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"Building an Embedded Enterprise Performance Management Solution: An Exploratory Case Study"

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Project Work presented as partial requirement for obtaining the master's degree in Statistics and Information Systems and Information Technologies Management.

NOVA Information Management School Instituto Superior de Estatística e Gestão de Informação

Universidade Nova de Lisboa

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NOVA Information Management School Instituto Superior de Estatística e Gestão de Informação Universidade Nova de Lisboa

BUILDING AN EMBEDDED ENTERPRISE PERFORMANCE MANAGEMENT SOLUTION: AN EXPLORATORY CASE STUDY

by

Caglayan Adiguzel

Project Work presented as a partial requirement for obtaining the master's degree in Information Management, with a specialization in Information Systems and Technologies Management

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ABSTRACT

Nowadays most companies are struggling to manage large data and spending a lot of money on storing and capturing. To benefit from the stored data, enterprises implement Business Intelligence solutions and technology-driven processes. The most significant advantage of BI is analyzing actionable information and data-driven business decisions for executives and managers. Since technology is evolving very fast, Business Intelligence processes are getting more advanced every day. These advancements are promoting accountability, visibility, timely actionable information, increased return on investment, connected business processes, standardized management processes and augmented organizational flexibility. In a relationship with BI, enterprise performance management provides more predictable answers on these advancements by improving planning, budgeting, financial reporting, and consolidation.

Therefore, this study aims to contribute to a better understanding of the implementation processes of embedded Enterprise Performance Management Solutions in ERP Embedded BI Platforms by revealing its methodology, steps, significant milestones, and effectiveness of the organizational structure. The embedded approach is going to be maintained by Business Intelligence based Business Planning and Consolidation tool on Enterprise Resource Planning System. Embedded Enterprise Performance Management solutions consist of Analysis Reporting, Business Planning, and Consolidation. Thoroughly they cover budgeting, planning, and consolidation as an advance altogether. The Implementation of an artefact aims to satisfy market competition requirements and to compete with financial demands which are originated from the growth rate at the organizational level

There are several studies in the literature focuses on the critical success factors of BI projects, but there are not many studies which are mainly focused on the process evaluation of embedded enterprise performance management solutions and their success on organizations. This study will be an exploratory design research case study of a Group Company which is professionalized in language translation in 30 different countries on five different continents.

KEYWORDS

Budget Planning, Consolidation, EPM, Enterprise Performance Management, Embedded Systems, Real-Time, Business Intelligence, Finance

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LIST OF ABBREVIATIONS AND ACRONYMS

EPM	Enterprise Performance Management
BI	Business Intelligence
ERP	Enterprise Resource Planning
ВРС	Business Planning and Consolidation
ІТ	Information Technology
IS	Information Systems
DW	Data Warehouse
OLAP	Online Analytical Processing
EDW	Enterprise Data Warehouse
SQL	Structured Query Language
RAM	Random Access Memories
ABAP	Advanced Business Application Programming
SAP	Systems Applications and Products in Data Processing
BW	Business Warehouse
BW-IP	Business Warehouse – Integrated Planning
РАК	Planning Application KIT
ETL	Extract Transform Load
EDM	Enterprise Data Model
CRM	Customer Relationship Management
HR	Human Resources
HRM	Human Resources Management
DBMS	Database Management System
OLTP	Online Transaction Processing Databases
СРМ	Corporate Performance Management
PF	Planning Function
PS	Planning Sequence

- AFO Analysis for Office
- HCM Human Capital Management

1. INTRODUCTION

Lately, organizations are investing a lot of money on storing and capturing data. Most companies are struggling to manage the vast amount of data which is growing day by day with an increasing rate. To maintain the benefits of stored data, enterprises implement technology-driven Business Intelligence processes to extract data-driven business decisions. Since technology is evolving very fast, Business Intelligence processes are getting more advanced every day. Because of that organizations are very eager to maintain.

Meanwhile, timely, accurate, and relevant intelligence to plan and control the entire organization is getting essential. Enterprises are trying to collect the most vital metrics to measure the performance with the help of technology. At this point, the general trend is getting to the idea that all management systems could work together to provide the needs of the organization at the right time. Enterprise Performance Management (EPM) provides these enhancements by improving organizations' planning, budgeting, financial reporting, and consolidation. The primary motivation of Enterprise Performance Management is managing integrated business processes on the strategical, financial and operational level to enable more effective businesses. EPM can provide a competitive aspect for companies which integrate it by allowing their self to anticipate and respond to a changing business environment.

Henceforth, the aim of this study is the development of an embedded enterprise performance management solution in ERP embedded business intelligence platform to maintain foresight capacity and decision-making mechanism for the group company. During the project the chosen embedded enterprise performance management solution will be implemented to provide a clear understanding of improved financial reports with planning approach. In the meantime, the developed system will be providing real-time data for the reporting as well as sustaining real-time planning for a different level of the group company. The ultimate aim is to retain better-informed decisions and plans.

The study paper is organized in several sections. The first section is completely related with problem, motivation, objective and project goals. The second one is entirely dedicated to literature review, where each relevant idea mentioned in the paper is discussed in detail. The third section presents the methodology considered most appropriate for the problem in analysis. It also includes an extensive analysis of the findings that are extracted from artefact development performed during the methodological process. The fourth section is presenting all the significant results and analysis which are collected during and after the implementation. Finally, the last section displays the conclusions extracted throughout the master thesis project.

1.1. CONTEXTUALIZATION

The Group Company which is the main asset of this article has an ERP system which consists of different modules, such as Financial Accounting (FI), Controlling (CO), Asset Accounting (AA), Sales & Distribution (SD), Material Management (MM), Project System (PS), Human Resources (HR), etc. ERP system collects and combines data from the separate modules to provide a complete data store for the company or organization. A complete combination of the data structure in the ERP system is summarized in Figure 1.1.



Figure 1.1: Modules of ERP System

All these modules provide actual data through the central component ERP structure as well as store planning data aside. That is why this study aims to develop an embedded enterprise performance management solution in ERP embedded business intelligence platform to maintain foresight capacity and decision-making mechanism for the group company. Business Intelligence approach will be used to process the data as valuable information. It will lead to a faster, more efficient decision-making processes on enterprise performance management.

1.2. IDENTIFY PROBLEM AND MOTIVATE

Major Problems in Group Company are briefly presented below:

- Basic excel forms are used by central financial services through a process of enterprise performance management. The whole approach is centralized in shared finance services in one company branch and transformations is happening through email connections.
- Many organizations started to use globally connected ERP system related enterprise performance management tools.
- Since the company developed a global financial structure above its partners and shareholders, a new solution for the globally available performance management tool is required.
- Lack of guidance through the application of enterprise performance management solution to improve the orientation of business processes with the business strategy and to develop the ability to measure performance efficiently.
- As a group company, revealing performance indicators demands consistency on the globalbased analysis. Direct participation of each peer from every part of the global structure of the group company is also required to maintain control conditions requested by managers. Coordination of activities needed for budget planning and consolidation as an advance through enterprise performance management progress.

1.3. DEFINE OBJECTIVES OF SOLUTIONS

So briefly our objective is: "Propose a method towards the evaluation of the implementation of an embedded enterprise performance management solution in ERP Embedded BI platform of a group company, thereby improving the orientation of business processes with the business strategy and enhancing the ability to measure financial performance by using the advantages of real-time data support."

1.4. THE MAIN QUESTION REGARDING WITH THE PROJECT

Based on the problem and objective, the primary research question is: Is it possible to build a specific artefact to satisfy the needs of the group company. On the other hand, what can be the most suitable solution for the evaluation of the design and implementation of an embedded enterprise performance management solution in ERP embedded BI Platform and what are the properties of this solution to reveal and analyze this question?

Support questions for the workshop are defined according to Span (2009):

- What is the current situation in literature, about enterprise performance management (EPM)?
- What is the current situation in literature, about Business Intelligence (BI)?
- What constraints need to be dealt with through the evaluation of designing and implementing an embedded EPM solution in practice?
- What are the main properties of an embedded EPM solution in real life?
- Which steps can be separated through the evaluation of the design and implementation process of an embedded EPM solution in practice?
- Which steps or activities can be executed through the assessment of developing and implementing an embedded Enterprise Performance Management solution in practice?
- What methods and techniques can be used to reach the objective in practice?

Briefly, the output of this project will be the building of a globally connected enterprise performance management system.

1.5. PROJECT GOALS

The primary goal is to develop a methodology for the building of embedded Enterprise Performance Management solution in ERP Embedded BI Platform which has a significant relationship with the new technology in-memory, column-oriented, relational database ERP system.

This objective is right from the IT-Eye perspective and the actual group company's structure as well. It will be very useful in creating this method to provide and relate to the company's strategy and to monitor business processes globally. The next step of discovering the applicability of an embedded enterprise performance management solution will help the group company compared to other solutions on the market in decision making and systematize management processes. This should predict new opportunities for the company for further performance improvements. (Span, 2009)

2. LITERATURE REVIEW

In this context, Enterprise Performance Management is not a very popular theoretical topic in the business intelligence area that attracts attention lately. However, it was recently ranked as one of the top ten technology trends that companies should own. It is considered a jump tool ahead of the competition (Ariyachandra, 2008). Below, a literature review of EPM is mentioned briefly by the support of BI understanding of data warehousing. Beside EPM, Business Intelligence approach should be identified, analyzed and understood completely. The reason is; EPM is directly related with Business Intelligence in Information Management Systems and Technologies. EPM and Business Intelligence aspects will be presented briefly in divided sections to cover all the elements of this project.

2.1. ENTERPRISE PERFORMANCE MANAGEMENT

In general, EPM solutions in financial context are formed by Planning & Budgeting, Financial Enterprise Reporting and companywide Consolidation approaches (Gaiss, 1998). It is very crucial that a company has a long and short-term planning mindset which is considering the actual financial history of the organization in each financial term. For big companies, this is one of the most significant requirements (Ariyachandra, 2008).

2.1.1. Planning & Budgeting

Planning & Budgeting is the process by which the group will establish financial goals to reflect its choices and tactics, including the use of actual and historical data to predict the financial outcome of the upcoming months (forecasting). The group's budget method follows a bottom-up approach where individual responsibility centers start to plan future conditions for the company. Subsequent procedures will become more and more centralized along the planning flow, resulting in a corporate budget reflected on projected financial statements and reports. Specifically, budgeting is the method of analyzing the future about how to spend actual money for a defined period. Budget planning includes planned sales volumes and revenues, resource quantities, costs and expenses, assets, liabilities and cash flows (Gaiss, 1998). Creating a future transaction plan allows to control and check if enough money is available to afford needs or planned investments in advance. It is the method of balancing expenses and income altogether. Nowadays budgeting, planning, and forecasting are one of the most crucial processes for companies to estimate the future and prepared for the upcoming financial periods. Because of that preferences, consistency is critical when it comes to future financial analysis. Details can be beneficial, and timing also can reveal risks and shortages. It reveals strategic plans of business units and an organization, activities or events in defined term with measurements (Zeng, 2006).

A budget planning helps to improve the planning of actual operations by demanding consideration on how the conditions might affect the plan and what aids should be taken now by managers. It also encourages managers to consider problems before they arise from a variety of subjects. Helps the coordination of activities in the organization by informing managers to examine relationships between their operation and related departments (Bose, 2006). Other significant roles of the budget include:

- To control resources
- To motivate and encourage managers to achieve budget goals.

- To evaluate the performance
- To provide visibility and clearance into the company's performance
- The support mechanism of responsibility

2.1.2. Consolidation

Consolidation is merging assets, equity, liabilities and operating accounts of a parent firm and its subsidiaries into one financial statement. Joining two or more firms through purchase, merger, or ownership transfer to form a new group company is the basic definition of consolidation. In the corporate dictionary, consolidation is also known as amalgamation which is the merger and acquisition of smaller companies into a more larger group company. In the financial accounting framework, consolidation refers to the combination of financial statements of a group company as consolidated financial statements with a parent-child financial relationship (Loebbecke, 2016).

Consolidation methods occur in a different kind of investment methods. Percentages signify the influence of parent(purchasing) company on a child (Purchased) company. These are 20% ownership or less (Investment), 20% to 50% ownership (Associate Company) and more than 50% ownership (Subsidiary). In this case, a remarkable point is if the company owns more than 50% common stocks of child company, purchasing company has control over the acquired company (Elias, 2012).

Consolidation shows both parent and subsidiaries in a consolidated financial as one single entity. Parent company uses its investment power on subsidiary to make further investments (Bose, 2006).

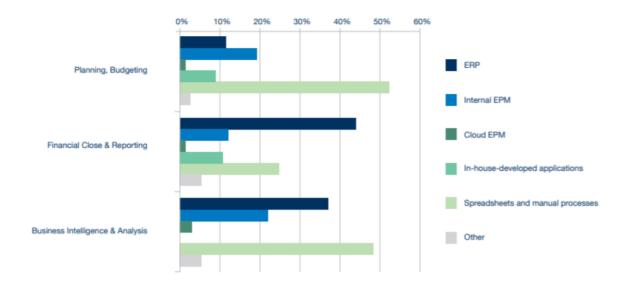
2.1.3. Business - Enterprise Reporting

Business reporting or enterprise reporting is an analysis of financial data by a business enterprise. On the other hand, reporting is the acquirement of information for decision-makers within an organization to support their work effort. Implementation of a project consists of extract, transform and load (ETL) processes in coordination with business warehouse (Data Warehouse) (Bose, 2006). After these operations finished, reporting tools are used to create provisions from the collected data for decision making. These reports delivered to designated users by different distribution channels like print out, email or cloud-based presentations. Nowadays, with the expansion of information technology and the increases in the desire of corporations, the computer is the only way of reporting. All these approaches are originated from analytics which is discovery and interpretation of meaningful part of data. Organizations apply analytics to their data to describe, provision and improve their business performance in advanced level. Especially, areas of analytics which includes predictive analytics, prescriptive analytics, and enterprise decision management are critical and beneficial. There is also a different analytics method to improve prediction and provisioning. According to that information, we can analyze possible problem which can mostly affect the building process (Bose, 2006).

2.1.4. Usage of EPM

Regarding the usage of the EPM tools, the study of Desroches (2014) presents a lot of facts that are directly related with the motivation of users and EPM. According to Desroches (2014), there is still a significant dependency on the use of spreadsheet-based tools to support EPM activities. This is particularly true for support of planning and budgeting as well as business intelligence and analysis.

Survey analysis shows that more than half of the respondents rely on spreadsheets and manual processes to support planning and budgeting activities.





Source: (Desroches, 2014)

But users who are dependent on the use of spreadsheets and manual processes expressed that their satisfaction level regarding with the technology is the lowest. In the meantime, respondents who are using cloud technology or internal EPM Software to support EPM activities, they expressed the highest overall level of satisfaction among all technologies considered as well as the highest level of satisfaction for supporting financial close and disclosure activity and business intelligence (Desroches, 2014).

Spreadsheet-dependent users are not satisfied enough that their planning and financial close activities are efficient and effective or that they have excellent processes for monitoring performance. Users who are using only ERP, are most likely to believe that their planning and financial close activities are efficient and effective. On the other hand, users who are using cloud technology or internal EPM Software are highly satisfied that their standard reports provide the information needed to perform their job, that their internal stakeholders can run their reports efficiently without relying on accounting or IT, that they have useful tools for answering ad hoc questions, and that their organization has an excellent process for monitoring performance (Desroches, 2014).

2.2. BUSINESS INTELLIGENCE

Business Intelligence is considered one of the most crucial advantages of the company by many authorities. Ability to store, explore and add value by making decisions are the top benefits of BI tools. Operational systems are where you put data and BI systems is where you get the information out. (Kimball & Ross, 2013)

The success of BI on competitive advantages is driving the market to evolve every day. A lot of studies show the importance of BI platform in decision making and future planning in any organization (Dobrev & Hart, 2015).

On the other hand, maintaining BI has many requirements (Kimball & Ross, 2013):

- Easy Access to Information
- Consistent Information
- Adaptation to changes
- Presentation of information on time
- Security of the Information
- Authority and Trustworthiness of the system
- Acceptation of the success of the system

2.2.1. Data Warehouse and Infrastructure

This section will be related to Data Warehouse and its design processes. The concept of a data warehouse with its benefits and requirements and its design will be covered briefly in this section.

As a first step, some major functional requirements should be identified before starting the design of Data Warehouse (Boateng, Singh, Greeshma, & Singh, 2011).

- Business needs
- Outputs
- Expectations
- An indication of scope for the required data
- The delivery method of the data
- Defining Subject Model
- Documentation of Data

These requirements will help to create a scope of Data Warehouse with its aim, goals, and limitations. After clarifying requirements, choosing the most appropriate architecture will be the next step for maintaining the data warehouse. Nature of user tasks, independent information between organizational units, social and political factors, business constraints, technical issues and compatibility with the existing system are the major factors that can affect this process (Boateng, Singh, Greeshma, & Singh, 2011).

In the meantime, the right questions should be asked regarding with the architecture also (Kimball & Ross, 2013).

- Which tool or system should be used for analysis, data recovery, database management, data migration (ETL, etc.).
- Will, there be parallel processing to maintain the system, or it will be partitioning.

According to Moody and Kortink (2000), steps of Data Warehouse creation is defined as it is presented below:

- 1. Develop EDM
- 2. Design Data Warehouse
- 3. Classify Entities
- 4. Identify Hierarchies

5. Design Data Marts – design star schema structures for each transactional data source in the data warehouse model.

One of the important data warehouse architecture is defined by Ralph Kimball (2013) which is a Dimensional Data Warehouse Architecture. Dimensional Data Warehouse is a database that is managed independently of an Operational database (OLTP - On-Line Transaction Processing databases), according to Kimball & Ross (2013). It is the favorite technique for the developers because it helps to maintain the analytical data which provides logical data for business users and fast performances on query running. It is straightforward and goal oriented (Kimball & Ross, 2013).

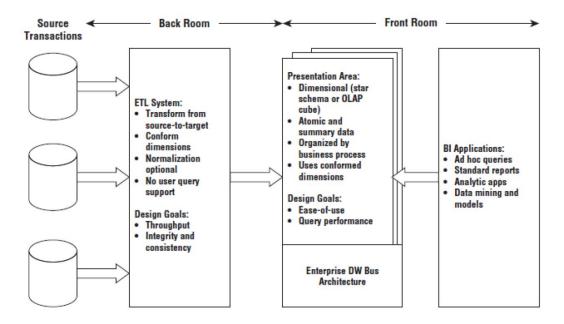


Figure 2.2: Kimball DW Architecture

Source: (Kimball & Ross, 2013)

On dimensional modeling, the Hierarchical structure has an important role. Because it helps to construct the core points of dimensional modeling by maintaining the relationship between each other in Master Data concept (Moody & Kortink, 2000). They are generally maintained in one to many relationships which are aligned all to the same direction.

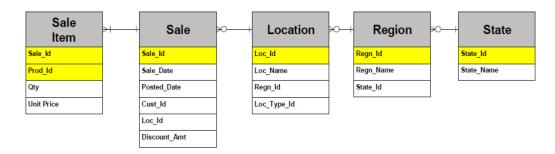


Figure 2.3: Hierarchy Sample

Source: (Moody & Kortink, 2000)

According to Moody & Kortink (2000), a hierarchy in an Entity-Relationship Model is formed as "State" at the top and "Sale Item" at the bottom. As it is presented in Figure 2.3; "State" is the parent of "Region", "Region" is the child of "State", "Sale Item" with "Sale Location" and "Region" are all child of "State" as well. In this case "Sale", "Location", "Region" and "State" are all parents of "Sale Item".

As presented in Figure 2.2, Kimball's Data Warehouse Architecture considers Data Source, ETL, Data presentation area and Business Intelligence Applications as the main components of the structure. In this concept, Data Source keeps the potential of combining useful and business-related data from different kind of business modules-resources. As an example; ERP, CRM or HRM systems are the most favorite ones. These data sources can be structured with relational databases with many tables or different independent databases with spreadsheets and plaintexts. (Ranjan, 2009)

The other concept ETL is defined as the process that consists of Extraction, Transformation, and Load which is the transporting-replicating amount of specific data from the source system to the data warehouse. ETL is very important when it comes to maintaining a good data warehouse with accurate historical or updated and maintenance of the date. To maintain it, it can also be created with full of process which is anti-duplication, character type correction, missing entry or misspelling. It is also very useful on master data change logging which provides the historical information at the Datawarehouse separated from the source system (Vassiliadis, Simitsis, & Skiadopoulos, 2003).

Another concept is the Data Presentation Area. According to Kimball & Ross (2013), it should be organized for the needs of business processes and their events. Data in the presentation area should be dimensional and business process centric. Its structure should be designed for the standard department needs, not individual department needs (Kimball & Ross, 2013). Hereafter, the concept star schema and online analytical process(OLAP) cubes take control of data structure. If the presentation area includes one of these structure designs, it is accepted that the dimensional concept is maintained on the Data Warehouse (Moody & Kortink, 2000).

Moody & Kortink (2000) identifies star schema as a basic building block which is used in Dimensional Modelling. There is a central table which is called "Fact Table" and the number of smaller tables which are called dimension tables are surrounding this fact table (Moody & Kortink, 2000).

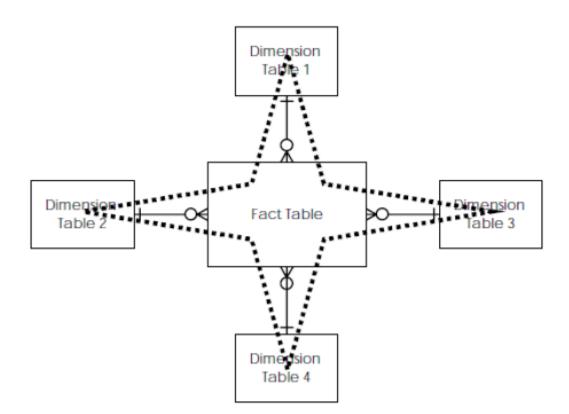


Figure 2.4: Structure of Star Schema

Source: (Moody & Kortink, 2000)

Primary Keys in all dimension tables should be maintained as concatenated in Fact Table. Because fact table is linked to other dimensional tables through those primary keys by one-to-many relationships. With this relationship, dimension tables provide more detailed master data for the element from the fact table when it is needed. In this case, the fact table is designed to store primary keys with measurements (quantity, amount, price) and dimension tables to store master data for each aggregated element from fact table (Moody & Kortink, 2000).

Both Star Schema and OLAP cubes have identifiable dimensions, but their implementation is made differently. When it comes to OLAP cubes, data is deposited with specially formatted indexes which are designed for dimensional data. On the other hand, OLAP Engine is performing pre-calculated summary tables by indexing strategies and other optimizations to provide superior query performances. Time and Hierarchies are the main navigation dimensions to slice and dice and drill down on OLAP cubes concept. OLAP techniques and tools can be used to work with data warehouses or data marts designed for sophisticated enterprise intelligence systems, as reported by Ranjan (2009).

According to Kimball & Ross (2013), the primary benefit of using star schema is that it reduces the number of tables in database and number of relationships between them. It is also stated that it either be implemented with special OLAP tools or using Database management Systems(DBMS).

Since Group Company has in-memory, column-oriented, relational database management system(SAP HANA), it would be much more beneficial to have a solution which is embedded in the system directly. SAP HANA is designed to replicate and ingest structured data from SAP and non-SAP databases, applications, and other systems in a faster way. It has three styles of data replication available which are trigger-based, ETL-based, or log-based and can be used depending on the source system and desired use-case. The replicated data is stored in random access memories (RAM) rather than loaded onto disk drive which is the the traditional method of application data storage concept. Because the data is stored in-RAM, it can be accessed in real-time by analytic and transactional applications that runs on top of HANA (Merz, Hugens, & Blum, Implementing SAP BW on SAP HANA, 2015). Derivation of real-time data will be much faster and effortless. On the other hand, new technology, in-memory, column-oriented, relational database management systems offers to create and manage actual database by integrated development environment (IDE) tools (Pattanayak & Koppolu, 2016).

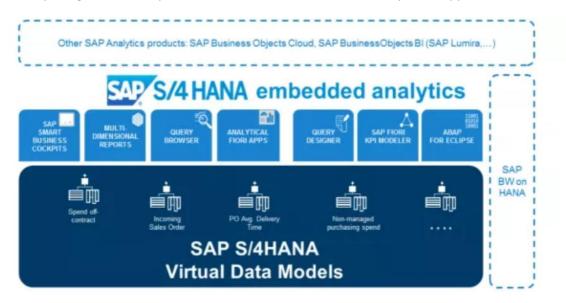


Figure 2.5: SAP S/4HANA

Source: (Pattanayak & Koppolu, 2016)

Creating Data Sources from ERP and establishing a connection between Info Providers can be handled by IDE tools (ABAP for Eclipse) as well. Regarding embedded connection feature, Info Providers can be loaded by real-time data acquisition without any data transfer load process regulation. (Darlak & Christensen, 2014)

2.2.2. Metadata and Optimization

On the second section, metadata will be covered. Importance of Metadata and its usage in Business Intelligence approach will be covered in this section. Metadata is data that keeps information about other data in the system. Examples for metadata can be filenames, author name, file sizes, etc. According to Inmon (2002), Document ID, Data of entry, Description, Source, Classification, Index Words, Purge Date, Physical Location Reference, Length, and Related References should be included as metadata.

Generally, metadata maintenance is handled by ETL suites and data warehouse systems. According to Boateng, Singh, Greeshma, & Singh (2011), metadata capturing and delivery are primary tasks of ETL.

They should be provided by ETL suites already through the processes. Also, data warehouse architecture should be available to maintain and provide metadata repository (Kimball & Ross, 2013).

According to Boateng, Singh, Greeshma, & Singh (2011), the major issues regarding with the optimization are presented as:

- The amount of data in the warehouse
- The growth rate of the warehouse and the expectation
- The number of parallel users
- The complexity of user queries
- Queries and other data access functions should grow linearly with the increase of the data warehouse

Dimensional approach on modeling provides extreme optimization and scalability options. Fact tables are getting bigger every day, and their enlargement increases the arguments about simplicity on data warehousing. As Kimball & Ross (2013) stated that the key factor of data warehousing is the simplicity itself. It enhances the fast maintenance and understanding of data for the business. It also increases the query performances and runs time statistics.

2.2.3. Business and Management Processes

Nowadays, studies on data warehouse projects show that proper management on BI and holistic concepts of BI maturity is critical. Usually, Bi solution life cycle includes implementation and support processes. BI solution implementation and support services can be in-source or out-source. Successful management of BI can be maintained with a close relationship of IT and business through the BI solution life cycle. That is why, Wieder & Ossimitz (2015) suggests that Implementing and retaining a BI solution in support of "effective problem and opportunity identification, critical decision-making, and strategy formulation, implementation, and evaluation" should not be outsourced entirely. It requires internal resources beyond the IT department. Wieder & Ossimitz (2015) also states that organizations can reveal the most benefits out of BI applications if proper management of BI is maintained in the organization. According to their perspective, the relationship between BI Management Quality, Information Quality, and Data Quality are described with bullets below:

- BI management quality is positively related to the quality of managerial decision making
- Information quality is positively associated with the quality of managerial decision making
- Data quality is positively related to information quality
- BI management quality is positively related to data quality
- BI management quality is positively related to information quality

According to Couture (2013) basic dimensions that can be expanded upon over time are presented below:

- Completeness Source-to-target validation; Monitored and reported
- Timeliness Defined Service Level Agreements7 (SLAs); Reviewed and approved; Monitored and reported
- Validity Data profiling8; Data cleansing9; Inline data quality checks; Monitored and reported
- Consistency Inline data quality; Trended; Monitored and reported

Data integration processes should be, according to Sherman (2014):

- Holistic avoid costly overlaps and inconsistencies
- Incremental more manageable and practical
- Iterative discover and learn from each project
- Reusable ensure consistency
- Documented identify data for reuse, and create leverage for future projects
- Auditable necessary for government regulations and industry standards.

According to Horakova & Skalska (2013), BI tools are more and more often focused on Corporate Performance Management(CPM) or lately it is called Enterprise Performance Management(EPM). CPM is designed for managing and analyzing general business efficiency. Key performance indicators are generally supervised both at the corporate level and at the department or division level. CPM provides metrics for verification of business efficiency development, and BI solutions can support the practical realization of CPM.

According to (Lingle, 1996), organizations using balanced performance measurement systems as the foundation for management perform, are better than those that do not have or use the technique. Because of that companies should at least have a minor knowledge of what is EPM and its advantages on management performance. According to the related importance, there is a massive gap in the literature about EPM and its aspects. There are not enough methodological approaches analyzed and proposed for EPM design and implementation.

As (Dresner, 2008) explains, anyone can approach EPM in multiple ways when different business cases require different approaches as well. This statement may be considered as a restriction on the topic, but it reveals the needed effort on EPM area which has a broad variability within its parameters. Current EPM approaches in the literature include the BPM framework by (Ariyachandra, 2008), the BPM lifecycle by (Zeng, 2006) and PDCA cycle from (Deming, 1986). These approaches are mainly focused on continuous improvement of EPM implementation. This study tries to extend the literature by using an exploratory case study of the building of embedded version of EPM solution on an inmemory, column-oriented, relational database management system. By describing this aspect, the gap which is originated from high variability within EPM and business relation parameters will be decreased (Span, 2009).

2.2.4. Reporting Tools

Kimball & Ross (2013) describes the term BI application as the variety of abilities provided to business users to control the presentation area for analytic decision-making purposes. A BI application can be:

- Ad hoc queries as simple as an ad hoc query tool or as complex as a sophisticated data mining or modeling application
- Standard reports Most corporate users will probably access the data through prebuilt parameter is driven applications and templates that do not require users to construct queries directly
- Analytic apps Ad hoc query tools may be understood and used efficiently by only a minor percentage of the potential data warehouse business users

• Data mining & models – Some of the sophisticated applications, such as modeling tools, might upload results back into the operational source systems, ETL or presentation area

Obeidat, North, Richardson, & Rattanak (2015) mentions that the Business Intelligence applications are rarely used in a popular of search-based applications within a range of areas, such as Business, Security, Finance, Marketing, Law, Education, Visualization, Science, Engineering, Medicine, Bioinformatics, Health Informatics, Humanities, Retailing, and Telecommunications.

Currently, technology vendors are promoting data visualization and Business Intelligence tools more than ever. However, other communities support that successful business intelligence implementations need to have enough human sources with capable knowledge of BI (Few, 2007). At this point, it is essential to maintain the role of the user on the development of the BI solution. As Obeidat, North, Richardson, & Rattanak (2015) recommends that at least one mid-process of the development of report or dashboard solution should be dependent on the end-user. Because users can identify and control the driven data from developed report and dashboard. Relevancy of the data between users and business is very critical in this process.

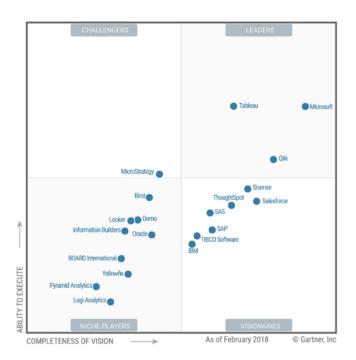


Figure 2.6: Magic Quadrant for Analytics and BI Platform

Source: (Gartner, 2018)

There are a lot of business intelligence reporting software available on the market. Majority of these tools are focused on reporting and dashboarding. When it comes to input data for budgeting and planning and enterprise performance management solutions, the product range is very different and limited.



Figure 2.7: Magic Quadrant for EPM Tools

Source:	(G2CROWD,	2018)
500 a cc.	(<u>uzeno</u> ,	2010)

The comparison of five of these full-scale Enterprise Performance Management solutions are presented below (G2CROWD, 2018):

Compare	Product	Planning	Data Visualization	Data Analysis	Forecasting	Real-Time Data Updates	Collaboration	Custom Reporting	Budgeting
		÷	*	-	÷	÷	*	-	÷
Compare	SAP Business Planning and Consolidation (BPC) 4.0 含含含合介 (17)	\bigotimes	\oslash	\bigotimes	\bigotimes	\oslash	\oslash	\bigotimes	\oslash
Compare	IBM Planning Analytics, powered by IBM TM1 3.9 ☆☆☆☆☆ (22)	\oslash	\bigotimes	\bigotimes	\bigotimes	\bigotimes	\bigotimes	\bigotimes	\bigotimes
Compare	Anaplan 4.3 含含含含(2)	\bigotimes	\bigotimes	\bigotimes	\bigotimes	\oslash	\oslash	⊗	\bigotimes
Compare	SAP Analytics Cloud 3.0 合合合合合(2)	۲	*	(\mathbf{x})	۲	۲	*	∢	*
Compare	Oracle Hyperion Planning 3.7 숙습숙압☆ (19)	\bigotimes	۲	\bigotimes	\oslash	۲	⊗	*	\bigotimes

Figure 2.8: Comparison of Wide-Scale EPM Solutions

Source: (G2CROWD, 2018)

In this case, the market provides SAP BPC tool as an option for the artefact. SAP BPC (Business Planning and Consolidation) software delivers planning, budgeting, forecasting, and financial consolidation

capabilities in a single application. Adjustments on planning and budgeting are straightforward and customizable (G2CROWD, 2018).

The Actual ERP System of the group company is built on SAP S/4HANA software and HANA database. HANA is the in-memory, column-oriented, relational database that SAP SE is developed and marketed. S/4HANA is the ERP management suite that is built on operational database system by SAP SE as well (Kilaru, Sharma, Ayuluri, & Darla, 2016). In this case, we have two different options in SAP BPC solution which are BPC Standard and BPC Embedded which is more appropriate for our approach (Bekmezci, 2017):

Cash Mngt	SAP Accounting for HANA	BPC Optimized		BPC Classic			
		BW Embedded		BW			
Netweaver				Netweaver			
HANA multi-tenant							

Figure 2.9: SAP BPC Solutions

BPC Classic is structurally half closed system. (Srinivasan & Srinivasan, 2015) It has its environment and does not have a direct connection with other providers. (Kilaru, Sharma, Ayuluri, & Darla, 2016) Briefly, it is constrained and does not provide real-time info provider connection from BW level. Using transactional info providers from BW is also needed because they will be helpful in providing actual data for the reporting and maintaining satisfactory assumptions. Classic BPC will be useful for Consolidation since it has a well-maintained consolidation structure which is reliable, updated, experienced and trustworthy compared to other solutions on the market (Kilaru, Sharma, Ayuluri, & Darla, 2016).

Source: (Bekmezci, 2017)

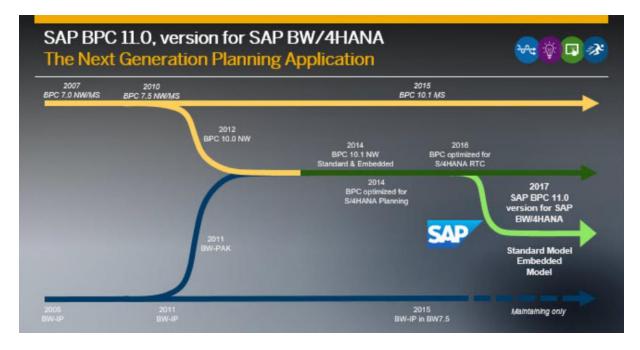
3	SAP S/4HANA, 1610	SAP BusinessObjects Planning and Consolidation		
	Disclosure Management	Group Reporting	Flexible Upload	BPC Planning
SAP ERP SAP R/3	Central Finance	Intercompany Eliminations	BPC Integration	BPC Consolidation
Non-SAP	Validations		Modelling	BPC Modelling
	Accounting Controlling	Currency Translation	Validation	
	ACDOCA Master Data	occ	BW	
Existing functionalities Consolidation Enhancements				

SAP S/4HANA 1610

Figure 2.10: SAP BPC Approach on S/4HANA

Source: (Kilaru, Sharma, Ayuluri, & Darla, 2016)

With the S/4HANA optimized BPC approach, it will be easy to maintain all the data from ERP Tables which are fundamental in Hana Multi-Tenant database. In this case, ACDOCA is the main table to keep all the data (Pattanayak & Koppolu, 2016).





Source: (Bekmezci, 2017)

As it is shown in Figure 2.11, SAP BPC 10.1 NW version which optimized for S/4HANA Planning is also using old planning method of SAP BW which BI-IP approach as a support at the planning level (Kilaru, Sharma, Ayuluri, & Darla, 2016).

2.2.5. Development Methodologies

2.2.5.1. Waterfall

Waterfall methodology is one of the top software development approaches. It is designed as a sequential top-down flowing model that only continues to the next step when the step before is finished (Mahadevan, Kettinger, & Meservy, 2015). It is also described as a phase-oriented approach. Each phase is separated by defined quality gates to review the results of the previous phase and to authorize work on the subsequent phase. As Royce (1970) stated that waterfall methodology consists of implementation steps to develop a large computer program for delivery to a customer. Methodology is focused on milestones. It provides the separation of the project scope into end-to-end features.

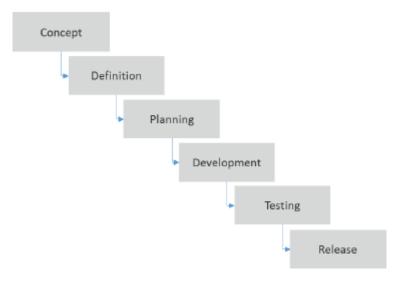


Figure 2.12: Waterfall Methodology

Source: (Grech, 2015).

Because of the structure, waterfall methodology is very open to adapt to shifting teams. Because it is forcing structured organization, control processes are fundamental. Key decision-makers who have a deep understanding of the system should be identified clearly for each step. Authorization structure of the project should also be identified by the other team members (Grech, 2015).

2.2.5.2. Agile

Nowadays, global scale projects and market conditions are pressuring for more dynamic environments and more flexible services when it comes to software development and implementation. Every day changing business systems are getting more common and flexible requirements with important changes during the project cycle are increasing day by day (Mahadevan, Kettinger, & Meservy, 2015). Agile supporters claim that changes and learning must take place throughout a project. It is designed to deliver increased efficiency, quality and project success (Ionel, 2009).

Some authorities define Agile as a lightweight approach to project management because of its iterative and change driven aspect. Like the name implies, agile stands for faster turnaround and the dynamic

ability to quickly adapt to required changes or developments. The agile approach has a habit of taking more people-centric perspective, implementing short, iterative phases which are called sprints. Sprints depend on ongoing feedback that continuously restructures and enhances the project design and plan (Mahadevan, Kettinger, & Meservy, 2015).

In 2001, seventeen authors released the agile manifesto which has finished the reign of traditional methodologies. Authors presented twelve principles about how the agile methodology should be practiced. Customer value, iterative delivery, intense collaboration, small integrated teams, self-organization, and small-continuous improvements were primary focuses (Mahadevan, Kettinger, & Meservy, 2015).

Principles (Beedle, et al., 2001):

- 1. Our highest priority is to satisfy the customer through the early and continuous delivery of valuable software
- 2. Welcome changing requirements, even late in development. Agile processes harness change for the customer's competitive advantage
- 3. Deliver working software frequently, from a couple of weeks to a couple of months, with a preference to the shorter timescale
- 4. Business people and developers must work together daily throughout the project
- 5. Build projects around motivated individuals. Give them the environment and support they need, and trust them to get the job done
- 6. The most efficient and effective method of conveying information to and within a development team is a face-to-face conversation
- 7. Working software is the primary measure of progress
- 8. Agile processes promote sustainable development. The sponsors, developers, and users should be able to maintain a constant pace indefinitely
- 9. Continuous attention to technical excellence and good design enhances agility
- 10. Simplicity--the art of maximizing the amount of work not done--is essential
- 11. The best architectures, requirements, and designs emerge from self-organizing teams
- 12. At regular intervals, the team reflects on how to become more active, then tunes and adjusts its behavior accordingly.

Mahadevan, Kettinger, & Meservy (2015) states that In the Waterfall approach, responsibility is often gathered in the information systems function. In the Agile approach, shared project responsibility is assigned to the information systems function and business function areas. During the project, representatives from both functions are located accordingly. Agile team members cooperatively provide status reports daily. Iteration cycles which are called "Sprints" are only a few weeks long and involve customer and management feedback at the end of each session to mark the main points of the actual sprints. Requirements are continuously evaluated, and priorities are changed depending on customer involvement. Cooperative responsibility, daily reporting, multiple quick iterations, and volatility in requirements adjust the Agile methodology a significant organizational conversion (Mahadevan, Kettinger, & Meservy, 2015).

Ionel (2009) also suggests two main assumptions between agile and traditional methodologies:

- Traditional methodologies assume that customers are not capable of arranging their future requirements. In this case, developers need to provide extra functionalities to meet these unexpected future needs. This generally leads to the overdesigned system. Briefly, in traditional methodologies, developers require a detailed specification at the beginning of the project.
- Agile methodologies assume that both customers and developers don't have a complete understanding of requirements when the project starts. In agile methodologies, customers and developers need to learn together about the system requirements throughout the project. Basically, in the Agile development process evolves in time.

3. METHODOLOGY

In management theory, there is no uniform approach to define the central concept (Dresner, 2008). Because of that, the methodology of this study is related to the creation of organizational and economically associated enterprise performance management system to provide global wide enterprise performance analysis. Since the primary objective is the development of the methodology to create a new artefact to solve the problem of the company, design science research methods are the most appropriate elements to finalize this progress from top to bottom. At this point artefact building, approaches will be used to support the primary outcome.

This exploratory case study was exercised at the group company to reveal the success performances of the building of an Embedded Enterprise Performance Management software. This study aims to comply with the criteria of relevance, applicability, and specificity, as proposed by Cheng(1983). The integrity of organization research and practice also be taken into consideration as Loebbecke(2016) presented.

Presented Group Company is selected because the organization is trying to implement the first ERP level EPM solution with an embedded approach for the very first time. Because of that the process itself, vulnerable to propose challenges and difficulties. The company does not have any Business Intelligence department but has a big shared financial services team which is mainly working with spreadsheets.



Table 3.1: Methodology Overview

According to methodology, the first three steps are already covered at Section 1 and Section 2 which are presented above. Remaining steps will be covered below:

3.1. ANALYZE AND DESIGN THE SYSTEM

Analysis of the system and work structure is done by the Technical Team and Project Team. Group Company wants to implement a planning and budgeting tool to accomplish business goals at a planning level, integrated with reviewed processes that can be more aligned with the benefits that can be achieved by the tool. SAP BPC optimized for S/4HANA is ready to interact and communicate with SAP S/4HANA using the same infrastructure, taking advantage of other tools as Analysis for Office. (Kilaru, Sharma, Ayuluri, & Darla, 2016). SAP BPC is also providing embedded consolidation which is considered as future development regarding this project.

Group Company is present in 21 countries with 28 fully owned companies.

This document is prepared to present all details regarding with all processes that are defined and major solution definitions related to Planning implementation. It is also included that how business processes are supported by the system.

The planning and budgeting process in scope:

- Project Revenues and Cost Planning
- HR Planning
- CAPEX Planning
- Other OPEX Planning
- Financial Statements Planning (Profit & Loss, Balance Sheets, and Cashflow)

The current planning model is based on Excel sheets. For each planning process, Group Company resources use Excel file where they can introduce the planning values. Those files are not integrated, and there are a lot of time-consuming processes. It is also mandatory that whenever there are changes, files need to be created/updated with a line (e.g., new account; new cost center). There is no master plan to connect between different planning sheets (i.e., don't have any business rule to link the Balance Sheet with P&L).

3.2. BUILD THE PROTOTYPE

Figure 3.1 represents the planning and budgeting process to be implemented in a functional perspective. It represents the concept of the planning model.

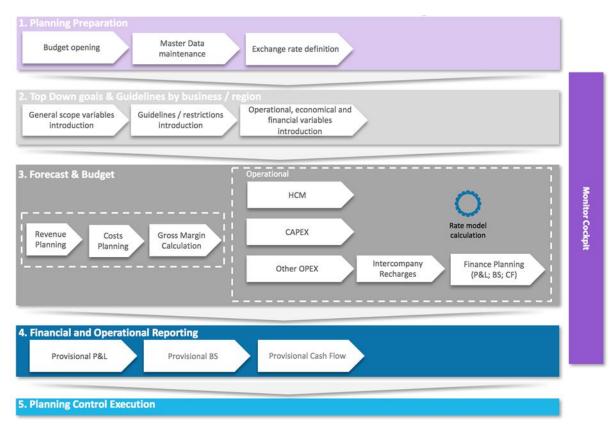


Figure 3.1: Macro Vision of Planning Process

The optimization of the current budget and planning process, as the premise of a new sustainable, scalable and transversal process for the group is split into five different steps:

1. <u>Planning preparation</u> \rightarrow manual operations for a new planning cycle as define, adjust master data and exchange rate definition;

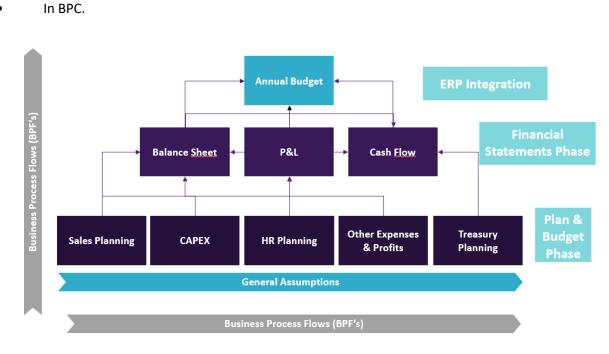
2. **Top-down goals & guidelines** \rightarrow introduced by top-level Group Company administration/direction, it reflects the main goals of the organization;

3. **Forecast & Budget** \rightarrow forecast calculation for the time periods of non-actual data of the current year and the introduction of planning data for operational and financial budgeting;

4. **<u>Financial and Operational Reporting</u>** → Reporting figures based on planning data introduced;

5. **Planning Control Execution** \rightarrow Reports for Real vs. Planning control during the current year.

