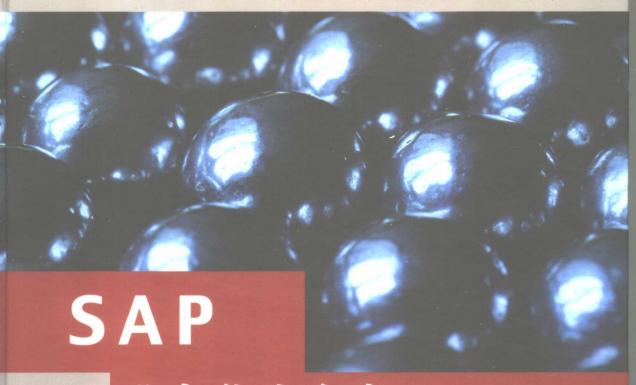
诺伯特·艾格(Norbert Egger) 著



业务信息仓库(专业版)(影印版) SAP BW Professional

東方出版社

SAP PRESS

SAP

业务信息仓库(专业版) SAP BW Professional(影印版)

诺伯特·艾格(Norbert Egger)

著

東方出版社



著作权合同登记号图字:01-2005-3507号

责任编辑: 吴秋淑封面设计: 左 涛

图书在版编目(CIP)数据

SAP 业务信息仓库(专业版)/艾格 著; 北京:东方出版社,2005.6 ISBN 7-5060-2225-7 I.S ···Ⅱ.诺 ···Ⅲ.①计算机②软件 VI. F08 中国版本图书馆CIP数据核字(2005)第051615号

SAP业务信息仓库(专业版)(影印版)

诺伯特・艾格(Norbert Egger)

著

出版发行 東方出版社

地 址 北京朝阳门内大街166号

邮政编码 100086

电 话 010-82665724 (编辑部)

010-82665462 (发行部)

010-82679079 (生产部)

网 址 http://www.erptraining.cn

经 销新华书店

印

刷 山东新华印刷厂临沂厂

开 本 787×1092毫米 1/16 版 次 2005年6月第1版

印 张 26.50 印 次 2005年6月第1次

字 数 489 000 定 价 68.00元

简明目录

第一部分 概念概览	17
第1章 成功的战略信息管理	19
1.1 管理决策制定的基础	19
1.2 信息管理需求的变化	20
1.3 概念基础	26
1.4 必须增强的方面	29
1.5从策略到行动的转换 ——	
平衡计分卡的管理方法	33
1.6 商务智能解决方案的成功实施和运行	37
第二部分 SAP BW 介绍	39
第2章 SAP业务信息数据仓库—— 概览	41
2.1 SAP BW体系架构	41
2.2 SAP BW 中储存数据	42
2.3 数据检索	49
2.4 报表和分析工具	54
2.5 附加功能和组件	65
2.6 SAP 业务目录	66
2.7 SAP 业务信息仓库的定位	68
第3章 循序渐进:使用SAP BW 做获利能力分	}析 71

71
72
91
107
123
129
134
141
143
143
建模的
148
151
155
160
162
167

5.2	利用SAP业务内容导航属性在SAPB	W 中存储
	物料属性——"产品层次"	169
5.3	利用SAP业务内容层次在SAPBW中	存储物料
	属性——"产品层次"	176
5.4	利用基于步骤的产品层次作为物料属性	性的解决方
	案	184
5.5	用不同方式映射产品层次的优点和领	央点 200
第四	部分 使用SAP业务浏览器	
	生成报表和Web 应用	203
第6重	t使用示例解决方案展示SAP B	W3.X
	的查询设计器的重要功能	205
6.1	导言	205
6.2	可重用对象	211
6.3	查询元素的属性	224
6.4	层次	232
6.5	条件	238
6.6	例外	243
6.7	变量	245
6.8	查询设计器的一些新功能	262
第7章	E SAPBW 3.x 中的SAPBW	
	Web应用设计器的备选功能	275
7.1	SAP业务浏览器组件架构中	
	的Web应用设计器	275
7.2	Web应用设计器的功能: 概览	277
7.3	开始使用Web 应用设计器	282

7.4 Web 应用设计器中的网页元素	286
7.5 Web应用设计器中的HTML编码	358
7.6 结论	366
第8章 SAPBW 中实现可扩展的	
Web 驾驶舱的示例解决方案	367
8.1 导言	367
8.2 创建查询和查询视图	367
8.3 创建具有图表的网页模板	372
8.4 创建具有角色菜单的网页模板	387
8.5 创建标题网页模版	388
8.6 创建页面框架	389
8.7 使用报表/报表接口与其他报表连接.	390
8.8 使用web驾驶舱航行	392
8.9 示例web 驾驶舱的功能	393
附录	395
A 第三章的信息立方体的结构	397
B 第四章的信息立方体的结构	403
C 参考文献	409
D 作者	411
歩 引	413

