

# Welcome to *The Great Logo Adventure!*

Maybe you were introduced to the Logo language in school. Maybe you had, or still have one of the older Logo packages.

Well, times have changed.

Today, Logo offers a very rich programming environment that includes multimedia tools, robotics and network access. Full-featured Logo packages now offer hundreds of commands for exploring all sorts of applications, from the simplest turtle graphics to artificial intelligence, even Windows programming.

Best of all, some of the best Logo packages are free! MSW Logo, which was used to develop this book, provides a full set of multimedia tools plus an excellent introduction to Windows programming. You'll find it on the enclosed CD.

## What is *The Great Logo Adventure*?

*The Great Logo Adventure* is the latest in a series of cartoon-illustrated family activity books that introduce young people of all ages to the fun and excitement of exploring Logo on and off the computer. Logy, our turtle mascot, and her irrepressible rabbit friend Morf, have added a number of new activities to this book. In addition to free Logo software for most desktop computers, the CD included with this book offers a wide range posters, pictures, and projects for all ages.

While *The Great Logo Adventure* has been written using MSW Logo, you can use this book with just about any version of the language. We talk about some of the differences between Logo packages in these pages. There's also a cross-reference of common Logo commands in the appendix.

## What is Logo

Logo is an interactive programming language for adventurers of all ages. It has borrowed the techniques of symbolic computation – the manipulating of words and ideas – from LISP, the programming language in which Logo was originally written. These techniques are combined with other powerful ideas such as the use of procedures, recursion, and the manipulation of programs as data to provide a unique interactive programming environment.

## Why Logo

Logo has been designed with “no threshold and no ceiling.” You begin by controlling the actions of a cybernetic turtle in a graphic environment that provides immediate feedback. These immediate actions let you “see” how you are thinking. When your sequence of thoughts does not make the turtle do what you want, the descriptive nature of Logo lets you easily trace your their thoughts to “debug” your thinking.

As you grow, so does Logo, from the immediate graphic environment into a structured, procedural programming environment for exploring mathematics, language, science, the computer, number systems, and so much more. While the threshold for Logo is exceptionally low — as young as two years old — the ceiling is limited only by your imagination.

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## Planting Some Seeds

Like the gardener, we plant some seeds on these pages. You are the one to feed these ideas, to nurture them, and to make them grow.

As with any seed, you have to be patient!

You may be tempted to rush over the details. Just remember that the younger the explorers, the more dependent they are on imitation and repetition. Time may seem to be your enemy — but it's the turtle's friend!

So join your young people at the computer and explore this book together. Cultivate their imaginations. Give them the time to explore. Just don't be surprised if you are the one who ends up being cultivated.

There's an old Bambera proverb from the drought-ridden country of Mali in West Africa:

“Mogho Kelen Te Sira Be!”



Loosely translated, this says that “one person cannot make a trail.” To accomplish a common task, the multiple talents of a group working together can be more productive than the finite talents of the individual -- which tells you why the focus of this book is on groups and group activities.

OK, ready to start?

Good! It's time to enjoy your very own Great Logo Adventure!

## About the Author

Jim Muller has had a lifelong interest in translating high technology into understandable, practical, and enjoyable applications — especially for young people. He began working with Logo in 1979 while public relations manager for Texas Instruments Incorporated.

After introducing TI Logo, the first commercial Logo package, in April of 1981. Muller went on to organize the first Logo users group. What started as eight junior high students exploring TI Logo around a ping-pong table in the Muller garage grew into the Young Peoples' Logo Association, Inc. (YPLA). Organized by and for all the young peoples of the world, the association quickly grew to 6000 members in 42 countries. In 1985, the YPLA joined CompuServe as The Logo Forum. Now they have a Logo web page at <http://www.cyberramp.net/~jmul>.

In addition to a monthly newspaper, the YPLA published these books, some in multiple editions:

- \* *1,2,3 My Computer and Me*
- \* *The Turtle's Sourcebook*
- \* *The Turtle's Discovery Book*
- \* *The Misadventures of Mrtle*
- \* *The Logo Library*
- \* *Learning Logo On and Off the Computer*

and this interactive software:

- \* *Logo Island Adventures*
- \* *Voyages of The Turtle Shell*
- \* *Escape From Logo Castle*
- \* *DoodleBug Logo*

The author has since published *The LadyBug's Discovery Book* for LadyBug Logo, *The Turtle's Discovery Book* for PC Logo and Logo Plus, and *The Logo Sourcebook* for MSW Logo.

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## Acknowledgments

There are far too many! There's my son Larry and his friends. Without their curiosity and enthusiasm, the Young Peoples' Logo Association never would have happened.

There are many, many young people from around the world who shared their own Great Logo Adventures with us. Some of those adventures are in this book.

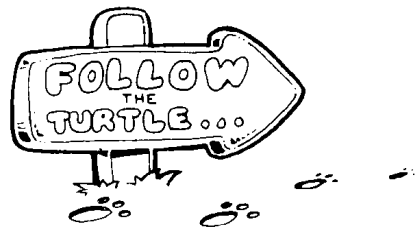
Thanks to Brian Harvey for UCB Logo and most certainly to George Mills for putting it into the Windows environment as MSW Logo.

There's the late Charles Micha, the cartoonist who made *The Great Logo Adventure* come to life.

Special thanks to the many educators who helped develop and validate the YPLA approach to Logo, and from whom we learned so much. Dorothy Fitch, Judi Harris, Joan Randolph, and Kathleen Martin are but a few. More recently, there's been Jenny Betts of Brisbane, Australia, and Toby Epstein of the LaDue School District in St. Louis, Missouri. Through our cybernetic conversations, I've again discovered how much fun learning can be, on and off the computer.

And, of course, there's Audrey Muller, who has survived the invasion of Turtle androids into her home and still managed to maintain a sense of stability all these years.

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*Jim Muller*