The planning and budgeting process will be done in two different perspectives:



• In S/4HANA;

Figure 3.2: Planning and Budgeting Approach

The Project Revenue and Cost Planning and CAPEX Planning will be done in S/4HANA environment, using existing process planning tool on standard ERP. The HCM Planning, Other Opex (Cost Center planning), Intercompany Recharges and Financial Statements Model (Finance Planning) will be developed using BPC embedded tools. The picture below illustrates those two perspectives divided into three stages:



Table 3.2: Business Steps of Planning

B1 \rightarrow Planning in S/4HANA

- B2 \rightarrow HCM Planning in BPC
- B3 \rightarrow Intercompany Recharges and Finance Planning in BPC

Forecast & Budget	Operational		
	нсм		
Revenue Costs Gross Margin Planning Planning Calculation	CAPEX		
	Other OPEX	Intercompany Recharges	Finance Planning (P&L BS; CF)

Figure 3.3: Forecast & Budget Process



Figure 3.4: The legend of Figure 3.3

3.3. Assumptions and Limitations

During the project, some assumptions were made to keep the efficiency of the process high and complexity low. Beside assumptions, there were limitations as well.

First, top-down goals and guidelines are delivered by business/region. These guidelines are taken as main process flow materials and given to the responsible users to execute the Planning and Budgeting processes.

On the other hand, the company is IFRS compliant regarding the accounting structure. During the meetings, the purpose of EPM and Planning & Budgeting clarified by the technical team to other shareholders. According to main goals and new performance strategy, by the request of the group company, accounting elements are adjusted from regular account numbers to collective "*999" account numbers. Because of that planning and budgeting structure is developed to be processed only in "*999" collective version of accounts. These accounts will be called Planning Accounts.

The last, intercompany recharges for planned data will not be calculated automatically by the system because of the unstructured financial environment of the Group Company. To maintain this, each related transaction will be inserted from Cost Center Planning and Profit Center Planning with their trading partner information accordingly.

As a limitation, SAP BPC 10.1 needed to be used. Because SAP BPC 11.0 was not released yet for the specific time of the project but was announced with all specifications.

3.4. OBSERVE AND EVALUATE THE SYSTEM

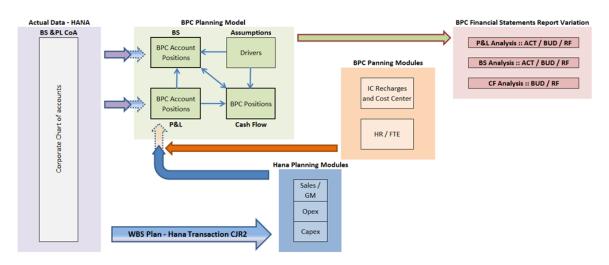


Figure 3.5: Functional Architecture of the Planning Solution

The activities follow the steps from Macro Planning Process Overview. The central planning process is the Revenue and Cost planning, that should be approved before going on to the next phases. Only the HCM and Financial Statement Model will have Business Process Flow to accomplish the planning process. This picture represents the concept for the overall planning process, but it will not be automatically replicated in the final solution.

3.4.1. Project Management Plan

Macro project management plan was designed based on waterfall methodology. Each phase is separated by defined quality gates to review the results of the previous phase and to authorize work on the subsequent phase.

Methodology is focused on milestones. It provides the separation of the project scope into end-toend features. Waterfall was chosen because project needs are well structured, and guidelines are well maintained regarding business processes. After the analysis of development steps, creation of macro project plan finalized. It is observed that waterfall methodology can be applicable.

Each implementation steps presented on Figure 3.6:

D Task Name	Owner	Progress	s Start	Duration (workdays)	Finish	Status
1 EPM Implementation		100%	26-10	114	3-04	On Track
2 Des Design		100%	26-10	61	18-01	On Tracl
3 Des Des User rights and profiles		100%	26-10	11	9-11	On Track
4 Des Des Use OnSite analysis		100%	26-10	5	2-11	On Track
5 Des Des Use Documentation preparation		100%	2-11	5	9-11	On Track
6 Des Des Accounts customizations		100%	26-10	16	16-11	On Track
7 Des Des Acc OnSite analysis		100%	26-10	10	9-11	On Track
8 Des Des Acc Documentation preparation		100%	2-11	10		On Track
9 Des Des Opportunities customizations		100%	16-11	11		On Track
10 Des Des Opr OnSite analysis		100%	16-11	5		On Track
11 Des Des Opp Documentation preparation		100%	23-11	5	30-11	On Track
12 Des Des Specification approval		100%	30-11	16	21-12	On Track
13 Des Des Spe Customer review		100%	30-11	5	7-12	On Track
14 Des Des Spe Final changes and fixes		100%	7-12	5	14-12	On Track
15 Des Des Spe Formal approval		100%	14-12	5	21-12	On Track
16 Des Des Acceptance Tests		100%	14-12	26	18-01	On Track
17 Des Des Acc Preparation		100%	14-12	10	28-12	On Track
18 Des Des Acc Customer review		100%	28-12	5	4-01	On Track
19 Des Des Acc Final changes and fixes		100%	4-01	5	11-01	On Track
20 Des Des Acc Formal approval		100%	11-01	5	18-01	On Track
21 Dev Development		100%	21-12	32	4-02	On Tracl
22 Dev Dev Accounts customizations		100%	21-12	32	4-02	On Track
23 Dev Acd Change #001		100%	21-12	9	2-01	On Track
24 Dev Acd Change #0(Development		100%	21-12	5	28-12	On Track
25 Dev Dev Acc Change #00 Technical tests		100%	28-12	3	2-01	On Track
26 Dev Dev Acc Change #002		100%	21-12	16	11-01	On Track
27 Dev Dev Acc Change #00 Development		100%	21-12	10	4-01	On Track
28 Dev Dev Acd Change #00 Technical tests		100%	4-01	5	11-01	On Track
29 Dev Dev Acc Integration tests		100%	11-01	5	18-01	On Track
30 Dev Dev Acc Regression tests		100%	18-01	5	25-01	On Track
31 Dev Dev Acceptance tests walkthrough		100%	28-01	5	4-02	On Track
32 Dev Dev Opportunities customizations		100%	4-02	26		On Track
33 Dev Dev Opp Change #003		100%	4-02	11		On Track
A Day Day On other set the Day I am and		100%	4-02	5		On Track
			11-02	5	18-02	On Track
		100%	11.02			On Track
35 Dev Dev Opp Change #00 Technical tests 36 Dev Dev Opp Integration tests		100%	18-02	5		
34 Dev Dev Opt Change #0. Development 35 Dev Dev Opt Change #0. Technical tests 36 Dev Dev Opt Integration tests 37 Dev Dev Opt Regression tests		100% 100%	18-02 25-02	5	4-03	On Track
35 Dev Dev Op/ Change #0(Technical tests 36 Dev Dev Op/ Integration tests 37 Dev Dev Op/ Regression tests 38 Dev Dev Op/ Acceptance tests walkthrough		100% 100% 100%	18-02 25-02 4-03	5	4-03 11-03	On Track
35 Dev Dev Opt Change #00 Technical tests 36 Dev Dev Opt Integration tests 37 Dev Dev Opt Regression tests 38 Dev Opt Acceptance tests walkthrough 39 Dev Upt Acceptance tests walkthrough 39 Dev Upt Acceptance tests walkthrough 39 Dev Upt Acceptance tests walkthrough		100% 100% 100% 100%	18-02 25-02 4-03 11-03	5 5 8	4-03 11-03 20-03	On Track On Track
35 Dev Dev Opt Change #0(Technical tests 36 Dev Dev Opt Integration tests 37 Dev Dev Opt Regression tests 38 Dev Dev Opt Acceptance tests walkthrough 39 Dev Dev Opt Acceptance tests walkthrough 39 Dev Dev Opt Serup 40 Dev Dev Use Setup		100% 100% 100% 100%	18-02 25-02 4-03 11-03 11-03	5 5 8 3	4-03 11-03 20-03 14-03	On Track On Track On Track
35 Dev Dev Opt Change #0(Technical tests 36 Dev Dev Opt Integration tests 37 Dev Dev Opt Regression tests 38 Dev Dev Opt Acceptance tests walkthrough 39 Dev Dev User rights and profiles 40 Dev User Visits 41 Dev User Visits		100% 100% 100% 100% 100% 100%	18-02 25-02 4-03 11-03 11-03 14-03	5 5 8 3 1	4-03 11-03 20-03 14-03 15-03	On Track On Track On Track On Track
35 Dev Dev Op Change #00 Technical tests 36 Dev Dev Op Integration tests 37 Dev Dev Op Regression tests 38 Dev Op Acceptance tests walkthrough 39 Dev Dev User rights and profiles 40 Dev Dev Use Setup 41 Dev Dev Use Profile 1 tests 42 Dev Dev Use Profile2 tests		100% 100% 100% 100% 100% 100%	18-02 25-02 4-03 11-03 11-03 14-03 14-03	5 5 8 3 1 1	4-03 11-03 20-03 14-03 15-03 15-03	On Track On Track On Track On Track On Track
35 Dev Dev Opt Change #00 Technical tests 36 Dev Dev Opt Integration tests 37 Dev Dev Opt Regression tests 38 Dev Dev Opt Acceptance tests walkthrough 39 Dev Dev User rights and profiles		100% 100% 100% 100% 100% 100%	18-02 25-02 4-03 11-03 11-03 14-03	5 5 8 3 1	4-03 11-03 20-03 14-03 15-03 15-03 20-03	On Track On Track On Track On Track

Figure 3.6: Macro Project Plan

3.4.2. Planning Preparation



Figure 3.7: Planning Preparation

The planning process starts with a formal opening (can be done by email or by another internal process) to inform all participants that a new planning cycle is going to start. The responsible must assure the correct maintenance of Master Data involved in the process.

This task is necessary to maintain updated information in the BI system. Maintenance of master data for the BI system is already managed centrally and aligned with the master data of ERP. The advantage is precise since some master data dimensions are maintained in the SAP ERP system which BW system is embedded.

Master data maintenance is associated with synchronizing "master data" for the enterprise, enabling their application in the Budget and Planning process. The data will be maintained containing information used for BI purposes: group accounts, company and intercompany codes, transaction types and different business segments, WBSs, Cost Centers and Cost Elements, etc. Since the system

is embedded, SAP BW and SAP BPC will be using the data in real time. In this case, the source of master data maintenance is ERP itself by Standard Hana Views which are specifically designed for standard Characteristics (Dimensions) of BW 7.5 Embedded on S/4HANA (Pattanayak & Koppolu, 2016).

The exchange rates are also maintained for the planning year. It is important to have a currency type by planning year to see always the same figures in the reporting layer. For the currency exchange purposes, standard currency exchange method that is designed in the Analysis for Office is used. Reports are using exchange rates in ERP system automatically to convert any exchange rate to default exchange rate by considering date dimension in the report.

Any storing data, calculation, data retraction, transformation, and transportation will be held by standard BW and BPC elements which are presented below:

The designed unified model comprises a set of objects whose purpose is to store, relate, display and enable, manual input of data. To be able to interpret the future Planning & Budgeting technical model, it is useful to be aware of data warehouse technical concepts. The list below describes the most relevant and essential concepts that apply to a data warehouse system.

- 1) Info Package An Info Package is a data loading scheduler where data from the source system is extracted from the data warehouse system.
- 2) **Transformation** A transformation allows data consolidation, cleansing, and integration. It converts the fields of the source into the format of the target.
- 3) Info Cube From an analytical perspective, an Info Cube describes a self-contained dataset, for example, for a business-orientated area. It is structured by a set of relational tables that follow the extended star schema where one fact table is surrounded by several dimension tables. It is used to store aggregated data for long periods of time, on which a user can execute queries.
- 4) Info Object An Info Object is the smallest units of BI. It can be defined as a business evaluation object divided into characteristics (for example, customers), key figures (for example, revenue), units (for example, currency, amount unit), time characteristics (for example, fiscal year) and technical characteristics (for example, purchase number).
- 5) **Data Store Object** A DataStore object, serves as a storage location for consolidated and cleansed transaction data or master data on a document (atomic) level.

A Data Store object contains key fields (such as document number, document item) and data fields that, in addition to key figures, can also include character fields (such as order status, customer). The data from a DataStore object can be updated with a delta update into Info Cubes (standard) and other DataStore objects or master data tables (attributes or texts) in the same system or across different systems.

- 6) **Info Provider** Info Providers are various metadata objects that can be seen as uniform data providers from the viewpoint of a query definition. Their data can, therefore, be analyzed uniformly. The type of data staging and the degree of detail or 'proximity' to the source system in the data flow diagram differs from Info Provider to Info Provider (Bekmezci, 2017).
- 7) **Multi-Provider** A Multi-Provider is a type of Info Provider that combines data from some Info Providers and makes it available for analysis purposes. The Multi-Provider itself does not contain any data. Its data comes entirely from the Info Providers on which it is based. These Info Providers are connected by a union operation.

- 8) Aggregation level Aggregation levels are used as Info Providers for planning: with an aggregation level, the system can model levels whose data can be changed manually using input-ready queries or automatically using planning functions. An aggregation level is set using a set of characteristics and key figures from the underlying Info Provider (Bekmezci, 2017).
- 9) **Planning Functions** Planning functions are used to perform mass updates in planning scenarios such as copying actual to plan, deletions, and calculating revenue.
- 10) **Planning Sequences** A Planning Sequence, is used to group planning functions. It allows saving groups of planning functions in a sorted sequence and executing groups of planning functions sequentially.
- 11) **Filters** A Filter is an object that describes a multidimensional segment of data from a dataset. Filters are used in reporting, analysis, and planning, for example, to restrict data to a specific business area, certain product groups or specific time periods.
- 12) **Characteristics** Characteristics are descriptive attributes used to describe entities such as Customers, Vendor, Materials, Plants, etc. These represent who, what, when, where scenario.
- 13) Master Data Characteristics Master Data Characteristics are the characteristics that contain text, attributes and sometimes hierarchies. In general, master data will be loaded into these characteristics using a direct update from the source system (Merz, Hugens, & Blum, Implementing SAP BW on SAP HANA, 2015).
- 14) **Key Figures** Key Figures are operational attributes, which indicates statistical measures such as amount related, Weight-related, a quantity related, etc. These represent how much and how many scenarios.
- 15) **Data Manager Packages** All transactional data for performing a consolidation is sourced from the respective ledger (IFRS or Local) maintained in SAP ERP, according to each Scope and Version of Data selected. Initially, data will be extracted from the SAP ERP system into SAP BW staging info provider. Once this extraction process is completed, key users in SAP BPC, using a data manager package, will load data on demand.

The data loaded from BW will also require creating BPC transformation and conversion files that will complete the process of transforming the general ledger data into the record with valid SAP BPC dimension members.

SAP BW system will be the collector of data from different source systems: flat-files (for Out-SAP companies) and SAP ERP. Business routines, transformations and specific rules to the Group Company consolidation process will be applied throughout this process stage. SAP BW embedded will be the only system responsible for the BPC's data storage.

- 16) Manual Journal entry Each application can have one journal entry template which can be used to enter financial transactions on manual type data sources in BPC. These can represent various journal entries such as reporting reclassifications, which are not natively part of the data loaded from G/L
- 17) Manual Input Schedules While most transaction data would come via data obtained from the general ledger using a data manager package, there are additional unstructured data that would be required by the system to process a consolidation. In cases where loading data from BW or files does not make sense, then such data would be loaded using manual input schedules (Bekmezci, 2017).

3.4.3. Top Down Goals and Guidelines



Figure 3.8: Top-down Goals and Guidelines

At the step; top-down goals and guidelines, the responsible must communicate the general guidelines for the overall planning process reflecting the main goals of the organization. (Responsible: Board and BU Management)

3.4.4. B1-Forecast and Budget

3.4.4.1. Project Revenue and Cost Planning



Figure 3.9: Project Revenue and Cost Planning

The Revenue and Production Cost Planning (to obtain the Gross Margin) is the precedent planning process of overall process. The main dimension is the Project (PS Module). In planning model, the user must enter the respective figures using the standard layouts.

Considering the business function perspective, project revenue and costs planning will be executed in 3 different perspectives:

- Revenue and costs from existing projects Existing projects on S/4HANA. They are planned in a monthly based for Fixed Fee projects. For other project types Project/Service managers must update planning quarterly (or according to the planning process defined calendar)
- Revenue from opportunities Existing project opportunities on S/4HANA planned according to the planning process defined calendar
- Revenue for unidentified project plans A bulk of future projects expected to occur during the planning years. This project type and structure will be created in S/4HANA

For 2018 budget Group Company decided to use only projects and opportunities.

The planning will be done directly in S/4HANA layouts. Also, standard excel layouts can be loaded into the system.

This solution will enable:

- 5-year plan: 1 budget year + 4 trends;
- Turnover and margin plan;

• Forecasts: can be done for a new budget cycle or during budget revision.

Main Structure in BW regarding with OPEX, P&L, Balance Sheet, Cash Flow planning includes structures below:

Three types of Data providers are used to maintain the store, union, and aggregate in SAP S/4HANA Embedded Business Warehouse. Each cube has either planning or reporting property enabled and each of aggregation regarding with those cubes are running planning functions to make the calculations by the limitation of filters which are also designed for them. Aggregation levels are getting created on Multi Providers which consist both actual data info cube and planning info cube underneath. Actual data info cubes are connected to real-time Hana views to show live data from ERP. Hana Views are views of ERP tables which store real-time data. These real-time data is also presented in the Info Cubes on live.

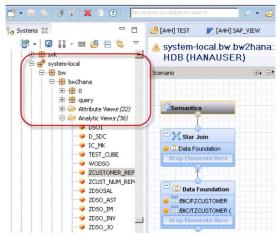


Figure 3.10: HANA Studio Overview

Planning cubes are open for planning for the budget inputs from Analysis for Office Input Reports which are presented below. Function Modules are used for any calculation on Aggregation levels. These Functions can be available to run from Analysis for Office Reports by assigning to buttons or links via macros. When the user clicks on these buttons, Planning Engines runs the functions on the aggregation level that they are assigned and make the calculated values visible on the reports on time. These calculated values are on the air if they are not saved by the save function.

🕶 🧇 ZFI	ZFI			OPEX	P&L, BS,	CE	
🕨 🎯 BL Mappings	ZAL_FI006	Description	Type		Planning Divison		Input Planning Objects
 Weight BL/CF Assumptions 	ZAL_FI007	ZFI	Info Area	N/A	N/A	N/A	N/A
BPC: Active/Deactive Data Slice	ZAL_FI099	BL Mappings	Aggregation	,	BS, CF Planning	BL Account Mappings	ZFI M03
Balance - Accumulated	ZAL FI012	BL/CF Assumptions	Aggregation		BS, CF Planning	BL/CF Assumptions Input Aggregation	ZFI M03
🕨 🎯 Balance - PL->BS	ZAL FI011	BPC:Active/Deactive Data Slice	Aggregation		Data Slice	Time Data Slice for Planning	ZFI M01
•	ZAL FI008	Balance - Accumulated	Aggregation		BS, CF Planning	BL Accumulated Data	ZFI_M03
• @ CF Report	ZAL FI009	Balance - PL->BS	Aggregation	ZAL_FI011	BS, CF Planning	Data Transformation from PL to BS	ZFI_M03
Griteport Griteport Griteport Griteport	_	CF Mappings	Aggregation	ZAL_FI008	BS, CF Planning	CF Account Mappings	ZFI_M03
	ZAL_FI013	CF Report	Aggregation	ZAL_FI009	BS, CF Planning	CF Reporting Data	ZFI_M03
🕨 🎯 Cashflow - Final	ZAL_FI014	Cash Flow - Accumulated	Aggregation	ZAL_FI013	BS, CF Planning	CF Accumulated Data	ZFI_M03
 Quality Cashfow - Calculation Assumptions 	ZAL_FI015	Cash Flow - Final	Aggregation		BS, CF Planning	CF Final Data	ZFI_M03
Non-Production - Cost to Profit Actual	ZAL_FI010	Cash Flow - Calculation Assumptions	Aggregation		BS, CF Planning	CF Assumption Data	ZFI_M03
Non-Production - Cost to Profit by month	ZAL FI003	Non-Production - Cost to Profit Actual	Aggregation		OPEX	OPEX Cost to Profit Center Actual	ZFI_M01
Non-Production Cost Center Planning on Y	EZAL FIO01	Non-Production - Cost to Profit by month	Aggregation		OPEX	OPEX Cost to Profit Center Actual by Month	ZFI_M01
• @ P&L - Integration BPC and ERP	ZAL FI004	Non-Production Cost Center Planning on Years	Aggregation		OPEX	OPEX Cost Center Planning on Years	ZFI_M01
 W P&L Copy 	ZAL FI016	P&L - Integration BPC and ERP	Aggregation		P&L Planning	P&L All Data Collection Aggregation	ZFI_M02
	_	P&L Copy	Aggregation		P&L Planning	Not Used	ZFI_M04
• 🎯 P&L Input Data	ZAL_FI005	P&L Input Data	Aggregation		P&L Planning	P&L Input Data	ZFI_M02
🕨 🎯 Percent Input for Cost Center	ZAL_FI002	Percent Input for Cost Center	Aggregation		OPEX	OPEX Percentage Input Aggregation	ZFI_M01
 BL/CF Balance Actuals 	ZFI_CO1	BL/CF Balance Actuals	Cube	ZFI_C01	BS, CF Planning	BS, CF Planning Actuals from FI Data Source	ZFI_M03
 Image: Balance Sheet 	ZFI_R03	BPC: Balance Sheet BPC: Cash Flow			BS, CF Planning BS, CF Planning	Balance Sheet Cube Cash Flow Cube	ZFI_M03
 BPC: Cash Flow 	ZFI_R05	BPC: Cash Flow BPC: FI Planning			OPEX	Cash Flow Cube	ZFI_M03
• 🗑 BPC: FI Planning	ZFI RO1	BPC: P&L	Cube	ZFI_R01 ZFI_R02	P&L Planning	P&L Cube	ZFI_M01 ZFI_M02
• BPC: P&L	ZFI RO2	BPC: P&L for Report	Cube	ZFI_R02 ZFI_R06	P&L Planning	P&L Cube P&L Cube for only Reporting(not input ready)	ZFI_1002 ZFI_M02
 Image of the second seco	ZFI_R02 ZFI_R06	BPC: Palance and CE	Cube Multi Provid		BS, CF Planning	BS and CF MP(Details are below)	ZFI_M02 ZFI_M03
	-	BPC: FI Actual-Planning MP	Multi Provid		OPEX	OPEX MP(Details are below)	ZFI_M03
 BPC: Balance and CF 	ZFI_M03	BPC: P&L	Multi Provid		P&L Planning	P&L MP(Details are below)	ZFI M02
 Weight BPC: FI Actual-Planning MP 	ZFI_M01	BPC FI Cost Center Plan Comments(Direct Update)	DSO	ZFI 001	OPEX	OPEX Input Planning Comments	N/A
+ 🥞 BPC: P&L	ZFI M02						

Figure 3.11: Main Info Providers of OPEX and FI Functions

Each Planning cube has a standard data slice which is supported by an external function. This function enables and cancels the data slice of the planning cubes with the help of "run command" from planning functions. Each planning sequences have these activate and deactivate planning functions at the begging and end of planning sequence.

	InfoProvid	der 🛛 C	entral Settings 🦯	Characteristic	Neb D	ata Slices				
		1								
B	Step Sou			Target chars.		r. Type	More information	Excl. #	With Subsets	Active
			r, Controlling Area	Company Code	e 🗸		/ERP/COSTCNTR			✓
	2 Cha	art of Ac	counts, Compan] Attribute	/ERP/COMPCODE			-
7 1/1	V. Derivatio	ion								
_			The sector		7					
_	V. Derivation		e [Attribu	te	v					
:har	r. Relation:	iship Typ	- <u>L</u>	_	nst Center					
:har :har	r. Relation: racteristic	iship Typ master c	lata builds basis	C	ost Center					
:har :har	r. Relation:	iship Typ master c	lata builds basis	_		et Characteris				
:har :har	r. Relation: racteristic Character	iship Typ master c ristic	lata builds basis	C Source Characte		at Characterist				
:har :har	r. Relation: racteristic Character	iship Typ master c ristic STCNTR	data builds basis	C Source Characte		at Characteris				
:har :har	r. Relation: racteristic Character <mark>/ERP/COS</mark>	iship Typ master c ristic STCNTR _AREA	lata builds basis Description S Cost Center	C Source Characte		et Characterist				
:har :har	r. Relation: racteristic Character /ERP/CO_ /ERP/CO_ /ERP/BUS	iship Typ master c ristic STCNTR _AREA GAREA	data builds basis Description S Cost Center Controlling Area Business Area	C Source Characte						
:har :har	r. Relation: racteristic Character /ERP/CO_ /ERP/CO_ /ERP/BUS /ERP/COM	iship Typ master c ristic STCNTR _AREA GAREA MPCODE	Lata builds basis Description S Cost Center Controlling Area Business Area Company Code	C Source Characte		et Characterist				
:har :har	r. Relation: racteristic /ERP/COS /ERP/CO /ERP/BUS /ERP/COM /ERP/PRC	iship Typ master c ristic STCNTR AREA GAREA MPCODE DFTCTR	data builds basis Description S Cost Center Controlling Area Business Area	C Source Characte						

Figure 3.12: ZFI_R01 Characteristic Relationships

E	Number	Description	Active	Туре	Туре	Name of Exit Class
	1	Actual Data	✓	E	Exit	Z_DS_FI
	2	0002		S	Selection	

Figure 3.13: Data Slices

These planning functions are presented at Annexes – Figure 8.6, Table 8.1 and Table 8.2. Purpose of the data slice is to block the time interval which is out of the planning period. On Figure 3.13, Data Slice can be identified clearly. When months before June has a purple color and not open to plan, the rest

of the year has a white color and data cells are open to plan. The reason is, the system is designed to work with a planning period of June 2017. So, a data slice is blocking the months before June which are supposed to be realized already and not needed to be planned anymore. The configuration of the planning period is covered on Preliminary Processes section and presented in Figure 3.17.

[-] Total Forecast	01.2017	02.2017	03.2017	04.2017	05.2017	06.2017	07.2017

Figure 3.14: Data Slice of planning for June 2017

3.4.4.2. Preliminary Processes

To maintain all functions of Planning and Budgeting Structure, there are some preliminary processes defined for the user to be finalized before starting the planning process. As they are presented below, processes are very crucial that it can change the functionality of the whole system with any wrong adjustment.

Step nº	Step description	Transaction code or Technical Name of Workbook
1	Create Category	(Configuration)
2	Insert period and default revenue account for each category	ZBPC001
3	Insert actual account with mapped *99999 accounts	ZBPC003
4	Insert mapped revenue accounts of each account	ZBPC004
5	Check Accounts not mapped	ZWB_FI_04

Table 3.3: Preliminary Processes Steps

First, all the planning accounts must be created individually in ERP to be considered as master data. After that, it will be needed to update the planning account hierarchy using the sap transaction "OB58". This hierarchy will be used on AFO reports as an account structure.

🦻 🗄 🍕	Create Items	Assign Accounts	R. 84 (
ZPLN Struc	ture Planning	ı	
P/L			
	6792099999 -	- Selling Costs	
		- Commissions	
		- Staff Costs	
	5130099999 -	Production Re	venues

Figure 3.15: Planning Account Structure for P&L with *999 Planning Accounts

Second, "Category" which is the identifier between real data and planning data should be created in ERP. Transaction code SPRO needs to be used to create a category. Below, system categories can be observed clearly. "PLAN01" is newly created for defining planning data.

Change	e View "Maintenance View for Category": C	Verview
6 New En	intries 🗈 🔁 🖪 🖪 🖪	
Maintenance	ce View for Category	
+	Medium description	
ACT01	· · · · · · · · · · · · · · · · · · ·	
PLAN01	· · · · · · · · · · · · · · · · · · ·	

Figure 3.16: Categories in SPRO

Then the planning period needs to be addressed in the system through custom transaction code "ZBPC0003".

BPC: Category	Table			
Category	Yes/No	Posting pe	G/L Accoun	E
FCST01				^
PLAN01	✓	5	90000001	

Figure 3.17: Planning Period for Category in SPRO

After that mapped *999 planning accounts need to be introduced in the system with their related actual accounts. For this function, the custom table is created with custom SAP transaction code "ZBPC0003".

BPC: 9* acco	ounts mappi	ing	
n Chart of A	G/L Accoun	G/L Accoun	
CCOA	1100000000	9099999999	^
CCOA	1190000000	9099999999	
CCOA	1200000000	9099999999	
CCOA	6110400000	9099999999	
CCOA	6111300000	9099999999	

Figure 3.18: Actual Accounts to *999 Planning Accounts mapping

To have a checkpoint, "AFO Report Accounts not Mapped" is created advance. It will show all the accounts that have actual values to the year selected and will be possible to check which accounts are still not mapped.

Accounts n	not ma	pped	
Prompt Variables			
•	•		Amount
	7800000000	Not assigned	Amount •
(Trade) capital tax			
(Trade) capital tax addition to pension	6451000000	Not assigned	6 521,35

Figure 3.19: Accounts not Mapped AFO Report

At last every actual revenue account for each actual cost accounts needs to be addressed in the custom transaction code "ZBPC0004". If the cost account is not mapped to any revenue account on this table, the revenue account of that account will be assumed as the same revenue account which is designated for the category itself as it is presented in Figure 3.17.

SAP										
						Di	splay View "B	PC: Revenue	Account Mapp	ing": Overview
Menu 🗸		◀ Back Exit Can	cel System $_{\searrow}$	Display -> Change	Select All	Select Block	Deselect All			
BPC: Rever	ue Account Ma	apping								
Chart Acc	Cost Acc	Revenue Acc								
CCOA	5155000000	6320100000								

Figure 3.20: Revenue Account Mapping

3.4.4.3. CAPEX



For CAPEX two different approaches will be taken:

- Investment Projects
- Investment Projects to fixed assets.

The CAPEX planning will be done by different users in S/4HANA at WBS level. This process already exists in S/4HANA (ERP) environment. This functionality allows the user to plan values by cost element for a project in ERP itself. This is an ERP standard process that is designed to keep planned costs in the FI module of ERP.

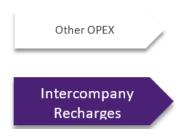
SAP FIORI APP: S/4HANA Menu

SAP TCODE: CJR2

						Planning Cost E	Elements/Activit	y Inputs Change	Initial screer
Menu 🗸		Back	Exit	Cancel	System $_{\searrow}$	Overview Screen	Period Screen	Previous Layout	Next Layout
Layout	Z0001	AN	IP Proj	Plan mon	th				
Variables									
Version	5								
Fiscal Year									
WBS element									
to									
or group									
Cost Element									
to									
or group									
Entry									
• Free	0	Form-Bas	ed						

Figure 3.21: CJR2 CAPEX Planning Input Screen on S/4HANA

3.4.4.4. OPEX Planning



Other OPEX can be planned by using a specific Analysis for Office Input Report. This layout will be developed in BPC side because the standard Cost Center Planning in S/4HANA doesn't have Trading Partner dimension available.

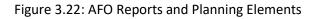
The user must insert the respective costs of his entity by year, and the system will split by budget months, but the user can change monthly.

Step nº	Step description	Transaction code or Technical Name of Workbook
1	Load actual and insert actual year forecast or 5 years' trend.	ZWB_FI_01
2	Insert Actual Year Forecast and Budget Year by month	ZWB_FI_05
3	Insert percentages to change budget years.	ZWB_FI_02

Table 3.4: OPEX Planning Applicable Steps

As the project planning is an important operation at a project level, because it gives the project manager an overview of the costs, different versions will be available to do the planning. Therefore, history will be available with all the changes which can be compared at any time. The currency is fixed as "EURO" by default.

		Analysis for Office F	teports	
Analysis for Office Report ID	Analysis for Office Report Description	Report Element	Related Planning Sequence/Function ID	Related Planning Sequence/Function Description
ZWB_FI_09	BS/CF - Assumptions	Standard AFO Functions	N/A	N/A
ZWB_FI_07	BS/CF - Mapping Tables	Standard AFO Functions	N/A	N/A
ZWB_FI_12	CF - Mapping Tables	Standard AFO Functions	N/A	N/A
ZWB_FI_13	CF/BS - CashFlow and Balance Sheet Report	Fill CF&BS Table	ZPS_FI09_001	BPC: Cash Flow copy from PL
	CF/BS - CashFlow and Balance Sheet Report	CF Calculate	ZPS_FI09_002	BPC: Cash Flow Adjusted Calculation
ZWB_FI_04	FI - Check Accounts not mapped	Standard AFO Functions	N/A	N/A
ZWB_FI_01	FI - Cost Center Planning	Load Actual	ZPS_FI01_002	BPC: Copy Actual
		Calculate - Calculate Budget?	ZPF_FI01_001	Budget Calculation
		Calculate - Calculate Budget?	ZPF_FI01_002	BPC: Calculate Trend Years
		Forecast Distribution	ZPS_FI01_003	BPC: Monthly Distribution
		Forecast Year	ZPF_FI01_004	BPC: Year Aggregation
		Budget Distribution	ZPF_FI01_005	BPC: Monthly Distribution Year + 1
		Budget Year	ZPS_FI01_006	BPC: Year Aggregation Year+1
ZWB_FI_02	FI - Increase Percentage (Cost Center Plan)	Standard AFO Functions	N/A	N/A
ZWB_FI_05	FI - Profit Center Planning	Same as "ZWB_FI_01"	Same as "ZWB_FI_01"	Same as "ZWB_FI_01"
ZWB_FI_15	P&L - Actual and Plan	Standard AFO Functions	N/A	N/A
ZWB_FI_06	P&L - Input Template	Full Integration	ZPS_FI04_001	BPC: PL - Full Integration
		WBS Integration	ZPS_FI04_002	BPC: PL - WBS Integration
		CC Integration	ZPS_FI04_003	BPC: PL - Cost and Profit Integration
		HR Integration	ZPS_FI04_004	BPC: PL - HR Integration
		Copy to Adjusted P&L	ZPS_FI04_005	BPC: PL - Copy PL to Adjusted PL
ZWB_FI_08	P&L - Report	Standard AFO Functions	N/A	N/A
ZWB_HR_02	BPC: HR P&L Reports	Standard AFO Functions	N/A	N/A
ZWB_HR_01	BPC: HR Planning	FTE Check	ZPF_HR01_005	BPC: FTE Distribution 1
	•	Planning HR	ZPS HR01 002	BPC: HR Planning Sequence
ZWB HR 03	BPC: HR Planning(With Salary Increase)	Standard AFO Functions	N/A	N/A



Increase	e Percen	itage		10-Jul-1
Data Source In System: User:	formation	- 100		
	ction 2017 PLAN01	Planning (Du	immy)	
Prompt	Save	Back to Saved	Refresh	Open Plan
Company Code BE20		3,00% 2,00	0% 2,00% 2,00%	% 2022 2,00%
PT10		1,00% 10,00	0% 1,00%	

Figure 3.23: Increased Percentage Input Enabled AFO Report

Increased Percentage Input Enabled AFO Report enables the user to insert percentage changes for each company according to their trend year aggregations. According to these percentages, planned data for 2017 will be automatically calculated to the trend years (2018-2022) with the increase.

Data Source Information System: User:	n	100			Change/Display		Load Actual		
Plan Data Selection Year 2017 Category: PLAN01 Company: Forecast Period: 5.2017	Planning (Du	nmy)							
Prompt Variables	Save	Back to Saved Sta	te Refresh	Calculate	🗹 Calculate Budge	?			
Forecast Distribution	F	orecast Year	Budget Distributio	n	Budget Year				
Profit Center	G/L Account	Actua	ils 2016 Actuals 2017 Fo	recast 2017	[-] Total Forecast 01	017 02.2017	03.2017 04.20	17 05.2017 06.2017	07.20

Figure 3.24: Cost Center Planning Input Enabled AFO Report

Profit Cer	nter l	Planni	ing								18-J	ul-17		
Data Source Info System: User:	rmation		100				Change/Display	- (Load Actu	al			
	17 .AN01	Planning (Dun	nmy)											
Prompt Variables		Save	Back to Save	d State	Refresh	Calculat	e 🔽 Calculate Bi	udget?						
Forecast Distr	ibution	F	orecast Year		Budget Distribu	tion	Budget Year							
Profit Center	G	/L Account		Actuals 201	16 Actuals 2017	Forecast 2017	[-] Total Forecast	01.2017	02.2017	03.2017	04.2017	05.2017	06.2017	07.2

Figure 3.25: Profit Center Planning Input Enabled AFO Report

Regarding the functionality of both reports, Cost Center Planning Input Enabled AFO Report and Profit Center Planning Input Enabled AFO Report has the same settings. The only difference is Cost Center and Profit Center relations. On Figure 3.24 and Figure 3.25, screenshots of both reports are presented partially to maintain data privacy regulations of the group company. In the normal view, there is also Trading Partner Column next to the G/L Account to maintain intercompany relations regarding the transactions. Macro buttons that are visible on reports has an objective to run planning sequences or planning functions in the background according to the command of the user by "click". These planning functions are also presented in Figure 3.22 with their technical names and descriptions. SAP screenshots and FOX formula codes of these PS and PF can be found between at Annexes – Figure 8.7 to Figure 8.65, Table 8.1 to Table 8.13. Purposes of macro buttons are also summarized below to provide a better overview of the report:

Change/Display	Changes the status of AFO report from reading only to input planning enabled. This is a standard command of AFO. No PS or PF is assigned for this button
Load Data	This button needs to be initiated to see the actuals on *9999 accounts, when function initiated, amount of actual data will be seen on the related columns. The user can Insert amount changes for each cost center according to their trend year, and account aggregations on the input enabled cells.
Prompt Variables	Opens the prompt window (Figure 3.26) that enables you to choose the user-specific starting filters of the report such as Budget Year, Legal Entity, Division, etc. This is a standard command of AFO. No PS or PF is assigned for this button
Save	Saves the data that is inputted on the input enabled cells into the database. This is a

	standard command of AFO. No PS or PF is
	assigned for this button.
Back to Saved State	It returns the state of report back to the last
	saved state. This is a standard command of
	AFO. No PS or PF is assigned for this button
Refresh	This button refreshes the report data with the
	server data. This is a standard command of AFO.
	No PS or PF is assigned for this button
Calculate – Calculate Budget Checkbox	To calculate the trend years according to
	planned percentages which are inserted in the
	"Increased Percentage Input Enabled AFO
	Report" workbook, click on "Calculate" button.
	"Calculate Budget" option is for changing the
	calculation method from actual year data to
	forecasted actual year data.
Forecast Distribution	It distributes the data in the Forecast 2017(Year
	is dynamic it can change according to the
	Budget Year Settings) to the 2017 forecast
	months (06,07,08,09,10,11,12) divided equally.
Forecast Year	It calculates the Forecast 2017 data by doing
	the summation of the forecast months
	(06,07,08,09,10,11,12) of 2017(Year is dynamic
	it can change according to the Budget Year
	Settings).
Budget Distribution	It distributes the data in the Budget 2018(Year
	is dynamic it can change according to the
	Budget Year Settings) to the 2018 budget
	months (whole months) divided equally.
Budget Year	It calculates the Budget 2018 data by doing the
	summation of the budget months (whole
	months) of 2018(Year is dynamic it can change
	according to the Budget Year Settings).
	a blad AEO Dava att Maaren Dutta va avad Everetiana

Table 3.5: Profit Center Planning Input Enabled AFO Report Macro Buttons and Functions

Prompts							-		×
🤫 Use Variant	Select a variant or enter a name	and c	hoose save to create a new u	ser varian	t	✓ ■			
Prompt Summary			Specify Value for Prompts						
* Category: PLAN0	1		* Category		PLAN01	1			
* Fiscal Year: Cal. Ye	ear, 4 Special Periods 2017		* Fiscal Year		2017	1			
Company Code:		4	Company Code	= ~		10	嵩	4 ×	_
Cost Center:		٠	Cost Center	= ~		8	16	4 ×	-
* Currency: Euro		4	* Currency		EUR	1			-
Display ~							OK	Can	cel

Figure 3.26: AFO Report Prompt

3.4.5. B2-HCM Planning



Input will be done via layouts in BPC Analysis for Office. The group currency "EUR" will be used for all inputs. The Human Resources planning will be done by the Finance team with the support of Functional Managers with Local HR Directions. Finance Team will send empty templates to Local HRs and Functional Managers. After that, filled templates will be collected, and BPC inputs will be done by the Finance Team.

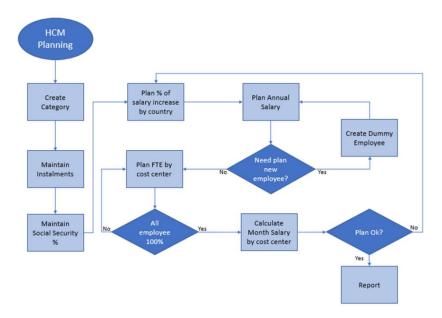


Figure 3.27: HCM Planning

Regarding with HR actual data, all the data is provided by HANA Views. Important BW elements and their data sources are presented below. Annexes – Figure 8.1 is showing the main structure of HANA View. View consists joins, unions and aggregations of ERP or custom HANA based tables. Annexes –

Figure 8.2 to Figure 8.4 are showing the main details of SAP BW structure of Info Cubes and their design1.

ZEMPLOYEE: CV_EMPLOYEE_DM /ERP/COSTCNTR: CV_COSTCENTER_DM ZHR_V02: CV_HR_01 (Test) ZHR_V01: CV_HRSALARY TOTAL (Real)

All HR HANA Views:

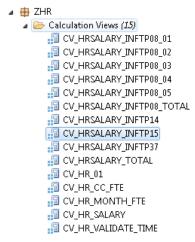


Figure 3.28: All HR HANA Views for Actual Data

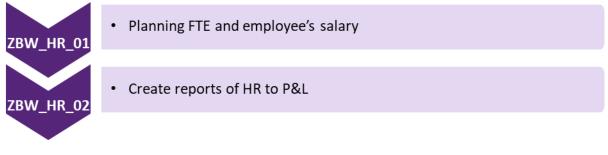


Figure 3.29: HR-HCM Planning Applicable Steps

FTE – Employee Input Enabled AFO Report allows the user to plan employee's salary and FTEs. On this report, the actual FTEs for the actual year, by the employee, will be shown as well. It is possible to change the planning data, by filling the input enabled cells. The months that will be available for input, dependent on the planning period that is assigned. So actual months before the planning period are locked to plan. Planning of FTEs for the next year is fully available without any lock.

¹ Because of the data and metadata privacy limitations from the business side, details of used Info Cubes and HANA Views are not presented in the annexes. Example structures from the system is presented to cover all functionalities which are used.

FTE -	Employee)						02-Aug-17									
Prompt V	ariables Variables	R	efresh	Save	Bac	k to Saved State	Copy Actua										
Company Code		Employee			Employee Position	Employee Group	Employee Subgroup	Contract Type	Business Unit	Cost Center		[-] Actual 2017	01.2017	02.2017	03.2017	04.2017	05.2017
		1	5	CE0		letens	Interns :	Permanent	HR	101001PT10	HR						
		1024		Lang	ange Coordinator	Saf	Internal	Permanent		240712PT10	Language Coordinator		100,00	100,00	100,00	0 100,00	100,
		1025		Lang	sage Coordinator	Staff	Internal	Permanent		240712PT10	Language Coordinator		100,00	100,00	100,00	0 100,00	100,0
		1026		Lang	sage Coordinator	Staff	Internal	Permanent		240712PT10	Language Coordinator		100,00	100,00	100,00	0 100,00	100,0
		1027		Trate	dator Franco/ S	Staff	Internal	Permanent		240751PT10	Teem PT		100,00	100,00	100,00	00,001 0	100,0
		1010		Deta	Center Operatio	Staff	Internal	Permanent	HR	101000PT10	HOR	-	100,00	100,00	100,00	0 100,00	100.0

Figure 3.30: HCM Planning FTE - Employee Input Enabled AFO Report

HCM Planning Annual Salary - Employee Input Enabled AFO Report allows the user to plan every detail of the cost of an employee including salary, benefits, promotions and, etc. "Planning Sequence" button will run the planning sequence calculation presented in Annexes – Figure 8.54 that is calculating the total cost for each employee. Involved planning functions are also presented in Annexes – Figure 3.22 with their technical names and descriptions. SAP screenshots and FOX formula codes of these planning sequences and planning functions can be found at Annexes – Figure 8.51 to Figure 8.67 and Table 8.13 to Table 8.18.

Annua	I Salary	 Emplo 	yee	-		02-Aug-17						
Prompt Variables		Refresh	Sav	e Bac	k to Saved State	Copy Actual	Planning Sequence					
						6					[-] 2017 Actual&Forecast	2017 Actual Annual Amount
Number		Employee Group	Employee Subgroup	Contract Type	Position Title	Business Unit		Company Code	Country	Currency		
		Interns		Permanent	CEO	HR	Human Resources	PT10	Portugal	Euro		5
		Interns	Interns	Permanent	99999999	MKT	Obsolete	PT10	Portugal	Euro		
122		Staff	Internal	Permanent	0000000	FMA	Finance Management & Accountin	PT10	Portugal	Euro	5	
123		Staff	Internal	Permanent	99999999	20	Not assigned	PT10	Portugal	Euro	1	

Figure 3.31: HCM Planning Annual Salary - Employee Input Enabled AFO Report

3.4.6. B3-Financial and Operational Reporting



Figure 3.32: Financial and Operational Reporting Elements

It was defined a new P&L (Profit and Loss), BS (Balance Sheet) and CF (Cash Flow) structure for planning purposes and a new set of business rules to derive the BS and CF statements directly from P&L. This structure must be defined in the BPC solution, and the engine derivation will be created specifically for this process. Customized tables and specific ABAP programs will be developed to accomplish this functionality.

