

TortoiseSVN 1.7

Perform version control in the easiest way with the best SVN client – TortoiseSVN

Beginner's Guide





TortoiseSVN 1.7

Beginner's Guide

Perform version control in the easiest way with the best SVN client – TortoiseSVN

Lesley Harrison



BIRMINGHAM - MUMBAI

TortoiseSVN 1.7 Beginner's Guide

Copyright © 2011 Packt Publishing

All rights reserved. No part of this book may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, without the prior written permission of the publisher, except in the case of brief quotations embedded in critical articles or reviews.

Every effort has been made in the preparation of this book to ensure the accuracy of the information presented. However, the information contained in this book is sold without warranty, either express or implied. Neither the author, nor Packt Publishing, and its dealers and distributors will be held liable for any damages caused or alleged to be caused directly or indirectly by this book.

Packt Publishing has endeavored to provide trademark information about all of the companies and products mentioned in this book by the appropriate use of capitals. However, Packt Publishing cannot guarantee the accuracy of this information.

First published: January 2011

Production Reference: 1311210

Published by Packt Publishing Ltd. 32 Lincoln Road Olton Birmingham, B27 6PA, UK.

ISBN 978-1-849513-44-9

www.packtpub.com

Cover Image by Asher Wishkerman (a.wishkerman@mpic.de)

Credits

Author

Lesley Harrison

Reviewers

Robert Dudus

Stefan Küng

Eric Poole

Acquisition Editor

Tarun Singh

Development Editor

Tarun Singh

Technical Editors

Gauri Iyer

Prashant Macha

Indexer

Hemangini Bari

Editorial Team Leader

Mithun Sehgal

Project Team Leader

Ashwin Shetty

Project Coordinator

Michelle Quadros

Proofreader

Samantha Lyon

Graphics

Nilesh Mohite

Production Coordinator

Adline Swetha Jesuthas

Cover Work

Adline Swetha Jesuthas

About the Author

Lesley Harrison has more than ten years experience working in the world of IT. She has served as a web developer for the local government, a systems administrator for a multinational IT outsourcing company, and a database administrator for a British utility company. Today, Lesley runs her own video gaming site, Myth-Games.com, and works as a freelance web developer.

In her spare time Lesley volunteers within several Open Source projects. Away from the computer she recently found a love for Seiken Ryu Karate, and has reached the rank of 4th Kyu.

I would like to thank my husband, Mark, for his endless patience, and the wonderful gesture of building a spare machine to use as a server for testing.

I would also like to thank Stefan Küng (TortoiseSVN) and Robert Dudus, for their eagle-eyed technical reviewing, which shaped this book into what you see today.

About the Reviewers

Robert Dudus has been a developer for over 5 years. During this time, he has designed and developed applications in widely varying areas such as computer video games, bioinformatics, web design, property searches, and loans.

He has first-hand developer experience with C++, Java, C#, and technologies around them. He considers himself a pragmatic programmer. He doesn't stand on formality and he's willing to look at alternate or unorthodox solutions to a problem if that's what it takes.

Robert is currently employed by Inform Link Limited in London, UK, as a software developer/analyst in the centralized development group.

Stefan Küng has been the lead developer for TortoiseSVN since the beginning. In addition to his open source work, Stefan has held senior positions in software and hardware design and engineering for over ten years. He holds a Master's Degree in Electrical Engineering from the Federal Institute of Technology in Zurich, Switzerland and is fluent in both German and English.

Eric Poole is the president and chief technology officer of RKT Technologies, Inc., a consulting and technical services company based in New Hampshire, USA. He has 40 years' experience in the industry, 35 year's experience as a software developer, and 31 years' experience as an independent consultant. RKT Technologies, Inc. specializes in software development and regulatory consulting for medical devices and other regulated industries. RKT's website can be seen at www.rkt-tech.com. Eric can be reached at eric@rkt-tech.com.

www.PacktPub.com

Support files, eBooks, discount offers and more

You might want to visit www. PacktPub. com for support files and downloads related to your book.

Did you know that Packt offers eBook versions of every book published, with PDF and ePub files available? You can upgrade to the eBook version at www.PacktPub.com and as a print book customer, you are entitled to a discount on the eBook copy. Get in touch with us at service@packtpub.com for more details.