Contents

	Foreword	13
	Preface	15
Part	t 1 Conceptual Overview	17
1	Successful Strategic Information Management	19
1.1	Foundations of Management Decision-Making	19
1.2	Changed Demands on Information Management	20
1.3	Conceptual Foundations	26
1.4	Required Enhancements	29
	 1.4.1 Integration of Systems and Applications 1.4.2 Providing and Distributing Information 1.4.3 Internal and external data 	29 31 33
1.5	Translating Strategy into Action – The Balanced Scorecard Method of Management	33
1.6	Successful Implementation and Operation of Business Intelligence Solutions	37
Part	2 Introduction to SAP BW	39
2	SAP Business Information Warehouse— Overview	41
2.1	Architecture of SAP BW	41
2.2	Storing Data in SAP BW	42
	2.2.1 InfoObjects as the Foundation	42 44
2.3	Data Retrieval	49
	2.3.1 Components of the Data-Retrieval Process: DataSources	49 51

	2.3.3 2.3.4	Components of the Data Retrieval Process: Update Rules Components of the Data Retrieval Process: Requesting	52
	2.3.5	the Data Transfer and Monitoring	53
		Persistent Staging Area (PSA)	54
	2.3.6	The ETL Process	54
2.4	•	ing and Analysis Tools	54
	2.4.1	SAP BW Components and Third-Party Tools	54 56
	2.4.2 2.4.3	SAP Business Explorer—Query Designer	59
	2.4.3	The Runtime Environment of Web Applications	61
	2.4.5	SAP Business Explorer Analyzer	62
	2.4.6	Additional SAP BW Reporting Functions	63
	2.4.7	Reporting Agent	63
	2.4.8	Reporting Functions and Frontends for SAP BW	64
2.5		onal Functions and Components	65
2.6	SAP Bu	usiness Content	66
2.7	The Po	sition of SAP Business Information Warehouse	68
3	Step	o-by-Step: Profitability	
		ysis with SAP BW	71
		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
2 1	Introdu	uction	71
3.1		uction	71 72
3.1 3.2	Data A	Nodeling	72
	Data A 3.2.1	AodelingSample Creation of an InfoObject of Type "Characteristic"	72 72
	Data A 3.2.1 3.2.2	AodelingSample Creation of an InfoObject of Type "Characteristic" Sample Activation of SAP Business Content	72 72 74
	Data A 3.2.1	Aodeling	72 72
3.2	Data A 3.2.1 3.2.2 3.2.3 3.2.4	Aodeling Sample Creation of an InfoObject of Type "Characteristic" Sample Activation of SAP Business Content Sample Creation of an InfoObject: "Characteristic" Type Creating InfoCubes and a MultiProvider	72 72 74 79 83
	Data A 3.2.1 3.2.2 3.2.3 3.2.4 Setting	Aodeling Sample Creation of an InfoObject of Type "Characteristic" Sample Activation of SAP Business Content Sample Creation of an InfoObject: "Characteristic" Type Creating InfoCubes and a MultiProvider Suppose the Retrieval of Master Data	72 72 74 79 83 91
3.2	Data A 3.2.1 3.2.2 3.2.3 3.2.4	Aodeling	72 72 74 79 83
3.2	Data A 3.2.1 3.2.2 3.2.3 3.2.4 Setting 3.3.1	Sample Creation of an InfoObject of Type "Characteristic" Sample Activation of SAP Business Content Sample Creation of an InfoObject: "Characteristic" Type Creating InfoCubes and a MultiProvider	72 72 74 79 83 91
3.2	Data A 3.2.1 3.2.2 3.2.3 3.2.4 Setting 3.3.1 3.3.2 3.3.3	Sample Creation of an InfoObject of Type "Characteristic" Sample Activation of SAP Business Content Sample Creation of an InfoObject: "Characteristic" Type Creating InfoCubes and a MultiProvider 3 Up the Retrieval of Master Data General Comments Master Data Texts for the Product Group from Interface Files Master Data Texts for the Product Main Group from Interface Files	72 72 74 79 83 91 91
3.2	Data A 3.2.1 3.2.2 3.2.3 3.2.4 Setting 3.3.1 3.3.2	Sample Creation of an InfoObject of Type "Characteristic" Sample Activation of SAP Business Content Sample Creation of an InfoObject: "Characteristic" Type Creating InfoCubes and a MultiProvider	72 72 74 79 83 91 91
3.2	Data A 3.2.1 3.2.2 3.2.3 3.2.4 Setting 3.3.1 3.3.2 3.3.3	Sample Creation of an InfoObject of Type "Characteristic" Sample Activation of SAP Business Content Sample Creation of an InfoObject: "Characteristic" Type Creating InfoCubes and a MultiProvider	72 74 79 83 91 91 97