The Finance Planning is the aggregation of data from operational budgets (Project Revenues and Costs, CAPEX, HCM, and other OPEX) and Intercompany Recharge planning to generate automatically Financial Statements by the entity. It will be created several tables in the system to customize the accounting rules for Financial Statements derivation (P&L - BS; P&L - CF; CF - BS). The engine derivation will read the input data from previous budgets and populate P&L Input Layout. From here the system will calculate the Balance Sheet and Cash Flow based on accounting rules previously defined.

During the current planning year, the user can execute the existent reports in S/4HANA side and the reports developed for this solution to control the deviation from actuals and plan data.

The reports to be developed are:

- P&L actuals vs. Budget
- Balance Sheet actuals vs. Budget
- Cash Flow actuals vs. Budget

The user must select the year/period in the report to analyze the deviations.

An example of the reports in general terms can be seen below:

Input parameters:	
Entity *a)	BE20
Business Unit a)	
Trading Partner a)	
Year *	2018
Month *a)	1 - 3

		A	В	B - A	
		Actuals	Budget	Deviation	[-] % Deviation
G/L Account	G/L Account Description	EUR	EUR	EUR	
6800099999	Furniture	1200	1230	30,00	3%
6841099999	Travel costs	5470	4900	-570,00	-10%

Figure 3.33: Planning Control AFO Report

*	Mandatory Fields
a)	Multiple Selection

Table 3.6: Description of Indices from Figure 3.33

3.4.6.1. P&L Actuals vs. Budget

The projected Profit and Loss statement summarizes the revenues, costs, and expenses planned for the months of forecast and the budget year. These records provide information about the company's ability – or lack of – to generate profit by increasing revenue, reducing costs, or both. The projected Profit and Loss statement summarizes the revenues and costs planned, for the months of forecast and budget year. These records provide information about the company's ability – or lack of – to generate profit by increasing revenue, reducing costs, or both.

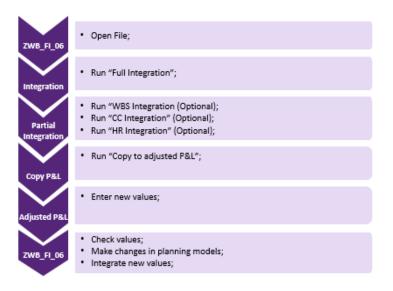


Figure 3.34: P&L Process Flow

On BPC Planning Role, P&L Input Template and P&L Report are presented for the use of key users.



Figure 3.35: Report Tree for P&L

In these two reports, the input template is designed for the generation and adjustment purposes. The report is designed only for reporting purposes. To integrate the report, it will be necessary to integrate all planning model to P&L. To do this "Full Integration" sequence will be run according to the version.



Figure 3.36: P&L Planning Sequences Running Buttons on Report

It is also possible to integrate the models separately clicking and next buttons, according to the model that you want to load, where:

- WBS Integration load data from OPEX planning ERP data presented in Figure 8.43;
- CC Integration Load data from CAPEX cost and profit planning presented in Figure 8.44;
- HR Integration Load data from HR-HCM planning presented in Figure 8.45.
- Full Integration Load data from all entities presented in Figure 8.31.

These planning sequences are also presented in Figure 3.22 with their technical names and descriptions. SAP screenshots and FOX formula codes of these PS and PF can be found between at Annexes – Figure 8.31 to Figure 8.50 and Annexes – Table 8.8 to Annexes – Table 8.12.

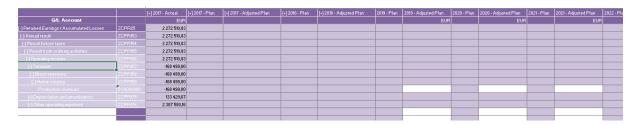


Figure 3.37: P&L Input Enabled AFO Report

In the adjusted P&L, it will be possible to change values for all years (by month to first two years and by year to the other years), without affect planning data.

This functionality will allow the planner to simulate a P&L without back to the other models but will not possible to retract values automatically. To have the value changes in the official P&L, planner will need to change the source data.

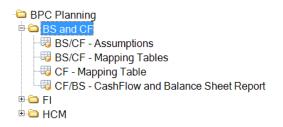
▼ 🥞 BPC: P&L	ZFI_M02
• 🌍 BPC: FI Planning	ZFI_RO1
• 🌍 BPC: HR FTE Planning	ZHR_R02
• 🌍 BPC: P&L	ZFI_RO2
🔹 🔹 🌍 Projects: Activity Input and Secondary (/ERP/COOM_V03

Figure 3.38: Profit and Loss Budgeting Info Providers

3.4.6.2. Cash Flow actuals vs. Budget

Projected Cash flow will be used to assess the quality of the company's income during forecast months and budget year, which means, how liquid it will be. It will be able to indicate whether the company is positioned to remain solvent. Projected Cash flow will be used to assess the quality of the company's income, during forecast months and budget year, which means, how liquid it will be. It will be able to indicate whether the company is positioned to remain solvent.

Cash flow, is the net amount of cash and cash-equivalents, moving into and out of business. Positive cash flow indicates that a company's liquid assets are increasing, enabling it to settle debts, return money to shareholders, pay expenses, reinvest in its business and provide a buffer against future financial challenges. Negative cash flow indicates that a company's liquid assets are decreasing.



ZBPC_PLANNING ZBPC_PLANNING ZWB_FL_09 ZWB_FL_07 ZBW_FL_12 ZBW_FL_13 ZBPC_PLANNING ZBPC_PLANNING

Figure 3.39: Report Tree for Cash Flow

Annual A	29-Sep-17				
Prompt	S	ave	Back to Saved	Refresh	
Annual Assumptio	ns BPC	: Assumption	s		
Accounts Payable Day	/S	:	34		
Accounts Receivable I	-		90		

Figure 3.40: Cash Flow Annual Assumptions Input Enabled AFO Report

Monthly A	ssun	nption	S				29-Sep-17															
Prompt	Sa	ave	Back	to Saved	Refresh																	
Posting perio	d	1	2		3	4		5		6		7		8		9		10		11		12
Monthly Assump	tions	BPC: Assumpt	ions Bl	PC: Assumptions	BPC: Assumptions	BPC	C: Assumptions	BPC:	Assumptions	BPC:	Assumptions	врс	: Assumptions	BPC:	Assumptions	врс	: Assumptions	BPC:	Assumptions	врс	: Assumptions	BPC: A
laries: Installments p	er Month		1		L	1	1		1		1		1		1		1		1		1	

Figure 3.41: Cash Flow Monthly Assumptions Input Enabled AFO Report

BS/CF Assumptions: This report has two sheets to input assumptions for balance sheet and cash flow. The first sheet is designed to input Accounts payable days and accounts receivable days for the company which is fixed from Prompt. The second sheet is designed to input Salary Instalments per Month for the company which is fixed from Prompt.

Prompt	Refresh	Save		
P&L Account		Cash Flow Account		% Distribution
5130099999	Production revenues	C 2001	Client Pavments	100.00%
5155099999	Other revenues	C_2001	Client Payments	100.00%
5492099999	Other Returns	C 2005	Others	20.00%
5500099999	Dividend Income Affi	C 3008	Others	40,00%
5712099999	Financial Income	C 2004	Financial Income	75,00%
6070099999	Purchases for resell	C_3001	Supplier Payments (net of Investments)	-100,00%
6110999999	Sub-contracting cost	C_3001	Supplier Payments (net of Investments)	-100,00%
6300099999	Staff Costs	C_3003	Staff: Salaries + Other Benefits	81,00%
		C_3004	Staff: Social insurance + Wage tax	19,00%
6680099999	Inter-Company costs	C_3001	Supplier Payments (net of Investments)	-100,00%
6700099999	Renting costs	C_3002	Rent / charges	50,00%
6731099999	Maintenance costs	C_3001	Supplier Payments (net of Investments)	-100,00%
6761299999	Commissions	C_3001	Supplier Payments (net of Investments)	-100,00%
6770099999	Legal & Consultancy	C_3001	Supplier Payments (net of Investments)	-100,00%
6792099999	Selling Costs	C_3001	Supplier Payments (net of Investments)	-100,00%
6800099999	Furniture	C_3008	Others	5,00%
6821099999	Communication costs	C_3001	Supplier Payments (net of Investments)	-100,00%
6841099999	Travel costs	C_3001	Supplier Payments (net of Investments)	-100,00%
6875099999	Advertising Costs	C_3001	Supplier Payments (net of Investments)	-100,00%
7520099999	Financial Costs	C_3007	Financial Cost	75,00%
	_			

Figure 3.42: P&L to Cash Flow Transfer Assumptions Input Enabled AFO Report

Cash Flow Mapping Report: Cash Flow Mapping planning report is created to assign P&L accounts to Cash Flow accounts with their related percentages. It is a global assignment, so there is no company relation between these mappings.

			Fi	II CF&BS Table	CF Calculate
Cash Flow	/ Report				03-Oct-17
Prompt Variables	Refresh	Sa	ive		
			[•] C		[+] Cash Flow Adjusted
BPC: FI CashFlow Acc				EUR	EUR
C_1000	Beginning Balance				
C_2001	Client Payments				
C_2002	Tax Refunds				
C_2000	Loans SZ				
C_2004	Financial Income				
C_2005	Others				
[·]C_2000	Cash Inflow				
C_3001	Rent I charges				
C_3002	Fient / charges				
C_3003	Staff: Salaries • Ot				
C_3004	Taxes				
C_3005	Tates				
C_3006	Loans SZ				
C_3007	Financial Cost				
C_3008	Others				
[-]C_3000	Cash Outflow				
[-]C_4000	Liquidity Balance I				
C_5000	Investments				
[-] C_6000	Liquidity Balanc	• 11			

Figure 3.43: Cash Flow AFO Report

At the Cash Flow Report, the first prompt should be assigned decently. After that, filling the r eport with actual data should be executed from Fill CF&BS Table button. It will fill cash flow and balance sheet at the same time. Cash Flow Final is for the presentation of amounts which are derived from P&L. Adjusted is open for planning with the same amounts which are also derived from P&L. The user can change the amounts on the adjusted part and save. Also, users can click on CF Calculate button to execute all the accumulated calculation for that month and preceding months.

		Analysis for Office F	leports	
Analysis for Office Report ID	Analysis for Office Report Description	Report Element	Related Planning Sequence/Function ID	Related Planning Sequence/Function Description
ZWB_FI_09	BS/CF - Assumptions	Standard AFO Functions	N/A	N/A
ZWB_FI_07	BS/CF - Mapping Tables	Standard AFO Functions	N/A	N/A
ZWB_FI_12	CF - Mapping Tables	Standard AFO Functions	N/A	N/A
ZWB_FI_13	CF/BS - CashFlow and Balance Sheet Report	Fill CF&BS Table	ZPS_FI09_001	BPC: Cash Flow copy from PL
	CF/BS - CashFlow and Balance Sheet Report	CF Calculate	ZPS_F109_002	BPC: Cash Flow Adjusted Calculation
ZWB_FI_04	FI - Check Accounts not mapped	Standard AFO Functions	N/A	N/A
ZWB_FI_01	FI - Cost Center Planning	Load Actual	ZPS_FI01_002	BPC: Copy Actual
		Calculate - Calculate Budget?	ZPF_FI01_001	Budget Calculation
		Calculate - Calculate Budget?	ZPF_FI01_002	BPC: Calculate Trend Years
		Forecast Distribution	ZPS_FI01_003	BPC: Monthly Distribution
		Forecast Year	ZPF_FI01_004	BPC: Year Aggregation
		Budget Distribution	ZPF_FI01_005	BPC: Monthly Distribution Year + 1
		Budget Year	ZPS_FI01_006	BPC: Year Aggregation Year+1
ZWB_FI_02	FI - Increase Percentage (Cost Center Plan)	Standard AFO Functions	N/A	N/A
ZWB_FI_05	FI - Profit Center Planning	Same as "ZWB_FI_01"	Same as "ZWB_FI_01"	Same as "ZWB_FI_01"
ZWB_FI_15	P&L - Actual and Plan	Standard AFO Functions	N/A	N/A
ZWB_FI_06	P&L - Input Template	Full Integration	ZPS_FI04_001	BPC: PL - Full Integration
		WBS Integration	ZPS_F104_002	BPC: PL - WBS Integration
		CC Integration	ZPS_FI04_003	BPC: PL - Cost and Profit Integration
		HR Integration	ZPS_FI04_004	BPC: PL - HR Integration
		Copy to Adjusted P&L	ZPS_FI04_005	BPC: PL - Copy PL to Adjusted PL
ZWB_FI_08	P&L - Report	Standard AFO Functions	N/A	N/A
ZWB_HR_02	BPC: HR P&L Reports	Standard AFO Functions	N/A	N/A
ZWB_HR_01	BPC: HR Planning	FTE Check	ZPF_HR01_005	BPC: FTE Distribution 1
		Planning HR	ZPS_HR01_002	BPC: HR Planning Sequence
ZWB_HR_03	BPC: HR Planning(With Salary Increase)	Standard AFO Functions	N/A	N/A

Figure 3.44: AFO Reports and Planning Elements

SAP screenshots and FOX formula codes of these PS and PF can be found between at Annexes – Figure 8.68 to Figure 8.81 and Table 8.19 to Table 8.30.

3.4.6.3. Balance Sheet actuals vs. Budget

The projected Balance Sheet is meant to be the company's primary statement of financial position by summarizing a company's assets, liabilities and shareholders' equity at a specific point in time. The projected Balance Sheet is meant to be the company's primary statement of financial position by summarizing a company's assets, liabilities and shareholders' equity at a specific point in time. This financial statement will be projected along the four months of forecast and the budget year by reporting the members of the Balance Sheet known equation: **Assets = Liabilities + Shareholders' Equity**

 BPC: Balance and CF 	ZFI_M03
 BL/CF Balance Actuals 	ZFI_CO1
• 🌍 BPC: Balance Sheet	ZFI_RO3
• 🌍 BPC: Cash Flow	ZFI_R05
• 🌍 BPC: P&L	ZFI_RO2

Figure 3.45: BPC Balance Sheet and Cash Flow Multi-Provider with Info Cubes

🔻 🥞 BPC: FI Actual-Planning MP	ZFI_M01
• 🌍 BPC: FI Planning	ZFI_RO1
🔹 🌍 Financials Actuals via Hana	/ERP/SFIN_V01
🔹 😑 💷 BPC: FI CostCenter Plan Comment	ts (ZFI_001

Figure 3.46: FI Actual Planning Multiprovider with Info Cubes

 BL/CF Balance Actuals 	ZFI_C01
▼ MODSO ZFI_V02 -> CUBE ZFI_C01	0TAKH33Y53OVZLTQSBQ2O57ON3BNEWNM
🔻 🗐 💷 BPC: BL/CF Balance Actuals	ZFI_V02
RSDS OFI_GL_10 BSPCLNT100 -> ODSO ZFI_V0	ONDZWQ80UJQWWWUK7CIQ8DY4Y1Y27E7A
🔻 💖 General Ledger: Leading Ledger Balances	OFI_GL_10
• 國 OFI_GL_10_INIT	ZPAK_3GE71DZDASYV6FXZ3JAYB2M8Q
🕨 🚞 Data Transfer Processes	ZFI_V02
🔻 🚞 Data Transfer Processes	ZFI_C01
FILV02 -> ZFI_C01	DTP_2EBGI2VKAEHQ4AS1EJ8G9CB90

Figure 3.47: BL/CF Balance Actuals Info Providers

Some of the Planning Cubes are limited by characteristic relationships as well.

🗀 BPC Planning	ZBPC_PLANNING
🖻 🗀 BS and CF	ZBPC_PLANNING
BS/CF - Assumptions	ZWB_FI_09
	ZWB_FI_07
	ZBW_FI_12
CF/BS - CashFlow and Balance Sheet Report	ZBW_FI_13
🖻 🗀 Fl	ZBPC_PLANNING
🗄 🛅 HCM	ZBPC_PLANNING

Figure 3.48: Report Tree for Balance Sheet

P&L to	o Balance			
Prompt	Save	Back to Save	d Refresh	
P&L Account		Balance Account		% Distribution
607000001	other goods - for re	1199999	Currency Translation	30,00%
			Difference Arising f	20,00%
		1699999	Consolidated Goodwil	40,00%
		1899999	Internally generated	10,00%
5071000000	Trading goods - dist	1199999	Currency Translation	25,00%
		1299999	Difference Arising f	25,00%
		1699999	Consolidated Goodwil	30,00%
		1899999	Internally generated	20,00%

Figure 3.49: P&L to Balance Sheet Transfer Assumptions Input Enabled AFO Report

Cash flow to Balance								
Prompt	Save	Back to Saved	Refresh					
Cash Flow Account	:	Balance Account		% Distribution				
	Beginning Balance	-	Minority Interests					

Figure 3.50: Cash Flow to Balance Sheet Transfer Assumptions Input Enabled AFO Report

On BS/CF Mapping tables, there are two sheets created to assign P&L to Balance Sheet percentages and Cash Flow to Balance Sheet percentages. These sheets are globally prompted, so they are company code free assignments. After the "Fill CF&BS Table button" execution Balance Sheet will be available. PS that collects Balance Sheet planning functions and runs with this command is presented in Table 8.19. At the prompt, there will be two company code options. The first company code is to execute Cash Flow(mandatory) and second company code is optional for Balance Sheet.

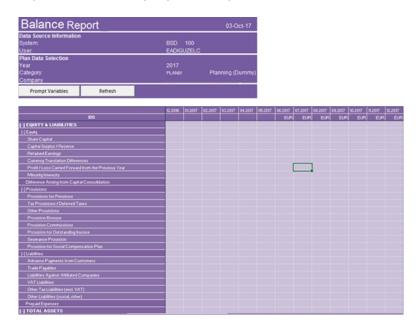


Figure 3.51: Balance Sheet AFO Report

4. RESULTS AND DISCUSSION

After the implementation, it is revealed that the total process time of planning and budgeting is much shorter compared to the old system. Easy and fast connection to the actual data is a big enhancement for the company. Real-time data integration from the HANA database is very useful for the actual reporting purposes but also can be very helpful for future developments such as consolidation reports and reporting. Before data integration was happening by excel with human effort and processing wrong values were very common. Because of that, there was a big approval chain to check financial reports. With the integration of Enterprise Performance Management tool, all the processes regarding with finance and business is automated in the SAP BPC Planning Application Kit platform. Processes are formulated with Planning Sequences and calculations are structured by planning functions with FOX formula. One of the remarkable aspects of the project is Improvement on the consistency of the data in the reports.

Through the development of the artefact, a lot of technical and business challenges has been solved. Technical challenges were generally related with the AFO reports performances and inconsistency of the timings. Mainly, processing times of Planning Sequences and Planning Functions on reports were not at the desired level in the beginning. Revealing and solving the process complexity with best practices and innovative enhancements was the big part of the unit tests and acceptance tests. Adjusting the actual FOX Formula codes to be leaner and more straight-forward, was the most successful method that is pursued on performance issues. The project has a tight schedule so, in some cases, project agenda was shifted to performance enhancements instead of visual enhancements of reports.

On the other hand, the artefact has brought a newly structured process flows to the Budget Planning and for future developments such as consolidation processes. It is inevitable that the company could not stay with the old process flow with 100% similarity because of technical and business limitations. There were many adjustments on the core of business flow which is considered and negotiated with the Group Company and business side. In the end, it has brought a lack of know-how from the business side even if the training were done with a big success. Adaptation of the Business Members took some time but, in the end, the artefact is being accepted by both business managerial level and end-user level without any resistance.

5. CONCLUSIONS

The goal of this project work was to develop a methodology for the building of embedded Enterprise Performance Management solution in ERP Embedded BI Platform which has a significant relationship with the new technology in-memory, column-oriented, relational database ERP system.

In the search of possibility for building a specific artefact to satisfy the needs of the group company, major problems are analyzed and collected accordingly. A new methodology proposed towards the evaluation of the implementation of an embedded enterprise performance management solution in ERP Embedded BI platform of a group company, thereby improving the orientation of business processes with the business strategy and enhancing the ability to measure financial performance by using the advantages of real-time data support.

Hence, this project work aimed to develop an embedded enterprise performance management solution in ERP embedded business intelligence platform to maintain foresight capacity and decision-making mechanism for the group company. During the project, the chosen embedded enterprise performance management solution is implemented to provide a clear understanding of improved financial reports with planning approach. In the meantime, the developed system is providing real-time data for the reporting as well as sustaining real-time planning for a different level of the group company.

Finally, this project has shown that towards the evaluation of the implementation of an embedded enterprise performance management solution by using ERP embedded BI platform, the orientation of business processes with the business strategy is slightly improved. On the other hand, the ability to measure financial performance is remarkably enhanced by using the advantages of real-time data support.

6. RECOMMENDATION FOR FUTURE DEVELOPMENTS

For the future development, implementation of consolidation function can be considered as the first milestone for the group company after the successful implementation of Embedded Planning and Budgeting solution. Since the ownership structure of the group company is very straightforward (All of the subsidiaries are fully owned), consolidation group report doesn't have significant issues and can be processed with standard approaches.

Considering the increasing complexity of the consolidation process of the Group Company, with acquisition of a diversity of companies in several geographic locations, it becomes more critical to have a system solution that would enable a more efficient control of the consolidation process execution, with the use of audit track functionalities and financial information validations. It is also essential to control process scheduled timings and quality of the information that are produced locally, in each geographic location.

The consolidation process of Group Company is planned to be executed monthly to provide consolidated information to stakeholders, based on general accounting information for legal consolidation by the company and analytical information for detailed analysis by business segment and geographic location. Annually for budgetary control, will also be integrated into the consolidation system the planning and budgetary data for the execution of the budgetary consolidation process.

The objective of the consolidation component should be to provide a solution that enables the presentation of the financial statements and notes, as well as the execution of the budgetary consolidation process. (This solution will be based on the SAP BPC system, using the Starter Kit for IFRS). This process will be related to the consolidation execution of financial reports and the necessary currency conversion.

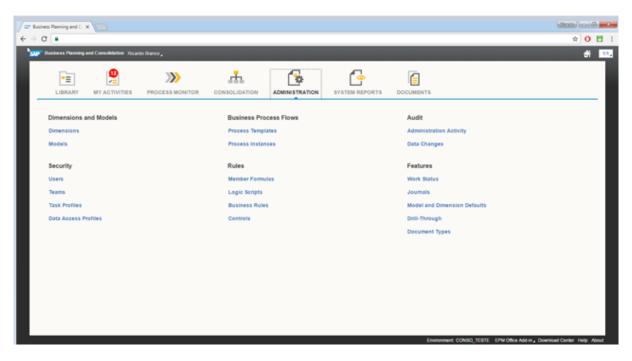


Figure 6.1: SAP BPC Web Interface

Regarding the consolidation function, some aspects which are already maintained by the implementation of SAP BPC structure by this project can be very helpful for the consolidation requirements of the company. It is always important to remember that "centralization of the processes" is the main goal of the group company since the beginning. According to that goal, one of the significant aspects of SAP BPC is the web interface. The web interface is a centralized way to access the SAP BPC system. It is characterized by a user-friendly environment, and it enables key-users to access BPF's (Business Process Flows) and control the respective consolidation activities.

The web interface is a starting point for the SAP BPC process, and its core consists of models and their dimensions. Business Process Flow (BPF) is the term used in SAP BPC system to refer to a set of sequential tasks assigned to a restrict group of users to organize the process and distribute roles and responsibilities. It is a step-by-step web-based launch pad, with guided navigation through all the process flow which ensures consistency and coordination between team/individual's tasks, providing task process status and completion. The access to the Excel interface is through the web interface is can be maintained by BPFs as well.

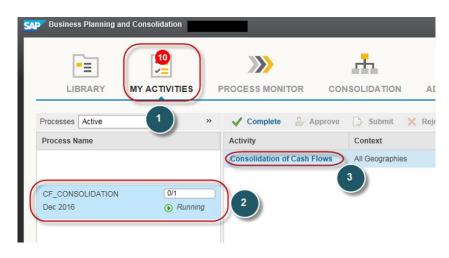


Figure 6.2: SAP BPC Web Console My Activities - BPF List

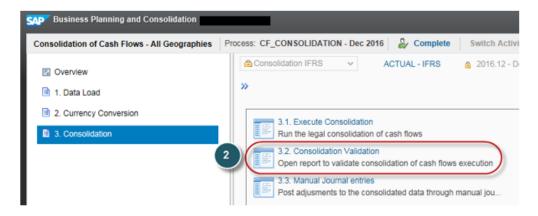


Figure 6.3: Consolidation Activities BPF on BPC Web Client

The legal consolidation for the period and scopes will be the main consolidation activities that are designed to be executed by BPF. For the consolidation processes, SAP BPC Classic is available to maintain all the aspects of consolidation with its complete IFRS kit. All these processes are available on SAP BPC Classic elements and SAP EPM Excel Add-on.

Ideally, Business Process Flows consist of Data Package and Report. Data package automatically executes the following operations:

- Aggregation of all companies' regarding financial reports within the selected consolidation perimeter
- Intercompany eliminations

The Data Manager is a module which enables the user to load data into SAP BPC system, through data manager Packages, as well as copy or move data within and between models. It is also where data mapping and conversion is maintained. In this case, data packages are not very different than the Planning Functions or Planning Sequences. The major difference is all the processes are standard in BPC. No customization is needed if the company's processes are IFRS standard. Consolidation structure is well designed in the system with related data packages, scripts and validation reports for IFRS so that the only challenge will be the implementation of the solution to the actual structure.

Through Data Manager it is possible to:

- Upload master data
- Upload transactional data
- Elimination of transactional data
- Move data between SAP BPC models
- Currency Translation
- Intercompany Recharge
- Consolidation

Validation Reports that are standard in SAP BPC and can be placed in BPF are the corresponding EPM reports which show the consolidated data in a financial format.

	HOME		PAGE LAVOUT		LAS DATA		VIEW	DEVELOPER		Data Manager					
Log Off	🚰 Open = 🍓 Save =	/ Edit Report	New Report Report Actions = View Formuts	Rafresh	93 Expand - #3 Collapse	네 Keep 글 Esclude	17 Back	Secu Data~	🖅 Spread, To 🍋 Comment 🌃 Journals	end 🍅 Pertal P 5 * 🔝 Book P 42 Distribu	ublication + ublication + ution +	 Quick Links - Drill Through * Offline Mode 	Plansert Function Coptions × Ware *	Show Pane & Context	 About * Help
Connection			Reports		Data Ar	valycic	Undo		Data Input	Collab	teration		Tools		Help

Figure 6.4: SAP EPM Interface

The EPM Microsoft Office Excel add-in enables the visualization of SAP BPC data, transforming them in real time, supporting the consolidation reports available. SAP EPM has pretty much the same purposes with SAP Analysis for Office regarding with reporting. But It is also working with the SAP BPC ABAP background on parallel as well.

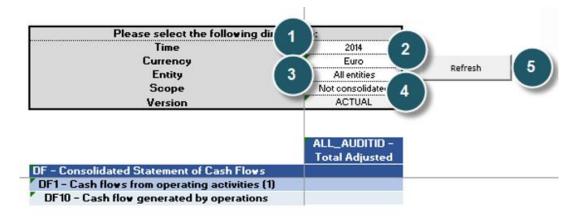


Figure 6.5: Validation Report of Consolidated Data in EPM Report

On EPM report user can also assign different parameters as they are presented below according to the Figure 6.5: Validation Report of Consolidated Data in EPM Report:

- 1. Time Selection of the Currency Conversion period from a dropdown list
- 2. Currency Selection of the group currency
- 3. Entity Selection of the entity or group of entities displayed in the report
- 4. Scope Selection of the consolidation scope displayed in the report. In this case, it should be "S_NONE", since the user is validating input data instead of consolidated data.
- 5. Refresh Refresh button. Refreshes the data displayed in the report after variables are defined.

As a summary, implementation of consolidation function can be considered as the next step for the group company after the successful implementation of Embedded Planning and Budgeting tool. BPC 10.1 that artefact is constructed on will provide all the technical requirements for this approach so there will be no new software implementation, adjustments of the existing features will be sufficient.

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8. ANNEXES

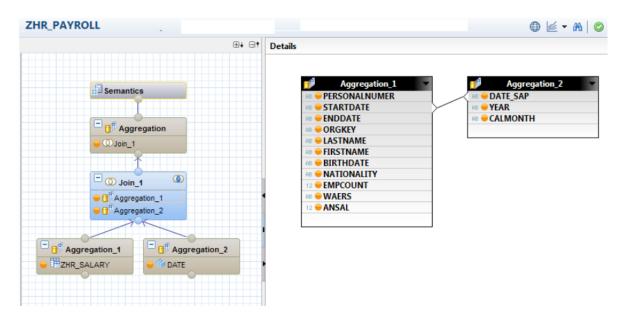


Figure 8.1: Hana View in Details

🏂 Version Comparison 🖌 🛃 🔜	Business Content 🖌 🛛 😵 🚖 🛛 🛗 📸
InfoCube	Techn. name / val F O. App Dat L Key C.
🔹 🌍 ZEST	ZEST
🔻 😂 Object Information	
• 🗈 Version	♦ New
• 🗈 Save	Not saved
🔹 🗈 Object Status	🖓 Inactive, not ex
🔽 🔄 Settings	
• 🖹 InfoCube type	Standard InfoCube
• 🗈 Subtype	SAP HANA optimize
 External SAP HANA view 	Enternal SAP HANA 🔽
🔍 🕂 🖹 Auditable	
 Dimensions 	
🕨 🔶 Data Package	ZESTP
🕨 🏕 Time	ZESTT
🕨 🔶 Unit	ZESTU
🕨 🏕 Dimension 1	ZEST1
🕨 🚞 Navigation Attributes	
Kev Figures	

Figure 8.2: HANA View Connected BW Cube Settings

🖻 Create InfoCube			
Create InfoCube			
InfoCube	ZHR_PA03		HR Salary
InfoArea	OHCM		Human Resources
🔄 Virtual InfoProvid	l		
Properties of Virtual	InfoProviders		
InfoCube ZHR_	oCube ZHR_PA03		
Descript. HR Sa	alary		
Package			
HANA Information N	Model	ZHR_PAYROLL	
Write Interface			
Selection Condition	ns Supported		
✔ Only Global Sel.	Con.		
Data Format and D	ata Transpor	t	
✓ Internal Format	(Key Figures))	

Figure 8.3: Virtual Infocube directly connected to Real-Time Hana View

	B Select Non-	Assigned	
nfoObject Icon	Already Assigned	Propose Mapping	SAP HANA View Fi
<u>A</u>			BIRTHDATE
	✓		CALMONTH
1	v		DATE_SAP
AT I	v		ENDDATE
	✓		FIRSTNAME
<u> </u>	✓		LASTNAME
1	v		NATIONALITY
	✓		ORGKEY
	 Image: A start of the start of		PERSONALNUMER
1	✓		STARTDATE
A B	✓		WAERS
<u></u>	v		YEAR
4	v		ANSAL

Figure 8.4: Mapping of Info Cube Fields (On the left) and Hana View Fields (On the Right)

🔄 Create InfoCube			
Create InfoCube			
InfoCube	ZHR_PL02]	Payroll Planning
InfoArea	OHCM	Ī	Human Resources
Template			
Object Type	InfoCube	-	(*)
Template			
InfoProvider Type			
Standard InfoCub	2	With P	Physical Data Store
☑ Real Time			
SAP HANA-Opt	mized InfoCube		
Semantically Par	titioned		
VirtualProvider		Withou	ut Physical Data Store
Settings			
Name of Delta Cache	Class	L_RSD_DC	C_SUPPORT_INFOCUBE
Do Not Transform	Selection Condition	าร	
Supports Navigation	on Attributes		
Derive Selection	Conditions from A	ttribute	

Figure 8.5: Real Time Infocube Designed for Planning Purposes

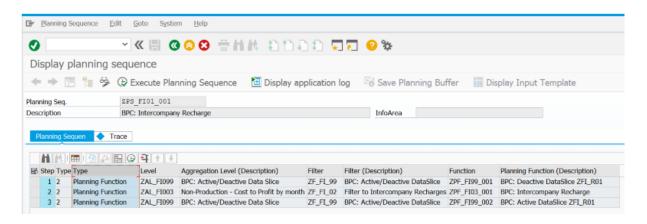


Figure 8.6: Activate Deactivate Data Slice Planning Functions in PS

Display Filt	ter			
+ + 🗉	🏗 🤌 🚰			
Filter: ZF_	FI_99	BPC: Active/Deactive DataSlice		
Aggregation Level	: ZAL_FI099			
Key Date:	tandard			
	xed Date:			
OF	rom Variable			
Selections				
B InfoObject	Description	Restriction	Selection Delete	Default Values Selection Delet
/ERP/CATEGO	RY Category	ACT01	1 ki 🗰	📫 👘
/ERP/COSTCN	TR Cost Center	[] excl:#-#	1	100 100 100 100 100 100 100 100 100 100
/ERP/CO_ARE/	A Controlling Area	1000	¥\$ 100	H Ŝ 1117
/ERP/LEDGER	Ledger (Unified Journal Entry)	CL OL	F	👘 🗊
0CURRENCY	Currency Key	EUR	📫 🖬	📫 👘
OCORRENCT		— K4	📫 🔟	📫 👘
OFISCVARNT	Fiscal year variant			
	Fiscal year variant Fiscal year	2017	📫 🗰	P
OFISCVARNT			100 100 100 100 100 100 100 100 100 100	

Figure 8.7: Activate/Deactivate Data Slice PF Filter

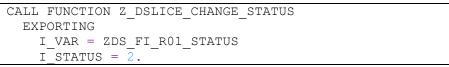


Table 8.1: Deactivate Data Slice PF Fox Formula Code

CALL FUNCTION Z_DSLICE_C	HANGE_STATUS
EXPORTING	
I VAR = ZDS FI R01 S	TATUS
$I_STATUS = \overline{1}$.	

Table 8.2: Activate Data Slice PF Fox Formula Code

Display Filt	er					
+ + 🗉	🐚 🤣 🚰					
Filter: ZF_F	-1_02	Filter to Intercompany Recharges	3			
Aggregation Level:	ZAL_FI003	-	-			
Key Date: St	andard					
	wed Date:					
OFr	om Variable					
Colorations						
Selections						
E InfoObject	Description	Restriction	Selection	Delete Defau	It Values Selection	Dele
		Restriction var:/ERP/P_CATEGORY,ACT01	Selection	1	It Values Selection ₩0	
B InfoObject /ERP/CATEGOR						
E InfoObject /ERP/CATEGOR /ERP/CHRTACC	Category	var:/ERP/P_CATEGORY,ACT01	₩Ô ₩Ô	1 1 1 1	₩Ĉ ₩Ĉ	
InfoObject /ERP/CATEGOR /ERP/CHRTACC	T Chart of Accounts Controlling Area	var:/ERP/P_CATEGORY,ACT01 var:/ERP/P_CHRTACCT01	W0	1 1 1 1	₩Ĉ ₩Ĉ	
E InfoObject /ERP/CATEGOR /ERP/CHRTACC /ERP/CO_AREA	T Chart of Accounts Controlling Area	Var:/ERP/P_CATEGORY,ACT01 Commonwealth Var:/ERP/P_CHRTACCT01 Commonwealth Var:/ERP/P_CO_AREA01	HQ HQ HQ	1	90 90 90 90 90	
B InfoObject /ERP/CATEGOR /ERP/CHRTACC /ERP/CO_AREA /ERP/LEDGER	Y Category T Chart of Accounts Controlling Area Ledger (Unified Journal Entry)	Var:/ERP/P_CATEGORY,ACT01 Image: Temp and	40 40 40 40 40		90 90 90 90 90	
E InfoObject /ERP/CATEGOR /ERP/CHRTACC /ERP/CO_AREA /ERP/LEDGER /ERP/TDP	Y Category T Chart of Accounts Controlling Area Ledger (Unified Journal Entry) Trading Partner	Var:/ERP/P_CATEGORY,ACT01 Var:/ERP/P_CHRTACCT01 Var:/ERP/P_CO_AREA01 Var:/ERP/P_LEDGER01 exd:#	40 40 40 40 40		90 90 90 90 90	
InfoObject /ERP/CATEGOR /ERP/CHRTACC /ERP/CO_AREA /ERP/LEDGER /ERP/TDP 0CURRENCY	tY Category T Chart of Accounts Controlling Area Ledger (Unified Journal Entry) Trading Partner Currency Key	Var:/ERP/P_CATEGORY,ACT01 Var:/ERP/P_CHRTACCT01 Var:/ERP/P_CO_AREA01 Var:/ERP/P_LEDGER01 Eucl:# EUR	40 43 40 40 40 40		90 90 90 90 90 90 90 90	
B InfoObject /ERP/CATEGOR /ERP/CHRTACC /ERP/CO_AREA /ERP/LEDGER /ERP/LEDGER /ERP/TDP 0CURRENCY 0FISCVARNT	tY Category T Chart of Accounts Controlling Area Ledger (Unified Journal Entry) Trading Partner Currency Key Fiscal year variant	var:/ERP/P_CATEGORY,ACT01 var:/ERP/P_CHRTACCT01 var:/ERP/P_CO_AREA01 var:/ERP/P_LEDGER01 excl:# EUR UR var:/ERP/P_OFISCVARNT01	40 40 40 40 40		90 90 90 90 90	

Figure 8.8: Intercompany Recharge PF Filter

+ > []	📲 🖨 Parameter 🤞	🦻 🚰		
Planning Function	ZPF_FI03_001	BPC: Intercompany Re	echarge	
Aggregation Leve		Non-Production - Cost	-	th
Function Type	Formula	¥		
- If you want to	racteristics as 'to be changed'. work with conditions, mark the create conditions for.		òo 1	Ln 1 - Ln 5 of 5 lines
Characteristic Usa				
InfoObject	Char.	Fields to be changed		tions
/ERP/CATEGORY				
/ERP/CHRTACCT				
	Chart of Accounts			
/ERP/COMPCODE	Company Code	•		
/ERP/COSTCNTR	Company Code Cost Center	•		
/ERP/COSTCNTR /ERP/CO_AREA	Company Code Cost Center Controlling Area	© © 0		
/ERP/COSTCNTR /ERP/CO_AREA /ERP/DCINDCO	Company Code Cost Center Controlling Area Debit/Credit Indicator CO	•		
/ERP/COSTCNTR /ERP/CO_AREA /ERP/DCINDCO /ERP/GL_ACCT	Company Code Cost Center Controlling Area Debit/Credit Indicator CO G/L Account	0 0 0 0		
/ERP/COSTCNTR /ERP/CO_AREA /ERP/DCINDCO /ERP/GL_ACCT /ERP/LEDGER	Company Code Cost Center Controlling Area Debit/Credit Indicator CO G/L Account Ledger (Unified Journal Entry)			
/ERP/COSTCNTR /ERP/CO_AREA /ERP/DCINDCO /ERP/GL_ACCT /ERP/LEDGER /ERP/PROFTCTR	Company Code Cost Center Controlling Area Debit/Credit Indicator CO G/L Account Ledger (Unified Journal Entry) Profit Center	0 0 0 0		
/ERP/COSTCNTR /ERP/CO_AREA /ERP/DCINDCO /ERP/GL_ACCT /ERP/LEDGER /ERP/PROFTCTR /ERP/TDP	Company Code Cost Center Controlling Area Debit/Credit Indicator CO G/L Account Ledger (Unified Journal Entry) Profit Center Trading Partner			
/ERP/COSTCNTR /ERP/CO_AREA /ERP/DCINDCO /ERP/GL_ACCT /ERP/LEDGER /ERP/PROFTCTR /ERP/TDP	Company Code Cost Center Controlling Area Debit/Credit Indicator CO G/L Account Ledger (Unified Journal Entry) Profit Center Trading Partner Currency Key			
/ERP/COSTCNTR /ERP/CO_AREA /ERP/DCINDCO /ERP/GL_ACCT /ERP/LEDGER /ERP/PROFTCTR /ERP/TDP DCURRENCY	Company Code Cost Center Controlling Area Debit/Credit Indicator CO G/L Account Ledger (Unified Journal Entry) Profit Center Trading Partner Currency Key Posting period			
/ERP/COSTCNTR /ERP/CO_AREA /ERP/DCINDCO /ERP/GL_ACCT /ERP/LEDGER /ERP/PROFTCTR /ERP/TDP DCURRENCY DFISCPER3	Company Code Cost Center Controlling Area Debit/Credit Indicator CO G/L Account Ledger (Unified Journal Entry) Profit Center Trading Partner Currency Key Posting period Fiscal year variant			
/ERP/COSTCNTR	Company Code Cost Center Controlling Area Debit/Credit Indicator CO G/L Account Ledger (Unified Journal Entry) Profit Center Trading Partner Currency Key Posting period			
/ERP/COSTCNTR /ERP/CO_AREA /ERP/DCINDCO /ERP/GL_ACCT /ERP/LEDGER /ERP/PROFTCTR /ERP/TDP 0CURRENCY 0FISCPER3 0FISCVARNT	Company Code Cost Center Controlling Area Debit/Credit Indicator CO G/L Account Ledger (Unified Journal Entry) Profit Center Trading Partner Currency Key Posting period Fiscal year variant			

Figure 8.9: Intercompany Recharge PF Details

```
DATA YEAR TYPE OFISCYEAR.
DATA CATEGORY TYPE '/ERP/CATEGORY'.
DATA CC TYPE '/ERP/COSTCNTR'.
DATA ACC TYPE '/ERP/GL_ACCT'.
DATA REVACC TYPE '/ERP/GL_ACCT'.
DATA PC TYPE '/ERP/PROFTCTR'.
*DATA PC2 TYPE '/ERP/PROFTCTR'.
DATA COMPCODE TYPE '/ERP/COMPCODE'.
DATA TRADEP TYPE '/ERP/TDP'.
DATA TRADEP2 TYPE '/ERP/COMPCODE'.
DATA TRADEP3 TYPE '/ERP/TDP'.
DATA COMPCODE2 TYPE '/ERP/TDP'.
DATA COMPCODE3 TYPE '/ERP/COMPCODE'.
DATA COUNT TYPE I.
DATA TOTALACC TYPE F.
CATEGORY = OBJV().
****Run the calculation only to the selected CompanyCode
COUNT = VARC('ZVE_COMPCODE01').
IF COUNT <> 0.
TRADEP3 = VARI('ZVS_TRADP01', COUNT).
COMPCODE3 = VARI('ZVE_COMPCODE01', COUNT).
ENDIF.
```

```
****Clear value
FOREACH COMPCODE, TRADEP, CC, ACC, PC.
*Check if trade is not null
*If a company code selected, just clear this company code otherwise clear all companies
  IF CC = # AND TRADEP <> # AND (COMPCODE = COMPCODE3 OR COMPCODE3 IS INITIAL).
    {'/ERP/AMOUNT', COMPCODE, #, ACC, PC, TRADEP, ZFI_R01 }=0.
  ENDIF.
ENDFOR.
****Calculate trading Partner
FOREACH COMPCODE, TRADEP.
*If a company code selected, calculate only this company code otherwise calculate all companies
  IF TRADEP <> # AND (TRADEP = TRADEP3 OR TRADEP3 IS INITIAL).
*Switch company with trade partner
   TRADEP2 = TRADEP.
   COMPCODE2=COMPCODE.
   FOREACH CC.
    TOTALACC = 0.
    IF CC <> #.
     PC = ATRV('/ERP/PROFTCTR', CC).
     FOREACH ACC.
      REVACC = ATRV('ZGL_RACCT', ACC).
      IF REVACC IS INITIAL.
       REVACC = ATRV('/ERP/GL ACCT', CATEGORY).
      ENDIF.
*Acumulate all accounts but revenue account
       IF ACC = RECACC.
       ELSE.
*Actual could have profit center, the other categories profit center is not assigned
        IF CATEGORY = 'ACT01'.
         TOTALACC = TOTALACC + {'/ERP/AMOUNT',COMPCODE,CC,ACC,#,TRADEP,ZFI_R01}.
        ELSE.
         TOTALACC = TOTALACC + {'/ERP/AMOUNT',COMPCODE,CC,ACC,#,TRADEP,ZFI_R01}.
        ENDIF.
       ENDIF.
     ENDFOR.
*Save the data of the company code switching trade with company code
     {'/ERP/AMOUNT', TRADEP2, #, REVACC, PC, COMPCODE2, ZFI R01 } = {'/ERP/AMOUNT',
TRADEP2, #, REVACC, PC, COMPCODE2, ZFI_R01 }
     + TOTALACC .
    ENDIF.
   ENDFOR.
  ENDIF.
 ENDFOR.
```

Table 8.3: Intercompany Recharge PF Fox Formula Code

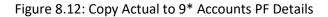
lanning Seq.	Z	PS_FI01_00	2				
Description	B	PC: Copy Acti	Jal		InfoArea		
-	equen 🔶 Trace		\$				
	Land Land Land Land Land Land						
	e Type	Level	Aggregation Level (Description)	Filter	Filter (Description)	Function	Planning Function (Description)
			Aggregation Level (Description) BPC: Active/Deactive Data Slice	Filter ZF_FI_99	Filter (Description) BPC: Active/Deactive DataSlice	Function ZPF_FI99_001	
Step Typ	Planning Function	ZAL_FI099		ZF_FI_99		ZPF_FI99_001	Planning Function (Description) BPC: Deactive DataSlice ZFI_R0 BPC: Copy Actual to 9* accounts

