CHAPTER 1

# Introduction to EasyLanguage

## INTRODUCTION

*EasyLanguage is TradeStation's proprietary command language that lets you specify your trading ideas in plain English and test them before you trade. EasyLanguage allows you to write your own trading systems for TradeStation, OptionStation, and ProSuite without having to know complicated computer programming languages.*

*EasyLanguage is one of the most powerful and useful features of TradeStation and with some practice, you can become an expert, even if your background in computers is limited.*

That said (it's from the splash screen introduction to TradeStation software), all software comes with stumbling blocks. I have yet to open a software box and install and use the product with no problems along the way. Furthermore, TradeStation's EasyLanguage is more than just software; it's a programming language. And with the advent of the new Object-Oriented EasyLanguage with TradeStation version 9.0, it is more like C++ than any easy language. Albeit the easiest to use of the complex trading tools, it is still so full of features that it can't help but be difficult in spots. As I work with EasyLanguage I hum the old song by The Essex from 1963: "Easier Said Than Done."

The working title for the ideas presented in this book was "EasyLanguage Ain't." Neither Bill Cruz, prior co-CEO of TradeStation, nor my editor, Pamela van Giessen, liked that title. Nevertheless, the viewing public seemed to appreciate the reality of the working title. Each time I mentioned the project in a lecture I got nods of recognition from non-programming TradeStation, SuperCharts, and OptionStation users.

"EasyLanguage Ain't" was never meant to be disparaging to TradeStation, but rather a reflection of the simple truth that programming a computer, no matter how friendly the

programming language, is never easy. Becoming a good coder takes study, sometimes years of study. It is the intent of this book to walk the reader through that learning process in small and simple steps that will make the process comfortable. I have recently noticed the tendency of some of my competitors to use the paraphrase "EasyLanguage Isn't," and I herewith forgive them their lack of imagination.

Computer manuals aren't meant to be read cover to cover. The TradeStation Users' Manual is no exception. *TradeStation Made Easy*! however, is intended to be read from cover to cover, with pauses along the way to try the examples. Hopefully it will be an informative and enjoyable experience for you. After reading this book, you will be more prepared to go back and use the TradeStation manuals with ease and as reference.

In *Trading 101—How to Trade Like a Pro*, I wanted to introduce the basic concepts of trading to the general public. In *Trading 102—Getting Down to Business* my hope was to introduce the concepts of system design and testing. *TradeStation Made Easy*! is intended as a procedural guide to getting comfortable with programming TradeStation's EasyLanguage.

At the same time I am writing this book I am also researching one more: *Grading the Gurus*. You will probably be interested in *Gurus* as well, since it is all about using TradeStation (and other popular software) to test the theories, strategies and technical analysis of some of the famous systems designers. The intent of the *Gurus* book is to discover both the advantages and downfalls of following other people's systems. After that I want to write a book exploring all the commonly available systems and strategies from nongurus, strategies you find published in books, their benefits and pitfalls, and maybe call it "Breaking the Rules."

We, the trading public, owe a debt of gratitude to Bill and Ralph Cruz and their crew, whose dedication to an initially narrow market has expanded that market and created tools we can all use to profitable ends. Thanks, guys; you have a great product.

During late January of 1999 I took a little trip to the Bahamas and then to Miami, where I had the pleasure of spending several days with TradeStation personnel. The purpose of my visit was to get an advance look at the impending, latest release of TradeStation, called 2000i, as part of the research for this book. For their generosity, hospitality, and help I would like to thank Loren Costantino, Gaston Sanchez, Kevin Feuerlicht, Amy Solt, Janette Perez, Bill and Ralph Cruz and the rest of the TradeStation staff. You're the greatest!

## WHAT THIS BOOK IS NOT

*TradeStation Made Easy* is not meant as a replacement for the TradeStation manuals. This programming guide is not meant to help you learn the mechanics of setting up TradeStation or your computer, or to help you with the trials and tribulations of getting data into your computer.

This book is also not meant to teach you systems, or to give you systems that are necessarily profitable, though we may discover some along the way. We will cover the essence of programming in EasyLanguage and stick with a consistent set of data and a consistent

elementary system throughout. We will not fill the book with a variety of working systems with which you can experiment; there are other books for that.

In particular, if you are looking for fancy EasyLanguage programming ideas I would suggest these sources:

➤ **Cynthia Kase**
   Kase and Company, Inc.
   PO Box 226 Cheyenne, WY 82003
   (505) 237-1600
   www.kaseco.com

➤ **Joe Krutsinger**
   PO Box 4223
   Kansas City, KS 66104
   (800) 927-1035
   www.joekrut.com

➤ *Using Easy Language* **by Arthur G. Putt**
   available from Ruggiero Press

➤ Murray Ruggiero
   **Ruggiero Press**
   18 Oregon Ave., East Haven, CT 06512
   1-203-564-1956

➤ *TS Express* **by Bill Brower**
   Inside Edge Systems, Inc.
   10 Fresenius Rd., Westport, CT 06880
   1-203-454-2754

➤ *Ask Mr. EasyLanguage* **by Sam Tennis**
   129 Staff Drive, NE
   Fort Walton Beach, FL 32548
   1-850-243-5105
   http://www.vista-research.com

## WHAT THIS BOOK IS

This book is a guide to understanding the basics and beginning to use EasyLanguage. I offer this service because it fills a gap—no one else has dedicated their writings to the beginners. The more advanced tasks to becoming a TradeStation expert are between you and TradeStation, and perhaps a consultant to help you along the way. Bill Brower is an excellent resource for advanced techniques, but his efforts at teaching beginners are still too advanced for most novices.

