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## Implement of SAP budget management in production-oriented enterprises and relevant suggestions

Dingfen Tang, He Xing

Changchun University of Science and Technology, Changchun, 130600, (CHINA)

### ABSTRACT

SAP Budget Management System plays an important role in promoting scientific management and carrying out production activities effectively in production-oriented enterprises. Characters of SAP System consist of effective management and analysis of relevant production data, connections of sections in enterprises, scientific data management and analysis and scientificity assurance of production activities. In the study, SAP System was and its characteristics were introduced, software structure, hardware structure, design principles and server structure were analyzed, so basic operational principles could be presented more visually and particularly, at the same time server could be confirmed scientifically. In the end, specific and required system configuration was studied and displayed clearly; therefore, better effects can be achieved in implement of SAP Budget Management System in production-oriented enterprises. Main contents and purpose can be completely reflected in thinking of the study, in the hope of study can provide powerful support for rapid development of production-oriented enterprises.

### KEYWORDS

SAP budget management; System design; Production-oriented enterprise; Application and implement.



## INTRODUCTION

From a time development standpoint, rapid development of production-oriented enterprises relies on effective application of scientific management technology; in SAP Budget Management, production cost is controlled effectively, more scientific support can be provided for production plan and budget. In the study, SAP System, its structure, configuration and models were introduced and analyzed and discussed. Design ideas were shown clearly, implement effectiveness in production-oriented enterprises could be guaranteed.

## INTRODUCTION OF SAP SYSTEM

### Introduction

SAP System is a statistic and application software which can manage data effectively; it is also a data statistic software which is used the most by various enterprises in production and sales. This software consists of two techniques: user end and server structure; it has obvious advantages which can fulfill production and sales demands in production-oriented enterprises. According to incomplete statistics, it is applied effectively in production and sales by more than 95 thousands of enterprises from more than 120 countries in the world. 80% of Top 500 enterprises are its loyal users. Its positive function and important influence on scientific development in production-oriented enterprises are reflected through numbers mentioned above.

### Main characteristics of SAP

In application of SAP Data Management Software in production-oriented enterprises, there are many advantages and characteristics which can be presented in following aspects:

- (1) Complete Function: Modules were designed with comprehensive design ideas, finance, cost, production and sales modules were set. Software was expanded, for example, supply relationship management module was integrated into design. Range of management in production-oriented enterprises was wide. Humanity, functions and characteristic of the system were reflected at the same time.
- (2) Wide Application: Wide range of function modules was designed so that software can be used in many areas, like goods manufacturing industry, retail industry, financial industry and etc. Its functional characteristics can be conducted effectively in certain degrees. In this study, studying and exploring were carried out and situations of production-oriented enterprises were combined<sup>[1]</sup>.
- (3) Good Compatibility: This software can be operated in all kinds of servers. Operating processes were kept unified in normal new technology window and time-sharing operating systems, strong compatibility was highlighted.
- (4) Integration of Modules: Each module of the software was highly integrated so that business functions of enterprises can be connected closely, at the same time, business data can be transferred. However, data modification of one business can influence relevant business data; so it is necessary to set module before modification.
- (5) Safety: In starting and application, users need to get authentication before they visit sub-systems; their accesses will be limited after they login the system. Managers set limited accesses to assure that information not related to users will not be shown for them, at the same time, confidential data will be protected particularly: each operation will form operational log which can inspection safety of system.

### Structure of SAP software

C/S multi-layer structure is used in constructing SAP and plays an important role; function of software layer is important as well. Multi-layer structure mainly consists of application and data layers. Specific structure is as shown in Figure 1.

