

WITH AN INTRODUCTION TO
VISUAL C++.NET 2005

Financial Market Technology Series



BUILDING AUTOMATED TRADING SYSTEMS

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VISUAL C++.NET 2005

BENJAMIN VAN VLIET

"Building Automated Trading Systems is a must read for anyone developing professional algorithmic trading systems. It brings all aspects of design, functionality and real-time system implementation into clear step-by-step focus. This book will be a first choice reference manual for the serious professional .NET programmer in trading system development."

— **Russell Wojcik**, Member of CME and CBOT, Head of Trading Strategy Concentration, Illinois Institute of Technology

"This book is an excellent primer for anyone interested in developing automated or semi-automated trading applications. Ben covers the programming knowledge needed to develop successful trading applications. A must have for traders getting into programming and programmers getting into trading. It will also serve as a useful reference for developing more sophisticated trading tools."

— **Sagy P. Mintz**, Vice President, Trading Technologies, Inc.

Right now and continuing over the next few years, the proprietary trading and hedge fund industries will migrate largely to automated trade selection and execution systems. While several finance books provide C++ code for pricing derivatives and performing numerical calculations, none approaches the topic from a system design perspective.

Building Automated Trading Systems is divided into two sections—programming techniques and automated trading system (ATS) technology—and teaching financial system design and development from the absolute ground up using Microsoft Visual C++.NET 2005. The first section of the book explains Visual C++.NET 2005 in detail and focuses on the required programming knowledge for automated trading system development, including object oriented design, delegates and events, enumerations, random number generation, timing and timer objects, and data management with STL.NET and .NET collections. The second section of the book explains technological concerns and design concepts for automated trading systems. Specifically, chapters are devoted to handling real-time data feeds, managing orders in the exchange order book, position selection, and risk management.

Building Automated Trading Systems also provides dozens of examples illustrating the use of database connectivity with ADO.NET and an extensive treatment of SQL, and an overview of XML and FIX. Advanced programming topics such as threading, sockets, as well as using C++.NET to connect to Excel are also discussed at length and supported by examples. As all of the chapters revolve around computer programming for financial engineering and trading system development, this book will educate traders, financial engineers, quantitative analysts, students of quantitative finance and even experienced programmers on technological issues that revolve around development of financial applications in a Microsoft environment and the construction and implementation of real-time trading systems and tools.

Benjamin Van Vliet is Lecturer in and the Associate Director of the M.Sc. in Financial Markets at the Illinois Institute of Technology's Stuart Graduate School of Business (www.stuart.iit.edu). He is also the Certified Trading System Developer (CTSD) program director at i4mt (www.i4mt.org).

Recommended
Shelving
Classification
Business/Finance

ISBN-13: 978-0-7506-8251-0
ISBN-10: 0-7506-8251-5



9 780750 682510



ACADEMIC PRESS

An imprint of Elsevier
books.elsevier.com