

# Index

## A

- Abbreviations, 237–238, 465–466
- Abstraction
  - in fit criteria, 405
  - patterns from, 313–317
  - for requirements, 2, 274, 307
  - in trawling, 102, 386
- Acceptance, usability for, 179–180
- Accepted requirements, 437
- Access requirements, 491
- Accessibility requirements
  - fit criteria for, 213
  - in usability, 182, 481
- Accuracy
  - patterns for, 308
  - requirements for, 183, 484
- Achievable goals, 57–58
- Acronyms, 237–238, 465–466
- Actions in functional requirements, 217
- Active adjacent systems, 80–82
- Active stakeholders, 140, 149
- Activity diagrams
  - for functional requirements, 168
  - for scenarios, 143–144
- Actors
  - defined, 437
  - in event-driven use cases, 69–70, 89–90
  - in operational requirements, 185
  - in product use cases, 152
- Adaptability requirements, 490–491
- Adapting Volere process, 345–347
- Adjacent systems
  - active, 80–82
  - autonomous, 83–85
  - cooperative, 85–86
  - in domains of interest, 43
  - in event-driven use cases, 72, 79–86
  - in function point counting, 519
  - interfacing with, 487–488
  - legal requirements for, 193
  - in operational requirements, 185, 487–488
  - and scope, 41
  - as stakeholders, 54
  - technology in, 131–132
  - in trawling, 393
- Adjectives, 339
- Adjustments in function point counting, 520–521
- Adobe Photoshop usability, 180
- Adoption, usability for, 181
- Adverbs, 339
- Agile Manifesto, 4
- Agile software development, 4–8
- Agility guide
  - for blastoff, 38
  - for event-driven use cases, 67
  - for fit criteria, 203–204
  - for functional requirements, 155–156
  - for nonfunctional requirements, 172
  - for process, 19–20
  - for prototyping, 285–286
  - for Quality Gateway, 260–261
  - for reviewing specifications, 322–323
  - for scenarios, 135–136
  - for trawling, 93–94
  - for writing requirements, 223–225
- Air traffic control systems, 116
- Airlines
  - cargo, 184–185
  - check-in agent scenario, 137–144
  - flight booking, 112
- Alexander, Christopher, 204, 308
- Alexander, Ian, 46, 147
- Allowable values, requirements for, 183
- Alternatives
  - blastoff, 65
  - functional requirements, 161–162, 167–169
  - Quality Gateways, 280–281
  - scenarios for, 144–145
- Ambiguity
  - in functional requirements, 162–164
  - reviews for, 339–340
- Analysis of prototyping results, 300
- Analysts
  - apprenticeships for, 102–103

## 540 ● Index

- Analysts (*cont.*)
  - for scope, 22
  - for trawling, 94–96
  - writing by, 26
- “And no more” requirements, 189–190
- Anonymity for retrospectives, 361
- Antagonists in negative scenarios, 147
- Anticipated environments
  - constraints from, 236, 463–464
  - for new products, 499–500
- Appearance requirements, 476
- Apprentices, 24, 101–103, 385
- ART-SCENE scenario presenter, 146
- Artifacts
  - in apprentices, 103
  - for deliverables, 346
  - in domain patterns, 316–317
  - in functional requirements, 157
  - in prototyping, 288, 293, 299
  - retaining, 128
  - reusing, 319
  - for stakeholder interviews, 105
- Asimov, Isaac, 183
- Assembling specifications, 437
- Associations, 348–349
- Assumptions
  - in blastoff, 37
  - defined, 437
  - relevancy of, 270
  - in reusing requirements, 305
  - in risk analysis, 341
  - in specification template, 239–240, 467–468
  - of usability, 178
- Asynchronous networks, 366
- Atomic requirements
  - in functional requirements, 166
  - prioritizing, 334
  - in writing requirements, 243–248
- Attributes
  - in business use cases, 329, 516
  - in classes, 510–511
  - in stored data, 518, 520
  - for user categories, 50–51
- Audiences, personas for, 121
- Auditing requirements, 189, 197, 493
- Authorization, 188
- Automated tools
  - free, 243
  - for Quality Gateway, 280
  - for scenarios, 146
- Autonomous adjacent systems, 83–85
- Availability
  - assumptions about, 239
  - requirements for, 183, 188, 484–485
- B**
- Background in specification template, 229–230, 454–455
- Bad changes, 358
- Baker, Jenny, 306–307
- Beck, Kent, 203
- Beede, Earl, 200
- Benchmarks, 63
- Beyer, Hugh, 136, 283, 290
- Blame, avoiding, 360
- Blastoff, 22–23, 35–37
  - agility guide for, 38
  - alternatives in, 65
  - business terminology in, 377
  - in case study, 38–39
  - communication in, 372
  - constraints in, 37, 60–61, 378
  - context partitioning in, 377
  - costs in, 23, 62–63
  - defined, 438
  - diagrams for, 369–370, 373, 379
  - domains of interest in, 378
  - first-cut risk analysis in, 375–376
  - follow-up, 381
  - go/no go decisions in, 23, 37, 64
  - goals in, 55–60
  - initial estimates in, 382
  - naming conventions and definitions in, 37, 61–62
  - non-events in, 377
  - objectives, 371, 438
  - physical arrangements in, 371–372
  - purpose determination in, 35, 374
  - reports for, 380
  - results review, 380–381
  - risks in, 37, 63–64
  - scope in, 35, 40–45
  - stakeholders in, 35–36, 45–55, 376–377
  - for trawling, 97
  - work context in, 374
- Blogs
  - as free tools, 243
  - for nonfunctional requirements, 195
  - for trawling, 125–126
- Boehm, Barry, 7, 508
- Boundaries
  - in scope, 241, 472

- use case, 393
  - Brainstorming
    - in trawling, 117–119, 386–387
    - videos for, 125
  - Brand loyalty, 111
  - Branding standards
    - company colors for, 211
    - in look and feel requirements, 176
  - Branson, Richard, 363
  - Brooks, Fred, 1
  - Buddy pairing approach, 281
  - Budgets
    - as constraints, 237, 465
    - person responsible for, 233
    - requirements creep from, 277
  - Build stage in prototyping, 298–299
  - Building specifications, 223
  - Business events
    - benefits of, 75–76
    - for cost estimates, 62
    - defined, 439
    - effort for, 434–435, 440
    - in event-driven use cases, 73–78
    - finding, 76–78, 390–391
    - identifying, 326–328
    - origin of, 131
    - patterns in, 309–313
    - in product use cases, 150
    - for prototyping, 440
    - in scenario templates, 148
    - time-triggered, 74
    - tracing, 353–356
    - in trawling, 390–391, 395
    - video, 125
    - in work partitioning, 240, 471
    - in writing requirements, 244
  - Business opportunities
    - change for, 357
    - defined, 439
    - in purpose, 230
    - in trawling, 393
  - Business relevancy, 226
  - Business requirements, 11
  - Business rules
    - in business use case workshops, 115–116
    - maintainability requirements for, 186
  - Business tolerances
    - for fit criteria, 207, 271
    - in subjective tests, 210
  - Business use cases, 73, 86–88
    - actors in, 89–90
    - benefits of, 75–76
    - CRUD check for, 330–331
    - custodial processes in, 331
    - data for, 328–330
    - events in, 78–79, 326–328
    - in function point counting, 511–516
    - for innovation, 111
    - input, 512–513
    - iteration in, 331–332
    - low-fidelity prototypes for, 289
    - modeling, 328
    - output, 514–515
    - for product determination, 129
    - and scenarios, 136, 139, 148
    - scope in, 326
    - specification reviews for, 325–332
    - in stakeholder interviews, 105
    - time-triggered, 515–516
    - traceability of, 267, 353–356
    - in trawling, 24, 96–98
    - workshops, 113–114
      - business rules in, 115–116
      - outcomes from, 114
      - scenarios in, 113–115
      - videos for, 125
- ## C
- Capabilities
    - assumptions about, 239
    - document archeology for, 128
    - templates for, 11
    - of tools, 350
  - Capacity requirements, 182, 485–486
  - Cargo airlines, 184–185
  - Change, 357–358
    - in agile software development, 6
    - defined, 439
    - feedback for, 358–360
    - open issues from, 253
    - for opportunities, 357
    - prototypes for, 414
    - in purpose, 230
    - requirements creep from, 277
    - in trawling, 393
    - in world, 358
  - Character of products, 173
  - Check-in agents, airline, 137–144
  - Checklists
    - for blastoff decisions, 381
    - for exceptions, 146
    - for Quality Gateways, 281
    - for requirement types, 176
    - for risk, 340, 431, 448
    - for specification reviews, 323–324
    - for specifications, 28
    - for stakeholders, 51, 376, 523