3.2	Data A 3.2.1 3.2.2 3.2.3 3.2.4 Setting 3.3.1 3.3.2 3.3.3 3.3.4 3.3.5	Sample Creation of an InfoObject of Type "Characteristic" Sample Activation of SAP Business Content Sample Creation of an InfoObject: "Characteristic" Type Creating InfoCubes and a MultiProvider Gup the Retrieval of Master Data General Comments Master Data Texts for the Product Group from Interface Files Master Data Texts for the Product Main Group from Interface Files Interface Files Master Data Attributes for the Product Group from Interface Files Master Data Texts and Attributes for Materials from SAP R/3 and Retrieving Data with SAP R/3 DataSources and Interface Files	72 72 74 79 83 91 91
3.2	Data A 3.2.1 3.2.2 3.2.3 3.2.4 Setting 3.3.1 3.3.2 3.3.3 3.3.4 3.3.5	Sample Creation of an InfoObject of Type "Characteristic" Sample Activation of SAP Business Content Sample Creation of an InfoObject: "Characteristic" Type Creating InfoCubes and a MultiProvider Gup the Retrieval of Master Data General Comments Master Data Texts for the Product Group from Interface Files Master Data Texts for the Product Main Group from Interface Files Master Data Attributes for the Product Group from Interface Files Master Data Attributes for the Product Group from Interface File Master Data Texts and Attributes for Materials from SAP R/3 and Retrieving Data with SAP R/3 DataSources and Interface Files	722 742 744 799 833 911 91 97 97 97 1011
3.3	Data A 3.2.1 3.2.2 3.2.3 3.2.4 Setting 3.3.1 3.3.2 3.3.3 3.3.4 3.3.5 Retriev 3.4.1	Sample Creation of an InfoObject of Type "Characteristic" Sample Activation of SAP Business Content Sample Creation of an InfoObject: "Characteristic" Type Creating InfoCubes and a MultiProvider 3 Up the Retrieval of Master Data General Comments Master Data Texts for the Product Group from Interface Files Master Data Texts for the Product Main Group from Interface Files Master Data Attributes for the Product Group from Interface Files Master Data Attributes for the Product Group from Interface Files SAP R/3 and Retrieving Data with SAP R/3 DataSources and Interface Files Ving Actual Data from SAP R/3 CO-PA	72 72 74 79 83 91 91 97 97 101 107 107
3.3	Data A 3.2.1 3.2.2 3.2.3 3.2.4 Setting 3.3.1 3.3.2 3.3.3 Setrice 3.4.1 3.4.2	Sample Creation of an InfoObject of Type "Characteristic" Sample Activation of SAP Business Content Sample Creation of an InfoObject: "Characteristic" Type Creating InfoCubes and a MultiProvider 3 Up the Retrieval of Master Data General Comments Master Data Texts for the Product Group from Interface Files Master Data Texts for the Product Main Group from Interface Files Master Data Attributes for the Product Group from Interface Files Master Data Attributes for the Product Group from Interface Files SAP R/3 and Retrieving Data with SAP R/3 DataSources and Interface Files Ving Actual Data from SAP R/3 CO-PA	72 72 74 79 83 91 91 97 97 107 107 107
3.3	Data A 3.2.1 3.2.2 3.2.3 3.2.4 Setting 3.3.1 3.3.2 3.3.3 Setting 3.3.4 3.3.5 Retriev 3.4.1 3.4.2 3.4.3	Sample Creation of an InfoObject of Type "Characteristic" Sample Activation of SAP Business Content Sample Creation of an InfoObject: "Characteristic" Type Creating InfoCubes and a MultiProvider 3 Up the Retrieval of Master Data General Comments Master Data Texts for the Product Group from Interface Files Master Data Texts for the Product Main Group from Interface Files Master Data Attributes for the Product Group from Interface Files Master Data Attributes for the Product Group from Interface Files Master Data Texts and Attributes for Materials from SAP R/3 and Retrieving Data with SAP R/3 DataSources and Interface Files	72 72 74 79 83 91 91 91 97 97 107 107 107 107
3.3	Data A 3.2.1 3.2.2 3.2.3 3.2.4 Setting 3.3.1 3.3.2 3.3.3 Setrice 3.4.1 3.4.2	Sample Creation of an InfoObject of Type "Characteristic" Sample Activation of SAP Business Content Sample Creation of an InfoObject: "Characteristic" Type Creating InfoCubes and a MultiProvider 3 Up the Retrieval of Master Data General Comments Master Data Texts for the Product Group from Interface Files Master Data Texts for the Product Main Group from Interface Files Master Data Attributes for the Product Group from Interface Files Master Data Attributes for the Product Group from Interface Files SAP R/3 and Retrieving Data with SAP R/3 DataSources and Interface Files Ving Actual Data from SAP R/3 CO-PA	72 72 74 79 83 91 91 97 97 107 107 107