By the end of this book you will be able to write simple and intermediate programs using EasyLanguage. Hopefully your programs will accurately reflect the theories you have, discover, or read about the markets.

By the end of this book you will have the confidence to open TradeStation's PowerEditor to a blank page and begin writing.

As I began this book, I put in examples for all the existing versions of TradeStation at that time. Now, many years later, I'm pruning it all down to the current version only. All references to ProSuite, 2000i, and earlier versions of TradeStation are being removed. If you need help with a previous version of TradeStation, give me a call and we'll talk about it.

## A CHART IS A CHART IS A CHART

*This book is not about learning to trade; it is about learning to program.*   Nevertheless, throughout the book we will be reviewing and using trading concepts as examples while learning to program. In learning programming concepts, it really does not matter what our underlying data is. What we will cover in this book is how to express your theories and ideas about whatever market interests you, independent of any particular market.

A chart, is a chart, is a chart. They all go up, or down, or sideways, or all three. If you were not told what instrument (stock, bond, mutual fund, commodity) was used to produce the chart in Figure 1.1, you would not be able to guess it. No, it is not the Dow. I have not given you a reference axis for time frame (X-axis), nor is there a reference axis for price (Y-axis). In spite of that absence of information, you could tell me some things about the chart. You could tell me that the second half of the chart is less volatile than the first half. You could tell me that in the beginning, price moves downward. You could tell me that after the beginning downward move, there is a period of nearly upward movement followed by downward movement. You could not tell me that in general the bias is to the upside. You could also tell me there is a mild correction (downward movement) in the last third of the chart.

(In fact, I will give a crisp new $20 bill to the first person who calls me and correctly identifies the chart in Figure 1.1.)
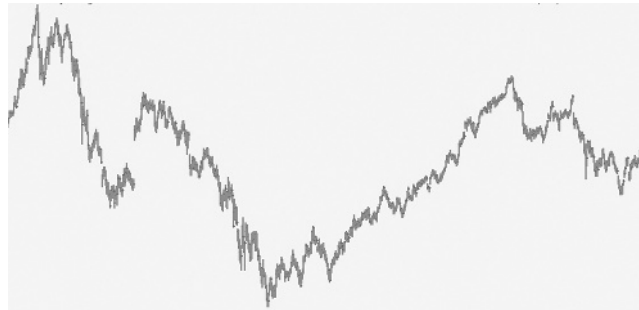


**FIGURE 1.1**   An Anonymous Chart

This sort of analysis is what I call "What is?" or "What is true?" I begin every investigation by repeatedly asking myself "What is true of the chart at which I am looking?" It's the "what is" that leads to rich brainstorming sessions and possibilities for analysis.

What you could not tell me is whether this is a chart of a commodity, stock, or mutual fund. You could not tell me if it is a chart of 1-minute, 5-minute, 60-minute, or daily data. And you could not tell me whether this price action happened in 1927, 1987, or 2010.

In fact, this is an example of what they mean when they say the markets are fractal. Each subset, or smaller time frame, looks like any other time frame. They all go up, they all go down, and they all go sideways. It's just another way of saying "a chart is a chart is a chart."

For the purpose of this book, the particulars of the chart do not matter; what matters is that the chart has movement and that we can describe it in programming language.

**The best way I know to make this book easy to use and comprehend is to build on a simple concept from beginning to end.** To this end, I will introduce a single set of data that we will use throughout. That data is available for you on my Web site: www.moneymentor.com/TSME.html. If you'd like to receive a CD of the data, just contact my office in California at 1-760-444-4174 Skype or my cell at 1-760-908-3070. I ask only that you observe Pacific Standard Time.

We will use the same chart and the same data throughout this book. We will take different perspectives, sometimes viewing daily data, sometimes weekly, sometimes intraday, but it will all be of the same vehicle. I have always wondered why authors choose a different chart to illustrate every new concept. I've wondered whether the concepts are only applicable to certain subsets of charts. As I tackle this book, I guess I am about to find out.

I will also start early in this book with a simple program to analyze the data and build on that program as we progress. That way you will be learning about the structure of EasyLanguage, not struggling with a new program every few pages. You will become intimately familiar with one set of data and one small program. We will analyze this single set of data at increasing depth, and will alter and enhance our initial program until it becomes sophisticated.

After you finish this book you can easily branch off and apply your new language to very complex concepts. You will be able to understand many of the sophisticated techniques presented in *Omega* magazine, TradeStation's manuals, *Technical Analysis of Stocks & Commodities* magazine, *Futures* magazine, *Traders' Catalog & Resource Guide*, and the various other sources and books mentioned herein.

## FONTS, SYMBOLS, AND CONVENTIONS

I've used a few symbols in the book and some typefaces to separate code from text. All programming code herein is designated by using the typeface OCRA. All computer commands are shown in the typeface **Helvetica.** An arrow ($\rightarrow$) means to pull down the menu and choose the next command. A mouse symbol ($\stackrel{\frown}{\mathbb{O}}$) means to use the mouse to pull down or click to the command. Everything else is pretty much self-explanatory.