## 542 ● Index

- Checklists (*cont.*)
  - templates as, 12, 172, 197
  - for users, 50
- Chesterton, G. K., 134
- Choices
  - for innovation, 112
  - scenarios for, 144–145
- Clarification questions, 396–397
- Class models, 348–349
  - for functional requirements, 168–169
  - for specification reviews, 342
- Classes
  - attributes in, 510–511
  - for business use cases, 329–330
  - in object life history, 296
  - for reuse, 318
  - in trawling, 104
- Clausing, Don, 338
- Clients
  - names of, 439
  - in nonfunctional requirements, 198–199
  - in reusing requirements, 304
  - in risk analysis, 341
  - in specification template, 232–233, 456
  - as stakeholders, 47–48
- Collaborating systems and applications
  - constraints from, 236, 462
  - fit criteria for, 214
  - in operational requirements, 185
- Collaboration in agile software development, 6
- Collections of requirements, 308–309
- Color
  - in branding, 211
  - measuring, 206
  - in mind maps, 123
- Comments
  - group, 441
  - individual, 442
  - project participant, 44
  - for retrospectives, 361
- Commercial off-the-shelf software
  - as constraint, 61, 236, 462–463
  - functional requirements for, 167
  - in specification template, 253, 497–498
- Communication
  - in autonomous adjacent systems, 84
  - in blastoff, 372
  - for deliverables, 346
  - prototypes for, 284
- Company colors, 211
- Comparisons
  - Internet for, 111
  - in linguistic meta-models, 106
- Completeness
  - patterns for, 308
  - reviewing, 406
  - testing, 263–265
- Compliance requirements, 495–496
- Composite requirements, 400
- Confidentiality requirements, 187–188
- Conflicts
  - identifying, 403
  - specification reviews for, 337–339
  - in writing requirements, 247–248
- Connectedness, desire for, 112
- Consistency
  - objects for, 318
  - in terminology, 267–268
- Constraints, 10, 234
  - assumptions in, 239–240, 467–468
  - in blastoff, 37, 60–61, 378
  - from environment, 236, 463–464
  - facts in, 238, 467
  - fit criteria for, 219–220
  - formalizing, 400
  - mandated, 234–237, 304, 341, 460–465
  - naming conventions and definitions, 237–238, 465–466
  - off-the-shelf products, 61, 236, 462–463
  - relevancy of, 270
  - in reusing requirements, 304
  - in risk analysis, 341
  - in scenarios, 140
  - in specification template, 234–237, 460–465
  - in templates, 13
  - traceability of, 267
  - viability within, 272–273
- Constructing products, 8
- Consultants
  - for security, 190
  - as stakeholders, 52
- Containing businesses, 46
- Content
  - model for, 365
  - in retrospective reports, 362–363
- Content management systems, 293
- Context
  - in event-driven use cases, 70–72
  - of event responses, 310–311
  - partitioning, 377
  - in patterns, 313
  - process in, 20–21
  - in scope, 44–45, 240, 469–470
  - in stakeholder interviews, 105

- Context diagrams *See also* Work Context
    - in blastoff, 377
    - for business events, 76–78
    - for flows, 509–510
  - Context interfaces, 439
  - Contract negotiations, 6
  - Contractual documents, 351
  - Contradictory requirements, 439
  - Cooperative adjacent systems
    - in function point counting, 519
    - overview, 85–86
  - Copyable products, 498
  - Copyright notices, 193
  - Core teams
    - in stakeholder maps, 46
    - as stakeholders, 52
  - Costs
    - in blastoff, 23, 37, 62–63
    - of repairing errors, 262
    - in review process, 30
    - in specification template, 255–256, 504–505
  - Country issues for mobile telephones, 247
  - Create check in CRUD checks, 330–331
  - Creativity workshops, 116–117, 391
  - Credit card systems, 83
  - Creep, requirements
    - Quality Gateway for, 276–279
    - relevancy for, 268
  - CRUD checks, 330–331
  - Cultural issues and requirements, 190–192, 197, 494
    - fit criteria for, 216
    - in Quality Gateway, 280
    - with stakeholders, 54
  - Current situation and environment
    - defined, 439
    - implementation environment, 461–462
    - for new products, 498–499
    - in scope, 468–469
    - in trawling, 98–101, 108, 385
  - Custodial processes, 331
  - Custodial requirements, 429
  - Customer loyalty
    - connectedness for, 112
    - disappearance of, 111
  - Customer recognition, company colors for, 211
  - Customer satisfaction/dissatisfaction
    - defining, 402–403
    - identifying, 427–428
    - Quality Gateway for, 274–275
    - specification reviews for, 332–333
    - in writing requirements, 246–247
  - Customers
    - informed, 111
    - names of, 439
    - passwords for, 110
    - in reusing requirements, 304
    - in risk analysis, 341
    - in specification template, 233, 456
    - as stakeholders, 48–49
    - transaction control by, 112
  - Customs in cultural requirements, 190–192, 494
- ## D
- Data
    - for business event patterns, 312–313
    - for business use cases, 328–330
    - for new systems, 502
  - Data dictionaries, 238, 466
  - Data element types, 516
  - Data models
    - for functional requirements, 168–169
    - for specification reviews, 342
  - Data Protection Act, 194
  - Data requirements, 475
  - Data stored in function point counting, 510–511, 517–520
  - David, Elizabeth, 306–307
  - Death march projects, 65
  - Decisions in activity diagrams, 144
  - Defining
    - audiences, personas for, 121
    - customer value, 402–403
    - scope, 32
  - Definitions
    - in blastoff, 61–62
    - in reusing requirements, 305
    - in specification template, 237–238, 465–466
  - DeGrace, Peter, 124
  - Delete check in CRUD checks, 330–331
  - Deliverables, 19
    - blastoff for, 35
    - focus on, 346–347
    - inter-deliverable associations, 348–349
    - understanding, 32–33
  - DeMarco, Tom, 431, 507
  - Dependencies
    - identifying, 403
    - model for, 365
  - Descriptions
    - ambiguous, 339
    - and fit criteria, 207
    - in functional requirements, 164, 250–251
    - vs. measurements, 203
    - in writing requirements, 245

## 544 ● Index

- Design
  - constraints in, 235
  - and prototyping, 293, 298–299
- Design form, reviewing, 437
- Detail
  - in functional requirements, 160–161, 251
  - in management summaries, 351
- Development phases, planning, 501
- Deviations, exception cases for, 145–146
- Diagrams
  - blastoff, 369–370, 373, 377, 379
  - for business events, 76–78
  - context, 76–78, 377, 509–510
  - for functional requirements, 168
  - mind maps, 122–124
  - prototyping, 407, 409, 412
  - Quality Gateway, 404–406
  - retrospectives, 415–416, 419, 422
  - reviewing requirements, 425–426, 430, 433, 436
  - for scenarios, 142–144
  - state transition, 296
  - summary, 368
  - trawling, 97, 383–384, 392, 394
  - writing requirements, 398
- Dictionaries
  - in specification template, 237–238, 465–466
  - in Volere Requirements Process Model, 437–449
- Discipline representation in brainstorming, 118, 386
- Discovery, prototypes for, 293
- Discussion forums for trawling, 125–126
- Document archeology, 126–128, 388–389
- Documentation
  - in agile software development, 5
  - in specification template, 256, 504–505
- Documents, 438
- Domains, 307
  - models, 307, 440
  - patterns across, 315–317
  - patterns for, 314–315
  - in reusing requirements, 317–318
- Domains of interest
  - in blastoff, 378
  - in scope, 42–44
- Drivers
  - in risk analysis, 340–341
  - in specification template
    - clients, customers, and stakeholders, 232–233, 456–457
    - purpose, 229–232, 454–456
  - users, 233–234, 457–460
  - in templates, 13
- Drupal system, 293
- Dynamic adjacent systems, 80–82
- E**
- Ease of use requirements, 180, 477–479
- Easy to learn products, 180, 212
- Effects of Quality Gateway, 260–262
- Efficiency
  - requirements for, 183
  - usability for, 179
- Effort
  - estimating, 62–63
  - for events, 434–435, 440
- Einstein, Albert, 265
- Elasticity of terms, 106
- Elephant projects
  - in agile software development, 7
  - blastoff for, 38
  - event-driven use cases for, 67
  - fit criteria for, 204
  - functional requirements for, 156
  - nonfunctional requirements for, 172
  - process, 20
  - prototyping for, 286
  - Quality Gateway for, 261
  - scenarios for, 136
  - specification reviews for, 323
  - trawling for, 94
  - writing requirements for, 225
- End users as stakeholders, 48
- Engineers for prototypes, 291
- Entities
  - for business use cases, 329
  - external, 429
  - in object life history, 296
- Environment
  - constraints from, 236, 461–464
  - requirements from, 184–186, 196, 487–489
- Error rates, usability for, 179–180
- Errors
  - in requirements activity, 8
  - in software development, 262
- Essence
  - discovering, 25
  - in trawling, 107–109, 386
- Estimates
  - in blastoff, 382
  - cost, 23, 37, 255–256, 272, 504–505
  - effort, 434–435

