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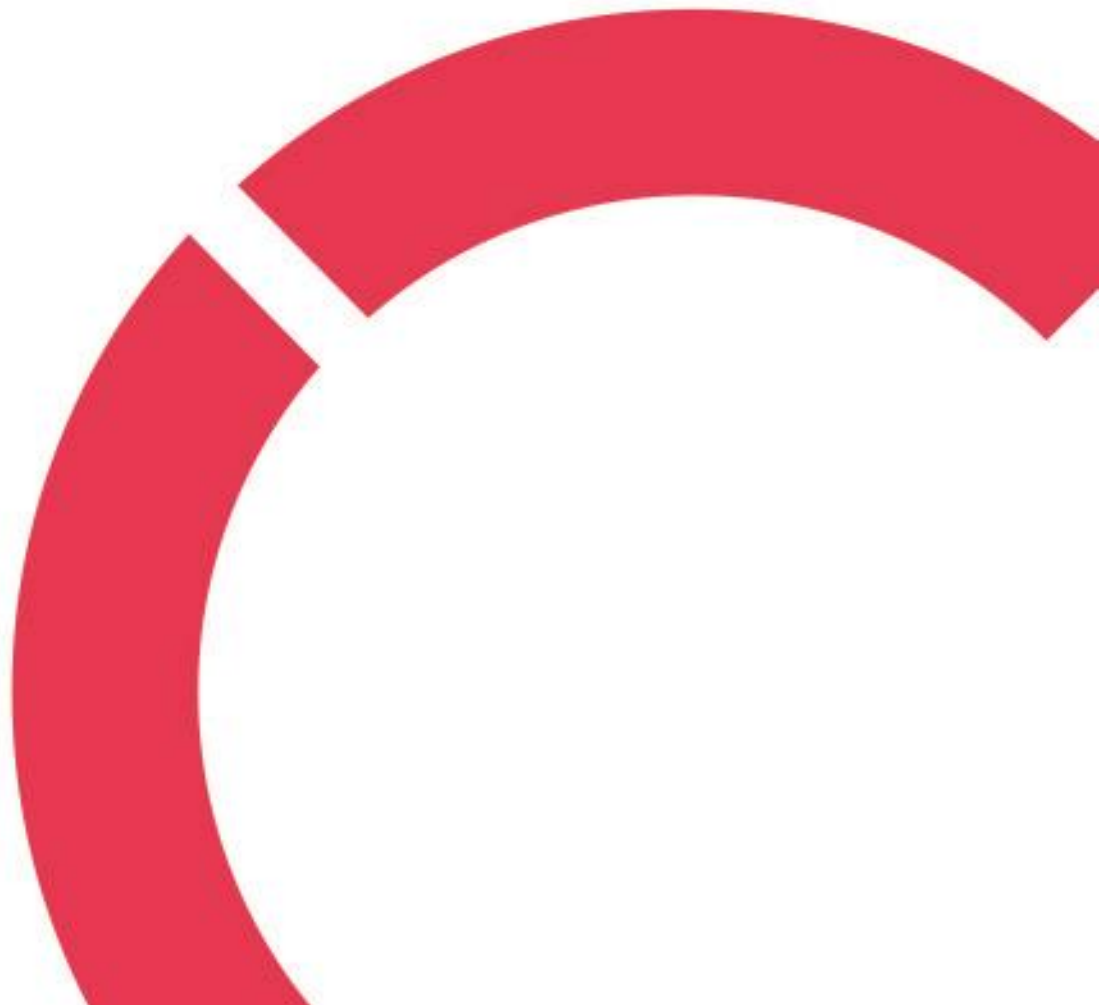
**SAP S/4HANA FINANCIAL CLOSING COCKPIT**

**Thesis**

**CENTRIA UNIVERSITY OF APPLIED SCIENCES**

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**ABSTRACT**

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| <p>The financial close operation is one of the most relevant and exciting tasks, and on the other hand it is difficult for most companies. Therefore, the management of this complex process requires effective communication, detailed documentation of the tasks to be undertaken as well as the prioritization of these tasks, this will help in the analysis of existing transactions in the general ledgers, the consolidation of financial data and the reconciliation.</p> <p>However, this financial close operation can be better managed and simplified with the right choice of resource, in order to achieve an efficient financial close, so companies organize their close cycle as a series of interrelated steps and carefully monitor their effectiveness.</p> <p>Managing and improving the financial close process requires the right tools, so the SAP Financial Closing Cockpit solution helps companies oversee, automate and better manage the entire financial close process in accordance with best practices.</p> |                          |                                |

|   |
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| <p><b>Key words</b><br/>Communication, cycle, financial close operation, organize, practices, prioritization, process, resource, SAP, tasks</p> |
|---|

## **CONCEPT DEFINITIONS**

### **List of Abbreviations**

|        |   |
|--------|---|
| BCS    | Budget Control System                             |
| BS     | Balance Sheet                                     |
| CO-PA  | Controlling - Profitability Analysis              |
| EC     | Enterprise Controlling                            |
| EC-CS  | Enterprise Controlling - Consolidation            |
| EC-PCA | Enterprise Controlling - Profit Center Accounting |
| EDI    | Electronic Data Interchange                       |
| ERP    | Enterprise resource planning                      |
| FA     | Fixed Assets                                      |
| FCC    | Financial Closing Cockpit                         |
| FI     | Financial Accounting                              |
| FI-AA  | Financial - Asset Accounting                      |
| FI-AP  | Financial - Accounts Payables                     |
| FI-AR  | Financial - Accounts Receivables                  |
| FI-BL  | Financial - Bank Accounting                       |
| FI-GL  | Financial - General Ledger                        |
| G/L    | General Ledger                                    |
| GAAP   | Generally Accepted Accounting Principles          |
| HCM    | Human Capital Management                          |
| IFRS   | International Financial Reporting Standards       |
| IM     | Investment Management                             |
| LA     | Liquid Assets                                     |
| MA     | Material Accounts                                 |
| MM     | Material Management                               |
| P&L    | Profit and Loss                                   |
| PP     | Production Planning                               |
| RA     | Reconciliation Accounts                           |
| SC     | Secondary Costs                                   |
| SCM    | Supply Chain Management                           |
| SD     | Sales and Distribution                            |
| TR     | Treasury  |

**ABSTRACT**  
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## 1 INTRODUCTION

We all know very well that the financial close is the first priority of the accounting and finance departments. At the end of each period, professional accountants and finance managers perform and review accounting activities to ensure timely access to accurate financial information.

Closing includes many standard and specific and often dependent tasks, such as reviewing general ledger transactions, recording manual journal entries such as provisions, depreciation, intercompany charges, and allocations. It may also include other activities, such as account reconciliation and variance analysis.

As soon as the activities are closed, the work continues, with the next stage, that of the audit. Indeed, before results can be communicated externally, companies must prepare and provide: details, calendars, auxiliary documents and evidence, resulting from financial and accounting reports.

As a result, the challenge of identifying, overseeing and managing financial close tasks arises. We know that for many companies there is limited visibility, automation and scheduling of financial close tasks. A list of consolidated tasks or activities often does not exist, multiple organizations manage the process by entity, function or individual.

A spreadsheet-based method of operating the close presents several challenges, especially the error factor is dominant, the work automation is very limited and the non-existence of notifications, workflows, and limitation in timestamps.

Therefore, one of the solutions is SAP S/4HANA Financial Closing Cockpit, which is technologically efficient, flexible and intelligent. It rigorously improves financial close with a number of new tools that increase efficiency, governance and insight.

## **2 DEFINITIONS AND CLOSING WORK**

Finance is one of the key functions in any business, due to the important role it plays and which consists of mirroring the state of the business in figures and financial indicators. One of the activities of the finance function that helps to report all movements and transactions for a given period is the financial close, this activity involves many departments, individuals and systems. So, this chapter will cover some definitions and terminologies as well as the tasks and work to be done during this financial closing phase.

### **2.1 Financial Accounting**

Financial accounting is done to give useful financial information about the company to external people and organizations such as shareholders, banks, the state, suppliers, customers, the press, etc.

On the other hand, the questions usually asked by people who use financial accounting are many, we have for example, do I invest my money in this company or in another? will the company be able to repay its loans? is the company solvent and profitable? how much tax is paid?

Concerning the definition of financial accounting, we give two definitions among many others. Accounting is the art of recording, classifying and summarizing in a significant manner and in terms of money, transactions and events which are, in part at least, of a financial character, and interpreting the results thereof. (Andrews, Queenan & Aubrey Smith 1953, 12.)

Accounting may be defined as the process of analysing, classifying, recording, summarizing, and interpreting business transactions. (Jonick 2017, 1.)

### **2.2 The Financial Year and The Accounting Periods**

The financial year or accounting year means a single period during which the company meticulously accounts for all the transactions made within the structure. At the end of the accounting year, the company is required to produce various reports and documents to assess its financial situation. Some of

these documents are intended for the tax authorities and will be used to justify the tax declared. This is why some also use the term "fiscal year".

The fiscal year generally corresponds to a period of 12 months during which a company records all the economic transactions necessary for the establishment of its financial statements. However, it is important to note that this 12-month period may vary from one country to another, even if the period of the fiscal year is the equivalent of a calendar year (period which begins on January 1 and ends on December 31), it can start on another date in another country, such as in Great Britain on April 6.

### **2.3 Financial Close**

The financial closing of the accounts is a particularly sensitive period, not only because it is carried out within tight deadlines, but also because it consists of the performance of punctual, recurring but not daily operations. It also presents significant challenges and risks insofar as it must guarantee the correct linking of expenses and income to the financial year, as well as a vision of assets that meets the accounting requirements of sincerity and loyalty.

The financial close corresponds to the completion of the accounting records. The purpose of this procedure is to fix the accounts sold and move on to the following year. This is therefore the period in which it is necessary to have collected all the supporting documents and the operations relating to the company's balance sheet. The financial close doesn't have to be done with the ending of the year on December 31.

The closing of the accounts is also an opportunity to calculate and announce the profits made during the past year to the administration through standard reports. Beyond this aspect, the end of a financial year allows each entrepreneur to get an overview of the evolution of his turnover, his expenses and their impact on the financial health of his company.

This allows to take a step back from financial situation and to define future objectives for the following year: what investments should be made to increase the company's performance? Are they material or human needs, a marketing policy, a new method of inventory management?



### **2.3.1 Presentation of The Closing Work**

During the closing operation, fulfilment with certain rules is required. Among those operations there are supporting documents, sub ledger and general ledger. The supporting documents contain all documents to prove each accounting entry, each transaction, with a numbered and unique document. Concerning the sub ledger, it records your entries in the ledger by dividing it into categories to facilitate reading and research, and check the consistency and consistency of all balances with the general ledger. Through the holding of the general ledger, you can read the accounts of your company and the movements, using the entries already posted.

To carry out the balance sheet and the financial statement, different tasks must be respected and made, such as: a stock inventory, the inventory of assets by taking out sales and entering new acquisitions, as well as revaluations, calculation and posting of assets depreciation, calculation and posting of provisions, record all entries, if not already done in the general ledger, calculation final taxes and posting them, check and post incomes and expenses, settle and treat the accrual and deferral accounts, establish supporting documents for accounting balances, issue the balance of accounts, present the summary of the balance to the shareholders of the company.

### **2.3.2 Organization of Closing Works**

The annual closing period is a stressful and busy phase, which requires good organization and coordination as well as the accumulation of experience from previous closings. As a result, several elements determine the success of this operation, such as communication, which is of particular importance, documentation of the work and learning from mistakes to improve subsequent closings.

The maximum automation of tasks while relying on technological solutions in addition to Excel is essential, which offers considerable time savings and allows early closing sometimes several days.

This time saving can benefit the employees in order to concentrate on the analysis of the data and better organize themselves on the working methods. Also, preparing end-of-year entries in advance and finalizing them during the closing period, such as depreciations.

As for communication, it takes a large part during this phase, and shouldn't stop only at the level of accounting and financial services, but rather at all the structures that hold information impacting financial flows.

### **3 SAP S/4HANA FINANCIAL CLOSING COCKPIT**

Closing the financial ledger is one of the most fascinating jobs, but at the same time is considered among the most difficult and challenging for many businesses. This phase requires efficient communication, the definition and management of several priorities and having complete, comprehensive and detailed documentation. Adding to this the analysis of transactions that are recorded in the ledgers, the reconciliation, the consolidation of data and financial statements and reports. However, simplifying this financial close can be done with the right resources.

The performance of the financial close lies in its velocity and its rationality, and in order to achieve this, companies organize their closing cycle in sequential steps and continuously monitor their achievements and their efficiency. This cycle is part of the improvement process which requires human, material and organizational resources; However, the SAP solution helps companies to integrate, automate and efficiently manage the closing process, while ensuring best practices.

#### **3.1 Financial Accounting in SAP S/4HANA**

SAP Financial Accounting known as SAP FI is one of the important and most used modules of ERP, and it is designed to automate the financial flows of the company and it integrates with several modules of SAP such as SAP MM, SD, PP, SCM, etc. SAP FI grants the possibility of managing financial compatibility in an international environment with many companies, different currencies and in several languages.

