Introduction

This book lists and describes Mathcad's built-in functions, operators, and symbolic keywords, emphasizing their mathematical and statistical aspects. Certain utility functions (for example, the various file access functions used for image processing) are described in greater depth in the *Mathcad User's Guide*.

Notation

Throughout this book, the following notation is used whenever possible:

- x and y represent real numbers.
- z and w represent either real or complex numbers.
- m, n, i, j, and k represent integers.
- S and any names beginning with S represent string expressions.
- **u**, **v**, and any names beginning with **v** represent vectors.
- **A** and **B** represent matrices or vectors.
- **M** and **N** represent square matrices.
- f represents a scalar-valued function.
- **F** represents a vector-valued function.
- *file* is a string variable that corresponds to a filename or path.
- X and Y represent variables or expressions of any type.