3.5	Uploa	ding Plan Data from a File	123
	3.5.1	Creating the InfoSource with a Transfer Structure	
	252	and Transfer Rules for the Plan Data	
	3.5.2 3.5.3	Creating Update Rules for Plan Data Creating and Executing the InfoPackage for Plan Data	
3.6	Creatii	ng an SAP Business Explorer Query	
3.7		ing the Query	
	3.7.1	Executing the Query as a Web Report	
	3.7.2	Executing the Query in Microsoft Excel	
Par	t 3	Data Modeling and Data Retrieval	141
4		Modeling and Conversion from a	
		mn-Oriented InfoSource to an	
	Acco	unt-Oriented InfoCube	143
4.1		count-Oriented Data Model Versus the	
		n-Oriented Data Model	
	4.1.1 4.1.2	Problems Associated with the Column-Oriented Data Model The Account-Oriented Data Model	
	4.1.3	Comparing the Data Models	
4.2		al Example: Combination of the Account-Oriented and lumn-Oriented Data Model	148
	4.2.1 4.2.2	Analyzing the Source Data Data Model	
4.3	implem	nentation: InfoCubes	151
4.4	implem	entation: Data Retrieval	155
	4.4.1	Setting Up the Update Rules for the InfoCube "Billing Document"	155
	4.4.2	Setting Up the Update Rules for the InfoCube	
		"Order/Project Settlement"	157
	4.4.3	Setting Up the Update Rules for the InfoCube "Overhead Costs"	159
4.5	Executi	ng Data Retrieval	
4.6		nance Optimization and Reporting	
5	Appr	opriate Mapping of the SAP	
		uct Hierarchy in Data Modeling,	
		Retrieval, and Reporting	167
5.1	The Ma	terial Attribute "Product Hierarchy" in SAP R/3	167
5.2		the Material Attribute "Product Hierarchy" in SAP BW	107
		he SAP Business Content Navigation Attribute	169