To give a general notion about SAP FI, this chapter will illustrate three important parts which are, organizational levels, master data and financial accounting components in SAP S/4HANA.

##### **3.1.1 Organizational Levels**

The organizational levels reflect the legal status and the organizational way of the company, which allows a correct and organized collection of managerial and financial information then to present them in a relevant way, in order to allow a better governance. This section shows several organizational levels,

those that are shared with other modules in S/4HANA so are general and those that belong to the financial accounting module.

Firstly, at the level of the general organizational units there is the client, operating concern and controlling area. In SAP the client is the highest organizational unit, and forms a separate environment, consisting of its own tables and data, which are independent from other clients. SAP ERP can contain several clients, which can represent the whole group or the company, depending on the size. The client is identified in SAP by a three-digit number.

Concerning the operating concern, its objective is the profitability analysis (CO-PA), and describes a specific market or a segment of the business. Operating concern is an organizational unit that shapes the company's target market according to predefined criteria essential for market analysis, which allows the calculation of the profits of each segment of the market. The revenues generated by the group companies from their customers are allocated directly to the defined segments. The operating concern can include several controlling areas, which makes it possible to carry out the analysis on the scale of the company, as it allows the analysis of all the costs and revenues generated in many controlling areas together.

For the controlling area, it's identified in SAP as a basic organizational unit in management control, this organizational unit is considered as an autonomous structure, in which the reporting of costs and revenues are calculated. The allocation of costs takes place only within a single controlling area, therefore cost elements from other controlling areas cannot be included in this allocation. A controlling area can include several company codes, this makes it possible to perform inter-company cost accounting and gives more flexibility in the allocation of costs, analysis and reporting. The possibility of inter-company analytical accounting is conditional on keeping the same operating chart of accounts and the accounting year variant between the company codes and the controlling area.

Secondly, organizational levels of SAP FI, where there is the company code, which is considered the pivotal organizational level of financial accounting. However, other organizational levels have an important role in financial accounting, such as credit control area and business area.

Each company according to its organization and its structuring will determine if a set of activities or an activity should be considered as a legal entity. In SAP the company code is an organizational unit and it is considered the smallest for which a balance sheet and a profit and loss statement can be edited.

Consequently, the company code is the central organizational unit of financial accounting, due to its crucial role for almost all processes within SAP, since these processes influence the accounting of the company. However at least one company code must be defined in the SAP system. If a group is made up of several companies, the company codes are created with reference to the laws of each country, so the company code reflects each legal entity and its codification is done by four alphanumeric characters.

The credit control area, on the other hand, is considered as an organizational unit that determines and controls customer credit limits. A credit control area can contain one or more company codes, but a company code cannot hold multiple credit control areas. The control of customer credit limits can be done at the level of the creation of the sales order, the registration of the delivery or the generation of the billing document. As well as the control event could be warnings or delivery blockages.

Relating to the business area, it describes a separate area of operation within a company code for which financial statements can be issued, such as the balance sheet and the income statement, these financial statements or others are for internal purposes. The business area is an optional and not mandatory organizational unit, and the use of these business areas can be done in all companies and without the obligation to have the same chart of accounts. The definition of the business area can be done by geographical areas, range or group of products, subsidiaries, etc.

### **3.1.2 Master Data**

Master data is reference data used as sources of information for all transactions generated by the different modules in SAP. Master data hierarchically represents the secondary level in the SAP concept after organizational structures.

This chapter will deal with some relevant basic data of the SAP financial accounting module, in particular the chart of accounts, general ledger accounts and reconciliation accounts.

The chart of accounts is one of the master data and it is considered central in SAP S/4HANA. It constitutes the basic structure for all the accounts created in financial accounting, and it is considered as a central linking element between financial accounting and management accounting and one of the prerequisites for the establishment of cross-company code management accounting.

The chart of accounts is a set of general ledger accounts, classified, structured and organized into account groups in order to allow the financial recording of the business's transactions. The general ledger associated with a company code is determined on the basis of a specific chart of accounts. The definition of the chart of accounts consists of determining the code with four alphanumeric characters, the designation and the length of the general ledger account number.

As aforementioned, the chart of accounts is assigned to a company code and to the controlling area with which the company code is associated, this shows its considerable role as a junction between these two important organizational units. In SAP S/4HANA each cost element at controlling area level is at the same time a general ledger account in the company code's chart of accounts.

For the assignment of the chart of accounts, S/4HANA allows to define several charts of accounts and affect them to the companies. In the standard of SAP there is a chart of accounts for international use like "INT" or national like "CAFI" for Finland, however each company if necessary, can define its chart of accounts. The chart of accounts is a model on which the general ledger is based so, the same chart of accounts whether standard or specific can be assigned to one or more company codes thereby they can have the same general ledger structure, as well as the company codes can have different charts of accounts.

The operating chart of accounts is the one assigned to a company code for its general ledger, it is used for daily entries in this company code. In an international environment where multinationals own several companies, SAP S/4HANA allows two possibilities which affect the type and the number of chart of accounts per company code.

All company codes in the group company use the same chart of accounts if they have the same legal accounting requirements and this can be effective if all company codes are in the same country. In order to allow cross-company code controlling, all company codes must be assigned the same operational chart of accounts as the controlling area to which they are assigned.

In addition, SAP S/4HANA allows up to two additional charts of accounts in addition to the operating chart of accounts to be assigned to a company code. This option is useful if some company codes need different charts of accounts to meet specific requirements of the country where they are implemented, we often find these cases in multinational companies. The parallel ledger can use the additional chart of accounts to establish the financial statements requested by each country.

Secondly the general ledger accounts, which allows the monitoring of incoming and outgoing financial flows within the company according to a standard and in accordance with national and international regulations and laws. When a transaction with financial effect is made in a company, a corresponding entry, whether automatic or manual, is therefore made in the financial accounting by debiting and crediting the appropriate accounts at the level of the company code. To be able to make these accounting entries by using a general ledger account, a master data record for these accounts must be made beforehand in the chart of accounts, which will be assigned to the company code concerned and in its general ledger. General ledger account master data controls all of the components involved in the accounting entry of transactions in the general ledger.

With regard to the recording of general ledger master data, with the assignment of the chart of accounts to a company code allows the creation of a data storage space known as the general ledger, this one holds all the valid accounts in the specific company code. The creation of a general ledger account is mainly based on the definition of the account number, the account designation and the account type (balance sheet or P&L).

The general ledger account master data record sheet consists of two parts: Chart of account Part and Company Code Part. With this framework, company codes that use the same chart of accounts can also use the same general ledger accounts. Thereby, the master data of the accounts must be created first in the chart of accounts, then created or modified in the company codes individually.

The first part of the general ledger account record is the chart of accounts part, it contains data about the general ledger account and which is applicable for all company codes, moreover, it contains information which control how an account is created in company code and in some specific area. In this section the control elements are determined at a high level, the central parameters and rules of this part are the account group, which define the type of account and the fields available in the company code section, as if the account is a P&L account, consolidation or balance sheet account.

The second part is the company code part, which shows how the user company code for this particular general ledger account is managed at its level. So, this part processes data that is only applicable to this company code. For example: Currency, exchange rate difference key, tax category those in account control. There are also fields status group in document control. Other aspects such as company bank, bank account identifier, interest calculation frequency, interest indicator in bank and financial details as well as in interest calculation.

When the accounting entries are performed in the financial accounting or other modules that generate a financial flow, the general ledger accounts are moved by their debit and credit. These entries trace the business process of the company according to the financial perspective and in accordance with the legal requirements. As a result, the general ledger includes the list of all the transactions that moved the account and as well as their balances. Consequently, the general ledger is the referent for the establishment of the financial statements.

The account groups are a set of characteristics that control the creation and definition of accounts. Through the account groups, a general ledger account can be assigned to categories predefined by the user. The account groups are determined in the settings and are primarily used for two reasons mainly.

It helps to determine which fields can or must be filled in when creating an account. The field status in the company code part of the account master data is defined when creating or modifying account groups. SAP allows four field statuses in the general ledger accounts data record, which are suppress, required, display and optional. Of course, you can also select the field status if the account during creation.

The second reason is that it can be a reference element to predetermine the range of account numbers to use during creation. Accounts that work with the same fields and use the same number range are assigned to the same account group. SAP S/4HANA delivers in standard those account groups: Balance Sheet Accounts (BS), Fixed Assets Accounts (FA), Liquid Assets Accounts (LA), Material Accounts (MA), P&L Accounts (P&L), Reconciliation Accounts (RA), Secondary Costs (SC).

Concerning the reconciliation accounts are known as key element of sub ledgers in the general ledger. In SAP S/4HANA the sub ledgers are: Accounts Receivables (FI-AR), which contains all customer accounts, Accounts Payables (FI-AP), it contains all vendor accounts, Asset Accounting (FI-AA), this contains all assets of the company and Bank Accounting (FI-BL), where we find all bank accounts of the company.

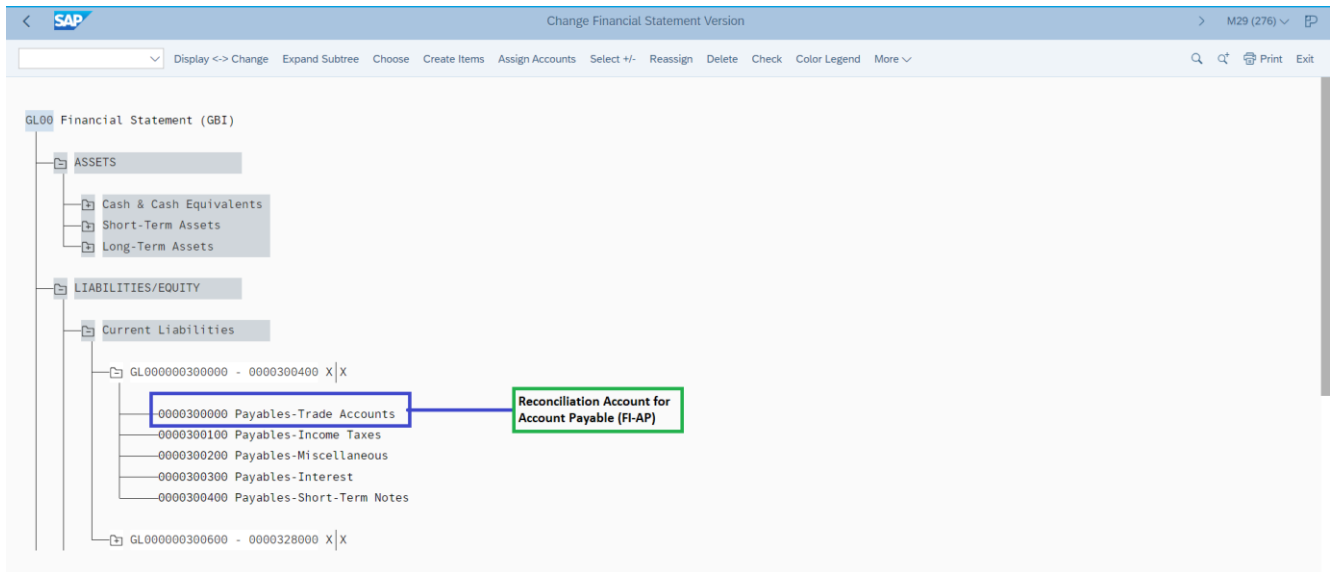
All transactions that have a financial impact from modules such as SD, MM, PP, HCM, ... etc, are recorded in the general ledger. Therefore, any change in value during the company's business process will generate an appropriate change in the associated account according to the pre-established financial accounting process. For reasons of simplification, the entries in the general ledger are grouped in order to facilitate the edition of the financial statements.



The sub-ledger contains the details of the transactions carried out. Concerning the general ledger, it is integrated into all the sub-ledgers and in real time. This means that when recording an entry in the sub-ledger, the same entry is recorded in the corresponding reconciliation account at the general ledger level. Sub ledgers data is grouped and transmitted to the general ledger through the use of these reconciliation accounts.

Consequently, a general ledger must contain at least one reconciliation account for each active subledger in S/4HANA. For example, when creating a supplier's master data, the supplier's number (32000) is at the same time its account number in the account payable sub-ledger (FI-AP). At the level of the supplier's master data in the company code part, the reconciliation account number must be entered, as an example (410000). This link allows that each transaction concerning this supplier such as payment, receipt of invoice are assigned to the supplier account as well as to the reconciliation account, which makes a real-time synchronization of the general ledger and FI-AP sub-ledger, you should also know that several suppliers can be assigned to the same reconciliation account. This automatic accounting in both ledgers allows the editing of financial statements at any time.

Picture 1 displays one of the existing versions in SAP S/4HANA of the financial statements for the creation of balance sheet or P&L statement. In the figure, the supplier reconciliation account is highlighted, of course in this configuration figure, there is another reconciliation account such as that of the bank or assets. Therefore, following this configuration, the supplier, customer, bank or investment accounts exist in the sub-ledgers with their balance, those are summed and displayed as the balance of the appropriate reconciliation account. Therefore, in the balance sheet only the reconciliation accounts are displayed and not each supplier account.



