy for analytics 158
- Organizational goals and metrics 159

| | |
|--|------------|
| User goals and metrics..... | 160 |
| Documentation goals and metrics..... | 162 |
| Tips for using document metrics | 164 |
| Make a plan..... | 164 |
| Establish a baseline..... | 165 |
| Consider context..... | 165 |
| Use clusters of metrics..... | 166 |
| Mix qualitative and quantitative feedback..... | 166 |
| Summary..... | 166 |
| Chapter 10: Organizing documentation..... | 169 |
| Corg.ly: The next release..... | 169 |
| Organizing documentation for your readers | 170 |
| Helping your readers find their way..... | 171 |
| Site navigation and organization | 172 |
| Landing pages | 176 |
| Navigation cues..... | 178 |
| Organizing your documentation..... | 179 |
| Assess your existing content..... | 179 |
| Outline your new information architecture..... | 181 |
| Migrate to your new information architecture..... | 183 |
| Maintaining your information architecture | 184 |
| Summary..... | 184 |
| Chapter 11: Maintaining and deprecating documentation | 187 |
| Corg.ly: A few releases later | 187 |
| Maintaining up-to-date documentation | 188 |

TABLE OF CONTENTS

- Planning for maintainability 189
 - Align documentation with release processes..... 190
 - Assign document owners 192
 - Reward document maintenance..... 193
- Automating documentation maintenance 193
 - Content freshness checks 194
 - Link checkers 195
 - Linters 195
 - Reference doc generators 196
- Removing content from your docset..... 196
 - Deprecating documentation 197
 - Deleting documentation 198
- Summary..... 199
- Appendix A: When to hire an expert201**
 - Meeting a new set of user needs..... 202
 - Increasing support deflections..... 202
 - Managing large documentation releases..... 202
 - Refactoring an information architecture 202
 - Internationalization and localization 203
 - Versioning documentation with software 203
 - Accepting user contributions to documentation 203
 - Open-sourcing documentation..... 204
- Appendix B: Resources205**
 - Courses 205
 - Templates..... 206
 - Style guides 207
 - Automation tools 207

TABLE OF CONTENTS

Visual content tools and frameworks..... 209

Blogs and research 210

Books 211

Communities 212

Bibliography 215

Index..... 221