

Preface and Introduction

This book is intended to be a tutorial. Topics included and detail covered involved compromises between elementary and advanced, narrow and broad, superficial and in-depth. Those chosen are practical examples of tasks that you will be performing regularly. For additional tutorials, watch the on-line tutorial videos, available at <http://www.amibroker.com/tutorials>. For a more complete reference, see the AmiBroker User's Guide and the AmiBroker Reference, both available at <http://www.amibroker.com>.

This book is task oriented, rather than software oriented. Many operations can be performed in more than one way. When making a choice, clarity was chosen over efficiency. This book is not intended to be read cover-to-cover, as a novel would be read. It is intended to be a series of tutorials and reminders covering operation of AmiBroker.

The examples use a lot of screen capture images, annotated with numbered steps, highlights, and arrows. The book includes reference to all the functions, indicators, and tools documented in the User's Guide and in the Help system.

INTENDED AUDIENCE

People wanting:

- Description of AmiBroker.
- Description of the capabilities of AmiBroker.
- Tutorial on installing and setting up AmiBroker.
- Tutorial on setting up databases with free data.

Introduction to AmiBroker

- Tutorial on setting up subscription end-of-day databases.
- Tutorial on setting up real-time data feeds.
- Tutorial on the basic charting.
- Tutorial and reference on the Graphical User Interface - GUI.
- Tutorial on applying formulas and indicators to charts.
- Tutorial on the AmiBroker Formula Language - AFL.
- Introduction to technical analysis.
- Introduction to design of trading systems.
- Tutorial on backtesting trading systems.
- Tutorial on optimizing trading systems.
- Tutorial on validating trading systems.
- Examples of trading systems.
- Printed reference for AmiBroker structure, menus, tools.

ASSUMPTIONS

While this book is intended to be a tutorial on AmiBroker, the reader is expected to be reasonably familiar with:

- Computer operations.
- Basic techniques used with the Windows operating system, such as the menu system, drag-and-drop, navigating through the file system.
- A basic text editor, such as Windows Notepad.
- A spreadsheet, such as Excel.
- Basic trading methods and terminology.

WHAT YOU WILL FIND IN THIS BOOK

SECTION I – GETTING STARTED. An overview of AmiBroker - its features and capabilities. Tutorials describing the installation of AmiBroker, setting up databases using free end-of-day and intraday data, setting up databases using subscription end-of-day data (for US and Australian markets), and setting up databases using subscription real-time data.

There are ten examples of useful things you can do with AmiBroker in just a few minutes, even if you are using the trial version. These range from manipulating the charts to applying on-screen indicators to testing and optimizing trading systems. Everything is laid out, click-by-click, with screen captures to illustrate each step.

SECTION II – CHARTING. Each of the menus and toolbars that work with charting is expanded and explained.

TOPICS INCLUDE:

- Displaying charts.
- Adding visual studies, such as trendlines, to a chart.
- Adding formulas and technical indicators to a chart.
- Using parameters with indicators.

SECTION III – ANALYSIS. The Analysis section begins with a short introduction to technical analysis and trading system development.

That is followed by an introduction to AFL - AmiBroker Formula Language, including its structure and syntax. AFL is used to write code to create your own custom charts and trading systems. This section is part tutorial, part programming manual, part reference manual.

The use of the Automatic Analysis tools, including backtest, optimization, and walk forward validation, are explained.

Several ready-to-use programs you can use as starting points for your own system development are included.

THE APPENDIXES. Provide reference material.

INDEX. Menus, commands, tools, and techniques are extensively indexed.

WHAT YOU WILL NOT FIND IN THE THIS BOOK

AmiBroker has so much to offer that this book could easily have been expanded by several hundred pages. Readers looking for coverage of topics such as the Custom Backtester, Dynamic Data Exchange, low-level graphics, scripting, and the Automated Trading Interface will have to wait for another book. Readers looking for coverage of topics such as different types of trading systems, trading system testing, trading system validation, and the creation of C++ routines and Dynamic Link Libraries are referred to the author's companion book, *Quantitative Trading Systems* (see Appendix C, Resources).

SOME CONVENTIONS

AmiBroker can be used with any tradable, including stocks, mutual funds, closed end funds, exchange traded funds, commodities, futures,

and Forex. For ease of writing and reading, the terms stock, symbol, issue, or ticker are often used to mean any tradable issue. When it is important to distinguish between different tradables, specific details are given.

AmiBroker is distributed and used world-wide. With the exception of setting up the database to reflect the local tradables and exchanges, most of the operations of AmiBroker are independent of location. The author resides in the United States and most of his experience is with trading in the US, which may shape some of the perspective of this book. Apologies in advance for any inadvertent mistakes or misleading statements due to his limited background – no discrimination of any kind is intended.

VERSIONS USED

AmiBroker 5.10.0 and later.

AmiQuote 2.00.

AmiBroker is regularly expanded and improved. During the life of this edition of this book, the features, capabilities, screens, and commands, will undoubtedly change somewhat. Every attempt was made to write in such a way that the book will be useful for a long time and will not soon become obsolete as new versions of the program are released. But there will be changes in the program that are not reflected in the book. For the latest and official documentation, please refer to the latest editions of the AmiBroker User's Guide, the on-line help files, and the tutorials, all of which can be found on the AmiBroker web site: <http://www.amibroker.com>.

THE AUTHOR

Dr. Howard Bandy:

- Has university degrees in mathematics, physics, engineering, and computer science.
- Has specialized in artificial intelligence, applied mathematics, modeling and simulation.
- Was professor of computer science and mathematics, and a university dean.
- Designed and programmed a well-known program for stock selection and timing.
- Was a senior research analyst for a CTA trading firm.