- input, 434
  - Evaluation of brainstorming ideas, 119
  - Event boundary names, 438
  - Event business names, 438
  - Event-driven use cases, 67
    - adjacent systems in, 72, 79–86
    - agility guide for, 67
    - business events in, 73–78
    - business use cases in, 78–79, 86–90
    - context in, 70–72
    - product use cases in, 86–90
    - scope in, 69–70, 87
    - work in, 67–72
  - Event/use case models, 440
  - Events *see* Business Events
  - Evolution of requirements, 11
  - Exceptions
    - in business use case workshops, 114
    - in functional requirements, 161–162
    - scenarios for, 145–146
    - specification reviews for, 324
  - Executive sponsors, 47
  - Existing documents, 440
  - Existing procedures, 280, 347. *See also* Current situation and environment
  - Expectation management, 334
  - Expected physical environment, 487
  - Experts
    - domain, 317
    - as stakeholders, 45, 52, 54
  - <<extend>> constructs, 88
  - Extensibility requirements, 486
  - External entities, 429
  - Externally stored data in function point counting, 518–520
  - Extreme programming
    - essence in, 109
    - requirements specifications in, 32
    - testing in, 203, 218
    - whiteboards for, 19
- F**
- Facilitators for retrospectives, 360–362, 417–418
  - Facts
    - blastoff for, 37
    - in reusing requirements, 305
    - in risk analysis, 341
    - in specification template, 238, 467
  - Fagan inspections, 323–324
  - Failures, fit criteria for, 209–210
  - Family therapy in trawling, 128
  - Fault tolerance requirements, 183, 485
  - Feasibility studies, 65
  - Feasible goals, 57
  - Feature Points, 508
  - Features
    - in functional requirements, 166–167
    - unnecessary, 275–276, 406
  - Feedback
    - change from, 358–360
    - interviews for, 387
    - prototypes for, 287, 291, 411
  - Ferdinandi, Patricia, 148
  - File integrity, fit criteria for, 215
  - Filtration criteria for retrospectives, 423–424
  - Financial beneficiaries, 52
  - Financial constraints, 61
  - Financial scandals, 194
  - Finding
    - business events, 76–78, 390–391
    - functional requirements, 157–160
    - nonfunctional requirements, 195–199
  - First-cut low-fidelity prototypes, 37
  - First-cut risk analysis, 375–376
  - First-cut work context, 44–45
  - Fit criteria, 203
    - agility guide for, 203–204
    - ambiguous, 339
    - for functional requirements, 217–218
    - measurement scale for, 206, 271
    - for nonfunctional requirements, 208–209
      - cultural and political, 216
      - legal, 216–217
      - look and feel, 211
      - maintainability, 215
      - operational, 214–215
      - performance, 213–214
      - product failure, 209–210
      - security, 215–216
      - subjective tests, 210–211
      - usability and humanity, 212–213
    - for project purpose, 219
    - purpose of, 26, 204–205
    - Quality Gateway for, 28, 270–271
    - rationale for, 206–207
    - reviewing, 405, 440
    - for solution constraints, 219–220
    - for testability, 453
    - testing, 204, 270–271
    - in use cases, 218–219
    - in writing requirements, 245–246, 401–402
  - Flesch-Kincaid Grade Level Score, 213
  - Flesch Reading Ease Score, 212–213
  - Flows
    - in business events, 77–78
    - in model, 366–367

## 546 ● Index

- Flows (*cont.*)
    - in scope, 45
    - in trawling, 97
  - Focus
    - on deliverables, 346–347
    - in retrospectives, 360
  - Follow-up
    - blastoff, 381
    - for new products, 500
  - Forces in patterns, 313
  - Formality
    - objects for, 318
    - in Quality Gateway, 280
  - Formalized requirements, 259, 441
  - Formalized system constraints, 441
  - Formalizing
    - requirements, 400
    - system constraints, 400
  - Free tools, 243
  - Fun in brainstorming, 118
  - Function point counting, 507–508
    - adjustments in, 520–521
    - business use cases in, 511–516
    - for cost estimates, 63, 256, 504
    - help and resources for, 521–522
    - overview, 509
    - scope in, 509–510
    - stored data in, 510–511, 517–520
  - Functional beneficiaries, 52
  - Functional requirements, 9, 155
    - agility guide for, 155–156
    - alternatives to, 161–162, 167–169
    - ambiguity in, 162–164
    - conflicts in, 338
    - defined, 441
    - exceptions in, 161–162
    - finding, 157–160
    - fit criteria for, 217–218, 401
    - grouping, 166–167
    - identifying, 399–400
    - level of detail in, 160–161, 251
    - requirements vs. solutions, 165
    - in risk analysis, 341
    - scope in, 166, 240–241, 468–473
    - in specification template, 240, 249–251, 473–474
    - technological, 164–165
    - in templates, 13
  - Functionality, 2, 11
  - Fundamental processes in business use cases, 331
- G**
- Generalizations
    - in linguistic meta-models, 106
    - removing, apprenticeships for, 385
  - Generic processes, 347, 365
  - Geography, significance of, 111
  - Glossaries, 237–238, 465–466
  - Go/no go decisions
    - in blastoff, 23, 37, 64
    - defined, 441
  - Goals
    - in blastoff, 55–60
    - in domain analysis, 317
    - purpose tracking, 59–60
    - relevancy of, 268
    - in specification template, 230–232, 455–456
  - Gold plating
    - defined, 441
    - identifying, 275–276, 406
  - Gordon, Peter, 117
  - Government as stakeholder, 53–54
  - Gramm-Leach-Bliley Act, 194
  - Granularity in functional requirements, 160–161
  - Group comments, 441
  - Groups
    - for brainstorming, 118
    - for functional requirements, 166–167
    - requirements by type, 244
    - for retrospectives, 361, 417
    - special-interest, 54
  - Guard conditions, 144
  - Guesswork, problems from, 63
  - Guidelines for trawling, 395–396
  - Gutenberg, Johannes, 117
- H**
- Hands-on users in specification template, 457–458
  - Hardware, safety requirements for, 183
  - Harmful possibilities, scenarios for, 147–148
  - Hauser, John, 338
  - Health Insurance Portability and Accountability Act (HIPAA), 194
  - Help for function point counting, 521–522
  - High-fidelity prototypes, 292–294
    - building, 410–411
    - defined, 441
    - testing, 413
  - High-level requirements, 11, 167



