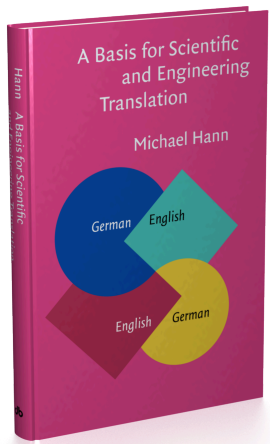
Table of contents

https://doi.org/10.1075/z.123.toc



Pages v–xii of
A Basis for Scientific and Engineering Translation: German-English-German
Michael Hann
2004. xxxviii, 250 pp. (incl. CD-rom)

© John Benjamins Publishing Company

This electronic file may not be altered in any way. For any reuse of this material written permission should be obtained from the publishers or through the Copyright Clearance Center (for USA: www.copyright.com).

For further information, please contact rights@benjamins.nl or consult our website at benjamins.com/rights

Table of contents

Acknowledgements xiii

Preface xv

Introduction xxi
1. Broad Outline xxii
2. Engineering Chapters xxiii
3. Terminology Sections xxiv
4. Lexicography Units xxv
5. Dictionary Units xxvi
6. Lexicology Units xxvi
7. Long-Term Objectives xxvii
8. Technical German Text Samples (TGTS) xxviii

User Guide xxix
1. Textual & Glossary Material xxix
2. Browsing xxx
3. Visual Material: Illustrations xxxi
4. Access, Navigation xxxi
5. Systematic Study xxxii

Appendix: Symbols and Abbreviations xxxiii

Unit 1
Access Facilities 1
1.1 Technical Polyseme Dictionary 1
1.2 Technical Thesaurus 2
1.3 Technical Collocation Dictionary 3
1.4 Noun Classes 3
1.5 Microglossaries, Thesauri 4
1.6 Classification Systems 6

1.7 Main Index, German Index 7
1.8 Alphabetic Dictionaries 8

Unit 2
Basic Mechanics 9
2.1 Physics, Mechanics 9
2.2 Multiple Meaning, False Friends 10
2.3 Parameter Definition 11
2.4 Parameter Differentiation 11
2.5 Concept Determination 12
2.6 Units, Symbols, Orthography 13
2.7 Grammatical Distinction 14

Unit 3
Basic Electricity 17
3.1 Subject History 18
3.2 Voltage, Potential, Emf, Bias, Tension 19
3.3 Entity, Property, Parameter 21
3.4 Noun Countability 22
3.5 Terminological Relationships 24

Unit 4
Translational Equivalence 27
4.1 One-To-One Equivalence 27
4.2 Dual Equivalence 28
4.3 Multiple Equivalence 29
4.4 Polyseme Groups 30
4.5 Hierarchic Dimensions 31
4.6 Hierarchic List, Thesaurus 33

Unit 5
Materials Science 37
5.1 Material Properties 38
5.2 Mechanical Properties 39
5.3 Chemical, Electrical, Thermal Properties 40
5.4 Lexical Gaps 40
5.5 Microthesaurus Construction 41

Unit 6
Nucleonics 45
6.1 Nucleonics, Nuclear Engineering 46
6.2 Radiation, Radioactivity 47
6.3 Radio Morphology 48
6.4 Radiant Energy, Harmful Radiation 49
6.5 Beam, Ray, Current, Stream 49
6.6 Decomposition, Disintegration, Dissociation 50
6.7 Storage, Disposal 51
6.8 Reprocessing Plant, Repository 52
6.9 Landfill, Disposal Site 53

Unit 7
Lexical Interpretation 55
7.1 Collocation Lists 55
7.2 Countable, Non-Countable Nouns 56
7.3 Dual Terms, Different Terms 58
7.4 Singular Nouns, Plural Nouns 59
7.5 Pair Nouns 60
7.6 Borderline Cases 60
7.7 Standard Grammatical Categories 61
7.8 Language Evolution 62

Unit 8
Automotive Engineering 63
8.1 Polyonymy 64
8.2 Associated Fields 65
8.3 Main Field 66
8.4 Misnomers 67
8.5 Misinterpretations 68
8.6 Hierarchic Organisation 68
8.7 Diachronic Change 69
8.8 Term Spotting 70

Unit 9
Mechanical Engineering 73
9.1 Streamlining 76
9.2 Drag, Lift, Thrust, Buoyancy 76

9.3 Fuselage, Hull, Helm, Rudder 77
9.4 Pitch, Roll, Yaw 78
9.5 Construction Terminology 78
9.6 Stress, Strain, Deformation 79
9.7 Fatigue, Creep, Dislocation 80
9.8 Gap, Hole, Foreign Atom, Impurity 80

Unit 10
Technical Polyseme Dictionary 83
10.1 Subject Fields 83
10.2 Variation, Gender 86
10.3 Polysemy 86
10.4 Hyponymy 87
10.5 Homonymy 87
10.6 Entry Blocks 88
10.7 Indentation 90
10.8 Secondary Indentation 91
10.9 Concept Specification, Target Language 93
10.10 Concept Specification, Source Language 94

Unit 11
Chemical Engineering 97
11.1 Chemical Terminology 99
11.2 Metal, Non-Metal, Inert Element 100
11.3 Lexical Gap, Multiple Meaning 101
11.4 Solid, Liquid, Gas, Vapour 102
11.5 Solute, Solvent, Solution 103
11.6 Bond, Radical 103
11.7 Oxidation, Reduction 104
11.8 Reagent, Catalyst, Inhibitor 104
11.9 Organic/Inorganic Chemistry 105
11.10 Recycling, Reprocessing 107

