Index

A
ability to perform 64
acceptance 171
acceptance testing 191
access protection 229
accounts payable (AP) 328
accounts receivable 125
active listening 281
activities 108
activity 124
activity code 124
activity sequencing 144
activity-on-arrow 144
activity-on-node 144
actors 112
actual costs 65
actual costs (ACWP) 187
ADA 84
adaptability 23, 192
administrative closeout 245
administrative closure 279
agile programming (AP) 75
all or nothing rule 324
alpha testing 217
American National Standard (ANS) 51

American National Standards Institute (ANSI) 51
analogous estimating 136
Apache 191, 345, 346
application programming interface (API) 73
application composition 141
application framework 346
architecture 62
architectures 13
artifacts 239
Association for Project Management (APM) 48
asynchronous 285
auditability 192
auditable 203
audits 177
Australian Institute of Project Management 48
availability 117
avoidance 171

B
baseline 121
benchmarks 137
benefit analysis 45
benefiting organization 9, 125
best practices 88
best shore 260
beta distribution 143
beta testing 217
bid documents 253
bidder’s conference 255
black-box (behavioral) testing 217
Body of Knowledge (BoK) 49
bounding box development 70
British Standard Institute (BSI) 48
budgeted cost of work scheduled
(BCWS) 316, 317
bugs 63, 202
builds 239
built-in quality 189, 205
bulletin boards 374
bundled 237
burdened 151
burdened rate 135, 332
business analysts 292
business justification 22
business objectives 176
business plan 34
business risk 161
business risks 162
buy-in 136, 227
buy-off 277
by exception 220
bytecode production 239
change orders 152
change resolution 189
change set 237
changeover 198
chart wizard 338
chat rooms 374
check-in/check-out 239
chief financial officer (CFO) 99
chief information officer (CIO) 99
chief technology officer (CTO) 354
cleanroom software development (CSD) 78
client configurations 215
closeout 234
closing 51
CMMI 91
coaching 300
code density 229
code for money 263
code walkthroughs 229
coding 62
coding standards 228
comments 228
commercial off the shelf (COTS) 110
commitment to perform 64
common features 22
communication channels 283
communication management 52
communication obstacles 282
communication plan 193
communications management 278
communications plan 55
communications planning 279
compatibility risks 162
completion criteria 19
component-based software engineering (CBSE) 78
composition 81
compromising 306
conditional probability 37
confidentiality 266
configuration control 240
configuration control 63
constructive cost model (COCOMO) 138
context identification 159
contingency plans 171

Copyright © 2006, Idea Group Inc. Copying or distributing in print or electronic forms without written permission of Idea Group Inc. is prohibited.
contingency plans 179
contingency reserves 171
contract administration 256
contract administration 248
contract artifacts 257
contract closeout 245, 248
contractor breakdown structure (CBS) 128
contracts 249
control 51
control charts 209
control code 124
control process 183
core competencies 258
correctness 117
cosourcing 270
cost accounts 128
cost control 185
cost drivers 137
cost efficiency factor 319
cost management 52
cost performance index (CPI) 318
cost performance index (CPI) 187
cost plan 152
cost reimbursable (CR) 251
cost variance 318
cost-benefit analysis 35
cost/schedule control systems criteria (C/SCSC) 128
COTS 86
coupling 229
Cost Plus Fixed Fee (CPFF) 252
Cost Plus Incentive Fee (CPIF) 252
Cost Plus Percentage of Costs (CPPC) 252
cost reimbursable (CR) 251
crashed 146
crashing 198
creeping user requirements 176
critical path 55, 121
critical ratio (CR) 187, 321
critical success factors 5, 18
critical-to-quality (CTQ) 226
customer expectations 203
customizations 240

dashboard 321
data warehouse 369
database 62
dead zone 168
decision support 44
decision trees 36
defect 205
defect introduction 190
defect prevention 189
defect rate 212
defect resolution 190
defects per opportunity (DPO) 226
deflection 171
deleagating 300
delegation 301
deliverable 11
deliverable definition document (DDD) 107
Delphi technique 136
dependencies 132
dependencies 55, 144
design flaws 244
digital divide 2
directive 299
disaster planning 160
discounted cash flow 35
diversity constraints 270
downtime 209
drill-down 331
dual gating 26
due diligence 268
dummy activities 145
duration compression 198

earliest start date 145
early warning signals 165
early-finish 146
early-start 146
earned value (BCWP) 187
earned value analysis (EVA) 19, 187
earned value critical ratio 66
earned value management 316
earned value management systems (EVMS) 317