- Highsmith, Jim, 381
  - HIPAA (Health Insurance Portability and Accountability Act), 194
  - History
    - object life, 296–297
    - in writing requirements, 248
  - Holtzblatt, Karen, 136, 283, 290
  - Homonyms, 162–164
  - Horse projects
    - in agile software development, 7
    - blastoff for, 38
    - event-driven use cases for, 67
    - fit criteria for, 204
    - functional requirements for, 156
    - nonfunctional requirements for, 172
    - process, 20
    - prototyping for, 285–286
    - Quality Gateway for, 261
    - scenarios for, 136
    - specification reviews for, 323
    - for trawling, 94
    - writing requirements for, 224
  - House of Quality tool, 338
  - Humanity requirements, 178–182
    - accessibility, 481
    - ease of use, 477–479
    - fit criteria for, 212–213
    - learning, 479–480
    - personalization and internationalization, 479
    - understandability and politeness, 480–481
- I**
- Icons for prototypes, 292
  - Ideas
    - in brainstorming, 118
    - for solutions, 257, 506
  - Identified stakeholders, 441
  - Identifiers for traceability, 267, 353
  - Identifying
    - business events, 326–328
    - composite requirements, 400
    - customer value ratings, 427–428
    - dependencies and conflicts, 403
    - domains of interest, 378
    - estimation input, 434
    - filtration criteria, 423
    - functional requirements, 399–400
    - gold plating, 275–276, 406
    - interactions, 428
    - missing requirements, 427
    - new and changed requirements, 414
    - nonfunctional requirements, 401
    - originators, 279
    - potential requirements, 399
    - prototyping opportunity, 428
    - requirements, 243–244
    - stakeholders, 376–377, 523
    - users, 49
  - Imaginary users, personas for, 119–121
  - Immunity requirements, 190, 493–494
  - Implementation environment, constraints
    - from, 235–236, 461–462
  - Implementation technology, deciding on, 355
  - <<include>> constructs, 88
  - Incremental processes, 30–31
  - Indirect contributions, 269
  - Individual comments, 442
  - Individual product use cases, 473
  - Individual retrospective reviews, 417
  - Individuals in agile software development, 5
  - Industry standard setters, 53
  - Information
    - for innovation, 112
    - in requirements knowledge model, 225–227
  - Initial estimates
    - in blastoff, 382
    - defined, 442
  - Initiation. *See* Blastoff
  - Innovation
    - from active adjacent systems, 81
    - trawling for, 110–113
  - Input
    - in business events, 77–78
    - from groups, 442
    - from individuals, 442
    - for prototyping, 299
  - Input business use cases, 512–513
  - Inquiries in business use cases, 512, 515
  - Inspections for specification reviews, 323–324
  - Inspectors as stakeholders, 53
  - Installed systems for new products, 499
  - Integrity requirements, 188–189, 492
  - Intended operating environment, 442
  - Intended operating environment description, 442
  - Intended products in stakeholder maps, 46
  - Intention of nonfunctional requirements, 176
  - Inter-deliverable associations, 348–349
  - Interactions
    - in agile software development, 5
    - identifying, 428
    - in storyboards, 295
  - Interest domains
    - in blastoff, 378
    - in scope, 42–44
  - Interested stakeholders in scenarios, 139, 149

## 548 ● Index

## Interfaces

- with adjacent systems, 487–488
- assumptions about, 239
- context, 439
- model for, 366
- for prototypes, 293

## Internal stored data in function point counting, 517–518

## Internationalization, 182, 479

## Internet

- for customer self service, 112
- for product comparisons, 111

## Interviews

- mind maps for, 123
- for retrospectives, 361
- snow cards for, 243
- stakeholders, 104–106
- users, 387–388
- videos for, 124

## Intuitive products, 212

## Inventions

- demand from, 111
- prototypes for, 291

## Isolating work in business use cases, 78

## Issues, 252, 345

- adapting Volere process, 345–347
- change, 357–360
- costs, 255–256, 504–505
- new problems, 254, 498–500
- notebooks for, 363
- off-the-shelf solutions, 253, 497–498
- open, 252–253, 496–497
- publishing requirements, 350–353
- retrospectives for, 360–363
- risks, 254–255, 502–503
- solution ideas, 506
- tasks, 254, 500–501
- in templates, 14
- tools, 347–350
- traceability, 353–356
- user documentation and training, 256, 504–505

## IT security requirements, 194

## Italy, customs in, 190–191

## Iteration, 30–31

- in business use cases, 331–332
- low-fidelity prototypes for, 288
- for rabbit projects, 19

## J

## Jacobson, Ivar, 69

## Jones, Capers

- on change control, 360
- on cost of repairing errors, 262
- Feature Points by, 508
- on function points, 520
- on prototypes, 283, 286
- on requirements creep, 278–279
- on risks, 340, 503

## Judgment in linguistic meta-models, 106

## Justification for fit criteria, 206–207

## K

## Kelvin, Lord, 203

## Keywords in mind maps, 122

Kickoff. *See* Blastoff

## Kliban, B., 67

## Knowledge sources, 442

## Knowledge vs. specification, 225–227

## L

## Laddering, 387–388

## Languages

- in functional requirements, 162–164
- maintainability requirements for, 186–187
- for prototypes, 293

## Lasdon, Denys, 111

## Latency requirements, 482

## Latour, Bruno, 51

Launch. *See* Blastoff

## Laws

- maintainability requirements for, 186
- of robotics, 183

## Lawyers, 193

## Leakage requirements, 278

## Learning requirements, 479–480

## Legal requirements, 192–195, 197, 495–497

- compliance, 495–496
- fit criteria for, 216–217
- government, 194
- standards, 194, 496

## Legalities as stakeholders, 53

## Lessons learned, 31

## Level of detail

- in functional requirements, 160–161, 251
- in management summaries, 351

## Library domains, 314

## Lifelike work situations, prototypes for, 292–293

## Linguistic meta-models, 106

## Links in mind maps, 122–123

- Lister, Tim, 64, 431
  - Litigation costs, 192–193
  - Little, Todd, 7
  - Logical files, 517
  - Longevity requirements, 486
  - Look and feel requirements, 176–178
    - appearance, 476
    - fit criteria for, 211
    - style, 476–477
  - Loops for prototyping, 297–301
  - Loudness, measuring, 206
  - Low-fidelity prototypes, 288–292
    - blastoff for, 37
    - building, 410
    - defined, 442
    - testing, 413–414
  - Low-level functional requirements, 167
  - Low-tech approaches, 15, 242–243
  - Loyalty
    - connectedness for, 112
    - disappearance of, 111
- M**
- Maiden, Neil, 116, 146
  - Maintainability requirements, 186–187, 196, 215, 489–490
  - Maintenance users in specification template, 459–460
  - Major risks, 442
  - Mambo system, 293
  - Managed risk, 255
  - Management as stakeholders, 52
  - Management review in Quality Gateway, 281
  - Management summaries, 351–352
  - Mandated constraints
    - in reusing requirements, 304
    - in risk analysis, 341
    - in specification template, 234–237, 460–465
  - Map suppliers in domains of interest, 43
  - Maps
    - mind, 122–124
    - stakeholder, 46
  - Market forces as stakeholders, 53
  - Marketing department as stakeholders, 47
  - Marketing summaries, 352
  - Martin, Steve, 7–8
  - Mass market products, prototypes for, 294
  - Masters, apprenticeships with, 385
  - Materials for specification reviews, 323
  - McConnell, Steve, 8
  - McMenamin, Steve, 93, 286, 293
  - Meaningfulness, completeness tests for, 265
  - Meanings. *See also* Terms and terminology
    - ambiguous, 339–340
    - for deliverables, 346
    - in functional requirements, 162–164
    - in linguistic meta-models, 106
    - in specification template, 237–238, 465–466
    - in Volere Requirements Process Model, 437–449
  - Measurability, fit criteria for, 203
  - Measurable goals, 57–59
  - Measurements
    - effort estimates, 62–63
    - and fit criteria, 204, 206, 271
    - function point counting. *See* Function point counting
    - and goals, 231–232, 455–456
    - for prototyping, 298, 300–301
    - specification reviews for, 342
    - usability, 181
  - Meeting locations, 442
  - Meeting schedules, 442
  - Merges in activity diagrams, 144
  - Meta-models, linguistic, 106
  - Metaphors, prototypes for, 287
  - Migration to new products, 254, 501–502
  - Mind maps, 122–124
  - Missing requirements
    - completeness tests for, 264–265
    - custodial, 429
    - defined, 442
    - identifying, 427
    - specification reviews for, 324–325
  - Misuse cases, scenarios for, 147–148
  - Mobile telephones, 247
  - Models, 3–4
    - apprenticeships with, 102
    - business use cases, 328
    - data dictionaries for, 238, 466
    - domain, 307, 440
    - for functional requirements, 168–169
    - requirements knowledge, 225–226
    - stakeholder involvement in, 105
    - in trawling, 98
    - vs. writing, 27
  - Modified data for new systems, 502
- N**
- Names
    - for patterns, 313
    - in retrospectives, 362
  - Naming conventions
    - in blastoff, 37, 61–62
    - in reusing requirements, 305
    - in specification template, 237–238, 465–466