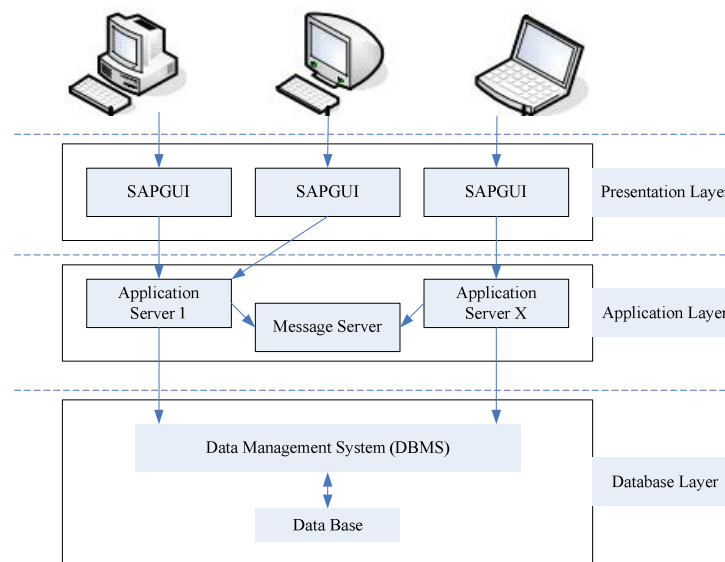


Figure 1 : Structure of SAP software

SAP cost-control module

Many modules are involved in construction of the system and its application is widened. There are finance module, cost-control module and etc<sup>[2]</sup>. Modules interact and develop harmoniously. They can positively influence scientific management in production-oriented enterprises and make system construction more scientific and ideal. Relevant module structure of system is as shown in Figure 2.

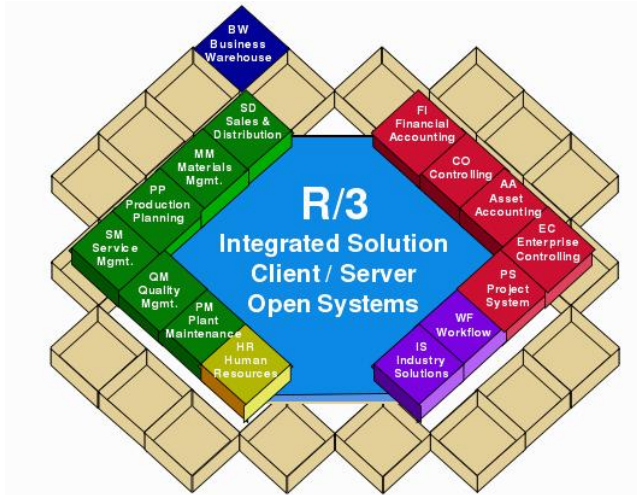


Figure 2 : Module structure of SAP

From Figure 2 we can see that main area which CO Module is responsible for is Cost-Control and Inner Management. For production-oriented enterprises, production cost can be planned and inspected within this module; benefiting situation can be analyzed better; it can provide powerful support for improvement of system functions. Construction elements consist of cost center, cost elements and other sub-modules which interact and control cost more scientifically.

SYSTEM STRUCTURE

Before official setting, relevant environment of hardware needs to be constructed first. From beginning to finishing, there are system setting, unit testing and other steps which will be accomplished in user end. For this system, user end is the independent system which collects and manages production data and business information. Price definition and organization can be carried out effectively in order to assure whole business process to operate smoothly. Testing and construction of relevant systems are as shown in Figure 3.

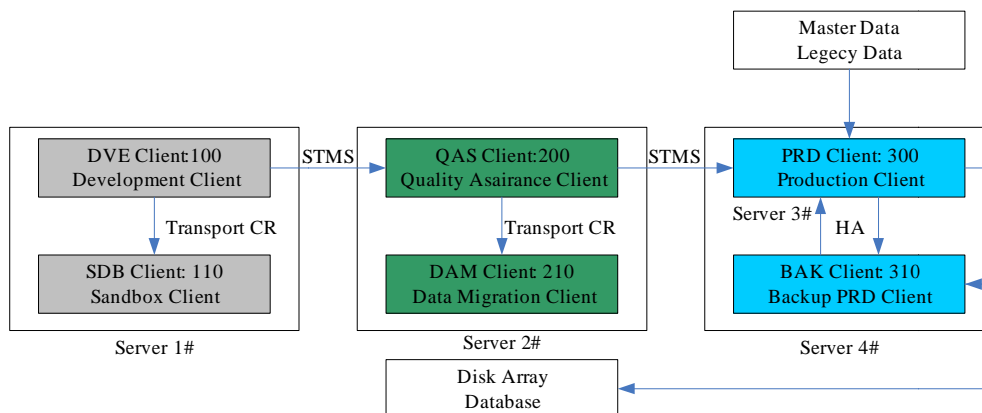


Figure 3 : Structure of system and setting of user end

Design theory of system structure

SAP System needs to be tested and adjusted during application in production-oriented enterprises, this has close inner connection with enterprises business<sup>[3]</sup>. Since sections connect with each other tightly, once mistake appears in system software, consequences will be serious. Therefore, design of construction shall satisfy specific demands of production-oriented enterprises in following aspects:

- (1) Improving rigor constantly is key part in system design. Before operation, system needs to be tested and adjusted strictly. Only after each index reaches up to standard can data be transported into production system.
- (2) Configuration and setting shall be conducted at the same time so flexibility of system can be presented. Test shall be inspected, if system did not pass test, then it should be adjusted and tested further.
- (3) Safety shall be an important part of system design. Since data involved in production-oriented enterprises are huge, so once there is a system failure, damage will unmeasurable. Solving problem capability of system shall be improved constantly so that powerful protection can be provided to business data in production-oriented enterprises.
- (4) As business scale expands continuously, business development of production-oriented enterprises is fastened constantly. Therefore, trend of business development shall be explored prospectively, system can always be suitable for business development and final development demands can be satisfied.

