MyBiQ Open Source CPM Framework

Business and Financial Intelligence toolkit

Based on OpenSource Best of Breed tools, we have implemented a full blown OLAP Data Mart for the purpose of financial services

This paper discusses the tools we have selected, the modules we have added and the direction in which we are headed

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3A STRATEGY

Inhaltsverzeichnis

Version history:

22	*08/21/07*	*1st Presentation at TDWI's conference*
30	*08/30/07*	*Version 08., August 31st, additional screenshots of DataMonitor and Admin GUI*
		Version 0.95, Oct. 30th, rewrite by Emily
65	*09/17/07*	*2nd Presentation at TDWI by Alexander Pohl*

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The solution

Global Needs of the Corporation

Flexibility, Openness, Innovation and License-Free

Corporate performance management (CPM) solutions enables you to organize people, processes and technologies around common plans to execute and optimize your business strategy. Implementing MyBiQ-CPM solutions and making it easily available was the goal of our new Business Intelligence Framework. The flexible and innovative methodology, built on top of the best breed of Open Source Software toolkits, ensures that you can quickly and easily implement a corporate wide mis with a performance management and monitoring platform.

Corporate Performance Management

Efficiency, highly sophisticated Analytics, Planning, Monitoring, Governance

MyBiQ-CPM's proficiency in complex modeling means you can isolate and address one planning or reporting need and then quickly build more financial and operational applications over time.

With MyBiQ-CPM, you can perform all aspects of your global financial analytics: fast closing, governance, monitoring and evaluation of risks including:

- **Planning/budgeting:**
  - Plan effectively and quickly
  - Monitor your budgets and analyze any deviations with traffic lights
- **Sales analysis/forecasting:**
  - Analyze sales from any angle: by salesperson, region and or product
  - Delve into your clients' accounts and glean an understanding of any potential cash cows
- **Consolidation:**
  - Rapidly streamline data collection and report on your financial and operational data
  - Collect and integrate automatically from multiple business units, Gls and charts of accounts
  - Consolidate based on rules as required.
- **Multi-currency analysis:**
  - Recalculate as often as required, based on our currency exchange, cube your figures
  - Analyze in local currencies, base currency or fixed corporate currencies
- **Inventory management:**
  - Track inventory and supplies, including resources necessary to store inventory
- **Product & Customer Profitability:**
  - Perform detailed analysis of sales and costs by product and or customer
- **Headcount analysis:**
  - Organize human resources to optimize utilization
- **Raw material cost analysis:**
  - Ascertain costs and quantities related to raw materials
- **Asset & Depreciation Analysis:**

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- Analyze in detail physical assets, depreciation costs, and depreciation of assets

Planning & Beyond Budgeting

Using drivers to plan growth, flexible budgeting

Integrated business planning - the process of integrating sales and operations' planning (S&OP) across departments, and ultimately into financial planning and budgeting – accelerates the process of gaining insight into your business costs and resource requirements. Driver-based budgeting, where non-financial drivers such as sales volumes and resource consumption rates are used to predict line item expenses, presents a solid method for understanding impacts of change in market conditions and forecasts.

The Technology

Open source, scalable, enterprise enabled by us

Based on the open source OLAP engine PALO (see at http://www.jedox.com), MyBiQ-CPM performs well with all kinds of standard tools and interfaces:

- Excel
- OO Calc / Starcalc
- There are also API's for php and Java

Use Open Source with our own implementation, so you can roll-out, at no additional cost, enterprise wide our BI framework.
We added the following modules and projects to the PALO infrastrcture as front ends:

Cockpit for P&L, Balance and KPIs

DataMonitor for data entry similar to SAP's DataMonitor, but used without a SAP environment, web enabled and offering profile driven settings for viewing data for different currencies, versions and periods at the same time

- BIRT Report Designer (developed by Actuate - we integrated BIRT with PALO)
- Jasper Reports (taken from the Pentaho Project and integrated by us with PALO)
- Org Chart Editor – OCE.

For the administration of the framework and server, for data modifications and status management and to embed the enterprise class technology:

- Web Frontend for the Management of the infrastructure, like users, rights, triggers, imports and rules
- Repository Manager – RM to manage with referential integrity the data structures, elements, metrics and user rights, all model related data are stored in a relational database
- Extractor – to collect existing cell values based on predefined, automatically triggered queries
- LDAP integration for central and enterprise wide authentication.

For automation (Data Integration, Consolidation) and monitoring (Governance and Planning):

- Pentaho Kettle with PALO Plugin with our Rule Engine based on JScript for batch processing predefined rules – also in realtime
- Package Manager with rules based on Excel formulas and Macro/Script language for:


consolidation


planning


governance


metrics.

Just very recently we have released a new project for an other add-on. Users can store their cubes in virtually any kind of relational database:


ROLAP Middleware, to use the PALO based infrastructure with it's extensions and interfaces and the Excel plugin for all kind of virtual OLAP cube in any kind of relational database, like DB/2, Oracle, PostgreSQL.

Global Data Integrator

Secure, valid and automatic data Extractor, Transformer and Loader

Based on Pentaho's Kettle Suite (see http://www.pentaho.org) with MyBiQ-ETL we provide the capability for data integration for the OLAP infrastructure - PALO. We streamline the process of loading disparate corporate data by providing organizations with the ability to perform fast and flexible data loads, helping you gain timely insight into the business performance of your organization.
MyBiQ-ETL provides:

- The ability to gather key business data from multiple sources by using all kind of transportation means: Data pump (online or batch), text and excel files, email, ftp and https
- Speed and automatic validation of data which helps you do your job much more efficiently - with any size data load
- The capability to quickly build and maintain metadata and data from your current data sources, G/L or ERP system
- An easy-to-use GUI for modeling the business processes, jobs and schedules, transformations, common data and metadata tasks
- The capacity to manipulate complex data and dimensions (even slow changing dimensions)
- A message window and log to audit all tasks
- An independent scheduler and event manager to trigger common tasks without impacting the whole system's performance
- A powerful scripting language (Java Script) which can apply critical business rules either before loading or to all existing data (more technical details under MyBiQ-BRE)

Global Package Manager for Compliance, Governance, Consolidation and Planning

Online in realtime or batch – data validation, cleansing and recalculation for Compliance, Governance, Consolidation and Planning

You must ensure that your financial business processes can meet increasingly demanding corporate compliance requirements worldwide. For this, you

need to focus on critical aspects of your internal business performance management practices, such as communications, internal controls, records-retention, risk and fraud prevention and transparency/visibility. Performance management software solutions can play an important role in guaranteeing sustainable and lower cost corporate compliance.

To govern the compliance criteria across the whole organization you can define rules with the Excel like formula designer with graphical support for referencing the cells within the Cube. The rules are based on Excel formulas and Scripts. Compliance rules can be easily created and triggered within the MyBiQ-RE (rule engine):

- Data validation
- Data recalculations
- Management of the status of data
- Roll back
- Access control

1. Background and Vision – where we stand, and where we're going

In the world of business analytics / intelligence there are myriad different requirements. The target groups for such a BI Financial applications framework are very diverse: management within the Holding, the managing directors of the subsidiary, the corporate controlling department, the management of the business unit and of the division, project managers, marketing controlling, marketing and product managers, salespeople.

In addition, medium/small organizational units have varied requirements. The latter is not trained or capable of using highly sophisticated tools such as data mining or slicing into cubes. In addition, the source of information and data in a small business unit are often not ready and enriched for this kind of data analysis.

Therefore, the classic project and business case will have to draft the requirements for the different usage scenarios and user needs – for all business units and hierarchies of users across the organization. Based on these requirements, you will have to carefully weigh the criteria for the future specifications in order to fulfill as many requirements as possible.

An implementation of this BI framework with our CPM implementation will facilitate daily work and become an integral part of monitoring day-by-day operations, the strategy, support the organization for all needs for supporting the intelligence in finance, innovation, operations, supply chain and human resources, and reporting needs. This framework can facilitate implementation and acceptance across the organization at a minimum cost and with the benefit of full flexibility and independence from the vendors!

Initial situation – the basecamp

The implementation of the framework took place at Otto Group's financial division – the international EOS Holding of companies. EOS controls approx. 50 small to medium sized organizations across the European and North American continents. It spans different business mentalities, different organizational track records and background, organizations with a headcount of 20 or 3000. The main focus of the service offering is in financial services and in specific collection/claim processing. EOS is active in B2B as well as B2C. The parent company, the Otto Group, plays an important role for all requests concerning the control of the underlying entities, business units and organizations. Otto requires more and more financial and statistical data from its investments for reasons of reporting to their banks and for risk control. But besides these requirements, there should also be an added value for the EOS organization (for every single legal entity, the business units and their management).

There is a need to consolidate operating data as well as financial data from the whole Group. Thus there is data from the underlying operating systems like SAP, Oracle Financials and EOS, specific systems for claim processing, callcenters and CRM (Fidibus, Kasys, Kollekto, Collector, Ikarus), as well as a large quantity of diverse planning solutions, cost accounting and general ledger systems such as: Professional Planner, Corporate Planner, Oracle Express, Great Plains, Sage, Lawson and many more.

The long term goal is to consolidate these heterogeneous systems on one single platform, but for now, we have bridged and integrated as much data and as many systems as possible (within reason). There are, for example, still a couple of operational support systems which don't provide any

open interfaces such as ODBC or JDBC, but had to be integrated within this new data mart.

The objective for this first phase

The architectural design was key to implementing a decentralized, flexible and easy to manage middle-ware multidimensional layer. This harmonization is to be implemented on the basis of independent OLAP data cubes, or so-called hypercubes.

This independent form of data mart within the data warehouse is fully integrated into the existing systems, and accessible from standard tools for the controller like Excel. This involves business analysis and reporting, management of the data, cleansing and profiling with tools available as standard systems at no additional cost for all future subsidiaries, divisions, departments, end users on the market.

