espresso tutorials

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Business Intelligence with SAP® BI Edge

- Installation and setup tips for SAP BI Edge with SAP ERP
- How to build your own dynamic SAP ERP data model
- Query and reporting tools best practices
- Step-by-step instructions on how to create a SAP BI universe

Table of Contents

Preface **9**

1 Introduction to SAP BusinessObjects Business Intelligence (BI), Edge edition **11**

1.1 BI business placebo and the SAP shadow theme 12

1.2 Problems with BI projects 13

1.3 The BI consulting method 15

1.4 Chapters overview 17

2 Introduction to BI Edge 4.1 **19**

2.1 BI Edge products and technologies 19

2.2 SAP ECC 6.0 reporting 21

2.3 SAP BI Edge editions 23

2.4 SAP BI Edge installation tips 25

2.5 Custom parameter files for Control Configuration Manager 26

2.6 SAP ECC and BI Edge transport files 28

2.7 SAP system not found when connecting 30

2.8 BI Edge product history 32

2.9 BI Edge positioning of included applications 33

2.10 BI Edge roadmap 33

2.11 Types of reports within the enterprise 34

2.12 Enterprise perspective versus end user problems 35

3 The BI case study and the top two SAP transaction codes **37**

3.1 SAP BI consulting method and system auditing 37

3.2 Different ways to conduct system audits 38

3.3 Transaction code analysis concept 40

3.4 How to use ST03n, SM19, and SM20 40

3.5 Using BAPIs to extract utilization data 46

3.6 Automating BAPIs without programming 49
3.7 The most important SAP transaction codes revealed 51
3.8 From SAP data to report 53

4 Connecting to SAP ECC 6.0 57
4.1 The repository concept and KPIs 58
4.2 The SAP InfoSet concept 59
4.3 SAP InfoSets explained 61
4.4 SQ01/SQ02/SQ03 61
4.5 SQL tracing in SAP 74
4.6 Your company's dynamic data model and transaction code portfolio 78
4.7 Summary and next steps 78

5 InfoSets in BI Edge 4.1 81
5.1 The InfoSet strategy 82
5.2 Reporting with InfoSets using BI Edge 84
5.3 InfoSet and Crystal Reports integration 86
5.4 Create your company repository 89
5.5 InfoSet limitations 91
5.6 Overcoming limitations 92
5.7 Company repository download 93
5.8 Summary 93

6 Creating a universe in BI Edge 95
6.1 BI Edge versions and patches 96
6.2 Universe versions 97
6.3 Crystal reports versions 98
6.4 Repository and KPIs 99
6.5 The present state of BI technology – A critical perspective 100
6.6 Connecting to BW, SAP HANA, and others 103
6.7 Creating your first universe 104
6.8 How to create a universe step-by-step 106

6.9 Planning your company's universe strategy 112
6.10 SAP tables and data model repository on GitHub 113
6.11 Summary and next steps 115

7 Publishing reports and dashboards 117
7.1 SAP dashboard evolution 118
7.2 Key aspects of a successful reporting and dashboard strategy 119
7.3 The smallest unit of reporting in SAP BW 120
7.4 The SAP BW platform evolved – AGILE 122
7.5 Publish the universe for a dashboard 123
7.6 Publish as web service 134
7.7 The BI Edge CMS Repository 137
7.8 API standards evolving 140
7.9 Dashboard design considerations 140

A About the Author 144

B Index 145

C Disclaimer 149

2 Introduction to BI Edge 4.1

In this chapter, I will review the BI Edge Suite tools available from SAP. These tools are updated regularly. That is the primary reason why focusing on tools is not as effective as focusing the process.

2.1 BI Edge products and technologies

The BI Edge suite includes a full set of reporting tools that can be organized by function and complexity. For example, there are end user tools with lower levels of complexity, such as BI Launchpad and Xcelsius. The value of these tools is highly based on the infrastructure available to the project team. This infrastructure is designed with server-based tools that may be more complex, but are primarily designed for use by technical admins. For example, the Universe Design Tool creates the semantic layer and data connections in a hierarchy to publish relevant information in a business layer. The business layer data can then be consumed by BI Launchpad and Xcelsius applications. In the case study, I will configure a full information workflow example. Figure 2.1 highlights that there may be many tools and layers involved in generating a report that is embedded within a corporate reporting strategy. For some, this graphic may also highlight the jumble of tools and interface technologies within the solution architecture.

Figure 2.2 shows a partial view of the technologies and highlights the process from semantic to data and the business layer in red. You need to keep in mind that these three layers are at the core of the BI Edge concept; they are essentially the building blocks of the universe concept. Therefore, if you want to create a report in BI Edge, you very rarely just create a query and use the reporting tool to create a list and/or graphical visualization. The idea is that you can utilize a complex network of data sources, which you would connect on the lowest level called the semantic layer. By *semantic*, I mean the logical language established for reports, which will be represented by the data sources selected for the reporting infrastructure.