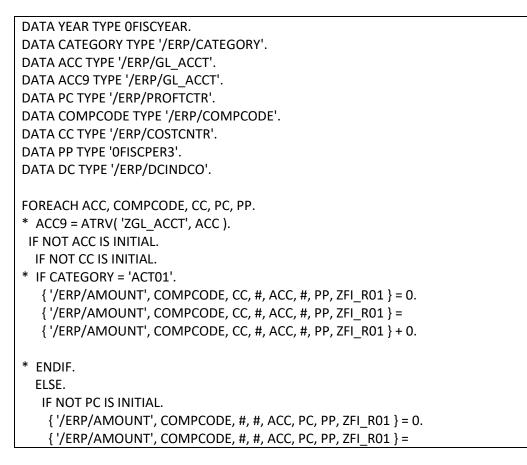
Figure 8.10: Copy Actual PS

Display Filt	er					
+ + 🗉	🐚 🍄 ∔					
Filter: ZF_F Aggregation Level		Filter to Copy Actual to 9* accounts				
Nggregation Lever	2AL_F1005					
	andard					
	xed Date: om Variable					
Selections						
₽. InfoObject	Description	Restriction	Selectio	n Delete Defaul	t Values Selection	Dele
E InfoObject		Restriction ACT01	Selectio	n Delete Defaul	t Values Selection	
ERP/CATEGOR				Ū	ų.	
/ERP/CATEGOR	Category	ACT01	¥3	Ū Ū	i ₽3	
/ERP/CATEGOR /ERP/CHRTACC /ERP/COMPCO	RY Category T Chart of Accounts	ACT01 var:/ERP/P_CHRTACCT01	90 100	Ū	40 40 40	
/ERP/CATEGOR /ERP/CHRTACC /ERP/COMPCO	RY Category T Chart of Accounts DE Company Code A Controlling Area	ACT01 Var:/ERP/P_CHRTACCT01 Var:/ERP/P_COMPCODE01			90 90 90 90 90	
ZERP/CATEGOR /ERP/CHRTACO /ERP/COMPCOI /ERP/CO_ARE/	RY Category T Chart of Accounts DE Company Code A Controlling Area	ACT01 Var:/ERP/P_CHRTACCT01 Var:/ERP/P_COMPCODE01 Var:/ERP/P_CO_AREA01	අව අව අව		(中学) (中) (中) (中) (中) (中) (中) (中) (中	
/ERP/CATEGOF /ERP/CHRTACC /ERP/COMPCOI /ERP/CO_ARE/ /ERP/LEDGER	XY Category XT Chart of Accounts DE Company Code A Controlling Area Ledger (Unified Journal Entry)	ACT01 Var:/ERP/P_CHRTACCT01 Var:/ERP/P_COMPCODE01 Var:/ERP/P_CO_AREA01 Var:/ERP/P_LEDGER01	40 40 40 40 40 40		90 90 90 90 90 90 90 90 90 90 90 90 90 9	
7ERP/CATEGOR /ERP/CHRTACC /ERP/COMPCOI /ERP/CO_ARE/ /ERP/LEDGER 0CURRENCY	RY Category CT Chart of Accounts DE Company Code A Controlling Area Ledger (Unified Journal Entry) Currency Key	ACT01 Var:/ERP/P_CHRTACCT01 Var:/ERP/P_COMPCODE01 Var:/ERP/P_CO_AREA01 Var:/ERP/P_LEDGER01 Var:/ERP/P_LEDGER01 UR	부 (1) (1) (1) (1) (1) (1) (1) (1) (1) (1)			
/ERP/CHRTACC /ERP/COMPCOI /ERP/CO_ARE/ /ERP/LEDGER 0CURRENCY 0FISCVARNT	RY Category Chart of Accounts DE Company Code Controlling Area Ledger (Unified Journal Entry) Currency Key Fiscal year variant	ACT01 var:/ERP/P_CHRTACCT01 var:/ERP/P_COMPCODE01 var:/ERP/P_CO_AREA01 var:/ERP/P_LEDGER01 EUR var:/ERP/P_0FISCVARNT01	40 40 40 40 40 40 40 40		90 90 90 90 90 90 90 90 90 90 90 90 90 9	

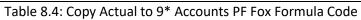
Figure 8.11: Copy Actual to 9* Accounts PF Filter

Planning Function	ZPF_FI03_002	BPC: Copy Actual to 9	* accounts	
Aggregation Leve	ZAL_FI003	Non-Production - Cost	to Profit by mon	th
Function Type	Formula	~		
- If you want to	racteristics as 'to be changed'. work with conditions, mark the ch create conditions for.	naracteristics	io 1	Ln 1 - Ln 5 of 5 lines
Characteristic Usa InfoObject	ige Char	Fields to be changed	Palda for Condi	1
InfoOdject /ERP/CATEGORY	of fail f			uons
and the second se	Chart of Accounts			
ERP/COMPCODE				
	company code			
	Cost Center			
/ERP/COSTCNTR		•		
/ERP/COSTCNTR /ERP/CO_AREA	Controlling Area			
/ERP/COSTCNTR /ERP/CO_AREA /ERP/DCINDCO	Controlling Area Debit/Credit Indicator CO			
/ERP/COSTCNTR /ERP/CO_AREA	Controlling Area			
/ERP/COSTCNTR /ERP/CO_AREA /ERP/DCINDCO /ERP/GL_ACCT /ERP/LEDGER	Controlling Area Debit/Credit Indicator CO G/L Account Ledger (Unified Journal Entry)	0		
/ERP/COSTCNTR /ERP/CO_AREA /ERP/DCINDCO /ERP/GL_ACCT /ERP/LEDGER /ERP/PROFTCTR	Controlling Area Debit/Credit Indicator CO G/L Account Ledger (Unified Journal Entry)	0		
/ERP/COSTCNTR /ERP/CO_AREA /ERP/DCINDCO /ERP/GL_ACCT /ERP/LEDGER /ERP/PROFTCTR /ERP/TDP	Controlling Area Debit/Credit Indicator CO G/L Account Ledger (Unified Journal Entry) Profit Center			
/ERP/COSTCNTR /ERP/CO_AREA /ERP/DCINDCO /ERP/GL_ACCT /ERP/LEDGER /ERP/PROFTCTR /ERP/TDP 0CURRENCY	Controlling Area Debit/Credit Indicator CO G/L Account Ledger (Unified Journal Entry) Profit Center Trading Partner			
/ERP/COSTCNTR /ERP/CO_AREA /ERP/DCINDCO /ERP/GL_ACCT	Controlling Area Debit/Credit Indicator CO G/L Account Ledger (Unified Journal Entry) Profit Center Trading Partner Currency Key			
/ERP/COSTCNTR /ERP/CO_AREA /ERP/DCINDCO /ERP/GL_ACCT /ERP/LEDGER /ERP/PROFTCTR /ERP/TDP 0CURRENCY 0FISCPER3	Controlling Area Debit/Credit Indicator CO G/L Account Ledger (Unified Journal Entry) Profit Center Trading Partner Currency Key Posting period			
/ERP/COSTCNTR /ERP/CO_AREA /ERP/DCINDCO /ERP/GL_ACCT /ERP/LEDGER /ERP/PROFTCTR /ERP/TDP 0CURRENCY 0FISCPER3 0FISCVARNT	Controlling Area Debit/Credit Indicator CO G/L Account Ledger (Unified Journal Entry) Profit Center Trading Partner Currency Key Posting period Fiscal year variant			





{ '/ERP/AMOUNT', COMPCODE, #, #, ACC, PC, PP, ZFI_R01 } + 0. FNDIF.
ENDIF. ENDIF.
ENDIF.
ENDEOR.
ENDFOR.
*BREAK-POINT.
FOREACH ACC, COMPCODE, CC, PC, PP, DC.
ACC9 = ATRV('ZGL_ACCT', ACC).
*IF ACC9 = '6800099999'.
IF NOT ACC9 IS INITIAL.
IF NOT DC IS INITIAL.
IF NOT CC IS INITIAL.
* IF CATEGORY = 'ACT01'.
{ '/ERP/AMOUNT', COMPCODE, CC, #, ACC9, #, PP, ZFI_R01 } =
{ '/ERP/AMOUNT', COMPCODE, CC, #, ACC9, #, PP, ZFI_R01 } +
{ '/ERP/AMOUNT', COMPCODE, CC, DC, ACC, PC, PP, '/ERP/SFIN_V01' }.
* ENDIF.
ELSE.
IF NOT PC IS INITIAL.
{ '/ERP/AMOUNT', COMPCODE, #, #, ACC9, PC, PP, ZFI_R01 } =
{ '/ERP/AMOUNT', COMPCODE, #, #, ACC9, PC, PP, ZFI_R01 } +
{ '/ERP/AMOUNT', COMPCODE, CC, DC, ACC, PC, PP, '/ERP/SFIN_V01' }.
ENDIF.
ENDIF.
ENDIF.
ENDIF.
ENDFOR.



anning Seq.	ZE	S_FI01_00	13				
escription	BF	C: Monthly (Distribution - CostCenter		InfoArea		
Planning Se	iequen 🔷 Trace	1					
and the second s		रू 🗣 🕂		Filter	Filter (Description)	Function	Planning Function (Description)
H F		Level	Aggregation Level (Description)		Filter (Description) BPC: Active/Deactive DataSlice	Function ZPF_FI99_001	
and the second s	е Туре	Level ZAL_FI099	Aggregation Level (Description) BPC: Active/Deactive Data Slice	ZF_FI_99		ZPF_F199_001	BPC: Deactive DataSlice ZFI_R01
Step Type	Planning Function Planning Function	Level ZAL_FI099 ZAL_FI003	Aggregation Level (Description) BPC: Active/Deactive Data Slice	ZF_FI_99 ZF_FI_05	BPC: Active/Deactive DataSlice BPC: Monthly Distribution - Actual Data - CostCent	ZPF_F199_001	BPC: Deactive DataSlice ZFI_R01 BPC: Monthly Distribution - Actual Dat

Figure 8.13: Monthly Distribution – Cost Center PS

Display Fil	ter					
$+$ $+$ \equiv	1 9 4					
Filter: ZF, Aggregation Leve	100 000 000 000 000 000 000 000 000 000	BPC: Monthly Distribution - Actual Data - CostCenter		3		
OI	Randard Tixed Date: From Variable					
Selections						
♣ InfoObject	Description	Restriction	Selection	Delete Defaul	t Values Selection	n Delet
/ERP/CATEGO	RY Category	var:/ERP/P_CATEGORY,ACT01	SM .		WÔ.	自宜
/ERP/CHRTAC	CT Chart of Accounts	var:/ERP/P_CHRTACCT01	W3	1	40 40	
/ERP/COMPCC	ODE Company Code	var:/ERP/P_COMPCODE01	M2	窗	SW .	直
/ERP/CO_ARE	5A Controlling Area	var:/ERP/P_CO_AREA01	W3	金	90 90	亩
/ERP/LEDGER	Ledger (Unified Journal Entry)	var:/ERP/P_LEDGER01	W2	0	WE3	10
/ERP/PROFTC	TR Profit Center	= *	5W	1	40 40 40	亩
OCURRENCY	Currency Key	EUR	₩3	1	W)	面
OFISCVARNT	Fiscal year variant	var:/ERP/P_0FISCVARNT01	輕	前	MG	面
OFISCYEAR	Fiscal year	var:/ERP/P_0FISCYEAR01	15W		40 40 40	Dieper ex
DINFOPROV	InfoProvider	2FI_R01	MG .	0	M63	10
OMANDT	Client (special Logic in Virtual Pro	vider) 📕 var:05YMANDT	64	elle	MC.	1 10

Figure 8.14: Actual Data Monthly Distribution by Cost Center PF Filter

← → 🗉	🔚 🗦 Parameter 🤤	è ∔		
Planning Function	ZPF_FI03_006	BPC: Monthly Distribu	ution - Actual Data	
Aggregation Leve	ZAL_FI003	Non-Production - Cos	t to Profit by mont	h
Function Type	Formula	*	·	
- If you want to v	racteristics as 'to be changed'. work with conditions, mark the oreate conditions for.	characteristics	Co 1	Ln 1 - Ln 5 of 5 lines
Characteristic Usa		Colde to be above	d Fields for Condu	
InfoObject	Char.	Fields to be change	a Fields for Conditi	ons
		•		
/ERP/CHRTACCT	Chart of Accounts			
/ERP/COMPCODE	Chart of Accounts Company Code			
/ERP/CHRTACCT /ERP/COMPCODE /ERP/COSTCNTR	Chart of Accounts Company Code Cost Center			
/ERP/CHRTACCT /ERP/COMPCODE /ERP/COSTCNTR /ERP/CO_AREA	Chart of Accounts Company Code Cost Center Controlling Area			
/ERP/CHRTACCT /ERP/COMPCODE /ERP/COSTCNTR /ERP/CO_AREA /ERP/DCINDCO	Chart of Accounts Company Code Cost Center Controlling Area Debit/Credit Indicator CO			
/ERP/CHRTACCT /ERP/COMPCODE /ERP/COSTCNTR /ERP/CO_AREA /ERP/DCINDCO /ERP/GL_ACCT	Chart of Accounts Company Code Cost Center Controlling Area Debit/Credit Indicator CO G/L Account			
/ERP/CHRTACCT /ERP/COMPCODE /ERP/COSTCNTR /ERP/CO_AREA /ERP/DCINDCO /ERP/GL_ACCT /ERP/LEDGER	Chart of Accounts Company Code Cost Center Controlling Area Debit/Credit Indicator CO G/L Account Ledger (Unified Journal Entry)			
/ERP/CHRTACCT /ERP/COMPCODE /ERP/COSTCNTR /ERP/CO_AREA /ERP/DCINDCO /ERP/GL_ACCT /ERP/LEDGER /ERP/PROFTCTR	Chart of Accounts Company Code Cost Center Controlling Area Debit/Credit Indicator CO G/L Account Ledger (Unified Journal Entry)			
/ERP/CHRTACCT /ERP/COMPCODE /ERP/COSTCNTR /ERP/CO_AREA /ERP/DCINDCO /ERP/GL_ACCT /ERP/GL_ACCT /ERP/LEDGER /ERP/PROFTCTR /ERP/TDP	Chart of Accounts Company Code Cost Center Controlling Area Debit/Credit Indicator CO G/L Account Ledger (Unified Journal Entry) Profit Center			
/ERP/CHRTACCT /ERP/COMPCODE /ERP/CO_AREA /ERP/CO_AREA /ERP/DCINDCO /ERP/GL_ACCT /ERP/LEDGER /ERP/LEDGER /ERP/PROFTCTR /ERP/TDP 0CURRENCY	Chart of Accounts Company Code Cost Center Controlling Area Debit/Credit Indicator CO G/L Account Ledger (Unified Journal Entry) Profit Center Trading Partner			
/ERP/CHRTACCT /ERP/COMPCODE /ERP/COSTCNTR /ERP/CO_AREA /ERP/DCINDCO /ERP/DCINDCO /ERP/GL_ACCT /ERP/LEDGER /ERP/PROFTCTR /ERP/TDP 0CURRENCY 0FISCPER3	Chart of Accounts Company Code Cost Center Controlling Area Debit/Credit Indicator CO G/L Account Ledger (Unified Journal Entry) Profit Center Trading Partner Currency Key			
/ERP/CHRTACCT /ERP/COMPCODE	Chart of Accounts Company Code Cost Center Controlling Area Debit/Credit Indicator CO G/L Account Ledger (Unified Journal Entry) Profit Center Trading Partner Currency Key Posting period			
/ERP/CHRTACCT /ERP/COMPCODE /ERP/COSTCNTR /ERP/CO_AREA /ERP/DCINDCO /ERP/GL_ACCT /ERP/LEDGER /ERP/PROFTCTR /ERP/TDP 0CURRENCY 0FISCPER3 0FISCVARNT	Chart of Accounts Company Code Cost Center Controlling Area Debit/Credit Indicator CO G/L Account Ledger (Unified Journal Entry) Profit Center Trading Partner Currency Key Posting period Fiscal year variant			

Figure 8.15: Actual Data Monthly Distribution by Cost Center PF Details

```
DATA YEAR TYPE OFISCYEAR.
DATA YEAR2 TYPE OFISCYEAR.
DATA CATEGORY TYPE '/ERP/CATEGORY'.
DATA CATEGORY M TYPE '/ERP/CATEGORY'.
DATA MONTH TYPE 'OFISCPER3'.
DATA M_COUNT TYPE 'OFISCPER3'.
DATA M_FCST TYPE 'OFISCPER3'.
DATA M_VAL TYPE I.
DATA DIV_VAL TYPE I.
CATEGORY_M = VARV( '/ERP/P_CATEGORY' ).
M FCST = ATRV( 'OFISCPER3', CATEGORY M ).
*M_VAL = ATRV( 'OFISCPER3', CATEGORY_M ).
YEAR = OBJV().
YEAR2 = ATRV( 'OFISCYEAR', CATEGORY_M ).
M COUNT = 000.
FOREACH CATEGORY.
IF CATEGORY = 'ACT01'.
  DO.
  IF M_COUNT >= 012.
   EXIT.
   ELSE.
   M COUNT = TMVL( M_COUNT, 1 ).
   MONTH = M COUNT.
   IF YEAR = YEAR2.
    IF M COUNT <= M FCST.
     { '/ERP/AMOUNT', CATEGORY M, MONTH} = { '/ERP/AMOUNT', 'ACT01', MONTH }.
    ENDIF.
   ENDIF.
  ENDIF.
  ENDDO.
ENDIF.
ENDFOR.
```

Table 8.5: Actual Data Monthly Distribution by Cost Center PF Fox Formula Code

Display Fil	ter				
+ + E	1a 🤣 🚰				
Filter: ZF, Aggregation Leve	.FI_04 el: ZAL_FI003	BPC: Monthly Distribution - CostCenter]	
0	Standard Fixed Date: From Variable				
Selections					
E. InfoObject	Description	Restriction	Selection	Delete Default	Values Selection Delet
/ERP/CATEGO	ORY Category	Reversion of the second	₩3	1	👘 🗊
/ERP/CHRTAC	CT Chart of Accounts	Reversion of the second		1	NG 🗐
/ERP/COMPCO	DDE Company Code	war:/ERP/P_COMPCODE01		1 I	🗰 🖗
/ERP/CO_ARE	A Controlling Area	var:/ERP/P_CO_AREA01	SM .	1	¥0 🗊
/ERP/LEDGER	Ledger (Unified Journal Entry)	var:/ERP/P_LEDGER01	¥3		10 10 10 10 10 10 10 10 10 10 10 10 10 1
/ERP/PROFTC	TR Profit Center	= +	₩Ô.		👘 🖗
0CURRENCY	Currency Key	EUR	₩ê	Ū.	N 1
OFISCVARNT	Fiscal year variant	var:/ERP/P_0FISCVARNT01	₩Q.	Ť.	
OFISCYEAR	Fiscal year	var:/ERP/P_0FISCYEAR01	¥3		
GINFOPROV	InfoProvider	ZFI_R01	100 B		1
		rovider) 🔚 var:0SYMANDT		1	

Figure 8.16: Planning Data Monthly Distribution by Cost Center PF Filter

* * 🗄	📲 👶 Parameter 🔗	à 🚹		
Planning Function	ZPF_FI03_003	BPC: Monthly Distribut	tion	
Aggregation Leve		Non-Production - Cost		th
Function Type	Formula	¥		
- If you want to	racteristics as 'to be changed'. work with conditions, mark the c create conditions for.	haracteristics	io 1	Ln 1 - Ln 5 of 5 lines
Characteristic Usa	ige			
InfoObject	Char.	Fields to be changed	Fields for Condi	ions
/ERP/CATEGORY				
/ERP/CHRTACCT	Chart of Accounts			
/ERP/COMPCODE	Company Code			
/ERP/COMPCODE /ERP/COSTCNTR				
A CONTRACTOR OF A CONTRACTOR OF A	Cost Center			
/ERP/COSTCNTR	Cost Center			
/ERP/COSTCNTR /ERP/CO_AREA /ERP/DCINDCO	Cost Center Controlling Area Debit/Credit Indicator CO G/L Account			
/ERP/COSTCNTR /ERP/CO_AREA /ERP/DCINDCO /ERP/GL_ACCT /ERP/LEDGER	Cost Center Controlling Area Debit/Credit Indicator CO G/L Account Ledger (Unified Journal Entry)			
/ERP/COSTCNTR /ERP/CO_AREA /ERP/DCINDCO /ERP/GL_ACCT /ERP/LEDGER	Cost Center Controlling Area Debit/Credit Indicator CO G/L Account Ledger (Unified Journal Entry) Profit Center			
/ERP/COSTCNTR /ERP/CO_AREA /ERP/DCINDCO /ERP/GL_ACCT /ERP/LEDGER /ERP/PROFTCTR	Cost Center Controlling Area Debit/Credit Indicator CO G/L Account Ledger (Unified Journal Entry)			
/ERP/COSTCNTR /ERP/CO_AREA /ERP/DCINDCO /ERP/GL_ACCT /ERP/LEDGER /ERP/PROFTCTR /ERP/TDP	Cost Center Controlling Area Debit/Credit Indicator CO G/L Account Ledger (Unified Journal Entry) Profit Center			
/ERP/COSTCNTR /ERP/CO_AREA /ERP/DCINDCO /ERP/GL_ACCT /ERP/LEDGER /ERP/PROFTCTR /ERP/TDP 0CURRENCY	Cost Center Controlling Area Debit/Credit Indicator CO G/L Account Ledger (Unified Journal Entry) Profit Center Trading Partner			
/ERP/COSTCNTR /ERP/CO_AREA /ERP/DCINDCO /ERP/GL_ACCT /ERP/LEDGER /ERP/PROFTCTR /ERP/TDP 0CURRENCY 0FISCPER3	Cost Center Controlling Area Debit/Credit Indicator CO G/L Account Ledger (Unified Journal Entry) Profit Center Trading Partner Currency Key			
/ERP/COSTCNTR /ERP/CO_AREA	Cost Center Controlling Area Debit/Credit Indicator CO G/L Account Ledger (Unified Journal Entry) Profit Center Trading Partner Currency Key Posting period			
/ERP/COSTCNTR /ERP/CO_AREA /ERP/DCINDCO /ERP/GL_ACCT /ERP/LEDGER /ERP/PROFTCTR /ERP/TDP 0CURRENCY 0FISCPER3 0FISCVARNT	Cost Center Controlling Area Debit/Credit Indicator CO G/L Account Ledger (Unified Journal Entry) Profit Center Trading Partner Currency Key Posting period Fiscal year variant			

Figure 8.17: Planning Data Monthly Distribution by Cost Center PF Details

```
DATA YEAR TYPE OFISCYEAR.
DATA YEAR2 TYPE OFISCYEAR.
DATA CATEGORY TYPE '/ERP/CATEGORY'.
DATA CATEGORY M TYPE '/ERP/CATEGORY'.
DATA MONTH TYPE 'OFISCPER3'.
DATA M_COUNT TYPE 'OFISCPER3'.
DATA M_FCST TYPE 'OFISCPER3'.
DATA M_VAL TYPE I.
DATA DIV_VAL TYPE I.
CATEGORY_M = VARV('/ERP/P_CATEGORY').
CATEGORY = OBJV().
M FCST = ATRV( 'OFISCPER3', CATEGORY M ).
M_VAL = ATRV( 'OFISCPER3', CATEGORY_M ).
YEAR = OBJV().
YEAR2 = ATRV( 'OFISCYEAR', CATEGORY_M ).
M_COUNT = 000.
DO.
IF M_COUNT >= 012.
  EXIT.
 ELSE.
  M COUNT = TMVL( M COUNT, 1 ).
  MONTH = M COUNT.
  IF CATEGORY <> 'ACT01'.
  IF YEAR = YEAR2.
   IF M_COUNT > M_FCST.
    DIV_VAL = 12 - M_VAL.
    { '/ERP/AMOUNT', MONTH } = { '/ERP/AMOUNT', # } / DIV_VAL.
   ENDIF.
   ELSE.
     { '/ERP/AMOUNT', MONTH } = { '/ERP/AMOUNT', # } / 12.
  ENDIF.
  ELSE.
  ENDIF.
ENDIF.
ENDDO.
```

Table 8.6: Planning Data Monthly Distribution by Cost Center PF Fox Formula Code

Planning Seq.	ZPS_FI01_0	04				
Description	BPC: Year Age	gregation - CostCenter		InfoArea		
Planning Sequen	Trace					
	61 H Q 4 1					
		Aggregation Level (Description) Filter	Filter (Description)	Function	Planning Function (Description)
H M B G	61 H Q 4 1	Aggregation Level (Description		Filter (Description) 8PC: Active/Deactive DataSlice	Function ZPF_F199_001	
Step Type Type	조태 @ 릭 t Level	Aggregation Level (Description	te ZF_FL_99		ZPF_F199_001	BPC: Deactive DataSlice ZFI_R0

Figure 8.18: Year Aggregation – Cost Center PS

Display Filte	er			
+ + 🗉 🕈	😑 🤣 🚰			
Filter: ZF_FI Aggregation Level:	_04 ZAL_FI003	BPC: Monthly Distribution - CostCenter]	
-	ndard ed Date: m Variable			
Selections				
■ InfoObject	Description	Restriction	Selection Delete Default Va	ues Selection Delete
/ERP/CATEGORY	Category	var:/ERP/P_CATEGORY	¥3 🔟	🗰 🥵
/ERP/CHRTACCT	Chart of Accounts	var:/ERP/P_CHRTACCT01	₩0 Ш ₩0 Ш	
/ERP/COMPCOD	E Company Code	Revealed the second sec	👘 🗇	
/ERP/CO_AREA	Controlling Area	Reversion of the second	¥0 🔟	H
/ERP/LEDGER	Ledger (Unified Journal Entry)	var:/ERP/P_LEDGER01	¥0 🔟	📫 🖗
/ERP/PROFTCTR	Profit Center	= #	¥2 🔟	👘 🗊
0CURRENCY	Currency Key	EUR	¥3 🔟	\min 🖗
OFISCVARNT	Fiscal year variant	var:/ERP/P_0FISCVARNT01	¥ð 🔟	\min 🖗
OFISCYEAR	Fiscal year	var:/ERP/P_0FISCYEAR01	¥ð 🔟	
0INFOPROV	InfoProvider	ZFI_R01	¥0 🔟	🗰 🖗

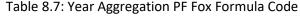
Figure 8.19: Year Aggregation by Cost Center PF Filter

Dianning Function				
Planning Function	ZPF_FI03_007	BPC: Year Aggregatio	n	
Aggregation Leve	I ZAL_FI003	Non-Production - Cost	to Profit by mon	th
Function Type	Formula	~		
- If you want to	racteristics as 'to be changed'. work with conditions, mark the c create conditions for.	characteristics	Co 1	Ln 1 - Ln 5 of 5 lines
Characteristic Usa	There a			
InfoObject	Char.	Fields to be changed		tions
/ERP/CATEGORY				
ICODIOUDTI				
/ERP/CHRTACCT				
/ERP/COMPCODE	Company Code			
/ERP/COMPCODE /ERP/COSTCNTR	Company Code Cost Center			
/ERP/COMPCODE /ERP/COSTCNTR /ERP/CO_AREA	Company Code Cost Center Controlling Area			
/ERP/COMPCODE /ERP/COSTCNTR /ERP/CO_AREA /ERP/DCINDCO	Company Code Cost Center Controlling Area Debit/Credit Indicator CO			
/ERP/COMPCODE /ERP/COSTCNTR /ERP/CO_AREA /ERP/DCINDCO /ERP/GL_ACCT	Company Code Cost Center Controlling Area Debit/Credit Indicator CO G/L Account		0 0 0	
/ERP/COMPCODE /ERP/COSTCNTR /ERP/CO_AREA /ERP/DCINDCO /ERP/GL_ACCT /ERP/LEDGER	Company Code Cost Center Controlling Area Debit/Credit Indicator CO G/L Account Ledger (Unified Journal Entry)			
/ERP/COMPCODE /ERP/COSTCNTR /ERP/CO_AREA /ERP/DCINDCO /ERP/GL_ACCT /ERP/LEDGER /ERP/PROFTCTR	Company Code Cost Center Controlling Area Debit/Credit Indicator CO G/L Account Ledger (Unified Journal Entry) Profit Center			
/ERP/COMPCODE /ERP/COSTCNTR /ERP/CO_AREA /ERP/DCINDCO /ERP/GL_ACCT /ERP/LEDGER /ERP/PROFTCTR /ERP/TDP	Company Code Cost Center Controlling Area Debit/Credit Indicator CO G/L Account Ledger (Unified Journal Entry) Profit Center Trading Partner			
/ERP/COMPCODE /ERP/COSTCNTR /ERP/CO_AREA /ERP/DCINDCO /ERP/JCLACCT /ERP/LEDGER /ERP/LEDGER /ERP/PROFTCTR /ERP/TDP DCURRENCY	Company Code Cost Center Controlling Area Debit/Credit Indicator CO G/L Account Ledger (Unified Journal Entry) Profit Center Trading Partner Currency Key			
/ERP/COMPCODE /ERP/COSTCNTR /ERP/CO_AREA /ERP/DCINDCO /ERP/GL_ACCT /ERP/LEDGER /ERP/PROFTCTR /ERP/TDP 0CURRENCY 0FISCPER3	Company Code Cost Center Controlling Area Debit/Credit Indicator CO G/L Account Ledger (Unified Journal Entry) Profit Center Trading Partner Currency Key Posting period			
/ERP/COMPCODE /ERP/COSTCNTR /ERP/CO_AREA /ERP/DCINDCO /ERP/GL_ACCT /ERP/LEDGER /ERP/PROFTCTR /ERP/TDP 0CURRENCY 0FISCPER3 0FISCVARNT	Company Code Cost Center Controlling Area Debit/Credit Indicator CO G/L Account Ledger (Unified Journal Entry) Profit Center Trading Partner Currency Key Posting period Fiscal year variant			
/ERP/COMPCODE /ERP/COSTCNTR /ERP/CO_AREA /ERP/DCINDCO /ERP/GL_ACCT /ERP/LEDGER /ERP/PROFTCTR /ERP/TDP 0CURRENCY 0FISCPER3	Company Code Cost Center Controlling Area Debit/Credit Indicator CO G/L Account Ledger (Unified Journal Entry) Profit Center Trading Partner Currency Key Posting period			

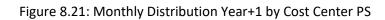
Figure 8.20: Year Aggregation I	PF Details
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DATA YEAR TYPE OFISCYEAR.	
DATA YEAR2 TYPE OFISCYEAR.	
DATA CATEGORY TYPE '/ERP/CATEGORY'.	
DATA CATEGORY_M TYPE '/ERP/CATEGORY'.	
DATA MONTH TYPE '0FISCPER3'.	
DATA M_COUNT TYPE '0FISCPER3'.	
DATA M_FCST TYPE '0FISCPER3'.	
DATA M_VAL TYPE I.	
DATA DIV_VAL TYPE I.	
DATA TOTALYEAR TYPE F.	
CATEGORY_M = VARV('/ERP/P_CATEGORY').	
M_FCST = ATRV('0FISCPER3', CATEGORY_M).	
*M_VAL = ATRV('0FISCPER3', CATEGORY_M).	
YEAR = OBJV().	
YEAR2 = ATRV('OFISCYEAR', CATEGORY_M).	
TOTALYEAR = 0.	
M_COUNT = 000.	

DO.
IF M_COUNT >= 012.
EXIT.
ELSE.
M_COUNT = TMVL(M_COUNT, 1).
MONTH = M_COUNT.
IF YEAR = YEAR2.
IF M_COUNT > M_FCST.
TOTALYEAR = TOTALYEAR + { '/ERP/AMOUNT', MONTH }.
ENDIF.
ELSE.
TOTALYEAR = TOTALYEAR + { '/ERP/AMOUNT', MONTH }.
ENDIF.
ENDIF.
ENDDO.
{ '/ERP/AMOUNT', # } = TOTALYEAR.
Table 8.7: Year Aggregation PF Fox Formula Code



lanning Seq.	23	PS_FI01_00	15				
escription	B	C: Monthly I	Distribution Year+1 - CostCenter		InfoArea		
Planning S	equen 🔷 Trace						
~							
	(1)(<u>9</u>)(2)(2)						
H R	Sector Contractor Contractor	ि नि † । Level	+ Aggregation Level (Description)	Filter	Filter (Description)	Function	Planning Function (Description)
	е Туре	Level	Aggregation Level (Description)				Planning Function (Description) BPC: Deactive DataSlice ZF1_RI
	e Type Planning Function	Level ZAL_F1099	Aggregation Level (Description) BPC: Active/Deactive Data Slice	ZF_FL_99		ZPF_F199_001	BPC: Deactive DataSlice ZFI_R



Display Filte	er				
+ + 🗉 🗄	= 🔅 🚰				
Filter: ZF_FI Aggregation Level:	_06 ZAL_FI003	BPC: Monthly Distribution Year+1 - CostCenter]	
_	ndard ad Date: m Variable				
Selections					
■ InfoObject	Description	Restriction	Selection	n Delete Defaul	t Values Selection Delete
/ERP/CATEGORY	Category	var:/ERP/P_CATEGORY	. ₩ĝ	Ū	\min 🤃
/ERP/CHRTACCT	Chart of Accounts	var:/ERP/P_CHRTACCT01	₩ ĝ		単う 10 単う 10 単う 10 単う 10
/ERP/COMPCOD	E Company Code	var:/ERP/P_COMPCODE01	цŝ,	1	📫 👘
/ERP/CO_AREA	Controlling Area	var:/ERP/P_CO_AREA01	цŝ,	Ū.	📫 👘
/ERP/LEDGER	Ledger (Unified Journal Entry)	var:/ERP/P_LEDGER01	₩ Ŝ	1 m	📫 👘
/ERP/PROFTCTR	Profit Center	= #	- Mê	Ū.	R 😥
0CURRENCY	Currency Key	EUR	¥ĝ	Ū.	\min 🤤
OFISCVARNT	Fiscal year variant	var:/ERP/P_0FISCVARNT01	₩ ĝ	Ū.	\min 🤤
OFISCYEAR	Fiscal year	var:/ERP/P_0FISCYEAR01+1	ц.		
OINFOPROV	InfoProvider	ZFI_R01	₩Ê.	W	
OMANDT	Client (special Logic in Virtual Pr	ovider) 🚰 var:0SYMANDT	₩Ŝ	1 m	K U

Figure 8.22: Monthly Distribution Year+1 by Cost Center PF Filter

Planning Seq.	Z	PS_FI01_00	06				
Description	В	PC: Year Agg	regation Year+1 - CostCenter		InfoArea		
Planning S	Gequen 🔷 Trace	2					
HH		(;) -] †	\$				
H H		() 라 † Level	Aggregation Level (Description)	Filter	Filter (Description)	Function	Planning Function (Description)
Cara and a second		Level	Aggregation Level (Description)	Filter ZF_FI_99		Function ZPF_FI99_001	
B Step Typ	ре Туре	Level ZAL_FI099	Aggregation Level (Description) BPC: Active/Deactive Data Slice	ZF_FI_99		ZPF_FI99_001	

Figure 8.23: Year Aggregation Year+1 – Cost Center PS

lanning Seq.	21	S_FI01_00	7				
escription	BF	C: Monthly [Distribution - ProfitCenter		InfoArea		
Planning S	Sequen 🔷 Trace]					
		a a +					
			114 J				
🗟 Step Typ		Level		Filter	Filter (Description)	Function	Planning Function (Description)
	pe Type	Level	Aggregation Level (Description)		Filter (Description) BPC: Active/Deactive DataSlice	Function ZPF_FI99_001	
	e Type Planning Function	Level ZAL_FI099	Aggregation Level (Description) BPC: Active/Deactive Data Slice	ZF_FL_99		ZPF_F199_001	BPC: Deactive DataSlice ZFI_R01
Step Typ	pe Type Planning Function Planning Function	Level ZAL_FI099 ZAL_FI003	Aggregation Level (Description) BPC: Active/Deactive Data Slice	ZF_FI_99 ZF_FI_08	BPC: Active/Deactive DataSlice BPC: Monthly Distribution - Actual Data - ProfitCenter	ZPF_FI99_001 ZPF_FI03_006	BPC: Deactive DataSlice ZFI_R01



Display Filter		
🔶 🔶 🛅 🐘		
Filter: ZF_FI_07 Aggregation Level: ZAL_FI003	BPC: Monthly Distribution - ProfitCenter	3
Key Date: Standard Fixed Date: From Variable		
Selections		
➡ InfoObject Description	Restriction	Selection Delete Default Values Selection Delete
/ERP/CATEGORY Category	var:/ERP/P_CATEGORY	
/ERP/CHRTACCT Chart of Accounts	var:/ERP/P_CHRTACCT01	
/ERP/COMPCODE Company Code	var:/ERP/P_COMPCODE01	
/ERP/COSTCNTR Cost Center	= #	
/ERP/CO_AREA Controlling Area	var:/ERP/P_CO_AREA01	
/ERP/LEDGER Ledger (Unified Journal Entry)	var:/ERP/P_LEDGER01	
0CURRENCY Currency Key	EUR	
0FISCVARNT Fiscal year variant	var:/ERP/P_0FISCVARNT01	
0FISCYEAR Fiscal year	var:/ERP/P_0FISCYEAR01	
0INFOPROV InfoProvider	ZFI_R01	
0MANDT Client (special Logic in Virtual P	rovider) 🔄 var:0SYMANDT	

Figure 8.25: Monthly Distribution – Profit Center PF Filter

Display Filte	r			
+ + 🗉 💈	= 🤣 🚰			
Filter: ZF_FI Aggregation Level:	08 ZAL_FI003	BPC: Monthly Distribution - Actual Data - ProfitCenter]	
	ndard d Date: n Variable			
Selections				
■ InfoObject	Description	Restriction	Selection Delete Defaul	t Values Selection Delete
/ERP/CATEGORY	Category	var:/ERP/P_CATEGORY,ACT01	F	📫 🗊
/ERP/CHRTACCT	Chart of Accounts	var:/ERP/P_CHRTACCT01	F	
/ERP/COMPCODE	Company Code	var:/ERP/P_COMPCODE01	F	I
/ERP/COSTCNTR	Cost Center	= #	F	F
/ERP/CO_AREA	Controlling Area	Var:/ERP/P_CO_AREA01	F	📫 🖬
/ERP/LEDGER	Ledger (Unified Journal Entry)	Var:/ERP/P_LEDGER01	1	H
0CURRENCY	Currency Key	EUR	F	I
OFISCVARNT	Fiscal year variant	var:/ERP/P_0FISCVARNT01	F	📫 🖬
OFISCYEAR	Fiscal year	var:/ERP/P_0FISCYEAR01	1	R
0INFOPROV	InfoProvider	ZFI_R01	1	
OMANDT	Client (special Logic in Virtual Pro	ovider) 🚰 var:0SYMANDT		1

Figure 8.26: Monthly Distribution Actual Data by Profit Center PF Filter

lanning Seq.	. 21	PS_FI01_00	8				
Description	BI	C: Year Agg	regation - ProfitCenter		InfoArea		
Planning S	Sequen 🔷 Trace						
HA		0 7 †	+				
K M		🕀 🖣 🕇	Aggregation Level (Description)	Filter	Filter (Description)	Function	Planning Function (Description)
		Level	Aggregation Level (Description)	Filter ZF_FI_99		Function ZPF_FI99_001	Planning Function (Description) BPC: Deactive DataSlice ZFI_R0
Step Typ	ре Туре	Level ZAL_FI099	Aggregation Level (Description)	ZF_FI_99		ZPF_FI99_001	

Figure 8.27: Year Aggregation by Profit Center PS

lanning Seq	. Z	PS_FI01_00	9				
Description	В	PC: Monthly D	Distribution Year+1 - ProfitCenter		InfoArea		
Planning	Sequen 🔷 Trace						
	-						
HM	1	(;) (;) (;) (;) (;) (;) (;) (;) (;) (;)	÷				
	d becaused is becaused by provide the second second second	() 각 † Level	Aggregation Level (Description)	Filter	Filter (Description)	Function	Planning Function (Description)
	ре Туре	Level	Aggregation Level (Description)	Filter ZF_FI_99		Function ZPF_FI99_001	Planning Function (Description) BPC: Deactive DataSlice ZFI_RC
Step Ty	pe Type Planning Function	Level ZAL_FI099	Aggregation Level (Description)	ZF_FI_99	BPC: Active/Deactive DataSlice	ZPF_FI99_001	BPC: Deactive DataSlice ZFI_RC

Figure 8.28: Monthly Distribution Year+1 by Profit Center PS

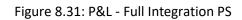
Display Filt	er				
+ + =	🎫 🤌 ∔				
Filter: ZF_F	T_09	BPC: Monthly Distribution Year+1 - ProfitCenter		1	
Aggregation Level	ZAL_FI003			-	
Key Date: OSt	andard				
○ Fit	ked Date:				
OFr	om Variable				
Selections					
■ InfoObject	Description	Restriction	Selection	Delete Default	Values Selection Delet
/ERP/CATEGOF	RY Category	var:/ERP/P_CATEGORY	₩ Ŝ	Ŵ	📫 📫
/ERP/CHRTACO	T Chart of Accounts	var:/ERP/P_CHRTACCT01	H Ê	T T	岐 面 岐 面 岐 面 岐 面 岐 面 岐 面 岐 面 岐 面 岐 面 岐 面
/ERP/COMPCO	DE Company Code	var:/ERP/P_COMPCODE01	₩ĝ	1 m	📫 👘
/ERP/COSTCNT	R Cost Center	= #	цŝ.	Ŵ	📫 🙀
/ERP/CO_AREA	Controlling Area	Var:/ERP/P_CO_AREA01	ц¢	Ū	📫 🛱
/ERP/LEDGER	Ledger (Unified Journal Entry)	var:/ERP/P_LEDGER01	# \$	T T	R 1
0CURRENCY	Currency Key	EUR	ц.	1 m	📫 🖬
OFISCVARNT	Fiscal year variant	var:/ERP/P_0FISCVARNT01		Ū Ū	13 1
OFISCYEAR	Fiscal year	var:/ERP/P_0FISCYEAR01+1			
0INFOPROV	InfoProvider	ZFI_R01	ц.	Ū.	P
		rovider) 🚰 var:0SYMANDT	1		18 1

Figure 8.29: Monthly Distribution Year+1 by Profit Center PF Filter

anning Seq.	. 2	PS_FI01_01	0				
escription	B	PC: Year Agg	regation Year+1 - ProfitCenter		InfoArea		
Planning S	equen 🔷 Trace						
HM	I 📰 🚱 🚑 🔡	() -	÷.				
		() 각 † Level	Aggregation Level (Description)	Filter	Filter (Description)	Function	Planning Function (Description)
Step Typ		Level		Filter ZF_FI_99		Function ZPF_FI99_001	Planning Function (Description) BPC: Deactive DataSlice ZFI_R
	ре Туре	Level ZAL_FI099	Aggregation Level (Description)	ZF_FI_99		ZPF_FI99_001	

Figure 8.30: Year Aggregation Year+1 by Profit Center PS

lanning	Seq.	Z	PS_FI04_00	1				
Descriptio	on	В	PC: P&L - Ful	Integration		InfoArea		
Planni	ng Se	equen 🔷 Trace						
H	44	1 () () () () () () () () () (() Q ()	4				
Step			Level	Aggregation Level (Description)	Filter	Filter (Description)	Function	Planning Function (Description)
1						BPC: Active/Deactive DataSlice	ZPF_FI99_003	BPC: Deactive DataSlice ZFI R02
2				P&L - Integration BPC and ERP			ZPF_FI04_001	BPC: P&L WBS Integration - Plan Data
3	2					BPC: P&L - WBS integration - Actual	ZPF_FI04_002	BPC: P&L WBS Integration - Actual Data
4	2	Planning Function	ZAL_FI004	P&L - Integration BPC and ERP	ZF_FI_12	BPC: P&L - Cost and Profit Center Integration	ZPF_FI04_003	BPC: P&L Cost and Profit Center Integration
5	2	Planning Function	ZAL_FI004	P&L - Integration BPC and ERP	ZF_FI_14	BPC: P&L - Cost and Profit Center Integration - Trend Years	ZPF_FI04_003	BPC: P&L Cost and Profit Center Integration
6	2	Planning Function	ZAL_FI004	P&L - Integration BPC and ERP	ZF_FI_15	BPC: P&L - Cost and Profit Center Integration - Actual	ZPF_FI04_003	BPC: P&L Cost and Profit Center Integration
7	2	Planning Function	ZAL_FI004	P&L - Integration BPC and ERP	ZF_FI_13	BPC: P&L - HR Integration	ZPF_FI04_004	BPC: P&L HR Integration
8	2	Planning Function	7AI FT099	BPC: Active/Deactive Data Slice	7E EI 99	BPC: Active/Deactive DataSlice	ZPF FI99 004	BPC: Active DataSlice ZFI R02



Display Filte	er			
+ + =	🍵 🏟 🚰			
Filter: ZF_FI Aggregation Level:	_10 ZAL_FI004	3PC: P&L - WBS integration]	
O Fro	ndard ed Date:			
Selections				
₽. InfoObject	Description	Restriction	Selection Delete Default	
/ERP/CATEGOR		var:/ERP/P_CATEGORY		R
·	Chart of Accounts	var:/ERP/P_CHRTACCT01	P	1
/ERP/COMPCOD	E Company Code	var:/ERP/S_COMPCODE01	1	📫 👘
/ERP/CURTYPE	Currency Type	= #	I	📫 🖬
/ERP/VERSION	Version	= #	I	📫 🖬
/ERP/VTYPE	Value Type for Reporting	— #	1	📫 👘
0CURRENCY	Currency Key	EUR	1	1
0FISCPER3	Posting period	[] 1-12		1
0FISCVARNT	Fiscal year variant	var:/ERP/P_0FISCVARNT01		
0FISCYEAR	Fiscal year	var:/ERP/P_0FISCYEAR01-/ERP/P_	1	1
0INFOPROV	InfoProvider	ZFI R02		1
UINFOPROV				

Figure 8.32: P&L and WBS integration PF Filter

	📲 👶 Parameter 🔗 🚰			
m	📲 🗳 Parameter 🤌 📫			
Planning Function	n ZPF_FI04_001	BPC: P&L WBS Integrat	tion - Plan Data	
Aggregation Leve	ZAL_FI004	P&L - Integration BPC a	and ERP	
Function Type	Formula	~		
(must be in ope - Mark these ch - If you want to	racteristics do you want to write to a ch rande) aracteristics as 'to be changed'. work with conditions, mark the character o create conditions for.		lue in your form	ula?
		Ш 1, С	01	Ln 1 - Ln 5 of 5 lines
Characteristic Us	age			
InfoObject	Char.	Fields to be changed	Fields for Condi	tions
ERP/CATEGORY	Category	۲		
ERP/CHRTACCT	Chart of Accounts			
ERP/COMPCODI	E Company Code			
ERP/COSTCNTR	Cost Center			
ERP/CO_AREA	Controlling Area			
ERP/CURTYPE	Currency Type	۲		
ERP/DCINDCO	Debit/Credit Indicator CO			
ERP/GL ACCT	G/L Account	۲		
ERP/METYPE	Key Figure Type			
ERP/PROFTCTR				
/ERP/TDP	Trading Partner			
ERP/VERSION	Version			
ERP/VTDETAIL	Detailing the Value Type	•		
ERP/VTYPE	Value Type for Reporting			
OCURRENCY	Currency Key			
FISCPER3	Posting period			
FISCVARNT	Fiscal year variant			
FISCYEAR	Fiscal year			
TNEODROW	InfoDrovider			
				SA
	Fiscal year variant			
JFISCVARNT	Fiscal year			
OFISCYEAR	InfoProvider	۲		
0FISCVARNT 0FISCYEAR 0INFOPROV 0MANDT				_

Figure 8.33: P&L WBS Integration by Plan Data PF Details

```
DATA CATEGORY TYPE '/ERP/CATEGORY'.
DATA VERSION TYPE '/ERP/VERSION'.
DATA CURTYPE TYPE '/ERP/CURTYPE'.
DATA METYPE TYPE '/ERP/METYPE'.
DATA VTYPE TYPE '/ERP/VTYPE'.
DATA VTDETAIL TYPE '/ERP/VTDETAIL'.
DATA BUSAREA TYPE '/ERP/BUSAREA'.
DATA INFOPROV TYPE OINFOPROV.
DATA WBS_ELEMENT TYPE / ERP/WBSELMT.
DATA LEDGER TYPE /ERP/LEDGER.
DATA GLACCT TYPE /ERP/GL_ACCT.
DATA GLACCT9 TYPE /ERP/GL_ACCT.
*IF NOT INFOPROV = '/ERP/COOM_V03'.
* EXIT.
*ENDIF.
VERSION = VARV('/ERP/P_VERSION01').
*CO_AREA = VARV('/ERP/P_CO_AREA01').
*FISCYEAR = OBJV().
 FOREACH CATEGORY IN SELECTION.
  FOREACH GLACCT9.
  {'/ERP/AMOUNT',CATEGORY,#,GLACCT9,#,#,#,#,'ZFI_R02','WBS_PLAN'} = 0.
  ENDFOR.
```

FOREACH GLACCT, METYPE, VTDETAIL IN REFDATA.