At the same time we have created a fully integrated platform as a middle-ware concept based on Pentaho's ETL toolkit which allows us to add, at no additional cost, all newly acquired organizations.

The architecture allows support for additional information, which can be (temporarily) stored and drawn on for use in analyses. This additional information serves the purpose of linking and comparing existing data to prepare it for analyses and standard ad hoc reporting. OLAP tools are particularly suited for carrying out sophisticated analysis and simulation processes. This consequently enables fast navigation through the data and the entire system according to OLAP principles (Slice and dice, drill-down), e.g. in the creation and analysis of the so-called “prognosis and financial year planning with integrated three-year planning”.

In this way the data from the central system can be prepared according to definable aspects. At the same time, the data can be considered, analyzed and assessed using various aggregation forms and from different perspectives, thus serving as a basis for statements on operative control of the enterprise. The creation of rolling plans or data consolidation, as well as financial-year planning are the applications used nowards on, based on the new BI platform.

The improved transparency, demanded by Management, enables today realtime reporting with better comparability beyond the individual subsidiaries implemented with this type of easy to use OLAP.

The following summarizes what is basically achieved by the new program:

- Automation and harmonization of the data preparation and data provisioning processes as well as IT integration for taking on technical responsibility for the system
- As a result, departmental resources are freed up while competence for reporting is retained, not only for definition, but also for changes to key figures and information structures
- Use of tools appropriate for specialist users for the development of standard and ad hoc reports available online
- Advanced standardization, acceleration and considerable simplification of the reporting process
- Availability of advanced analysis functions and drill-down options across dimensional hierarchies
- Decentralization and automation of the creation of actual and planned figures for the companies, which until now used Excel to provide the data (automated processing of Ex-

cel files in the first step, creation of the data directly in MIS through the companies in the second step)

- Automation of the interface from the intermediate holding to SAP's EC-CS at the holding
- Ensuring the planned harmonization of accounts and item numbers and/or account systems at Otto within the next two years (this means the involvement of all companies) using simple, and for the most part automated, processes.

2. General requirements of system-supported planning and reporting

The solution encompasses the areas of planning and standard (i.e. general reporting such as planned and actual) reporting as well as ad hoc reporting.

Standard reporting is generally understood to be comprised of reports that have a set structure over a lengthy period of time. Consequently, users of standard reporting have only *limited and pre-defined parametrization* options. This requirement is covered by using BIRT and within Excel Sheets run from the WSS. In the near future we will release and add-on and enlarged feature set within MyBiQ's Cockpit which can be used for designing reports based on the existing structures and cubes.

On the other hand, **ad hoc reports** allow authorized users *unrestricted navigation, and serve in case of more in-depth and irregular queries*. Ad hoc reports are only planned for data recipients who are very well acquainted with the data structures. In most cases we use Excel and BIRT for this purpose.

Reports for the **creation of planning** data are provided on s*creens adapted to the individual planning step*, enabling direct writing to the OLAP database. For this purpose we have developed the MyBiQ Cockpit.

Requirements of standard reporting

Standard reports are reports that can be called up with a pre-defined layout and specified selection criteria.

It is now possible for the departmental area to create and maintain standard reports. Department administrators - even those with no knowledge of or experience in programming – are able to develop parametrizable standard reports.

There are several approaches and technologies implemented within the holding:

- Excel with Worksheet Server (Jedox)
- Cockpit (MyBiQ)
- BIRT:

We have selected the open source based reporting toolkit “BIRT”, which was integrated by our developers with PALO and it's interfaces. BIRT is based on the open source framework Eclipse, a very easily to use and rich Java Client development framework sponsored and supported by IBM and all big players. More details about Eclipse broad acceptance and supporters on their homepage. BIRT integrates all kind of data sources out of the box. Based on BIRT the department or the it system integrators are able to access most of the data sources in a typical it environment with heterogeneous sources and databases. Based on BIRT all the day-by-day requirements for reporting can be covered:

BIRT lets achieve rapid development, simplified deployment and a rich, interactive user experience. BIRT is one of the most advanced and widely

adopted open source reporting technologies, offering rapid, visual report development that's extensible enough to meet any reporting requirement. The sponsor of BIRT, the US based company Actuate is a "veteran" in the area of reporting and user experience. The long track record and background was the foundation of their sponsorship for BIRT. More details on their website at http://www.actuate.com

Menu and navigational structure

The system is designed to enable intuitive navigation through the reports. This involves a hierarchical approach. The user may select a subject group on a central start page (e.g. "P/L") and can then branch to substructures.

For the most part, the navigation will follow a predefined analysis path.

Functionality and navigation

Every report has the following structure:

- Menu area
- Parameter or header area
- Data area.

Menu area:
The menu area allows for fast access to the subjects and report groups. It is usually structured in the same way for all reports.

Parameter area:
In the parameter area, the user may select report parameters. For example, these may be time periods (especially several time periods that vary), key figures or target groups. The parameters available for selection depend on the report subject.

Data area:
The data area will display figures in table form, graphics and "soft" information, such as comments or additional master data.

The data displayed depends on the parameter selected.

In addition to data dynamics, the reports can be dynamically structured. This means that the user has the opportunity to navigate through the hierarchies of the assessment dimensions in the form of drill-downs.

Analysis chains and report linking

A major advantage of a system that is available online is that informational content can be linked. The system makes it possible to "toggle" between reports and to call up further information in the target report by means of parameters taken from the source report; for example: an overview of turnover and expenses across all companies for a specific period. It is possible to "click" on any company to show how the results progress over time.

Exception reporting

Exception reporting refers to a data-driven exception reporting system. It aims to point out deviations from the planned status as well as from expected results at an early point in time.

Users of the system can focus on a small number of important exception values, e.g. indicators for critical success factors (measurement categories), target specifications and threshold values (maximum and minimum levels). If a threshold value is not met, signals are out-put, e.g. via a traffic light function for sub-areas and sources of know-how in the company. Graphics and tables of these exceptions can be displayed in combination.

Exception reporting is conceivable for the following:

- Displaying maximum and minimum values
- Exceeding tolerances.

Online availability and target groups

Access to standard reports will be online, and possible both centrally and decentrally. Depending on the permissions, specific reports are only to be made available to certain user groups.

Controlling departments and managers in centralized and decentralized companies are the target group for the system.

Exhibit – the solution

The Cockpit – browsing the OLAP Cube based on existing structures

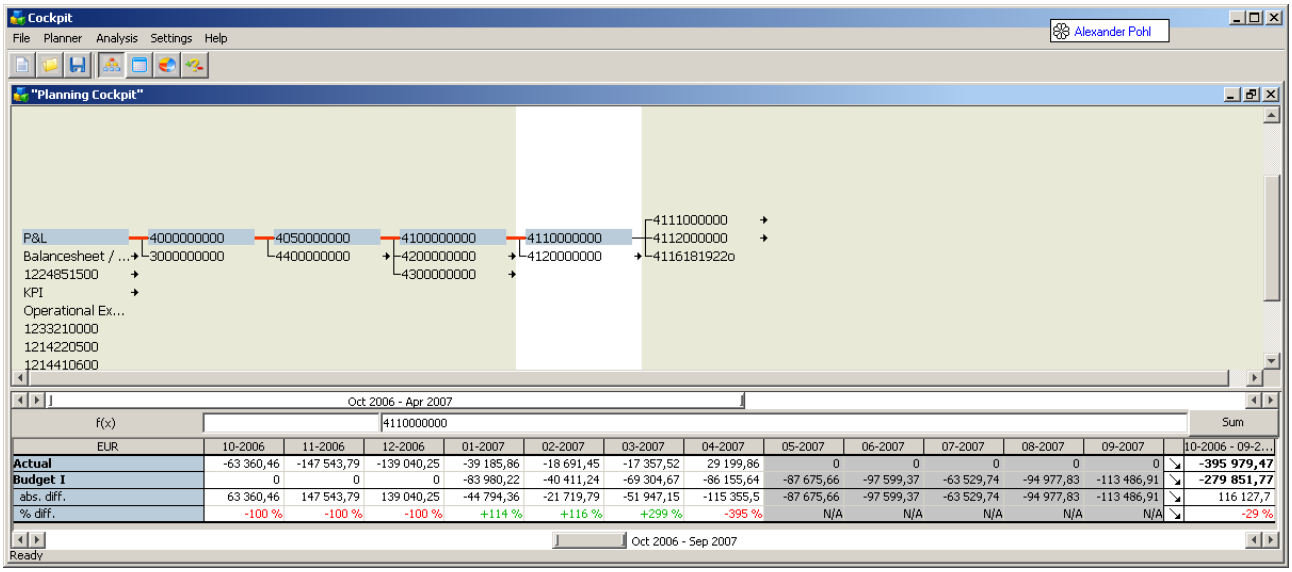
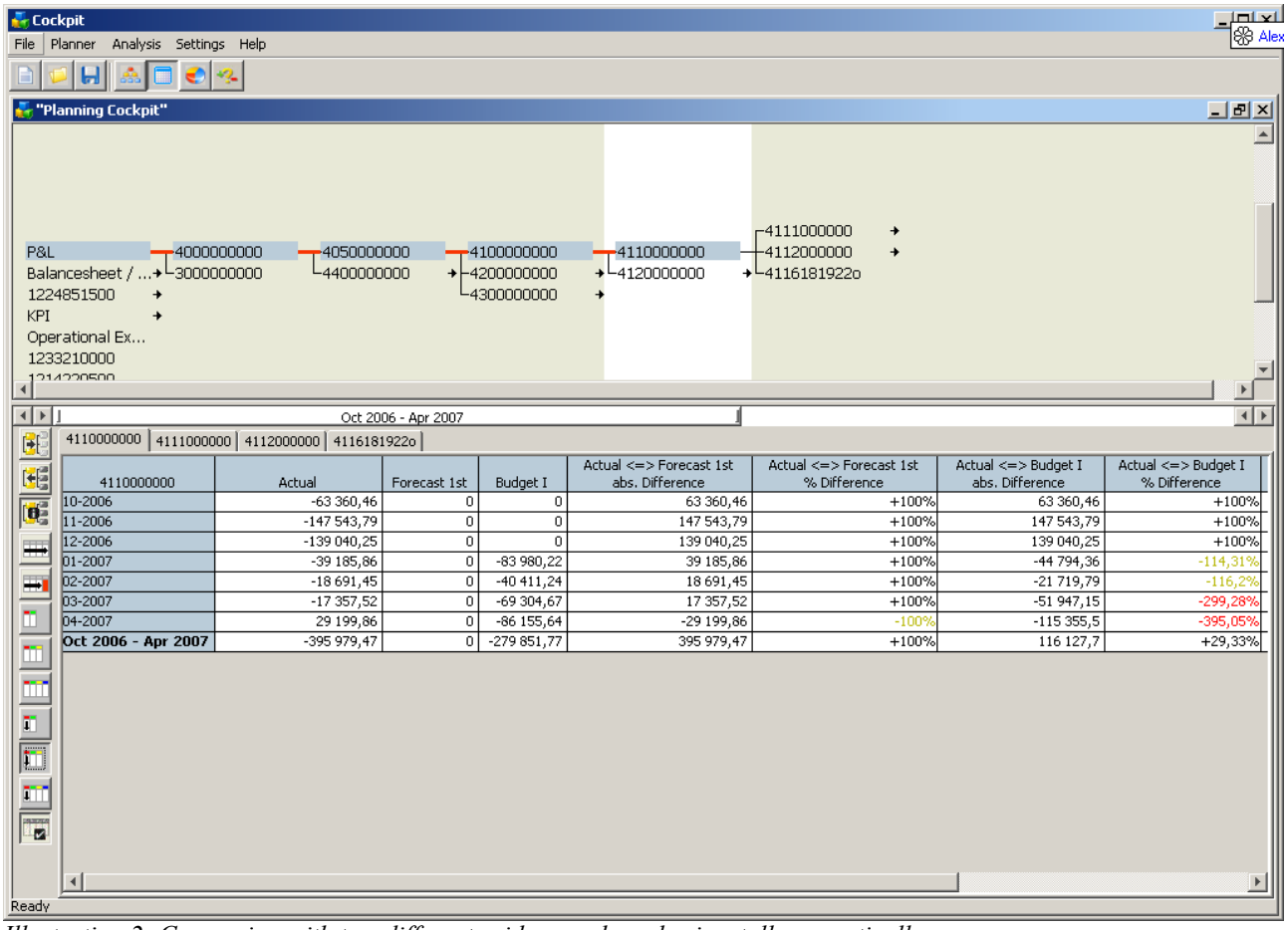