- Napoleonic wars, 335
- Negative scenarios, 147–148
- Negative stakeholders, 53
- Negotiations in agile software development, 6
- Neurolinguistic programming (NLP), 106
- New problems in specification template, 254, 498–500
- New requirements, prototypes for, 414
- Nix, Lynne, 381
- NLP (neurolinguistic programming), 106
- Nominalization in linguistic meta-models, 106
- Non-events
  - in blastoff, 377
  - identifying, 328
- Nonfunctional requirements, 10, 171–172, 174–176
  - agility guide for, 172
  - cultural and political, 190–192, 216, 494–495
  - defined, 442
  - finding, 195–199
  - fit criteria for, 208–217, 402
  - identifying, 401
  - indirect contributions of, 269
  - legal, 192–195, 216–217, 495–497
  - look and feel, 176–178, 211, 476–477
  - maintainability, 186–187, 215, 489–490
  - operational and environment, 184–186, 214–215, 487–489
  - performance, 182–184, 213–214, 482–486
  - product failure, 209–210
  - security, 187–190, 215–216, 491–494
  - vs. solutions, 199–201
  - specification reviews for, 324
  - in specification template, 251–252, 476–496
  - subjective tests, 210–211
  - support, 186–187, 490–491
  - in templates, 13, 197
  - usability and humanity, 178–182, 212–213, 477–481
  - use cases in, 174
- Normal case scenarios, 140–142
- Normal operators as stakeholders, 49
- Note taking, 123
- Notebooks, 363
- Nouns
  - in document archeology, 388–389
  - in linguistic meta-models, 106
- Numbers
  - for requirement identification, 244
  - in subjective tests, 211
- O**
- Objectives
  - blastoff, 371, 438
  - of prototypes, 443
- Objects
  - life history, 296–297
  - for reuse, 318
- Observations
  - in trawling, 101, 103–104
  - videos for, 124
- Off-the-shelf (OTS) products
  - as constraint, 61, 236, 462–463
  - functional requirements for, 167
  - in specification template, 253, 497–498
- Onion diagrams, 46
- Open issues, 252–253, 496–497
- Open source applications, 61
- Operational environment for prototyping, 299
- Operational problems in specification template, 229
- Operational requirements, 184–186, 196, 214–215, 487–489
- Operational support, 51
- Operational work area, 46
- Opportunities
  - from change, 357
  - defined, 439
  - prototyping, 428
  - in purpose, 230
  - in specification template, 230
  - in trawling, 393
- Optimism, problems from, 63
- Organization maintainability requirements, 186
- Organizing thoughts, mind maps for, 122
- Originators
  - identifying, 279
  - in writing requirements, 245
- Osborn, Alex, 118, 387
- Outcomes
  - from business use case workshops, 114
  - in use cases, 218
- Output business use cases, 514–515
- Output flows in business events, 77–78
- Output in scope, 41
- Outside world in event-driven use cases, 72
- Outsourcing requirements, 167
- P**
- Partial specifications, 322
- Participants, 438

- Partitions
  - for business events, 75, 311–312
  - context, 377
  - in creativity workshops, 116
  - in event-driven use cases, 69
  - in specification template, 470–472
  - work, 240, 471
- Partner systems and applications
  - constraints from, 236, 462
  - fit criteria for, 214
  - in operational requirements, 185
- Passwords
  - in nonfunctional requirements, 200
  - as problem, 110
- Patterns, 307–308
  - from abstraction, 313–317
  - business event, 309–313
  - collections of, 308–309
  - across domains, 315–317
  - in linguistic meta-models, 106
  - for specific domains, 314–315
  - in trawling, 103–104
- Peer review, 281
- Pena, William, 242
- People, requirements from, 93
- Perceived solutions vs. system essence, 25
- Performance requirements, 182–184, 196
  - capacity, 485–486
  - fit criteria for, 213–214
  - longevity, 486
  - precision and accuracy, 484
  - reliability and availability, 484–485
  - robustness and fault-tolerance, 485
  - safety-critical, 483
  - scalability and extensibility, 486
  - speed and latency, 482
- Perl language for prototypes, 293
- Personal notebooks, 363
- Personalization, 182, 479
- Personas
  - in specification template, 233
  - for stakeholders, 49
  - in trawling, 119–121
- Pfleeger, Shari Lawrence, 187
- Phases, project, 347
- Phones
  - mobile, 247
  - usability of, 283
- Photographs in trawling, 124–125
- Photoshop usability, 180
- Physical arrangements in blastoff, 371–372
- Physical entities in domains of interest, 43
- Physical environment, expected, 487
- Pictures
  - for low-fidelity prototypes, 290
  - in storyboards, 295
- Piggybacking on brainstorming ideas, 118
- Planning
  - prototypes, 408
  - for specification reviews, 323
- Planning tasks in specification template, 500–501
- Plots in scenarios, 136
- Points for clarification, 443
- Policy as system essence, 25
- Policy domains, 43
- Politeness requirements, 480–481
- Political beneficiaries as stakeholders, 52
- Political correctness, 192
- Political requirements, 190–192, 197, 216, 494–495
- Portable devices requirements, 185
- Possibilities in specification template, 230
- Potential of products, prototypes for, 292
- Potential requirements
  - defined, 443
  - formalized, 259
  - identifying, 399
  - writing requirements from, 225
- Potential stakeholders, 443
- Potentially reusable requirements, 305
- Preamble in specification template, 452
- Precision requirements, 484
- Preconceptions in trawling, 109
- Preconditions
  - for business use cases, 139
  - in scenario templates, 148
- Preliminary cost estimates, 23
- Printing press, 117
- Priorities of users, 458–459
- Prioritizing requirements
  - factors in, 333–334
  - grading in, 335
  - specification reviews for, 333–337
  - spreadsheets for, 335–337
  - timing of, 334
  - in writing, 247
- Privacy requirements, 492–493
- Private individual reviews for retrospectives, 417
- Probability in risk analysis, 340
- Problem identification in trawling, 109–110
- Process, 17–19
  - adapting, 31–33, 345–347
  - in agile software development, 5
  - agility guide for, 19–20
  - case study, 21–23

## 552 ● Index

- Process (*cont.*)
  - in context, 20–21
  - incremental and iterative, 30–31
  - prototyping in, 25–26
  - Quality Gateway, 28–29
  - retrospectives, 31
  - reusing requirements, 29
  - reviewing specifications, 29–30
  - scenarios in, 25
  - trawling, 24–25
  - Volere. *See* Volere Requirements Process
    - Model
    - writing requirements, 26–28
- Product-centric approach for business events, 75
- Product development as stakeholder, 47
- Product scope, 472–473
  - boundaries, 241, 472
  - defined, 443
  - in risk analysis, 341
- Product use cases, 86–88
  - actors in, 89–90
  - associations with, 349
  - for functional requirements, 158–160
  - low-fidelity prototypes for, 289
  - scenarios for, 150–152
  - in scope, 241, 472–473
  - traceability of, 267
- Product users in specification template, 457–460
- Productivity, usability for, 179–180
- Productization requirements, 488
- Products
  - changes to, 357
  - character of, 173
  - copyable, 498
  - failures in, fit criteria for, 209–210
  - trawling for, 129–131
- Programming languages for prototypes, 293
- Progressive prioritization, 334
- Project blastoff. *See* Blastoff
- Project constraints
  - in blastoff, 61, 378
  - defined, 443
  - in risk analysis, 341
- Project drivers
  - in risk analysis, 340–341
  - in specification template
    - clients, customers, and stakeholders, 232–233, 456–457
    - purpose, 229–232, 454–456
    - users, 233–234, 457–460
  - in templates, 13
- Project history, 443
- Project intention, 444
- Project issues. *See* Issues
- Project participant comments, 444
- Project purpose
  - defined, 444
  - fit criteria for, 219
- Pronouns
  - avoiding, 339
  - in functional requirements, 164
- Protagonists in negative scenarios, 147
- Prototyping, 283–285
  - agility guide for, 285–286
  - blastoff for, 37
  - building effort in, 444
  - defined, 444
  - diagrams, 407, 409, 412
  - evaluating, 414
  - high-fidelity, 292–294, 410–411
  - for look and feel, 178
  - loops for, 297–301
  - low-fidelity, 288–292, 410
  - metrics, 444
  - for new and changed requirements, 414
  - for nonfunctional requirements, 197–198
  - object life history, 296–297
  - opportunities, 428, 444
  - plan context of, 445
  - planning, 408
  - in process, 25–26
  - for reality, 286–288
  - storyboards, 294–295
  - in subjective tests, 210
  - testing, 413–414
- Public Company Accounting Reform and Investor Protection Act, 194
- Public opinion as stakeholder, 53
- Public seminars for specification template, 453
- Publishing, 350–351
  - contractual documents, 351
  - management summaries, 351–352
  - marketing summaries, 352
  - organizing, 353
  - requirements specification, 347
  - user reviews, 352
- Purpose
  - in blastoff, 35, 374
  - of prototypes, 298
  - in reusing requirements, 304
  - in risk analysis, 340
  - in specification template, 229–232, 454–456