{'/ERP/AMOUNT',CATEGORY,#,GLACCT,#,#,#,#,'ZFI_R02','WBS_PLAN'}
= {'/ERP/AMOUNT',CATEGORY,#,GLACCT,#,#,#,#,'ZFI_R02','WBS_PLAN'}
+ {'/ERP/AMOUNT',#,20,GLACCT,METYPE,VERSION,VTDETAIL,020,'/ERP/COOM_V03', #}.

ENDFOR.

ENDFOR.

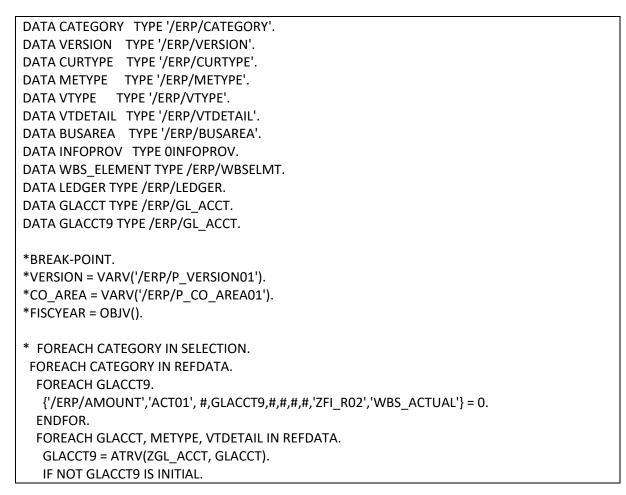
Table 8.8: P&L WBS Integration by Plan Data PF Fox Formula Code

Display Filter			
🔶 🔶 🛅 🧯 🍰			
Filter: ZF_FI_11	BPC: P&L - WBS integration - Actual]	
Aggregation Level: ZAL_FI00	14		
Key Date: • Standard			
Fixed Date:			
From Variable			
Selections			
InfoObject Description	Restriction	Selection Delete Default Values	Selection Delete
/ERP/CATEGORY Category	ACT01	1	📫 🛍
/ERP/CHRTACCT Chart of Acco	unts Par:/ERP/P_CHRTACCT01		H
/ERP/COMPCODE Company Cod	e Var:/ERP/S_COMPCODE01		H
/ERP/CURTYPE Currency Type	e 📕 #		H
/ERP/VERSION Version	= #	1	H
/ERP/VTYPE Value Type for	r Reporting #		H
0CURRENCY Currency Key	EUR		F
0FISCPER3 Posting period	i [] 1-12	📫 🖬	
0FISCVARNT Fiscal year va	riant Var:/ERP/P_0FISCVARNT01	📫 🔟	📫 🔟
0FISCYEAR Fiscal year	Par:/ERP/P_0FISCYEAR01	Reference in the second	P
0INFOPROV InfoProvider	ZFI_R02	📫 🖬	F
0MANDT Client (specia	Logic in Virtual Provider) 🚰 var:0SYMANDT	1	1

Figure 8.34: P&L - WBS integration – Actual PF Filter

+ + T	📲 👶 Parameter 🔗	1		
Planning Function	2PF FI04 002	BPC: P&L WBS Integra	tion - Actual Da	ta
Aggregation Leve		P&L - Integration BPC		ta .
Function Type	Formula	Sector Pace - Integration BPC	dilu EKP	
runcuon Type	Formula	*		
(must be in oper - Mark these cha - If you want to	acteristics do you want to write to rands) racteristics as 'to be changed'. work with conditions, mark the cha o create conditions for.	racteristics		
		LI 1, C	io 1	Ln 1 - Ln 5 of 5 lines
Characteristic Us	age			
InfoObject	Char.	Fields to be changed	Fields for Condi	tions
ERP/CATEGORY	Category	۲		
ERP/CHRTACCT	Chart of Accounts			
	Company Code			
ERP/COSTCNTR	Cost Center			
	Controlling Area			
ERP/CURTYPE	Currency Type			
ERP/DCINDCO	Debit/Credit Indicator CO			
ERP/GL_ACCT	G/L Account	۲		
ERP/METYPE	Key Figure Type			
ERP/PROFTCTR				
ERP/TDP	Trading Partner			
ERP/VERSION	Version			
ERP/VTDETAIL	Detailing the Value Type	۲		
ERP/VTYPE	Value Type for Reporting	۲		
CURRENCY	Currency Key			
FISCPER3	Posting period			
FISCVARNT	Fiscal year variant			
FISCYEAR	Fiscal year			
	InfoDrovider			
THEODROW	Posting period			SAP
JEISUPERJ				
FISCPER3	Fiscal year variant			
DF15CPER3 DFISCVARNT DFISCYEAR	Fiscal year variant Fiscal year			
DINEOPROV DEISCPERS DEISCVARNT DEISCYEAR DINEOPROV DMANDT	Fiscal year variant	0		

Figure 8.35: P&L and WBS Integration by Actual Data PF Details



{'/ERP/AMOUNT', 'ACT01',#,GLACCT9,#,#,#,#,'ZFI_R02','WBS_ACTUAL'}
= {'/ERP/AMOUNT', 'ACT01',#,GLACCT9,#,#,#,#,'ZFI_R02','WBS_ACTUAL'}
+ {'/ERP/AMOUNT',#,20,GLACCT,METYPE,000,VTDETAIL,010,'/ERP/COOM_V03',#}.
ENDIF.
ENDFOR.
ENDFOR.

Table 8.9: P&L and WBS Integration by Actual Data PF Fox Formula Code

[Display Filter	r				
-	← → 🔳 🖬	🤣 🚰				
	ter: ZF_FI_ ggregation Level:	12 [BP ZAL_FI004	C: P&L - Cost and Profit Center Integration			
	Selections InfoObject	Description	Restriction	Selection	Delete	e Default Values Selection Delete
-	/ERP/CATEGORY		According to the second	UCICCION		
		Chart of Accounts	var:/ERP/P_CHRTACCT01	H Ê	Ū Ū	1
	/ERP/COMPCODE	Company Code	var:/ERP/S_COMPCODE01	H ê	i iii	📫 👘
	/ERP/CURTYPE	Currency Type	= #	1	Ū	📫 🖬
	/ERP/GL_ACCT	G/L Account	excl:#	, P	Ŵ	📫 🖬
	/ERP/METYPE	Key Figure Type	= #	ų į	Ŵ	📫 🖬
	/ERP/VERSION	Version	— #	- 1	Ū	
	/ERP/VTDETAIL	Detailing the Value Type	#	, P	Ŵ	📫 👘
	/ERP/VTYPE	Value Type for Reporting	= #	I	Ū.	
	0CURRENCY	Currency Key	EUR	, P	Ū	1
	0FISCPER3	Posting period	1-12	ļ.	Ŵ	📫 👘
	0FISCVARNT	Fiscal year variant	var:/ERP/P_0FISCVARNT01	I	Ū.	📫 🖬
	0FISCYEAR	Fiscal year	var:/ERP/P_0FISCYEAR01,var:/ERP/P_0FISCYEAR01+1	ļ.	Ū	1
	0INFOPROV	InfoProvider	ZFI_R02	I	Ŵ	📫 🖬
	0MANDT	Client (special Logic in Virtual Provide	er) 🛐 var:0SYMANDT	I	Ū	I

Figure 8.36: P&L - Cost and Profit Center Integration PF Filter

+ + [2]	🃲 🗳 Parameter 🔗 🚰			
Planning Function Aggregation Leve		BPC: P&L Cost and Pro &L - Integration BPC		ation
Function Type	Formula	and a second second second		
(must be in open - Mark these cha - If you want to y	acteristics do you want to write to a cha ands) racteristics as 'to be changed'. you's with conditions, mark the character create conditions for.	istics		
		Li 1, C	Co 1	Ln 1 - Ln 5 of 5 lines
Characteristic Usa	ge			
InfoObject	Char.	Fields to be changed	Fields for Condit	tions
ERP/CATEGORY	Category	۲		
ERP/CHRTACCT	Chart of Accounts			
ERP/COMPCODE	Company Code			
ERP/COSTCNTR	Cost Center			
ERP/CO_AREA	Controlling Area			
ERP/CURTYPE	Currency Type			
ERP/DCINDCO	Debit/Credit Indicator CO			
ERP/GL_ACCT	G/L Account	۲		
ERP/METYPE	Key Figure Type			
ERP/PROFTCTR	Profit Center			
ERP/TDP	Trading Partner			
ERP/VERSION	Version			
ERP/VTDETAIL	Detailing the Value Type			
ERP/VTYPE	Value Type for Reporting			
CURRENCY	Currency Key			
FISCPER3	Posting period			
FISCVARNT	Fiscal year variant			
DFISCYEAR	Fiscal year			
THEODROW	InfoDrovider			
				SA
FISCYEAR	Fiscal year			
		۲		
DINFOPROV	InfoProvider			
0INFOPROV 0MANDT	Client (special Logic in Virtual Provider)			

Figure 8.37: P&L Cost and Profit Center Integration PF Details

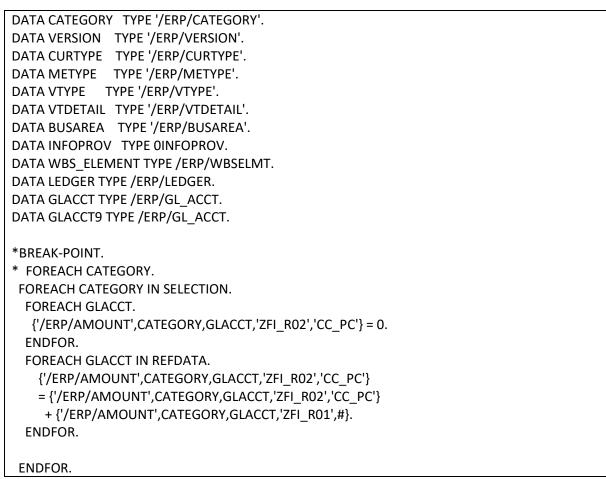


Table 8.10: P&L Cost and Profit Center Integration PF Fox Formula Code

Display Filter				
+ + 🗉 🔚 🍄 🚰	I			
Filter: ZF_FI_13 Aggregation Level: ZAL_FI0	BPC: P&L - HR Integra	tion		
Key Date:				
Selections	Deskieller		tion Delete Default Values Se	la dia Dalata
InfoObject Description	Restriction			
/ERP/CATEGORY Category	var:/ERP/P_			
/ERP/CHRTACCT Chart of Acco				1
/ERP/COMPCODE Company Coo				📫 🔟
/ERP/CURTYPE Currency Typ				1
/ERP/METYPE Key Figure Ty				1
/ERP/VERSION Version	— #	n na sa		📫 🔟
/ERP/VTDETAIL Detailing the	Value Type #	le l		📫 🕅
/ERP/VTYPE Value Type for	or Reporting 🗧 #			📫 🕅
0CURRENCY Currency Key	/ EUR) 🔟	K
0FISCPER3 Posting perio	d []1-12			📫 🗍
0FISCVARNT Fiscal year va	ariant 📑 var:/ERP/P_	0FISCVARNT01		
0FISCYEAR Fiscal year	ar:/ERP/P_	0FISCYEAR01-/ERP/P_		📫 🔟
0INFOPROV InfoProvider	ZFI_R02	le l		📫 🔟
0MANDT Client (specia	al Logic in Virtual Provider) 🔚 var:0SYMAN			1

Figure 8.38 : P&L - HR Integration PF Filter

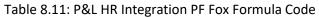
	📲 🥃 Parameter 🤣	<u>.</u>		
		BPC: P&L HR Integr	attan	
Planning Function		L		
Aggregation Leve		P&L - Integration B	C and ERP	
Function Type	Formula	~		
(must be in oper - Mark these cha - If you want to	acteristics do you want to write to a rands) iracteristics as 'to be changed', work with conditions, mark the chan o create conditions for.		value in your form	ula?
		U 1	, Co 1	Ln 1 - Ln 5 of 5 lines
Characteristic Usa	age			
InfoObject	Char.	Fields to be chang	ed Fields for Condi	tions
ERP/CATEGORY	Category	۲		
ERP/CHRTACCT	Chart of Accounts	۲		
ERP/COMPCODE	Company Code			
ERP/COSTCNTR	Cost Center			
ERP/CO_AREA	Controlling Area			
ERP/CURTYPE	Currency Type			
/ERP/DCINDCO	Debit/Credit Indicator CO	۲		
ERP/GL_ACCT	G/L Account	۲		
ERP/METYPE	Key Figure Type			
ERP/PROFTCTR				
ERP/TDP	Trading Partner			
ERP/VERSION	Version			
ERP/VTDETAIL	Detailing the Value Type			
ERP/VTYPE	Value Type for Reporting			
CURRENCY	Currency Key			
OFISCPER3	Posting period			
OFISCVARNT	Fiscal year variant			
OFISCYEAR	Fiscal year			
NINEODDOV	InfoDrovidor			- 1
				SA
	roading period			-
	Elecal year variant			
OFISCVARNT	Fiscal year variant			
OFISCVARNT OFISCYEAR	Fiscal year			
OFISCVARNT OFISCVEAR 0INFOPROV 0MANDT		0		

Figure 8.39: P&L HR Integration PF Details

DATA CATEGORY TYPE '/ERP/CATEGORY'. DATA CATEGORY_M TYPE '/ERP/CATEGORY'. DATA VERSION TYPE '/ERP/VERSION'. DATA CURTYPE TYPE '/ERP/CURTYPE'. DATA METYPE TYPE '/ERP/METYPE'. DATA VTYPE TYPE '/ERP/VTYPE'. DATA VTDETAIL TYPE '/ERP/VTDETAIL'. DATA BUSAREA TYPE '/ERP/BUSAREA'. DATA PERIOD TYPE 'OFISCPER3'. DATA M_FCST TYPE 'OFISCPER3'. DATA CHARTACC TYPE '/ERP/CHRTACCT'. DATA YEAR TYPE 'OFISCYEAR'. DATA YEAR2 TYPE 'OFISCYEAR'. DATA MANDT TYPE OMANDT. DATA INFOPROV TYPE OINFOPROV. DATA WBS_ELEMENT TYPE / ERP / WBSELMT. DATA LEDGER TYPE / ERP / LEDGER. DATA GLACCT TYPE / ERP / GL ACCT. DATA GLACCT1 TYPE / ERP / GL_ACCT. DATA GLACCT2 TYPE / ERP / GL ACCT. *DATA GLACCT9 TYPE /ERP/GL_ACCT. *Change(25.09.2017)..... CATEGORY_M = VARV('/ERP/P_CATEGORY'). M_FCST = ATRV('OFISCPER3', CATEGORY_M).

*M VAL = ATRV('OFISCPER3', CATEGORY M). YEAR = OBJV(). YEAR2 = ATRV('OFISCYEAR', CATEGORY M). *Change..... *Staff Cost GLACCT = '6300099999'. ******ADDED FOR CHANGE REQUEST 04.10.2017******* GLACCT1 = '6300099999'. GLACCT2 = '6332099999'. *BREAK-POINT. FOREACH CATEGORY, MANDT, CHARTACC IN SELECTION. FOREACH PERIOD. { '/ERP/AMOUNT', CATEGORY, CHARTACC, GLACCT, PERIOD, 'ZFI R02', MANDT, 'HR PLAN' } = 0. { '/ERP/AMOUNT', CATEGORY, CHARTACC, GLACCT2, PERIOD, 'ZFI_R02', MANDT, 'HR PLAN' } = 0. ENDFOR. {'/ERP/AMOUNT',CATEGORY,GLACCT,'ZFI_R02','CC_PC'} = 0. FOREACH PERIOD IN REFDATA. IF PERIOD > M FCST. {'/ERP/AMOUNT',CATEGORY,CHARTACC,GLACCT, PERIOD, 'ZFI R02',MANDT,'HR PLAN'} * = {'/ERP/AMOUNT', CATEGORY, CHARTACC, GLACCT, PERIOD, 'ZFI R02', MANDT, 'HR PLAN' } + {'ZEMPCOST',CATEGORY,#,#, PERIOD, 'ZHR_R02',#,#}. ****** { '/ERP/AMOUNT', CATEGORY, CHARTACC, GLACCT, PERIOD, 'ZFI R02', MANDT, 'HR PLAN' } = { '/ERP/AMOUNT', CATEGORY, CHARTACC, GLACCT, PERIOD, 'ZFI R02', MANDT, 'HR PLAN' } + ({ 'ZEMPCOST', CATEGORY, #, #, PERIOD, 'ZHR R02', #, # } - { 'ZLNCHVOU', CATEGORY, #, #, PERIOD, 'ZHR R02', #, # } - { 'ZHLTHINS', CATEGORY, #, #, PERIOD, 'ZHR R02', #, # } - { 'ZMEALALL', CATEGORY, #, #, PERIOD, 'ZHR R02', #, # } - { 'ZKMINDEM', CATEGORY, #, #, PERIOD, 'ZHR R02', #, # }). { '/ERP/AMOUNT', CATEGORY, CHARTACC, GLACCT2, PERIOD, 'ZFI_R02', MANDT, 'HR_PLAN' } = { '/ERP/AMOUNT', CATEGORY, CHARTACC, GLACCT2, PERIOD, 'ZFI R02', MANDT, 'HR PLAN' } + { 'ZLNCHVOU', CATEGORY, #, #, PERIOD, 'ZHR R02', #, # } + { 'ZHLTHINS', CATEGORY, #, #, PERIOD, 'ZHR_R02', #, # } + { 'ZMEALALL', CATEGORY, #, #, PERIOD, 'ZHR R02', #, # } + { 'ZKMINDEM', CATEGORY, #, #, PERIOD, 'ZHR RO2', #, # }.

04.10.2017*********************
ELSE.
ENDIF.
ENDFOR.
ENDFOR.



Display Filter			
+ + 🗉 🔚 🤣 ∔			
Filter: ZF_FI_14 Aggregation Level: ZAL_FI004	BPC: P&L - Cost and Profit Center Integration - Trend Years]	
Key Date: OStandard			
Fixed Date: From Variable			
Selections			
➡ InfoObject Description	Restriction	Selection Delete Defa	ult Values Selection Delete
/ERP/CATEGORY Category	var:/ERP/P_CATEGORY	1	📫 👘
/ERP/CHRTACCT Chart of Accounts	var:/ERP/P_CHRTACCT01		
/ERP/COMPCODE Company Code	var:/ERP/S_COMPCODE01	1	I
/ERP/CURTYPE Currency Type	= #	R	P
/ERP/GL_ACCT G/L Account	excl:#	i i i i i i i i i i i i i i i i i i i	P
/ERP/METYPE Key Figure Type	= #	R	F
/ERP/VERSION Version	= #	1	P
/ERP/VTDETAIL Detailing the Value Type	= #	F	F
/ERP/VTYPE Value Type for Reporting	= #		
0CURRENCY Currency Key	EUR	F	I
0FISCPER3 Posting period	= #	1	
0FISCVARNT Fiscal year variant	var:/ERP/P_0FISCVARNT01	I	I
0FISCYEAR Fiscal year	var:/ERP/P_0FISCYEAR01-/ERP/P_	1	F
0INFOPROV InfoProvider	ZFI_R02	1	R
0MANDT Client (special Logic in Virtual Pro	ovider) 🚰 var:0SYMANDT	R	I

Figure 8.40: P&L - Cost and Profit Center Integration - Trend Years PF Filter

Г	Vienlay Eilter	2						
L	Display Filter	1						
	⊨ → 🗉 🕻	🧆 🍄 📫						
Filt	ter: ZF_FI_	15 BP	C: P&L - Cost and Profit Center Integration - Actual]			
Ag	gregation Level:	ZAL_FI004						
Ke	y Date: 💿 Stan	dard						
	◯ Fixe	d Date:						
	Fron	n Variable						
	Selections							
₽3	InfoObject	Description	Restriction	Selection	Delete	e Default Values Sel	lection	Delete
	/ERP/CATEGORY	Category	ACT01	1	Ŵ		, i	Ū
	/ERP/CHRTACCT	Chart of Accounts	var:/ERP/P_CHRTACCT01	H ê	Ū Ū		ų.	Ū.
	/ERP/COMPCODE	Company Code	Par:/ERP/S_COMPCODE01	P	Ū		цŝ	Ū
	/ERP/CURTYPE	Currency Type	= #	P	Ŵ		ц¢	Ŵ
	/ERP/GL_ACCT	G/L Account	excl:#	H Ş	Ŵ		цŝ	Ŵ
	/ERP/METYPE	Key Figure Type	= #	ļ.	Ŵ		ļļģ	Ū Ū
	/ERP/VERSION	Version	= #	ų,	Ū		цŝ	Ū.
	/ERP/VTDETAIL	Detailing the Value Type	= #	P	Ŵ		цŝ	Ŵ
	/ERP/VTYPE	Value Type for Reporting	— #	1	Ŵ		ц¢.	
	0CURRENCY	Currency Key	EUR	P	Ū		ц¢.	Ū.
	0FISCPER3	Posting period	[] 1-12	P	Ū		ц¢	Ū
	0FISCVARNT	Fiscal year variant	var:/ERP/P_0FISCVARNT01	P	Ŵ		ЦÊ.	Ū
	0FISCYEAR	Fiscal year	var:/ERP/P_0FISCYEAR01,var:/ERP/P_0FISCYEAR01+1-	P	Ū		ц¢	Ū
	0INFOPROV	InfoProvider	ZFI_R01,ZFI_R02	.	Ŵ		цŝ.	Ū
	0MANDT	Client (special Logic in Virtual Provide	er) 🚰 var:0SYMANDT	H	Ŵ		ц¢	Ŵ

Figure 8.41: P&L - Cost and Profit Center Integration – Actual PF Filter

day with 1711	Parameter			
D	📲 🗢 Parameter 🍞 💼			
Planning Function	n ZPF_FI04_005	BPC: P&L Cost and Pro	ofit Center Integra	ation - Actual
Aggregation Leve	el ZAL_FI004	P&L - Integration BPC	and ERP	
Function Type	Formula	×		
(must be in ope - Mark these chi - If you want to	acteristics do you want to write to a cha rands) aracteristics as 'to be changed'. work with conditions, mark the characte o create conditions for.		alue in your formu	ıla?
		U 1, C	Co 1	Ln 1 - Ln 5 of 5 lines
Characteristic Us	age			
InfoObject	Char.	Fields to be changed	d Fields for Condit	lions
ERP/CATEGORY	Category			
ERP/CHRTACCT	Chart of Accounts			
ERP/COMPCODE	E Company Code			
ERP/COSTCNTR	Cost Center			
ERP/CO_AREA	Controlling Area			
ERP/CURTYPE	Currency Type			
ERP/DCINDCO	Debit/Credit Indicator CO			
ERP/GL_ACCT	G/L Account	٠		
ERP/METYPE	Key Figure Type			
ERP/PROFTCTR	Profit Center			
ERP/TDP	Trading Partner			
ERP/VERSION	Version			
ERP/VTDETAIL	Detailing the Value Type			
ERP/VTYPE	Value Type for Reporting			
CURRENCY	Currency Key			
FISCPER3	Posting period			
FISCVARNT	Fiscal year variant			
DFISCYEAR	Fiscal year			
	InfoDrovidar			
INFORM				SA
	PUSUIU DCHUU			
n ISCELING	Fiscal year variant			
FISCVARNT	Fiscal year variant Fiscal year			
DFISCVERS	Fiscal year variant			
OFISCIERS OFISCIERS OFISCIERR OINFOPROV OMANDT	Fiscal year variant Fiscal year	0		

Figure 8.42: P&L Cost and Profit Center Integration by Actual PF Details

~

```
DATA CATEGORY TYPE '/ERP/CATEGORY'.
DATA VERSION TYPE '/ERP/VERSION'.
DATA CURTYPE TYPE '/ERP/CURTYPE'.
DATA METYPE TYPE '/ERP/METYPE'.
DATA VTYPE TYPE '/ERP/VTYPE'.
DATA VTDETAIL TYPE '/ERP/VTDETAIL'.
DATA BUSAREA TYPE '/ERP/BUSAREA'.
DATA INFOPROV TYPE OINFOPROV.
DATA WBS_ELEMENT TYPE / ERP/WBSELMT.
DATA LEDGER TYPE /ERP/LEDGER.
DATA GLACCT TYPE /ERP/GL_ACCT.
DATA GLACCT9 TYPE /ERP/GL_ACCT.
BREAK-POINT.
  FOREACH GLACCT.
  {'/ERP/AMOUNT', 'ACT01', GLACCT, 'ZFI_R02', 'CC_PC'} = 0.
  ENDFOR.
  FOREACH GLACCT IN REFDATA.
   {'/ERP/AMOUNT','ACT01',GLACCT,'ZFI R02','CC PC'}
   = {'/ERP/AMOUNT','ACT01',GLACCT,'ZFI R02','CC PC'}
    + {'/ERP/AMOUNT','ACT01',GLACCT,'ZFI_R01',#}.
  ENDFOR.
```

Table 8.12: P&L Cost and Profit Center Integration by Actual PF Fox Formula Code

lanning	Seq.	Z	PS_FI04_00	02				
escripti	on	B	PC: P&L - WE	IS Integration		InfoArea		
Planni	na Se	equen 🔷 Trace						
H	44.11	田 今 4 日		1				
1								
B Step	Туре	еТуре	Level	Aggregation Level (Description)	Filter	Filter (Description)	Function	Planning Function (Description)
1	2	Planning Function	ZAL_FI099	BPC: Active/Deactive Data Slice	ZF_FI_99	BPC: Active/Deactive DataSlice	ZPF_FI99_003	BPC: Deactive DataSlice ZFI_R02
2	2	Planning Function	ZAL_FI004	P&L - Integration BPC and ERP	ZF_FI_10	BPC: P&L - WBS integration	ZPF_FI04_001	BPC: P&L WBS Integration - Plan Data
	2	Planning Function	ZAL FI004	P&L - Integration BPC and ERP	ZF_FI_11	BPC: P&L - WBS integration - Actual	ZPF_FI04_002	BPC: P&L WBS Integration - Actual Data
3	2							

Figure 8.43: P&L - WBS Integration PS

lanning Sec	q. Z	PS_FI04_00	3			
Description	B	PC: P&L - Cos	at and Profit Integration	InfoArea		
		-				
Planning	Sequen 🔷 Trace					
HH		🕀 🕶 🕆	1			
Step Ty	уре Туре	Level	Aggregation Level (Description) Filter	Filter (Description)	Function	Planning Function (Description)
1 2	Planning Function	ZAL_FI099	BPC: Active/Deactive Data Slice ZF_FI	99 BPC: Active/Deactive DataSlice	ZPF_FI99_003	BPC: Deactive DataSlice ZFI_R02
	Planning Function	ZAL_FI004	P&L - Integration BPC and ERP ZF_FI	12 BPC: P&L - Cost and Profit Center Integration	ZPF_FI04_003	BPC: P&L Cost and Profit Center Integration
2 2		741 51004	Del Integration PDC and EDD 7E EL	14 BPC: P&L - Cost and Profit Center Integration - Trend Y		BPC: P&L Cost and Profit Center Integration
2 2 3 2	Planning Function	ZAL_F1004	Poil - Integration DPC and ERP ZF_FI	DFC. FOL COSt and Front Center Integration Trend I	ears ZPF_F104_003	DPC. POL COSt and Pront Center Integration
				15 BPC: P&L - Cost and Profit Center Integration - Actual		BPC: P&L Cost and Profit Center Integration BPC: P&L Cost and Profit Center Integration

Figure 8.44: P&L by Cost and Profit Integration PS

Planning	Seq.	ZI	PS_FI04_00	4				
Descript	ion	BF	PC: P&L - HR	Integration	InfoAre	InfoArea		
Plann	ing Sec	quen 🔷 Trace						
-								
1		II (😚 🚰 🔄 (
1			रू ने 🕇	Aggregation Level (Description)	Filter	Filter (Description)	Function	Planning Function (Description)
B Ste	р Туре		Level			Filter (Description) BPC: Active/Deactive DataSli		Planning Function (Description) BPC: Deactive DataSlice ZFI_R02
Step	p Type 2	Туре	Level ZAL_FI099	Aggregation Level (Description)	ZF_FI_99			

Figure 8.45: P&L by HR Integration PS

lanning Seq.	. 21	PS_FI04_00	5				
Description	BF	PC: P&L - Cop	y P&L to Adjusted P&L		InfoArea		
Planning S	Sequen 🔷 Trace						
H H			Aggregation Level (Description)	Filter	Filter (Description)	Function	Planning Function (Description)
	ре Туре	Level	Aggregation Level (Description)		Filter (Description) BPC: Active/Deactive DataSlice		Planning Function (Description) BPC: Deactive DataSlice ZFI_R(
🗈 Step Typ	pe Type Planning Function	Level ZAL_FI099	Aggregation Level (Description) BPC: Active/Deactive Data Slice	ZF_FI_99		ZPF_FI99_003	BPC: Deactive DataSlice ZFI_R

Figure 8.46: P&L - Copy P&L to Adjusted P&L PS

Display Filt	er			
$\leftrightarrow \Rightarrow \equiv$	🔚 🤣 🚰			
Filter: ZF_	FI_16	BPC: P&L - Cost and Profit Center Integration - Trend Years]	
Aggregation Level	: ZAL_FI005	-		
Key Date:	tandard			
and the second s	xed Date:			
○Fi	rom Variable			
Selections	rom Variable			
	Tom Variable	Restriction	Selection Delete De	fault Values Selection Delet
Selections	Description	Restriction	Selection Delete De	1
Selections	Description			
Selections	Description RY Category	var:/ERP/P_CATEGORY	1	
Selections Selections InfoObject /ERP/CATEGOI /ERP/COMPCO	Description RY Category DE Company Code	var:/ERP/P_CATEGORY	100 100 100 100 100 100 100 100 100 100	
Selections InfoObject /ERP/CATEGOI /ERP/COMPCO OFISCYEAR	Description RY Category DE Company Code Fiscal year	var:/ERP/P_CATEGORY Var:/ERP/S_COMPCODE01 Var:/ERP/P_OFISCYEAR01-/ERP/P_ ZFI_R02		100 100 100 100 100 100 100 100 100 100

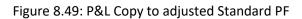
Figure 8.47: P&L by Cost and Profit Center Integration - Trend Years PF Filter

+ + =	🔚 📑 Parameter	🕸 ដ		
Planning Function	ZPF_FI04_006	BPC: P&L Copy to adju	usted	
Aggregation Leve	ZAL_FI005	P&L Input Data		
Function Type	Сору	~		
(the 'year' chara - If you want to v	racteristics as 'to be changed cteristic in this example) work with conditions, mark th create conditions for.		<u>°o 1</u>	Ln 1 - Ln 6 of 6 lines
Characteristic Usa	ige			
	ge Char.	Fields to be changed	Fields for Condi	itions
InfoObject		Fields to be changed	Fields for Condi	itions
InfoObject /ERP/BUSAREA	Char. Business Area			itions
InfoObject /ERP/BUSAREA /ERP/CATEGORY	Char. Business Area	0		itions
InfoObject /ERP/BUSAREA /ERP/CATEGORY /ERP/CHRTACCT	Char. Business Area Category Chart of Accounts	0	•	itions
InfoObject /ERP/BUSAREA /ERP/CATEGORY /ERP/CHRTACCT /ERP/COMPCODE	Char. Business Area Category Chart of Accounts		•	itions
InfoObject /ERP/BUSAREA /ERP/CATEGORY /ERP/CHRTACCT /ERP/COMPCODE /ERP/DCINDCO	Char. Business Area Category Chart of Accounts Company Code		0 0 0	tions
InfoObject /ERP/BUSAREA /ERP/CATEGORY /ERP/CHRTACCT /ERP/COMPCODE /ERP/DCINDCO /ERP/GL_ACCT	Char. Business Area Category Chart of Accounts Company Code Debit/Credit Indicator CO		0 0 0	tions
InfoObject /ERP/BUSAREA /ERP/CATEGORY /ERP/CHRTACCT /ERP/COMPCODE /ERP/DCINDCO /ERP/GL_ACCT /ERP/TDP	Char. Business Area Category Chart of Accounts Company Code Debit/Credit Indicator CO G/L Account		0 0 0 0	tions
InfoObject /ERP/BUSAREA /ERP/CATEGORY /ERP/CHRTACCT /ERP/COMPCODE /ERP/DCINDCO /ERP/GL_ACCT /ERP/TDP 0CURRENCY	Char. Business Area Category Chart of Accounts Company Code Debit/Credit Indicator CO G/L Account Trading Partner			tions
InfoObject /ERP/BUSAREA /ERP/CATEGORY /ERP/CHRTACCT /ERP/COMPCODE /ERP/DCINDCO /ERP/DCINDCO /ERP/GL_ACCT /ERP/TDP 0CURRENCY 0FISCPER3	Char. Business Area Category Chart of Accounts Company Code Debit/Credit Indicator CO G/L Account Trading Partner Currency Key			tions
InfoObject /ERP/BUSAREA /ERP/CATEGORY /ERP/CHRTACCT /ERP/COMPCODE /ERP/DCINDCO /ERP/DCINDCO /ERP/GL_ACCT /ERP/TDP 0CURRENCY 0FISCPER3 0FISCVARNT	Char. Business Area Category Chart of Accounts Company Code Debit/Credit Indicator CO G/L Account Trading Partner Currency Key Posting period			tions
/ERP/CATEGORY	Char. Business Area Category Chart of Accounts Company Code Debit/Credit Indicator CO G/L Account Trading Partner Currency Key Posting period Fiscal year variant	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		tions
InfoObject /ERP/BUSAREA /ERP/CATEGORY /ERP/CHRTACCT /ERP/COMPCODE /ERP/DCINDCO /ERP/DCINDCO /ERP/GL_ACCT /ERP/TDP 0CURRENCY 0FISCPER3 0FISCVARNT 0FISCYEAR	Char. Business Area Category Chart of Accounts Company Code Debit/Credit Indicator CO G/L Account Trading Partner Currency Key Posting period Fiscal year variant Fiscal year			tions

Figure 8.48: P&L Copy to adjusted PF Details

	Chose	en Selections		
B	Deta	Char.	Technical Information	
	W.S	/ERP/CATEGORY	Variable: /ERP/P_CATEGORY	^
	ų\$	OFISCYEAR	Variable: /ERP/P_0FISCYEAR01 - Variable: /ERP/P_0FISCYEAR01 + 5	~
	11	0INFOPROV	ZFI_R02	

Selection of key figures to	be copied			
Select All Key Figures				
Select Individual Key F	igures	/ERP/AMOUN		₩ ^A Key Figures
Create Copy	Delete I 🔺 🔻			
Copy From - To				
E From	Det	То	Det	
CC_PC, HR_PLAN, WBS	PLAN DE	#, PL_ADJ		



+ + 🖪 🐂 🔗	Execute P	lanning Sequence	🛅 Display ap	pplication log	Save Planning Buffer	iii Display Input	t Template
lanning Seq.	ZPS FIO4 09	9					
Description	BPC: P&L - WB	S Integration			InfoArea		
			dabbaa X Pilkaa	Pilker (Decembra)		P. waltan	Densing Conding (Density)
H H M	Level	Aggregation Level (Descr		Filter (Description)		Function	Planning Function (Description)
Step Type Type	Level	Aggregation Level (Descr P&L - Integration BPC and	d ERP ZF_FI_10	BPC: P&L - WBS integra		ZPF_FI04_001	BPC: P&L WBS Integration - Plan Data
Step Type Type 1 2 Planning Fur 2 2 Planning Fur	Level Level ction ZAL_FI004 ction ZAL_FI004	Aggregation Level (Descr P&L - Integration BPC and P&L - Integration BPC and	d ERP ZF_FI_10 d ERP ZF_FI_11	BPC: P&L - WBS integra BPC: P&L - WBS integra	tion - Actual	ZPF_FI04_001 ZPF_FI04_002	BPC: P&L WBS Integration - Plan Data BPC: P&L WBS Integration - Actual Data
Step Type Type Step Type Type 2 Planning Fur 3 2 Planning Fur 4	Level Ction ZAL_FI004 ction ZAL_FI004 ction ZAL_FI004	Aggregation Level (Descr P&L - Integration BPC and P&L - Integration BPC and P&L - Integration BPC and	d ERP ZF_FI_10 d ERP ZF_FI_11 d ERP ZF_FI_12	BPC: P&L - WBS integra BPC: P&L - WBS integra BPC: P&L - Cost and Pr	tion - Actual ofit Center Integration	ZPF_FI04_001 ZPF_FI04_002 ZPF_FI04_003	BPC: P&L WBS Integration - Plan Data BPC: P&L WBS Integration - Actual Data BPC: P&L Cost and Profit Center Integrat
Step Type Type 1 2 Planning Fur 2 2 Planning Fur 3 2 Planning Fur	Level Level ction ZAL_FI004 ction ZAL_FI004	Aggregation Level (Descr P&L - Integration BPC and P&L - Integration BPC and P&L - Integration BPC and P&L - Integration BPC and	d ERP ZF_FI_10 d ERP ZF_FI_11 d ERP ZF_FI_12 d ERP ZF_FI_14	BPC: P&L - WBS integra BPC: P&L - WBS integra BPC: P&L - Cost and Pr BPC: P&L - Cost and Pr	tion - Actual ofit Center Integration ofit Center Integration - Tren	ZPF_FI04_001 ZPF_FI04_002 ZPF_FI04_003 d Years ZPF_FI04_003	BPC: P&L WBS Integration - Plan Data BPC: P&L WBS Integration - Actual Data BPC: P&L Cost and Profit Center Integrat
Step Type Type 1 2 Planning Fur 2 2 Planning Fur 3 2 Planning Fur 4 2 Planning Fur	Level Ction ZAL_FI004 ction ZAL_FI004 ction ZAL_FI004	Aggregation Level (Descr P&L - Integration BPC and P&L - Integration BPC and P&L - Integration BPC and P&L - Integration BPC and	d ERP ZF_FI_10 d ERP ZF_FI_11 d ERP ZF_FI_12 d ERP ZF_FI_14	BPC: P&L - WBS integra BPC: P&L - WBS integra BPC: P&L - Cost and Pr BPC: P&L - Cost and Pr	tion - Actual ofit Center Integration	ZPF_FI04_001 ZPF_FI04_002 ZPF_FI04_003 d Years ZPF_FI04_003	BPC: P&L WBS Integration - Plan Data BPC: P&L WBS Integration - Actual Data BPC: P&L Cost and Profit Center Integrat

Figure 8.50: P&L - WBS Integration PS

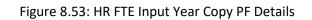
Display planning	sequence				
+ + 🗉 🔚 🔅	Execute Planning Sequence	e 🛅 Display applicati	on log 🛛 🖓 Save Planning Bu	ffer 🛛 🔟 Dis	splay Input Template
Planning Seq.	ZPS_HR01_001				
Description	BPC: HR FTE Copy Actual		InfoArea		
	race				
🚹 🏦 i 🎫 i 😏 🚑					
Step Type Type	Level Aggregation Level (Description) Filter	Filter (Description)	Function	Planning Function (Description)
1 2 Planning Fun	tion ZAL_HR099 BPC: FTE Active/De	activate Data Slice ZF_HR_99	BPC: Active/Deactive FTE DataSlice	ZPF_HR99_001	BPC: Deactivate FTE DataSlice ZHR_R02
2 2 Planning Fun	ction ZAL_HR004 BPC: FTE Percentage	e Planning Input ZF_HR_03	BPC: FTE Copy Filter	ZPF_HR01_002	BPC: HR FTE Input Year Copy

Figure 8.51: HR FTE Copy Actual PS

Display Filter		
+ + 🖪 🔚 🔗	4	
Filter: ZF_HR_03	BPC: FTE Copy Filt	r
Aggregation Level: ZAL	_HR004	
Key Date: Standard		
Fixed Date:		
O From Variable	2	
Selections		
InfoObject Descript	ion Restriction	Selection Delete Default Values Selection Delete
/ERP/CATEGORY Category	var:/ERP/P_CATEGORY	
OFISCVARNT Fiscal ye	ar variant 🗮 K4	
OFISCYEAR Fiscal ye	ar Var:/ERP/P_0FISCYEAR01	映 Ⅲ ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ●
0INFOPROV InfoProv	der 🚯 ZHR_R02,ZHR_V02	

Figure 8.52: FTE Copy Filter PF Filter

Display Pla	nning Funct	ion ZPF	HR01_	002		
+ + =	📲 📑 Parar	neter	63 🚰			
Planning Function	ZPF_HR	01_002	BPC	: HR FTE I	nput Year Copy	
Aggregation Leve	ZAL_HR	004	BPC	: FTE Perce	entage Planning Ir	nput
Function Type	Formula	1	~			
	work with condition create conditions f				Li 1, Co 1	Ln 1 - Ln 5 of 5 lines
Characteristic Usa	ige					
InfoObject	Char.	Fields to b	e changed Fi	elds for Cor	ditions	
/ERP/BUSAREA	Business Area					
/ERP/CATEGORY	Category					
/ERP/COMPCODE	Company Code					
/ERP/COSTCNTR	Cost Center					
/ERP/CO_AREA	Controlling Area					
0FISCPER3	Posting period	(
OFISCVARNT	Fiscal year variant					
OFISCYEAR	Fiscal year					
0INFOPROV	InfoProvider		0			
ZEMPLOYEE	Employee					



DATA CATEGORY TYPE '/ERP/CATEGORY'.
DATA CATEGORY1 TYPE '/ERP/CATEGORY'.
DATA CATEGORY2 TYPE '/ERP/CATEGORY'.
DATA CURRENCY TYPE 'OCURRENCY'.
DATA EMPLOYEE TYPE 'ZEMPLOYEE'.
DATA MONTH TYPE '0FISCPER3'.
DATA M_FCST TYPE '0FISCPER3'.
DATA YEAR TYPE 'OFISCYEAR'.
DATA INFOPROD1 TYPE '0INFOPROV'.
DATA INFOPROD2 TYPE '0INFOPROV'.
*BREAK-POINT.
CATEGORY2 = VARV('/ERP/P_CATEGORY').
YEAR = VARV('/ERP/P_0FISCYEAR01').
CATEGORY1= 'ACT01' .
M_FCST = ATRV('0FISCPER3', CATEGORY2).
FOREACH MONTH IN REFDATA.
IF {ZPERCFTE,CATEGORY1,MONTH,YEAR,ZHR_V02} <> 0 AND MONTH <= M_FCST.
{ZPERCFTE,CATEGORY2,MONTH,YEAR,ZHR_R02} =
{ZPERCFTE,CATEGORY1,MONTH,YEAR,ZHR_V02}.
ENDIF.
ENDFOR.
Table 8.13: HR FTE Input Year Copy PF Fox Formula Code