Illustration 1: Selection of the IAS/IFRS captions within the organization with predefined costcenter, project, Level, division and region



4110000000	Actual	Forecast 1st	Budget I	Actual <=> Forecast 1st abs. Difference	Actual <=> Forecast 1st % Difference	Actual <=> Budget I abs. Difference	Actual <=> Budget I % Difference
10-2006	-63 360,46	0	0	63 360,46	+100%	63 360,46	+100%
11-2006	-147 543,79	0	0	147 543,79	+100%	147 543,79	+100%
12-2006	-139 040,25	0	0	139 040,25	+100%	139 040,25	+100%
01-2007	-39 185,86	0	-83 980,22	39 185,86	+100%	-44 794,36	-114,31%
02-2007	-18 691,45	0	-40 411,24	18 691,45	+100%	-21 719,79	-116,2%
03-2007	-17 357,52	0	-69 304,67	17 357,52	+100%	-51 947,15	-299,28%
04-2007	29 199,86	0	-86 155,64	-29 199,86	-100%	-115 355,5	-395,05%
Oct 2006 - Apr 2007	-395 979,47	0	-279 851,77	395 979,47	+100%	116 127,7	+29,33%

Illustration 2: Comparing with two different grids - as above horizontally or vertically

BIRT – the professional like Open Source report designer by Actuate

Charting and Graphs from Excel in the Internet

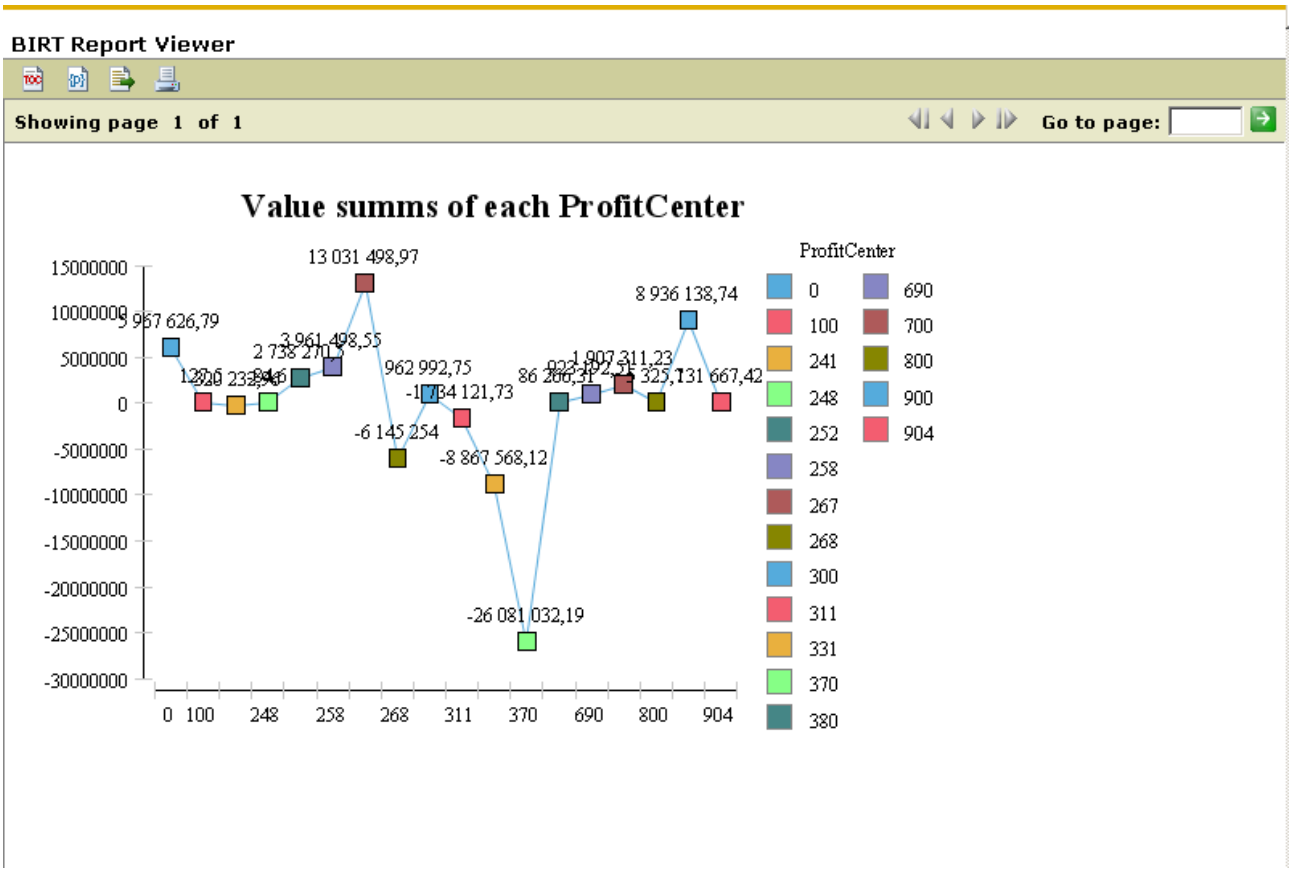


Illustration 3: Integration of BIRT – integrated with our OLAP and Staging Server

Repository Manager – Master Data Management for multidimensional OLAP

For security purposes, and in order to assure data and referential integrity, we have designed a relational database based management tool to extract an existing repository, to create new data structures, to manage attributes and access rights.

Within the financial applications framework we used the cube acl and related user attributes for managing the user rights in association with data content such as company number, region and version.

