



Index

Symbols

<~> 97

A

abstraction level 8, 11, 36, 37, 41, 47, 65,
78, 150

Action Semantics

See AS

Agile Software Development 2, 40

analysis 2, 147

AS 33, 35, 138

assembler languages 144

association 29, 101

 multiplicity 29

attribute 101

B

Backus Naur Form

See BNF

bidirectionality 77, 97

BNF 83

business

 metadata 139

 method 120

 model 19

 rules 36

C

CASE tool 37, 39

CIM 19

coarse grained component model 55, 113

code 6

 bridge 10

 generation 37

 model 63

coding 2

Common Warehouse Metamodel

See CWM

composite aggregation 55, 116, 124

Computational Independent Model

See CIM

conceptualization 2

constraint 140

container managed persistency 65

controlling transformations 74

CORBA

 IDL 132

 Profile 34, 140

CWM 34, 87, 131, 138, 139

D

data mining 139

data object manager 67

deployment 2

 descriptor 65

design 2

 decision 30

documentation 5, 11

dynamic model 20

dynamic view 20

E

EAI 34

 Profile 34

EDOC 34

 Profile 34

EJB 4, 45, 114

 container 65

- data class 55, 116, 118
- data object 56
- data schema 55, 118
- key class 56, 114, 120, 127
- Profile 65, 140
- Enterprise Application Integration
 - See EAI*
- Enterprise Distributed Object Computing
 - See EDOC*
- Enterprise Java Beans
 - See EJB*
- Entity-Relationship model 24
- Executable UML 35, 150
- eXtreme Programming
 - See XP*

F

- fine grained component model 55
- four-layered architecture 85
- future developments 143

G

- get operation 27

I

- IDE 39, 149
- incremental consistency 76
- incremental development process 2
- information hiding 27
- instance-of relationship 88
- Interactive Development Environment
 - See IDE*
- interoperability 4, 10, 145
- iterative development process 2

J

- J2EE 70
- Java 28
 - collection classes 29
 - Profile 140
- Java Database Connectivity
 - See JDBC*
- Java Metadata Interface
 - See JMI*
- JavaServer Pages
 - See JSP*
- JDBC 65
- JMI 133
- JSP 45, 70

L

- language 25
 - definition of 154, 156
 - well-defined 16, 154, 156
- layers of modeling 85
- local home interface 65
- local interface 65

M

- M0 layer 85
- M1 layer 85, 134
- M2 layer 86, 94, 134
- M3 layer 87, 131
- maintenance 5, 11, 145
- MDA
 - development life cycle 6, 11, 143
 - development process 40, 146
 - tools 36, 70, 93, 149
- MDA framework 5, 15, 25, 33, 91, 106
- Meta Object Facility
 - See MOF*
- metaclass 93, 94, 99
- metalanguage 84
- metametamodel 88
- metamodel 83, 87, 94
- metamodeling 83
- model 6, 15, 154
 - definition 16
 - interchange mechanisms 40
 - purpose 25
 - relationships between models 17
 - repository 39
- modeling languages 150
- modeling of behavior 35
- MOF 34, 88, 131, 135, 138
 - repository 132
- multidimensional databases 139

O

- Object Constraint Language
 - See OCL*
- Object Management Group
 - See OMG*
- Object-oriented programming
 - languages 144
- OCL 33, 36, 95, 137, 140
- OMG 5, 33, 85
- OptimalJ 43

P

- parameterization of transformation 37
- parameters to transformation 78
- persistence management 65
- PIM 6, 22, 25, 35
 - analyst 147
- PIM-to-PSM transformation 6, 51
- Platform Independent Model
 - See PIM*
- Platform Specific Model
 - See PSM*
- portability 4, 9, 145
- preservation of characteristics 24
- primitive data types 98
- productivity 9, 145
- productivity gain 9
- profile 25, 34, 65, 140
 - used as PSM 140
- prototype 8
- PSM 6, 22, 25
 - bridge 10
 - creator 147
- PSM-to-code transformation 6, 63

Q

- Query, Views, and Transformations Standard
 - See QVT*
- QVT 34, 134

R

- Rational Unified Process
 - See RUP*
- raw machine code 143
- relational databases 139
- relationships between models 17
- remote home interface 65
- remote interface 65
- requirements 2
- Rosa's Breakfast Service 43
 - business description 43
 - communication bridges 61
 - EJB Class PSM 64, 68
 - EJB model to Java transformation 47, 64
 - EJB PSM 56, 58
 - overview of models 64
 - PIM 47
 - PIM to EJB model transformation 46, 54, 113

- PIM to Relational model
 - transformation 46, 51, 75, 107
- PIM to Web model transformation 46, 57, 122
- Relational model to SQL
 - transformation 47, 63
- Relational PSM 53
- system description 44
- Web model to JSP and HTML
 - transformation 47, 70
- Web PSM 60
- RUP 41

S

- scripting language 37
- second normal form 24
- set operation 27
- software development process 2, 40
- software model 19
- source language 96
- source model 24, 93
 - tag 79
- SQL 63
 - metamodel 107
- state machine 35
- stereotype 140
- structural model 20
- structural view 20
- system 16

T

- tagged value 140
- target
 - language 96
 - model 24, 93
 - platform 22
- testing 2
- three-tier architecture 45
- traceability 75
- transformation 8, 23, 73
 - bidirectionality 73, 77
 - conditions on 74
 - example of rule 28, 29
 - execution 23
 - incremental consistency 73, 76
 - parameter 96
 - parameterization 37
 - parameters 75, 78
 - persistent 80
 - public to private attributes 27

rule 23, 73, 93, 95, 96
rule as object 81
source language 23, 90, 95
target language 23, 90, 95
tool 23, 26, 36, 73, 74, 75, 79, 145, 149
traceability 73, 76
tunability 73
tuning 37, 74
transformation definition 23, 25, 34, 73,
93, 95, 98, 107
 example 99, 107
 from other transformation definitions 98
transformation definition language 95,
106, 107
tuning of transformation 37

U
UML 16, 33, 35, 87, 131, 134, 135
UML metamodel 107, 135, 140

UML Profile 34, 140
UML profile 25
Unified Modeling Language
 See UML

W

warehouse operation 139
warehouse processes 139
waterfall process 2
Web components metamodel 122
well-defined language 16, 83
 definition 16

X

XMI 133
XML 65, 133, 139
XML Metadata Interchange
 See XMI
XP 2, 41