Unit 12
Electronics 109
12.1 Early Electronics 109
12.2 Semiconductors, ICs 111
12.3 Conduction, Bonding 112

12.4 Impurity, Contaminant, Pollutant **113**
12.5 Resistance, Capacitance **114**
12.6 Reactance, Impedance **114**
12.7 Transducer **115**
12.8 Bias, Operation, Mode, State **116**

Unit 13
Technical Grammar **119**
13.1 Shades of Meaning **119**
13.2 Entity, Property, Parameter **120**
13.3 Hyponymy, Countability **121**

Unit 14
Technical Thesaurus **123**
14.1 Concept Specification **124**
14.2 Homonymy **124**
14.3 Polysemy **125**
14.4 Hyponymy **126**
14.5 Hierarchic Relations **127**
14.6 Contrast **128**
14.7 Synonymy **129**
14.8 Other Terminological Associations **131**
14.9 Morphology **133**

Unit 15
Electrical Sciences **135**
15.1 Circuit Design **135**
15.2 Power Supply Unit **137**
15.3 Hierarchic Arrangement **138**
15.4 Light/Heavy Electrical Engineering **140**
15.5 Electrical/Electronic/Magnetic **141**
15.6 Electrics, Electronics **142**
15.7 Plugs, Fuses, Cut-Outs **142**
15.8 Power, Performance, Energy **143**

Unit 16
Mechanical Sciences **145**
16.1 Machine Tools **146**
16.2 Machines, Engines **146**
16.3 Drive Systems **148**
16.4 Newtonian Mechanics **148**
16.5 Solid-Body Mechanics **149**
16.6 Fluid Mechanics **150**
16.7 Quantum Mechanics **151**
16.8 Celestial Mechanics **152**
16.9 Subject Fields **153**

Unit 17
Technical Collocation Dictionary **155**
17.1 Access **155**
17.2 Specialised Nouns in Context **156**
17.3 Long Technical Expressions **157**
17.4 Technical Verbs, Specialised Predicates **157**
17.5 Pragmatics **158**
17.6 Syntax, Prepositions **159**
17.7 Specialised Adjectives/Adverbs **160**
17.8 Polysemous Adjectives/Adverbs **161**
17.9 General Nouns, Specific Interpretation **162**
17.10 Opposites, Contrasts **163**
17.11 Mathematics Expressions **163**

Unit 18
Computer Engineering **165**
18.1 Dictionary Compilation **165**
18.2 Logic Gates, Memory Modules **166**
18.3 Microminiaturisation **167**
18.4 Processor, Calculator **168**
18.5 Disk, Memory, Store **169**
18.6 Card, Board, Slot, Bus **170**
18.7 Works, Windows, Word **171**
18.8 Word Terms **172**
18.9 Polysemy, Polyonymy **173**

Unit 19
Error Analysis 175
19.1 Quality Assessment 175
19.2 Phrase-Level Assessment 176
19.3 Other Assessment Criteria 178

Unit 20
Concept Analysis 181
20.1 Hierarchic Organisation, Compactness 181
20.2 Conceptual Incompatibilities 182
20.3 Contextual Equivalence 184
20.4 Concept Differentiation 185
20.5 Concept Recognition 187
20.6 Concept Splitting 187

Unit 21
Mathematics 191
21.1 Fraction, Proportion, Quotient, Ratio 191
21.2 Term, Variable, Expression, Function 193
21.3 Average, Mean, Variation, Deviation 195
21.4 Geometric Construction 196
21.5 Real/Imaginary/Complex Number 197
21.6 Vector Models, Alternative Number Systems 198
21.7 Geometric Configurations 199
21.8 Other Areas of Mathematics 199

Unit 22
Specific Expression 201
22.1 Special Interpretation 201
22.2 Specialised Verbs 202
22.3 Symbol Conversion 203

Unit 23
Non-Technical Specialised Language 205
23.1 Language Variants 206
23.2 Distinctive Feature Specification 207
23.3 Business Translation 208

Unit 24
Translator Education **215**
24.1 Constructivist Approach **215**
24.2 Social Approach **216**
24.3 Electronic Approach **217**
24.4 Transmissionist Approach **217**
24.5 Disk Approach **218**

Bibliography **221**

Appendix 1: Approach Survey **223**
1. Convention **223**
2. Orthography **224**
3. Text Typology **224**
4. Terminology Processing **225**
5. Hierarchic Organisation **227**
6. Contiguity **229**
7. Speech Acts **230**
8. Error Analysis **230**
9. Sememe, Chereme **231**
10. Standardisation of Nomenclature **232**
11. Translation Approaches **233**
12. Future Technology **233**
13. Technical Language **234**
14. Reference **234**

Appendix 2: American-English Survey **237**
1. Transatlantic Glossaries **237**
2. Automotive Terms **239**
3. TPD Entries **241**

Appendix 3: Overall Survey **243**
1. Disk Format **243**
2. High-Tech, Low-Tech **244**
3. Popular Misconceptions **245**
4. Coverage, Detail **246**
5. Possible Omissions **247**
6. Materials, Presentation **247**

Index **249**