	5.2.1	The SAP Business Content InfoObject "Product Hierarchy" and The Associated Data Retrieval from SAP R/3	169
	5.2.2	The SAP Business Content InfoObject "Material" and the Associated Retrieval of Material Attributes from SAP R/3	17 ⁻
	5.2.3	Problems with Using the SAP Business Content Material Attribute "Product Hierarchy" in Reporting	173
5.3		g the Material Attribute "Product Hierarchy" in SAP BW the SAP Business Content Hierarchy	176
	5.3.1	Adjusting the SAP Business Content InfoObject "Product Hierarc and the Associated Data Retrieval from SAP R/3	hy" 17 6
	5.3.2	Using the Adjusted SAP Business Content Product Hierarchy in Reporting	181
5.4	Solutio	on Using a Step-Based Product Hierarchy as a Material Attribute	184
	5.4.1 5.4.2	Creating the DataSource for the Step-Based Product Hierarchy Creating the InfoObjects and Data Targets for the	184
	5.4.3	Step-Based Product Hierarchy Setting Up Data Retrieval for the Step-Based Broduct Hierarchy in SAR BW	186
	5.4.4	Product Hierarchy in SAP BWThe Step-Based Product Hierarchy as a Navigation Attribute for Material and Its Use in InfoCubes	194
	5.4.5	Step-Based Product Hierarchy in Reporting	198
5.5		tages and Disadvantages of the Different Variants pping the Product Hierarchy	200
Par		Reporting and Web Applications with th	ıe
Par 6	t 4 Usin	Reporting and Web Applications with th SAP Business Explorer203 g Sample Solutions to Show the	ıe
	t 4 Usin Impo	Reporting and Web Applications with th SAP Business Explorer203 g Sample Solutions to Show the ortant Functions of the Query	ie 205
6	t 4 Usin Impo Desi	Reporting and Web Applications with th SAP Business Explorer203 g Sample Solutions to Show the ortant Functions of the Query gner in SAP BW 3.x	205
	t 4 Usin Impo Desi	Reporting and Web Applications with th SAP Business Explorer203 g Sample Solutions to Show the ortant Functions of the Query	
6	Usin Impo Desi Introdu 6.1.1 6.1.2	Reporting and Web Applications with the SAP Business Explorer203 g Sample Solutions to Show the Ortant Functions of the Query gner in SAP BW 3.x 2 Detection	205 205 205 206
6	Usin Impo Desi Introdu 6.1.1 6.1.2 6.1.3	Reporting and Web Applications with the SAP Business Explorer203 g Sample Solutions to Show the Ortant Functions of the Query gner in SAP BW 3.x 2 Detion Calling Up the Query Designer and Creating Queries Including Characteristics and Keys in the Query Selections (Restricting)	205 205 206 206 207
6	Usin Impo Desi Introdu 6.1.1 6.1.2 6.1.3 6.1.4	Reporting and Web Applications with the SAP Business Explorer203 g Sample Solutions to Show the Ortant Functions of the Query gner in SAP BW 3.x action Calling Up the Query Designer and Creating Queries Including Characteristics and Keys in the Query Selections (Restricting) Saving Queries	205 205 206 207 209
6	Usin Impo Desi Introdu 6.1.1 6.1.2 6.1.3 6.1.4 6.1.5	Reporting and Web Applications with the SAP Business Explorer203 g Sample Solutions to Show the Ortant Functions of the Query gner in SAP BW 3.x action Calling Up the Query Designer and Creating Queries Including Characteristics and Keys in the Query Selections (Restricting) Saving Queries Executing a Query	205 205 206 207 209 209
6	Usin Impo Desi Introdu 6.1.1 6.1.2 6.1.3 6.1.4 6.1.5 Reusab	Reporting and Web Applications with the SAP Business Explorer203 g Sample Solutions to Show the Ortant Functions of the Query gner in SAP BW 3.x action Calling Up the Query Designer and Creating Queries Including Characteristics and Keys in the Query Selections (Restricting) Saving Queries Executing a Query Selections Query	205 205 206 207 209 209 211
6	Usin Impo Desi Introdu 6.1.1 6.1.2 6.1.3 6.1.4 6.1.5 Reusab 6.2.1	Reporting and Web Applications with the SAP Business Explorer203 g Sample Solutions to Show the Cortant Functions of the Query gner in SAP BW 3.x 2 action Calling Up the Query Designer and Creating Queries Including Characteristics and Keys in the Query Selections (Restricting) Saving Queries Executing a Query Sale Objects The Concept	205 205 206 207 209 209
6	Usin Impo Desi Introdu 6.1.1 6.1.2 6.1.3 6.1.4 6.1.5 Reusab	Reporting and Web Applications with the SAP Business Explorer203 g Sample Solutions to Show the Ortant Functions of the Query gner in SAP BW 3.x action Calling Up the Query Designer and Creating Queries Including Characteristics and Keys in the Query Selections (Restricting) Saving Queries Executing a Query Sle Objects The Concept Calculated Keys Restricted Keys Restricted Keys	205 205 206 207 209 211 211
6	Usin Impo Desi Introdu 6.1.1 6.1.2 6.1.3 6.1.4 6.1.5 Reusab 6.2.1 6.2.2	Reporting and Web Applications with the SAP Business Explorer203 g Sample Solutions to Show the Ortant Functions of the Query gner in SAP BW 3.x action Calling Up the Query Designer and Creating Queries Including Characteristics and Keys in the Query Selections (Restricting) Saving Queries Executing a Query Dile Objects The Concept Calculated Keys Restricted Keys Definition of Calculated and Restricted Keys with Mutual Dependence	205 205 205 207 209 211 211 211 214
6	Usin Impo Desi Introdu 6.1.1 6.1.2 6.1.3 6.1.4 6.1.5 Reusab 6.2.1 6.2.2 6.2.3 6.2.4	Reporting and Web Applications with the SAP Business Explorer203 g Sample Solutions to Show the Department Functions of the Query gner in SAP BW 3.x action Calling Up the Query Designer and Creating Queries Including Characteristics and Keys in the Query Selections (Restricting) Saving Queries Executing a Query Die Objects The Concept Calculated Keys Restricted Keys Definition of Calculated and Restricted Keys with Mutual Dependence Structures	205 205 205 206 207 209 211 211 214 216 218
6	Usin Impo Desi Introdu 6.1.1 6.1.2 6.1.3 6.1.4 6.1.5 Reusab 6.2.1 6.2.2 6.2.3 6.2.4	Reporting and Web Applications with the SAP Business Explorer203 g Sample Solutions to Show the Description of the Query gner in SAP BW 3.x action Calling Up the Query Designer and Creating Queries Including Characteristics and Keys in the Query Selections (Restricting) Saving Queries Executing a Query Dele Objects The Concept Calculated Keys Restricted Keys Definition of Calculated and Restricted Keys with Mutual Dependence Structures ties of Query Elements	205 205 205 207 209 211 211 211 214
6 .1	Usin Impo Desi Introdu 6.1.1 6.1.2 6.1.3 6.1.4 6.1.5 Reusab 6.2.1 6.2.2 6.2.3 6.2.4	Reporting and Web Applications with the SAP Business Explorer203 g Sample Solutions to Show the Department Functions of the Query gner in SAP BW 3.x action Calling Up the Query Designer and Creating Queries Including Characteristics and Keys in the Query Selections (Restricting) Saving Queries Executing a Query Die Objects The Concept Calculated Keys Restricted Keys Definition of Calculated and Restricted Keys with Mutual Dependence Structures	205 205 205 206 207 209 211 211 214 216 218

