SAP Corporate Performance Monitor (CPM) is an application that integrates the information coming from all different SAP modules into a well-known managerial system, the Balanced Scorecard (BSC). According to Arthur Schneiderman, a Balanced Scorecard is:

“A systematic approach for marshalling an organization’s limited resources around a manageable set of activities that will assure achievement of its stockholders’ collective aspirations”

Using the foundations developed at Analog Devices (ADI) and with the improvements created by Norton and Kaplan (1996), SAP combines this knowledge into a powerful tool that links the theoretical and practical implementation of a Balanced Scorecard with SAP CPM. This chapter explores the basic functionalities available in CPM.

SAP CPM can be used as a standalone application without interacting with other system platforms or it can be integrated with data and information from different SAP modules. The capabilities and potential of SAP CPM allows interactions with other platforms such as: Business Intelligence (BI), Finance (FI), Controlling (CO), Materials Management (MM), Supply Chain Management (SCM), Supplier Relationship Management (SRM), Human Resource Intelligence (HRI) and others. SAP BW is the main communication interface that allows for the sharing of and access to the information coming from the different modules. This can be displayed in the different graphical environments.

Companies are complex systems; therefore, managers can lose focus on the basic strategy of the company and fail to create value for its customers, shareholder, and its employees. Similarly, having an integrated computer system that controls and supports management to simplify the collection of information of key processes is a very valuable tool.
3.1 The Balanced Scorecard Model using SAP CPM

SAP technologies must perform and adjust to new and demanding internal and external challenges in different industrial sectors, and the modules not only must be integrated to deliver information but also strategically managed to achieve a common purpose. These pressures affect the performance, planning, processes, and the way companies achieve its strategic objectives. SAP CPM supports these concerns, providing a powerful way to translate the strategy into action, achieve focus, improve resource allocation, control risks, and balance all those requirements with a flexible and adaptable tool. SAP has two different types of implementation approaches: managerial and systems.

3.1.1 Managerial Approach

This approach addresses the basic functionalities or generic needs that the system must address to create value to the organization and return tangible results to management.

Ultimately, every SAP project has allocated resources, time frames, requirements, and managers that want results at the end. This is the purpose of the initial Blueprint and the Project Management meetings, to make sure that those expectations are achieved and maintained.

Both the Managerial and Systems approaches are required in SAP CPM to configure the system and it also guarantees that the different SAP projects deliver real benefits to the company. SAP CPM supports high-level decision making to provide tools to reduce the pressures coming from outside and inside the company. The use of the BSC helps to provide the required strategic focus and control.

The constant requirements of governmental agencies, such the Sarbanes-Oxley Act, are an important part of corporate responsibility that has been added to the equation. The latest financial scandals have affected many employees and shareholders, and have influenced the way companies do business around the world.

How do you, as a manager, see the forest for the trees? How should you ensure that there is continuous improvement in your products and processes? How do you balance this improvement while maintaining profitability in your global operations, with satisfied employees and customers and with stakeholder confidence in long-term earnings?
SAP R/3 and all its components guarantee that information flow inside and outside the corporation runs smoothly and that there are no holes that compromise financial reports, budgets and strategic planning. SAP CPM addresses these needs with the integration of the SAP platform with Strategic and Performance Management with multiple tools to support the process of translating strategy into action.

Some of the pressures that a company is exposed are analyzed in Figure 3.1. In Figure 3.1, SAP is at the center of the organization providing information to fulfill all external and internal pressures to satisfy different entities inside and outside the company.

In this way, SAP CPM gives the direction to where all the SAP architecture has to be directed based on the managerial insights coming from top-level management. All the factors shown in Figure 3.1 are general and can be considered as the main elements that drive the performance of any multinational corporation.

![Figure 3.1 SAP CPM Managerial Approach Model](image)

The SAP platform is continually exposed to all these factors shown in Figure 3.1, and they affect the new requirements and satisfaction of Management with the resources allocated, information, and data generated from the dif-
ferent SAP systems in the long run. Strategy and Performance Measurement direct the development of the SAP platforms inside the organization, and all its factors continuously influence the new requirements.

SAP CPM requires not only technical but also managerial expertise and a broad knowledge of the company's core processes to deliver value and support the strategic processes. All these efforts are driven by a coordinated and organized Strategic and Performance Measurement System using the Balanced Scorecard.

### 3.1.2 Systems Approach

This approach is related to the traditional flow of information of any managerial software application and focuses on how information is extracted, transformed, and shared with other users and systems inside the SAP Architecture.

Let us look at the Systems Approach that was referred to in Section 3.1. This approach reveals the tools available to managers to achieve strategic results as long as corporations have implemented an efficient and realistic process that translates the strategy into action inside with the appropriate leadership, resources, and technology levels.

