Programming in Mathematica (3rd Edition)

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Addison-Wesley Professional, 1997. Book Condition: New. Brand New, Unread Copy in Perfect Condition. A+ Customer Service! Summary: Preface. About this Book. Chapter Overview. About the Examples. Notation and Terminology. The Programming in Mathematica Web Site. Teaching Mathematica Programming. 1. Introduction. From Calculations to Programs. Basic Ingredients of a Package. A Second Function in the Package. Options. Defaults for Positional Arguments. Parameter Type Checking. 2. Packages. Contexts. Packages that Use Other Packages. Protection of Symbols in a Package. Package Framework and Documentation. Loading Packages. Large Projects. 3. Defaults and Options. Default Values. Options for Your Functions. Setting Options of Several Commands. 4. Functional and Procedural Programming. Procedures and Local Variables. Loops. Structured Iteration. Iterated Function Application. Map and Apply. Application: The Platonic Solids. Operations on Lists and Matrices. 5. Evaluation. Evaluation of the Body of a Rule. Pure Functions. Nonstandard Evaluation. Nonlocal Flow of Control. Definitions. Advanced Topic: Scopes of Names. 6. Transformation Rules. Simplification Rules and Normal Forms. Application: Trigonometric Simplifications. Globally Defined Rules. Pattern Matching for Rules. Traversing Expressions. 7. Numerical Computations. Numbers. Numerical Evaluation. Numeric Quantities. Application: Differential Equations. 8. Interaction with Built-In Rules. Modifying the Main Evaluation Loop. User-Defined Rules Take Precedence. Modifying System Function. Advanced Topic:...