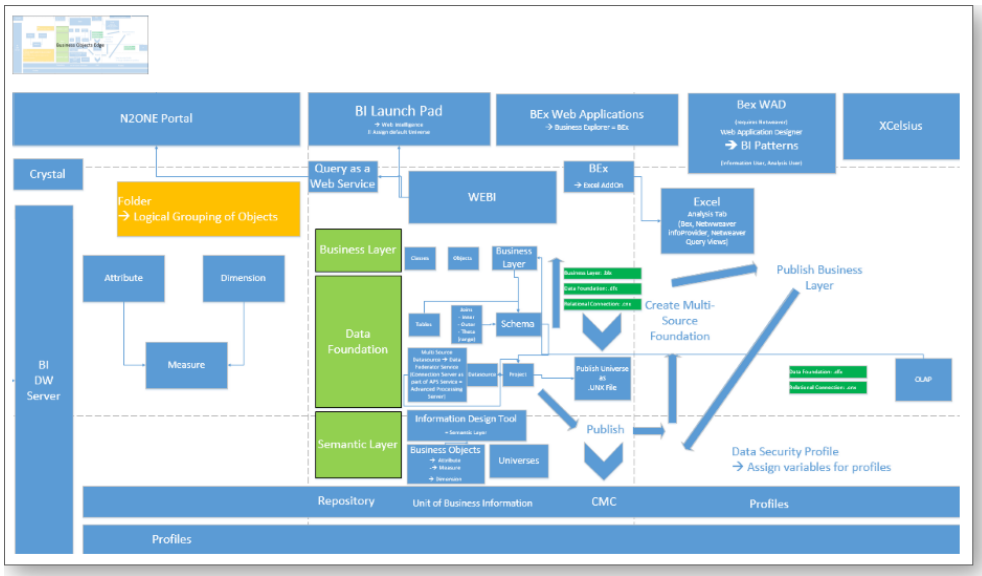

Figure 2.1: BI tools jungle

This selection will define the scope of data to deal with in reports. However, these data sources may have different representations of data and multiple areas of business focus. For example, there could be manufacturing and CRM data from various sources that may have unique column names for data. On the data foundation layer, this data is organized and prepared for business use. Then, in the third layer, the data is logically aligned with a business focus so that it can be easily understood by functional consultants for reporting.

While at first glance this may sound like a lot of overhead, the concept makes sense when you have complex data sources with multiple layers of privileges for user groups and departments. However, you are right that, for a simple report and ad hoc reporting, this concept may be perceived as a headache for a user who just needs to create a quick report in Excel. However, in the long run, the problems you face creating a mess of quick and dirty reports will be resolved with the organizational structure of the layered concept introduced with the universe.

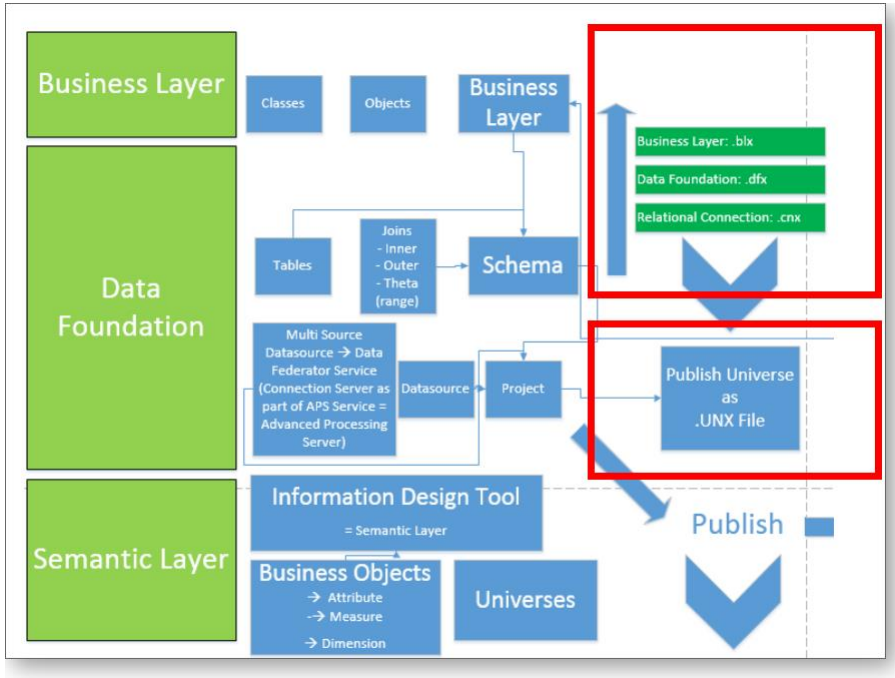

Figure 2.2: BI universe layers

In the following section, we will look at the BI Edge tools. In addition, we will review the tools that are already built in with SAP ECC. You will also learn how to connect them.