Copyright © 2006, Idea Group Inc. Copying or distributing in print or electronic forms without written permission of Idea Group Inc. is prohibited.
economic feasibility 34
economic risks 162
effective listening 281
efficiency 192
element of cost structure (EOC) 128
employee burnout 178
employee turnover 267
encapsulation 81
encryption 239
Engineering Advancement Association (ENAA) 48
equally likely 42
request for proposal (RFP) 249
equity theory 303
ERP 19
resource breakdown structure (RBS) 128
estimated cost at completion 66
estimated cost at completion (EAC) 318
estimated time to complete 66
estimation 14
European Software Industry 95
European Software Process Improvement Initiative (ESI) 21
evolutionary development 68
exception 195
execution 51
exit gates 25
expectancy theory 303
expected monetary value (EMV) 39, 167
explicit knowledge 366
external design (user interface design) 62
external, internal, self-assessment (EISA) 367
external quality dimensions 191
external specifications 109
extreme programming (XP) 77
extreme testing 218
feedback 184, 281
financial evaluation 35
fiscal periods 103
fish bone or cause-and-effect diagram 171
fitness for use 202
FiveAndDime 132
fixed price economic price adjustment (FPECA) 251
fixed price incentive fee (FPIF) 251
fixes 205
float 145
follow up 284
forced ranking 44
forcing 306
forming 304
forward tracing 217
foundation 230
fourth generation languages (4GLs) 138
fourth-generation languages 71
FP: Fixed price 251
framework 26, 88
free slack 146
free-flow 68
function point analysis (FPA) 138
functional 287
functional 197
functional requirements 31
functional specification 109
G
Gantt chart 148
general ledger (GL) 128, 328
general public license (GNU) 345
generic resources 135
go/kill/hold decision 195
gold plating 108, 188, 266
grade 202
groupware 7, 44
GUI 71
H
Halo effect 294
hazard Frequencies 166
hazards 160
Health Insurance Portability Act (HIPPA)
Herzberg's theory 303
hierarchical 107
hiring restrictions 266
holistic methods 43
HTML 286
human capital 366
human resource management 52, 291, 278
human-computer interaction 110
hyperlink 149
hypertext linkage 367

I
IDEs (integrated development environments) 71
impact 167
impact analysis 162
incremental development 69
indirect 155
information distribution 279
information repositories 372
information revolution 2
inheritance 81
initiation 51
insourcing 260
inspection 204
inspections 244
Installation 61
instant messaging 286
Institute of Electrical and Electronics Engineers 59, 92
insurance 173
integrated development environments (IDEs) 346
integration competency center (ICC) 354
integration management 52
integration testing 144
intellectual capital 268
intellectual capital 366
intellectual property 266, 267
Intelligent software agents 376
interface requirements 31, 117
interim milestone 325
internal design 62
internal documentation 62
internal rate of return (IRR) 35
internal specification 109
International Function Point User Group (IFPUG 140
International Organization for Standardization (ISO) 224
International Project Management Association (IPMA) 48
Internet applications 240
intrusion testing 193
invitation for bid (IFB, or RFB) 254
Ishikawa diagram 171
ISO 9000 224
IT security 2

J
Java 79
Java Two Enterprise edition (J2EE) 88
JavaScript 137
job-costing system (JC) 328
joint application design (JAD) 73

K
K-U risks 164
kaizen 223
key measures 183
key performance indicators (KPI) 376
key practices 90
key process areas 90
keystrokes 217
kickoff meeting 55, 104
kill points 25
KISS 76
KLOC 78, 138
knowledge areas 52
knowledge management 246
knowledge management (KM) 365
knowledge transfer 267
knowledge workers 6
known risks 164

L
lag 146

Copyright © 2006, Idea Group Inc. Copying or distributing in print or electronic forms without written permission of Idea Group Inc. is prohibited.
LAMP (Linux, Apache, MySQL, PHP) 88
LAN (local area network) 71
last and best 255
late-finish 146
late-start 146
lead time 146
leadership 299
learning curve 137
legal foundations 266
lessons learned 367
lessons learned 62
level of effort 155, 326
level resources 147
levels of difficulty 135
lightweight methodologies 75
linear programming (LP) 360
lines of code 83
lines of code (LOC) 137
Linux 191, 345
loads 217
localization 87
logic diagram 143
low morale 203