+ +	P		Execute Pl	anning Sequence 🔃 Display application	log 🔤	Save Planning Buffer 🛛 🚻 Di	splay Input T	emplate
Planning Seq.		ZE	s_HR01_002					
Description	i)	BF	BPC: HR Planning Sequence			InfoArea		
44 44								
		II () (
H H			E I +	Aggregation Level (Description)	Filter	Filter (Description)	Function	Planning Function (Description)
	ype		Level		Filter ZF_HR_06		Function ZPF_HR01_003	
	ype	Туре	Level ZAL_HR003	Aggregation Level (Description)	ZF_HR_06	BPC: HR Salary Month Distribution		
E Step Ty	ype	Type Planning Function	Level ZAL_HR003 ZAL_HR005	Aggregation Level (Description) BPC: Salary by Month Planning Sequences	ZF_HR_06	BPC: HR Salary Month Distribution	ZPF_HR01_003	BPC: Salary Input Year to Month Distribution
Step Ty	ype	Type Planning Function Planning Function	Level ZAL_HR003 ZAL_HR005 ZAL_HR099	Aggregation Level (Description) BPC: Salary by Month Planning Sequences BPC: Salary Percentage Increase Planning Sequences BPC: FTE Active/Deactivate Data Slice	ZF_HR_06 ZF_HR_05	BPC: HR Salary Month Distribution BPC: HR Percentage Increase BPC: Active/Deactive FTE DataSlice	ZPF_HR01_003 ZPF_HR01_004	BPC: Salary Input Year to Month Distribution BPC: HR Salary Increase Function
E Step Ty 1 2 2 2 3 2	ype	Type Planning Function Planning Function Planning Function	Level ZAL_HR003 ZAL_HR005 ZAL_HR099 ZAL_HR006	Aggregation Level (Description) BPC: Salary by Month Planning Sequences BPC: Salary Percentage Increase Planning Sequences BPC: FTE Active/Deactivate Data Silce BPC: FTE Christer/Deachard Data Silce	ZF_HR_06 ZF_HR_05 ZF_HR_99	BPC: HR Salary Month Distribution BPC: HR Percentage Increase BPC: Active/Deactive FTE DataSlice BPC: HR FTE Planning Sequence 1	ZPF_HR01_003 ZPF_HR01_004 ZPF_HR99_001	BPC: Salary Input Year to Month Distribute BPC: HR Salary Increase Function BPC: Deactivate FTE DataSlice ZHR_R02
E Step Ty 1 2 2 2 3 2 4 2	ype	Type Planning Function Planning Function Planning Function Planning Function	Level ZAL_HR003 ZAL_HR005 ZAL_HR009 ZAL_HR006 ZAL_HR007	Aggregation Level (Description) BPC: Salary by Month Planning Sequences BPC: Salary Percentage Increase Planning Sequences BPC: FTE Active/Deactivate Data Slice BPC: FTE Percentage Planning Sequence 1 BPC: FTE Percentage Planning Sequence 2	ZF_HR_06 ZF_HR_05 ZF_HR_99 ZF_HR_07	BPC: HR Salary Month Distribution BPC: HR Percentage Increase BPC: Active/Deactive FTE DataSlice BPC: HR FTE Planning Sequence 1	ZPF_HR01_003 ZPF_HR01_004 ZPF_HR99_001 ZPF_HR01_005	BPC: Salary Input Year to Month Distribution BPC: HR Salary Increase Function BPC: Deactivate FTE DataSlice ZHR_R02 BPC: FTE Distribution 1
E Step Ty 1 2 2 2 3 2 4 2 5 2	ype	Type Planning Function Planning Function Planning Function Planning Function Planning Function	Level ZAL_HR003 ZAL_HR005 ZAL_HR009 ZAL_HR007 ZAL_HR007 ZAL_HR007	Aggregation Level (Description) BPC: Salary by Month Planning Sequences BPC: Salary Percentage Increase Planning Sequences BPC: FTE Active/Deactivate Data Slice BPC: FTE Percentage Planning Sequence 1 BPC: FTE Percentage Planning Sequence 2 BPC: FTE Percentage Planning Sequence 2	ZF_HR_06 ZF_HR_05 ZF_HR_99 ZF_HR_07 ZF_HR_08	BPC: HR Salary Month Distribution BPC: HR Percentage Increase BPC: Active/Deactive FTE DataSlice BPC: HR FTE Planning Sequence 1 BPC: HR FTE Planning Sequence 2 BPC: Currency Conversion Filter	ZPF_HR01_003 ZPF_HR01_004 ZPF_HR99_001 ZPF_HR01_005 ZPF_HR01_006 ZPF_HR01_007	BPC: Salary Input Year to Month Distributi BPC: HR Salary Increase Function BPC: Deactivate FTE DataSilee ZHR_R02 BPC: FTE Distribution 1 BPC: FTE Distribution 2

Figure 8.54: HR Planning PS

Display Filter				
+ + 🗉 🧯 🖗 🚑				
Filter: ZF_HR_05	BPC: HR Percentage In	ncrease		
Aggregation Level: ZAL_HR005				
Key Date: O Standard Fixed Date:				
Selections				
InfoObject Description	Restriction		Selection Delete Def	ault Values Selection Delete
/ERP/CATEGORY Category	var:/ERP/P_CATEGORY		📫 🔟	K
/ERP/COMPCODE Company Code	var:/ERP/S_COMPCODE01		W	
0FISCPER3 Posting period	1-12		I	P
0FISCVARNT Fiscal year variant	K 4		R	P
0FISCYEAR Fiscal year	var:/ERP/P_0FISCYEAR01+1		F	P
0INFOPROV InfoProvider	ZHR_R01		H	R

Figure 8.55: HR Percentage Increase PF Filter

Display Pla	anning Funct		01_004		
← → 🗉	🔚 📑 Paran	neter 🛛 🤣 🚰	•		
Planning Function	ZPF_HR	01_004	BPC: HR Salary Increase Fur	nction	
Aggregation Leve	I ZAL_HR	.005	BPC: Salary Percentage Incre	ease Planning Sequences	
Function Type	Formula	1	~		
- If you want to		s, mark the charact	eristics		
that you want to	create conditions f	or.	Li 1, Co 1	Ln 1 - Ln 5 of 5 lin	es
that you want to		or.	Li 1, Co 1	Ln 1 - Ln 5 of 5 lin	les
that you want to Characteristic Usa	ige	1		Ln 1 - Ln 5 of 5 lin	les
that you want to Characteristic Use InfoObject	ige Char.	Fields to be change	ed Fields for Conditions	Ln 1 - Ln 5 of 5 lin	les
that you want to Characteristic Usa InfoObject /ERP/BUSAREA	nge Char. Business Area	Fields to be change	ed Fields for Conditions	Ln 1 - Ln 5 of 5 lin	les
that you want to Characteristic Usa InfoObject /ERP/BUSAREA /ERP/CATEGORY	ige Char. Business Area Category	Fields to be change	ed Fields for Conditions	Ln 1 - Ln 5 of 5 lin	les
that you want to Characteristic Usa InfoObject /ERP/BUSAREA /ERP/CATEGORY /ERP/COMPCODE	ige Char. Business Area Category Company Code	Fields to be change	ed Fields for Conditions	Ln 1 - Ln 5 of 5 lin	es
that you want to Characteristic Usa InfoObject /ERP/BUSAREA /ERP/CATEGORY /ERP/COMPCODE 0CURRENCY	ige Char. Business Area Category	Fields to be change	ed Fields for Conditions	Ln 1 - Ln 5 of 5 lin	es
that you want to Characteristic Usa InfoObject /ERP/CATEGORY /ERP/CATEGORY /ERP/COMPCODE 0CURRENCY 0FISCPER3	ige Char. Business Area Category Company Code Currency Key	Fields to be change O O O O O O O O O O O O O	ed Fields for Conditions	Ln 1 - Ln 5 of 5 lin	ies
	ge Char. Business Area Category Company Code Currency Key Posting period	Fields to be change O O O O O O O O O O O O O	ed Fields for Conditions	Ln 1 - Ln 5 of 5 lin	ies
that you want to Characteristic Use InfoObject /ERP/BUSAREA /ERP/CATEGORY /ERP/COMPCODE 0CURRENCY 0FISCPER3 0FISCVARNT	ge Char. Business Area Category Company Code Currency Key Posting period Fiscal year variant	Fields to be change O O O O O O O O O O O O O	ed Fields for Conditions	Ln 1 - Ln 5 of 5 lin	les

Figure 8.56: HR Salary Increase Function PF Details

DATA CATEGORY TYPE '/ERP/CATEGORY'.
DATA COMPCODE TYPE '/ERP/COMPCODE'.
DATA BUSAREA TYPE '/ERP/BUSAREA'.
DATA CURRENCY TYPE 'OCURRENCY'.
DATA EMPLOYEE TYPE 'ZEMPLOYEE'.
DATA YEAR TYPE 'OFISCYEAR'.
DATA M_COUNT TYPE '0FISCPER3'.
DATA PERCENTAGE TYPE F.
DATA PERC_AUX TYPE F.
DATA KF TYPE KEYFIGURE_NAME.
DATA MONTH TYPE '0FISCPER3'.
DATA AMOUNT TYPE F.
DATA BP TYPE I.
DATA CHECK TYPE I.
BP = 0.
M_COUNT = 000.
PERCENTAGE = 1.
DO.
IF M COUNT >= 012.
EXIT.
ELSE.
M_COUNT = TMVL(M_COUNT, 1).
PERCENTAGE = PERCENTAGE * (1 + ({ 'ZPERCSLRY', #, #, M_COUNT, # } / 100)).
IF PERCENTAGE <> 0.
FOREACH EMPLOYEE, KF, BUSAREA, CURRENCY.
IF KF <> 'ZPERCSLRY' AND NOT EMPLOYEE IS INITIAL.
{ KF, BUSAREA, CURRENCY, M_COUNT, EMPLOYEE } = { KF, BUSAREA, CURRENCY, M_COUNT, EMPL
OYEE } * PERCENTAGE.
ENDIF.
ENDFOR.
ENDIF.
ENDIF.
ENDDO.

ENDDO.

Table 8.14: HR Salary Increase Function PF Fox Formula Code

Displa	y Filter							
+ +		63 🚰						
Filter: ZF_HR_06			BPC: HR Salary Month Distribution	BPC: HR Salary Month Distribution				
Aggregatio	on Level:	ZAL_HR003						
Key Date:	• Stand	ard						
	Fixed	Date:						
	From	Variable						
Selection	ns							
🗈 InfoObje	ect (Description	Restriction	Selectio	n Delete Defa	ault Values Selection Delete		
/ERP/CA	ATEGORY	Category	F var:/ERP/P_CATEGORY	P	Ŵ	NG 🔟		
/ERP/CO	/ERP/COMPCODE Company Code		Transformation and the second	H	Ŵ	K		
OFISCVA	0FISCVARNT Fiscal year variant		K 4		Ŵ	K		
OFISCYE	0FISCYEAR Fiscal year 📣		var:/ERP/P_0FISCYEAR01,var:/ERP/P_0FISCYEAR01+1	. ₩ĝ	Ŵ	R		
OINFOP	ROV I	nfoProvider	ZHR_R01	H	Ŵ	1		

Figure 8.57: HR Salary Month Distribution PF Filter

Display Pla	anning i annot				
← → 🗉	📳 📑 Parar	meter 🛛 🦻 👔	1		
Planning Function	D ZPF_HR	01_003	BPC: Salary Input Year I	to Month Di	stribution
Aggregation Leve	el ZAL_HR	8003	BPC: Salary by Month Pl	anning Sequ	iences
Function Type	Formula	3	*		
that you want to	create conditions f	for.			
			Li 1, Co	1	Ln 1 - Ln 5 of 5 lines
Characteristic Usa	age		Li 1, Co	1	Ln 1 - Ln 5 of 5 lines
	age Char.	Fields to be chang	Li 1, Co	1	Ln 1 - Ln 5 of 5 lines
InfoObject	5	Fields to be chang		1	Ln 1 - Ln 5 of 5 lines
InfoObject /ERP/BUSAREA	Char. Business Area	-	ed Fields for Conditions	1	Ln 1 - Ln 5 of 5 lines
InfoObject /ERP/BUSAREA /ERP/CATEGORY	Char. Business Area Category	0	ed Fields for Conditions	1	Ln 1 - Ln 5 of 5 lines
InfoObject /ERP/BUSAREA /ERP/CATEGORY /ERP/COMPCODE	Char. Business Area Category	0	ed Fields for Conditions	1	Ln 1 - Ln 5 of 5 lines
InfoObject /ERP/BUSAREA /ERP/CATEGORY /ERP/COMPCODE 0CURRENCY	Char. Business Area Category Company Code	0	ed Fields for Conditions	1	Ln 1 - Ln 5 of 5 lines
InfoObject /ERP/BUSAREA /ERP/CATEGORY /ERP/COMPCODE 0CURRENCY 0FISCPER3	Char. Business Area Category Company Code Currency Key	0 0 0	ed Fields for Conditions	1	Ln 1 - Ln 5 of 5 lines
/ERP/CATEGORY	Char. Business Area Category Company Code Currency Key Posting period	0 0 0	ed Fields for Conditions	1	Ln 1 - Ln 5 of 5 lines
InfoObject /ERP/BUSAREA /ERP/CATEGORY /ERP/COMPCODE 0CURRENCY 0FISCPER3 0FISCVARNT	Char. Business Area Category Company Code Currency Key Posting period Fiscal year variant	0 0 0 0	ed Fields for Conditions	1	Ln 1 - Ln 5 of 5 lines

Figure 8.58: Salary Input Year to Month Distribution PF Details

```
DATA YEAR TYPE OFISCYEAR.
DATA EMPLOYEE TYPE ZEMPLOYEE.
DATA YEAR2 TYPE OFISCYEAR.
DATA CATEGORY TYPE '/ERP/CATEGORY'.
DATA CATEGORY M TYPE '/ERP/CATEGORY'.
DATA MONTH TYPE 'OFISCPER3'.
DATA MONTH2 TYPE 'OFISCPER3'.
DATA M COUNT TYPE 'OFISCPER3'.
DATA M_FCST TYPE 'OFISCPER3'.
DATA KEYFIGURE TYPE KEYFIGURE_NAME.
DATA M_VAL TYPE I.
DATA DIV_VAL TYPE I.
DATA TOTALMONTH TYPE F.
DATA BP TYPE I.
DATA X TYPE KEYFIGURE_NAME.
DATA EMPCONT TYPE F.
TOTALMONTH = 12.
*MONTH2 = '00'.
BP = 0.
*DO.
* IF BP = 1.
* EXIT.
* ENDIF.
*ENDDO.
CATEGORY = VARV( '/ERP/P_CATEGORY' ).
EMPLOYEE = OBJV().
*CATEGORY = OBJV().
```

```
EMPCONT = ATRV( 'ZEMPCONT', EMPLOYEE).
*M VAL = ATRV( 'OFISCPER3', CATEGORY M ).
*YEAR = OBJV().
*YEAR2 = ATRV( 'OFISCYEAR', CATEGORY M ).
M COUNT = 000.
MONTH = M COUNT.
{ ZEMPTOTAL, CATEGORY, #, ZHR R01 } = { ZANNAMO, CATEGORY, #, ZHR R01 } * (1 + (EMPCONT
/100)).
{ ZTTLAVS, CATEGORY, #, ZHR R01 } = { ZEMPTOTAL, CATEGORY, #, ZHR R01 } + ( { ZTARGET, CATE
GORY, #, ZHR_R01 } * ( 1 + ( EMPCONT / 100 ) ) ).
{ ZEMPCOST, CATEGORY, #, ZHR R01 } = { ZSEVCOST, CATEGORY, #, ZHR R01 } + { ZLIVALL, CATEGO
RY, #, ZHR R01 }+ { ZINSPEN, CATEGORY, #, ZHR R01 }+ { ZCASHALL, CATEGORY, #, ZHR R01 }+ {
ZHLTHINS, CATEGORY, #, ZHR R01 } + { ZVEHICLE, CATEGORY, #,
ZHR R01 }+ { ZTRPALL, CATEGORY, #, ZHR R01 }+ { ZWAINS, CATEGORY, #, ZHR R01 }+ { ZOTHBO
N, CATEGORY,
#, ZHR R01 }+ { ZMEALALL, CATEGORY, #, ZHR R01 }+ { ZKMINDEM, CATEGORY, #, ZHR R01 }+ {
ZINTERNET, CATEGORY, #, ZHR_R01 } + { ZLNCHVOU, CATEGORY, #, ZHR_R01 } + { ZTTLAVS, CATEG
ORY, #, ZHR R01 } + { ZOTHERALL, CATEGORY, #, ZHR R01 }.
DO.
IF M COUNT >= 012.
  EXIT.
 ELSE.
  M COUNT = TMVL( M COUNT, 1 ).
  IF CATEGORY <> 'ACT01'.
  {ZSEVCOST, CATEGORY, M COUNT, ZHR R01 } = {ZSEVCOST, CATEGORY, #, ZHR R01 } / TOTAL
MONTH.
  { ZLIVALL, CATEGORY, M_COUNT, ZHR_R01 } = { ZLIVALL, CATEGORY, #, ZHR_R01 } / TOTALMON
TH.
   { ZEMPCOST, CATEGORY, M_COUNT, ZHR_R01 } = { ZEMPCOST, CATEGORY, #, ZHR_R01 } / TOT
ALMONTH.
   { ZINSPEN, CATEGORY, M COUNT, ZHR R01 } = { ZINSPEN, CATEGORY, #, ZHR R01 } / TOTALM
ONTH.
   { ZCASHALL, CATEGORY, M COUNT, ZHR R01 } = { ZCASHALL, CATEGORY, #, ZHR R01 } / TOTAL
MONTH.
  { ZHLTHINS, CATEGORY, M COUNT, ZHR R01 } = { ZHLTHINS, CATEGORY, #, ZHR R01 } / TOTAL
MONTH.
   { ZVEHICLE, CATEGORY, M_COUNT, ZHR_R01 } = { ZVEHICLE, CATEGORY, #, ZHR_R01 } / TOTAL
MONTH.
   { ZTRPALL, CATEGORY, M_COUNT, ZHR_R01 } = { ZTRPALL, CATEGORY, #, ZHR_R01 } / TOTALMO
NTH.
   { ZWAINS, CATEGORY, M_COUNT, ZHR_R01 } = { ZWAINS, CATEGORY, #, ZHR_R01 } / TOTALMO
NTH.
  {ZOTHBON, CATEGORY, M COUNT, ZHR R01 } = {ZOTHBON, CATEGORY, #, ZHR R01 } / TOTAL
MONTH.
  {ZMEALALL, CATEGORY, M COUNT, ZHR R01 } = {ZMEALALL, CATEGORY, #, ZHR R01 } / TOTA
LMONTH.
   { ZKMINDEM, CATEGORY, M_COUNT, ZHR_R01 } = { ZKMINDEM, CATEGORY, #, ZHR_R01 } / TOT
ALMONTH.
```

{ ZINTERNET, CATEGORY, M_COUNT, ZHR_R01 } = { ZINTERNET, CATEGORY, #, ZHR_R01 } / TOT
ALMONTH.
{ ZLNCHVOU, CATEGORY, M_COUNT, ZHR_R01 } = { ZLNCHVOU, CATEGORY, #, ZHR_R01 } / TOT
ALMONTH.
{ ZTARGET, CATEGORY, M_COUNT, ZHR_R01 } = { ZTARGET, CATEGORY, #, ZHR_R01 } / TOTALM
ONTH.
{ ZEMPTOTAL, CATEGORY, M_COUNT, ZHR_R01 } = { ZEMPTOTAL, CATEGORY, #, ZHR_R01 } / TO
TALMONTH.
{ ZBASPAY, CATEGORY, M_COUNT, ZHR_R01 } = { ZBASPAY, CATEGORY, #, ZHR_R01 } / TOTALM
ONTH.
{ ZANNAMO, CATEGORY, M_COUNT, ZHR_R01 } = { ZANNAMO, CATEGORY, #, ZHR_R01 } / TOTA
LMONTH.
{ ZTTLAVS, CATEGORY, M_COUNT, ZHR_R01 } = { ZTTLAVS, CATEGORY, #, ZHR_R01 } / TOTALM
ONTH.
{ ZOTHERALL, CATEGORY, M_COUNT, ZHR_R01 } = { ZOTHERALL, CATEGORY, #, ZHR_R01 } / TOT
ALMONTH.
ENDIF.
ENDIF.
ENDDO.

Table 8.15: Salary Input Year to Month Distribution PF Fox Formula

	Display Filte	er				
4	⊨ → 🗉 '	🔹 🤗 🚰				
Filt	er: ZF_H	R_07	BPC: HR FTE Planning Sequence 1			3
Ag	gregation Level:	ZAL_HR006				
Ke	y Date: OSta	ndard				
	◯ Fix	ed Date:				
	○ Fro	m Variable				
	Selections					
郾	InfoObject	Description	Restriction	Selection	Delete Defau	It Values Selection Delete
	/ERP/CATEGOR	Y Category	var:/ERP/P_CATEGORY	ų.	Ŵ	P
	/ERP/COMPCOD	E Company Code	var:/ERP/S_COMPCODE01	H Ê	Ŵ	1
	OFISCVARNT	Fiscal year varian	t 🚍 K4	H ê	Ū	P\$ 1
	OFISCYEAR	Fiscal year	var:/ERP/P_0FISCYEAR01,var:/ERP/P_0FISCYEAR01+1	ų Š	Ŵ	1
	0INFOPROV	InfoProvider	ZHR_R01,ZHR_R02	H	D	1

Figure 8.59: HR FTE Planning Sequence 1 PF Filter

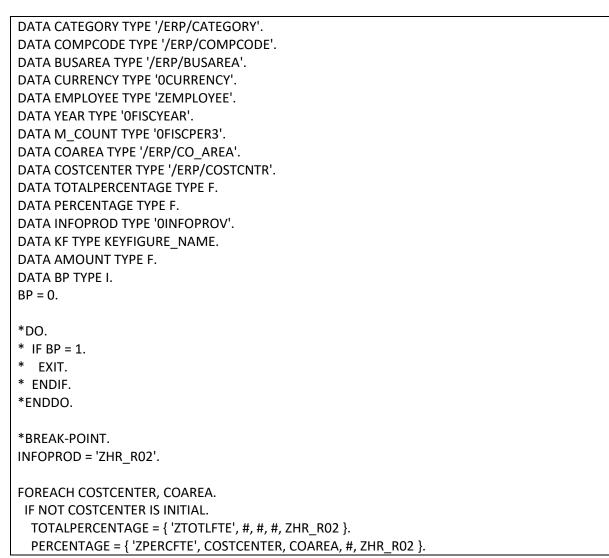
Display Fid	anning Funct		01_005	
← → 🗉	📑 📑 Parar	meter 🔗 🛔	1	
Planning Function	ZPF_HR	01_005	BPC: FTE Distribution 1	
Aggregation Leve	I ZAL_HR	8006	BPC: FTE Percentage Plan	nning Sequence 1
Function Type	Formula	3	*	
			Li 1, Co 1	Ln 1 -
Characteristic Usa	nge		Li 1, Co 1	Ln 1 -
Characteristic Usa InfoObject	ige Char.	Fields to be chang	Li 1, Co 1 ged Fields for Conditions	Ln 1 -
	5	Fields to be chang		Ln 1 -
InfoObject	Char. Business Area	-		Ln 1 -
InfoObject /ERP/BUSAREA	Char. Business Area Category	-		Ln 1 -
InfoObject /ERP/BUSAREA /ERP/CATEGORY	Char. Business Area Category	-		Ln 1 -
InfoObject /ERP/BUSAREA /ERP/CATEGORY /ERP/COMPCODE	Char. Business Area Category Company Code	-		Ln 1 - I
InfoObject /ERP/BUSAREA /ERP/CATEGORY /ERP/COMPCODE 0CURRENCY	Char. Business Area Category Company Code Currency Key			Ln 1 - I
InfoObject /ERP/BUSAREA /ERP/CATEGORY /ERP/COMPCODE 0CURRENCY 0FISCPER3 0FISCVARNT 0FISCYEAR	Char. Business Area Category Company Code Currency Key Posting period Fiscal year variant Fiscal year			Ln 1 - L
InfoObject /ERP/BUSAREA /ERP/CATEGORY /ERP/COMPCODE 0CURRENCY 0FISCPER3 0FISCVARNT	Char. Business Area Category Company Code Currency Key Posting period Fiscal year variant			Ln 1 - I



```
DATA CATEGORY TYPE '/ERP/CATEGORY'.
DATA COMPCODE TYPE '/ERP/COMPCODE'.
DATA BUSAREA TYPE '/ERP/BUSAREA'.
DATA CURRENCY TYPE 'OCURRENCY'.
DATA EMPLOYEE TYPE 'ZEMPLOYEE'.
DATA MONTH TYPE 'OFISCPER3'.
DATA KF TYPE KEYFIGURE_NAME.
DATA PERCENTAGE TYPE F.
DATA TOTAL TYPE F.
*BREAK-POINT.
EMPLOYEE = OBJV().
MONTH=OBJV().
PERCENTAGE = { 'ZPERCFTE' }.
IF PERCENTAGE <> 0.
{ 'ZTOTLFTE' } = PERCENTAGE.
IF { 'ZTOTLFTE' } > 100.
 MESSAGE E000(ZBPC) WITH EMPLOYEE MONTH .
 EXIT.
ELSE.
ENDIF.
ENDIF.
```

← → 🗉	📜 📑 Paran	neter 🤗	4		
Planning Function	ZPF_HR	01_006	BPC: FTE Dist	ribution 2	
Aggregation Level	ZAL_HR	007	BPC: FTE Perc	entage Planning Sequer	nce 2
Function Type	Formula		*		
that you want to	create conditions for	or.			
				Li 1, Co 1	Ln 1 - Lr
Characteristic Usa	ge			Li 1, Co 1	Ln 1 - Lr
	ge Char.	Fields to be cha	anged Fields for Co		Ln 1 - Lr
InfoObject		Fields to be cha	anged Fields for Co		Ln 1 - Lr
InfoObject /ERP/BUSAREA	Char. Business Area				Ln 1 - Lr
InfoObject /ERP/BUSAREA /ERP/CATEGORY	Char. Business Area Category		0		Ln 1 - Lr
InfoObject /ERP/BUSAREA /ERP/CATEGORY /ERP/COMPCODE	Char. Business Area Category Company Code		0		Ln 1 - Lr
InfoObject /ERP/BUSAREA /ERP/CATEGORY /ERP/COMPCODE /ERP/COSTCNTR	Char. Business Area Category Company Code Cost Center		0 0 0		Ln 1 - Lr
InfoObject /ERP/BUSAREA /ERP/CATEGORY /ERP/COMPCODE /ERP/COSTCNTR /ERP/CO_AREA	Char. Business Area Category Company Code Cost Center	0 0 0	0 0 0		Ln 1 - Lr
InfoObject /ERP/BUSAREA /ERP/CATEGORY /ERP/COMPCODE /ERP/COSTCNTR /ERP/CO_AREA 0CURRENCY	Char. Business Area Category Company Code Cost Center Controlling Area Currency Key Posting period	0 0 0 0 0			Ln 1 - Lr
InfoObject /ERP/BUSAREA /ERP/CATEGORY /ERP/COMPCODE /ERP/COSTCNTR /ERP/CO_AREA 0CURRENCY 0FISCPER3 0FISCVARNT	Char. Business Area Category Company Code Cost Center Controlling Area Currency Key Posting period Fiscal year variant	0 0 0 0 0			Ln 1 - Lr
InfoObject /ERP/BUSAREA /ERP/CATEGORY /ERP/COMPCODE /ERP/CO_AREA 0CURRENCY 0FISCPER3 0FISCVARNT 0FISCYEAR	Char. Business Area Category Company Code Cost Center Controlling Area Currency Key Posting period Fiscal year variant Fiscal year	0 0 0 0 0			Ln 1 - Lr
Characteristic Usa InfoObject /ERP/BUSAREA /ERP/CATEGORY /ERP/COMPCODE /ERP/COMPCODE /ERP/CO_AREA /ERP/CO_AREA OFISCYARNT OFISCYARNT OFISCYARNT OFISCYARNT OFISCYARNT OFISCYARNT OFISCYARNT	Char. Business Area Category Company Code Cost Center Controlling Area Currency Key Posting period Fiscal year variant	0 0 0 0 0 0 0 0			Ln 1 - Ln





FOREACH KF, CURRENCY IN REFDATA.
IF NOT CURRENCY IS INITIAL.
IF KF <> 'ZTOTLFTE'.
{ KF, COSTCENTER, COAREA, CURRENCY, ZHR_R02 } = { KF, #, #, CURRENCY, ZHR_R01 } * (PER
CENTAGE / TOTALPERCENTAGE).
ENDIF.
ENDIF.
ENDFOR.
ENDIF.
ENDFOR.

Table 8.17: FTE Distribution 2 PF Fox Formula

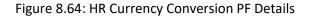
Display Filter			
+ + 🗉 🐂 🍄 🚰			
Filter: ZF_HR_08	BPC: HR FTE Planning Sequence 2		
Aggregation Level: ZAL_HR007			
Key Date: OStandard			
O Fixed Date:			
O From Variable			
Selections			
E InfoObject Description	Restriction	Selection Delete Defa	ault Values Selection Delete
/ERP/CATEGORY Category	var:/ERP/P_CATEGORY	P	I
/ERP/COMPCODE Company Code	var:/ERP/S_COMPCODE01	H	
0FISCPER3 Posting period	1-12	P	I
0FISCYEAR Fiscal year	var:/ERP/P_0FISCYEAR01,var:/ERP/P_0FISCYEAR01+1	P	I
0INFOPROV InfoProvider	3 ZHR_R01, ZHR_R02	1	

Figure 8.62: HR FTE Planning Sequence 2 PF Filter

C	Display Filter					
-	+ + 🗉 😘	🤣 🚰				
	gregation Level:	_09 ZAL_HR007	BPC: Currency Conversion Filter]
Ke	y Date: ① Stan ② Fixed ③ From					
	Selections					
郾	InfoObject	Description	Restriction	Selectio	n Delete Defau	It Values Selection Delete
	/ERP/CATEGORY	Category	Reversion of the second	₩ \$	Ū	F
	/ERP/COMPCODE	Company Code	Reversion of the second	1	Ū	1
	OCURRENCY	Currency Key	excl:#	H	Ŵ	P
	0FISCPER3	Posting period	1-12	ų,	Ŵ	
	OFISCVARNT	Fiscal year variant	K4	ų karia k	Ŵ	1
	OFISCYEAR	Fiscal year	var:/ERP/P_0FISCYEAR01,var:/ERP/P_0FISCYEAR01+1	H Ê	Ŵ	1
	0INFOPROV	InfoProvider	ZHR_R01,ZHR_R02	ų 🙀	Ū.	I

Figure 8.63: Currency Conversion PF Filter

	👘 💦 Parar			
	🔚 📑 Parar	neter 🦻 🚰		
Planning Function	ZPF_HR	01_007	BPC: HR Currency conversion	n
Aggregation Leve	I ZAL_HR	007	BPC: FTE Percentage Planni	ing Sequence 2
Function Type	Formula	3	~	
(must be in oper - Mark these cha - If you want to v	ands) racteristics as 'to b	e changed'. Is, mark the charact	anged characteristic value ir eristics	ı your formula?
			Li 1, Co 1	Ln :
Characteristic Usa	ige		Li 1, Co 1	Ln 1
	ige Char.	Fields to be change	Li 1, Co 1 ed Fields for Conditions	Ln 1
InfoObject		Fields to be change		Ln 1
InfoObject /ERP/BUSAREA	Char. Business Area	_	ed Fields for Conditions	Ln 1
InfoObject /ERP/BUSAREA /ERP/CATEGORY	Char. Business Area Category	0	ed Fields for Conditions	Ln J
InfoObject /ERP/BUSAREA /ERP/CATEGORY /ERP/COMPCODE	Char. Business Area Category Company Code Cost Center	0	ed Fields for Conditions	Ln 1
	Char. Business Area Category Company Code	0	ed Fields for Conditions	Ln 1
InfoObject /ERP/BUSAREA /ERP/CATEGORY /ERP/COMPCODE /ERP/COSTCNTR /ERP/CO_AREA	Char. Business Area Category Company Code Cost Center	0	ed Fields for Conditions	Ln 1
InfoObject /ERP/BUSAREA /ERP/CATEGORY /ERP/COMPCODE /ERP/COSTCNTR /ERP/CO_AREA 0CURRENCY	Char. Business Area Category Company Code Cost Center Controlling Area		ed Fields for Conditions	Ln 1
/ERP/CATEGORY /ERP/COMPCODE /ERP/COSTCNTR	Char. Business Area Category Company Code Cost Center Controlling Area Currency Key		ed Fields for Conditions	Ln 1
InfoObject /ERP/BUSAREA /ERP/CATEGORY /ERP/COMPCODE /ERP/COSTCNTR /ERP/CO_AREA 0CURRENCY 0FISCPER3 0FISCVARNT	Char. Business Area Category Company Code Cost Center Controlling Area Currency Key Posting period Fiscal year variant Fiscal year		ed Fields for Conditions	L n J
InfoObject /ERP/BUSAREA /ERP/CATEGORY /ERP/COMPCODE /ERP/COSTCNTR /ERP/CO_AREA 0CURRENCY 0FISCPER3	Char. Business Area Category Company Code Cost Center Controlling Area Currency Key Posting period Fiscal year variant		ed Fields for Conditions	t n J



```
DATA LCUR TYPE OCURRENCY.
DATA ECUR TYPE OCURRENCY.
DATA COMPCODE TYPE '/ERP/COMPCODE'.
DATA AMOUNT TYPE F.
DATA DATE TYPE D.
DATA KF TYPE KEYFIGURE_NAME.
DATA YEAR TYPE OFISCYEAR.
*BREAK-POINT.
ECUR = EUR.
YEAR = OBJV().
CALL FUNCTION ZCURR_CONV_BPC
EXPORTING
 I YEAR = YEAR
 I EX TYPE = 'ZB'
IMPORTING
 E_DATE = DATE.
* E_EX_TYPE = EX_TYPE.
FOREACH KF, LCUR.
IF LCUR <> 'EUR' OR NOT LCUR IS INITIAL.
 AMOUNT = \{ KF, LCUR \}.
 AMOUNT = CURC( AMOUNT, DATE, ZB, LCUR, EUR ).
 \{KF, EUR\} = AMOUNT.
ENDIF.
ENDFOR.
```

Display	Filter		
+ $+$	🗏 洁 🤣 ∔		
Filter:	ZF_HR_10	BPC: HR Trend Years Calc	ulation Filter
Aggregation	Level: ZAL_HRO	07	
Key Date:	 Standard 		
	Fixed Date:		
	OFrom Variable		
Selections			
InfoObject	t Description	Restriction	Selection Delete Default Values Selection De
/ERP/CAT	EGORY Category	var:/ERP/P_CATEGORY	
/ERP/COM	IPCODE Company Cod	e 🚰 var:/ERP/S_COMPCODE01	岐 位 岐 Ú 岐 位 岐 Ú 岐 位 岐 Ú 岐 位 岐 Ú 岐 位 岐 Ú
0CURREN	CY Currency Key	EUR	
0INFOPR	V InfoProvider	ZHR_R02	

Figure 8.65: HR Trend Years Calculation PF Filter

	inning Funct	ion ZPF_HR	01_008	
← → 🗉	🔚 📑 Parar	neter 🛛 🤣 🚡		
Planning Function	ZPF_HR	.01_008	BPC: HR Trend Years Calculat	ion
Aggregation Leve	I ZAL_HR	007	BPC: FTE Percentage Planning	3 Sequence 2
Function Type	Сору		*	
- If you want to v	cteristic in this exa work with condition create conditions f	s, mark the charact	teristics	
			Li 1, Co 1	Ln
Characteristic Usa	ige		Li 1, Co 1	Ln
Characteristic Usa InfoObject	ge Char.	Fields to be chang	Li 1, Co 1 red Fields for Conditions	Ln
InfoObject	5	Fields to be chang	· · · ·	Ln
InfoObject	Char. Business Area		· · · ·	Ln
InfoObject /ERP/BUSAREA	Char. Business Area Category	0	ed Fields for Conditions	Ln
InfoObject /ERP/BUSAREA /ERP/CATEGORY	Char. Business Area Category Company Code	0	ed Fields for Conditions	Ln
InfoObject /ERP/BUSAREA /ERP/CATEGORY /ERP/COMPCODE	Char. Business Area Category Company Code Cost Center	0 0 0	ed Fields for Conditions	
InfoObject /ERP/BUSAREA /ERP/CATEGORY /ERP/COMPCODE /ERP/COSTCNTR	Char. Business Area Category Company Code Cost Center		ed Fields for Conditions	Ln
InfoObject /ERP/BUSAREA /ERP/CATEGORY /ERP/COMPCODE /ERP/COSTCNTR /ERP/CO_AREA	Char. Business Area Category Company Code Cost Center Controlling Area		ed Fields for Conditions	
InfoObject /ERP/BUSAREA /ERP/CATEGORY /ERP/COMPCODE /ERP/COSTCNTR /ERP/CO_AREA 0CURRENCY	Char. Business Area Category Company Code Cost Center Controlling Area Currency Key		ed Fields for Conditions	
InfoObject /ERP/BUSAREA /ERP/CATEGORY /ERP/COMPCODE /ERP/COSTCNTR /ERP/CO_AREA 0CURRENCY 0FISCPER3	Char. Business Area Category Company Code Cost Center Controlling Area Currency Key Posting period Fiscal year variant Fiscal year		ed Fields for Conditions	
InfoObject /ERP/BUSAREA /ERP/CATEGORY /ERP/COMPCODE /ERP/CO_AREA 0CURRENCY 0FISCPER3 0FISCVARNT	Char. Business Area Category Company Code Cost Center Controlling Area Currency Key Posting period Fiscal year variant		ed Fields for Conditions	

Figure 8.66: HR Trend Years Calculation PF Details

Display Planning Fur	nction ZPF_HR01_008	
🔶 🔶 🛅 🏣 😤 Ch	aracteristic Usage 🛛 🍄 👔	
Selection of key figures to be co	pied	
Select All Key Figures		
Select Individual Key Figures	ZEMPCOST	
📑 Create 🔲 Copy 📑 Delete		
Copy From - To		
🗈 From	Details To	Details
/ERP/P_0FISCYEAR01+1	/ERP/P_0FISCYEAR01+2	P
/ERP/P_0FISCYEAR01+1	/ERP/P_0FISCYEAR01+3	P
/ERP/P_0FISCYEAR01+1	/ERP/P_0FISCYEAR01+4	P
/ERP/P_0FISCYEAR01+1	/ERP/P_0FISCYEAR01+5	1

Figure 8.67: HR Trend Years Calculation PF Standard Copy Formula

		ZAL_FI009 CF Report	ZF_FL_29 BPC: Cashflow Actuals Transformation Filter TEST	2PF_FI09_002 BPC: P&L to CashFlow Actual Months Accumulated
	BPC: Cash Flow coov from P&L	ZAL_FI009 CF Report	ZF_FI_18 BPC: Cashflow Tranformation Filter	ZPF_FI09_001 BPC: P&L to CashFlow Planned
		ZAL_FI013 Cashflow - Accumulated	ZF_FI_19 BPC: Cashflow Accumulation Filter	ZPF_FI09_005 BPC: CashFlow Accumulated Balance
		ZAL_FI013 Cashflow - Accumulated	ZF_FI_19 BPC: Cashflow Accumulation Filter	ZPF_FI09_006 BPC: CashFlow Actual Months Accumulated Balance
ZP5_FI09_001		ZAL_FI015 Cashfew - Calculation Assumptions	ZF_FI_22 BPC: Cashflow Assumption Calculations	ZPF_FI15_003 BPC: Installments Summation
552 ⁻ LI03 ⁻ 001	BPE: Easin How copy Hom Pace	ZAL_FI014 Cashflow - Final	ZF_FI_21 BPC: Cashflow Final Calculations	ZPF_F114_002 BPC: Cashflow Final Calculations
		ZAL_FI014 Cashflow - Final	ZF_FI_27 BPC: CF Copy Final to Adjust	ZPF_FI09_007 BPC: CashFlow Copy Final to Adjusted Balance
		ZAL_FI011 Balance - PL->BS	ZF_B5_01BPC: PL->Balance	ZPF_F111_001 BPC: PL->BS
		2AL_FI009 CF Report	ZF_FI_30 BPC: Balance SheetTransformation Filter	ZPF_FI09_004 BPC: CF=>B5
		ZAL_FI012 Balance - Accumulated	ZF_BS_02BPC: BS Accumulated	ZPF_FI12_001 BPC: Accumulated Balance

Table 8.19: Cash Flow copy from P&L PS

🗢 🔿 🗖 🎥	💝 Parameter 🛛 😚 🖆			
Planning Function	ZPF_FI09_001	PC: P&L to CashFlow Pl	lanned	
Aggregation Leve	ZAL_FI009 CF	F Report		
Function Type	Formula			
	work with conditions, mark the chara o create conditions for.			
	Li 5, Co	22	Ln 1 - Ln 5 of 5 lin	
		20		es
		23		es
Characteristic Usa	J e			es
InfoObject	ge Char.		d Fields for Conditions	es
InfoObject /ERP/CATEGORY	ge (Char. Category			es
InfoObject <mark>/ERP/CATEGORY</mark> /ERP/CHRTACCT	ge Char. Category Chart of Accounts	Fields to be changer		es
InfoObject /ERP/CATEGORY /ERP/CHRTACCT /ERP/COMPCODE	ge Char, Category Chart of Accounts Company Code	Fields to be changed		es
InfoObject /ERP/CATEGORY /ERP/CHRTACCT /ERP/COMPCODE /ERP/GL_ACCT	char. Chargory Chart of Accounts Company Code G/L Account	Fields to be changed O O O O O O O O O O O O O		es
InfoObject /ERP/CATEGORY /ERP/CHRTACCT /ERP/COMPCODE /ERP/GL_ACCT DCURRENCY	char. Category Chart of Accounts Company Code G/L Account Currency Key	Fields to be changed		85
InfoObject /ERP/CATEGORY /ERP/CHRTACCT /ERP/COMPCODE /ERP/GL_ACCT OCURRENCY OFISCPER3	pe Char. Category Chart of Accounts Company Code G/L Account Currency Key Posting period	Fields to be changed O O O O O O O O O O O O O		es
InfoObject /ERP/CATEGORY /ERP/CHRTACCT /ERP/COMPCODE /ERP/GL_ACCT 0CURRENCY 0FISCPER3 0FISCVARNT	Pe Char. Category Chart of Accounts Company Code G(L Account Currency Key Posting period Fiscal year variant	Fields to be changed O O O O O O O O O O O O O		es
InfoObject /ERP/CATEGORY /ERP/CHRTACCT /ERP/COMPCODE /ERP/GL_ACCT OCURRENCY OFISCPER3	pe Char. Category Chart of Accounts Company Code G/L Account Currency Key Posting period	Fields to be changed O O O O O O O O O O O O O		es
InfoObject /ERP/CATEGORY /ERP/CHRTACCT /ERP/COMPCODE /ERP/GL_ACCT 0CURRENCY 0FISCPER3 0FISCVARNT	26 Char. Category Chart of Accounts Company Code G/L Account Currency Key Posting period Ficcal year Variant Fiscal year Variant Fiscal year LindForwider	Fields to be changed O O O O O O O O O O O O O		65
InfoObject /ERP/CATEGORY /ERP/CHRTACCT /ERP/COMPCODE /ERP/GL_ACCT 0CURRENCY 0FISCPER3 0FISCVARNT 0FISCVEAR	Char. Category Chart of Accounts Company Code G(L Account Currency Key Posting period Fiscal year variant Fiscal year variant Fiscal year InfoProvider Client (special Logic in Virtual Provider	Fields to be changed O O O O O O O O O O O O O		55
InfoObject /ERP/CATEGORY /ERP/CHRTACCT /ERP/COMPCODE /ERP/GL_ACCT 0CURRENCY 0FISCPER3 0FISCVER3 0FISCVERNT 0FISCVEAR 0INFOPROV	26 Char. Category Chart of Accounts Company Code G/L Account Currency Key Posting period Ficcal year Variant Fiscal year Variant Fiscal year LindForwider	Fields to be changed O O O O O O O O O O O O O		65
InfoObject /ERP/CATEGORY /ERP/CHRTACCT /ERP/COMPCODE /ERP/GL_ACCT 0CURRENCY 0FISCPER3 0FISCYEAR 0FISCYEAR 0FISCYEAR 0INFOPROV 0MANDT	Char. Category Chart of Accounts Company Code G(L Account Currency Key Posting period Fiscal year variant Fiscal year variant Fiscal year InfoProvider Client (special Logic in Virtual Provider	Fields to be changed	d Fields for Conditions	85

Figure 8.68: P&L to CashFlow Planned PF Details

*DATA PRESENTATIONS

DATA CURRENCY TYPE 'OCURRENCY'.
DATA ACC TYPE '/ERP/GL_ACCT'.
DATA ACC9 TYPE '/ERP/GL_ACCT'.
DATA CASHFLOWACC TYPE 'ZCASHACC'.
DATA DATASRC TYPE 'ZDATASRC'.
DATA CATEGORY TYPE '/ERP/CATEGORY'.
DATA INFOPROV TYPE '0INFOPROV'.
DATA INFOPROV1 TYPE '0INFOPROV'.
DATA INFOPROV2 TYPE '0INFOPROV'.
DATA M_COUNT TYPE '0FISCPER3'.
DATA M_FCST TYPE '0FISCPER3'.
DATA YEAR TYPE 'OFISCYEAR'.
DATA YEAR_AA TYPE 'OFISCYEAR'.
DATA YEAR_FCST TYPE 'OFISCYEAR'.
DATA CF_VL TYPE F.
DATA OFFSET TYPE I.
DATA GLACCOUNT TYPE '/ERP/GL_ACCT'.
DATA MONTH TYPE 'OFISCPER3'.
DATA COMPCODE TYPE '/ERP/COMPCODE'.
DATA KF TYPE KEYFIGURE_NAME.