PICTURE 1. Reconciliation Accounts in The Balance Sheet

### 3.1.3 Components

SAP S/4HANA financial accounting consists of several components or sub-modules that record and track the movements of all financial transactions within the company. Below there is more details about the main components of SAP Financial Accounting and their definitions.

Financial Accounting (FI) is composed of General Ledger (FI-GL), Account Payable (FI-AP), Account Receivable (FI-AR) and Fixed Assets (FI-AA). SAP define General Ledger as the central task of G/L accounting is to provide a comprehensive picture of external accounting and accounts. Recording all business transactions (primary postings as well as settlements from internal accounting) in a software system that is fully integrated with all the other operational areas of a company ensures that the accounting data is always complete and accurate. (SAP Help Portal e 2022.)

The Account Payable as the component that records and administers accounting data for all vendors. It is also an integral part of the purchasing system, where deliveries and invoices are managed according to vendors. The system automatically makes postings in response to the operative transactions. In the same way, the system supplies the Cash Management application component with figures from invoices in order to optimize liquidity planning. (SAP Help Portal a 2022.)

The Accounts Receivable application component records and administers accounting data of all customers. It is also an integral part of sales management. All postings in Accounts Receivable are also recorded directly in the General Ledger. Different G/L accounts are updated depending on the transaction involved (for example, receivables, down payments, and bills of exchange). The system contains a range of tools that you can use to monitor open items, such as account analyses, alarm reports, due date lists, and a flexible dunning program. The correspondence linked to these tools can be individually formulated to suit your requirements. This is also the case for payment notices, balance confirmations, account statements, and interest calculations. Incoming payments can be assigned to due receivables using user-friendly screen functions or by electronic means such as EDI and data telecommunication. (SAP Help Portal a 2022.)

Asset Accounting in the SAP system is used for managing and monitoring fixed assets. In Financial Accounting, it serves as a subsidiary ledger to the general ledger, providing detailed information on transactions involving fixed assets. Asset Accounting is intended for international use in many countries, irrespective of the nature of the industry. This means, for example, that no country-specific valuation rules are hard-coded in the system. You give this component its country-specific and company-specific character with the settings you make in Customizing. To minimize the time and energy involved in Customizing, country-specific standard Customizing settings are provided where possible. (SAP Help Portal b 2022.)

Treasury (TR) contain Cash management, Treasury and Risk Management and Funds management. Concerning SAP Cash Management is used to monitor cash flows and to ensure that you have sufficient liquidity to cover your payment obligations. SAP Cash Management is integrated with a range of other SAP components. For example, the liquidity forecast - in a medium to long term liquidity trend - integrates expected incoming and outgoing payments in financial accounting, purchase and sales. (SAP Help Portal h 2022.)

The Treasury and Risk Management component is a subarea of the Treasury Management solution area. It provides the solution capabilities Debt and Investment Management and Financial Risk Management, being based on a series of solutions that are geared towards analyzing and optimizing business processes in the finance area of a company. The different components of Treasury and Risk Management provide the functions for both of these solution capabilities. Also, it Provides comprehensive features and functions to secure against financial risks (liquidity risks, FX risks, counterparty risks, and further market risks). Accurate registration and a comprehensive view of all business activities aligned

with (inter)national accounting principles such as IFRS and US GAAP is included. (SAP Help Portal i 2022.)

For Funds Management, the functions in this component support you in creating and executing budgets. The purpose of Funds Management is to budget all revenues and expenditures for individual areas of responsibility, to control future funds transactions in accordance with the distributed budget, and to stop the budget being exceeded. You can adapt the budget to changes in conditions by entering releases, supplements, returns, and transfers. Funds Management is fully integrated with other components of the SAP System, especially with the Budget Control System (BCS). The components that are integrated depend on the specific requirements of your organization. A basic requirement for the use of Funds Management is integration with the General Ledger Accounting (FI-GL) component. (SAP Help Portal d 2022.)

Investment Management (IM) component provides functions to support the planning, investment, and financing processes for: Capital investments, such as the acquisition of fixed assets as the result of-house production or purchase, Investments in research and development, Projects that fall primarily under overhead, such as continuing education of employees or establishing new markets and Maintenance programs. The term investment, therefore, is not limited only to investments you capitalize for bookkeeping or tax purposes. An investment in this context can be any measure that initially causes costs, and that may only generate revenue or provide other benefits after a certain time period has elapsed (for example, plant maintenance projects). The IM component contains functions for managing investments in the area of fixed assets. Financial assets are managed in the Treasury component. (SAP Help Portal f 2022.)

Enterprise Controlling (EC) is composed by Profit Center Accounting (EC-PCA) and Consolidation (EC-CS), according to SAP Profit Center Accounting (EC-PCA) lets you determine profits and losses by profit center using either period accounting or the cost-of-sales approach. It also lets you analyze fixed capital and so-called “statistical key figures” (number of employees, square meters, and so on) by profit center. Consequently, you can calculate all key figures commonly used in cost accounting (return on investment, cash flow, sales per employee, and so on). A profit center is a management-oriented organizational unit used for internal controlling purposes. Dividing your company up into profit centers allows you to analyze areas of responsibility and to delegate responsibility to decentralized units, thus treating them as “companies within the company”. And according to the same source Consolidation (EC-CS) is application component features consolidation functions you can use for external

(statutory) rendering of accounts as well as internal (management) reporting. To do this, this component offers different consolidation types that are based on user-definable organizational units. Specifically, you can perform consolidation for companies, divisions, business areas or profit centers. In the component, the consolidation types are represented by dimensions. For example, you can define one dimension for company consolidations and, at the same time, another dimension for profit center consolidations. Each dimension lets you process flexible and, when needed, parallel hierarchies of consolidation units and consolidation groups: Flexible hierarchies means that you can use any number of hierarchy levels, define these hierarchies in variable depths, and maintain these hierarchies easily and clearly. Parallel hierarchies mean that you use different criteria for structuring the consolidation units of each type of consolidation (e.g., business area consolidation). For example, one hierarchy could have a structure of consolidation units as companies, another hierarchy could have a structure with business segments. The component features the ability to use different consolidation charts of accounts. For example, this lets you generate consolidated statements for both German HGB requirements as well as US GAAP – in parallel. (SAP Help Portal c 2022.)

## **3.2 Financial Close on SAP S/4HANA**

At the end of each accounting year, the closing of this fiscal year in financial accounting becomes eminent, which the new fiscal year sees its preparation launched. This chapter deals with financial statements as well as year-end closing activities and tasks in SAP S/4HANA.

### **3.2.1 Financial Statements**

The financial statements mainly consist of the balance sheet and the profit and loss statement (P&L), which reflect the financial situation of the company for external stakeholders, while respecting the regulations. In SAP S/4HANA the RFBILA00 report is the standard which allows you to create a balance sheet and a P&L statement, however the creation of a personalized report is possible. It should be taken into consideration that accounts or items that are not assigned to the balance sheet when defining the version of the financial statements are not displayed. Picture 2 shows a displayed financial statement following the selection criteria made in the selection screen.

| C |      | Comp | Bus.   | Texts                         | Reporting period  | Comparison period | Absolute    | Rel    | Sum |
|---|------|------|--------|-------------------------------|-------------------|-------------------|-------------|--------|-----|
| F | code | area |        |                               | (01.2022-16.2022) | (01.2021-16.2021) | difference  | dif    | lev |
|   | DE00 |      | 100000 | Bank Account                  | 74,799.60-        | 84,044.00-        | 9,244.40    | 11.0   |     |
|   | DE00 | BI00 | 100000 | Bank Account                  | 4,292.20-         | 0.00              | 4,292.20-   |        |     |
|   | DE00 |      | 110000 | Trade Accounts receivables    | 68,031.44         | 76,568.00         | 8,536.56-   | 11.1-  |     |
|   |      |      |        |                               | 11,060.36-        | 7,476.00-         | 3,584.36-   | 47.9-  | *2* |
|   | DE00 | BI00 | 200000 | Inventory-Raw Materials       | 214,750.00        | 25,000.00         | 189,750.00  | 759.0  |     |
|   | DE00 | BI00 | 200300 | Inventory-Semi-finished Goods | 56,500.00         | 0.00              | 56,500.00   |        |     |
|   | DE00 | BI00 | 200500 | Inventory-Suspense (Heaven)   | 271,250.00-       | 25,000.00-        | 246,250.00- | 985.0- |     |
|   |      |      |        |                               | 0.00              | 0.00              | 0.00        |        | *2* |
|   | DE00 |      | 210000 | Prepaid insurance             | 1,000.00          | 0.00              | 1,000.00    |        |     |
|   |      |      |        |                               | 1,000.00          | 0.00              | 1,000.00    |        | *2* |
|   |      |      |        |                               | 10,060.36-        | 7,476.00-         | 2,584.36-   | 34.6-  | *1* |

PICTURE 2. Display of Financial Statement Report - Classic List

When creating a balance sheet or an income statement, the selection of the financial statement version is mandatory, this version is the organizational and hierarchical structure of the general ledger accounts and which displays several items in the financial statement. The detailed configuration of the financial statement version allows to process and select important elements, such as: the definition of the items to be displayed, their hierarchy, their sequence and the texts that describe them. Also, the specification of the chart of accounts and the particular accounts that must appear, as well as the definition of the totals to be calculated and displayed. The use of different versions of financial statements helps to determine their display and presentation for several use cases, such as interim reporting and consolidation, different version for internal audit, external audit or tax administration, as well as other selection parameters can be introduced in RFBILA00 which allow to have the financial statements by profit center, segment or company code, etc.

In SAP S/4HANA we find several versions of financial statements as standard, which can be used for a specific need or as a basic template to create a customized version or create a new version from scratch. SAP recommends not to modify the existing standard versions but rather to duplicate them after making the necessary modifications. The line items in the financial statements represent the hierarchical structure and flow down to the general ledger accounts. In the SAP standards the first level of special items are: Assets, Liabilities, Profit, Loss, Profit and loss results, Accounts not assigned, Notes to financial statement. A maximum of 20 hierarchical levels can be created under special items

in order to define the structure of the financial statement, and for each hierarchical level there is the possibility of calculating the total or sub-total which is displayed during the execution of the financial statement.

The assignment of accounts to an item is done at the level of these items while using the chart of accounts defined in the configuration of the financial statement version, this assignment can be done for an account interval or for a specific account, with the option of account balance, debit, credit or both.

### **3.2.2 Period-end and Year-end Closing**

In SAP S/4HANA the periodic (monthly) and annual (fiscal year) closing must be done first before making the final closing, these closings are broken down into two parts, business and technical.

The periodic closing lies in the closing of the accounting period which is generally the calendar month and the opening of the following period, this phase requires the realization of several tasks at the level of each module in SAP, some tasks are illustrated in the following paragraphs.

Concerning technical tasks three main transactions should be executed in order, the first is to close period for Material Master Records by the transaction MMPV, the second is to change the open period for financial accounting components (Assets, vendors, customers, materials, G/L) through the transaction OB52 and the third is to lock the closed period for controlling postings by the use of the transaction OKP1.

About the business closing part, in the Financial Accounting application the main tasks are the accruals and deferrals items, the posting of those revenues and expenses to ensure that they belong to the correct period and they can be posted manually or by the use of the recurring entry program. Also, the asset depreciation is one of the tasks that should be included in the period end closing process by reviewing the documents proposed and checking that any errors incurred before posting those depreciations. For Account payable, Account receivable and General ledger there is a clearing item which can be manual or automatic, for the automatic way, the application will group all open items by general ledger account. The clearing item operations are handled in cross with their specific SAP modules, respectively are material management and sales and distribution. The other main module concerned in this step is the Human Capital Management, where the salary costs and wages should be posted.

### 3.2.3 Year-end Closing

Additionally, to the habitual closing operations at the end of each period (Mostly each month), known as period end closing, the fiscal year end closing should be carried out in the special period. This operation includes also many tasks, which will be explained in this chapter and they concern the whole components of SAP S/4HANA.

The fiscal year closing has as the final goal the issuing of the final financial statements, so, at the first steps in the task to be performed some technical operations, those concern the opening of the new fiscal year and its first period, following by the carry forward balance of general ledger accounts, account payable, account receivable and asset accounts by using the carry forward program. Secondly the last ordinary posting period concerning the last year is closed and opening of the special period is made in order to post there all end year closing operations.

In the balances carrying forward of general accounts there is a difference in between the balance sheet which contains the customer, supplier and other accounts and with the accounts balance of the P&L statement which contains the income and expense accounts, where the account balances of the balance sheet are simply transferred automatically to the new year, but for the profit and loss accounts, the balances are transferred to the retained earnings account and the P&L accounts are reset to zero. However, the retained earnings account must be defined in the configuration and linked to the chart of accounts. In the case that P&L are of different currencies, they will be converted to the local currency.

About the business operations are the main part of this closing process and the volume of works depend of the company size, but some tasks are common. Among those tasks there is the report for checking the inter company journal entries and activities, this serve as a base for the consolidation preparation work. Then the review of recurring entries list and the execution of those entries by components (A/R, A/P and G/L), in this level the treatment of the parked documents is carried out in order to post them in there according component.