6.4	Hierarc	hies	232
	6.4.1	Introduction	232
	6.4.2	The Use of Hierarchies in the Query Designer	233
6.5	Condit	ions	238
	6.5.1	The Concept and the Available Types of Conditions in	
		SAP Business Explorer	238
	6.5.2	The Use of Conditions in SAP Business Explorer	239
6.6	Excepti	ions	243
	6.6.1	Visualization of Exception States	243
	6.6.2	The Use of Exceptions in SAP Business Explorer	243
6.7	Variabl	es	245
	6.7.1	Introduction	245
	6.7.2	Characteristic Variables	246
	6.7.3	Hierarchy Variables	252
	6.7.4	Hierarchy Node Variables	254
	6.7.5	Text Variables	257
	6.7.6	Formula Variables	259
6.8	Additio	onal Selected Innovations in the Query Designer	262
	6.8.1	Query Characteristics	262
	6.8.2	Document Links	264
	6.8.3	Calculating with Cells Using the Example "Structure Percent"	265
	6.8.4	Tabular Reporting Using the Example of Main Data Reporting	268
7		cted Functions of the SAP BW	
7	Sele	cted Functions of the SAP BW	275
7	Select Web	cted Functions of the SAP BW Application Designer in SAP BW 3.x b Application Designer in the Framework of the	
7.1	Select Web	cted Functions of the SAP BW Application Designer in SAP BW 3.x 2 2 2 2 3 3 4 4 5 5 5 6 5 6 7 7 7 8 7 8 8 8 8 8 8 8 8 8 8 8 8 8 8	275
	Select Web The Web SAP But The Fur	cted Functions of the SAP BW Application Designer in SAP BW 3.x b Application Designer in the Framework of the siness Explorer Components actionality of the Web Application Designer: Overview	275 277
7.1	Select Web The We SAP But The Fur 7.2.1	cted Functions of the SAP BW Application Designer in SAP BW 3.x 2 bb Application Designer in the Framework of the siness Explorer Components	275
7.1	Select Web The Web SAP But The Fur	cted Functions of the SAP BW Application Designer in SAP BW 3.x 2 bb Application Designer in the Framework of the siness Explorer Components	275 277 277
7.1 7.2	The We SAP Bu The Fur 7.2.1 7.2.2 7.2.3	cted Functions of the SAP BW Application Designer in SAP BW 3.x 2 bb Application Designer in the Framework of the siness Explorer Components	275 277 277 277 281
7.1	The We SAP Bu: The Fur 7.2.1 7.2.2 7.2.3 First Ste	cted Functions of the SAP BW Application Designer in SAP BW 3.x b Application Designer in the Framework of the siness Explorer Components actionality of the Web Application Designer: Overview Introduction Web Items Formatting eps in the Web Application Designer	275 277 277 277 281 282
7.1 7.2	The We SAP Bu The Fur 7.2.1 7.2.2 7.2.3	cted Functions of the SAP BW Application Designer in SAP BW 3.x b Application Designer in the Framework of the siness Explorer Components actionality of the Web Application Designer: Overview Introduction Web Items Formatting eps in the Web Application Designer Starting the Web Application Designer	275 277 277 277 281
7.1 7.2 7.3	The We SAP Bu: The Fur 7.2.1 7.2.2 7.2.3 First Std 7.3.1 7.3.2	cted Functions of the SAP BW Application Designer in SAP BW 3.x b Application Designer in the Framework of the siness Explorer Components ctionality of the Web Application Designer: Overview Introduction Web Items Formatting eps in the Web Application Designer Starting the Web Application Designer Creation of a Web Template Using the Web Application Wizard	275 277 277 277 281 282 282 282
7.1 7.2	The We SAP But The Fur 7.2.1 7.2.2 7.2.3 First Std 7.3.1 7.3.2 Web Ite	cted Functions of the SAP BW Application Designer in SAP BW 3.x 2 bb Application Designer in the Framework of the siness Explorer Components	275 277 277 277 281 282 282 282 286
7.1 7.2 7.3	The We SAP Bu: The Fur 7.2.1 7.2.2 7.2.3 First Std 7.3.1 7.3.2 Web Ite 7.4.1	cted Functions of the SAP BW Application Designer in SAP BW 3.x 2 b Application Designer in the Framework of the siness Explorer Components	275 277 277 277 281 282 282 282
7.1 7.2 7.3	The We SAP But The Fur 7.2.1 7.2.2 7.2.3 First Std 7.3.1 7.3.2 Web Ite	cted Functions of the SAP BW Application Designer in SAP BW 3.x 2 bb Application Designer in the Framework of the siness Explorer Components	275 277 277 277 281 282 282 282 286 286
7.1 7.2 7.3	The We SAP But The Fur 7.2.1 7.2.2 7.2.3 First Std 7.3.1 7.3.2 Web Ite 7.4.1 7.4.2	cted Functions of the SAP BW Application Designer in SAP BW 3.x 2 b Application Designer in the Framework of the siness Explorer Components	275 277 277 277 281 282 282 286 286 286 288 290
7.1 7.2 7.3	The We SAP Bu: The Fur 7.2.1 7.2.2 7.2.3 First Std 7.3.1 7.3.2 Web Ite 7.4.1 7.4.2 7.4.3	cted Functions of the SAP BW Application Designer in SAP BW 3.x 2 bb Application Designer in the Framework of the siness Explorer Components	275 277 277 281 282 282 286 286 286 288 290 294
7.1 7.2 7.3	The We SAP Bu: The Fur 7.2.1 7.2.2 7.2.3 First Str 7.3.1 7.3.2 Web Ite 7.4.1 7.4.2 7.4.3 7.4.4	cted Functions of the SAP BW Application Designer in SAP BW 3.x 2 b Application Designer in the Framework of the siness Explorer Components ctionality of the Web Application Designer: Overview Introduction Web Items Formatting eps in the Web Application Designer Creation of a Web Template Using the Web Application Wizard ems in the Web Application Designer Properties of Web Templates and Positioning of Objects The Table Text Elements The Generic Navigation Block The Drop-Down Box The Radio-Button Group	275 277 277 281 282 282 286 286 286 288 290 294
7.1 7.2 7.3	The We SAP Bu: The Fur 7.2.1 7.2.2 7.2.3 First Str 7.3.1 7.3.2 Web Ite 7.4.1 7.4.2 7.4.3 7.4.4 7.4.5	cted Functions of the SAP BW Application Designer in SAP BW 3.x 2 b Application Designer in the Framework of the siness Explorer Components actionality of the Web Application Designer: Overview Introduction Web Items Formatting eps in the Web Application Designer Creation of a Web Template Using the Web Application Wizard ems in the Web Application Designer Properties of Web Templates and Positioning of Objects The Table Text Elements The Generic Navigation Block The Drop-Down Box The Radio-Button Group The Checkboxes	275 277 277 281 282 282 286 286 288 290 294 297
7.1 7.2 7.3	The WessAP Bust The Fur 7.2.1 7.2.2 7.2.3 First Std 7.3.1 7.3.2 Web Ite 7.4.1 7.4.2 7.4.3 7.4.4 7.4.5 7.4.6 7.4.7 7.4.8	cted Functions of the SAP BW Application Designer in SAP BW 3.x 2 b Application Designer in the Framework of the siness Explorer Components	275 277 277 281 282 282 286 286 288 290 294 297 301 306 308
7.1 7.2 7.3	The We SAP Bu: The Fur 7.2.1 7.2.2 7.2.3 First Str 7.3.1 7.3.2 Web Ite 7.4.1 7.4.2 7.4.3 7.4.4 7.4.5 7.4.6 7.4.7	cted Functions of the SAP BW Application Designer in SAP BW 3.x 2 b Application Designer in the Framework of the siness Explorer Components actionality of the Web Application Designer: Overview Introduction Web Items Formatting eps in the Web Application Designer Creation of a Web Template Using the Web Application Wizard ems in the Web Application Designer Properties of Web Templates and Positioning of Objects The Table Text Elements The Generic Navigation Block The Drop-Down Box The Radio-Button Group The Checkboxes	275 277 277 281 282 282 286 286 288 290 294 297 301 306