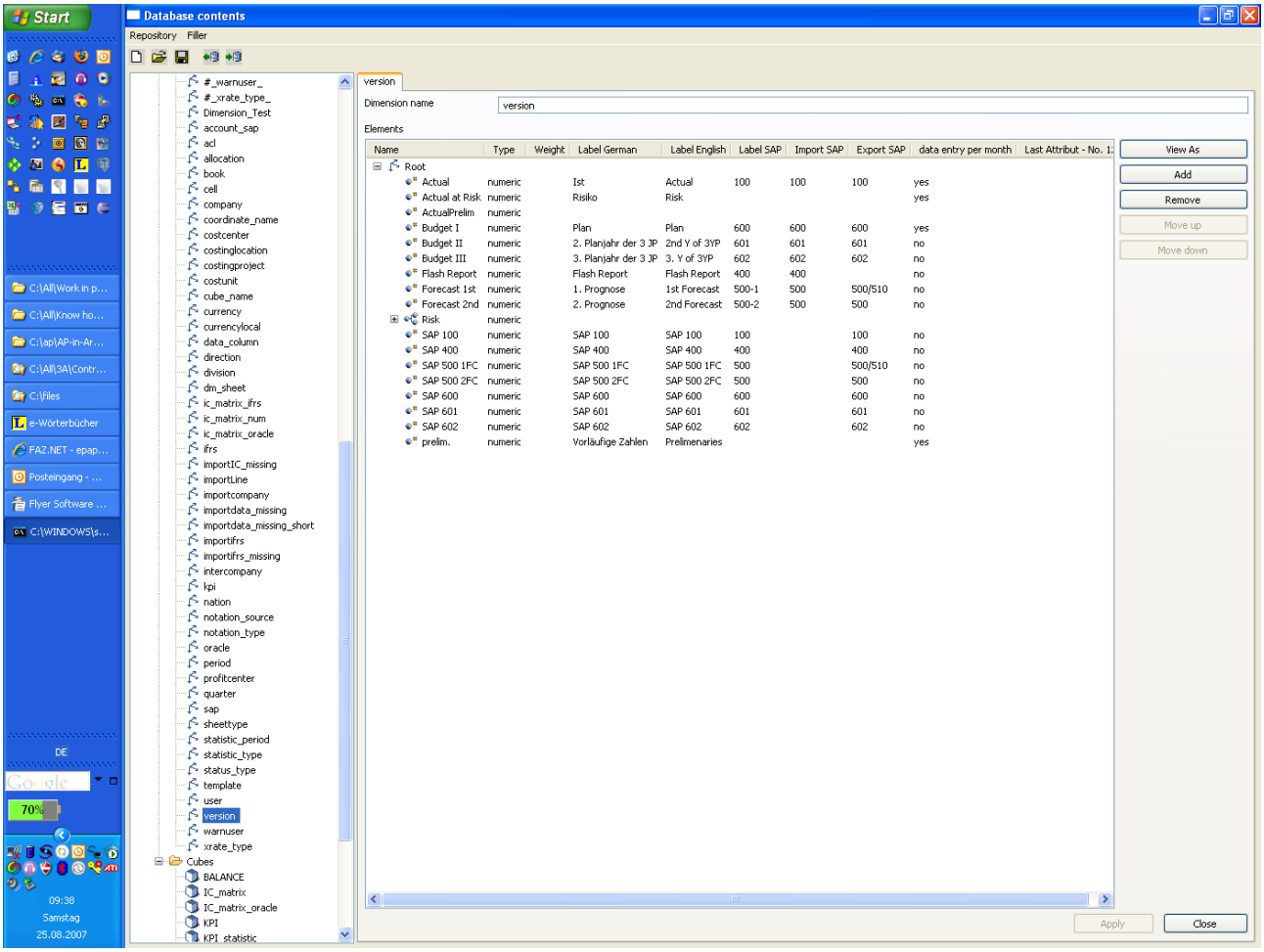


Illustration 4: Repository Manager: Importing dimensions from the existing OLAP database, managing elements and their attributes

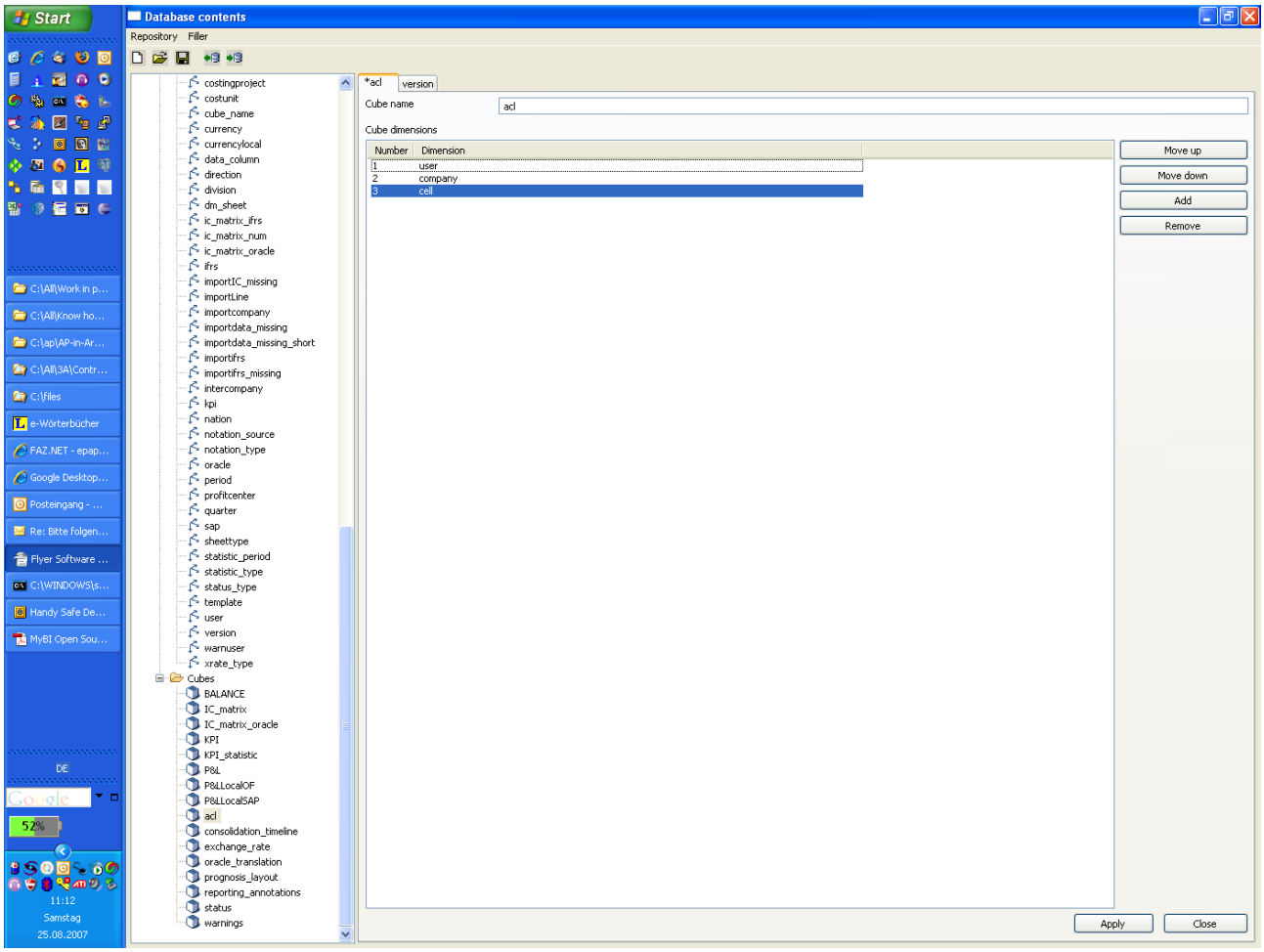
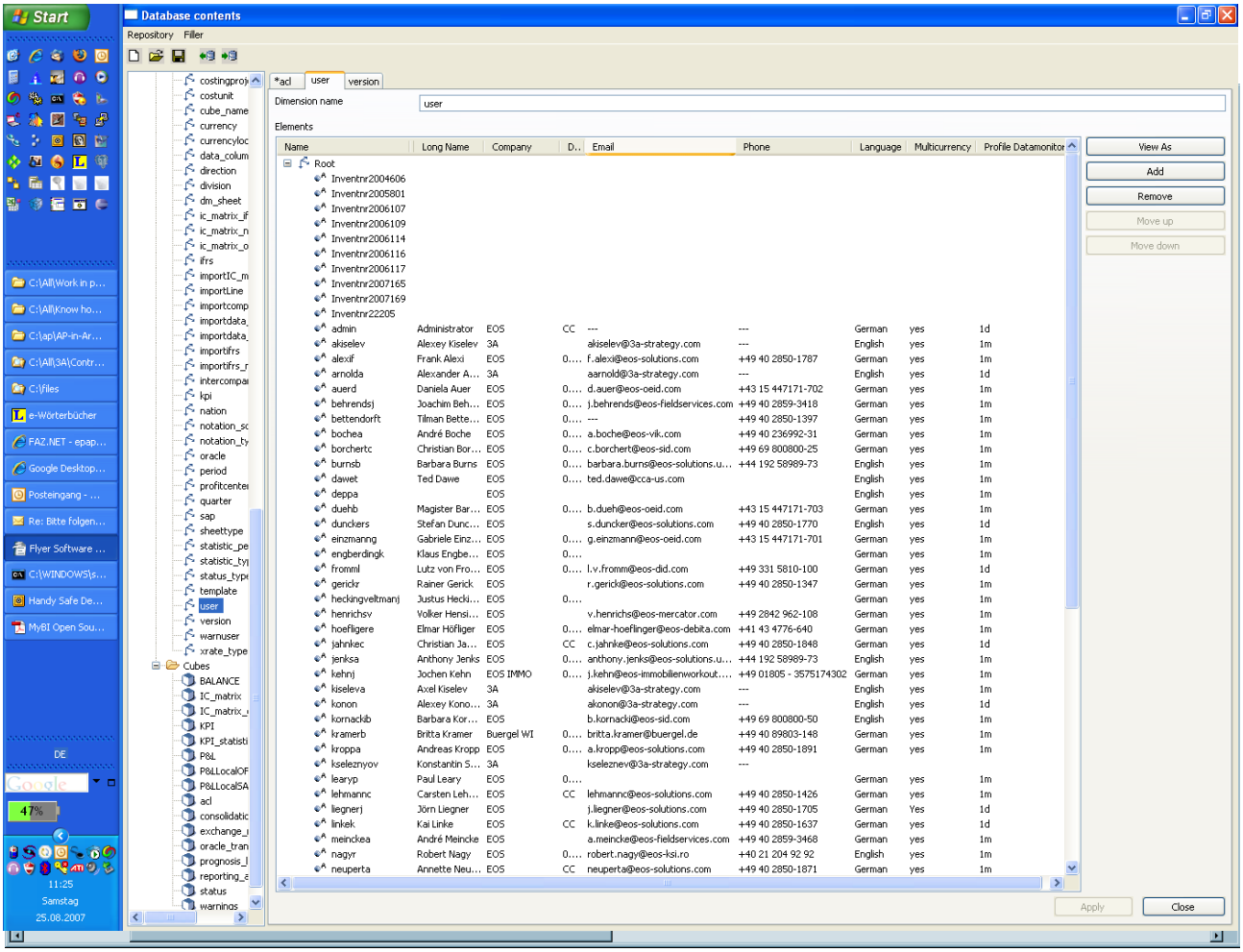