![Figure 3.2 SAP CPM Systems Approach](image-url)

**Figure 3.2** SAP CPM Systems Approach
The strategic structure of the SAP CPM platform allows any organization to achieve the results in the upper section of Figure 3.2, as long as the implementation was been correctly coordinated and supported by top management. The Balanced Scorecard process is a mature and high-level managerial tool that can support the long-term and short-term goals of any organization. Remember that the SAP CPM functionalities and the BSC by itself do not guarantee the millions of dollars in cost reductions that every manager expects with almost no resources!

The underlying strategic process behind SAP CPM determines how an organization creates, controls and achieves strategies, objectives, and measures that manage its core competencies. However, tools by themselves do not generate the strategic results displayed in Figure 3.2, only the way that a company utilizes these tools to improve the strategic feedback and continuous improvement is how results are generated.

Some of the key tools that are explored within the present textbook are shown in Figure 3.2 such as the Value Tree, Strategy Maps using the Strategy Builder, Measure Builder to identify and establish relationships of specific performance drivers that affect the organization at different levels, and the Balanced Scorecard and Management Cockpit to present information and provide a feedback system to monitor and determine the key processes in the organization rapidly.

Note that SAP CPM will support the decision-making processes with a structured and well-defined platform to deliver strategic information with clear assigned responsibilities and during specifics time frames.

In the next section, we will review in more detail the Strategy and Performance Measurement modules that integrate SAP CPM, and they are the core components to either implement the Balanced Scorecard or the Management Cockpit.

### 3.2 SAP CPM Components

Figure 3.3 provides the first look at the different components of SAP CPM including the menus and objects for the Strategy Management and Performance Measurement modules to be studied in this book. These two modules are reviewed in more detail in the following sections, and provide a complete overview of the different components that integrate the SAP CPM application.
Let us now take a closer look at these two modules.

### 3.2.1 Strategy Management and Its Components

This module specifically creates the Balanced Scorecard structures. These are highly structured and organized strategic frameworks that translate strategy into action and are based on the concepts developed by Norton and Kappland (1996).

The Strategy Management module is where the BSC elements are created and displayed as shown in Figure 3.4. It consists of 10 objects or submenus that allow you to access different configuration and presentation screens to create a Balanced Scorecard framework. However, depending on your role in the implementation and the level of authorization granted by your system administrator, it is possible that not all the objects displayed in Figure 3.4 are available to you.

Each of these objects deliver a specific functionality to improve the strategic visualization and clarification of the different processes involved in the construction of a Balanced Scorecard. However, only the most important objects are discussed in this book since some of them provide capabilities that go beyond the scope of this material.
The Strategy Management module of SAP CPM is exclusively for Scorecard monitoring and construction, and allows the user to interact with other SAP components such as: Human Resource (HR), Business Information Warehouse (BW), Controlling (CO), and Financials (FI). Specifically, the Strategy Management menu, or submenu since it is part of SEM, is the area where Perspectives, Strategies, Objectives, Measures, and Initiatives for one or many Scorecards are built.

The Balanced Scorecard Launchpad and the Balanced Scorecard Wizard provide a web-oriented application to create and display the same functionalities as the Graphical User Interface (GUI) environment. This book focuses on use of the GUI functionalities rather than reviewing the SAP Web Application Server (WAS), since both provide similar capabilities. Figure 3.5 gives a brief overview of the contents of the Balanced Scorecard Wizard.

**MyBalanced Scorecard**

MyBalanced Scorecard is essentially an object that defines a default view. This object accesses the SAP CPM presentation mode inside the GUI environ-
ment, and allows the user to predefine a default view of a Scorecard. This functionality allows establishing a link or a shortcut to a particular Scorecard, so every time the user clicks on MyBalanced Scorecard object the selected Scorecard view is displayed automatically without the need of performing any type of navigation or additional steps.

This functionality is quite useful for a user who would simply like to display the Scorecard that he or she is involved to improve or maintain. In comparison, the object Balanced Scorecard provides a similar environment to MyBalanced Scorecard, but does not display the default view and additional navigation steps are required.

Review the functionalities of this application by double-clicking on MyBalanced Scorecard in the Strategy Management menu, and select the **PC4YouGroup** from the SAP IDES platform, as displayed in Figure 3.6.

![MyBalanced Scorecard View for Demo Scorecard PC4YOU Group](image)

**Figure 3.6** MyBalanced Scorecard View for Demo Scorecard PC4YOU Group

As seen in Figure 3.6, the screen presented can be used to display information related to strategies, goals, measures, graphic status of budget and quarterly reported measures, and much more. Feel free to navigate and get familiar with the environment. For example, if you have an IDES platform available, follow these steps:
1. Select the **Learning and Growth Perspective**.

2. Choose the Objective **Hire Talented People**.

3. Select the measure **Percent Employees with Acd. Degree** and double-click on it.

4. See the clock displayed at the bottom left corner of the screen in Figure 3.6 indicating that the **BW Transaction Data** is being read.

5. Review the information contained inside the measure

After double clicking on the measure a similar window as shown in Figure 3.7 is displayed, as long as the configuration was performed correctly. Notice the different components that define a measure such as the chart, the data at the bottom of the chart, period buttons to limit the data display for a specific time frame, and additional drop-down menus to navigate with different chart displays.