2.2 SAP ECC 6.0 reporting

BI Edge tools include the following applications:

- CMC Licensing
- Information Designer
- Universe Designer
- Crystal Reports

- WEBI
- Query as a Service
- BI LaunchPad
- Xcelsius

The *CMC – Central Management Console* is designed to manage the administrative overhead not covered by other tools. Essentially, the CMC must be used to manage the license for BI Edge, which will then determine the tools available to users. In BI Edge 4, a certain number of data services are included. However, the full feature set of data services is not included by default. The data services are a separate product that allow you to further integrate various data sources via service connectors and present the information by means of the semantic or data layer in the universe.

The *information designer* is the new version of the universe designer in BI Edge 4.x. It will replace the universe designer in future releases. Please note that, due to compatibility issues, you may have to use the universe designer for some older production systems. However, if you are deploying a new project, you can use the information designer.

One of the core reporting products in BI Edge is *Crystal Reports*. Crystal Reports can connect to data sources directly or also use BI Edge universes.

A *WEBI* is a Web Intelligence document that can be run in a browser. It usually integrates graphical representations of the data which are combined with a grid.

The *Query as a Service* tool is of particular interest, as using this technology efficiently is very powerful. Essentially, you can create a web service based on a query and then consume the web service in Xcelsius. I will look at this functionality further as part of the case study.

Xcelsius is an Excel-based add-on that includes various widgets to present data as a dashboard. For example, you can connect relevant data based on web services and drive graphics.

Figure 2.3 shows the BI Edge tools and also lists the InfoSet as part of the SAP ECC 6.0 built-in tools. As part of an accelerated BI implementation, a core aspect of the reporting strategy includes built-in reporting tools to help drive the BI Edge reports. The InfoSets will also be used during the case study. In fact, the first report created will use the InfoSet concept in SAP ECC 6.0.

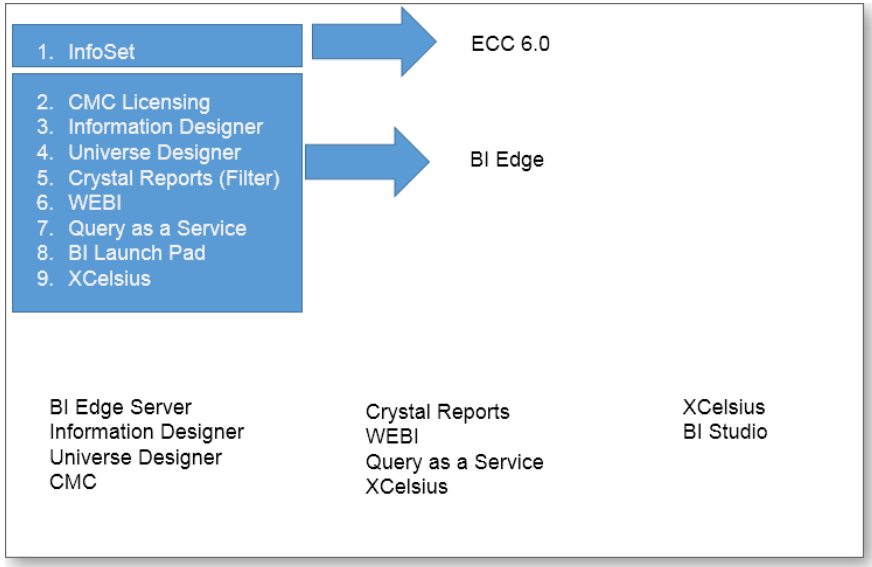

Figure 2.3: BI Edge tools

2.3 SAP BI Edge editions

The license code will determine the specific BI Edge product edition available to you. The license code is noted in the license management section of the CMC (see the details in Figure 2.4).

B Index

.

.unv 97
.unx 97
.unx Universes 134

7

7.4 SP08 122
7.4 SP08. 140

A

ABAP Report 45
ABAP Workbench 52
Ad-Hoc Reports 34
Ad-Hoc Tools 12
ADSO 121, 122
Advanced Data Store Object 122
Agile Project Groups 16
ASP.Net 92

B

BAPI Explorer 50
BAPIs 46, 49
BI Consulting Method 15, 37
BI Edge 11, 19
BI Edge 4 22
BI Edge Content Management System 25
BI Edge Suite 15
BI Edge Universes 59
BI Launchpad 19
BI Mini App 37
BI Product Versions 114
BI Tools 9
BI, Edge Edition With Data Integration 24
BI, Edge Edition With Data Management 25
Big Data 9
BOBJ BW 81
BOE140 25
Break-even Analysis 13
Business Driver 95
Business Layer 19, 58, 110, 130
Business Objects Explorer 24
Business Processes 12
BW 101
BW Analytic Manager 103

