

CONTENTS

SECTION 1 - FOURTH GENERATION LANGUAGES	1
Toolbox Design Philosophy T. Matthews and W. Alley	3
The Impact of Fourth Generation Tools in Practice - Three Case Histories S. Ratcliffe	9
A Case History of the Development and Implementation of a System Using MIMER and Prototyping Mel Gosling	19
Flexible Design of Manufacturing Information Systems D.W. Wainwright	23
4GL Productivity Through Information Engineering Peter Haine	35
DB4GL - An Intelligent Database System F. Poole	41
SECTION 2 - WORK BENCH TOOLS	67
Can Fact-Finding Be Automated? A. Parkin, S.R. Thornton, and P.J. Holley	69
Accelerating the Analysis/Design Transition with the Transform Analyser Helen Sharp	83
Implementing Relational Data Bases: Automating the Mapping Process D.E. Avison and J. Chaudhuri	93
PLEX - A Structured Line Diagram Editor Susan J. Wright	111
MAJIC - Automating JSP Program Design and Development A.F. Sutcliffe, P.J. Layzell, P. Loucopoulos, and C.G. Davis	121
Computer - Aided Design of Software: Research and Experience K. Riha and G. Rzevski	135

SECTION 3 - WORK BENCH TOOLS WITHIN A METHODOLOGY	159
Automating a Systems Development Methodology: The LBMS Experience N. Jones	161
Tetrarch - A System Development Methodology with Automated Tools R. Mann	175
Intelligence: A Knowledge Based Tool for an Intergrated Project Support Environment J. Bader, D. Hannaford, A. Cochran, and J. Edwards	187
Methodologies and Tools for Real-Time Systems A. Bruty	195
Making Structured Methods Work: Using an Embedded Expert System to Monitor the Use of Methodology in an Analyst's Workbench - The Information Engineering Workbench John Parkinson	203
Automating Information Engineering I.G. MacDonald	213
Introducing Workbench Tools into a Development Environment Tom McCabe	231
SECTION 4 - OPEN TOOLS	243
IPSEs in Support of Teams P. Sellars	245
Perspective Kernel - The Basis for a General Purpose IPSE P. Rumph and P. Rusling	251
Fortune - An IPSE Documentation Tool Stuart McGowan	257
An Investigation into A Systems Development Technique M.S. Verrall	267
A View Mechanism for An Integrated Project Support Environment Alan W. Brown	283
Using Databases to Automate System Development B.R. Dillistone, A.N. Earl, and R.P. Whittington	299
Knuth with Knobs on - Literate Program Development J.P. Pardoe and S.J. Wade	315
SECTION 5 - ENVIRONMENTS AND APPROACHES: OTHER ISSUES	329
DATA DATA DICTIONARIES	
The Role of the Corporate Dictionary P. Redfearn	331

Entity Modeling and Intelligent Dictionaries Richard Barker	337
Automated Support Using a Data Mainframe Data Dictionary for Analysis and Data Modelling at a Major International Bank Simon Tyrrell-Lewis	347
APPLICATION ENVIRONMENTS	
An Application Environment Frank Jones	353
High Level Design for Office Automation with Supporting Graphics Facilities L.M.S. Lau and T.G. Gough	361
Are There Non Real-Time Systems? G. Topping	389
The Use of Frame-Based Knowledge Representation Techniques in Prototyping I. Potts	397
SECTION 6 - FUTURE TRENDS	
Time to Change the Culture of Information Systems Departments Russel Jones	421
The Rubic Project: A New Paradgm for Information Systems Development R. Venken, F. Van Assche, P. Loucopoulos, and P.J. Layzell	427
Designing a Method Driven Software Development Environment James A. Redmond and Kevin T. Ryan	441
An Environment Definition Model for Meta System Support J.M. DeDourek, A.J. McAllister, P.G. Sorenson, J.P. Tremblay, and L.B. Protsko	453
Specifying Procedures to Office Systems I.H. Witten, B.A. MacDonald, and S. Greenberg	477
INDEX	501