Purpose, advantage, and measurement (PAM) approach, 60

## Q

Quality Function Deployment (QFD), 275, 338

Quality Gateways, 28–29, 259–260

agility guide for, 260–261

for completeness, 263–265

for consistent terminology, 238, 267–268

for customer value, 274–275

diagrams, 404

completeness reviews, 406

fit criteria reviews, 405

gold-plate identification, 406

relevance reviews, 406

viability reviews, 406

effects of, 260–262

for fit criterion, 28, 270–271

for gold plating, 275–276

implementing, 279–281

for relevancy, 268–270

for requirements creep, 276–279

for requirements vs. solutions, 273–274

in specification reviews, 321–322

for traceability, 265–267

for viability, 272–273

working with, 262–263

Quantifiable benefits as goals, 231, 455–456

Quantified findings, 445

Quantifiers in linguistic meta-models, 106

Quantifying risks, 431–432

Quantity of brainstorming ideas, 118, 386

Questions, 446

for interviews, 105–106, 387

in trawling, 396–397

## R

Rabbit projects

in agile software development, 7

blastoff for, 38

event-driven use cases for, 67

fit criteria for, 204

functional requirements for, 156

nonfunctional requirements for, 172

process, 19

prototyping for, 285

Quality Gateway for, 261

scenarios for, 135

specification reviews for, 322

for trawling, 94

writing requirements for, 224

Ranges

fit criteria for, 213–214

uncertainty, in function point counting, 521

Ratings and rankings, customer, 246–247, 274–

276, 332–333, 427–428

Rationale

for fit criteria, 206–207

in writing requirements, 245

Raw materials in business events, 355

Readability criteria, 212–213

Ready-made products, 497

REALbasic for prototypes, 293

Reality, prototyping for, 286–288

Reasonable goals, 57

Reasoning for requirements, 339

Record elements, 517

Red zones, 163

Reduced cost as goal, 231

Reengineering in trawling, 99

Reference step in CRUD checks, 330–331

Rejected requirements, 445

Related patterns, 313

Relationships in mind maps, 122–123

Releases

in prioritizing requirements, 335

requirements for, 489

Relevancy

Quality Gateway for, 268–270

reports for, 423

in requirements knowledge model, 226

reviewing, 406, 445

Relevant facts and assumptions

in blastoff, 37

defined, 445

in reusing requirements, 305

in risk analysis, 341

in specification template, 238, 467

Reliability requirements, 183, 484–485

Religious observances, 192

Repairing errors, cost of, 262

Reports

for blastoff, 380

defined, 438

for retrospectives, 362–363, 420–421, 443

Requirement interaction summaries, 446

Requirement measurement, 446

Requirement questions, 446

Requirements

agile software development, 4–8

defined, 445–446

evolution of, 11

issues. *See* Issues

overview, 1–3

purpose of, 8–9

## 554 ● Index

- Requirements (*cont.*)
    - shell, 14–15
    - vs. solutions, 273–274
    - and systems modeling, 3–4
    - templates for, 11–14
    - types of, 9, 176, 244, 446, 453
    - Volere process. *See* Volere Requirements Process Model
  - Requirements bait, prototypes for, 286
  - Requirements creep
    - Quality Gateway for, 276–279
    - relevancy for, 268
  - Requirements filters, 446
  - Requirements knowledge model, 225–226
  - Requirements leakage, 29, 278
  - Resources
    - for function point counting, 521–522
    - requirements for, 183
  - Results analysis for prototyping, 300
  - Retrospectives, 31, 360
    - comments, 443
    - diagrams, 415–416, 419, 422
    - facilitators for, 360–362, 417–418
    - factors in, 360
    - filtration criteria for, 423–424
    - group meetings for, 417
    - private individual reviews, 417
    - reports for, 362–363, 420–421, 443
    - review meetings for, 420
    - running, 360–362
  - Reusable components, 497–498
  - Reusable requirements, 447
  - Reuse libraries, 447
  - Reusing requirements, 29, 303
    - description, 303–306
    - domain analysis in, 317–318
    - patterns in. *See* Patterns
    - product use cases, 88
    - sources of, 306–307
    - trends in, 317–318
  - Reverse-engineering, 126
  - Reviewed specifications, 447
  - Reviewing
    - blastoff results, 380–381
    - completeness, 406
    - fit criteria, 405
    - relevance, 406
    - requirements specifications, 29–30, 321–322
      - agility guide for, 322–323
      - for ambiguity, 339–340
      - assembling specifications, 437
      - for business use cases, 325–332
      - for conflicts, 337–339
      - for customer value, 332–333, 427–428
      - design form, 437
      - diagrams, 425–426, 430, 433, 436
      - effort, 434–435
      - estimation input, 434
      - inspections for, 323–324
      - interaction, 428
      - for measurements, 342
      - missing, 324–325, 427
      - missing custodial, 429
      - for prioritizing requirements, 333–337
      - prototyping opportunity, 428
      - for risks, 340–342, 431–432
    - retrospectives, 420
    - viability, 406
  - Rewards, avoiding, 360
  - Risks and risk analysis, 64
    - in blastoff, 37, 63–64, 375–376
    - checklists for, 340, 431, 448
    - constraints in, 341
    - of damage, 183
    - defined, 447
    - drivers in, 340–341
    - functional requirements in, 341
    - reviewing, 30, 431–432
    - specification reviews for, 340–342
    - in specification template, 254–255, 502–503
  - Road engineering as domain of interest, 43–44
  - Roads as domains of interest, 42
  - Robotics, laws of, 183
  - Robustness requirements, 183, 485
  - Rogers, Susan, 117
  - Rules
    - in business use case workshops, 115–116
    - maintainability requirements for, 186
- ## S
- Sabotage, 273
  - Safety-critical requirements, 483
  - Safety inspectors as stakeholders, 53
  - Safety requirements, 183
  - Sarbanes-Oxley Act (SOX), 194
  - Satellite broadcasting domain, 314–315
  - Scalability requirements, 183, 486
  - Scale of measurement for fit criteria, 206, 271
  - Scandals, financial, 194
  - Scenarios, 135
    - agility guide for, 135–136
    - airline check-in agent, 137–144
    - for alternative cases, 144–145