C

Central Management Console 22, 26, 98
C-Level 12
Cluster Table 48
Cluster Tables 54, 57
CMC 22
CMS Repository 124
Company Codes 83
Company Repository 89
Complex Responsive Processes 13
Composite Provider 103
Control Configuration Manager 26
Controlling Areas 83
Corporate Reporting Strategy 19
Corporate Security 104
CR2008 98

CRM 20
Cross-Functional 9
Crystal Reports 22, 61, 63, 72, 84
Crystal Reports 2013 98
CSS 119
Cubes 34
Custom Reports 39

D

Dashboard Design Project 140
Dashboards 117
Data Hierarchy 109
Data Layer 58
Data Model 38
Data Source 59
Design Studio 119
Dictionary 55
Drill Down 120

E

eCommerce 37, 107
Edge Edition, Standard Package 24
ERD diagram 139
ERP-Centric 95
ETL 24
Excel 12, 33
Explain 75
Extractors 34

F

Field-Level Semantics 121
Forecasting 40

G

GitHub 93
GitHub Query Repository 114

H

Hierarchy Of Models 113

I

IDT 95
InfoObject 120
Information Designer 22
InfoSet 23, 62, 65, 72
InfoSet Strategy 82
InfoSets 15, 61
IT Landscape 113

J

JavaScript 119
Join Conditions 66

K

Key Figures 89
KNA1 66
KPI 99

L

LIKP 66
Linux 98
LIPS 66
Logical Database 62, 64
Lumira 118
Lumira API 140

M

Meta Model 100
Mini-reporting apps 37
MONI 48
MRP 15
MRP PP Blueprint 40
MultiProvider 103
MultiProviders 122

N

N2ONE Bits 58, 59, 78
N2ONE BITS 49, 51, 53
N2ONE Bits SQL Designer 76

O

ODS Views 121
OLAP 109
Operational Reports 34
Order-To-Cash 69
OTC 89

P

Parameter Files 26
Performance 91
Persistent Representation 122
Primary Keys 66
Publish The Data Connection 127
Publish Your Universe 133
Publishing The Business Layer 132

Q

Queries 59
Query As A Service 22
Query As A Web Service 124, 134
Query Hierarchy 67
Query stripping 111

R

Raylight API 140
Reporting Apps 15
Reporting Mini-App 35
Repository 131
Repository Server 127
Roadmap 33
ROI 17
Role/User Group Assignment 86
RSPO_DOWNLOAD_SPOOLJOB 45
Run Query 134

S

Sales And Distribution 83
SAP BAPI 53
SAP BI Edge 11, 51
SAP BI Platform 37
SAP Business ONE 144
SAP Business Suite 100
SAP BW 7.4 SP08 121
SAP Data Model 55
SAP ECC 9, 15, 18, 89
SAP ECC 6.0 23
SAP ECC Data Model 79
SAP ECC Meta Database 81
SAP GUI 49
SAP HANA 9, 34, 81, 91, 96
SAP Lumira 109
SAP Query Bootstrapping 93
SAP R/3 59
SAP Utilization Analysis 89
SAPLogon.ini 30
Scoping 35
SE11 48
SE16 63
SE37 46, 50
SE38 45
SE80 52
SE93 51
Semantic Layer 19, 58
Shadow Theme 12
SM19 41
SM20 44
SM36 45
Solution Manager 40
SQ01 60, 61

SQ02 60, 86
SQ03 60, 63
SQL Anywhere 137
SQL Database Tables 48
SQL Trace 74
SQL Tracing 58
SQVI 15, 59, 60, 63, 78
ST03n 40, 43
ST05 74
STAD 40, 43
STMS 28
Strategic Dashboard Platform 118
Strategic Reports 34
Structure Tables 57
SWNC_COLLECTOR_GET_AGGREGATES 48, 49
Sybase 138
System Utilization Analysis 37

T

Table Join 64
Tables 54
T-Code Structure 53
Time To Value 16
Transact SQL 138
Transaction Code 15
Transaction Code Utilization 39
Transaction Codes 37
Transactional Level 9
Transparent Tables 57
Transport Files 28
Types 121

U

Universe 22
Universe Strategy 112
User Profiles 40
UTF-8 31

V

VBAK 66, 90
VBAP 66
VBELN 66
VBRK 66
VBRP 66
Version 3.x 96
Version 4.0 96
Version 4.1 96
Virtual Views 121
Vizpacker 119
VK13 66

W

Web Intelligence Rich Client 134
Web Service Publisher 136
WEBI 22, 134
WEBI Client 137

X

Xcelsius 19, 22, 118