	7.4.11	List of Exceptions	318
	7.4.12	List of Conditions	320
	7.4.13	Ticker	
	7.4.14	Chart	324
	7.4.15	Map (Map Chart)	
	7.4.16	The Alert Monitor	
	7.4.17	The Role Menu	
	7.4.18	Individual Document	
	7.4.19	List of Documents	
	7.4.20	The Ad-hoc Query Designer	
7.5	HTML	Coding in the Web Application Designer	
	7.5.1	Introduction	
	7.5.2	The HTML Code of the Web Template	359
	7.5.3	Manual Editing of the HTML Code in the	
		Web Application Designer	361
7.6	Conclus	sion	366
8		ple Solution for an Extendable Cockpit in SAP BW	367
8.1	Introdu	ction	367
8.2		g the Queries and the Query Views	
	8.2.1	"Time series" query	367
	8.2.2	Query According to Countries and Regions	369
	8.2.3	Query View for the Chart "Sales Development (Plan/Actual	240
		Comparison)"	369
	8.2.4	Query View for the Chart "Development of	274
	0.2.5	the Relative Margins"	371
	8.2.5	Query View for the Chart and the Map Graphic	274
	0.2.6	"Distribution of Sales per Country"	371
	8.2.6	Query View for the Map Graphic with Margins	372
8.3	`	g the Web Template with the Charts	372
	8.3.1	General settings	
	8.3.2	Web Items and Positioning	
	8.3.3	Assigning Data Providers to Web Items	376
	8.3.4	Setting the Properties of the Web Items	378
	8.3.5	Creating Hyperlinks	385
8.4	-	g the Web Template with the Role Menu	387
8.5		g the Title Web Template	388
8.6	Creating	g the Frameset	389
8.7	Linking	with Other Reports Using the Report/Report Interface	390
8.8	Navigat	ion in the WebCockpit	392
29	The Fun	ctions of the Sample WebCocknit	393