With regard to fixed assets, the processing is done on several levels and for several aspects, for example there is the determination of the final state of the maintenance for the selected fixed assets which helps in the revaluation, as well as the state movements and transfer to be able to make the necessary entries, another aspect is the determination of the fixed assets to be retired and ensure that the appro-



ropriate entries are made in the proper ledgers. Thereafter it is necessary to see if there is a need to consider as fixed assets the assets under construction (AUC) and to value them. These successive tasks make it possible to calculate and record the depreciations by the end. The execution of asset history report is recommended to ensure that the depreciations are well calculated and posted.

The foreign currency evaluation is one of the tasks that requires careful monitoring during the annual closing phase, this evaluation concerns open items and for balance sheet accounts that are also managed in foreign currency. Open items mainly concern customer and supplier accounts as well as some general accounts. This valuation comes to adjust the value of these items previously recorded according to an exchange rate during the execution of the operation, but they must be recalculated according to the excurrent change rate at the end of the fiscal year. This operation can be done using a program provided by SAP as standard and which makes it possible to note the differences in valuation as well as their postings in the general ledger.

Accruals and deferrals operations are also to be processed during this end-of-year period, in order to allocate expenses and income to the appropriate period and transfer the remainder to the relevant periods during the following financial year. These operations can be observed and recorded manually as they can be performed using an SAP program in order to automate this kind of repetitive tasks as much as possible. This program also makes it possible to choose the accrual type, where the simple accrual type is enough to specify the criteria on which the accrual or the deferral will be based to carry out the calculation of the amounts and the entries to be recorded. For the derived accrual type, it allows a more advanced calculation where it includes in its calculations another accrual type, knowing that the type groups the accruals according to the costs, the incomes or the receivables. The accrual type can be associated with the accrual method, this method defines the way of calculating the amounts to be accrued each period, such as linear accrual or declining balance accrual.

Adjusting customer receivables is one of the year-end activities, as it is known that not all customers will be able to settle their receivables, and this is due to many reasons such as bankruptcy or financial problems. As a result, the treatment of insolvent customers must be subject to the complete or partial cancellation of these receivables. In S/4HANA value corrections can be done with three types, which are flat-rate value adjustments, individual value adjustments and flat-rate individual value adjustments. These adjustment operations will be entered in a special general ledger. As a result, these processed receivables had a due date and therefore the new deadlines will be recalculated in order to give a correct view of cash management and forecasts. Figure 1 explains and simplifies the relation between

month and year end closing and the main steps in each type of closing, and the role of financial statement.

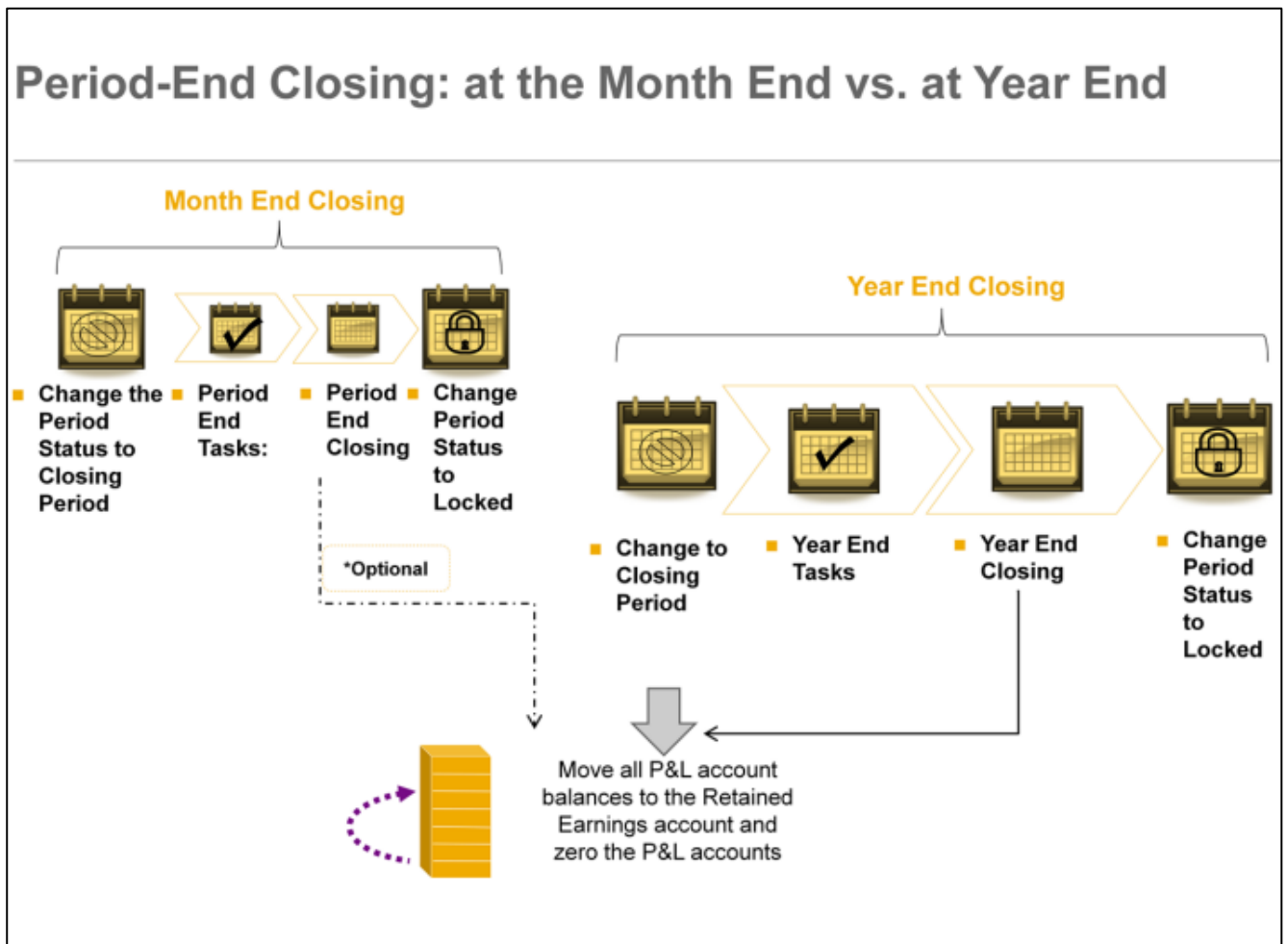


FIGURE 1. Month End Closing & Year End Closing (SAP Help Portal g 2022)

### 3.3 What is SAP S/4HANA Financial Closing Cockpit

The financial close in a company requires the management of several critical steps and the proper elaboration and supervision of dependencies between tasks in different steps. Inefficiency in one step can cause significant delays and incorrect data. In the past with SAP R/3 or before, SAP ERP did not integrate a closing application, so users relied on Excel and other solutions to do this hard work of closing, which makes the process cumbersome and source of several shortcomings. This reality has led SAP to

deliver the closing application since 2000 with functionalities that have been reinforced over time, until the solution has become efficient, automated and integrated in its latest versions. Figure 2 shows how the SAP closing solution has evolved over time.

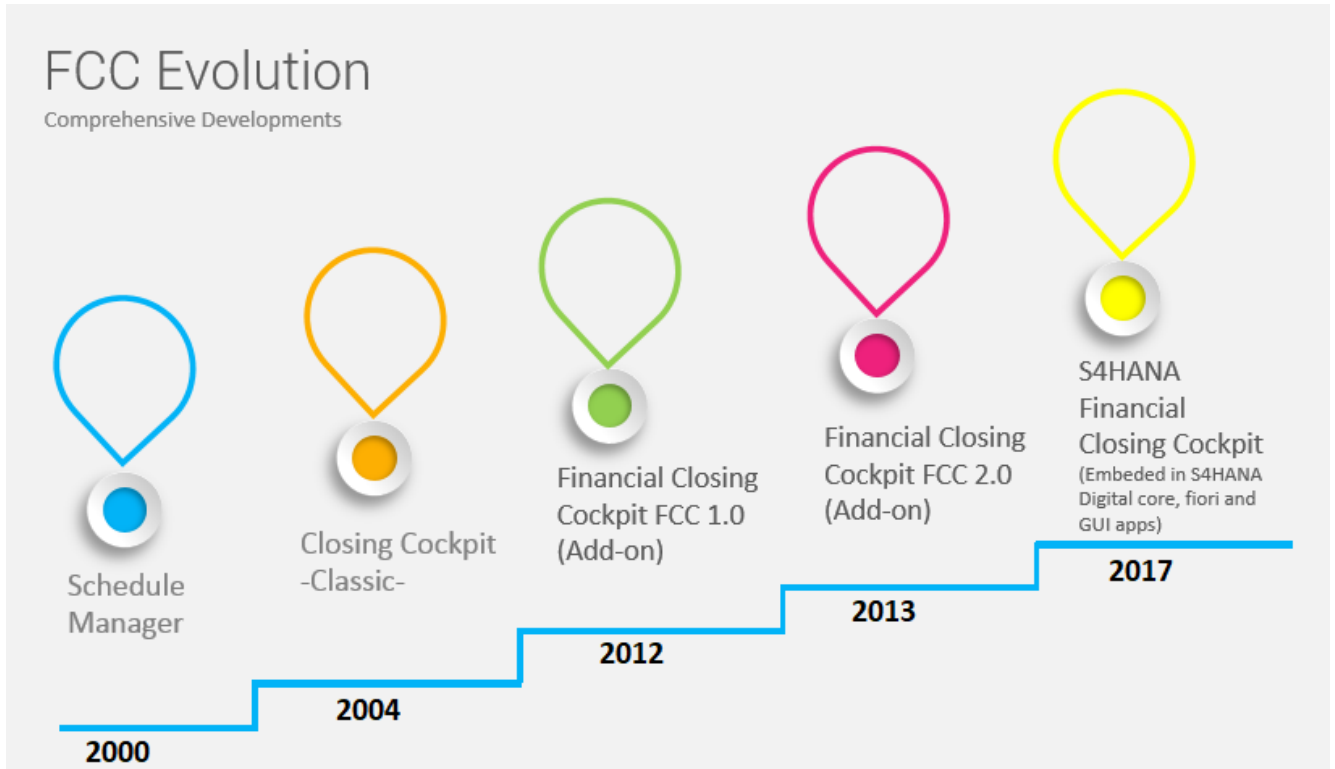


FIGURE 2. SAP Financial Closing Cockpit Evolution Over the Time (Yilmaz 2019)

The new versions developed over time have brought new functionalities in order to better meet the expectations of specialists, the table below illustrates and compares the main features between the different versions released by SAP.

TABLE 1. Comparison of Closing Features in Various SAP Releases (Bagchi 2018, 15)