Illustration 5: Master Data Management: Modeling Cubes and the dimensions


Database contents
Repository
Filler
*acl
user
version
Dimension name
user
Elements
Name
Long Name
Company
D..
Email
Phone
Language
Multicurrency
Profile Datamonitor
View As
Add
Remove
Move up
Move down
Apply
Close

Excel – Designing Forms and Charts for the web, based on the capabilities of Worksheetserver

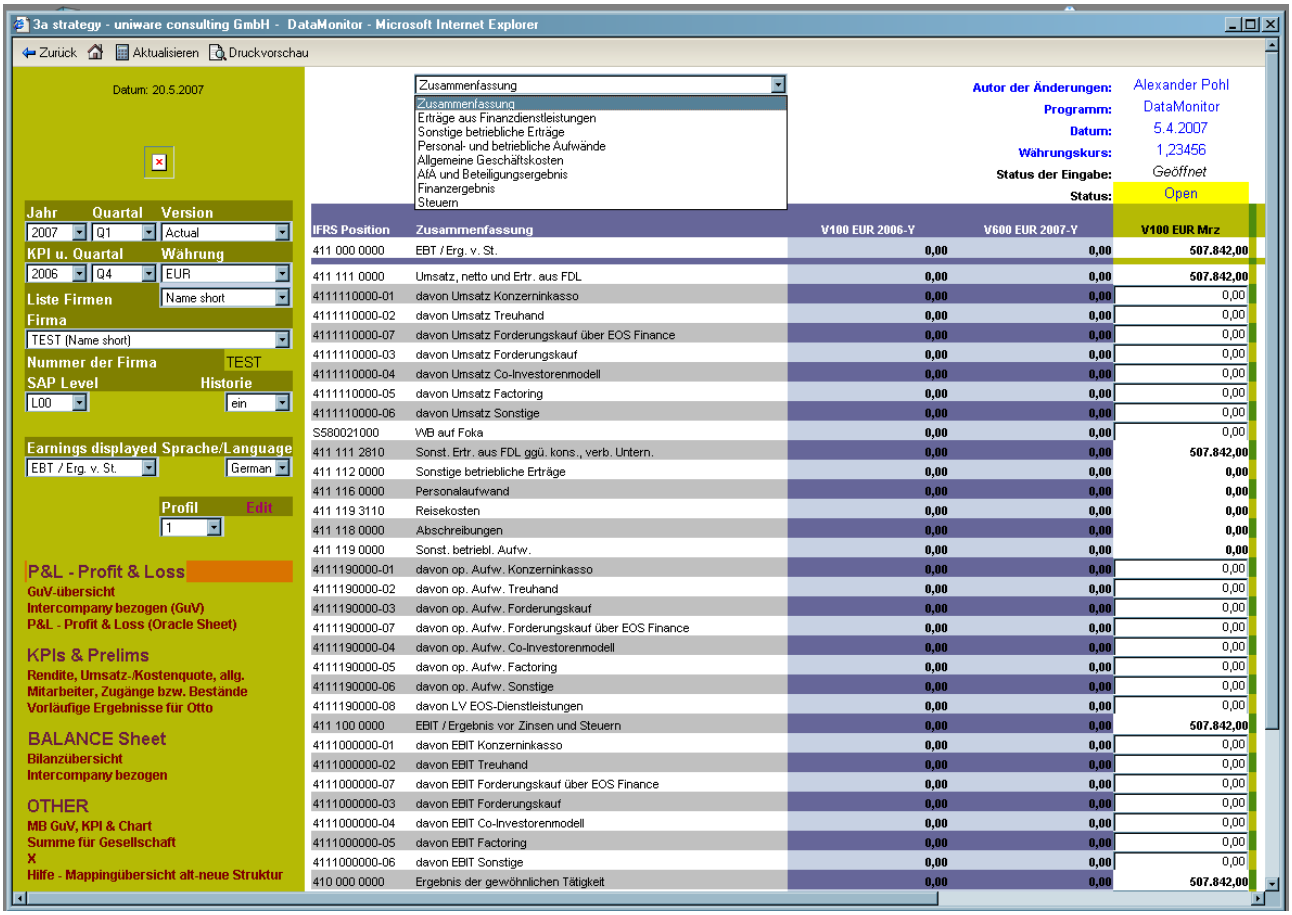
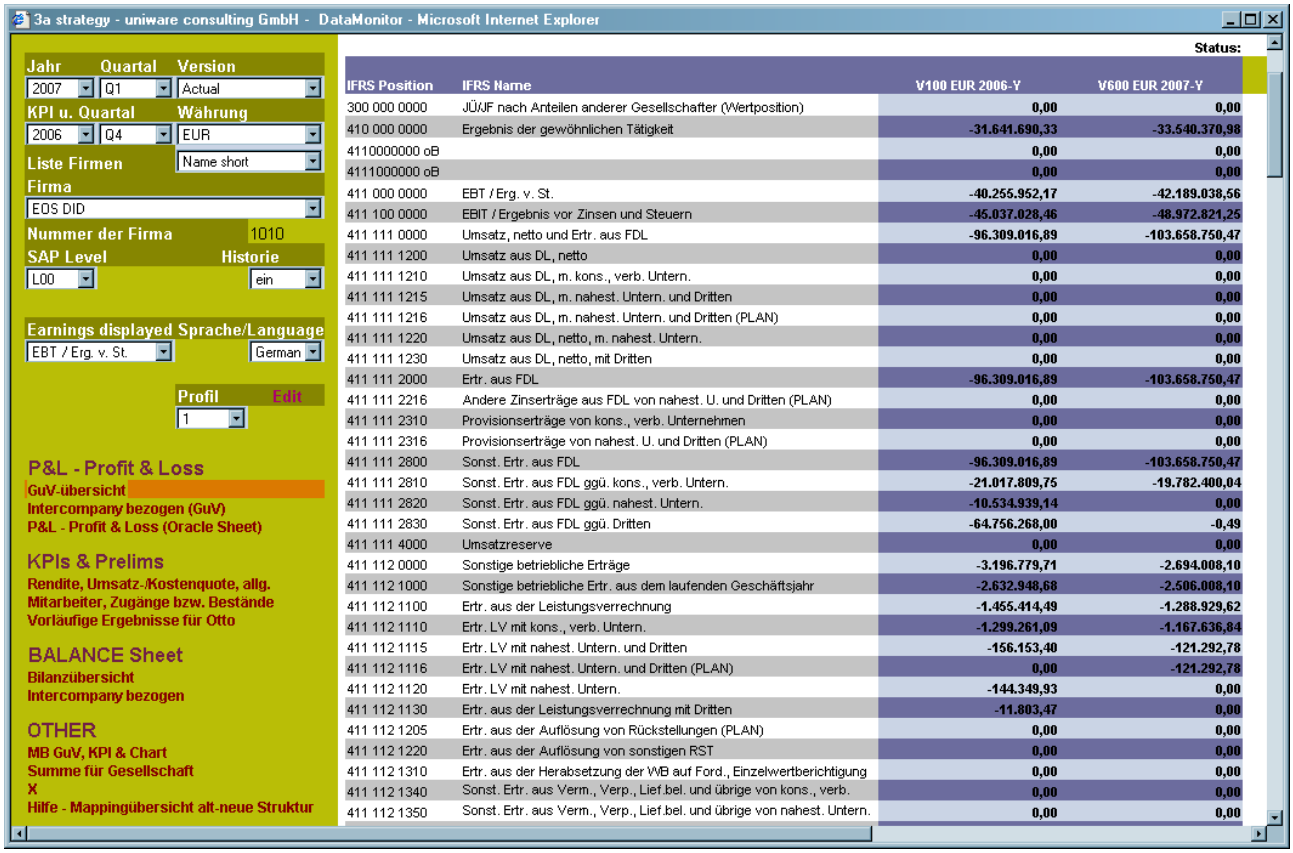


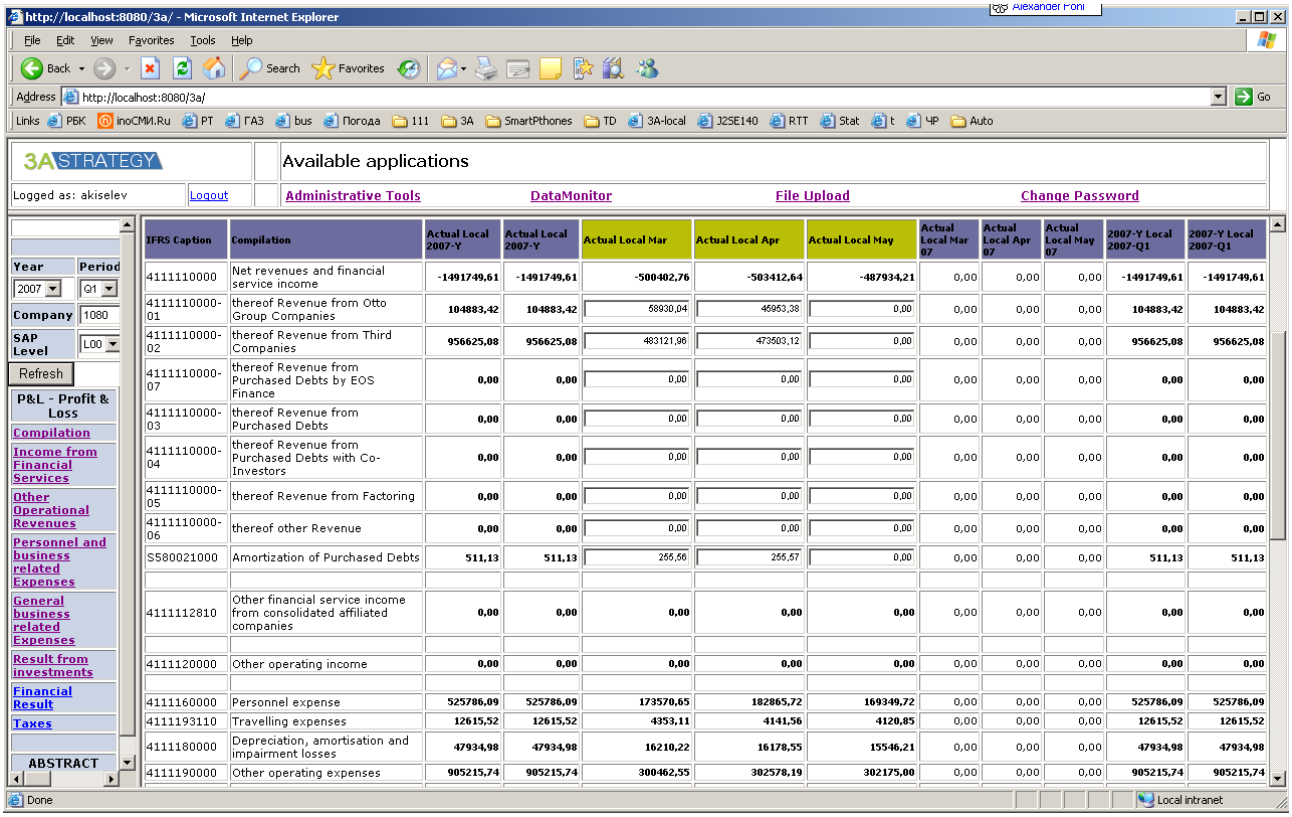
Illustration 6: DataMonitor: Excel based form for entering P&L, Balance Sheet and KPI data