Review other examples available in your SAP CPM system that have similar characteristics to this Scorecard. If you do not have access to the SAP IDES demo platform, simply reviewing the screen of Figure 3.7 should be sufficiently clear, as you will be creating something similar in Chapter 4.

![Figure 3.7 Reviewing the Information of a Measure](image-url)
Now suppose the display settings for the chart available in Figure 3.7 have to be displayed in another chart type such as Bar or Columns chart that was created for this particular measure and it is available to be selected by the user. For this let us say that we want to see another chart previously configured in our measure in the PC4YOUGROUP Scorecard. Follow these steps to review and display any additional charts available for a measure:

1. Go to the Graphic List seen in Step 1, Figure 3.7.
2. Select the second chart available in the measure seen in Step 2.
3. The new chart should be displayed on your screen, and depending on the type selected or configured, the complete data set displayed in Step 3 is also graphed.
4. Review the new chart, if any, on your screen, Step 4.

Figure 3.7 showed how the information displayed in a Measure can be customized to meet more advanced graphic requirements and provide a clear overview of the measure, its status, score, and values during a selected time frame. It is also possible to attach BW Reports, Planning Layouts, Value Driver Trees, and Measure Trees depending on the function of the measure and its interaction with other structures.

<table>
<thead>
<tr>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>It is important to recognize the different menu options within any complete Scorecard. These menus are displayed on the top of Figure 3.7. Take your time to navigate and understand the differences and functionalities for each of them.</td>
</tr>
</tbody>
</table>

The functionalities for each of the above menus are described in more detail in the sub-sections that follow.

**Views**

These buttons allow you to move within the available views with two options: previous and next. To save a view, simply click on the Views menu on the SAP window as shown in Figure 3.8, and select Save View. Follow the options and save the view as Display View for Presentation. Now go back to the Views menu, and select Choose View to see any previously saved views and the one we just created. To navigate between views, simply use the icons or go to Views in the SAP menu:

1. Click on Choose View Step 1.
2. Select Display View for Presentation Step 2.
3. Click the check mark icon to display it, as shown in Figure 3.8 Step 3.
4. Review the created view and note that the left-hand side columns that display the Scorecard list are hidden, as shown in Figure 3.9.

To retrieve this information again, simply click on the **Show Hierarchy** button, shown on the top of the Balanced Scorecard structure as shown in Figure 3.9.

Finally use the **Maintain Views** option from the View menu to explore the settings of the view and/or modify its order, rename, and delete the view.
Overview

Click on the **Show Hierarchy** button to reset the **Scorecard** to its standard display view as shown in Figure 3.10. In other words, this view can be considered as the home menu of this screen.

![Figure 3.10 Initial Overview Window for the Scorecard](image)

Analysis

This button allows the user to access the window shown in Figure 3.11. With this option, the information stored in the value fields such as **Trend**, **Assessment**, **Score**, **From**, **To**, and others, that can be analyzed based on their status using colors.

These graphic indicators become quite useful when many measures and values have to be analyzed and compared. For example, the trend indicator linked to a value field is displayed based on the variation in time within a predefined range. It can quickly provide information to the user if the values are increasing, decreasing, or constant.
Cause-Effect Chain

This menu performs exactly what its name stands for, **Cause-Effect Analysis** over a Scorecard structure. In comparison with the previous menu, Figure 3.12 provides a detailed view of the relationships between **Perspectives**, **Objectives**, **Triggering Objectives**, and their **Status**.

**Cause-Effect Chain** is a high level analysis of the different **Scorecard** structures. Detailed coverage of this analysis is outside the scope of this book.

![Figure 3.11 Analysis Menu in the Balanced Scorecard Menu](image)

**Figure 3.11** Analysis Menu in the Balanced Scorecard Menu

**Figure 3.12** Cause-Effect Chain Window
Drilldown

This menu provides the drilldown functionality applied to the Scorecard elements. As shown in Figure 3.13, the drilldown menu has different options to display the information contained in a Scorecard.

If the object does not have a previously defined Scorecard structure associated with it, an error message appears. This drilldown functionality is basically navigation between different levels of the Scorecard. For example, the drilldown between Scorecard A and Scorecard B is only possible as long as they are linked with a hierarchy.

In another example, if there are two measures A and B, the drilldown functionality does not provide a link between measures only between structures. To display such type of information the Measure Tree or Value Driver Tree can deliver these requirements.

![Figure 3.13 Drilldown Options for Scorecard Elements](image)

For now, choose the PC4YOU Group Scorecard to perform Drilldown Analysis. Select Percentage of Employee with Accounting Degree and perform the drilldown based on strategies as shown in Figure 3.14.