M
macro perspective 19
maintainability 23, 66, 72, 117, 192
maintenance 61
manage by exception 56
management 299
management and administration (M&A) 120
management reserves 167
management stage gates 25
management support 176, 185
manufacturing/material resources/requirements plan 126
Markowitz 361
Maslow’s hierarchy 111
Maslow’s theory 302
matrix 197, 287
maturity level 90
maximax 42
maximin 42
McGregor’s theory 303

meeting notes 281
meeting policy 283
meetings 283
methodologies 13
Methodology 22
metrics 176, 183
micro management 291
micro perspective 19
Microsoft Excel 338
Microsoft’s .Net 88
middleware 240
mitigation 171
mitigation strategies 169
Monte Carlo simulations 167
most likely 142
motivation 302
motivational techniques 199
multiphase 113
murder boards 44
MVC (model-view-controller) 88
MySQL 191, 346

N
naming conventions 228
near shore 260
negative reinforcement 199
negotiated cost 154
net present value (NPV) 35
network diagram 121, 143
noncompete 266
nonconformance 204
nondisclosures 266
nonintrusive 323
nonverbal 281
norming 304

O
object points 140
object-oriented (OO) programming 79
office productivity suites 286
offshore 260
offshore outsourcing 260
on shore 260
online analytical processing (OLAP) 369
open source 191
operation 61
operation 66
operational level 29
operations and maintenance (O&M) 120
opportunity 158
optimistic 142
organizational assignment matrix 128
organizational breakdown structure (OBS) 126
organizational goals 29
organizational planning 291
organizational project maturity 376
organization’s culture 285
original critical path method (CPM) 144
original duration (OD) 321
outsourcing 258
outsourcing 44, 173
overcommitted 151
overhead 155, 332
overlap 66
overloading 229

P
pair programming 77, 323
paper prototype 72
paper prototypes 45
Pareto chart 207
part breakdown structure (PBS) 128
pattern 88
payback periods 35
payroll (PR) 328
pebbles 325
peer reviews 206, 325
penalty 277
percentage complete 187
performance management 24
performance measurement baseline 154
performance measurement baseline (PMB) 313
performance reporting 56, 279
performing 304
performing organization 132
performing organization 9
personnel closeout 245
pessimistic 142
PHP 84, 346
Plan Gantt chart 154
plan item 153
planned costs 124
planned mitigation 171
planning 51
platform 62
platform independent 203
playback 219
PMP (Project Management Professional) 56
political risks 162
polymorphism 81
portability 117, 191
portfolio management 357
portfolio optimization 268
portfolio theory 361
positive reinforcement 199
power vs. concern 277
precedence diagramming method (PDM) 144
precedence relations 148
preferred individual 136
preliminary product manifestations 26
prevention 204
probability 166
process groups 51
process security 193
procurement 55, 248
procurement audits 244
procurement audits 257
procurement management 52
procurement planning 248
product manifestation 45
product scope 106
product security 193
program evaluation and review technique (PERT) 142
program office 352
programming language 88
project business plan 34
project calendar 103
project champion 9
project charter 31

project control panel 374
project coordinator 287
project documentation 282
project expeditor 287
project initiation 31
Project Management Institute (PMI) 14
project management maturity 376
project management maturity model (PMMM) 376
project management office 352
project management office (PMO) 44
project management organizations 48
project management professional (PMP) 14
project management support offices 352
project master plan 100
project portfolio 357
project proposals 32
project risk log 179
project scope 106
project scoring 42
project selection 29
project sponsor 9
projectized 155, 197, 287
prototype 45
prototyping 72
purchase order (PO) 251
pure risk 161

Q
quality assurance 55
quality audits 211
quality control 185
quality criteria 132
quality function deployment (QFD) 206, 223
quality management 23, 52
quality management systems 115
quality programs 223
quality stage gates 26

R
rational unified process (RUP) 70, 71, 74, 186
reality check 136
recoverability 72, 191
recoverable 203
recycle 197
refactoring 76
referent 277
relational database management software (RDBMS) 345
release 237
reliability 192
report generation 286
reporting level 314
reports 129
request for proposal (RFP) 254
request for quotation (RFQ) 254
requirement discovery 109
requirements 11
requirements traceability 215
requirements traceability matrix 62
resource assignment 150
resource Gannt chart 294
resource histogram 294
resource leveling 151
responsibility assignment matrix 294
responsibility assignment matrix (RAM) 128
retest 216
reusability 72
reusable 79
reusable component 86
reuse foundations 88
reverse tracing 217
reward 277
risk 157
risk 157
risk averse 158
risk event 159
risk identification 158
risk identification 27
risk management 52
risk management 25
risk quantification 158
risk response 169
risk response control 179
risk response control 158, 185
risk response development 158
risks 11
robustness 192
ROI 43
rollup 318