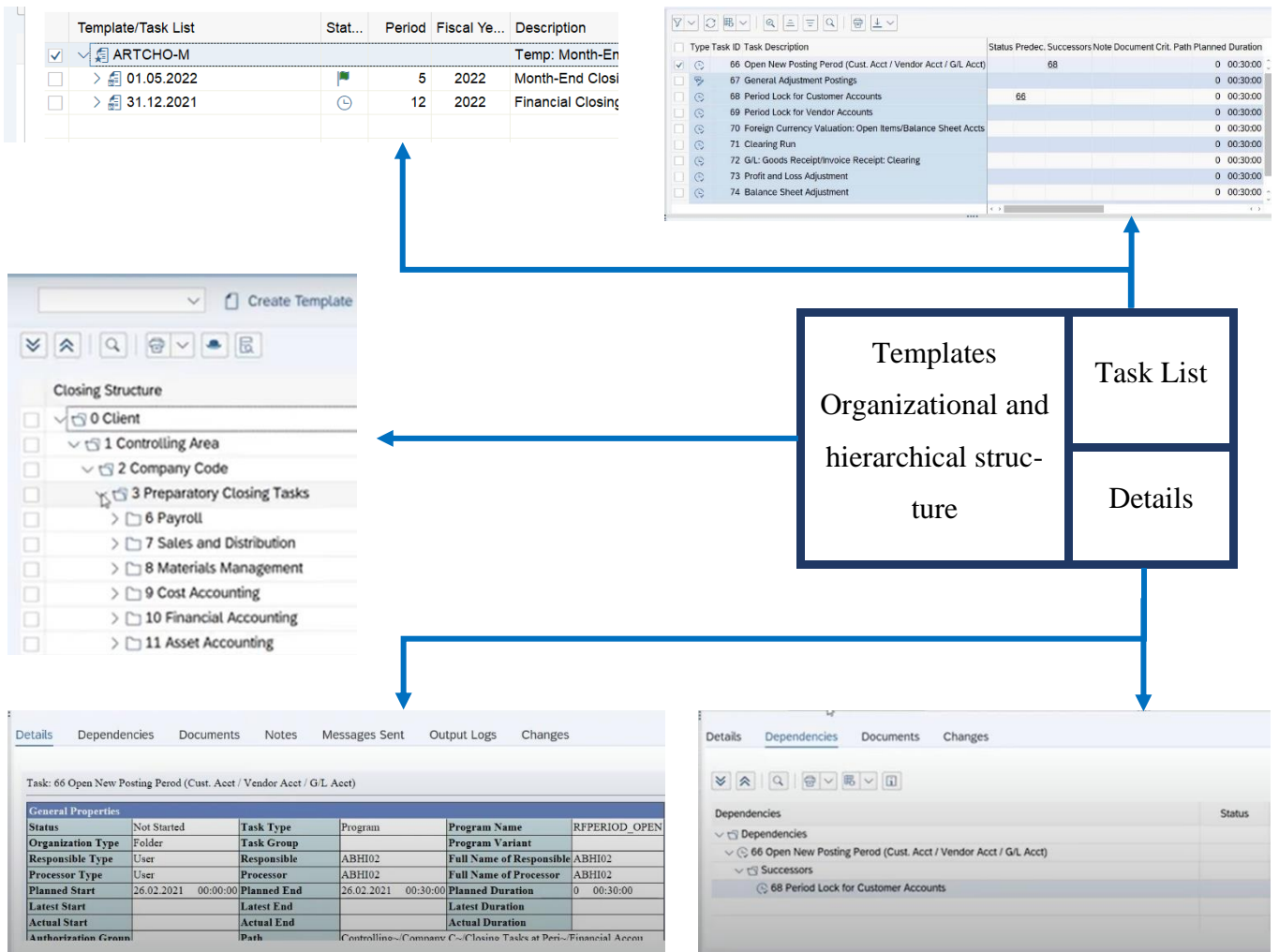
| Feature   | Description  | Closing Cockpit  | SAP FCC Add-On   | SAP FCC for SAP S/4HANA |
|---|--|------------------|------------------|-------------------------|
| <b>Task group</b>                               | A special template containing all closing tasks  | Not available    | Available        | Available               |
| <b>Authorization restriction</b>                | Four layers of authorization control based on segregation of duties                            | Partial features | Available        | Available               |
| <b>Factory calendar usage</b>                   | Task execution and scheduling per local factory calendar                                       | Partial features | Available        | Available               |
| <b>Remote tasks</b>                             | Seamless integration with multiple SAP ERP applications in a heterogenous features environment | Not available    | Partial features | Enhanced                |
| <b>Global ID monitor</b>                        | Task status monitoring and reporting   | Not available    | Available        | Available               |
| <b>Mass changes for template and task lists</b> | Simplified application maintenance   | Not available    | Available        | Available               |
| <b>Task time zone</b>                           | Task execution and scheduling per local time zones   | Partial features | Available        | Available               |
| <b>Custom fields</b>                            | Additional dimensions for user reporting   | Not available    | Available        | Available               |

The Financial Closing Cockpit (FCC) is a solution for planning, monitoring, executing and analysing of financial tasks for all organizational levels within the company and is integrated into SAP S/4HANA. The application is ergonomic and intuitive with a structured interface to define, supervise, and manage the program and the tasks that should be carried out during the closing phase, whether monthly or annually, as well as it has the pivotal role in an organization for the sharing and availability of information between all stakeholders. The FCC is developed in order to adapt to different size of organization and to different scenarios and way of working, this is possible due to some characteristics

of the solution. FCC is the right solution for many activities and tasks, for example, if an activity is carried out periodically, several people and managers are involved, the work process involves several correlated activities, dependent and chronological or simple activities, periodic closing activities should be documented with traceability so that all concerned persons can see the progress, the way of working is standardized for all and common interfaces for all employees and the process is carried out within and across many organizational units or across several company codes.

### **3.4 Closing Operations with SAP S/4HANA Financial Closing Cockpit**

The elements necessary for the implementation of the FCC are the following: Templates, which is based on the organizational structure of the company, namely company code, controlling area and on the hierarchical structure using folders and subfolders, these two structures allow the classification and the display of organizational objects that enter into the closing process. Followed by the tasks list to be performed and which come from the model previously defined. Also, A space to display detailed information about the values of each hierarchical level that is part of the model, adding to this the technical information of the tasks which allows the analysis and the follow-up of the programs executed in the background. There is also the task list display that allows their monitoring and processing, where a monitor allows a graphical view of all task sequences, execution status, critical path and dependencies. Picture 3 illustrates more the main components of FCC in SAP S/4HANA.



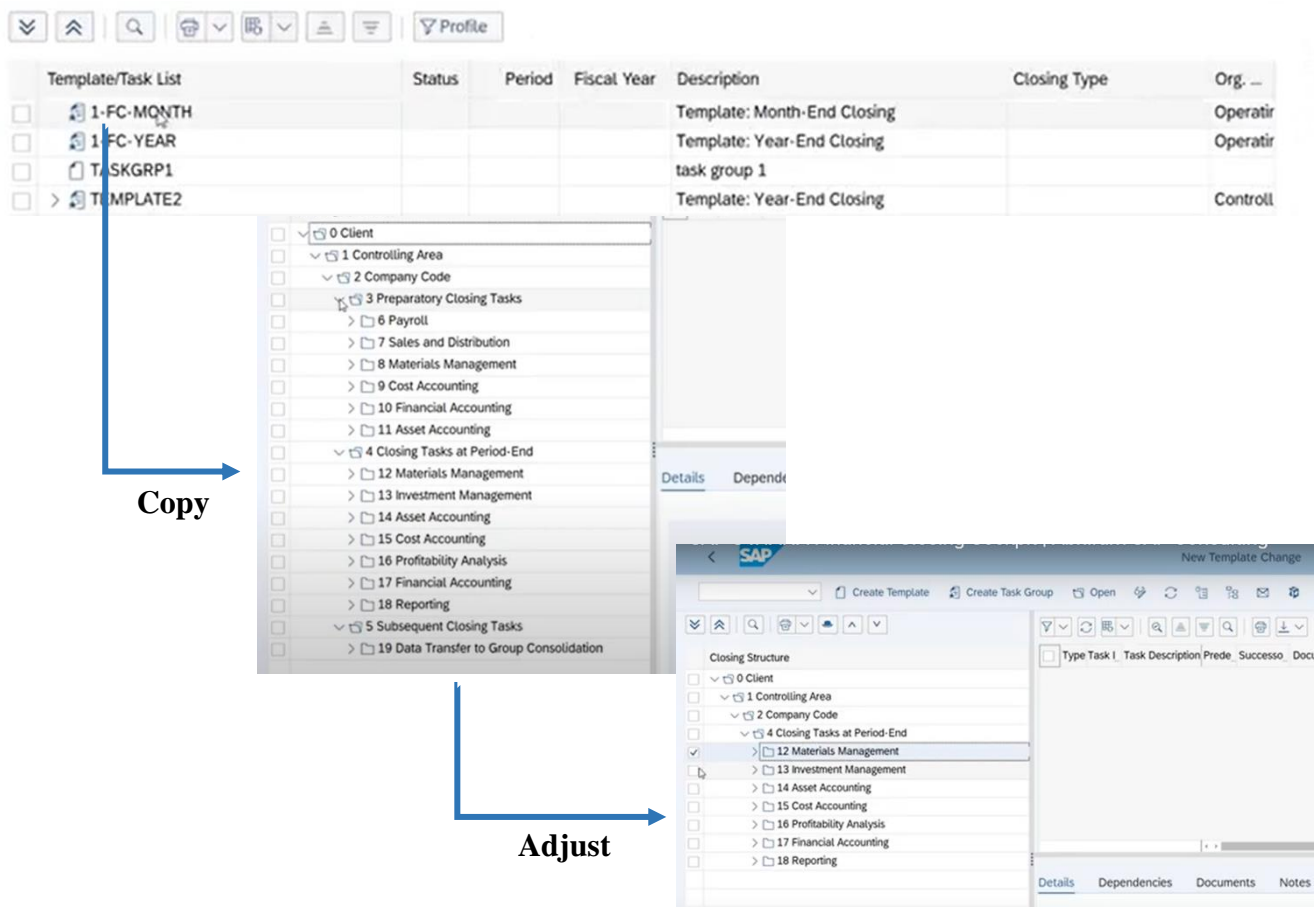
PICTURE 3. FCC Component Parts

### 3.4.1 Configuration of Financial Closing Cockpit

The use of the FCC as an automatic closing application, the requirements and the configurations of the essential elements must be done for the process to run properly. This configuration is done in steps, one by one, and SAP recommends a standard procedure that optimizes the flow of the FCC implementation process and this procedure contain four steps.

Firstly, the creation of the template, which can be copied from a standard template provided by SAP or an existing Template, then adjusted to the needs of the company, or created a new template. When the

template is copied, the system generates a new template while copying all the organizational and hierarchical structure available, such as company code and controlling area. Subsequently, the adjustment of the new template is possible, whether by adding or deleting organizational levels, folder or sub-folder, limiting it to a certain level, for example company code or adding functional area, picture 4 shows the copy of the template 1-FC-MONTH. The template adjusted may be a template for a sector or company size in the group which will be used later easily. You should know that the standard SAP templates cannot be modified.



PICTURE 4. Copy and Adjustment of Templates

Secondly the creation of tasks, which is done after the template is created, these tasks can be assigned to each hierarchical level (folder or sub-folder). The activities that need to be accomplished in the closing process are depicted by tasks, and which are of different types so, it gives more flexibility and adaptability in the configuration of the process. SAP provides twelve types of tasks, which are: Job, Flow Definition, Transaction, Note, Program, Business Automation Enabler, Remote Transaction, Remote Program, Remote Job, External Job, Remote Flow Definition and Web Application.

Adding tasks is done in the corresponding list of tasks or via the contextual menu of a folder. The task can be assigned to different type of closure, also it can be scheduled, defined as critical or not, these critical tasks affect the overall duration of the process if they are late. The task requires the assignment of the type, of a program with or without variant as well as the employees concerned.

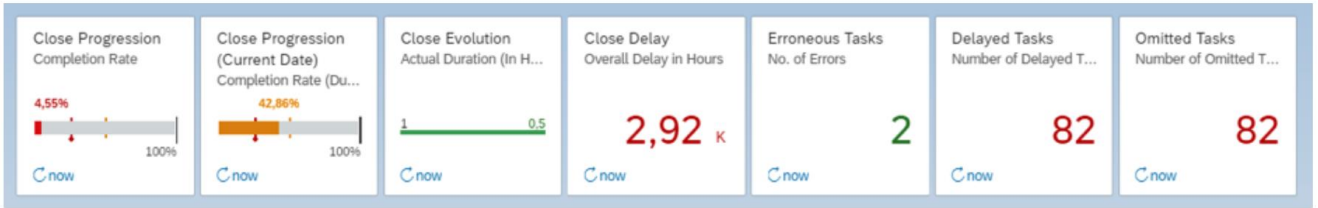
Thirdly the dependencies, view that many tasks in each model must be performed in different orders depending on the specificities of each company, whether technical or commercial. Therefore, dependency management in FCC is made to adapt to these business requirements, and ensure that a task cannot be executed unless others are well done. A task can have several predecessors or successors, as it is possible to put an entire folder as a task dependency. Dependencies between tasks can be done by drag and drop. You must first select the task that will be the predecessor and drag it into the dependencies tab, and then drag the task that will be the successor.

Lastly the creation and releasing of task list, this creation is done with reference to the previously defined template, while determining the parameters of this task list so that the related tasks are executed in the same way, and allows more manoeuvrability since a template can contain several task lists which contain different parameters. The creation of the task list is done from the menu in the template then create periodic task list or via the FCLOCOT transaction. SAP displays more values by default, such as the name of the template selected, but the fiscal year or the accounting period must be entered, the person responsible or the closing type. After creating the tasks list, its use is only possible after its release via the Status field, and it is after this action that the system loads the necessary variants of each program included in the tasks, as well as the user will be able to schedule the predefined tasks.

### **3.4.2 Analysis and Reporting with SAP Fiori**

SAP Fiori provides an excellent and modern user experience (UX), so for reporting and analysis it shows value summaries in an easy to use way and can be customized by the user, as well as allowing drill down for analysing in detail the transactions and with different view like by region, by process phase, etc. SAP S/4HANA provides in standard some application in order to monitor the whole process of financial closing, there's application for monitoring the progress of the process, omitted tasks, delayed tasks, etc. Picture 5 shows some of those applications.





PICTURE 5. SAP Fiori Applications for FCC (Agarwal 2019)

## **4 FINANCIAL CLOSING IN A COMPANY CASE**

The closing process in practical life is not an easy task for most companies, and as demonstrated earlier what the FCC solution of SAP S/4HANA can bring as advantages, the work will be done in this chapter on an anonymous company we will give to it the name ARTCHO to see the improvement that SAP S/4HANA FCC can bring.

### **4.1 Company Presentation**

ARTCHO is an Algerian company specialized in the distribution of Office Supplies and Items, Computer Consumables, Stationery and Fine Arts.

Founded in 1996, by an ambitious young man, he created his own brand in 1999, and launched his distribution network in 2005. Until now ARTCHO totals twenty-two superstores spread over the territory of his country and four distribution centers.