![Figure 3.14 Drilldown Example for PC4YOU Group](image)
Scorecard Comparison

This menu produces exactly what the name implies: it compares different Scorecards. When performing this functionality, the different elements and value fields from one Scorecard are displayed and can be compared with those of another one. It is quite useful for creating Scorecards and for benchmarking purposes, derived Scorecards, or simply identifying differences between two or more Scorecard structures.

Let us review the IDES Scorecard PC4YOU Group. We’ll add a comparison between this structure and Strategic Business Unit Hardware, a structure at a lower level, as shown in Figure 3.15. The additional Scorecard is added as a column next to our current PC4YOU Group Scorecard as shown in Figure 3.15, and the displayed information can be controlled by using a drilldown operation as shown in Step 1 in the same figure. This drilldown operation allows navigation within any Scorecards related to a higher-level Scorecard, depending on the level of aggregation.

In addition, the Period shown in Step 2 in Figure 3.15 controls the time frames displayed for both Scorecards, and allows the user to restrict the information for a particular time period. However, this comparison can be performed only as long as the Scorecards to be analyzed have the same fiscal year variant information, which is set up at the Scorecard level in the settings options.

Figure 3.15 shows a typical screen for the Scorecard Comparison, and reviews how the Status Indicators (color items) reflect the value based on predefined criteria inside each of the Scorecards. Also, this information accurately reflects the status and values of the data values extracted from each DataSource for each Measure. For a Scorecard Comparison you need to perform the following steps seen in Figure 3.16.
1. Click on the Scorecard Comparison menu available in the MyBalanced Scorecard or the Balanced Scorecard menus in Strategy Management.

2. Select the time period to compare as shown in Step 1.

3. Click on the Add Scorecard icon as shown in Step 2.

4. Choose the Scorecard to compare as shown in Step 3.

5. Click on the Check icon to accept the selection as shown in Step 4.

Perform the same procedure to add any Scorecard to the screen, and compare it with another one. Other icons available on this screen are simplified in Figure 3.17. In addition, the Status/Score button changes the displayed values based on the specific criteria to display either the Status or the value of the Score associated with each element of the Scorecard.
Review the information presented in Figure 3.17 to complete the analysis of the Scorecard Comparison screen. Display options provide a type of drill-down to display the contents of each Scorecard with different information. Also, the expand and collapse buttons allow the user to perform exactly that, in order to simplify the data display.

**Figure 3.18** Displaying Status Information

The status/score icon simply changes the display of the data values from one to the other. For example, Figures 3.18 and 3.19 provide the same information with either status or score data. The Score values simply show the results that caused the Status (graphic indicator) to appear with the designated color.

**Figure 3.19** Displaying Score Information

The final result of the Scorecard Comparison procedure is displayed in Figure 3.20, evaluating the results of three different Scorecard Structures: PC4YOU Group, Strategic Business Unit Hardware, and Main Group PCs.

**Note**

For each Scorecard the detail is shown based on the Display option Perspective/Measure, presenting each Perspective and the number of measures associated to each Scorecard underneath to Perform the comparison based on Status. Not all Scorecards have the same Measure, but information is shown independently for each Measure as seen in Figure 3.20.
Now that the important aspects of the MyBalanced Scorecard menu have been covered, let’s examine this important question. Why is there a MyBalanced Scorecard and a Balanced Scorecard option in the Strategy Management menu? The answer is simple: The MyBalanced Scorecard menu allows you to select one of the created views and make it a default.

With this default view in place, every time you click on MyBalanced Scorecard, in the Strategy Management menu, the displayed information maintains the standard view. This functionality is quite useful especially in the Production Environment when a manager simply needs to quickly navigate and review the status of specific parts of the Scorecard and nothing else.

To create the default view associated with MyBalanced Scorecard perform the steps which are displayed in Figure 3.21:

1. Go to Views as shown in Figure 3.21, Step 1.
2. Select Save View, Step 2.
3. Now, having a default view does not mean that the other views are unavailable. Use the previous and next icons shown in Step 3 in Figure 3.21 to move between Views, or simply go to the Views menu, and select
Choose View to specifically access a View’s name. Use the Maintain View option in the Views menu to manage and delete any unwanted information.

4. The screen displayed in Figure 3.22 is displayed, so you can save the current screen as a View, and to give it a name.

5. Select the check box as shown in Figure 3.22 to assign the view as the Personal Default View for MyBalanced Scorecard. (The next time you access MyBalanced Scorecard, this default is displayed.)

6. Save the View, and try it out to see the results.

With these elements we conclude our discussion about Views. Remember, views are default screenshots or shortcuts to selected screens inside the Balanced Scorecard presentation environment. You can create, customize, modify, delete, or rename any of the Views generated in this section.

Balanced Scorecard

In comparison with MyBalanced Scorecard, this menu has the same options, with one difference: there is no Default View.
**Strategy Templates**

CPM provides a list of available templates that can be used as a reference to develop similar Scorecards, or as reference for finding measures and their definition to integrate them with new Scorecards. To access the Strategy Templates simply select the object with the same name as shown in Figure 3.23 from the **Strategy Management** menu.