- in business use case workshops, 113–115
- diagramming, 142–144
- for exception cases, 145–146
- negative, 147–148
- normal case, 140–142
- in process, 25
- for product use case, 150–152
- templates for, 137, 148–149
- in trawling, 391
- what if?, 146–147
- Schedules
  - as constraints, 236, 464
  - as domains of interest, 42
  - meeting, 442
- Scope
  - in blastoff, 35, 40–45
  - boundaries in, 241, 472
  - in business use cases, 326
  - in creativity workshops, 116
  - defining, 32
  - domains of interest in, 42–44
  - in event-driven use cases, 69–70, 87
  - first-cut work context in, 44–45
  - in function point counting, 509–510
  - in functional requirements, 166, 240–241, 468–473
  - lead requirements analysts for, 22
  - product, 241–243, 472–473
  - in reusing requirements, 305
  - in risk analysis, 341
  - in specification template, 240–241, 468–470
  - in trawling, 100
- Scripts, storyboard, 294–295
- Second International Workshop on Software Reusability, 318–319
- Security experts as stakeholders, 45
- Security requirements, 187, 197
  - access, 491
  - “and no more”, 189–190
  - auditing, 189, 493
  - availability, 188
  - confidentiality, 187–188
  - fit criteria for, 215–216
  - immunity, 493–494
  - integrity, 188–189, 492
  - privacy, 492–493
- Self check-out supermarkets, 112
- Self-documentation
  - in legal requirements, 193
  - names for, 237
- Seminars for specification template, 453
- Seriousness factor in prototyping, 300
- Service as goal, 231
- Service technicians in specification template, 459–460
- Shells, 14–15
  - for specifications, 27, 454
  - in writing requirements, 241–243
- “Should”, avoiding, 339
- Showstoppers, 255
- Simulations
  - prototypes as, 287, 300
  - for subjective tests, 210
- Skeletons, 446–447
- Sketches
  - for low-fidelity prototypes, 290
  - for process model, 347
- Smith, Delia, 307
- Snow cards
  - for specifications, 27
  - working with, 242–243
- Sobel, Dava, 223
- Sociology analysis templates, 523–529
- Soft systems in trawling, 129
- Software
  - look and feel of, 177
  - off-the-shelf products. *See* Off-the-shelf (OTS) products
  - for prototypes, 292
  - safety requirements for, 183
- Software development
  - agile, 4–8
  - errors in, 262
- Solutions and solution constraints
  - in blastoff, 60–61
  - vs. essence, 107
  - fit criteria for, 203, 219–220
  - in patterns, 313
  - vs. requirements, 165, 199–201
  - in specification template, 235, 257, 460–461, 506
- Sorting prioritization categories, 335
- Sound, measuring, 206
- SOX (Sarbanes-Oxley Act), 194
- Special-interest groups, 54
- Special words in functional requirements, 164
- Specifications
  - defined, 447
  - for functional requirements, 157
  - in rabbit projects, 19
  - retrospective reports for, 420–421
  - reviewing. *See* Reviewing
  - templates for. *See* Volere requirements specification template
  - tools for, 27
- Speed requirements, 182, 482
- Spelling in cultural requirements, 192

## 556 ● Index

- Spolsky, Joel, 9
  - Sponsors
    - executive, 47
    - in specification template, 233
    - as stakeholders, 47
  - Spreadsheets, 335–337
  - Stahl, Leslie Hulet, 124
  - Stakeholder analysis templates, 523–529
  - Stakeholder map templates, 523–524
  - Stakeholders
    - acceptability of requirements to, 272
    - in agile software development, 5
    - in blastoff, 35–36, 45–55, 376–377
    - clients as, 47–48
    - completeness tests for, 265
    - customers as, 48–49
    - finding, 54–55
    - in functional requirements, 161
    - identifying, 376–377, 523
    - interviewing, 104–106
    - in process, 21
    - prototypes for, 284, 287, 290–291, 299
    - in reusing requirements, 304, 306
    - in risk analysis, 341
    - for scenarios, 138–140, 149
    - in specification template, 233, 457
    - traceability of, 267
    - in trawling, 96–97
    - users as, 49–51
    - wants and needs of, 448
  - Stakeholders-goal-scope (SGS) trinity, 40
  - Standard setters as stakeholders, 53
  - Standards
    - branding, 176, 211
    - legal requirements, 194
    - in specification template, 496
  - State transition diagrams, 296
  - States in object life history, 296–297
  - Stored data in function point counting, 510–511, 517–520
  - Stories. *See* Scenarios
  - Storyboards, 294–295
  - Strategic plans, 448
  - Structure observations in trawling, 103–104
  - Style requirements, 476
  - Subject matter experts as stakeholders, 52
  - Subjective interpretation, 267
  - Subjective tests, fit criteria for, 210–211
  - Subjects in domains of interest, 42
  - Subtypes in function point counting, 517–518
  - Summaries
    - in creativity workshops, 116
    - management, 351–352
    - marketing, 352
  - Supermarkets, self check-out, 112
  - Support requirements, 186–187, 196, 490
  - Supporting materials in writing, 248
  - System constraints
    - defined, 448
    - formalizing, 400
  - System experience, 448
  - System terminology, 448
  - Systems in event-driven use cases, 69–70
  - Systems modeling
    - apprenticeships with, 102
    - in requirements gathering, 3–4
- ## T
- Tables of contents in templates, 12, 227–229, 451–452
  - Tasks in specification template, 254, 500–501
  - Team review in Quality Gateway, 281
  - Technical experts as stakeholders, 54
  - Technicians in specification template, 459–460
  - Technological fossils, 75
  - Technological requirements, 157, 164–165
  - Technological skills, 272
  - Technology
    - deciding on, 355–356
    - in trawling, 108–109, 131–132
    - for wikis, 126
  - Telephones
    - mobile, 247
    - usability of, 283
  - Templates, 11–14
    - defined, 447
    - for nonfunctional requirements, 197
    - for scenarios, 137, 148–149
    - sociology analysis, 523–529
    - for specifications. *See* Volere requirements
    - specification template
      - stakeholder analysis, 523–529
      - stakeholder map, 523–524
  - Terms and terminology
    - ambiguous, 339–340
    - blastoff for, 37, 377
    - for deliverables, 346
    - in functional requirements, 162–164
    - in linguistic meta-models, 106
    - Quality Gateway for, 238, 267–268
    - in specification template, 237–238, 465–466
    - in stakeholder interviews, 105
    - system, 448

- for traceability, 267
    - in Volere Requirements Process Model, 437–449
  - Test cases in functional requirements, 218
  - Testability
    - fit criteria for, 453
    - of goals, 232, 455–456
  - Testers in event-driven use cases, 90
  - Testing
    - completeness, 263–265
    - in extreme programming, 203
    - fit criteria for, 204, 270–271
    - prototyping, 413–414
    - Quality Gateways for, 287
    - requirements, 453–454
    - traceability, 265–267
    - in user environment, 299–300
  - Thermal map suppliers
    - as cooperative adjacent systems, 85–86
    - in domains of interest, 43
  - Thomsett, Rob, 231
  - Thought organization, mind maps for, 122
  - Three strikes approach, 200
  - Throughput requirements, 183
  - Throwaway prototypes, 287
  - Time constraints in blastoff, 61
  - Time in product failure measurements, 210
  - Time-triggered business events, 74
  - Time-triggered business use cases, 515–516
  - Tolerances
    - for fit criteria, 207, 271
    - in subjective tests, 210
  - Tools, 347–348
    - in agile software development, 5
    - free, 243
    - mapping to purpose, 348–350
  - Traceability, 353
    - for business events, 267, 353–356
    - testing, 265–267
  - Training in specification template, 256, 505
  - Transformational thinking, 117
  - Transition diagrams, 296
  - Transitions in object life history, 296–297
  - Translated data for new systems, 502
  - Translators, analysts as, 94
  - Travel, customer bookings for, 112
  - Trawling for requirements, 24–25, 93
    - adjacent systems in, 393
    - agility guide for, 93–94
    - apprenticeships in, 101–103, 385
    - brainstorming in, 117–119, 386–387
    - business event knowledge in, 395
    - business use case workshops in, 113–116
    - in business use cases, 96–98
    - clarification questions in, 396–397
    - creativity workshops in, 116–117, 391
    - current situation in, 98–101, 108, 385
    - diagrams, 97, 383–384, 392, 394
    - document archeology in, 126–128, 388–389
    - essence of work in, 107–109, 386
    - event models in, 390–391
    - family therapy in, 128
    - for innovation, 110–113
    - interviews in, 104–106, 387–388
    - mind maps in, 122–124
    - observations in, 101, 103–104
    - personas in, 119–121
    - photographs in, 124–125
    - problem identification in, 109–110
    - product determination in, 129–131
    - responsibility for, 94–96
    - scenario models in, 391
    - soft systems and viewpoints in, 129
    - techniques for, 132–134, 395–396, 448
    - technology in, 131–132
    - use case boundaries in, 393
    - use case workshops in, 389–390
    - video in, 124–125, 389
    - wallpaper in, 124
    - wikis, blogs, and discussion forums for, 125–126
  - Triage in prioritizing requirements, 335
  - Triggers
    - for business use cases, 139
    - in scenario templates, 148
  - Truck depots as domains of interest, 44
  - Trucking as domain of interest, 42
  - Turner, Richard, 7
  - Typefaces, measuring, 206
  - Types, requirement, 9, 176, 244, 446, 453
- ## U
- Uncertainty range in function point counting, 521
  - Understandability requirements, 480–481
  - Understanding requirements, importance of, 348
  - Unduplicated attributes, 516
  - Unified Modeling Language (UML)
    - activity diagrams
      - for functional requirements, 168
      - for scenarios, 143–144
    - objects in, 318
    - use case diagrams, 511
  - Universal cures, 31
  - Universal quantifiers, 106
  - Unmanaged risk, 254–255

