

# The Secret Ninja Cucumber Scrolls



David de Florinier  
Gojko Adzic

STRICTLY  
CONFIDENTIAL



# **The Secret Ninja Cucumber Scrolls**

## **Strictly Confidential**

**David de Florinier**

**Gojko Adzic**

# **The Secret Ninja Cucumber Scrolls: Strictly Confidential**

David de Florinier

Gojko Adzic

Cover design: Annette de Florinier

Publication date 2011 03 16

Copyright © 2010 David de Florinier, Gojko Adzic

Many of the designations used by manufacturers and sellers to distinguish their products are claimed as trademarks. Where these designations appear in this book, and the publisher was aware of a trademark claim, the designations have been printed with initial capital letters or in all capitals.

The authors have taken care in the preparation of this book, but make no expressed or implied warranty of any kind and assume no responsibility for errors or omissions. No liability is assumed for incidental or consequential damages in connection with or arising out of the use of the information or programs contained herein.

This is a free document. You may use it and redistribute it freely unmodified and in its original form. All other rights are reserved by the authors. This publication is protected by copyright, and permission must be obtained from the publisher prior to any prohibited reproduction, storage in a retrieval system, or transmission in any form or by any means, electronic, mechanical, photocopying, recording, or likewise. For information regarding permissions, write to:

Neuri Limited  
25 Southampton Buildings  
London WC2A 1AL  
United Kingdom

---

About this document .....	v
What's new in this version .....	v
Online .....	v
Become a contribuninja .....	v
About the authors .....	vii
Ninja training .....	ix
1. Why should you care about Cucumber? .....	1
Why use Cucumber? .....	2
How does Cucumber compare to other tools? .....	3
What does Cucumber have to do with BDD .....	4
Second Generation .....	4
Outside-in and pull-based .....	4
Multiple-stakeholder .....	5
Multiple-scale .....	5
Agile .....	5
High-automation .....	5
I. Getting Started .....	7
2. Cucumber and Ruby .....	9
Installing Cucumber .....	9
Hello World from Ruby .....	10
3. Cucumber and .NET .....	15
Setting up Ruby .....	15
Installing Cucumber and Cuke4Nuke .....	16
Hello World from .NET .....	18
Build integration .....	22
Continuous Integration .....	23
Debugging Cuke4Nuke steps .....	24
4. Cucumber and Java .....	27
Using JRuby directly .....	28
Using ANT and Ivy .....	31
Using Maven .....	34
Hello world from Java .....	37
Continuous integration .....	41
II. Gherkin .....	45
5. Cucumber feature files .....	47
Cucumber jargon .....	47
How Cucumber interprets feature files .....	52
What makes a good feature file .....	54
Feature files should be written collaboratively .....	55
Structuring scenarios .....	56
Internationalisation .....	59
Tagging for fun and profit .....	59

Remember .....	61
6. Implementing the steps .....	63
The basic feature file — again .....	63
Steps and regular expressions .....	64
Implementing in Ruby .....	67
Implementing in Java .....	69
Implementing in .NET .....	73
Sharing context across step definition files .....	75
7. Managing complex scenarios .....	83
Complex setups and validations .....	83
Managing groups of related scenarios .....	84
Working with sets of attributes .....	87
Working with lists of objects .....	89
Using backgrounds to group related pre-conditions .....	95
Using hooks to manage cross-cutting concerns .....	96
III. Web automation .....	105
8. The Three Layers of UI Automation .....	107
Easy to understand .....	111
Efficient to write .....	112
Relatively inexpensive to maintain .....	112
The benefits of three levels .....	112
9. Getting Ruby ready to exercise the UI .....	115
Rails .....	115
Sinatra .....	117
10. .Net and WatIN .....	125
Getting Ready .....	125
Putting it to the test .....	129
A. Resources .....	143
Tools .....	144
Articles .....	144
Videos .....	144

---

# About this document

---

This document is a step-by-step guide for Cucumber, a tool that is quickly becoming the weapon of choice for many agile teams when it comes to functional test automation, creating executable specifications and building a living documentation. We believe in iterative development so we write and publish iteratively.

## What's new in this version

The changes in this version are:

- Introduction cleaned up, added a section on how Cucumber fits into BDD, moved terminology to the Gherkin part
- Fixed PDF inclusion of some missing .NET sources
- and a lot of minor fixes and tweaks

## Online

To get notified when we publish an update, grab the code for the examples we used in the guide, provide feedback or ask a question, do one or more of the following:

- Point your browser to <http://cuke4ninja.com> periodically
- Follow @cuke4ninja on Twitter for updates and news
- Follow @davedf and @gojkoadzic on Twitter to keep in touch with the authors or drop us a message there

## Become a contribuninja

Do you have an interesting story to tell about cucumbers? It is related to the right kind of cucumbers? Is it morally acceptable? Do you have a different opinion about any of the things we wrote here? Please get engaged and help us make this document better.

See <http://cuke4ninja.com/contribuninja> for more information on how to contribute.



---

# About the authors

---

David de Florinier is the world renowned sportsman, ninja-assassin and raconteur who has brought the world joy with works such as “How to bring about world peace using fried potato chips and HP sauce”, “My amazing adventures with dolphins, and how they taught me to beat Wall St” and “How I taught Chuck Norris all he knows, in one morning, while I was solving the Riemann hypothesis at the same time”. Read David’s blog at <http://deflorinier.blogspot.com> or follow him on Twitter as @davedf.

Still active as a Bond-villain, Gojko Adzic gave up a career in the Soviet spy service to pursue tougher challenges in software development. All that remains of his past life now is the stupid accent. Gojko’s goal with this document is to send subliminal messages to SMERSH sleepers around the world and thereby bring about the final rise to power of the Illuminati. Read Gojko’s blog at <http://gojko.net> or follow him on Twitter as @gojkoadzic.



---

# Ninja training

---

David and Gojko run public and on-site training workshops for aspiring Cucumber teams. Our workshops are designed for business users, analysts, testers and developers. Through facilitated exercises and discussion, these workshops provide teams with practical experience of agile acceptance testing, behaviour-driven development and specification by example. The participants learn how to collaborate on specifications and tests, how to design good Cucumber tests and how to automate them efficiently.

On-site workshops are typically customised to fit the business domains and particular needs of teams, so that the participants get real-world experience and instant benefits.

More than 90% of previous attendees said that the workshops improved their performance at work.

For more information on our workshops, see <http://cuke4ninja.com/training>, drop us an e-mail on [training@cuke4ninja.com](mailto:training@cuke4ninja.com) or give us a call on +442079932982.