![Figure 3.23 Setting up a Default View](image)

After double clicking on the **Strategy Templates** object shown in Figure 3.23, a list of Business Content or predefined SAP material is available with information for different industrial sectors to guide and support any implementation. For example, identify the following information inside the Strategy Template: **Chemical Industry - Innovation - Base Strategy 1 Innovation**. Then click on **Details** on the upper part of the screen as shown in steps 1 and 2 in Figure 3.24.

After accessing the Details menu in Figure 3.24 there is an extensive explanation of Strategy 1. Use the Business Content to support any similar processes inside your company, or add this information into your Scorecard structures and modify it.

Review with more detail the measures associated with the selected strategy in Figure 3.24 and note that the Measure can be executed by clicking on the icon shown in Figure 3.25 to access the information related to the measure coming directly from the **Measure Builder**, to be reviewed in Chapter 4.
If the Measure, **Economic Profit, Capital Charge Method**, can be used as a reference for the implementation of SAP CPM in your project, review its definitions by double-clicking on its name. The screen displayed in Figure 3.26 shows the contents of the Measure when double-clicking on its name and describes how the Measure is calculated based on other Measures.
Figure 3.26 Accessing Measure Definitions

Now, let us execute the selected Measure by clicking on the clock icon as seen in Figure 3.25, and review the information presented in Figure 3.27. Notice that the Measure is contained in a SAP Measure Catalog delivered as part of the SAP Business Content. A Measure Catalog describes and groups the different measures with a common classification, and works similarly as a Scorecard Hierarchy. The Measure Catalog can be considered to be the center of SAP CPM, and without a good definition of measures and catalogs, there is no data. It is impossible for SAP CPM to function without Measure Catalogs and this topic is extensively discussed and reviewed in Chapter 4.

Figure 3.27 Reviewing SAP Business Content Catalog
Now, let us suppose that the **Economic Profit** Measure contained in the **SAP Business Content Catalog** has to be transferred to a real Scorecard. In this case, go back to the original **Strategy Templates** window and perform the following steps:

1. Select the Strategy that contains the measure of interest. In this case, the measure **Economic Profit** is included in **Strategy 1** (Figure 3.28, Step 1).

![Figure 3.28 Activating a Strategy in the SAP Business Content](image)

2. Click on the **Activate** button located at the top of the window as shown in Step 2 in Figure 3.28.

3. The window in Figure 3.29 prompts you to select or create a Target **Scorecard** that will receive the information contained in the Measure for a given **Layout Period**.

4. If you know which Scorecard to assign the Measure to, simply select the icon shown in Figure 3.29 to find the required object. Otherwise, the Measure appears to be unassigned in the **Measure Builder** and you can return later on to correct it.

![Figure 3.29 Identifying the Target Scorecard for SAP Business Content](image)
5. Select the Scorecard **PC4YOUGROUP**, as an example and determine the **Layout Period** when the measure is used in time. Remember this date period because you will need to use it later on to find it in the new Scorecard.

6. Click on the Check Mark icon shown in Figure 3.29 to access the screen displayed in Figure 3.30.

7. Select the Measures to be included in the selected Scorecard as shown in Figure 3.30.

8. Click on the **Activate** button located on the top of the screen in Figure 3.30, to transfer the measure to the selected Scorecard **PC4YOUGROUP**.

9. Confirm the selections on the screen.

10. The screen called **Selection for Activation** appears and selects all the checkboxes available. Click on the Execute icon, represented by the clock with a check mark, and move to the next step.

11. The system prompts you for the definition of a **Customizing Request** to move the objects from SAP Business Content into the new location in a real Balanced Scorecard structure as shown in Figure 3.31.
12. Click on the create icon or the icon on the left-side of the Own Request button, to generate the request and click on the check mark icon to continue.

13. The system prompts you with the screen shown in Figure 3.32 to notify you that Activation Completed.

![Figure 3.32 Activation Completed Prompt](image1.png)


15. Review that the Measure was transferred successfully in the chosen Scorecard and linked to the correct Scorecard as shown in Figure 3.33.

![Figure 3.33 Adding SAP Business Content to a Scorecard](image2.png)

16. Ensure the Period layout selected in Figure 3.33 includes the created time frame when choosing the Scorecard.

Finally, with all these steps you will have successfully transferred SAP Business Content delivered with SAP CPM in the Strategy Templates to be part of any of your selected Scorecards. Now, the big challenge lies in reviewing if your data, structures, and architectures have been constructed correctly and without errors that compromise the performance of your different objects.
For this, SAP CPM delivers the Balanced Scorecard Monitor in the Strategy Management module as the main component to perform validations and revisions over your complete Scorecard components and the data being extracted from SAP BW.