### Structure of servers

In design theories mentioned above, hardware demands of system shall be improved constantly. During design, structure of hardware shall be explored effectively. Specific structure of hardware is shown as follows<sup>[4]</sup>:

System hardware consist of four servers and a disk array, there are corresponding user ends in every two servers. User ends installed in the First Server is 100 and 110 User End, user ends installed in the Second Server is 200 and 210 User End, same as the Third and the Fourth Servers. Four user ends play different functions. User end of the First Server tests system before operation in order to start system. User end of the Second Server tests data from testing and adjusting. User end of the Third Server transports business data into system, operates and manages them at the same time. User end of the Fourth Server backups data of the Third Server, it is controlled by the Third Server so that system safety can be improved in operation<sup>[5]</sup>. Disk array conducts relevant configuration for data storage. Data storage space can be increased constantly and safety of data storage can be improved at the same time.

## SYSTEM CONFIGURATION

### Cost center type and establishing cost center data

Establish cost center data. Main data of SAP are stored in Transparent Table of database, each data corresponds relevant field. Table of main data in cost center is CSKS, fields used in this project are as shown in TABLE 1.

**TABLE 1 : Table of main data in cost center**

Table Name	Field Name	Description of Field	Field Format	Field Length
CSKS	KOKRS	Range of Cost Control	CHAR	4
	KOSTL	Cost Center	CHAR	10
	DATAB	Beginning Date	DATS	8
	DATBI	Finishing Date	DATS	8
	KTEXT	Short Description	CHAR	20
	LTEXT	Long Description	CHAR	40
	VERAK	Staff in Charge	CHAR	20
	KOSAR	Category	CHAR	1
	KHINR	Stage	CHAR	12
	KUKRS	Code of Belonged Company	CHAR	4
GSBER	Business Range of Belonged Company	CHAR	4	

### Divided structure of cost

Definition of divided structure of cost is shown as in TABLE 2.

**TABLE 2 : Divided structure of cost**

Divided	Working	Cost Elements / Group	Dividing Rules
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Structure	Type		
ZI	LAB	50012010-Direct Labor	12 Depends on Quantity of Working
	MAC	51011026 - Production and Depreciation Expense	
	OVH	Z_OVH Production Cost Elements Group	

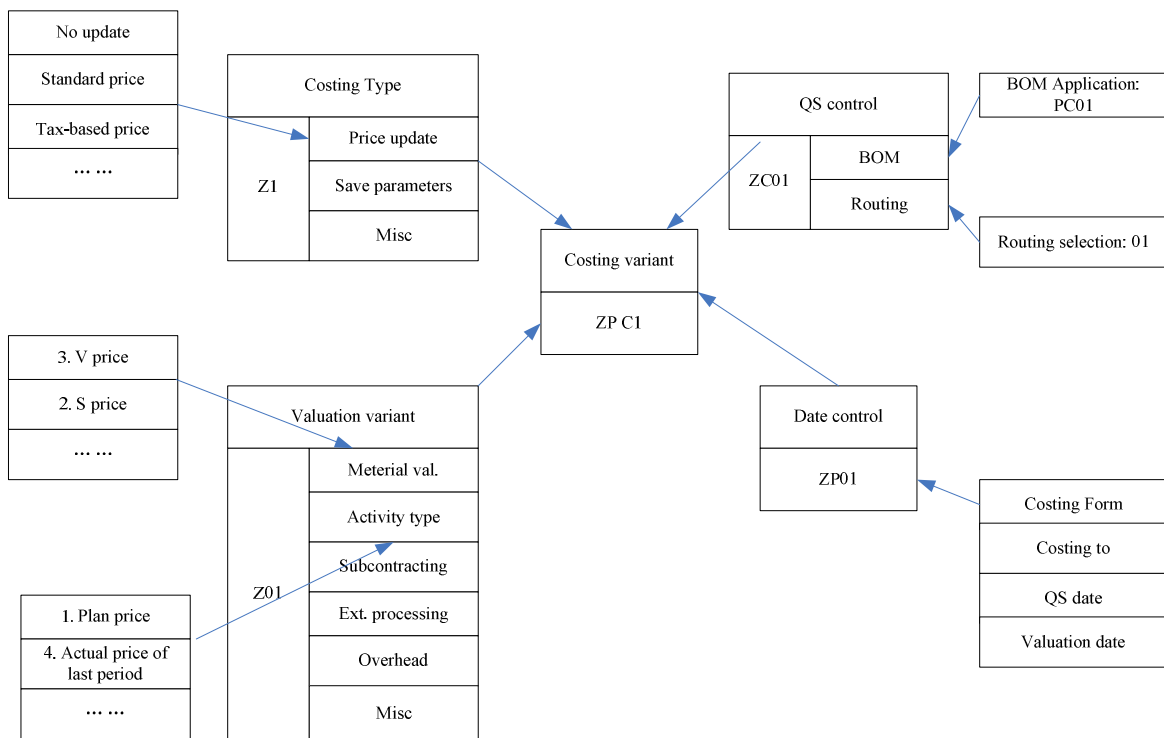
Divided structure of cost determines corresponding relation between primary cost elements and operation type, after applying divided structure, quantity of consumption can be considered as index, production cost can be divided into each working list, actual cost of each working list can be calculated. After divided structure setting is accomplished, rules can be assigned to F-type production-oriented cost center.

