



14 lessons to get you started with C# and .NET

Author: Faraz Rasheed

Editors: Tore Nestenius Jonathan Worthington Lee Addy

www.programmersheaven.com

Programmer's Heaven C# School First Edition Faraz Rasheed Edited By: Tore Nestenius Jonathan Worthington Lee Addy Wright Copyright (C) Synchron Data 2005-2006. All rights reserved. Published 5th December 2006.

Synchron Data S.L Av. Clemente Diaz Ruiz Urb. Puebla Lucia local 7, 12-20 296 40 Fuengirola, Spain

Electronic redistribution of this book is permitted if the book is transmitted unmodified, in its entirety and non-commercially. All other redistribution and copying beyond that allowed by fair use is prohibited without written permission from Synchron Data S.L.

The information in this book is distributed on an "as is" basis, without warranty. Although every precaution has been taken in the preparation of this work, neither the authors nor Synchron Data shall have any liability to any person or entity with respect to any loss or damage caused or alleged to be caused directly or indirectly by the information contained in this work.

Trademarked names may appear in the text of this book. Trademarked names are not explicitly marked with the trademark symbol within this book, however they are only used in an editorial fashion and to the benefit of the trademark owner with no intention of infringement of the trademark.

To obtain the latest updates to this book, to suggest corrections or to make other comments, visit: http://www.programmersheaven.com/2/CSharpBook

Foreword

from Jonathan Worthington

I approached the .NET platform and the C# language with skepticism in the beginning. A number of things have turned me to view both of them as generally good technologies; editing the Programmer's Heaven C# School, the lessons of which are collected together in this e-book, was one of them.

In many ways the .Net platform has asked "what do developers waste time doing" and tried to improve developer performance. For example, the .NET virtual machine provides memory management, a task that takes up much developer time when it has to be done manually. A large and well-documented class library helps avoid re-inventing the same wheel many times over. Inter-operability between code in a number of languages is made trivial.



The C# language was created alongside the .NET platform. It could be considered the "native" language of .NET, providing access to the vast majority of language features that the .NET runtime is optimized to support. It takes the best bits of Java, C and C++, producing a language with the clear object oriented programming constructs of Java along with useful features such as enumerations and structures from C. The initial version of C#, as taught in the original C# School, is mostly focused on the object oriented programming paradigm. C# 2.0 has added support for parametric polymorphism (known as generics) as well as a range of other features, and I have written an additional chapter for this book to cover some of these. The future C# 3.0 is even more adventurous, bringing in ideas from both declarative and functional programming.

I hope that this e-book helps you get to grips with the C# programming language and the .Net platform and proves a useful reference for the future. It is the first edition, but hopefully not the last – your feedback will help us in that sense, so please do not hesitate to send your comments and especially information about any mistakes to *info@programmersheaven.com*.

Have fun,

Jonathan Worthington Programmer's Heaven C# School Editor

About Programmer's Heaven

Started by Tore Nestenius in 1998, the Programmer's Heaven website has grown to be one of the leading developer resource sites on the net. Taking its name from a range of developer resource CDs published by Tore in the years before the site began, it now features over 30,000 resources spanning a wide range of technologies, from assembly programming to XML

Today Programmer's Heaven is more than just a massive resource directory. It features many message boards where hundreds of thousands of messages have been posted on a vast range of topics, with experts answering questions for those getting started. Recent years have seen a great deal of original content published by Programmer's Heaven too. The C# School, now collected together into this e-book, was one very successful example of this. The latest developments on the site include a Usenet archive and a range of



"Web Tools", essential web-based utilities designed to assist those who are building web sites and web-based applications.

Since 2000, Tore has worked full time on Programmer's Heaven. A range of freelance experts from around the world, including England, the USA, China, Korea and India, have also contributed to the site.

So, why not see how Programmer's Heaven can help you with your development work today? 650.000 unique visitors a month can't be wrong!

http://www.programmersheaven.com/

.NET newsletter

The Programmer's Heaven .Net newsletter, sent out up to four times a month, contains the latest .Net news along with information on new .Net articles and resources on Programmer's Heaven. The .Net platform is evolving fast, and signing up for our newsletter is a great way to be kept in the picture. In the immediate future, expect coverage of C# 3.0 and WCF.

Sign up today for free at http://www.programmersheaven.com/2/DotNet-Newsletter

Click here to download full PDF material