**The Balanced Scorecard Monitor**

This functionality performs a complete check over the different Scorecard elements, including the extracted BW data, *Assessment • Status*, and supported by different *Alerts*. This section of the *Strategy Management* menu is more oriented towards project managers and developers that keep track and/or perform maintenance or implementation of Scorecards. Some of the functions performed by the *Balanced Scorecard Monitor* can be summarized as follows:

- Checking if different users have set the *Status* for their Scorecard elements correctly.
- Reviewing if the *Assessments* have been entered for the Scorecard elements.
- Checking if the *Score* values fall above or below the specified limits.
- Listing Scorecard elements with a manually set status.
- Automatic email to the person responsible of the Scorecard element.
- Automatic insertion of tasks in the task list.
- Scheduling BW data to be entered into the buffer as a background job.

This information provides a general overview of the processes available with the Balanced Scorecard Monitor. Access the Balanced Scorecard Monitor in the Strategy Management menu, and double-click on it. Review the Balanced Scorecard Monitor on your own, and use the information presented in the Management Cockpit Monitor in Section 3.2.2. However, I recommend applying this functionality until the project is considerably advanced, to monitor the data coming from SAP BW for the appropriate time periods. Also, it is possible to identify any missing information by using the *Assessment • Status* button.

**Risk Catalogs**

Risk Catalogs perform a similar job as the Measure Builder, discussed in Chapter 4, but are specifically created for the Risk Management module. The Risk Catalog is the place where risk measures are created, managed, and integrated into the Scorecard.
The indicators contained in the Risk Catalog provide additional capabilities to quantify and evaluate internal or external risks that might affect a Scorecard or business unit such as: Economic, Political, Operational, and Strategic Risks. Figure 3.34 gives a general view of the structure of the Risk Catalog, and shows how data is organized using this component of the Risk Management module that is later explained in Chapter 7.

The Value Driver Tree

The Value Driver Tree is a tool available in SAP CPM to create and monitor measure relationships as shown in Figure 3.35. The Measure Catalog, Business Planning and Simulation (BPS) and Business Warehouse (BW) provide the platforms to create, extract, and display information in the Value Driver Tree.

The Value Driver Tree provides a similar functionality to that given by the Balanced Scorecard Launchpad, since it also runs in the Web Application Server (WAS) environment. However, this application can also be accessed in the Strategy Management • Value Driver Tree Design menu using the GUI Environment.
The Value Driver Tree is a sophisticated tool available in SAP CPM, and must only be used for advanced implementations of the module when complex cause-effect relationships of the measures need to be identified and quantified.

**Design**

The design screen is where everything happens, meaning this is where each of the Scorecard elements are created, configured, and assigned to different objects. From a SAP CPM stand point, the **Design** screen shown in Figure 3.36 is the center of the Balanced Scorecard configuration and provides a quick overview of the main components involved in the creation of a Balanced Scorecard object. However, for purposes of this book only the major components of SAP CPM are reviewed. I will leave it up to you to further explore it later.

Our discussion of the Strategy Management module provides a general overview of the elements that we will review in more detail in other chapters. Also, this part of SAP CPM controls the configuration of Scorecard structures following the theories created by Norton and Kaplan (1996). However, SAP CPM provides an additional component called the Performance Measurement module that creates structures similar to those of the Balanced Scorecard but with more flexibility.
3.2.2 Performance Measurement and its Components

This component uses the Management Cockpit functionalities to support managerial reviews and displays information with more flexibility for strategic feedback and control. In comparison with the Strategy Management module, this module does not follow the Balanced Scorecard concepts but shares many objects that can be reused in this module.

Like the Strategy Management module, the Performance Measurement menu provides additional features to create more flexible structures using the Management Cockpit. The Performance Measurement module provides the **Management Cockpit Web Version** that runs on the web, as part of the Web Application Server (WAS) as does the Strategy Management module.

The information created in the Performance Measurement and Strategy Management modules is independent of each other. Therefore, the same structures created in one cannot be displayed in the other. Both, however, share different components such as the **Measure Builder**, **Risk Catalogs**, **Time** and **CPM Variables**, and others.
The main difference between the Management Cockpit and the Balanced Scorecard (BSC) is the level of flexibility. While the BSC needs different architecture the same is not true for the Management Cockpit, as it is more structured and maintains the traditional approaches developed by Norton and Kaplan (1996).

Conversely, the Management Cockpit allows the creation of structures with better presentation capabilities than the Balanced Scorecard does, with a higher level of flexibility but limited to three levels of aggregation: Walls, Logical Views, and Frames. The Performance Measurement module provides five objects or submenus. These are:

- Management Cockpit Web Version
- Management Cockpit
- Measures & Benchmarks
- Management Cockpit Monitor
- Design

Let us now look at these in more detail.

**Management Cockpit Web Version**

This application provides the same functionality as the Balanced Scorecard Launchpad, a web environment to build and present different structures. In the same way, since this capability is available in both environments, GUI and WAS, this application can be easily explored by the reader and review its differences.

**Management Cockpit**

The Management Cockpit is the GUI presentation environment that shows the information of the activated and ready-for-presentation Cockpits. Figure 3.37 presents a general overview of the Management Cockpit presentation environment, and notice on the left-hand side of the screen the Cockpit List.

