

Extracted from:

Lean from the Trenches

Managing Large-Scale Projects with Kanban

This PDF file contains pages extracted from *Lean from the Trenches*, published by the Pragmatic Bookshelf. For more information or to purchase a paperback or PDF copy, please visit <http://www.pragprog.com>.

Note: This extract contains some colored text (particularly in code listing). This is available only in online versions of the books. The printed versions are black and white. Pagination might vary between the online and printer versions; the content is otherwise identical.

Copyright © 2010 The Pragmatic Programmers, LLC.

All rights reserved.

No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form, or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior consent of the publisher.

The Pragmatic Bookshelf

Dallas, Texas • Raleigh, North Carolina

Lean from the Trenches

Managing Large-Scale
Projects with Kanban

Henrik Kniberg

Foreword by Kent Beck

Edited by Kay Keppler





Many of the designations used by manufacturers and sellers to distinguish their products are claimed as trademarks. Where those designations appear in this book, and The Pragmatic Programmers, LLC was aware of a trademark claim, the designations have been printed in initial capital letters or in all capitals. The Pragmatic Starter Kit, The Pragmatic Programmer, Pragmatic Programming, Pragmatic Bookshelf, PragProg and the linking *g* device are trademarks of The Pragmatic Programmers, LLC.

Every precaution was taken in the preparation of this book. However, the publisher assumes no responsibility for errors or omissions, or for damages that may result from the use of information (including program listings) contained herein.

Our Pragmatic courses, workshops, and other products can help you and your team create better software and have more fun. For more information, as well as the latest Pragmatic titles, please visit us at <http://pragprog.com>.

The team that produced this book includes:

Kay Keppler (editor)
Potomac Indexing, LLC (indexer)
Kim Wimpsett (copyeditor)
David J Kelly (typesetter)
Janet Furlow (producer)
Juliet Benda (rights)
Ellie Callahan (support)

Copyright © 2011 The Pragmatic Programmers, LLC.
All rights reserved.

No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form, or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior consent of the publisher.

Printed in the United States of America.
ISBN-13: 978-1-934356-85-2
Printed on acid-free paper.
Book version: P1.0—December, 2011

Preface

Many of us have heard about Lean software development, Kanban, and other trendy buzzwords. But what does this stuff actually look like in practice? And how does it scale to a 60-person project developing a really complex system?

I can't tell you how to do it, since every context is different. But I will tell you how we've been doing it (basically a Scrum-XP-Kanban hybrid), and maybe some of our solutions and lessons learned can be valuable in your context.

Who This Book Is For

This book is primarily written for team leads, managers, coaches, and other change agents within software development organizations.

However, some parts will probably be useful to anyone interested in software development, Lean product development, or collaboration techniques in general—regardless of role or industry.

For those who want to comment, go to the book's main page,¹ and from there you can reach the forum and errata pages. I welcome your comments!

How to Read This Book

This book is divided in two parts, each subdivided into several short chapters.

Part I, “How We Work,” is a case study showing how Kanban and Lean principles were applied in a large project for the Swedish police. The first chapter describes what the project was about, and the subsequent chapters describe specific challenges (such as scaling), how we dealt with those challenges, and what we learned along the way.

Part II, “A Closer Look at the Techniques,” starts with a high-level introduction to Agile and Lean and then expands on some of the practices mentioned in Part I, such as cause-effect diagrams.

1. <http://pragprog.com/book/hklean/lean-from-the-trenches>

I suggest you read Part I end to end, since that is the heart of this book, and the chapters build upon each other. Then you can cherry-pick from Part II, since those chapters are independent.

New to Agile or Lean?

If you are new to Agile or Lean, don't worry. This book is all about practice, not theory. I'll simply show you what we've been doing, and you'll pick up most of the theory along the way.

If you prefer to start with a high-level overview of Agile and Lean and the associated methods Scrum, XP, and Kanban, then go ahead and jump to [Chapter 17, *Agile and Lean in a Nutshell*, on page ?](#).

Disclaimer

I don't claim that our way of working is perfectly Lean. Lean is a direction, not a place. It's all about continuous improvement. *Lean* has no clear definition, but many of the practices that we apply are based on the principles of Lean product development that Mary Poppendieck, David Anderson, and Don Reinertsen teach. And these practices, by the way, happen to match Agile principles quite well on most counts.

Another thing—you will see this project from my perspective, a part-time coach during six months of this project. My goal is not to present a 100 percent complete picture; I'll just give you a general idea of what we've been doing and what we've learned so far.

Acknowledgments

Many people have contributed to this book—thanks to you all! I'd especially like to thank Håkan Rydman for being the internal change agent and getting me into this project, and Tomas Alsterlund for providing strong management support and keeping us focused on the project goal.

And I'd also like to call out the following people:

Christian Stuart and the rest of the RPS management team for entrusting me to coach this project and allowing us to spread the word about what we've been doing.

All project participants for putting their hearts into this project and helping to drive the change process. I was amazed by the skill, creativity, and energy of this project team!

Mary and Tom Poppendieck for years of personal mentorship and cotraining in Lean software development and for encouraging me to write this book.

They also kindly contributed most of the content in [Section 17.2, *Lean in a Nutshell*, on page ?](#).

My editor, Kay Keppler. I've never worked with an editor before, and I was surprised about how valuable this was. Kay not only improved the book, she helped me become a better writer!

All reviewers: Gunnar Ahlberg, Kevin Beam, Kent Beck, Pawel Brodzinski, Ward Cunningham, Doug Daniels, Chad Dumler-Montplaisir, Yves Hanouille, Michael Hunter, Andy Keffalas, Maurice Kelly, Sebastian Lang, Rasmus Larsson, Mary Poppendieck, Sam Rose, Daniel Teng, Nancy Van Schooenderwoert, Joshua White, and Colin Yates.

Martie Smith and Emma Mattsson for donating some great photographs.

Finally, my wife, Sophia, for granting me focus and flow (not easy with four small kids in the house...) so that I could finish the first draft of this book within days instead of months.

Henrik Kniberg

<mailto:henrik.kniberg@crisp.se>

Stockholm, October 2011