DATA PERCENTAGE TYPE F. *BREAK-POINT. ***** ***** *CLEARING TARGET SOURCE TO AVOID DUPLICATION. FOREACH COMPCODE, GLACCOUNT, CASHFLOWACC, MONTH, YEAR, CATEGORY IN REFDATA. IF NOT GLACCOUNT IS INITIAL AND NOT CASHFLOWACC IS INITIAL AND NOT COMPCODE IS INITIAL AND NOT MONTH IS INITIAL AND NOT YEAR IS INITIAL. { 'ZCASHTTL', CATEGORY, COMPCODE, GLACCOUNT, EUR, MONTH, YEAR, ZFI R05, CASHFLOWACC, CF_PLAN } = 0. ENDIF. ENDFOR. ***** ****** *CALCULATION FOR PLAN MONTHS>MONTH FORECAST(NOT ACCUMULATED) AMOUNTS FROM P&L CUBE. ***** FOREACH COMPCODE, MONTH, GLACCOUNT, CATEGORY, YEAR IN REFDATA. IF NOT GLACCOUNT IS INITIAL. FOREACH DATASRC IN REFDATA. IF DATASRC <> 'CF_PLAN'. FOREACH CASHFLOWACC IN REFDATA. IF NOT CASHFLOWACC IS INITIAL. { ZCASHTTL, CATEGORY, COMPCODE, GLACCOUNT, EUR, MONTH, YEAR, ZFI_R05, CASHFLOWACC, CF_PLAN } = { ZCASHTTL, CATEGORY, COMPCODE, GLACCOUNT, EUR, MONTH, YEAR, ZFI_R05, CASHFLOWACC, CF PLAN } + ({ / ERP / AMOUNT, CATEGORY, COMPCODE, GLACCOUNT, EUR, MONTH, YEAR, ZFI R02, #, DATASRC } * { ZPERCCF, CATEGORY, PT10, GLACCOUNT, #, #, YEAR, ZFI_R05, CASHFLOWACC, PL_CF }). ENDIF. ENDFOR. ENDIF. ENDFOR. ENDIF. ENDFOR. *****



	anning Function ZPF_F.	109_002		
⇔ ⇔ 🗆 🐕	🍣 Parameter 🛛 😚 🖆			
Planning Function	ZPF_F109_002	3PC: P&L to CashFlow A	ctual Months Accumulate	d
Aggregation Level	ZAL_FI009	CF Report		
unction Type	Formula	-		
	work with conditions, mark the cha o create conditions for.	racteristics		
	U 1. O	- 1	the data of the first fi	
	U 1, 0	71	Ln 1 - Ln 5 of 5 line	5
Charactoristic Lloa		1	Ln I - Ln 5 of 5 line	a
Characteristic Usa;	99			0
InfoObject	ge Char.	Fields to be changed	d Fields for Conditions	£)
InfoObject /ERP/CATEGORY	ge Char. Category			55
InfoObject /ERP/CATEGORY /ERP/CHRTACCT	je Char. Category Chart of Accounts	Fields to be changed		55
InfoObject /ERP/CATEGORY /ERP/CHRTACCT /ERP/COMPCODE	je Char. Category Chart of Accounts Company Code	Fields to be changed		5
InfoObject /ERP/CATEGORY /ERP/CHRTACCT /ERP/COMPCODE /ERP/GL_ACCT	je Char. Category Chart of Accounts Company Code	Fields to be changed	l Fields for Conditions	5
InfoObject /ERP/CATEGORY /ERP/CHRTACCT /ERP/COMPCODE /ERP/GL_ACCT DCURRENCY	ge Char. Category Chart of Accounts Company Code G/L Account	Fields to be changed O O O O O O O O O O O O O	l Fields for Conditions	5
InfoObject /ERP/CATEGORY /ERP/CHRTACCT /ERP/COMPCODE /ERP/GL_ACCT DCURRENCY DFISCPER3	char. Category Chart of Accounts Company Code G/L Account Currency Key	Fields to be changed O O O O O O O O O O O O O	l Fields for Conditions	ð
InfoObject /ERP/CATEGORY /ERP/CHRTACCT /ERP/COMPCODE /ERP/GL_ACCT 0CURRENCY 0FISCPER3 0FISCVARNT	pe Char. Category Chart of Accounts Company Code G/L Account Currency Key Posting period	Fields to be changed O O O O O O O O O O O O O	E Fields for Conditions	9
InfoObject /ERP/CATEGORY /ERP/CHRTACCT /ERP/COMPCODE /ERP/GL_ACCT 0CURRENCY 0FISCPER3 0FISCVARNT 0FISCYEAR	pe Char. Category Chart of Accounts Company Code G(J. Account Currency Key Posting period Rocal year variant	Fields to be changed	E Fields for Conditions	5
InfoObject /ERP/CATEGORY /ERP/CHRTACCT /ERP/COMPCODE /ERP/CQL_ACCT 0CURRENCY 0CURRENCY 0CURRENCY 0FISCPER3 0FISCVEAR 0INFOPROV	pe Char, Category Char of Accounts Company Code G/L Accounts G/L Account G/L Accounts Currency Key Posting period Fiscal year Fiscal year	Fields to be changed O O O O O O O O O O O O O	E Fields for Conditions	9
InfoObject /ERP/CATEGORY /ERP/CHRTACCT /ERP/COMPCODE /ERP/GL_ACCT 0CURRENCY 0FISCPER3 0FISCVARNT 0FISCYEAR	pe Char. Category Chart of Accounts Company Code G/L Account Currency Key Posting period Fiscal year Thicherovider	Fields to be changed O O O O O O O O O O O O O	E Fields for Conditions	9
InfoObject /ERP/CATEGORY /ERP/CHRTACCT /ERP/COMPCODE /ERP/GL_ACCT 0CURRENCY 0FISCPER3 0FISCVARNT 0FISCYEAR 0DINFOPROV 0MANDT	pe Char Category Char of Accounts Company Code G/L Account Company Code G/L Account Commory Key Pooting period Piscal year variant Piscal year InfoProvider Client (special Logic in Virtual Provide	Fields to be changed o o o o o o o e o o o o o o o o o o o o o	E Fields for Conditions	9

Figure 8.69: P&L to CashFlow Actual Months Accumulated PF Details

*DATA PRESENTATIONS

DATA CURRENCY TYPE 'OCURRENCY'.
DATA ACC TYPE '/ERP/GL_ACCT'.
DATA ACC9 TYPE '/ERP/GL_ACCT'.
DATA CASHFLOWACC TYPE 'ZCASHACC'.
DATA DATASRC TYPE 'ZDATASRC'.
DATA CATEGORY TYPE '/ERP/CATEGORY'.
DATA INFOPROV TYPE '0INFOPROV'.
DATA INFOPROV1 TYPE '0INFOPROV'.
DATA INFOPROV2 TYPE '0INFOPROV'.
DATA M_COUNT TYPE '0FISCPER3'.
DATA M_FCST TYPE '0FISCPER3'.
DATA YEAR TYPE 'OFISCYEAR'.
DATA YEAR_AA TYPE 'OFISCYEAR'.
DATA YEAR_FCST TYPE 'OFISCYEAR'.
DATA CF_VL TYPE F.
DATA OFFSET TYPE I.
DATA GLACCOUNT TYPE '/ERP/GL_ACCT'.
DATA ZGLACCOUNT TYPE 'ZGL_ACCT'.
DATA MONTH TYPE 'OFISCPER3'.
DATA COMPCODE TYPE '/ERP/COMPCODE'.
DATA KF TYPE KEYFIGURE_NAME.
DATA PERCENTAGE TYPE F.
*BREAK-POINT.


```
*CLEARING TARGET SOURCE TO AVOID DUPLICATION.
*****
FOREACH COMPCODE, GLACCOUNT, CASHFLOWACC, MONTH, YEAR, CATEGORY IN REFDATA.
IF NOT GLACCOUNT IS INITIAL AND NOT CASHFLOWACC IS INITIAL AND NOT COMPCODE IS INITIAL
AND NOT MONTH IS INITIAL AND NOT YEAR IS INITIAL.
 { 'ZCASHTTL', CATEGORY, COMPCODE, GLACCOUNT, EUR, MONTH, YEAR, ZFI_R05, 100,
CASHFLOWACC, CF ACTUAL } = 0.
ENDIF.
ENDFOR.
*****
********
*CALCULATION FOR ACTUAL MONTHS<MONTH FORECAST(ALREADY ACCUMULATED IN THE
ACTUAL CUBE) AMOUNTS
*FROM ACTUAL CUBE.
********
*****
FOREACH CATEGORY, YEAR IN REFDATA.
IF NOT CATEGORY IS INITIAL AND NOT YEAR IS INITIAL.
 M FCST = ATRV( 'OFISCPER3', CATEGORY ).
 YEAR FCST = ATRV( 'OFISCYEAR', CATEGORY ).
 FOREACH GLACCOUNT, CASHFLOWACC IN REFDATA.
  IF NOT GLACCOUNT IS INITIAL AND NOT CASHFLOWACC IS INITIAL.
   FOREACH COMPCODE IN REFDATA.
   IF NOT COMPCODE IS INITIAL.
    FOREACH MONTH IN REFDATA.
     IF YEAR = YEAR FCST.
      IF MONTH < M_FCST OR MONTH = M_FCST OR MONTH = 000.
       { ZCASHTTL, CATEGORY, COMPCODE, GLACCOUNT, EUR, MONTH, YEAR, ZFI R05, 100,
CASHFLOWACC, CF ACTUAL }
       = ( { '/ERP/AMOUNT', #, COMPCODE, GLACCOUNT, EUR, MONTH, YEAR, ZFI C01, #, #, # }
*
       { ZPERCCF, CATEGORY, PT10, GLACCOUNT, #, #, YEAR, ZFI R05, 100, CASHFLOWACC,
PL CF }).
      ENDIF.
     ENDIF.
    ENDFOR.
   ENDIF.
   ENDFOR.
  ENDIF.
 ENDFOR.
ENDIF.
ENDFOR.
             *********
*****
```


*NORMALLY THERE IS NO C_1000 in MAPPING. THIS IS THE CALCULATION FOR ACTUAL MONTH = "0" or " "
*(ALREADY ACCUMULATED IN THE ACTUAL CUBE) AMOUNTS FROM ACTUAL CUBE. ************************************

FOREACH CATEGORY, YEAR IN REFDATA.
IF NOT CATEGORY IS INITIAL AND NOT YEAR IS INITIAL.
M_FCST = ATRV('0FISCPER3', CATEGORY).
YEAR_FCST = ATRV('OFISCYEAR', CATEGORY).
FOREACH GLACCOUNT, CASHFLOWACC IN REFDATA.
IF NOT GLACCOUNT IS INITIAL AND NOT CASHFLOWACC IS INITIAL.
FOREACH COMPCODE IN REFDATA.
IF NOT COMPCODE IS INITIAL.
FOREACH MONTH IN REFDATA.
IF YEAR = YEAR_FCST.
IF MONTH IS INITIAL OR MONTH = 000.
{ ZCASHTTL, CATEGORY, COMPCODE, GLACCOUNT, EUR, MONTH, YEAR, ZFI_R05, 100,
C_1000, CF_ACTUAL }
= ({ ZCASHTTL, CATEGORY, COMPCODE, GLACCOUNT, EUR, MONTH, YEAR, ZFI_R05, 100,
CASHFLOWACC, CF_ACTUAL }).
ENDIF.
ENDIF.
ENDFOR.

Table 8.21: P&L to CashFlow Actual Months Accumulated PF Fox Formula

	💝 Parameter 🛛 😚 🖆			
Nanning Function	ZPF_FI09_003	3PC: P&L to CashFlow A	ctuals	
Aggregation Level	ZAL_FI009	IF Report		
unction Type	Formula	•		
	o create conditions for.	1	Ln 1 - Ln 5 of 5 lines	
Characteristic Usa	28			
InfoObject	Char.		d Fields for Conditions	
InfoObject /ERP/CATEGORY	Char. Category	Fields to be change	d Fields for Conditions	
InfoObject /ERP/CATEGORY /ERP/CHRTACCT	Char. Category Chart of Accounts	•	d Fields for Conditions	
InfoObject /ERP/CATEGORY /ERP/CHRTACCT /ERP/COMPCODE	Char. Category Chart of Accounts Company Code	• • •	d Fields for Conditions	
InfoObject /ERP/CATEGORY /ERP/CHRTACCT /ERP/COMPCODE /ERP/GL_ACCT	Char. Category Chart of Accounts Company Code G/L Account	• • •	d Fields for Conditions	
InfoObject /ERP/CATEGORY /ERP/CHRTACCT /ERP/COMPCODE /ERP/GL_ACCT DCURRENCY	Char. Category Chart of Accounts Company Code G/L Account Currency Key	• • • • • • • • • • • • • •	d Fields for Conditions	
InfoObject /ERP/CATEGORY /ERP/CHRTACCT /ERP/COMPCODE /ERP/GL_ACCT DCURRENCY DFISCPER3	Char. Category Chart of Accounts Company Code G/L Account Currency Key Posting period	• • • • • • • • • • • •	d Fields for Conditions	
InfoObject /ERP/CATEGORY /ERP/CHRTACCT /ERP/COMPCODE /ERP/GL_ACCT DCURRENCY DFISCPER3 DFISCVARNT	Char. Category Chart of Accounts Company Code G/L Account Currency Key Posting period Posting period Fiscal year variant		d Fields for Conditions	
InfoObject /ERP/CATEGORY /ERP/CHRTACCT /ERP/COMPCODE /ERP/GL_ACCT DCURRENCY DFISCPER3 DFISCVARNT DFISCVEAR	Char. Category Chart of Accounts Company Code G/L Account Currency Key Posting period Fiscal year variant Fiscal year		d Fields for Conditions	
InfoObject /ERP/CATEGORY /ERP/CHRTACCT /ERP/COMPCODE /ERP/COMPCODE /ERP/COMPCODE /ERC/GL_ACCT DCURRENCY DCURRENCY DCURRENCY DISCVEAR DINFOPROV	Char. Category Category Company Code G(L Account Currency Key Posting period Fiscal year variant Fiscal year InfoProvider		d Fields for Conditions	
InfoObject /ERP/CATEGORY /ERP/CHRTACCT /ERP/COMPCODE /ERP/GL_ACCT DCURRENCY DEISCPER3 DFISCPER3 DFISCYER8 DINFOPROV DMANDT	Char. Category Category Chart of Accounts Company Code G/L Account Currency Key Posting period Riscal year variant Riscal year InfoProvider Client (special Logic in Vartual Provide		d Fields for Conditions	
InfoObject (ERP/CATEGORY (ERP/CAHCTACCT (ERP/COMPCODE (ERP/CLACT DCURRENCY DEISCPER3 DFISCVARNT DFISCVARNT DFISCVARNT DFISCVARNT DIFSOPROV DMANDT ZCASHACC	Char. Category Category Cate of Accounts Company Code G(J. Account Currency Key Positing period Fical year Dischartion Fical year Infohrvider Clent (special Logic in Vartual Provid BPC: FI Cathflow Accounts	→ → → → → → → → → → → → → → → → → → →		
InfoObject (ERP/CATEGORY /ERP/CHRTACCT (ERP/CHRTACCT ERP/COMPCODE /ERP/GL_ACCT DURSCRRNCY DIFISCVARNT DIFISCVARNT DIFISCVARNT DIFISCVARNT DIFISCVARNT ZDATASRC	Char. Category Category Chart of Accounts Company Code G(L Account Currency Key Posting period Riscal year variant Riscal year InfoProvider Client (special Logic in Vartual Provide			

Figure 8.70: P&L to CashFlow Actuals PF Details

*DATA PRESENTATIONS

DATA CURRENCY TYPE 'OCURRENCY'.
DATA ACC TYPE '/ERP/GL_ACCT'.
DATA ACC9 TYPE '/ERP/GL_ACCT'.
DATA CASHFLOWACC TYPE 'ZCASHACC'.
DATA DATASRC TYPE 'ZDATASRC'.
DATA CATEGORY TYPE '/ERP/CATEGORY'.
DATA INFOPROV TYPE '0INFOPROV'.
DATA INFOPROV1 TYPE '0INFOPROV'.
DATA INFOPROV2 TYPE '0INFOPROV'.
DATA M_COUNT TYPE '0FISCPER3'.
DATA M_FCST TYPE 'OFISCPER3'.
DATA YEAR TYPE 'OFISCYEAR'.
DATA YEAR_AA TYPE 'OFISCYEAR'.
DATA YEAR_FCST TYPE 'OFISCYEAR'. DATA CF_VL TYPE F.
DATA OFESET TYPE I.
DATA GLACCOUNT TYPE '/ERP/GL_ACCT'.
DATA ZGLACCOUNT TYPE 'ZGL ACCT'.
DATA MONTH TYPE 'OFISCPER3'.
DATA COMPCODE TYPE '/ERP/COMPCODE'.
DATA KF TYPE KEYFIGURE NAME.
DATA PERCENTAGE TYPE F.

*CLEARING TARGET SOURCE

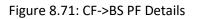
FOREACH COMPCODE, GLACCOUNT, CASHFLOWACC, MONTH IN REFDATA.
* IF NOT GLACCOUNT IS INITIAL AND NOT CASHFLOWACC IS INITIAL AND NOT COMPCODE IS INITIAL
AND NOT MONTH IS INITIAL.
* { 'ZCASHTTL', CATEGORY, COMPCODE, GLACCOUNT, EUR, MONTH, YEAR, ZFI_R05, 100,
CASHFLOWACC, CF_ACTUAL } = 0.
* ENDIF.
ENDFOR.

*CALCULATION FOR ACTUAL AMOUNTS FROM ACTUAL CUBE

```
*********
*FOREACH CATEGORY, YEAR IN REFDATA.
* IF NOT CATEGORY IS INITIAL AND NOT YEAR IS INITIAL.
 M FCST = ATRV( 'OFISCPER3', CATEGORY ).
* YEAR_FCST = ATRV( 'OFISCYEAR', CATEGORY ).
 FOREACH GLACCOUNT, CASHFLOWACC IN REFDATA.
   IF NOT GLACCOUNT IS INITIAL AND NOT CASHFLOWACC IS INITIAL.
*
    FOREACH COMPCODE IN REFDATA.
*
     IF NOT COMPCODE IS INITIAL.
      IF YEAR = YEAR_FCST.
*
       IF M FCST IS INITIAL OR M FCST = 000.
*
             { ZCASHTTL, CATEGORY, COMPCODE, GLACCOUNT, EUR, #, YEAR, ZFI R05, 100,
CASHFLOWACC, CF ACTUAL }
        = ({ '/ERP/AMOUNT', #, COMPCODE, GLACCOUNT, EUR, #, YEAR, ZFI C01, #, #, # } *
*
          { ZPERCCF, CATEGORY, PT10, GLACCOUNT, #, #, YEAR, ZFI R05, 100, CASHFLOWACC,
PL CF }).
*
       ELSE.
**
          { ZCASHTTL, CATEGORY, COMPCODE, GLACCOUNT, EUR, M_FCST, YEAR, ZFI_R05, 100,
CASHFLOWACC, CF_ACTUAL }
**
          = { '/ERP/AMOUNT', #, COMPCODE, GLACCOUNT, EUR, M FCST, YEAR, ZFI C01, #, #, #
}*
**
         (1+{ZPERCCF, CATEGORY, PT10, GLACCOUNT, #, #, YEAR, ZFI_R05, 100, CASHFLOWACC,
PL_CF } ).
       ENDIF.
*
      ELSE.
*
      ENDIF.
*
     ENDIF.
    ENDFOR.
   ENDIF.
 ENDFOR.
* ENDIF.
*ENDFOR.
******
```

Table 8.22: P&L to CashFlow Actuals PF Fox Formula

	🛛 🍣 Parameter 🛛 🧐 🏭			
Planning Function	ZPF_FI09_004	SPC: CF->BS		
Aggregation Leve	ZAL_FI009	CF Report		
Function Type	Formula	•		
	o create conditions for.			
		Li 1, Co 1	Ln 1 - Ln 5 of 5 lir	ies
Characteristic Usa	je			ies
InfoObject	ge Char.		Ln 1 - Ln 5 of 5 lir	ies
InfoObject /ERP/CATEGORY	ge Char. Category			ies
InfoObject /ERP/CATEGORY	ge Char. Category Chart of Accounts	Fields to be cha		ies
InfoObject /ERP/CATEGORY /ERP/CHRTACCT /ERP/COMPCODE	Char. Charegory Chart of Accounts Company Code	Fields to be cha		nes
InfoObject /ERP/CATEGORY /ERP/CHRTACCT /ERP/COMPCODE /ERP/GL_ACCT	Char. Charegory Chart of Accounts Company Code	Fields to be cha		185
InfoObject /ERP/CATEGORY /ERP/CHRTACCT /ERP/COMPCODE /ERP/GL_ACCT 0CURRENCY	Char. Chare Category Chart of Accounts Company Code G/L Account	Fields to be cha		ies
InfoObject /ERP/CATEGORY /ERP/CHRTACCT /ERP/COMPCODE /ERP/GL_ACCT OCURRENCY OFISCPER3	ge Char. Category Chart of Accounts Company Code G(L Account Currency Key	Fields to be cha		es
InfoObject /ERP/CATEGORY /ERP/CHRTACCT /ERP/COMPCODE /ERP/GL_ACCT 0CURRENCY 0FISCPER3 0FISCVARNT	ge Char. Category Chart of Accounts Company Code G/L Account Currency Key Posthip period	Fields to be cha		85
InfoObject /ERP/CATEGORY /ERP/CHRTACCT /ERP/COMPCODE /ERP/GL_ACCT 0CURRENCY 0FISCPER3 0FISCVARNT 0FISCYEAR	ge Char. Category Chart of Accounts Company Code G/L Account Currency Key Posting period Fiscal year variant	Fields to be cha	nged Fields for Conditions	
InfoObject /ERP/CATEGORY /ERP/CHRTACCT	ge Char. Category Chart of Accounts Company Code G/L Account Currency Key Posting period Fiscal year variant Fiscal year	Fields to be cha	nged Fields for Conditions	les
InfoObject /ERP/CATEGORY /ERP/CHRTACCT /ERP/COMPCODE /ERP/GL_ACCT 0CURRENCY 0FISCVER3 0FISCVER3 0FISCVEARNT 0FISCVEAR 0INFOPROV	Pe Char, Categony Chart of Accounts Company Code G/L Account Currency Key Posting period Fiscal year variant Fiscal year Tinforbroider	Fields to be cha	nged Fields for Conditions	85
InfoObject /ERP/CATEGORY /ERP/CHRTACCT /ERP/COMPCODE /ERP/GL_ACCT 0CURRENCY 0FISCPER3 0FISCVARNT 0FISCYEAR 0FISCYEAR 0INFOPROV 0MANDT	Char. Category Chart of Accounts Company Code G(L Account Currency Key Posting period Fiscal year variant Fiscal year variant Fiscal year InfoProvider Client (speatal Logic in Virtus	Fields to be cha	nged Fields for Conditions	les



DATA MONTH TYPE 'OFISCPER3'.
DATA COMPCODE TYPE '/ERP/COMPCODE'.
DATA ACC TYPE '/ERP/GL_ACCT'.
DATA ACC_AUX TYPE '/ERP/GL_ACCT'.
DATA CF_ACC TYPE 'ZCASHACC'.
DATA DATASRC TYPE 'ZDATASRC'.
DATA CURR TYPE 'OCURRENCY'.
*BREAK-POINT.
FOREACH COMPCODE, ACC, MONTH.
{ '/ERP/AMOUNT', COMPCODE, ACC, EUR, MONTH, ZFI_R03, #, BSCF_PLAN} = 0.
ENDFOR.
FOREACH COMPCODE, ACC, MONTH, CURR IN REFDATA.
* IF DATASRC <> 'BS_PLAN'.
IF NOT CURR IS INITIAL.
<pre>* {'/ERP/AMOUNT', COMPCODE, ACC ,CURR,MONTH,ZFI_R03,BS_PLAN,#} = 0.</pre>
FOREACH CF_ACC IN REFDATA.
IF NOT CF_ACC IS INITIAL.
* ACC_AUX = BS_ACC.
{ '/ERP/AMOUNT', COMPCODE, ACC_AUX, CURR, MONTH, ZFI_R03, #, BSCF_PLAN} =
{ '/ERP/AMOUNT', COMPCODE, ACC_AUX, CURR, MONTH, ZFI_R03, #, BSCF_PLAN} +
({ '/ERP/AMOUNT', COMPCODE, ACC, CURR, MONTH, ZFI_R05, #, CF_FINAL} *
{ ZPERCCF, #, ACC, #, #, ZFI_R05, CF_ACC, CF_BS}).
ENDIF.
ENDFOR.
* ENDIF.
ENDIF.
ENDFOR.
Table 8.23: CF->BS PF Fox Formula

	anning Function Z	CPF_FI09_005				
⇔⇔ □ ங	🛛 🍣 Parameter 🛛 🦻 🖆					
Planning Function	ZPF_FI09_005	3PC: CashFlow	Accumulated I	Balance		
Aggregation Leve	ZAL_FI013	Cashflow - Accu	umulated			
Function Type	Formula	•				
	work with conditions, mark o create conditions for.	< the characteristics				
		Li 1, Co 1		Ln 1 - Ln 5 of 5	lines	
Characteristic Usa					lines	
InfoObject	Char.	Fields to be	-	Ln 1 - Ln 5 of 5 ds for Conditions	lines	
InfoObject /ERP/CATEGORY	Char. Category		-		lines	
InfoObject <mark>/ERP/CATEGORY</mark> /ERP/CHRTACCT	Char. Category Chart of Accounts	Fields to be	-		lines	
InfoObject /ERP/CATEGORY	Char. Category Chart of Accounts	Fields to be	-		lines	
InfoObject /ERP/CATEGORY /ERP/CHRTACCT /ERP/COMPCODE	Char. Category Chart of Accounts Company Code	Fields to be			lines	
InfoObject /ERP/CATEGORY /ERP/CHRTACCT /ERP/COMPCODE DCURRENCY	Char. Category Chart of Accounts Company Code Currency Key	Fields to be			lines	
InfoObject /ERP/CATEGORY /ERP/CHRTACCT /ERP/COMPCODE 0CURRENCY 0FISCPER3	Char. Category Chart of Accounts Company Code Currency Key Posting period	Fields to be			lines	
InfoObject /ERP/CATEGORY /ERP/CHRTACCT /ERP/COMPCODE DCURRENCY OFISCPER3 OFISCVARNT	Char. Category Chart of Accounts Company Code Currency Key Posting period Fiscal year variant	Fields to be			lines	
InfoObject /ERP/CATEGORY /ERP/CHRTACCT /ERP/COMPCODE 0CURRENCY 0FISCPER3 0FISCVARNT 0FISCYEAR	Char. Category Chart of Accounts Company Code Currency Key Posting period Fiscal year variant Fiscal year	Fields to be			ines	
InfoObject /ERP/CATEGORY /ERP/CHRTACCT /ERP/COMPCODE 0CURRENCY 0FISCPER3 0FISCVARNT 0FISCYEAR 0INFOPROV	Char. Category Chart of Accounts Company Code Currency Key Posting period Fiscal year InfoProvider	Fields to be			ines	
InfoObject /ERP/CATEGORY /ERP/CHRTACCT /ERP/COMPCODE 0CURENCY 0FISCPER3 0FISCVARNT 0FISCYEAR 0INFOPROV 0MANDT	Char. Category Chart of Accounts Company Code Currency Key Posting period Fiscal year variant Fiscal year InfoProvider Client (special Logic in Virtu	Fields to be C C C C C C C C C C C C C C C C C C C			ines	

Figure 8.72: CashFlow Accumulated Balance PF Details

*DATA PRESENTATIONS

DATA CURRENCY TYPE 'OCURRENCY'.
DATA ACC TYPE '/ERP/GL_ACCT'.
DATA ACC9 TYPE '/ERP/GL_ACCT'.
DATA CASHFLOWACC TYPE 'ZCASHACC'.
DATA DATASRC TYPE 'ZDATASRC'.
DATA CATEGORY TYPE '/ERP/CATEGORY'.
DATA INFOPROV TYPE '0INFOPROV'.
DATA COMPCODE TYPE '/ERP/COMPCODE'.
DATA MONTH TYPE 'OFISCPER3'.
DATA M_COUNT TYPE '0FISCPER3'.
DATA M_FCST TYPE '0FISCPER3'.
DATA YEAR TYPE 'OFISCYEAR'.
DATA YEAR_AA TYPE 'OFISCYEAR'.
DATA YEAR_FCST TYPE 'OFISCYEAR'.
DATA KF TYPE KEYFIGURE_NAME.
DATA CF_VL TYPE F.
DATA OFFSET TYPE I.
OFFSET = 1 - 2.
*BREAK-POINT.

*CLEARING TARGET SOURCE TO AVOID DUPLICATION.


```
FOREACH CATEGORY, YEAR, MONTH, CASHFLOWACC IN REFDATA.
{ 'ZCASHTTL', CATEGORY, MONTH, YEAR, ZFI_R05, 100, CASHFLOWACC, CF_ACC } = 0.
{ 'ZCASHTTL', CATEGORY, MONTH, YEAR, ZFI R05, 100, CASHFLOWACC, CF FINAL } = 0.
ENDFOR.
*****************
          *CALCULATION FOR PLAN MONTHS OVER ACCUMULATED ACTUAL MONTHS IN CF CUBE.
*****
FOREACH CATEGORY, YEAR IN REFDATA.
IF NOT CATEGORY IS INITIAL AND NOT YEAR IS INITIAL.
 M FCST = ATRV( 'OFISCPER3', CATEGORY ).
 YEAR FCST = ATRV( 'OFISCYEAR', CATEGORY ).
 FOREACH CASHFLOWACC IN REFDATA.
  IF NOT CASHFLOWACC IS INITIAL.
   IF YEAR = YEAR_FCST.
    IF M FCST IS INITIAL OR M FCST = 000.
    CF_VL = { 'ZCASHTTL', CATEGORY, 000, YEAR, ZFI_R05, 100, CASHFLOWACC, CF_ACTUAL }.
    ELSE.
    CF_VL = { 'ZCASHTTL', CATEGORY, M_FCST, YEAR, ZFI_R05, 100, CASHFLOWACC, CF_ACTUAL
}.
    ENDIF.
   ELSE.
   ENDIF.
   M COUNT = 000.
   DO.
    IF M_COUNT >= 012.
    EXIT.
    ELSE.
    M COUNT = TMVL( M COUNT, 1 ).
    MONTH = M COUNT.
    IF M COUNT > M FCST.
     { 'ZCASHTTL', CATEGORY, M_COUNT, YEAR, ZFI_R05, 100, CASHFLOWACC, CF_ACC } =
     CF VL + { 'ZCASHTTL', CATEGORY, M COUNT, YEAR, ZFI R05, 100, CASHFLOWACC,
CF PLAN }.
     CF VL = { 'ZCASHTTL', CATEGORY, M COUNT, YEAR, ZFI R05, 100, CASHFLOWACC, CF ACC
}.
    ENDIF.
    ENDIF.
   ENDDO.
  ENDIF.
 ENDFOR.
ENDIF.
ENDFOR.
*****
```

Table 8.24: CashFlow Accumulated Balance PF Fox F	Formula
---	---------

	💝 Parameter 🛛 😚 🖆			
Planning Function	ZPF_FI09_006	3PC: CashFlow Actual I	Months Accumulated Bal	ance
Aggregation Leve	ZAL_FI013	Cashflow - Accumulate	d	
Function Type	Formula	•		
that you want t	o create conditions for.			
	Li 1,	Co 1	Ln 1 - Ln 5 of 5 l	ines
		Co 1	Ln 1 - Ln 5 of 5 l	ines
Characteristic Usa	je			ines
InfoObject	ge Char.	Fields to be chang	Ln 1 - Ln 5 of 5 l	ines
InfoObject /ERP/CATEGORY	ge Char, Category			ines
InfoObject <mark>/ERP/CATEGORY</mark> /ERP/CHRTACCT	ge Char. Category Chart of Accounts	Fields to be chang		ines
InfoObject <mark>/ERP/CATEGORY</mark> /ERP/CHRTACCT /ERP/COMPCODE	ge Char, Category Chart of Accounts Company Code	Fields to be chang		ines
InfoObject <mark>/ERP/CATEGORY</mark> /ERP/CHRTACCT /ERP/COMPCODE DCURRENCY	ge Char. Category Chart of Accounts Company Code Currency Key	Fields to be chang		ines
InfoObject <mark>/ERP/CATEGORY</mark> /ERP/CHRTACCT /ERP/COMPCODE	char. Category Chart of Accounts Company Code Currency Key Posting period	Fields to be chang		ines
InfoObject /ERP/CATEGORY /ERP/CHRTACCT /ERP/COMPCODE DCURRENCY DFISCPER3	ge Char. Category Chart of Accounts Company Code Currency Key	Fields to be chang		ines
InfoObject /ERP/CATEGORY /ERP/CHRTACCT /ERP/COMPCODE DCURRENCY DFISCPER3 DFISCVARNT	char. Category Chart of Accounts Company Code Currency Key Posting period Fiscal year variant	Fields to be chang		ines
InfoObject /ERP/CATEGORY /ERP/CHRTACCT /ERP/COMPCODE 0CURRENCY 0FISCPER3 0FISCVARNT 0FISCYEAR	Char. Category Chart of Accounts Company Code Currency Key Posting period Fiscal year variant Fiscal year	Fields to be chang		ines
InfoObject /ERP/CATEGORY /ERP/CHRTACCT /ERP/COMPCODE 0CURRENCY 0FISCPER3 0FISCVARNT 0FISCYEAR 0INFOPROV	char. Category Chart of Accounts Company Code Currency Key Posting period Fiscal year Variant Fiscal year Inforbroider	Fields to be chang		ines
InfoObject /ERP/CATEGORY /ERP/CHRTACCT /ERP/COMPCODE OCURRENCY OFISCPER3 OFISCVARNT OFISCYEAR OINFOPROV OMANDT	pe Char. Category Chart of Accounts Company Code Currency Key Posting period Fiscal year variant Fiscal year InfoProvider Client (special Logic in Virtual Prov	Fields to be chang		ines

Figure 8.73: CashFlow Actual Months Accumulated Balance PF Details

*DATA PRESENTATIONS

DATA CURRENCY TYPE 'OCURRENCY'.
DATA ACC TYPE '/ERP/GL_ACCT'.
DATA ACC9 TYPE '/ERP/GL_ACCT'.
DATA CASHFLOWACC TYPE 'ZCASHACC'.
DATA DATASRC TYPE 'ZDATASRC'.
DATA CATEGORY TYPE '/ERP/CATEGORY'.
DATA INFOPROV TYPE '0INFOPROV'.
DATA COMPCODE TYPE '/ERP/COMPCODE'.
DATA MONTH TYPE 'OFISCPER3'.
DATA M_COUNT TYPE '0FISCPER3'.
DATA M_FCST TYPE 'OFISCPER3'.
DATA YEAR TYPE 'OFISCYEAR'.
DATA YEAR_AA TYPE 'OFISCYEAR'.
DATA YEAR_FCST TYPE 'OFISCYEAR'.
DATA KF TYPE KEYFIGURE_NAME.
DATA CF_VL TYPE F.
DATA OFFSET TYPE I.
*BREAK-POINT.

*TRANSPORTATION FROM CF ACTUAL FOR ACTUAL MONTHS TO CF ACC IN CashFlow Cube.
TRANSFORTATION TROM CI_ACTORETOR ACTORE MONTHS TO CI_ACCIN CASHFIDW CUDE.

```
*****
OFFSET = 1 - 2.
M COUNT = 000.
FOREACH CATEGORY, YEAR IN REFDATA.
IF NOT CATEGORY IS INITIAL AND NOT YEAR IS INITIAL.
 M_FCST = ATRV( 'OFISCPER3', CATEGORY ).
 YEAR_FCST = ATRV( 'OFISCYEAR', CATEGORY ).
 FOREACH CASHFLOWACC IN REFDATA.
  IF NOT CASHFLOWACC IS INITIAL.
   FOREACH COMPCODE IN REFDATA.
   FOREACH M COUNT IN REFDATA.
   IF M COUNT > M FCST.
    EXIT.
   ELSE.
    MONTH = M COUNT.
    { 'ZCASHTTL', CATEGORY, COMPCODE, M COUNT, YEAR, ZFI R05, 100, CASHFLOWACC,
CF ACC } =
    { 'ZCASHTTL', CATEGORY, COMPCODE, M_COUNT, YEAR, ZFI_R05, 100, CASHFLOWACC,
CF_ACC } +
    { 'ZCASHTTL', CATEGORY, COMPCODE, M_COUNT, YEAR, ZFI_R05, 100, CASHFLOWACC,
CF_ACTUAL }.
    M_COUNT = TMVL( M_COUNT, 1 ).
   ENDIF.
   ENDFOR.
   ENDFOR.
  ENDIF.
 ENDFOR.
ENDIF.
ENDFOR.
*****
```

Table 8.25: CashFlow Actual Months Accumulated Balance PF Fox Formula

Planning Function Aggregation Level Function Type - Which character (for example, fro - Mark these cha	ZAL_FI014 Copy eristic values do you want to c	[3PC: CashFlow Copy Final Cashflow - Final	to Adjusted Balance
- Which characti	Copy eristic values do you want to c	•	
- Which characti	eristic values do you want to c	•	
(for example, fro			
- If you want to	acteristic in this example) work with conditions, mark th to create conditions for.	i 1, Co 1	Ln 1 - Ln 6 of 6 lines
Characteristic Usa	ge		
InfoObject	Char.	Fields to be changed	Fields for Conditions
/ERP/CATEGORY			
		0	0
/ERP/CHRTACCT	Chart of Accounts	0	0
/ERP/CHRTACCT /ERP/COMPCODE	Chart of Accounts Company Code	0 0 0	0 0 0
/ERP/CHRTACCT /ERP/COMPCODE DCURRENCY	Chart of Accounts Company Code Currency Key	0 0 0	0 0 0 0
/ERP/CHRTACCT /ERP/COMPCODE DCURRENCY OFISCPER	Chart of Accounts Company Code Currency Key Fiscal year / period		
/ERP/CHRTACCT /ERP/COMPCODE DCURRENCY OFISCPER OFISCPER3	Chart of Accounts Company Code Currency Key Fiscal year / period Posting period		
/ERP/CHRTACCT /ERP/COMPCODE OCURRENCY OFISCPER OFISCPER3 OFISCVARNT	Chart of Accounts Company Code Currency Key Fiscal year / period Posting period Fiscal year variant		
/ERP/CHRTACCT /ERP/COMPCODE OCURRENCY OFISCPER OFISCPER3 OFISCVARNT OFISCYEAR	Chart of Accounts Company Code Currency Key Fiscal year / period Posting period Fiscal year variant Fiscal year		
/ERP/CHRTACCT /ERP/COMPCODE OCURRENCY OFISCPER OFISCPER3 OFISCVARNT OFISCYEAR OINFOPROV	Chart of Accounts Company Code Currency Key Fiscal year / period Posting period Fiscal year variant Fiscal year InfoProvider		
/ERP/CHRTACCT /ERP/COMPCODE OCURRENCY OFISCPER OFISCPER3 OFISCVARNT OFISCYEAR	Chart of Accounts Company Code Currency Key Fiscal year / period Posting period Fiscal year variant Fiscal year		

Figure 8.74: CashFlow Copy Final to Adjusted Balance PF Details



Figure 8.75: CashFlow Copy Final to Adjusted Balance PF Standard Copy Fox Formula

	🛛 🍣 Parameter 🛛 💖 🏭					
Planning Function	ZPF_FI11_001	3PC: PL->8	BS			
Aggregation Leve	ZAL_FI011	Balance - P	∕L->BS			
Function Type	Formula	-				
that you want t	work with conditions, mark to create conditions for.					
		Li 1, Co 1		Ln 1 - Ln 5 of 5	lines	
Characteristic Usa InfoObject	ge Char.		to be change	Ln 1 - Ln 5 of 5	lines	
	Char.		to be change		lines	
InfoObject /ERP/CATEGORY	Char.			ed Fields for Conditions	lines	
InfoObject <mark>/ERP/CATEGORY</mark> /ERP/CHRTACCT /ERP/COMPCODE	Char. Category Chart of Accounts Company Code		0	ed Fields for Conditions	lines	
InfoObject <mark>/ERP/CATEGORY</mark> /ERP/CHRTACCT	Char. Category Chart of Accounts Company Code		0	ed Fields for Conditions	lines	
InfoObject <mark>/ERP/CATEGORY</mark> /ERP/CHRTACCT /ERP/COMPCODE	Char. Category Chart of Accounts Company Code		0 0 0	ed Fields for Conditions	lines	
InfoObject <mark>/ERP/CATEGORY</mark> /ERP/CHRTACCT /ERP/COMPCODE /ERP/GL_ACCT	Char. Category Chart of Accounts Company Code G/L Account		0 0 0 0	ed Fields for Conditions	lines	
InfoObject /ERP/CATEGORY /ERP/CHRTACCT /ERP/COMPCODE /ERP/GL_ACCT 0CURRENCY 0FISCPER3 0FISCVARNT	Char. Category Chart of Accounts Company Code G/L Account Currency Key Posting period Fiscal year variant		0 0 0 0	ed Fields for Conditions	lines	
InfoObject /ERP/CATEGORY /ERP/CHRTACCT /ERP/COMPCODE /ERP/GL_ACCT DCURRENCY DFISCPER3	Char. Category Chart of Accounts Company Code G/L Account Currency Key Posting period Fiscal year variant Fiscal year		 • •<	ed Fields for Conditions	lines	
InfoObject /ERP/CATEGORY /ERP/CHRTACCT /ERP/COMPCODE /ERP/GL_ACCT 0CURRENCY 0FISCPER3 0FISCVARNT	Char. Category Chart of Accounts Company Code G/L Account Currency Key Posting period Fiscal year variant		 • •<	ed Fields for Conditions	lines	
InfoObject /ERP/CATEGORY /ERP/CHRTACCT /ERP/COMPCODE /ERP/GL_ACCT 0CURRENCY 0FISCPER3 0FISCVARNT 0FISCYEAR	Char. Category Chart of Accounts Company Code G/L Account Currency Key Posting period Fiscal year variant Fiscal year	Fields	 • •<	ed Fields for Conditions	Ines	
InfoObject /ERP/CATEGORY /ERP/CHRTACCT /ERP/COMPCODE /ERP/GL_ACCT 0CURRENCY 0FISCPER3 0FISCYEAR 0FISCYEAR 0INFOPROV	Char. Category Chart of Accounts Company Code G/L Account Currency Key Posting period Fiscal year variant Fiscal year InfeProvider	Fields	· · · · · · · · · · · · · · · · · · ·	ed Fields for Conditions	Ines	

Figure 8.76: PL->BS PF Details

DATA MONTH TYPE 'OFISCPER3'. DATA COMPCODE TYPE '/ERP/COMPCODE'. DATA ACC TYPE '/ERP/GL_ACCT'. DATA ACC_AUX TYPE '/ERP/GL_ACCT'. DATA BS_ACC TYPE 'ZGL_ACCT'. DATA DATASRC TYPE 'ZDATASRC'. DATA CURR TYPE 'OCURRENCY'.

*BREAK-POINT. FOREACH COMPCODE, ACC, MONTH.
{ '/ERP/AMOUNT', COMPCODE, ACC, EUR, MONTH, ZFI_R03, BS_PLAN, # } = 0. ENDFOR.
FOREACH COMPCODE, ACC, MONTH, DATASRC, CURR IN REFDATA. IF DATASRC <> 'BS_PLAN'. IF NOT CURR IS INITIAL.
* {'/ERP/AMOUNT', COMPCODE, ACC ,CURR,MONTH,ZFI_R03,BS_PLAN,#} = 0.
FOREACH BS_ACC IN REFDATA.
IF NOT BS_ACC IS INITIAL. ACC_AUX = BS_ACC.
{ '/ERP/AMOUNT', COMPCODE, ACC_AUX, CURR, MONTH, ZFI_R03, BS_PLAN, # } =
{ '/ERP/AMOUNT', COMPCODE, ACC_AUX, CURR, MONTH, ZFI_R03, BS_PLAN, # } +
({ '/ERP/AMOUNT', COMPCODE, ACC, CURR, MONTH, ZFI_R02, DATASRC, # } *
{ ZPERCBS, #, ACC, #, #, ZFI_R03, PL_BS, BS_ACC }).
ENDIF.
ENDFOR.
ENDIF.
ENDIF.
ENDFOR.