The Cockpit List displays the different Cockpit Hierarchies previously created in the Design component of the Management Cockpit menu. The Cockpit List displays those cockpits that have been activated and are ready for presentation. For example, let us select the PC4YOU Cockpit if you are using the IDES platform and double-click on its name or any available cockpit in your system.
The GUI Cockpit Presentation Environment screen as seen in Figure 3.38 is displayed. Use this environment for any presentation meetings to review and analyze the information extracted from the Measure Catalog that contains data, documents, links, and charts.

Figure 3.37  Management Cockpit

Figure 3.38  The Management Cockpit in Presentation Mode

Figure 3.38 displays Walls, Logical Views, and the Frames, which are the Charts, Links, and/or Documentation, inside the Logical Views. This information is discussed in detail in Chapter 6.
**Measure & Benchmarks**

The Measure & Benchmarks is another name by which to access the Measure Builder, the main component to create and define measures inside SAP CPM and add them to the Balanced Scorecard or Cockpit. The user can access the contents of Measure & Benchmarks in two ways:

- Via the **Performance Measurement** menu in the option **Measures and Benchmarks** as shown in Step 1 of Figure 3.39.
- Via the **Performance Measurement • Design • Measure Definition • Measures** as shown in Step 2 in Figure 3.39.

Both procedures access the same object: **Measure Builder**. There is no difference between accessing the Measure Builder in the **Strategy Management • Design** or in the **Performance Measurement • Design** menu, because it is simply the same object but with different names.

As shown in Figure 3.40, The Measure Builder is the core component of SAP CPM. Without a correct configuration of the Measure Catalogs, BEx Queries, and DataSources there is simply no data.

Using the Measure Builder, Measures can be arranged in category groups, depending on its family, perspective, or any other classification criteria. On the right hand side of Figure 3.40 is the **DataSource** tab that identifies the data sources and BEx Queries coming from SAP BW respectively associated with a Measure. For a more extensive analysis of the Measure Builder, please read Chapter 4.
The Management Cockpit Monitor

Like the Balanced Scorecard Monitor, previously discussed in Section 3.2.1, the Management Cockpit Monitor also controls whether the information has been correctly uploaded for each component of the cockpit, and using different color indicators to display the errors or problems in the structures. Figure 3.41 displays the general steps required to add a Cockpit to the Cockpit Monitor, which are similar to the ones required by the Balanced Scorecard Monitor.

To analyze a cockpit in the Cockpit Monitor follow these steps based on Figures 3.41 and 3.42:

1. Select the **Choose Cockpit** button as shown in Step 1, Figure 3.41.
2. Select the cockpit from the available **Management Cockpits** as shown in Step 2, Figure 3.41.
3. Click on the check mark icon to add the Cockpit to the **Cockpit Monitor** to complete Step 3, Figure 3.41.
4. Select the **Check BW Data Availability** button to review the data extraction processes from SAP BW as shown in Step 4.
5. Click on the execute icon (clock icon with a check mark).
6. Review the output of Step 4, Cockpit Monitor in Figure 3.42.

**Figure 3.41** Analyzing a Cockpit in the Cockpit Monitor

**Figure 3.42** Final Output for the BW Data Availability Check (No Errors Found)
Identify any possible errors or problems in the cockpit components for the selected period. Figure 3.42 displays that there are no errors in the system and thus every single component must have a green indicator next to its name. Otherwise, any errors in the structures for a particular time period are displayed as shown in Figure 3.43.

Based on Figure 3.43, the Cockpit Monitor identified that there was a problem with the measure Net Sales Monthly for the Period 006/2005. By double-clicking on the Measure Net Sales Monthly and reviewing the screen displayed in Figure 3.43, the system prompts a message box that describes the problem as No Value. In other words, there are no values for the SAP BW data extracted for the selected measure in this particular period.

**Design**

The Design menu in the Performance Measurement • Management Cockpit is as important as the one in the Strategy Management module and is shown in Figure 3.44. This is where the actual cockpit elements are created, configured, integrated, and released for presentation.

The most important part of the structure is the object Management Cockpit Design • Management Cockpit which is the initial area for cockpit creation and definition. Figure 3.44 shows the initial screen of Performance Measurement • Design. The major components of this are reviewed in Chapter 6.
With this complete review of the major components of the two modules of SAP CPM, Strategy Management and Performance Measurement, it is possible to extract additional information from other SAP systems such as FI, CO, BW, and perform additional operations. These elements are briefly discussed in the following sections to provide a general overview of additional considerations that might impact the implementation of SAP CPM.

### 3.3 Integration of CPM with other SAP components

SAP BW is another important part of SAP CPM since it allows you to share Workbooks, Queries, Web Reports, and URLs directly extracted from Info-Cubes. See how SAP BW integrates with CPM in the following sub-sections.