**Basic setting of cost estimation**

Structure of cost determines components of cost. According to definition in blueprint, KMC products consist of five big parts: Material Cost (MAT), Labor Cost (LAB), Machine Cost(MAC), Commissioned Production Cost (SUB) and Indirect Expense Cost (OVH)<sup>[6]</sup>. Cost groups and their relevant cost elements correspond with each other, detailed structure of cost can be achieved in cost estimation.

**Standard cost estimation**

Cost estimation variant determines value logic of product standard cost estimation. Variant is a combination of a series of rules: type determines purpose of cost estimation; variant determines value order of material, operation and other cost factors; date controlling determines value time and effective date; quantity structure controlling defines critical step of BOM and technology route. Specific calculation rules are as shown in Figure 4.



**Figure 4 : Cost estimation variant**

**Setting relevant cost parameter of order list**

According to quality of production-oriented enterprise, specific type which suits for working list is set in system. For example, standard Working List ZS01 is what production-oriented enterprises need in its daily production while Reworking List ZR01 is what needed for reworking. In cost accounting, the type of working list shall be confirmed first and divided effectively. This is why confirming type of working list is very important<sup>[7]</sup>. For controlling production cost, since order lists are different from each other, there will be slight change in logical relation between planned cost and practical cost, this is how estimation variant appears. In operation, two variants: 006 and 007 were set and transported into PPP1 and PPP2; both parameters mentioned above can be applied in defaulted cost accounting, planned cost of working list can be calculated,

relevant result can be obtained. Cost accounting of practical cost is the main suggestion which makes relevant parameter setting of production order list more scientific.

### CONCLUSION

This is exploring and studying on implement of SAP Budget Management in production-oriented enterprises. In the study, system structure and setting were discussed particularly. Specific situations of system were presented so that studying and discussing thoughts can be maintained clear, positive promoting function was provided for implement of SAP Budget Management in production-oriented enterprises.

### REFERENCE

- [1] Jun Ai, Haiyan Wang; Transformation of SAP system based on complicated internet analysis technology, *Northeast University Journal: Natural Science Version*, **34(11)**, 1550-1553 (2013).
- [2] Yuanyuan Liu, Haiyan Wang, Jianli Ma; Practice and inspiration of cost management creation through SAP in ZWZ group, *Finance and Accounting*, (11), 55-57 (2013).
- [3] Jinke Li, Optimization plan design of H company in impletion of SAP project, *Finance and Accounting*, (8), 34-36 (2013).
- [4] Kuitian Zhou; Design of equipment management information system based on SAP netweaver, *Tabacco Science*, (8), 15-20 (2013).
- [5] Lei Huang; Enterprise inner control in SAP environment, *China Audit*, (2), 69-70 (2013).
- [6] Bujing Wang; Application of SAP system material management module in power enterprises. *Science and Technology Management Research*, **32(9)**, 174-179 (2012).
- [7] Chuangxue Xu, Zhiwei Wang, Kai Luo; Development and application of power plant digital coal yard management system based on SAP, *Thermal Power Generation*, **40(8)**, 78-82 (2011).