🗢 🔿 🗖 🏪	🗧 🌮 Parameter 🛛 😚 🖆				
Planning Function	ZPF_FI13_001	BPC: A	ccumulated Begir	ning Balance	
Aggregation Leve	ZAL_FI013	Cashflo	w - Accumulated		
Function Type	Сору	•			
- If you want to	acteristic in this example) work with conditions, mar o create conditions for.	k the characteris	itics		
		U.1. Ce 1		In 1 In 6 of 6 b	
		Li 1, Co 1		Ln 1 - Ln 6 of 6 li	nes
		Li 1, Co 1		Ln 1 - Ln 6 of 6 li	nes
Characteristic Usa					nes
InfoObject	Char.		lds to be change	Ln 1 - Ln 6 of 6 li	nes
InfoObject /ERP/CATEGORY	Char. Category		lds to be change		nes
InfoObject <mark>/ERP/CATEGORY</mark> /ERP/CHRTACCT	Char. Category Chart of Accounts		ids to be change		nes
InfoObject /ERP/CATEGORY /ERP/CHRTACCT /ERP/COMPCODE	Char. Category Chart of Accounts Company Code		lds to be change		nes
InfoObject /ERP/CATEGORY /ERP/CHRTACCT /ERP/COMPCODE DCURRENCY	Char. Category Chart of Accounts Company Code Currency Key		lds to be change		nes
InfoObject /ERP/CATEGORY /ERP/CHRTACCT /ERP/COMPCODE 0CURRENCY 0FISCPER3	Char. Category Chart of Accounts Company Code Currency Key Posting period		Ids to be change		nes
InfoObject /ERP/CATEGORY /ERP/CHRTACCT /ERP/COMPCODE DCURRENCY	Char. Category Chart of Accounts Company Code Currency Key		0 0 0		nes
InfoObject /ERP/CATEGORY /ERP/CHRTACCT /ERP/COMPCODE 0CURRENCY 0FISCPER3	Char. Category Chart of Accounts Company Code Currency Key Posting period		0 0 0		nes
InfoObject /ERP/CATEGORY /ERP/CHRTACCT /ERP/COMPCODE DCURRENCY OFISCPER3 OFISCVARNT	Char. Category Chart of Accounts Company Code Currency Key Posting period Piscal year variant		0 0 0		nes
InfoObject /ERP/CATEGORY /ERP/CHRTACCT /ERP/COMPCODE 0CURRENCY 0FISCPER3 0FISCVARNT 0FISCYEAR	Char. Category Chart of Accounts Company Code Currency Key Posting period Piscal year variant Fiscal year	Fie	0 0 0		nes
InfoObject /ERP/CATEGORY /ERP/CHRTACCT /ERP/COMPCODE DCURRENCY DFISCPER3 DFISCVARNT DFISCYEAR DINFOPROV	Char. Category Chart of Accounts Company Code Currency Key Posting period Fiscal year variant Fiscal year InfoProvider	Fie tual Provider)	0 0 0		195
InfoObject /ERP/CATEGORY /ERP/CHRTACCT /ERP/COMPCODE OCURENCY OFISCPER3 OFISCPARNT OFISCYARNT OFISCYEAR DINFOPROV OMANDT	Char. Category Chart of Accounts Company Code Currency Key Posting period Fiscal year variant Fiscal year InfoProvider Client (special Logic in Virt	Fie tual Provider)			nes

Figure 8.77: Accumulated Beginning Balance PF Details

Display Planning Function ZPF_FI13_001	
🗢 🔿 🗔 🎏 📽 Characteristic Usage 🛛 🦻 🖆	
Selection of key figures to be copied	
Oselect All Key Figures Oselect Individual Key Figures ZCASHTTL	Key Figures
Copy From - To	
From Details To Details (•, CF_ACTUAL) •, CF_ACC)	

Figure 8.78: Accumulated Beginning Balance PF Standard Copy Fox Formula

⇔ ⇔ 🗆 🐕	🗧 🍄 Parameter 🛛 😚 🆆			
Planning Function	ZPF_FI14_001	3PC: Cashflow Final Mo	nth Beginnings Calculation	
Aggregation Leve	ZAL_FI014	Cashflow - Final		
Function Type	Formula	¥		
that you want t	o create conditions for.			
		1.61	In 1 In E of Elines	
	u	i 1, Co 1	Ln 1 - Ln 5 of 5 lines	
		i 1, Co 1	Ln 1 - Ln 5 of 5 lines	
	ge			
InfoObject	ge Char.	Fields to be chang	Ln 1 - Ln 5 of 5 lines ed Fields for Conditions	
Characteristic Usa InfoObject /ERP/CATEGORY	ge Char. Category	Fields to be chang		
InfoObject <mark>/ERP/CATEGORY</mark> /ERP/CHRTACCT	ge Char. Category Chart of Accounts	Fields to be chang		
InfoObject <mark>/ERP/CATEGORY</mark> /ERP/CHRTACCT /ERP/COMPCODE	ge Char. Category Chart of Accounts Company Code	Fields to be chang		
InfoObject <mark>/ERP/CATEGORY</mark> /ERP/CHRTACCT /ERP/COMPCODE DCURRENCY	ge Char. Category Chart of Accounts Company Code Currency Key	Fields to be chang		
InfoObject /ERP/CATEGORY /ERP/CHRTACCT /ERP/COMPCODE DCURRENCY DFISCPER	ge Char. Category Chart of Accounts Company Code Currency Key Fiscal year / period	Fields to be chang		
InfoObject /ERP/CATEGORY /ERP/CHRTACCT /ERP/COMPCODE DCURRENCY DFISCPER DFISCPER3	ge (har. Category Chart of Accounts Company Code Currency Key Fiscal year / period Posting period	Fields to be chang	ed Fields for Conditions	
InfoObject /ERP/CATEGORY /ERP/CHRTACCT /ERP/COMPCODE 0CURRENCY 0FISCPER 0FISCPER3 0FISCVARNT	ge Char. Category Chart of Accounts Company Code Currency Key Fiscal year / period Posting period Fiscal year varient	Fields to be chang	ed Fields for Conditions	
InfoObject (ERP/CATEGORY /ERP/CHRTACCT /ERP/COMPCODE DCURRENCY DFISCPER DFISCPER3 DFISCVARNT DFISCYEAR	ge Char. Category Chart of Accounts Company Code Currency Key Fiscal year / period Posting period Fiscal year variant Fiscal year	Fields to be chang	ed Fields for Conditions	
InfoObject /ERP/CATEGORY /ERP/COMPCODE OCURRENCY OFISCPER OFISCPER3 OFISCVER3 OFISCVARNT OFISCYEAR OINFOPROV	ge Char. Category Chart of Accounts Company Code Currency Key Fiscal year / period Posting period Fiscal year variant Fiscal year Encal year InfoProvider	Fields to be chang	ed Fields for Conditions	
InfoObject /ERP/CATEGORY /ERP/CHRTACCT /ERP/COMPCODE 0CURRENCY 0FISCPER 0FISCPER3 0FISCVARNT 0FISCYEAR	ge Char. Category Chart of Accounts Company Code Currency Key Fiscal year / period Posting period Fiscal year variant Fiscal year	Fields to be chang	ed Fields for Conditions	

Figure 8.79: CashFlow Final Month Beginnings Calculation PF Details

*DATA PRESENTATIONS

DATA CURRENCY TYPE 'OCURRENCY'.
DATA ACC TYPE '/ERP/GL_ACCT'.
DATA CASHFLOWACC TYPE 'ZCASHACC'.
DATA DATASRC TYPE 'ZDATASRC'.
DATA CATEGORY TYPE '/ERP/CATEGORY'.
DATA INFOPROV TYPE '0INFOPROV'.
DATA COMPCODE TYPE '/ERP/COMPCODE'.
DATA MONTH TYPE 'OFISCPER3'.
DATA M_COUNT TYPE '0FISCPER3'.
DATA FISCPER_COUNT TYPE 'OFISCPER'.
DATA FISCPER_MONTH TYPE 'OFISCPER'.
DATA YEAR TYPE 'OFISCYEAR'.
DATA CLIENT TYPE 'OMANDT'.
DATA CHART TYPE '/ERP/CHRTACCT'.
DATA KF TYPE KEYFIGURE_NAME.
DATA CF1000F TYPE F.
DATA CF6000F TYPE F.
BREAK-POINT.

```
*****
*CLEARING TARGET SOURCE TO AVOID DUPLICATION.
*******
FOREACH CATEGORY, COMPCODE, CASHFLOWACC, MONTH, FISCPER MONTH, YEAR IN REFDATA.
{ 'ZCASHTTL', CATEGORY, CCOA, COMPCODE, EUR, FISCPER_MONTH, MONTH, YEAR, ZFI_R05,
100, C 1000, CF FINAL } = 0.
ENDFOR.
          *****
*****
*TRANSPORTATION FROM CF_ACTUAL FOR ACTUAL MONTHS TO CF_ACC IN CashFlow Cube.
  *****
FOREACH CATEGORY, COMPCODE, YEAR IN REFDATA.
IF NOT YEAR IS INITIAL AND NOT COMPCODE IS INITIAL.
 FOREACH M COUNT, FISCPER COUNT IN REFDATA.
  FOREACH MONTH, FISCPER MONTH IN REFDATA.
 FOREACH M COUNT IN REFDATA.
  CF1000F = { 'ZCASHTTL', CATEGORY, CCOA, COMPCODE, EUR, FISCPER, MONTH, YEAR,
ZFI R05, 100, C 1000, CF FINAL }.
  CF6000F = { 'ZCASHTTL', CATEGORY, CCOA, COMPCODE, EUR, FISCPER, M COUNT, YEAR,
ZFI_R05, 100, C_6000, CF_FINAL }.
M COUNT = 000.
*
   DO.
   IF M COUNT >= 011.
   EXIT.
   ELSE.
   MONTH = TMVL( M COUNT, 1 ).
   FISCPER MONTH = TMVL( FISCPER COUNT, 1).
   { 'ZCASHTTL', CATEGORY, CCOA, COMPCODE, EUR, FISCPER_MONTH, MONTH, YEAR,
ZFI R05, 100, C 1000, CF FINAL } =
   { 'ZCASHTTL', CATEGORY, CCOA, COMPCODE, EUR, FISCPER_COUNT, M_COUNT, YEAR,
ZFI_R05, 100, C_6000, CF_FINAL }.
   M COUNT = TMVL(M COUNT, 1).
   ENDIF.
   ENDDO.
  ENDFOR.
*****
```

<pre>* { 'ZCASHTTL', CATEGORY, CCOA, COMPCODE, EUR, FISCPER, MONTH, YEAR, ZFI_R05, 100, C_1000, CF_FINAL } = CF1000F.</pre>
* ENDFOR.
ENDFOR.
ENDIF.
ENDFOR.

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Table 8.27: CashFlow Final Month Beginnings Calculation PF Fox Formula

	💝 Parameter 🛛 😚 🖆			
Planning Function	ZPF_FI14_002	PC: Cashflow Final Cal	culations	
Aggregation Leve	I ZAL_FI014 C	ashflow - Final		
Function Type	Formula]		
- If you want to	rands) aracteristics as 'to be changed'. work with conditions, mark the char. o create conditions for.	acteristics		
	Li 1, Co	1	Ln 1 - Ln 5 of 5 lines	
	Li 1, Co	1	Ln 1 - Ln 5 of 5 lines	
Characteristic Usa		1	Ln 1 - Ln 5 of 5 lines	
Characteristic Usa InfoObject			Ln 1 - Ln 5 of 5 lines	
	ge Char.			
InfoObject /ERP/CATEGORY	ge Char.	Fields to be change		
InfoObject /ERP/CATEGORY	ge Char. Category Chart of Accounts	Fields to be chang		
InfoObject <mark>/ERP/CATEGORY</mark> /ERP/CHRTACCT	ge Char. Category Chart of Accounts	Fields to be chang		
InfoObject /ERP/CATEGORY /ERP/CHRTACCT /ERP/COMPCODE	ge Char. Category Chart of Accounts Company Code	Fields to be chang		
InfoObject /ERP/CATEGORY /ERP/CHRTACCT /ERP/COMPCODE 0CURRENCY	ge Char. Category Chart of Accounts Company Code Currency Key	Fields to be chang		
InfoObject /ERP/CATEGORY /ERP/CHRTACCT /ERP/COMPCODE 0CURRENCY 0FISCPER	ge Char. Category Chart of Accounts Company Code Currency Key Fiscal year / period	Fields to be chang		
InfoObject /ERP/CATEGORY /ERP/CHRTACCT /ERP/COMPCODE 0CURRENCY 0FISCPER 0FISCPER3	ge Char. Category Chart of Accounts Company Code Currency Key Fiscal year / period Posting period	Fields to be chang		
InfoObject /ERP/CATEGORY /ERP/CHRTACCT /ERP/COMPCODE 0CURRENCY 0FISCPER 0FISCPER3 0FISCVARNT	char. Category Chart of Accounts Company Code Currency Key Fiscal year / period Posting period Fiscal year variant	Fields to be chang		
InfoObject /ERP/CATEGORY /ERP/CHRTACCT /ERP/COMPCODE 0CURRENCY 0FISCPER 0FISCPER3 0FISCVARNT 0FISCYEAR	char. Category Chart of Accounts Company Code Currency Key Fiscal year / period Posting period Fiscal year variant Fiscal year	Fields to be chang		
InfoObject /ERP/CATEGORY /ERP/CHRTACCT /ERP/COMPCODE OCURRENCY OFISCPER OFISCPER3 OFISCPER3 OFISCVARNT OFISCVARNT OFISCYEAR OINFOPROV	ge Char. Category Chart of Accounts Company Code Currency Key Fiscal year / period Posting period Posting period Fiscal year variant Fiscal year InfoProvider	Fields to be chang		

Figure 8.80: CashFlow Final Calculations PF Details

*DATA PRESENTATIONS

DATA CURRENCY TYPE 'OCURRENCY'.
DATA ACC TYPE '/ERP/GL_ACCT'.
DATA CASHFLOWACC TYPE 'ZCASHACC'.
DATA DATASRC TYPE 'ZDATASRC'.
DATA CATEGORY TYPE '/ERP/CATEGORY'.
DATA INFOPROV TYPE '0INFOPROV'.
DATA COMPCODE TYPE '/ERP/COMPCODE'.
DATA MONTH TYPE 'OFISCPER3'.
DATA M_COUNT TYPE '0FISCPER3'.
DATA MONTHPLUS TYPE 'OFISCPER3'.
DATA FISCPER_COUNT TYPE 'OFISCPER'.
DATA FISCPER_PLUS TYPE 'OFISCPER'.
DATA FISCPER TYPE 'OFISCPER'.

DATA YEAR TYPE 'OFISCYEAR'.
DATA CLIENT TYPE 'OMANDT'.
DATA CHART TYPE '/ERP/CHRTACCT'.
DATA KF TYPE KEYFIGURE_NAME.
DATA CF2001A TYPE F.
DATA CF2002A TYPE F.
DATA CF2003A TYPE F.
DATA CF2004A TYPE F.
DATA CF2005A TYPE F.
DATA CF3000A TYPE F.
DATA CF3001A TYPE F.
DATA CF3002A TYPE F.
DATA CF3003A TYPE F.
DATA CF3004A TYPE F.
DATA CF3005A TYPE F.
DATA CF3006A TYPE F.
DATA CF3007A TYPE F.
DATA CF3008A TYPE F.
DATA CF4000A TYPE F.
DATA CF1000F TYPE F.
DATA CF2001F TYPE F.
DATA CF2002F TYPE F.
DATA CF2003F TYPE F.
DATA CF2004F TYPE F.
DATA CF2005F TYPE F.
DATA CF3000F TYPE F.
DATA CF3001F TYPE F.
DATA CF3002F TYPE F.
DATA CF3003F TYPE F.
DATA CF3004F TYPE F.
DATA CF3005F TYPE F.
DATA CF3006F TYPE F.
DATA CF3007F TYPE F.
DATA CF3008F TYPE F.
DATA CF4000F TYPE F.
DATA CF5000F TYPE F.
DATA CF6000F TYPE F.
DATA ACCPDAYS TYPE F.
DATA ACCRDAYS TYPE F.
DATA ASMONTHS TYPE F.
DATA ASMONTHSTOTAL TYPE F.
*BREAK-POINT.

*CLEARING TARGET SOURCE TO AVOID DUPLICATION.

FOREACH CATEGORY, COMPCODE, CURRENCY, CASHFLOWACC, FISCPER, MONTH, YEAR, INFOPROV, DATASRC, CLIENT IN REFDATA. { 'ZCASHTTL', CATEGORY, CCOA, COMPCODE, CURRENCY, FISCPER, MONTH, YEAR, ZFI R05, 100, CASHFLOWACC, CF FINAL } = 0. ENDFOR. ***** *TRANSPORTATION FROM CF ACTUAL FOR ACTUAL MONTHS TO CF ACC IN CashFlow Cube. ********* FOREACH CATEGORY, COMPCODE, MONTH, FISCPER, YEAR IN REFDATA. IF NOT YEAR IS INITIAL AND NOT MONTH IS INITIAL AND NOT COMPCODE IS INITIAL. FOREACH M COUNT, FISCPER COUNT IN REFDATA. CF1000F = { 'ZCASHTTL', CATEGORY, CCOA, COMPCODE, EUR, FISCPER, MONTH, YEAR, ZFI R05, 100, C 1000, CF FINAL }. CF2001A = { 'ZCASHTTL', CATEGORY, CCOA, COMPCODE, EUR, FISCPER, MONTH, YEAR, ZFI_R05, 100, C 2001, CF ACC }. CF2002A = { 'ZCASHTTL', CATEGORY, CCOA, COMPCODE, EUR, FISCPER, MONTH, YEAR, ZFI R05, 100, C 2002, CF ACC }. CF2003A = { 'ZCASHTTL', CATEGORY, CCOA, COMPCODE, EUR, FISCPER, MONTH, YEAR, ZFI_R05, 100, C 2003, CF ACC }. CF2004A = { 'ZCASHTTL', CATEGORY, CCOA, COMPCODE, EUR, FISCPER, MONTH, YEAR, ZFI R05, 100, C 2004, CF ACC }. CF2005A = { 'ZCASHTTL', CATEGORY, CCOA, COMPCODE, EUR, FISCPER, MONTH, YEAR, ZFI R05, 100, C 2005, CF ACC }. CF3001A = { 'ZCASHTTL', CATEGORY, CCOA, COMPCODE, EUR, FISCPER, MONTH, YEAR, ZFI R05, 100, C_3001, CF_ACC }. CF3002A = { 'ZCASHTTL', CATEGORY, CCOA, COMPCODE, EUR, FISCPER, MONTH, YEAR, ZFI_R05, 100, C 3002, CF ACC }. CF3003A = { 'ZCASHTTL', CATEGORY, CCOA, COMPCODE, EUR, FISCPER, MONTH, YEAR, ZFI R05, 100, C 3003, CF ACC }. CF3004A = { 'ZCASHTTL', CATEGORY, CCOA, COMPCODE, EUR, FISCPER, MONTH, YEAR, ZFI R05, 100, C 3004, CF ACC }. CF3005A = { 'ZCASHTTL', CATEGORY, CCOA, COMPCODE, EUR, FISCPER, MONTH, YEAR, ZFI R05, 100, C 3005, CF ACC }. CF3006A = { 'ZCASHTTL', CATEGORY, CCOA, COMPCODE, EUR, FISCPER, MONTH, YEAR, ZFI R05, 100, C 3006, CF ACC }. CF3007A = { 'ZCASHTTL', CATEGORY, CCOA, COMPCODE, EUR, FISCPER, MONTH, YEAR, ZFI_R05, 100, C 3007, CF ACC }. CF4000A = { 'ZCASHTTL', CATEGORY, CCOA, COMPCODE, EUR, FISCPER, MONTH, YEAR, ZFI R05, 100, C_4000, CF_ACC }. CF2001F = { 'ZCASHTTL', CATEGORY, CCOA, COMPCODE, EUR, FISCPER, MONTH, YEAR, ZFI R05, 100, C 2001, CF FINAL }. CF2002F = { 'ZCASHTTL', CATEGORY, CCOA, COMPCODE, EUR, FISCPER, MONTH, YEAR, ZFI R05, 100, C 2002, CF FINAL }. CF2003F = { 'ZCASHTTL', CATEGORY, CCOA, COMPCODE, EUR, FISCPER, MONTH, YEAR, ZFI R05, 100, C 2003, CF FINAL }.

CF2004F = { 'ZCASHTTL', CATEGORY, CCOA, COMPCODE, EUR, FISCPER, MONTH, YEAR, ZFI_R05,
100, C_2004, CF_FINAL }.
CF2005F = { 'ZCASHTTL', CATEGORY, CCOA, COMPCODE, EUR, FISCPER, MONTH, YEAR, ZFI_R05,
100, C_2005, CF_FINAL }.
CF3001F = { 'ZCASHTTL', CATEGORY, CCOA, COMPCODE, EUR, FISCPER, MONTH, YEAR, ZFI_R05,
100, C_3001, CF_FINAL }.
CF3002F = { 'ZCASHTTL', CATEGORY, CCOA, COMPCODE, EUR, FISCPER, MONTH, YEAR, ZFI_R05,
100, C 3002, CF FINAL }.
CF3003F = { 'ZCASHTTL', CATEGORY, CCOA, COMPCODE, EUR, FISCPER, MONTH, YEAR, ZFI_R05,
100, C_3003, CF_FINAL }.
CF3004F = { 'ZCASHTTL', CATEGORY, CCOA, COMPCODE, EUR, FISCPER, MONTH, YEAR, ZFI_R05,
100, C_3004, CF_FINAL }.
CF3005F = { 'ZCASHTTL', CATEGORY, CCOA, COMPCODE, EUR, FISCPER, MONTH, YEAR, ZFI_R05,
100, C_3005, CF_FINAL }.
CF3006F = { 'ZCASHTTL', CATEGORY, CCOA, COMPCODE, EUR, FISCPER, MONTH, YEAR, ZFI_R05,
100, C_3006, CF_FINAL }.
CF3007F = { 'ZCASHTTL', CATEGORY, CCOA, COMPCODE, EUR, FISCPER, MONTH, YEAR, ZFI_R05,
100, C 3007, CF FINAL }.
CF4000F = { 'ZCASHTTL', CATEGORY, CCOA, COMPCODE, EUR, FISCPER, MONTH, YEAR, ZFI_R05,
100, C_4000, CF_FINAL }.
CF5000F = { 'ZCASHTTL', CATEGORY, CCOA, COMPCODE, EUR, FISCPER, MONTH, YEAR, ZFI_R05,
100, C 5000, CF FINAL }.
CF6000F = { 'ZCASHTTL', CATEGORY, CCOA, COMPCODE, EUR, FISCPER, MONTH, YEAR, ZFI_R05,
100, C_6000, CF_FINAL }.
ACCPDAYS = { 'ZASSUMP', CATEGORY, #, COMPCODE, #, #, #, YEAR, ZFI_R03, 100, #,
ACC_P_DAYS }.
ACCRDAYS = { 'ZASSUMP', CATEGORY, #, COMPCODE, #, #, #, YEAR, ZFI_R03, 100, #,
ACC_R_DAYS }.
ASMONTHS = { 'ZASSUMP', CATEGORY, #, COMPCODE, #, FISCPER, MONTH, YEAR, ZFI_R03, 100,
#, SAL_INSTAL }.
ASMONTHSTOTAL = { 'ZASSUMP', CATEGORY, #, COMPCODE, #, #, #, YEAR, ZFI_R03, 100, #,
SAL_INSTAL }.

CF2001F = (CF2001A / (ACCRDAYS * 30)).
CF2002F = CF2002A.
CF2003F = CF2003A.
CF2004F = CF2004A.
CF2005F = CF2005A.
CF3001F = (CF3001A / (ACCRDAYS * 30)).
CF3002F = CF3002A.
CF3003F = (CF3003A / (ASMONTHS * ASMONTHSTOTAL)).
CF3004F = (CF3004A / (ASMONTHS * ASMONTHSTOTAL)).
CF3005F = CF3005A.
CF3006F = CF3006A.
CF3007F = CF3007A.
CF4000F = (CF1000F + CF2001F + CF2002F + CF2003F + CF2004F + CF2005F +
CF3001F + CF3002F + CF3003F + CF3004F + CF3005F + CF3006F + CF3007F).
CF6000F = CF4000F + CF5000F.
IF M_COUNT > 011.

51.05
ELSE.
MONTHPLUS = TMVL(M_COUNT, 1).
FISCPER_PLUS = TMVL(FISCPER_COUNT, 1).
{ 'ZCASHTTL', CATEGORY, CCOA, COMPCODE, EUR, FISCPER_PLUS, MONTHPLUS, YEAR,
ZFI_R05, 100, C_1000, CF_FINAL } =
{ 'ZCASHTTL', CATEGORY, CCOA, COMPCODE, EUR, FISCPER_COUNT, M_COUNT, YEAR,
ZFI_R05, 100, C_6000, CF_FINAL }.
M_COUNT = TMVL(M_COUNT, 1).
ENDIF.

{ 'ZCASHTTL', CATEGORY, CCOA, COMPCODE, EUR, FISCPER, MONTH, YEAR, ZFI_R05, 100,
$C_{2001}, CF_{FINAL} = CF2001F.$
{ 'ZCASHTTL', CATEGORY, CCOA, COMPCODE, EUR, FISCPER, MONTH, YEAR, ZFI_R05, 100,
C 2002, CF FINAL } = CF2002F.
{ 'ZCASHTTL', CATEGORY, CCOA, COMPCODE, EUR, FISCPER, MONTH, YEAR, ZFI_R05, 100,
C_2003, CF_FINAL } = CF2003F.
{ 'ZCASHTTL', CATEGORY, CCOA, COMPCODE, EUR, FISCPER, MONTH, YEAR, ZFI_R05, 100,
C_2004, CF_FINAL } = CF2004F.
{ 'ZCASHTTL', CATEGORY, CCOA, COMPCODE, EUR, FISCPER, MONTH, YEAR, ZFI_R05, 100,
C_2005, CF_FINAL } = CF2005F.
{ 'ZCASHTTL', CATEGORY, CCOA, COMPCODE, EUR, FISCPER, MONTH, YEAR, ZFI_R05, 100,
C_3001, CF_FINAL } = CF3001F.
{ 'ZCASHTTL', CATEGORY, CCOA, COMPCODE, EUR, FISCPER, MONTH, YEAR, ZFI_R05, 100,
C_3002, CF_FINAL } = CF3002F.
{ 'ZCASHTTL', CATEGORY, CCOA, COMPCODE, EUR, FISCPER, MONTH, YEAR, ZFI_R05, 100,
C_3003, CF_FINAL } = CF3003F.
{ 'ZCASHTTL', CATEGORY, CCOA, COMPCODE, EUR, FISCPER, MONTH, YEAR, ZFI_R05, 100,
C_3004, CF_FINAL } = CF3004F.
{ 'ZCASHTTL', CATEGORY, CCOA, COMPCODE, EUR, FISCPER, MONTH, YEAR, ZFI_R05, 100,
C_3005, CF_FINAL } = CF3005F.
{ 'ZCASHTTL', CATEGORY, CCOA, COMPCODE, EUR, FISCPER, MONTH, YEAR, ZFI_R05, 100,
C_3006, CF_FINAL } = CF3006F.
{ 'ZCASHTTL', CATEGORY, CCOA, COMPCODE, EUR, FISCPER, MONTH, YEAR, ZFI_R05, 100, C 3007, CF FINAL } = CF3007F.
{ 'ZCASHTTL', CATEGORY, CCOA, COMPCODE, EUR, FISCPER, MONTH, YEAR, ZFI_R05, 100,
$C 4000, CF FINAL \} = CF4000F.$
{ 'ZCASHTTL', CATEGORY, CCOA, COMPCODE, EUR, FISCPER, MONTH, YEAR, ZFI_R05, 100,
C 5000, CF FINAL $\}$ = CF5000F.
{ 'ZCASHTTL', CATEGORY, CCOA, COMPCODE, EUR, FISCPER, MONTH, YEAR, ZFI_R05, 100,
C_6000, CF_FINAL } = CF6000F.
ENDFOR.
ENDIF.
ENDFOR.

Table 8.28: CashElow Final Calculations DE Fox Formula

Table 8.28: CashFlow Final Calculations PF Fox Formula

ZPS_FI09_002	BPC: Cash Flow Adjusted Calculations	ZAL_FI014 Cashflow - Final	ZF_FI_29 BPC: Cashflow Adjusted Final Calculations	ZPF_F114_003 BPC: Cashflow Adjusted Final Calculations

Table 8.29: Cash Flow Adjusted Calculations PS

Planning Function	ZPF FI14 003	PC: Cashflow Adjuste	d Final Calculations		
		-	u Filia Calculations		
Aggregation Leve		ashflow - Final			
Function Type	Formula				
	o create conditions for.				
	Li 1, Co	1	Ln 1 - Ln 5 of 5 l	ines	
	Li 1, Co	1	Ln 1 - Ln 5 of 5 l	ines	
Characteristic Usa		1	Ln 1 - Ln 5 of 5 l	ines	
Characteristic Usa InfoObject			Ln 1 - Ln 5 of 5 l	ines	
	ge Char.			ines	
InfoObject /ERP/CATEGORY	ge Char.	Fields to be chang		ines	
InfoObject /ERP/CATEGORY	ge Char. Category Chart of Accounts	Fields to be chang		ines	
InfoObject <mark>/ERP/CATEGORY</mark> /ERP/CHRTACCT	ge Char. Category Chart of Accounts	Fields to be chang •		ines	
InfoObject <mark>/ERP/CATEGORY</mark> /ERP/CHRTACCT /ERP/COMPCODE	ge (Char, Category Chart of Accounts Company Code	Fields to be chang • • •		ines	
InfoObject <mark>/ERP/CATEGORY</mark> /ERP/CHRTACCT /ERP/COMPCODE DCURRENCY	ge Char. Category Chart of Accounts Company Code Currency Key Fiscal year / period Posting period	Fields to be chang		ines	
InfoObject /ERP/CATEGORY /ERP/CHRTACCT /ERP/COMPCODE 0CURRENCY 0FISCPER	char. Category Chart of Accounts Company Code Currency Key Fiscal year / period Posting period Fiscal year variant	Fields to be change		ines	
InfoObject /ERP/CATEGORY /ERP/CHRTACCT /ERP/COMPCODE 0CURRENCY 0FISCPER 0FISCPER3	ge Char. Category Chart of Accounts Company Code Currency Key Fiscal year / period Posting period	Fields to be chang		ines	
InfoObject /ERP/CATEGORY /ERP/CHRTACCT /ERP/COMPCODE 0CURRENCY 0FISCPER 0FISCPER3 0FISCVARNT	char. Category Chart of Accounts Company Code Currency Key Fiscal year / period Posting period Fiscal year variant	Fields to be chang	ed Fields for Conditions	ines	
InfoObject /ERP/CATEGORY /ERP/CHRTACCT /ERP/COMPCODE 0CURRENCY 0FISCPER 0FISCPER3 0FISCVARNT 0FISCVEAR	ge Char. Category Chart of Accounts Company Code Currency Key Fiscal year / period Posting period Fiscal year variant Fiscal year InfoProvider Client (special Logic in Virtual Provide	Fields to be chang	ed Fields for Conditions	ines	
InfoObject /ERP/CATEGORY /ERP/CHRTACCT /ERP/COMPCODE OCURRENCY OFISCPER OFISCPER3 OFISCPER3 OFISCVARNT OFISCYEAR DINFOPROV	ge (har. Category Chart of Accounts Company Code Currency Key Fiscal year / period Posting period Piscal year variant Fiscal year InfoProvider	Fields to be chang	ed Fields for Conditions	ines	

Figure 8.81: CashFlow Adjusted Calculations PF Details

*DATA PRESENTATIONS

DATA CURRENCY TYPE 'OCURRENCY'.
DATA ACC TYPE '/ERP/GL_ACCT'.
DATA CASHFLOWACC TYPE 'ZCASHACC'.
DATA DATASRC TYPE 'ZDATASRC'.
DATA CATEGORY TYPE '/ERP/CATEGORY'.
DATA INFOPROV TYPE '0INFOPROV'.
DATA COMPCODE TYPE '/ERP/COMPCODE'.
DATA MONTH TYPE 'OFISCPER3'.
DATA M_COUNT TYPE 'OFISCPER3'.
DATA MONTHPLUS TYPE 'OFISCPER3'.
DATA FISCPER_COUNT TYPE 'OFISCPER'.
DATA FISCPER_PLUS TYPE 'OFISCPER'.
DATA FISCPER TYPE 'OFISCPER'.
DATA YEAR TYPE 'OFISCYEAR'.
DATA CLIENT TYPE 'OMANDT'.
DATA CHART TYPE '/ERP/CHRTACCT'.
DATA KF TYPE KEYFIGURE_NAME.
DATA CF2001A TYPE F.
DATA CF2002A TYPE F.
DATA CF2003A TYPE F.
DATA CF2004A TYPE F.
DATA CF2005A TYPE F.

DATA CF3000A TYPE F.
DATA CF3001A TYPE F.
DATA CF3002A TYPE F.
DATA CF3003A TYPE F.
DATA CF3004A TYPE F.
DATA CF3005A TYPE F.
DATA CF3006A TYPE F.
DATA CF3007A TYPE F.
DATA CF3008A TYPE F.
DATA CI SOURATTI ET: DATA CF4000A TYPE F.
DATA CE1000F TYPE F.
DATA CE1000F TYPE F.
DATA CF2001F TYPE F.
DATA CF2005F TYPE F.
DATA CF3000F TYPE F.
DATA CF3001F TYPE F.
DATA CF3002F TYPE F.
DATA CF3003F TYPE F.
DATA CF3004F TYPE F.
DATA CF3005F TYPE F.
DATA CF3006F TYPE F.
DATA CF3007F TYPE F.
DATA CF3008F TYPE F.
DATA CF4000F TYPE F.
DATA CF5000F TYPE F.
DATA CF6000F TYPE F.
DATA ACCPDAYS TYPE F.
DATA ACCRDAYS TYPE F.
DATA ASMONTHS TYPE F.
DATA ASMONTHSTOTAL TYPE F.
*BREAK-POINT.

*CLEARING TARGET SOURCE TO AVOID DUPLICATION.

*FOREACH CATEGORY, COMPCODE, CURRENCY, CASHFLOWACC, FISCPER, MONTH , YEAR,
INFOPROV, DATASRC, CLIENT IN REFDATA.
* { 'ZCASHTTL', CATEGORY, CCOA, COMPCODE, CURRENCY, FISCPER, MONTH, YEAR, ZFI_R05, 100,
CASHFLOWACC, CF_ADJUST } = 0.
*ENDFOR.

***** *TRANSPORTATION FROM CF ACTUAL FOR ACTUAL MONTHS TO CF ACC IN CashFlow Cube. ****** **** FOREACH CATEGORY, COMPCODE, MONTH, FISCPER, YEAR, DATASRC. * IN REFDATA. IF NOT YEAR IS INITIAL AND NOT MONTH IS INITIAL AND NOT COMPCODE IS INITIAL. FOREACH M COUNT, FISCPER COUNT IN REFDATA. CF1000F = { 'ZCASHTTL', CATEGORY, CCOA, COMPCODE, EUR, FISCPER, MONTH, YEAR, ZFI R05, 100, C 1000, DATASRC }. CF2001A = { 'ZCASHTTL', CATEGORY, CCOA, COMPCODE, EUR, FISCPER, MONTH, YEAR, ZFI R05, 100, C 2001, CF ACC }. CF2002A = { 'ZCASHTTL', CATEGORY, CCOA, COMPCODE, EUR, FISCPER, MONTH, YEAR, ZFI R05, 100, C 2002, CF ACC }. CF2003A = { 'ZCASHTTL', CATEGORY, CCOA, COMPCODE, EUR, FISCPER, MONTH, YEAR, ZFI R05, 100, C 2003, CF ACC }. CF2004A = { 'ZCASHTTL', CATEGORY, CCOA, COMPCODE, EUR, FISCPER, MONTH, YEAR, ZFI R05, 100, C 2004, CF ACC }. CF2005A = { 'ZCASHTTL', CATEGORY, CCOA, COMPCODE, EUR, FISCPER, MONTH, YEAR, ZFI R05, 100, C 2005, CF ACC }. CF3001A = { 'ZCASHTTL', CATEGORY, CCOA, COMPCODE, EUR, FISCPER, MONTH, YEAR, ZFI_R05, 100, C_3001, CF_ACC }. CF3002A = { 'ZCASHTTL', CATEGORY, CCOA, COMPCODE, EUR, FISCPER, MONTH, YEAR, ZFI R05, 100, C 3002, CF ACC }. CF3003A = { 'ZCASHTTL', CATEGORY, CCOA, COMPCODE, EUR, FISCPER, MONTH, YEAR, ZFI R05, 100, C 3003, CF ACC }. CF3004A = { 'ZCASHTTL', CATEGORY, CCOA, COMPCODE, EUR, FISCPER, MONTH, YEAR, ZFI R05, 100, C 3004, CF ACC }. CF3005A = { 'ZCASHTTL', CATEGORY, CCOA, COMPCODE, EUR, FISCPER, MONTH, YEAR, ZFI_R05, 100, C_3005, CF_ACC }. CF3006A = { 'ZCASHTTL', CATEGORY, CCOA, COMPCODE, EUR, FISCPER, MONTH, YEAR, ZFI R05, 100, C 3006, CF ACC }. CF3007A = { 'ZCASHTTL', CATEGORY, CCOA, COMPCODE, EUR, FISCPER, MONTH, YEAR, ZFI R05, 100, C 3007, CF ACC }. CF4000A = { 'ZCASHTTL', CATEGORY, CCOA, COMPCODE, EUR, FISCPER, MONTH, YEAR, ZFI R05, 100, C 4000, CF ACC }. CF2001F = { 'ZCASHTTL', CATEGORY, CCOA, COMPCODE, EUR, FISCPER, MONTH, YEAR, ZFI R05, 100, C 2001, CF ADJUST }. CF2002F = { 'ZCASHTTL', CATEGORY, CCOA, COMPCODE, EUR, FISCPER, MONTH, YEAR, ZFI R05, 100, C 2002, CF ADJUST }. CF2003F = { 'ZCASHTTL', CATEGORY, CCOA, COMPCODE, EUR, FISCPER, MONTH, YEAR, ZFI_R05, 100, C 2003, CF ADJUST }. CF2004F = { 'ZCASHTTL', CATEGORY, CCOA, COMPCODE, EUR, FISCPER, MONTH, YEAR, ZFI_R05, 100, C_2004, CF_ADJUST }. CF2005F = { 'ZCASHTTL', CATEGORY, CCOA, COMPCODE, EUR, FISCPER, MONTH, YEAR, ZFI R05, 100, C 2005, CF ADJUST }. CF3001F = { 'ZCASHTTL', CATEGORY, CCOA, COMPCODE, EUR, FISCPER, MONTH, YEAR, ZFI R05, 100, C 3001, CF ADJUST }. CF3002F = { 'ZCASHTTL', CATEGORY, CCOA, COMPCODE, EUR, FISCPER, MONTH, YEAR, ZFI R05, 100, C 3002, CF ADJUST }.

```
CF3003F = { 'ZCASHTTL', CATEGORY, CCOA, COMPCODE, EUR, FISCPER, MONTH, YEAR, ZFI R05,
100, C 3003, CF ADJUST }.
   CF3004F = { 'ZCASHTTL', CATEGORY, CCOA, COMPCODE, EUR, FISCPER, MONTH, YEAR, ZFI R05,
100, C 3004, CF ADJUST }.
   CF3005F = { 'ZCASHTTL', CATEGORY, CCOA, COMPCODE, EUR, FISCPER, MONTH, YEAR, ZFI R05,
100, C 3005, CF ADJUST }.
   CF3006F = { 'ZCASHTTL', CATEGORY, CCOA, COMPCODE, EUR, FISCPER, MONTH, YEAR, ZFI_R05,
100, C 3006, CF ADJUST }.
   CF3007F = { 'ZCASHTTL', CATEGORY, CCOA, COMPCODE, EUR, FISCPER, MONTH, YEAR, ZFI R05,
100, C 3007, CF ADJUST }.
   CF4000F = { 'ZCASHTTL', CATEGORY, CCOA, COMPCODE, EUR, FISCPER, MONTH, YEAR, ZFI_R05,
100, C 4000, CF ADJUST }.
   CF5000F = { 'ZCASHTTL', CATEGORY, CCOA, COMPCODE, EUR, FISCPER, MONTH, YEAR, ZFI R05,
100, C 5000, CF ADJUST }.
   CF6000F = { 'ZCASHTTL', CATEGORY, CCOA, COMPCODE, EUR, FISCPER, MONTH, YEAR, ZFI R05,
100, C 6000, CF ADJUST }.
    ACCPDAYS = { 'ZASSUMP', CATEGORY, #, COMPCODE, #, #, #, YEAR, ZFI R03, 100, #,
ACC P DAYS }.
    ACCRDAYS = { 'ZASSUMP', CATEGORY, #, COMPCODE, #, #, #, YEAR, ZFI R03, 100, #,
ACC R DAYS }.
    ASMONTHS = { 'ZASSUMP', CATEGORY, #, COMPCODE, #, FISCPER, MONTH, YEAR, ZFI R03,
100, #, SAL INSTAL }.
    ASMONTHSTOTAL = { 'ZASSUMP', CATEGORY, #, COMPCODE, #, #, #, YEAR, ZFI R03, 100, #,
SAL_INSTAL }.
*************************************CALCULATIONS********************************
*****
    CF2001F = ( CF2001A / ( ACCRDAYS * 30 ) ).
   CF2002F = CF2002A.
   CF2003F = CF2003A.
*
   CF2004F = CF2004A.
*
    CF2005F = CF2005A.
   CF3001F = ( CF3001A / ( ACCRDAYS * 30 ) ).
   CF3002F = CF3002A.
   CF3003F = ( CF3003A / ( ASMONTHS * ASMONTHSTOTAL ) ).
    CF3004F = ( CF3004A / ( ASMONTHS * ASMONTHSTOTAL ) ).
    CF3005F = CF3005A.
    CF3006F = CF3006A.
    CF3007F = CF3007A.
   CF4000F = ( CF1000F + CF2001F + CF2002F + CF2003F + CF2004F + CF2005F +
        CF3001F + CF3002F + CF3003F + CF3004F + CF3005F + CF3006F + CF3007F ).
   CF6000F = CF4000F + CF5000F.
   IF M COUNT > 011.
   ELSE.
    MONTHPLUS = TMVL( M_COUNT, 1 ).
    FISCPER PLUS = TMVL( FISCPER COUNT, 1 ).
    { 'ZCASHTTL', CATEGORY, CCOA, COMPCODE, EUR, FISCPER PLUS, MONTHPLUS, YEAR,
ZFI R05, 100, C 1000, CF ADJUST } =
     { 'ZCASHTTL', CATEGORY, CCOA, COMPCODE, EUR, FISCPER_COUNT, M_COUNT, YEAR,
ZFI R05, 100, C 6000, CF ADJUST }.
    M COUNT = TMVL( M COUNT, 1).
```

ENDIF.

```
*************************************CALCULATIONS********************************
******
   { 'ZCASHTTL', CATEGORY, CCOA, COMPCODE, EUR, FISCPER, MONTH, YEAR, ZFI_R05, 100,
C_2001, CF_ADJUST } = CF2001F.
    { 'ZCASHTTL', CATEGORY, CCOA, COMPCODE, EUR, FISCPER, MONTH, YEAR, ZFI R05, 100,
C 2002, CF ADJUST } = CF2002F.
   { 'ZCASHTTL', CATEGORY, CCOA, COMPCODE, EUR, FISCPER, MONTH, YEAR, ZFI_R05, 100,
C_2003, CF_ADJUST } = CF2003F.
   { 'ZCASHTTL', CATEGORY, CCOA, COMPCODE, EUR, FISCPER, MONTH, YEAR, ZFI R05, 100,
C 2004, CF ADJUST } = CF2004F.
    { 'ZCASHTTL', CATEGORY, CCOA, COMPCODE, EUR, FISCPER, MONTH, YEAR, ZFI R05, 100,
C 2005, CF ADJUST } = CF2005F.
    { 'ZCASHTTL', CATEGORY, CCOA, COMPCODE, EUR, FISCPER, MONTH, YEAR, ZFI_R05, 100,
C 3001, CF ADJUST } = CF3001F.
    { 'ZCASHTTL', CATEGORY, CCOA, COMPCODE, EUR, FISCPER, MONTH, YEAR, ZFI_R05, 100,
C 3002, CF ADJUST } = CF3002F.
   { 'ZCASHTTL', CATEGORY, CCOA, COMPCODE, EUR, FISCPER, MONTH, YEAR, ZFI_R05, 100,
C 3003, CF ADJUST } = CF3003F.
   { 'ZCASHTTL', CATEGORY, CCOA, COMPCODE, EUR, FISCPER, MONTH, YEAR, ZFI_R05, 100,
C_3004, CF_ADJUST } = CF3004F.
   { 'ZCASHTTL', CATEGORY, CCOA, COMPCODE, EUR, FISCPER, MONTH, YEAR, ZFI_R05, 100,
C 3005, CF ADJUST } = CF3005F.
    { 'ZCASHTTL', CATEGORY, CCOA, COMPCODE, EUR, FISCPER, MONTH, YEAR, ZFI R05, 100,
C 3006, CF ADJUST } = CF3006F.
    { 'ZCASHTTL', CATEGORY, CCOA, COMPCODE, EUR, FISCPER, MONTH, YEAR, ZFI R05, 100,
C 3007, CF ADJUST } = CF3007F.
  { 'ZCASHTTL', CATEGORY, CCOA, COMPCODE, EUR, FISCPER, MONTH, YEAR, ZFI_R05, 100,
C_4000, CF_ADJUST } = CF4000F.
  { 'ZCASHTTL', CATEGORY, CCOA, COMPCODE, EUR, FISCPER, MONTH, YEAR, ZFI_R05, 100,
C 5000, CF ADJUST } = CF5000F.
   { 'ZCASHTTL', CATEGORY, CCOA, COMPCODE, EUR, FISCPER, MONTH, YEAR, ZFI R05, 100,
C 6000, CF ADJUST } = CF6000F.
  ENDFOR.
ENDIF.
ENDFOR.
*******
```

Table 8.30: CashFlow Adjusted Calculations PF Fox Formula