## Index

### A
- abstraction 81, 196
- agent system 118
- aggregate 51
- aggregation 26, 185
- ALBERT 23
- algebraic specification 153
- algorithmic computation 250
- analyst 82
- appropriateness 93
- architecture centric 63, 131
- architecture rules 129
- association 26
- association class 30
- asynchronous 256

### B
- binary association 48
- business entity 83
- business event 83
- business modelling 69
- business process 83
- business rule 83
- business-oriented abstractions 75

### C
- CASE tools 24, 225
- CASL 23
- changeability 240
- class diagrams 133, 225
- class user profile 135
- client 82
- client/server 117
- code generation 39

- collaboration 255
- communication process 108
- component 152
- component associations 136
- component diagrams 133
- component-based development 75
- composite 51
- conceptual schema 44
- concurrency 252
- configure router 124
- connectivity 27
- CORBA 129

### D
- data access 116
- databases 43, 211
- deconfigure router 124
- deployment 142
- design process 1
- development process 19
- diagramming techniques 113
- direct navigability 6
- distributed applications 116
- distributed object-oriented systems 130
- distributed systems 117, 129
- domain 92, 233
- domain model 232
- domain-specific distributed systems 143
- dynamic presentation model 19

### E
- Eiffel 21
Eiffel programming language 152
embedded devices 250
embedded sensors 257
encapsulation 196
engineering disciplines 151
entity-relationship 43, 258
enumeration 240
ER diagram 43
ER diagrams 52
existential dependency 200
extensibility 226

F
finite discrete transducers 252
flexibility 54
flexibility in software development 40
flow diagrams 253
FOOPS 23
formalizing interactive computation 251
four-layer architecture 224
functionality 108

G
generalization 25, 52
generic relations 26
GNOME 23
goal-directed 111
goals 107
GOMS 107
GSBLoo language 22
guided tour 7

H
horizontal modularization 140
human-computer interaction 76

I
IDL specifications 145
integration 22
interaction 116, 139, 249, 254
interaction machines 250
interaction protocols 252
interactions 210
interactions distribution 141
interactive computation 249
interactive systems 249
interface constraint language 24
interfaces 252
intra-component sequence diagrams 139
invariant conditions 153
IP network 120
irreducibility 260
iteration 61

J
Java 116

K
Keystroke-Level Model 110
knowledge 39, 93

L
language quality 90
large-scale development 126
large-scale systems 132
LCM 23

M
mapping 44, 78, 134
mapping attributes 56
Mapping Binary Associations 56
mapping classes 56
Mapping n-ary Associations 56
Maude 224
membership axioms 227
mental models 77
mereology 192
metamodeling 187
mobile agent 118, 121
model creation 78
modeling 76, 130
modeling elements 4
modeling language 91, 107, 117, 225
multi-actor interaction 251
multi-valued attribute 47
multiplicity 47
N
navigability 27
navigation 2, 230
navigation space model 19
navigation tree 15
navigational class 5
navigational design 2
navigational structure model 19
non-routine skill 111
non-serializable transactions 257

O
object constraint language 45, 151, 153, 185
object management group 224
object-oriented approach 251
object-oriented design 107
object-oriented development 67
object-oriented language 33
object-oriented techniques 2, 43
objectory process 62
OBLOG 23
observationally indistinguishable 252
off-the-shelf software 151
OO modeling 187
Open Distributed Processing Reference Model 133
OPEN Process Framework 131
operators 107

P
paradigm shift 251
Parthood 192
perceived component system 81
perceived solution system 81
phase-structured life cycle models 67
Precise UML Group 24
presentation method 14
presentational class models 12
programming 117
programming language 21

Q
qualification 44
quality 91
quality management 70
quality of service 120

R
Rational Rose 89, 126
Rational Unified Process 61, 62, 108
realization 25
region 118
relational databases 43, 44
relations 33
remote execution 119
representation 94
requirements 132
reusable components 21
reuse 21, 33, 79, 152
role change 119
routine skill 111

S
scalability 227
security issues 141
selection 107
selection rules 110
semitic triangle 76
separability 198
sequence diagrams 138
sequential interaction 251
sequential interaction machines 259
shareability 197
software architectures 130
software building blocks 61
software contracts 152
software control parts 210
software engineering 67
software engineers 130
software modularisation techniques 72
software process modelling 63, 71
specification languages 23
SpRelm 23
SpRelm model 31
SpRelm model 22
standardization 141
state transitions 253
static models 24
static semantics 225
static structure 252
static view 253
synchronization 153, 211
synchronous 256
syntropy method 24
system engineering 210

T

tagged 240
tagging 237
telecommunication 130, 146
telecommunication system 127
temporal constraints 158
transducers 256
TROLL 23
Turing Machines 259

U

UML class diagrams 3
UML diagrams 85
UML extension 2
UML meta-model 45
UML static models 21
Unified Modeling Language (UML) 43
Unified Process 131
use case diagrams 251
use case-driven 63
user profile management 136

V

value-added network service 120
visibility 196
visual notations 225

W

Web applications 1
Web development process 2
Web engineering 1, 18
Whole-Part 186
window flow model 17
workflows 2, 63