IFRS Position	IFRS Name	V100 EUR 2006-Y	V600 EUR 2007-Y
300 000 0000	JÜ/JF nach Anteilen anderer Gesellschafter (Wertposition)	0,00	0,00
410 000 0000	Ergebnis der gewöhnlichen Tätigkeit	-31.641.690,33	-33.540.370,98
4110000000 oB		0,00	0,00
4111000000 oB		0,00	0,00
411 000 0000	EBT / Erg. v. St.	-40.255.952,17	-42.189.038,56
411 100 0000	EBIT / Ergebnis vor Zinsen und Steuern	-45.037.028,46	-48.972.821,25
411 111 0000	Umsatz, netto und Ertr. aus FDL	-96.309.016,89	-103.658.750,47
411 111 1200	Umsatz aus DL, netto	0,00	0,00
411 111 1210	Umsatz aus DL, m. kons., verb. Untern.	0,00	0,00
411 111 1215	Umsatz aus DL, m. nahest. Untern. und Dritten	0,00	0,00
411 111 1216	Umsatz aus DL, m. nahest. Untern. und Dritten (PLAN)	0,00	0,00
411 111 1220	Umsatz aus DL, netto, m. nahest. Untern.	0,00	0,00
411 111 1230	Umsatz aus DL, netto, mit Dritten	0,00	0,00
411 111 2000	Ertr. aus FDL	-96.309.016,89	-103.658.750,47
411 111 2216	Andere Zinserträge aus FDL von nahest. U. und Dritten (PLAN)	0,00	0,00
411 111 2310	Provisionserträge von kons., verb. Unternehmen	0,00	0,00
411 111 2316	Provisionserträge von nahest. U. und Dritten (PLAN)	0,00	0,00
411 111 2800	Sonst. Ertr. aus FDL	-96.309.016,89	-103.658.750,47
411 111 2810	Sonst. Ertr. aus FDL ggü. kons., verb. Untern.	-21.017.809,75	-19.782.400,04
411 111 2820	Sonst. Ertr. aus FDL ggü. nahest. Untern.	-10.534.939,14	0,00
411 111 2830	Sonst. Ertr. aus FDL ggü. Dritten	-64.756.268,00	-0,49
411 111 4000	Umsatzreserve	0,00	0,00
411 112 0000	Sonstige betriebliche Erträge	-3.196.779,71	-2.694.008,10
411 112 1000	Sonstige betriebliche Ertr. aus dem laufenden Geschäftsjahr	-2.632.948,68	-2.506.008,10
411 112 1100	Ertr. aus der Leistungsverrechnung	-1.455.414,49	-1.288.929,62
411 112 1110	Ertr. LV mit kons., verb. Untern.	-1.299.261,09	-1.167.636,84
411 112 1115	Ertr. LV mit nahest. Untern. und Dritten	-156.153,40	-121.292,78
411 112 1116	Ertr. LV mit nahest. Untern. und Dritten (PLAN)	0,00	-121.292,78
411 112 1120	Ertr. LV mit nahest. Untern.	-144.349,93	0,00
411 112 1130	Ertr. aus der Leistungsverrechnung mit Dritten	-11.803,47	0,00
411 112 1205	Ertr. aus der Auflösung von Rückstellungen (PLAN)	0,00	0,00
411 112 1220	Ertr. aus der Auflösung von sonstigen RST	0,00	0,00
411 112 1310	Ertr. aus der Herabsetzung der WB auf Ford., Einzelwertberichtigung	0,00	0,00
411 112 1340	Sonst. Ertr. aus Verm., Verp., Lief.bel. und übrige von kons., verb.	0,00	0,00
411 112 1350	Sonst. Ertr. aus Verm., Verp., Lief.bel. und übrige von nahest. Untern.	0,00	0,00

Illustration 7: DataMonitor for reporting: Select the years, the months, the quarters, the versions and currencies you wish to view or compare

DataMonitor – Java implementation for P&L, Balance Sheet, OPIs and KPIs



IFRS Caption	Compilation	Actual Local 2007-Y	Actual Local 2007-Y	Actual Local Mar	Actual Local Apr	Actual Local May	Actual Local Mar 07	Actual Local Apr 07	Actual Local May 07	2007-Y Local 2007-Q1	2007-Y Local 2007-Q1
4111110000	Net revenues and financial service income	-1491749,61	-1491749,61	-500402,76	-503412,64	-487934,21	0,00	0,00	0,00	-1491749,61	-1491749,61
4111110000-01	thereof Revenue from Otto Group Companies	104883,42	104883,42	58930,04	45953,38	0,00	0,00	0,00	0,00	104883,42	104883,42
4111110000-02	thereof Revenue from Third Companies	956625,08	956625,08	483121,96	473503,12	0,00	0,00	0,00	0,00	956625,08	956625,08
4111110000-07	thereof Revenue from Purchased Debts by EOS Finance	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
4111110000-03	thereof Revenue from Purchased Debts	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
4111110000-04	thereof Revenue from Purchased Debts with Co-Investors	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
4111110000-05	thereof Revenue from Factoring	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
4111110000-06	thereof other Revenue	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
S580021000	Amortization of Purchased Debts	511,13	511,13	255,56	255,57	0,00	0,00	0,00	0,00	511,13	511,13
4111112810	Other financial service income from consolidated affiliated companies	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
4111120000	Other operating income	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
4111160000	Personnel expense	525786,09	525786,09	173570,65	182865,72	169349,72	0,00	0,00	0,00	525786,09	525786,09
4111193110	Travelling expenses	12615,52	12615,52	4353,11	4141,56	4120,85	0,00	0,00	0,00	12615,52	12615,52
4111180000	Depreciation, amortisation and impairment losses	47934,98	47934,98	16210,22	16178,55	15546,21	0,00	0,00	0,00	47934,98	47934,98
4111190000	Other operating expenses	905215,74	905215,74	300462,55	302578,19	302175,00	0,00	0,00	0,00	905215,74	905215,74

Illustration 8: DataMonitor - reporting in table format, covering the data for P&L, Balance Sheet and KPIs

The implementation of the DataMonitor is based on the pilot we developed from Excel in the Web. The DataMonitor replaces the SAP DataMonitor for ease of use and sophisticated reporting features:

The user selects a profile which stores the user's settings, which are configured for the different sheets (P&L, Balance Sheet, Intercompany related, KPIs, LocalPlanning and Costing Cube) and their specific content for each column individually, such as:

- 2 columns with the whole year (brown column title) – select the year in question
- 3 columns for entering data on a per month basis (green) – controlled by the left side control window for the quarter (3 months) or year (full year)
- 3 columns with selectable months (or a full year period) for viewing existing data – for example as a reference to the data to be entered - comparing them with the data and new data
- 2 columns for quarters (orange) for quarters or their total (like Q1+Q2 or Q2+Q3+Q4)

For all columns, the users may select a different version and currency.