For more than 20 years of existence, ARTCHO has won the trust of customers as well as national and international suppliers and has more than 15 major global brands in its portfolio. The promise that gives ARTCHO is to satisfy the demand of its customers through the “One Stop” concept, a stop to make professional and personal purchases.

Since its creation ARTCHO has focused on modernizing the operation of the company and having a better mastery of its profession. The measures adopted concerning human resources are staff training and motivation through performance bonuses. For the organizational aspect, there is the introduction of new organizational procedures and ISO 9001 certification. Regarding relations, it is the consolidation and establishment of partnerships with strategic suppliers in the field. More, ARTCHO introduced the culture of collaboration and communication between the different structures of the company in order to preserve a pleasant social environment.

## **4.2 ARTCHO Diagnosis**

The general diagnosis of the ARTCHO company is focused on the need to implement a single solution that manages the closing processes. This is mainly aimed at the following objectives, firstly to examine the functioning of the company and assess, on this basis, the interest of a solution for the management of financial closing. Secondly, to identify the existing strengths allowing the efficient operation of the solution as well as the weaknesses hindering its smooth running. Thirdly, to be able to size the project according to the objectives, challenges and expected results.

The general diagnosis of the ARTCHO company was made by a general examination of the company, while focusing on the following points: Review of the closure process, determine the scope to be analysed (namely which companies are concerned, the people who are involved in the process, etc.), identify the approaches and solutions already implemented at ARTCHO to easily build the solution implementation project and review of the decision-making information system: What statistics are kept? over what period? Are these data integrated? Easily extractable?

## **4.3 Result of ARTCHO's Internal Diagnosis**

The diagnosis of the company ARTCHO, focused on the implementation of the financial closing solution with SAP S/4HANA, highlighted the following aspects:

### **4.3.1 Strengths Identified**

Four strengths are identified, firstly is the modern management based on transparency, objectives set for each entity, clear responsibilities assigned to each employee in the organization and participatory management. Secondly, the management is very favourable to the implementation of a single financial closing solution and the existence of a desire for great collaboration in order to achieve the implementation of the solution. Thirdly, the advanced information system and powerful IT infrastructure. Fourthly, the stability of employees and managers, resulting from the corporate culture and conducive internal environment.

### **4.3.2 Recognized Weaknesses**

Six weaknesses are identified, in the first place we have the insufficiency in terms of procedures manuals and documents relating to the financial closing activity and the methods of accomplishing the various tasks. Secondly, realization of several adjournments of completion deadlines, and closing delays. Thirdly, lack of speed and responsiveness in performing tasks. Fourthly, the non-existence of an instantaneous view of the evolution status for closing process. Fifthly, working with multiple tools for closing management leads to reporting errors. Sixthly, failure to comply with the internal standard for closing.

### **4.3.3 Management of Financial Closings Within ARTCHO**

The management of the financial close at ARTCHO is mainly divided into the monthly close and the annual close. Regarding the monthly close contains less tasks in number compared to the annual close, but it is considered crucial for the annual close. At ARTCHO the annual closing is divided into three main phases, which are the physical inventory of fixed assets, the physical inventory of goods and the last phase that of financial closing accounts. The ARTCHO group works with three ERPs, of which the first ERP includes four companies, the second ERP manages twenty-one companies and the third dedicated to one company. As a result, the closing phase is complex and requires the involvement of several people and good synchronization and collaboration, hence the group divides the companies over six employees taking into consideration the mastery of ERP by each person, therefore a companies portfolio is assigned to each employee involved in the financial closing operation (APPENDIX 2).

With regard to the progress of the closing operations as well as the follow-up of the state of realization, two check lists under Excel are set up in order to standardize the work of the team, and for the follow-up of the achievements a manager within of the financial department is responsible for monitoring the progress on a weekly basis against a pre-established schedule and reporting this on MS Project.

This working method makes management very complex and the error rate high, in addition to the lack of instantaneous and reliable monitoring of progress. The diagnosis and the study of the existing situation allowed us to draw a good image of the current organization, while determining all the surroundings of the need for ARTCHO to equip itself with the SAP Financial Closing Cockpit solution. This is due to the criticisms, observations made, opinions and expectations of the senior executives who were the most able to direct us towards the real problems.

## 4.4 SAP Financial Closing Cockpit Implementation

After having illustrated the usefulness of setting up the SAP FCC solution within ARTCHO, through the diagnosis and the expected results, this chapter will describe the process of setting up this solution, the beginning with the modelling, then the basic data and the final result.

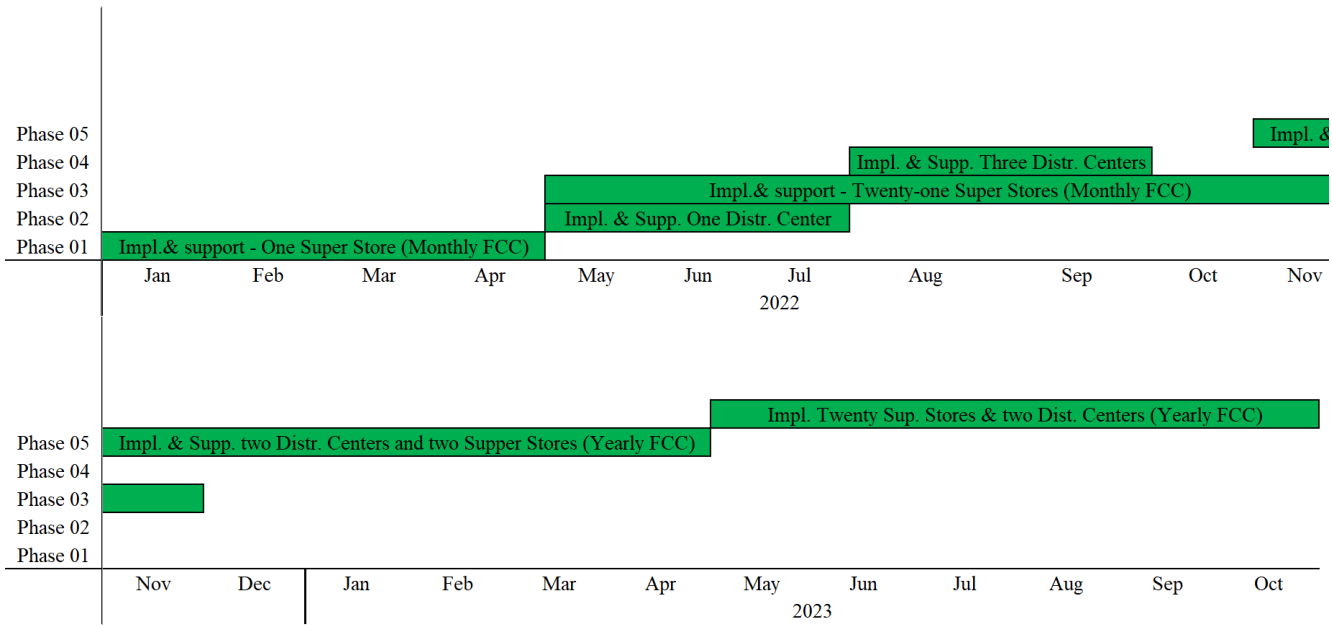
### 4.4.1 Modelling

During this phase we will structure the financial closings monthly and annually, and the companies will be grouped according to the nature of the activity of each company. According to this diagram we obtain four lists of closures which contain tasks, table 2 illustrates this decomposition.

TABLE 2. Closing Lists by Business and Period Type

| <b>Business Type / Closing Type</b> | <b>Monthly</b>       | <b>Annually</b>      |
|-------------------------------------|----------------------|----------------------|
| <b>Distribution Center</b>          | Four companies       | Four companies       |
| <b>Supper Store</b>                 | Twenty-two companies | Twenty-two companies |

In order to better master the solution and to carry out the project well, we recommend starting with a monthly closing model with a single Super Store type company and after having stabilized the final structure and that all the links with the ERP of the company are made, a three-month test phase must be planned. Once the test period is over, the implementation must be launched with monthly closing for a Distribution Center type company, but the test period will be two months this time, while implementing parallelly in the twenty-one remaining companies the monthly closing SAP solution. The same for the rest of the distribution centers after the end of the test period. Regarding the solution for the annual closing, it is recommended to implement it two months before the end of the year for two companies of each category, and once the annual closing is completed, the solution will be generalized on the set of companies. As the annual closing period is long, the test phase is included in this closing period and the support will be dedicated for these four pilot companies. Picture 6 illustrates the provisional implementation schedule.