Apı	Appendix 3		
A	Structure of the InfoCubes from Chapter 3	397	
A.1	InfoCube "Result calculation actual data (ZCBWTIPP1)"	397	
A.2	InfoCube "Result calculation plan data (ZCBWTIPP2)"	399	
A.3	Multiprovider "Result calculation actual and plan data (ZCBWTIPP3)"	400	
В	Structure of the InfoCubes from Chapter 4	103	
B.1	InfoCube "Result calculation invoice data (ZCBWTIPP5)"	403	
B.2	InfoCube "Result calculation data proj./job accounting (ZCBWTIPP6)"	404	
B.3	InfoCube "Result calculation overhead costs (ZCBWTIPP7)"	406	
B.4	MultiProvider "Result calculation for all transaction types (ZCBWTIPP8)"	407	
C	Bibliography	Ю9	
D	The Author	111	
	Index	113	

Foreword

The commercial use of electronic data processing also marked the beginning of an attempt to use the increasingly comprehensive and detailed data in decision-making. Soon, one conceptual design followed another; little by little, IT tools that supported or claimed to support various concepts came into existence.

However, until the end of the last decade, the attempt to use these types of concepts and designs carried with it a high risk of failure. Even if the implementation of these concepts and designs itself did not collapse, the operation of such solutions often ultimately failed. This situation became even more dramatic as economic developments required the appropriate (that is, IT-supported) use of information for management activities.

The significance of the IT-supported availability of information for management soon reached a new level of quality: successful strategic management became a global, core competency with a geographic aspect, a cross-industry aspect, and an aspect independent of the size of the company involved. This development was concurrent with and had an effect on additional processes which, when viewed as a whole, meant new opportunities and risks. These processes included:

- ▶ Dramatic changes to the framework of business activity in general
- ► Continuing standardization of business processes
- ▶ Implementation of standard software that supported business processes in an integrated manner
- ▶ Development of IT (particularly the Internet and Web technology)
- ▶ Some consolidation of the concept of providing information (particularly the concepts of data warehousing and online analytical processing (OLAP))
- ▶ Appearance of a new supplier that fundamentally changed the market in the area of business intelligence software-SAP

While the competition and business analysts were skeptical about ERPbased data warehouse solutions, the SAP customers increasingly demanded it, and in 1997-98, SAP introduced its main business intelligence product—SAP Business Information Warehouse (SAP BW)—to the market. After its initial growing pains, SAP BW 1.2B was a serviceable and high-performance tool for analytical applications by mid-1998.

Then, after a period of initial reluctance among customers, SAP and most consulting firms were ultimately overwhelmed with an outright boom in demand by the time that SAP BW 2.0B and 2.1B appeared. In the business intelligence market, SAP moved from being a non-starter to a leading position; the success of SAP left its competitors' jeering far behind.

With SAP BW 3.0B, SAP succeeded in advancing development another step forward. The software now reached the level of "Best Practices" in its presentation of information. Although Web reporting in SAP BW had been strong since Release 2.0B, most consultants ignored this powerful tool completely, just as they had so many other new developments.

Given the often poor quality of implementations (due to inadequate design and resulting performance problems; reports viewed as inadequate by their intended audience; and the problems and high costs of operating such solutions), the need for a presentation of design knowledge in book form became ever more apparent. However, both the volume of work demanded by the scope of such a project and the short half-life of each version of SAP BW struck me as impossible to tackle in a reasonable period. Therefore, I must thank the tenaciousness of this book's editor for convincing me that this project could be undertaken.

Now that I've experienced and survived the production of this book, I'd like to thank all those who contributed for their cooperation and patience:

- ► The editor, Wiebke Hübner, for her assistance and patience during our collaboration
- ▶ The employees of CubeServ AG (Switzerland) and CubeServ GmBH (Germany) for their understanding of my drastically reduced management and consulting activity and for their numerous tips, which have become part of this work
- ▶ My management colleagues, Roland Merz and Jens Rohlf, for serving as editors and advisers when needed

Above all, I'd like to thank my family and especially my wife, Margot, for their understanding, enormous assistance, and handling of all the tasks that fell victim to this work. Without Margot, this work would have been impossible, and therefore, I dedicate this book to her with gratitude.

Norbert Egger

Jona (Switzerland), December 2003

14 Foreword