Package Manager and Rule Engine – Example Consolidation

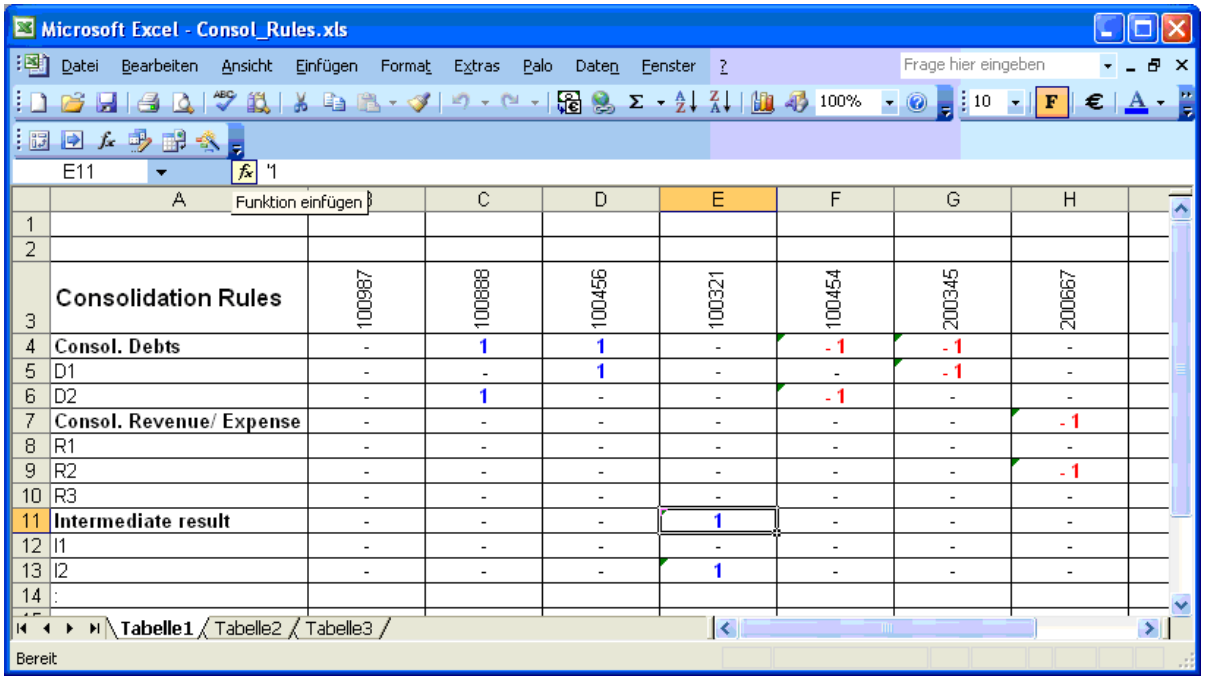


Illustration 9: Power user rule designer

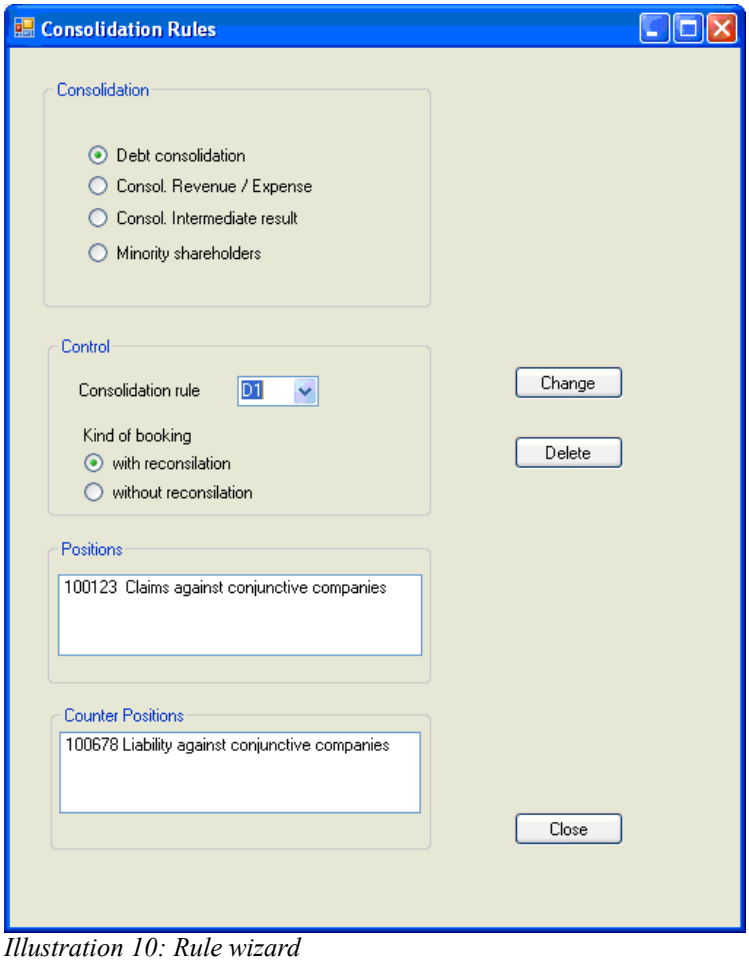
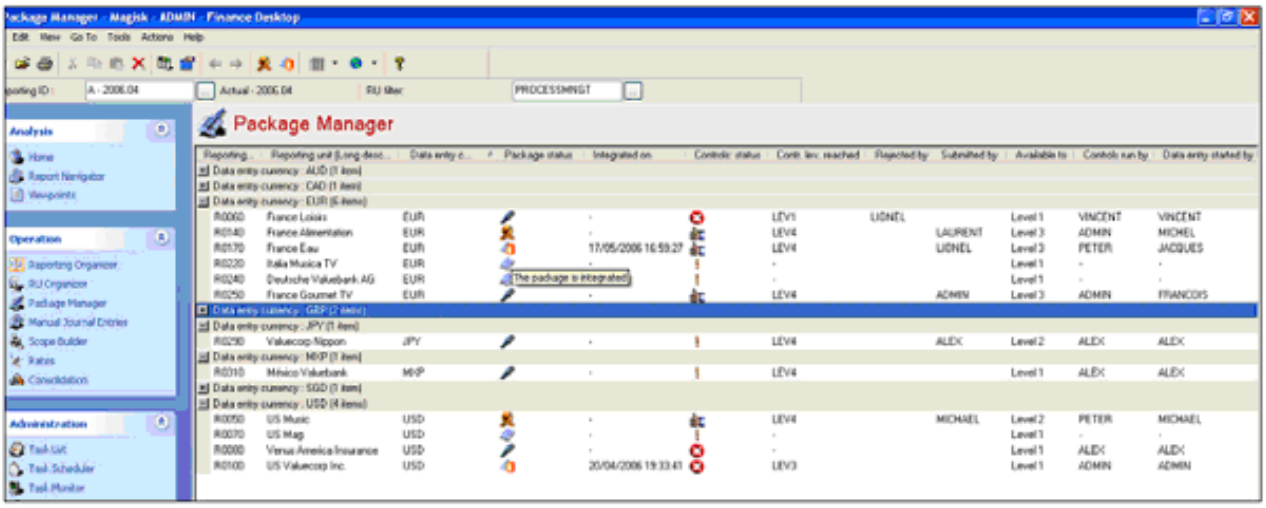


Illustration 10: Rule wizard



Consolidation rules

A great potential for rationalization in consolidation can be achieved when the data in the cubes can be consolidated automatically according to rules which were stored upfront and which can be run again and again. Both modes are available, automatic (depending on events or based on date and time) and manual triggers.

There is also a manual booking feature, both the automatic as well as the manual bookings are logged in the transaction log.

Automatic consolidation rules can be defined for each region of the consolidation, that means, for

- consolidation of expenses and yields
- elimination of inter company profit and loss
- consolidation of debts
- consolidation of capital

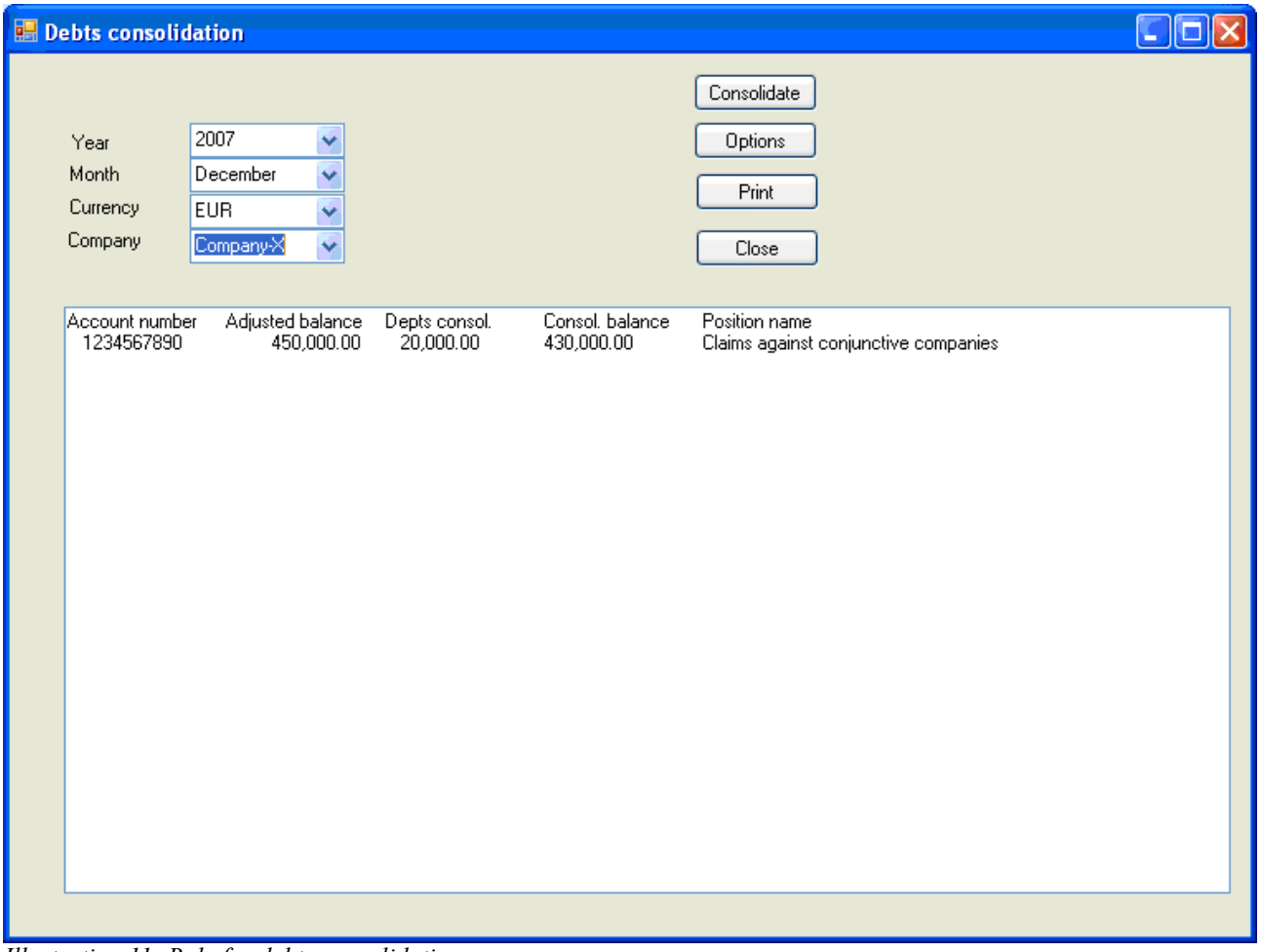


Illustration 11: Rule for debts consolidation

Examples based on our financial cubes:

P&L cube:

- period
- currency
- version
- company
- intercompany
- ifrs pl
- sap level
- costcenter
- costunit
- project
- location
- division
- nation

Balance cube:

- period
- currency
- version
- direction
- company
- intercompany
- ifrs balance
- sap level
- division
- nation

Ex. 1:

<debts consolidation> <claim against adjunctive companies>

= booking with opposite sign (<sum balance>,<subposition>)[don't consider quota]

Ex. 2:

Var = Product(<sum balance>, <intermediate cost rate>;

<elimination of intercompany profit and loss><partner company><operating materials>

= booking with opposite sign (Var) [don't consider quota];

<elimination of intercompany profit and loss><annual result (balance)>

= booking with opposite sign (Var) [don't consider quota];

Ex. 3:

Var = Difference(<basis of capital consolidation><subposition>,

<basis of capital consolidation><partner company><own capital>);

<capital consolidation><goodwill>

= booking with the same sign (Var)[consider quota];

Management GUI – Tomcat based enterprise class administration

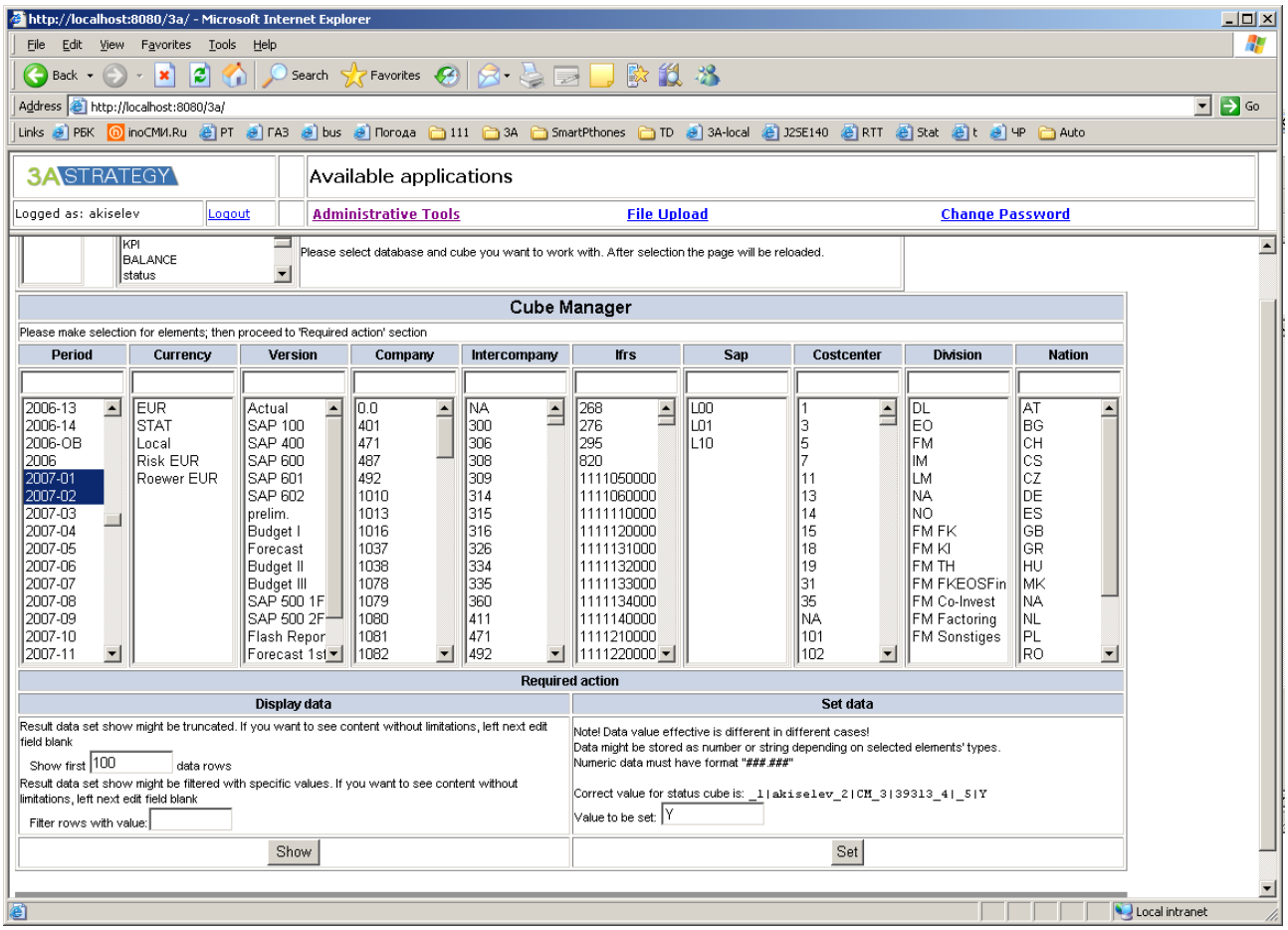


Illustration 12: Cube Manager - for viewing, writing or modifying data/facts in the selected cube

The Admin Tools cover all kinds of data and attribute manipulations:

- extract
- import/load of data
- comparing data
- setting the status
- management of users (linked to LDAP) and their access rights

- firing predefined rules/triggering transformations
- modifying ACL rules in relation to the content, the stored data

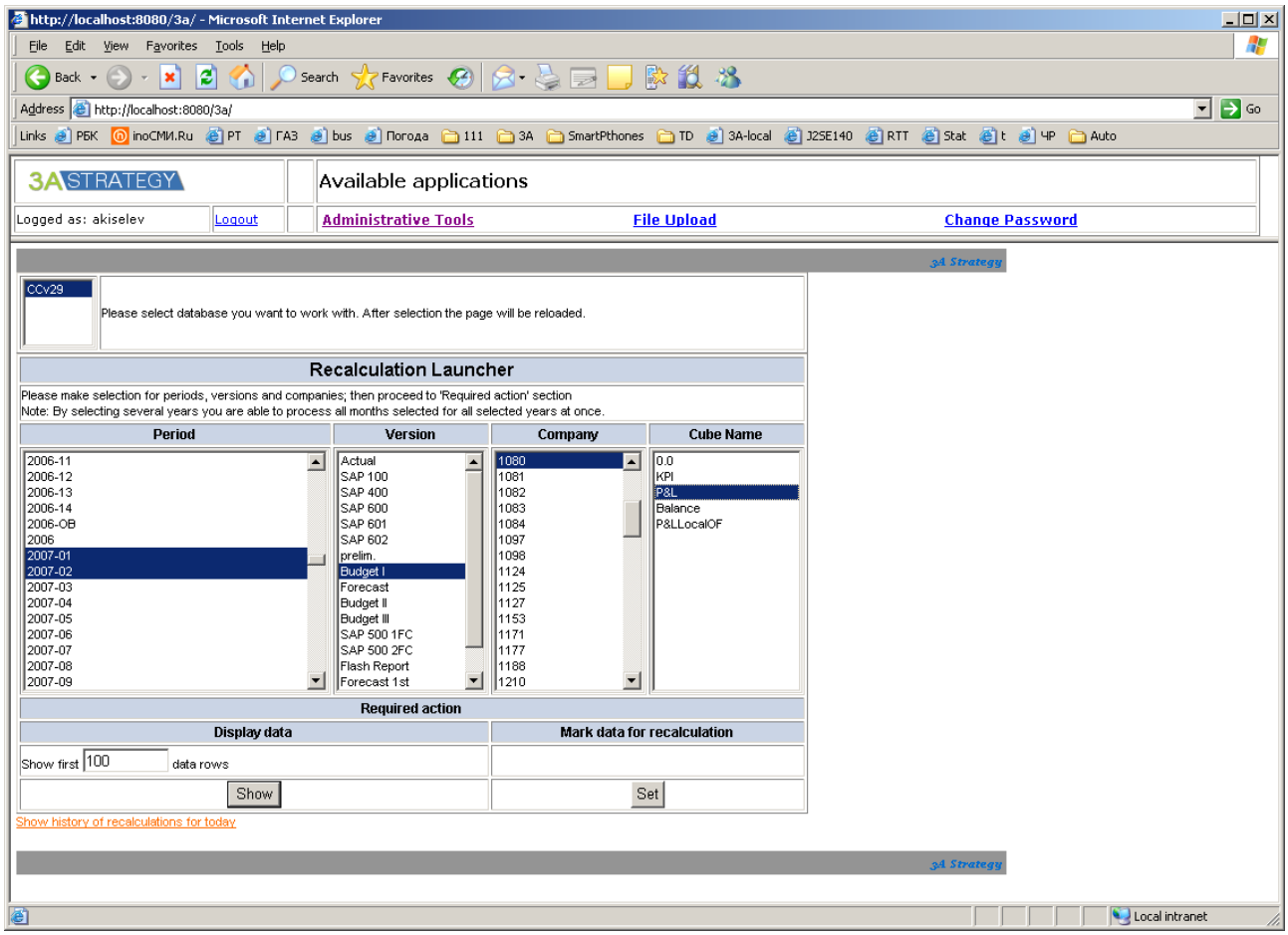


Illustration 13: Status Manager - for letting others know and to track, what I'm starting to trigger on this database and server

Illustration Index

Bibliography

*You can download the last community based tools, documentation and sources from the web **starting mid of November**:*

http://www.MyBiQ.org

Professional services and related products can be obtained from:

http://www.MyBiQ.com

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