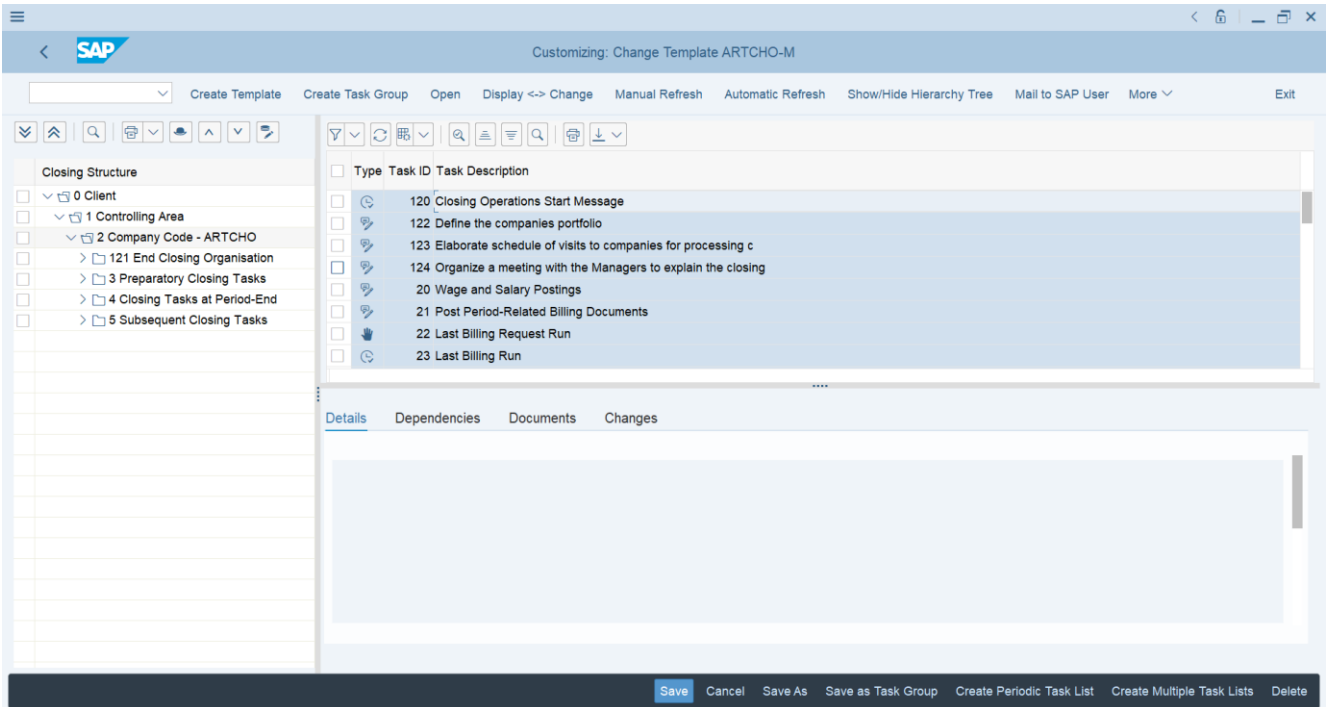


PICTURE 6. Provisional Implementation Schedule

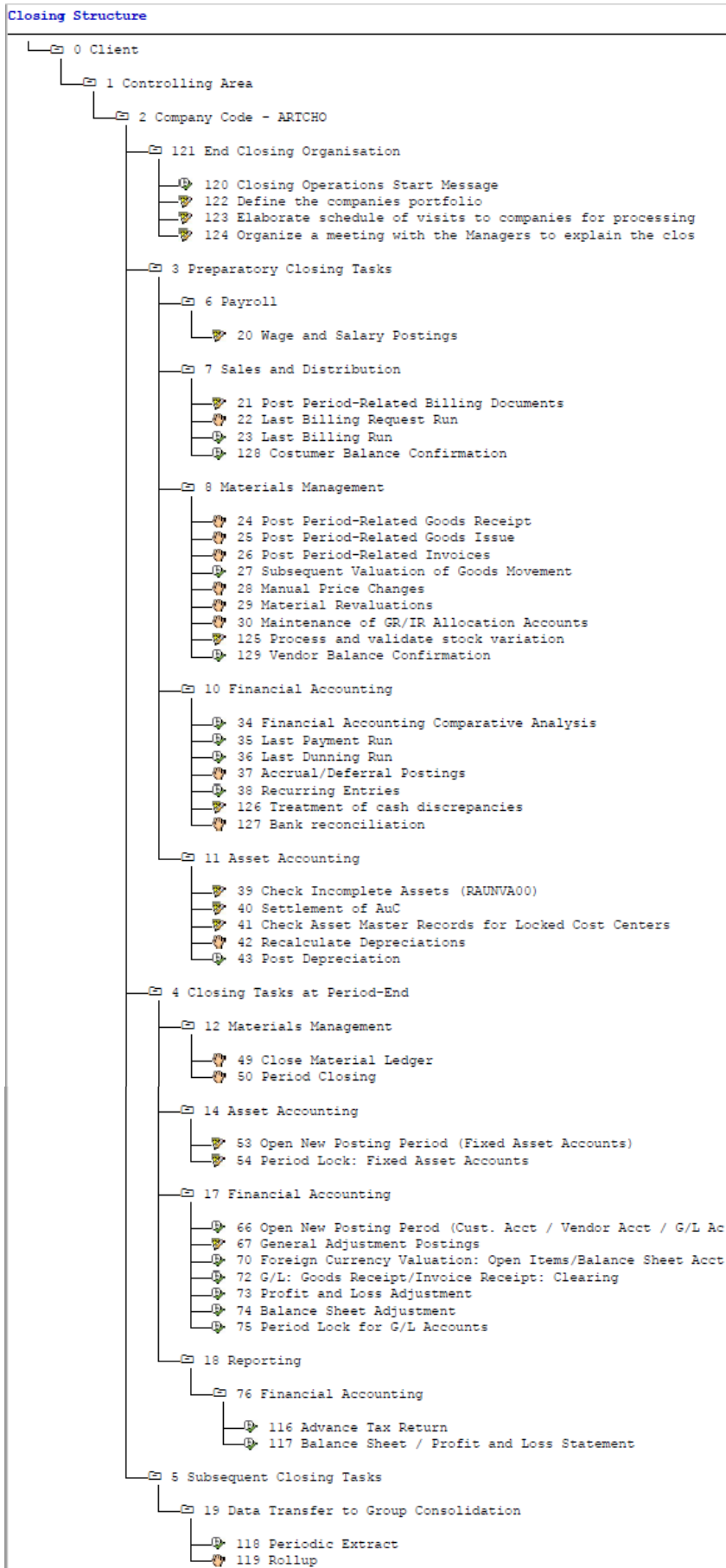
In this perspective, the model that will be configured in this study concerns the monthly closing of Super Store, where the model will be subdivided into four steps for the closing.

**4.4.2 Basic Data**

This phase is concerned with the definition of the four closing steps, their sub-steps and the affiliated tasks. At the S/4HANA FCC level we define a model named "ARTHCO-M", the organizational structure of this model includes the folders, the subfolders and finally the tasks, picture 7 illustrates the main organizational structure and picture 8 demonstrates the whole structure hierarchy.



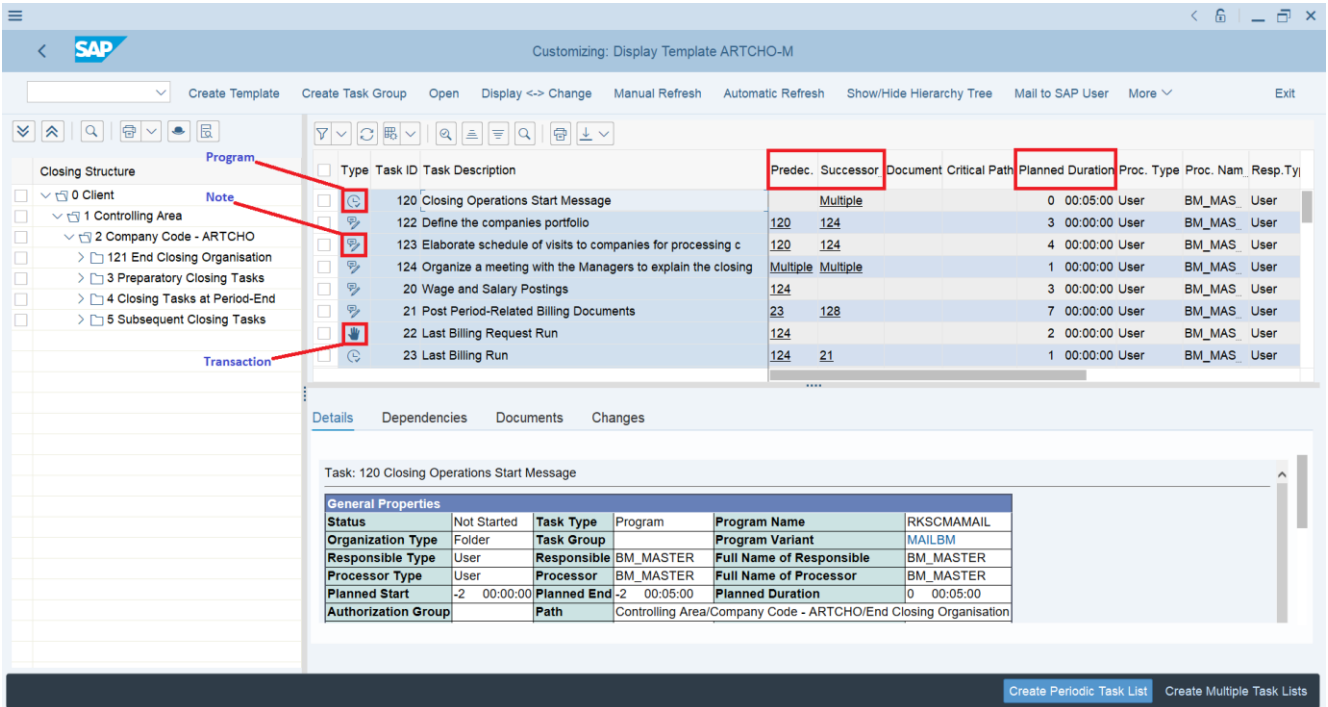
PICTURE 7. Main Organisational Structure of The Template



PICTURE 8. Entire Hierarchy of The Closing Structure



For the smooth running of the closing process, it is also necessary to define in the closing template the duration of each task, the dependencies, the type of the task (Transaction, Note, Program... etc.), the responsible, authorized group, ... etc. Picture 9 shows more details and components of the template ARTCHO.



PICTURE 9. Planned Template

### 4.4.3 Final Result

Once the model is defined and validated, we will create a list of tasks based on this model, under the name "Month-End Closing - ARTCHO - SS", while specifying the key date that will serve as the basis for calculating the schedule, the calendar of the company and in our case we used the type "FI", which is the standard of SAP for Finland. Picture 10 shows the parameters of our task list.

Change Basic Data about Task List ARTCHO-M/01.05.2022

Task List: **ARTCHO-M**

\* Key Date: **01.05.2022**

\* Closing Type: **M**

\* Posting Period: **5**

Factory Calendar: **FI**

Destination:

Isolation Group:

Notif. Confg.:

Master Language:

Closing Hierarchy: **2 Controlling Area / Company code**

\* Description: **Month-End Closing - ARTCHO - SS**

\* Fiscal Year: **2022**

\* Status: **N Not Released**

\* Responsible: **US User** **BM\_MASTER** **BM\_MASTER**

Authorization Group:

Time Zone:

Ext. Job Scan Range: **10**

Copy Logs

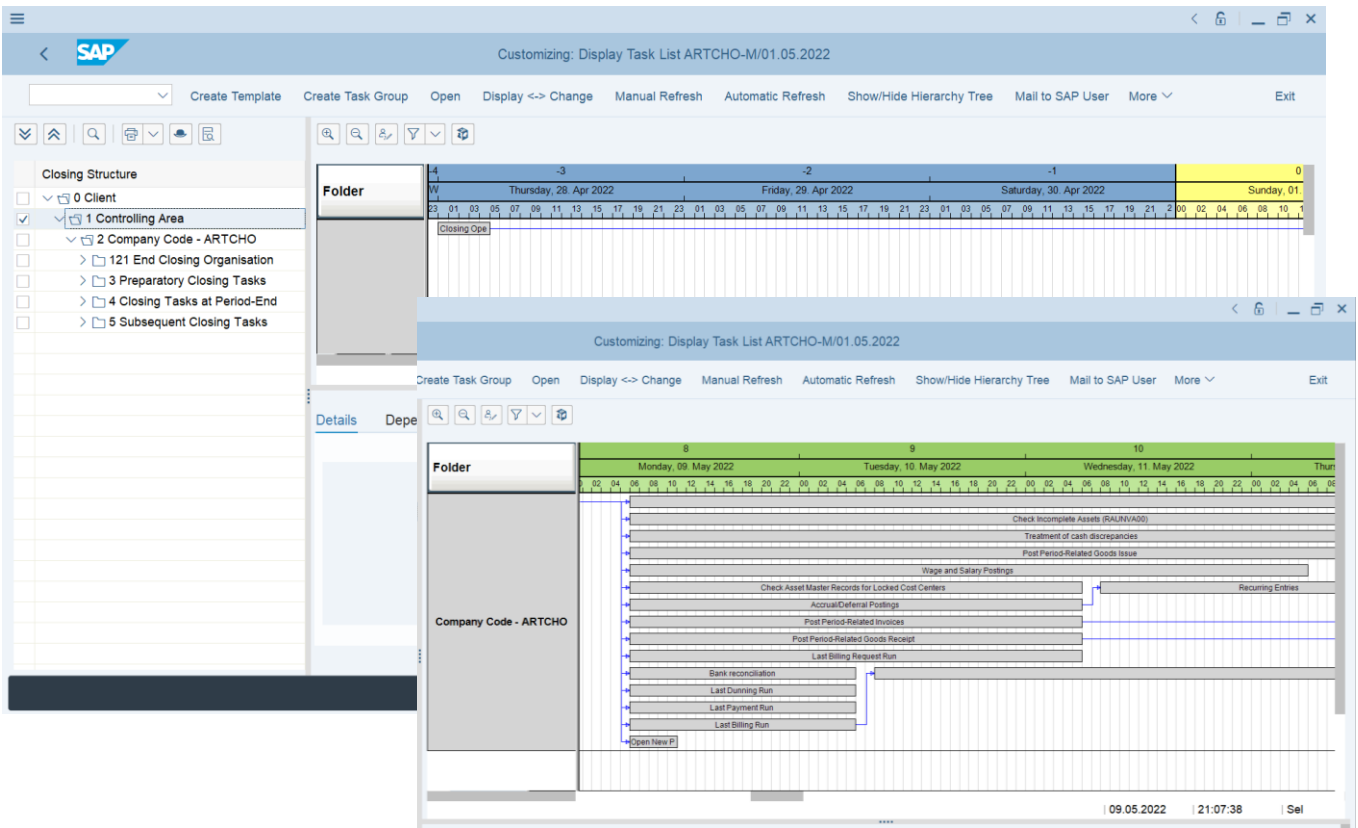
Custom Variables    Standard Variables

| Name                     | Description | C... | Type | Option | Lower Limit | Upper Limit | M... |  |
|--------------------------|-------------|------|------|--------|-------------|-------------|------|--|
| <input type="checkbox"/> |             |      |      |        |             |             |      |  |
| <input type="checkbox"/> |             |      |      |        |             |             |      |  |
| <input type="checkbox"/> |             |      |      |        |             |             |      |  |
| <input type="checkbox"/> |             |      |      |        |             |             |      |  |
| <input type="checkbox"/> |             |      |      |        |             |             |      |  |
| <input type="checkbox"/> |             |      |      |        |             |             |      |  |
| <input type="checkbox"/> |             |      |      |        |             |             |      |  |
| <input type="checkbox"/> |             |      |      |        |             |             |      |  |
| <input type="checkbox"/> |             |      |      |        |             |             |      |  |
| <input type="checkbox"/> |             |      |      |        |             |             |      |  |

Continue    Cancel

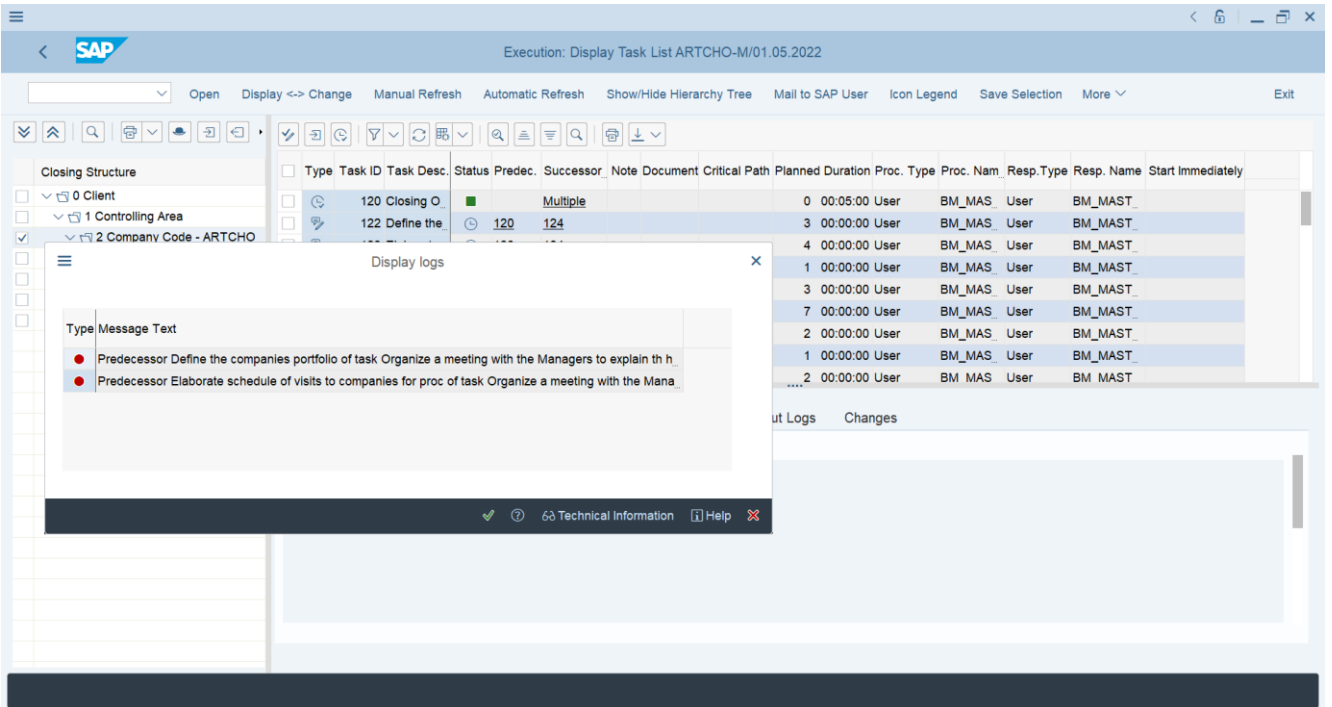
PICTURE 10. Task List Parameters

Now we can get the schedule under GANTT chart or list. Picture 11 shows the GANTT diagram of our scheduled task list for the month of May and which concerns the closing of the month of April 2022. Thereafter, the list of tasks must be released, in order to be able to dynamically monitor the achievements. According to the progress of the achievements, the status of each task changes whether automatically by the execution of the program, transaction or manually, in order to allow a real follow-up of the evolution of the closing process.