#### 3.3.1 Integration with SAP BW

As shown in Figure 3.45 the **DataSource** tab allows accessing of the Data-Sources from SAP BW, using the **Measure Catalog** as the interface. In this way, specific key figures, BEx Reports, Restricted Measures, and Structures that were created in SAP BW, can be selected and transferred into SAP CPM.
and linked to a specific measure. Now the importance of the Measure Catalog is much clearer, because it allows SAP CPM to interact with the rest of the SAP platforms, including the R/3 system, using SAP BW as the source of all data transactions.

3.3.2 Integration with SAP HR

Before assigning objects from **Strategy Management or Performance Measurement Systems**, such as a Scorecard, a Management Cockpit, or a Value Driver Tree to an organizational structure, you need to integrate the HR data from the SAP HR into the SAP CPM system.

Individuals assigned as owners of a Strategy, an Objective, a Measure, or an Initiative, can copy personnel data from the HR System and transfer the personal score of an employee as the result of an assessment to the HR System (as of release 4.5B).

Therefore, an organizational structure, including organizational units, positions and jobs, is distributed from the HR System into SAP CPM System using ALE. In addition, a role is created in your SAP CPM system in place of an employee, which is used to manage the personal data of an employee, such as the business address or personnel number. For additional information please review the online documentation available at [help.sap.com](http://help.sap.com) related to the HR system.
3.3.3 Integration with SAP Financials: FI/CO, BPS, and BIC

From the different components that integrate mySAP ERP Financials you can integrate them with SAP CPM using SAP BW as the interface. Many data extractors are available to export data coming from those modules, and transfer it into a SAP BW Cube.

An example is the linking of information directly from R/3 using a Data-Source extracted using CO-PA, CCA, or generic R/3 extraction. The most common is CO-PA to transfer information coming from the FI/CO application to perform profitability analysis. Also, SAP BPS and BIC provide allow you to interact with BW.

However, the update routines or the frequency that the core data is run is a major issue, especially with financial information that is time sensitive, so make sure to consider these elements before integrating information from MyFinancials in SAP CPM.

3.4 Drilldown Applications in the Management Cockpit

The concept of drilldown in the Management Cockpit differs from that of the Balanced Scorecard. Figure 3.46 reviews the previous drilldown performed in a Balanced Scorecard application using the Drilldown for button to access the different options.

1. Select the Drilldown button, as shown in Step 1 of Figure 3.46.
2. Select the criteria to be displayed as seen in Step 2.

Figure 3.46 Drilldown in the Balanced Scorecard System
For the **Management Cockpit** the drilldown process has two options:

- Perform a regular navigation inside the different Cockpit structures by expanding and collapsing the different **Walls**, **Logical Views**, and **Frames** as shown in Figure 3.47.
- Set up a dynamic drilldown process based on selected characteristics that can be changed during presentation time at the Frame level.

![Figure 3.47 Drilldown Structure of the Management Cockpit](image)

The structure presented in Figure 3.47 should be familiar since it is the design view of any Management Cockpit. The structure presented in Figure 3.48 enhances the navigation capabilities based on a set of characteristics that the user is allowed to modify at the Frame level during Presentation Mode.

To configure the **Dynamic Cockpit Drilldown Settings** illustrated in Figure 3.48 follow these steps:

1. Go to **Performance Measurement • Design • Management Cockpit**.
2. Select any of the activated cockpits ready for presentation (Step 1 in Figure 3.48).
3. Choose the **Drilldown Settings** button shown in Step 2, Figure 3.48.
4. In Step 3 the Drilldown Settings window is displayed.
5. The available characteristics are displayed and can be added to the Frame.
6. Click on the characteristics to perform the drilldown during presentation time at the Frame Level.
7. Choose the characteristics available from the left hand side and move them to the right hand side as shown in Step 4 in Figure 3.48.
8. Identify if the drilldown settings are applicable to only one single cockpit or to all the available cockpits as shown in Step 5 in Figure 3.48.
9. Save your changes.
10. Go to Performance Measurement • Management Cockpit.
11. Select the cockpit for which the Drilldown Settings were configured.
12. See the changes in the example shown in Figure 3.49. There is now an additional icon on the right-hand side of your screen called Parameters.
13. Select Parameters and see that there is a new window next to the Frame in presentation time, as displayed in Figure 3.49.
14. Now the Frame can be changed based on new values for the five selected Cost Centers using the cockpit Drilldown Setting that were configured in Figure 3.48.
This chapter was a quick overview of the capabilities of SAP CPM. In later chapters I will discuss how to create and implement the Balanced Scorecard and the Management Cockpit Structures in more detail.

For now, let us assume that various managers, as well as, an implementation team have successfully completed a blueprint that describes the overall scope and contents of your SAP CPM project. Otherwise, I hope that someone in the team has a clear vision of what has to be achieved and can see the requirements as an architect, ready to build a great cathedral. Remember, SAP CPM is not about software but about strategy, focus, communication, planning, feedback, and an elegant design that puts the pieces together.
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