## 558 ● Index

- Unnecessary features and requirements, 275–276, 406
  - Unqualified adjectives and adverbs, 339
  - Unspecified patterns, 106
  - Update step in CRUD checks, 330–331
  - Upper Class service, 131
  - Usability requirements, 50, 178–182
    - accessibility, 481
    - ease of use, 477–479
    - fit criteria for, 212–213
    - learning, 479–480
    - personalization and internationalization, 479
    - in prototyping, 300
    - for telephones, 283
    - understandability and politeness, 480–481
  - Usage feedback, 448
  - Use cases
    - business. *See* Business use cases
    - defined, 448
    - event-driven. *See* Event-driven use cases
    - fit criteria in, 218–219
    - in nonfunctional requirements, 174, 195–197
    - product. *See* Product use cases
    - in scope, 241, 472–473
    - in trawling, 389–390, 393
    - UML use case diagrams, 511
    - in writing requirements, 244
  - User business in specification template, 229–230, 454–455
  - User documentation in specification template, 256, 504–505
  - User environment, testing in, 299–300
  - User-friendliness as requirement, 208
  - User groups, 449
  - User management as stakeholder, 47
  - User problems for new products, 499
  - User reviews, publishing, 352
  - Users
    - interviewing, 387–388
    - personas for, 119–121
    - priorities of, 458–459
    - relevancy of, 270
    - in reusing requirements, 304
    - in risk analysis, 341
    - in specification template, 233–234, 457–460
    - as stakeholders, 49–51
- V**
- Value as goal, 231
  - Verbs, 106
  - Version numbers in prioritizing requirements, 335
  - Viability
    - within constraints, 272–273
    - reviewing, 406
  - Video in trawling, 124–125, 389
  - Viewpoints in trawling, 129
  - Virgin Atlantic, 131
  - Viruses, 190
  - Visual Basic for prototypes, 293
  - Volere Requirements Process Model, 1, 15–16, 365–366
    - blastoff
      - business terminology in, 377
      - communication in, 372
      - constraints in, 378
      - context partitioning in, 377
      - diagrams for, 369–370, 373, 379
      - domains of interest in, 378
      - first-cut risk analysis in, 375–376
      - initial estimates in, 382
      - non-events in, 377
      - objectives, 371
      - physical arrangements in, 371–372
      - purpose determination in, 374
      - reports for, 380
      - results review, 380–381
      - stakeholders in, 376–377
      - work context in, 374
    - prototyping
      - diagrams, 407, 409, 412
      - evaluating, 414
      - follow-up, 381
      - high-fidelity, 410–411
      - low-fidelity, 410
      - for new and changed requirements, 414
      - planning, 408
      - testing, 413–414
  - Quality Gateway, 404–406
  - retrospectives
    - diagrams, 415–416, 419, 422
    - facilitators for, 417–418
    - filtration criteria for, 423–424
    - group meetings for, 417
    - private individual reviews, 417
    - reports for, 420–421
    - review meetings for, 420
  - reviewing requirements
    - assembling specifications, 437
    - for customer value, 427–428
    - design form, 437
    - diagrams, 425–426, 430, 433, 436

- effort, 434–435
  - estimation input, 434
  - interaction, 428
  - missing, 427
  - missing custodial, 429
  - prototyping opportunity, 428
  - for risks, 431–432
  - summary, 368
  - terms used in, 437–449
  - trawling for requirements
    - adjacent systems in, 393
    - apprenticeships in, 385
    - brainstorming in, 386–387
    - business event knowledge in, 395
    - clarification questions in, 396–397
    - creativity workshops in, 391
    - current situation in, 385
    - diagrams, 383–384, 392, 394
    - document archeology in, 388–389
    - essence of work in, 386
    - event models in, 390–391
    - interviews in, 387–388
    - scenario models in, 391
    - techniques for, 395–396
    - use case boundaries in, 393
    - use case workshops in, 389–390
    - video in, 389
  - working with, 366–367
  - writing requirements
    - composite requirements identification, 400
    - customer value, 402–403
    - dependencies and conflicts
      - identification, 403
    - diagrams, 398
    - fit criteria, 401–402
    - formalizing requirements, 400
    - functional requirements identification, 399–400
    - nonfunctional requirements
      - identification, 401
    - potential requirements identification, 399
    - system constraint formalization, 400
  - Volere requirements specification template, 227
    - constraints in, 234
      - assumptions in, 239–240, 467–468
      - from environment, 236, 463–464
      - facts in, 238, 467
      - mandated, 234–237, 460–465
      - naming conventions and definitions, 237–238, 465–466
      - off-the-shelf products, 236, 462–463
      - data requirements in, 475
      - functional requirements in, 240–241, 249–251, 468–474
      - nonfunctional requirements in, 251–252
        - cultural and political, 494–495
        - legal, 495–497
        - look and feel, 476–477
        - maintainability, 489–490
        - operational and environment, 487–489
        - performance, 482–486
        - security, 491–494
        - support, 490–491
        - usability and humanity, 477–481
      - preamble, 452
      - project drivers in, 229–234
        - clients, customers, and stakeholders in, 232–233, 456–457
        - purpose, 229–232, 454–456
        - users, 233–234, 457–460
      - project issues
        - costs, 504–505
        - new problems, 254, 498–500
        - off-the-shelf solutions, 253, 497–498
        - open, 252–253, 496–497
        - risks, 254–255, 502–503
        - solution ideas, 506
        - tasks, 254, 500–501
        - user documentation and training, 256, 504–505
      - requirements types, 453
      - shell in, 454
      - for specification reviews, 324
      - tables of contents for, 227–229, 451–452
      - testing requirements, 453–454
- ## W
- Waist-High Shelf pattern, 308–309
  - Waiting room, 256, 505–506
  - Wallpaper in trawling, 124
  - Warning messages, 193
  - Weather as domain of interest, 42
  - Weather forecasting service
    - as autonomous adjacent systems, 84
    - in domains of interest, 43
  - Weather stations in domains of interest, 43
  - Web-based products
    - look and feel of, 177
    - for prototypes, 293
  - Weights for prioritizing requirements, 337
  - Weinberg, Jerry, 8
  - What if? scenarios, 146–147
  - Whiteboards, 19

## 560 ● Index

- Wider environment in stakeholder maps, 46
- Wikis, 243
  - for nonfunctional requirements, 195
  - for trawling, 125–126
- Wild ideas in brainstorming, 118
- Wittenberg, Ethel, 216
- Words. *See* Terms and terminology
- Work
  - context
    - in blastoff, 374
    - defined, 449
    - in scope, 44–45
    - in trawling, 97
  - in event-driven use cases, 70–72
  - partitioning. *See* Partitions
  - reengineering, 99
  - in scope, 40
- Work areas, measuring, 508
- Work description and demonstration, 449
- Work knowledge, 449
- Working models in trawling, 98
- Workplace environment, constraints from, 236, 463–464
- Workshops, use case, 113–114, 389–390
  - business rules in, 115–116
  - outcomes from, 114
  - scenarios in, 113–115
  - videos for, 125
- World changes, 358
- Writely tool, 243
- Writing requirements, 26–28, 223
  - agility guide for, 223–225
  - atomic requirements in, 243–248
  - composite requirements in, 400
  - customer value in, 246–247, 402–403
  - dependencies and conflict identification in, 403
  - diagrams, 398
  - fit criteria, 245–246, 401–402
  - formalizing requirements, 400
  - functional requirements, 399–400
  - knowledge vs. specification in, 225–227
  - nonfunctional requirements, 401
  - potential requirements in, 225, 399
  - shells in, 241–243
  - system constraint formalization, 400
  - templates for. *See* Volere requirements specification template

**Y**

Yourdon, Ed, 65