At www.PacktPub.com, you can also read a collection of free technical articles, sign up for a range of free newsletters and receive exclusive discounts and offers on Packt books and eBooks.



http://PacktLib.PacktPub.com

Do you need instant solutions to your IT questions? PacktLib is Packt's online digital book library. Here, you can access, read and search across Packt's entire library of books.

Why Subscribe?

- ◆ Fully searchable across every book published by Packt
- Copy and paste, print and bookmark content
- On demand and accessible via web browser

Free Access for Packt account holders

If you have an account with Packt at www.PacktPub.com, you can use this to access PacktLib today and view nine entirely free books. Simply use your login credentials for immediate access.

Table of Contents

Pretace	
Chapter 1: Setting up TortoiseSVN	9
Choosing your TortoiseSVN version	10
Checking your operating system edition	10
Time for action – checking Windows Vista / 7's architecture	10
Time for action – checking Windows XP's architecture	11
Time for action – checking Windows Server 2003 architecture	12
Installing TortoiseSVN	14
Time for action – installing TortoiseSVN	14
Language packs and spellchecking	20
Time for action – adding new spellchecking dictionaries	21
Creating a repository	21
Time for action – creating a repository	22
Time for action – testing your repository	24
Setting up the SVNServe server	25
Time for action – setting up SVNServe	26
Simple authentication for SVNserve	28
Time for action – setting up simple authentication for SVNserve	28
Setting up an Apache + Subversion server	29
Time for action – installing VisualSVN	30
Time for action – installing Apache	32
Time for action – installing Subversion	34
Summary	37
Chapter 2: Getting Started With TortoiseSVN	39
Our case study	39
Working copies explained	40
Time for action – checking out a working copy	40
Checkout depth	43

Time for action – using checkout depth	43
Committing changes to a repository	46
Time for action – committing changes to a repository	46
The importance of commit log messages	50
Excluding items from a commit	52
Time for action – excluding files that are already versioned	52
Time for action – temporarily excluding files from committing	53
Time for action – using the global ignore list	55
Keeping your working copy up-to-date	56
Time for action – updating your working copy	56
Using the repository browser	58
Time for action – using the repository browser	58
Summary	60
Chapter 3: Creating and Applying Patches	63
Why use patching?	63
How to create a patch	66
Time for action – creating a patch	66
Applying a patch	69
Time for action – applying a patch	69
Tracking changes with Blame	73
Time for action – using Blame to track changes	74
Time for action – using the log	77
Working with statistics	79
Time for action – viewing statistics	80
Summary	82
Chapter 4: Status Information and Conflict Management	85
File statuses	86
File locking	87
Time for action – setting the needs-lock property	88
Time for action – locking a file	90
Stealing a lock	92
Time for action – stealing a lock	93
Time for action – releasing a lock	95
Resolving conflicts	97
Scenario 1 – local edit, incoming edit	97
Scenario 2 – local edit, incoming delete	98
Scenario 3 – local delete, incoming edit	101
Scenario 4 – local delete, incoming delete	102
Summary	103

Chapter 5: Branching and merging	105
What is a branch?	106
What is a tag?	106
Why use branching?	106
Common branch types	107
Branching on new releases	107
Branching on promotion	108
Branching per task	108
Branching components	109
A branch for each platform Common branching pitfalls	109 110
Creating a branch	111
Time for action – creating a branch	112
Tagging and selecting revisions	114
Switching your working copy	114
Time for action – switching your working copy	115
Reverting changes	116
Time for action – reverting changes in your working copy	116
Time for action – reverting more changes	117
Merging	119
Time for action – merging one branch	120
Time for action – merging two trees	126
Undoing changes with reverse differences	128
Resolving conflicts on merging	128
Scenario 1 – Local missing, incoming edit	129
Scenario 2 – Local edit, incoming missing	129
Scenario 3 – Local delete, incoming delete	129
Tracking merges	130
Summary	131
Chapter 6: Working with Revision Logs	133
Differences in detail	133
Viewing differences between versions of a specific file in your working copy	134
Time for action – viewing differences in a working copy	134
Viewing differences between files outside your working copy	136
Time for action – viewing differences in files outside your working copy	137
Comparing folders in the repository browser	140
Working with changelists	140
Time for action – working with changelists	142
Removing a file from a changelist	144
Ignoring files on commit	144
Working with revision graphs	145