S
sampling 217
Sarbanes-Oxley Act (SOX) 110, 354
satisfaction criteria 19
scalability 72, 191, 192, 217
schedule 22
schedule compression 146
schedule control 185
schedule performance index (SPI) 187
schedule variances 327
scope 13
scope change control 106
scope change control 185
scope creep 178, 188
scope definition 106
scope definition 121
scope initiation 106
scope management 52, 106
scope planning 106
scope verification 106
scope verification 55
scoring and ranking methods 43
screening criteria 255
screens 129
secure 203
security holes 193
security risks 272
selective outsourcing 259
service level agreement (SLA) 208
Service Oriented Architectures 79
shareware 343
short list 255
silver bullet 176
SIMULA 83
single-phase 113
single-source procurement 254
Six Sigma 225
skill mix 292
slack 146
smalltalk 84
smoothing 306
SOA 79

(Simple Object Access Protocol (SOAP) 79
software acquisition 79
software acquisition 249
software architects 292
software capability maturity model 89
software development life cycle (SDLC) 58
software development standards 227
software engineering 59
software engineering 22
software engineering body of knowledge (SWEBOK) 92
Software Engineering Institute (SEI) 22, 88
software reuse 85
sole source procurement 254
solicitation 248
solicitation planning 248
solver 36
source selection 248
structured query language (SQL) 71
staff acquisition 291
stakeholder action plan 277
stakeholder identification 274
stakeholder management 274
stakeholders 6
standard calendars 154
standard deviation 143
standard forms 371
standards 23
standards manuals 229
star topology 369
stated requirements 191
statement of work 11
statement of work (SOW) 110, 250
static testing 220
status reports 281
storming 304
storyboards 73
strategic alliances 264
strategic level 29
structural capital 366
structured interviews 110
structured problem solving 306
structured walkthroughs 367
subject-matter experts 292
success criteria 20
success factors 20
sunk cost 45, 319
support 23
supportive 300
switching costs 261
SWOT 159
symptoms 175
synchronous 118, 285
system designers 292
system test 213
systems integration 62

time and material (T&M) 251
tact knowledge 366
tactical level 29
task estimation 132
task sequencing 143
tasks 108, 122
taxonomy 165
team building 297, 304
team development 291
team morale 188
technical experts 292
technical requirements 31
templates 371
test harnesses 78, 213
test metrics 214
test plans 53
test script 62
test scripts 215
testable 203
testing 61
testing data 214
testing tools 215
thin clients 240
Threat Frequencies 166
threats 160
tight matrix 289
time and attendance 323
time in grade 135
time management 52
time periods 153
time value of money 35
timebox 70
timing 217
tolerance 168
tolerances 198
top down estimating 136
total cost of ownership (TCO) 35
total project budget 154
total quality management (TQM) 206, 223
total slack 145
training 63
tree structure 122
trend analysis 209
trust 193

U

UML 68
UML (unified modeling language) 81
unadjusted function point total (UFP) 139
uncertainty 159
unforeseeable risks 162
unit testing 54
unplanned mitigation 171
unpriced 154
unstated requirements 191
usability 192
use case scenarios 77, 215
use cases 45, 112
user documentation 54
user friendliness 72
user interface 229
user involvement 176
utility 66
utility function 168

V

validation 23
value adjustment factor (VAF) 139
variance 143
vendor 249
verification 22
verification and validation (V&V) 206
version 216
version control 239
version control 72
Index 417

virtual corporation 7
virtual meetings 286
virtual organization 7
virtual PMO 372
virtual teams 7
vision 176
vision 299
vital signs 372
volume testing 215
VRML 286

W
walkthroughs 325
war room 282
waterfall 65
WBS dictionary 132
Web applications 73
Web services 79
white-box (structural) testing 213
win-win 255
withdrawal 306
work breakdown structure (WBS) 122
work breakdown structure (WBS) 55
work packet 237
work packets 55, 108, 124
work periods 153
workaround 171, 179
workbenches 72
working prototypes 45
World Wide Web Consortium (W3C) 94
wrongdoing 257
WYSIWYG (what you see is what you get) 71

X
XML 286