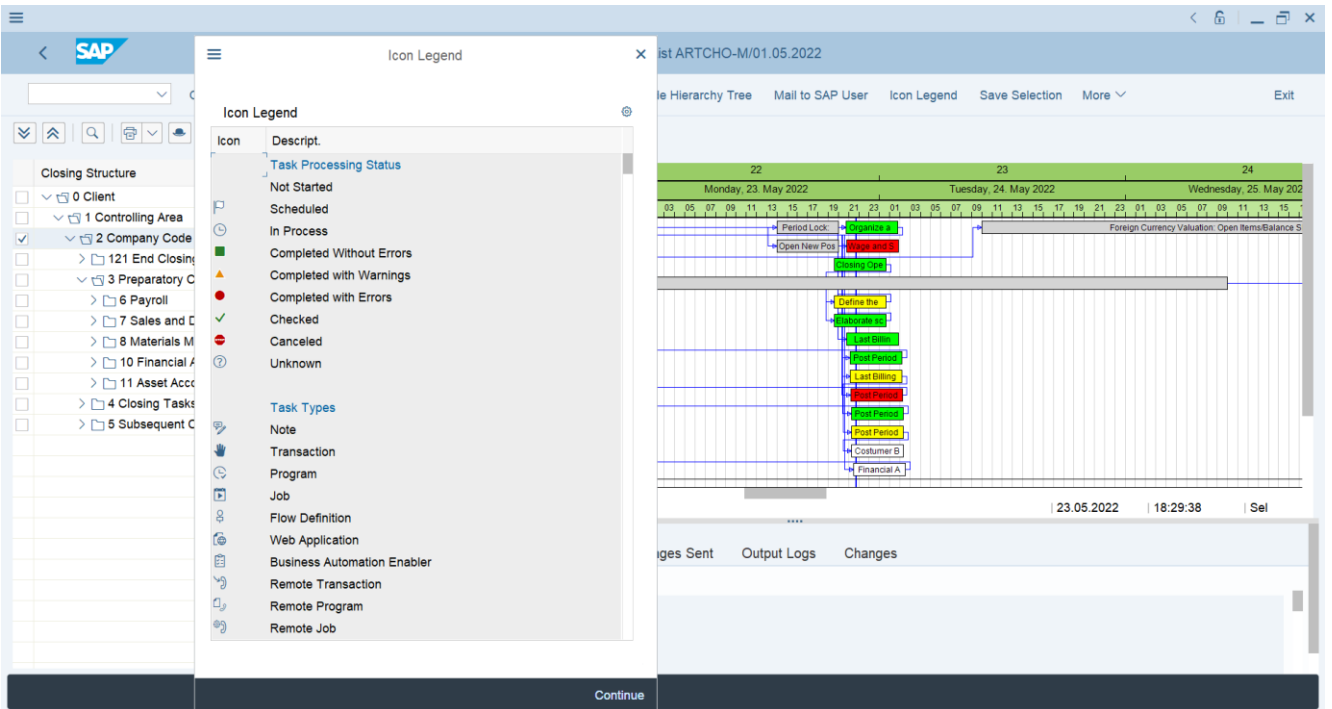


PICTURE 11. GANTT Diagram for The Planned Task List

The definition of the dependencies ensures the control of the tasks execution while not permitting the execution of a task if it is connected by the end of another, the picture 12 shows this kind of control by a blocking message. With the progress of the achievements, the status of each task changes automatically after the online execution of the transaction or the program or the changes will be operated manually, the GANTT chart also follows the progress and displays the tasks in their actual completion time, as well as their status by different colours, picture 13 shows the state of evolution of the process on the GANTT diagram.



PICTURE 12. Control of Dependencies During the Execution



PICTURE 13. GANTT Diagram for The Task List Progress

## 5 CONCLUSION

Companies are constantly developing and expanding in order to conquer new market share and ensure their presence, this translates into the creation of more companies, groups or consortia. Therefore, the financial results are one of the keys to the success of an entity, which are the output element of the annual financial closings. So, to achieve reliable and manageable financial closings, companies are led to ensure that this mission and the underlying mission, that of the monthly closings, are well structured, organized and transparent.

This financial close work is not quite easy but, rather complex and requires a lot of coordination and collaboration. We have therefore tried during this project to assess the favourable contribution of SAP S/4HANA Financial Closing Cockpit to the performance of a company and to propose an efficient operational approach to establish a method that supports this monthly and annual activity.

This project, which is part of the implementation of the SAP S/4HANA Financial Closing Cockpit solution on behalf of ARTCHO, was originally intended to meet the three main objectives, namely: automation and the planning of financial closing tasks, standardizing the tasks and the process of these closings, consolidating and allowing a global and instantaneous view of the state of evolution of financial closings.

In order to achieve this objective, we have gone through several stages, starting from the collection of information and diagnosis, through analysis and modelling, to the implementation of a monthly closing. However, the model requires improvement in the future to adapt to requirements and allow more visibility through advanced reporting.

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APPENDIX 2

|    | C                             | D                             | E                      | F                      | G                      | H                      |
|----|-------------------------------|-------------------------------|------------------------|------------------------|------------------------|------------------------|
| 2  |                               |                               |                        |                        |                        |                        |
| 3  |                               | <b>Companies Portfolio</b>    |                        |                        |                        |                        |
| 4  |                               |                               |                        |                        |                        |                        |
| 5  | <b>Employee 01</b>            | <b>Employee 02</b>            | <b>Employee 03</b>     | <b>Employee 04</b>     | <b>Employee 05</b>     | <b>Employee 06</b>     |
| 6  |                               |                               |                        |                        |                        |                        |
| 7  | <b>Distribution Center 01</b> | <b>Distribution Center 04</b> | <b>Supper Store 07</b> | <b>Supper Store 09</b> | <b>Supper Store 11</b> | <b>Supper Store 15</b> |
| 8  | <b>Distribution Center 02</b> | <b>Supper Store 02</b>        | <b>Supper Store 08</b> | <b>Supper Store 10</b> | <b>Supper Store 12</b> | <b>Supper Store 17</b> |
| 9  | <b>Distribution Center 03</b> | <b>Supper Store 03</b>        | <b>Supper Store 14</b> | <b>Supper Store 18</b> | <b>Supper Store 13</b> | <b>Supper Store 20</b> |
| 10 | <b>Supper Store 01</b>        | <b>Supper Store 04</b>        |                        |                        | <b>Supper Store 19</b> | <b>Supper Store 21</b> |
| 11 |                               | <b>Supper Store 05</b>        |                        |                        | <b>Supper Store 22</b> |                        |
| 12 |                               | <b>Supper Store 06</b>        |                        |                        |                        |                        |

# APPENDIX 3

|    | A | B | C                 | D      | E      | I                 | J      | O      | P      | Q      | R      | S      | W  | X      | Y     | Z      | AA     | AB     | AD     | AE      |  |
|----|---|---|-------------------|--------|--------|-------------------|--------|--------|--------|--------|--------|--------|--|--------|-------|--------|--------|--------|--------|---------|--|
| 2  |   |   |                   |        |        |                   |        |        |        |        |        |        | CALENDAR OF VISITS OF FIXED ASSETS INVENTORY TEAMS |        |       |        |        |        |        |         |  |
| 3  |   |   |                   |        |        |                   |        |        |        |        |        |        |  |        |       |        |        |        |        |         |  |
| 4  |   |   | 12-Nov            | 13-Nov | 14-Nov | 18-Nov            | 19-Nov | 24-Nov | 25-Nov | 26-Nov | 27-Nov | 28-Nov | 02-Dec   | 03-Dec | ##### | 05-Dec | 06-Dec | 07-Dec | 09-Dec | 10-Dec  |  |
| 5  |   |   |                   |        |        |                   |        |        |        |        |        |        |  |        |       |        |        |        |        |         |  |
| 6  |   |   |                   |        |        |                   |        |        |        |        |        |        | Empl. 12 - Empl. 2 - Empl. 9 - Empl. 8 - Empl. 10  |        |       |        |        |        |        |         |  |
| 7  |   |   |                   |        |        |                   |        |        |        |        |        |        |  |        |       |        |        |        |        |         |  |
| 8  |   |   |                   |        |        |                   |        |        |        |        |        |        |  |        |       |        |        |        |        |         |  |
| 9  |   |   | Empl. 1 - Empl. 2 |        |        |                   |        |        |        |        |        |        |  |        |       |        |        |        |        |         |  |
| 10 |   |   |                   |        |        |                   |        |        |        |        |        |        |  |        |       |        |        |        |        |         |  |
| 11 |   |   |                   |        |        |                   |        |        |        |        |        |        |  |        |       |        |        |        |        |         |  |
| 12 |   |   |                   |        |        |                   |        |        |        |        |        |        |  |        |       |        |        |        |        |         |  |
| 13 |   |   |                   |        |        | Empl. 3 - Empl. 4 |        |        |        |        |        |        |  |        |       |        |        |        |        |         |  |
| 14 |   |   |                   |        |        |                   |        |        |        |        |        |        |  |        |       |        |        |        |        |         |  |
| 15 |   |   |                   |        |        |                   |        |        |        |        |        |        |  |        |       |        |        |        |        | Empl. 5 |  |
| 16 |   |   |                   |        |        | Empl. 1 - Empl. 2 |        |        |        |        |        |        |  |        |       |        |        |        |        |         |  |
| 17 |   |   |                   |        |        |                   |        |        |        |        |        |        |  |        |       |        |        |        |        |         |  |
| 18 |   |   |                   |        |        |                   |        |        |        |        |        |        |  |        |       |        |        |        |        |         |  |
| 19 |   |   |                   |        |        |                   |        |        |        |        |        |        |  |        |       |        |        |        |        |         |  |
| 20 |   |   |                   |        |        |                   |        |        |        |        |        |        |  |        |       |        |        |        |        |         |  |
| 21 |   |   |                   |        |        |                   |        |        |        |        |        |        |  |        |       |        |        |        |        |         |  |
| 22 |   |   |                   |        |        |                   |        |        |        |        |        |        |  |        |       |        |        |        |        |         |  |
| 23 |   |   |                   |        |        |                   |        |        |        |        |        |        |  |        |       |        |        |        |        |         |  |
| 24 |   |   |                   |        |        |                   |        |        |        |        |        |        |  |        |       |        |        |        |        |         |  |
| 25 |   |   |                   |        |        |                   |        |        |        |        |        |        | Empl. 3 - Empl. 1                                  |        |       |        |        |        |        |         |  |
| 26 |   |   |                   |        |        |                   |        |        |        |        |        |        |  |        |       |        |        |        |        |         |  |
| 27 |   |   |                   |        |        |                   |        |        |        |        |        |        |  |        |       |        |        |        |        |         |  |
| 28 |   |   |                   |        |        |                   |        |        |        |        |        |        |  |        |       |        |        |        |        |         |  |
| 29 |   |   |                   |        |        |                   |        |        |        |        |        |        |  |        |       |        |        |        |        |         |  |
| 30 |   |   |                   |        |        |                   |        |        |        |        |        |        |  |        |       |        |        |        |        |         |  |

Head of Mission :  
 - Employee 1  
 - Employee 3  
 - Employee 5

