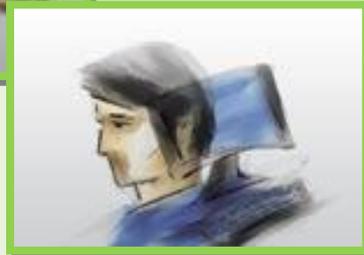


# سيغما لإدارة المشاريع والتكلفة

## Sigma

For project management and cost control



### What is Sigma

- ◆ Planning assistance
- ◆ Project management
- ◆ Cost Coding
- ◆ Cost Control
- ◆ Budgeting
- ◆ Document Control
- ◆ Receivables & Payables
- ◆ Implementation
- ◆ Evaluation
- ◆ Logging
- ◆ Tracing

Sigma is very simple to use

Sigma is driven by a Scheduled **Bill of Quantity** rather than a plan

Sigma supports project managers and all project stakeholders

## 1 What is the solution "Sigma"

Sigma allows us to manage **administrative** and **financial** related aspects of any project-based businesses such as construction, manufacturing, software, project finance, publishing, etc.

**Sigma is all about what, when, who, why and how much. It is all about planning assistance, follow-up and evaluation.**

- ◆ The main difference with other systems is that Sigma is driven by a "Scheduled BoQ" (**Scheduled Bill of Quantity**) rather than a plan. "Scheduled BoQ" is factual and contractual.
- ◆ Sigma **administrates** all payable and receivable accounts, tasks, POs (Purchase Order), and logs for project stakeholders and control all cost components.
- ◆ Sigma enables you to **control the costs** of national/international projects or projects portfolio during the entire life of the project
- ◆ Sigma provides you with all reporting required on the status of **Achievements** to date
- ◆ Sigma provides you with the key project financials such as current **burned cash, cash forecasting, cost to complete, variation to budget, or supplier dues.**



*Sigma provides us with decision support reports and comparative reports*

Sigma provides us with graphical and text reports. It supports different format such as text, pdf, and excel.

The collaboration between the different stakeholders can reduce complexity and increase productivity.

Moreover, it allows you to **follow up** purchase orders, **BoQ** to evaluate **suppliers'** performance and **employees'** productivities.

Sigma allows you to attach files with each BoQ and Receipt in order to quickly **control** the related **documents** and to find them back again.

A **log** can be assigned to each Order or Task in order to add follow-up details. There are 3 types of logs; **communication** log, **risk** log, and **issue** log. A communication log has a medium such as a meeting, an email, a telephone call or a fax.

A set of **cross business rules** and integrities allow you to **check errors and mistakes**. For example they allow you to compare actual attendance of an employee

with activities, and actual cost with estimated one.

When integrated with HR, Sigma helps you also to evaluate employees incentives and to calculate wasted time.



## 2 Sigma supports project managers and all project stakeholders

Sigma is the application for project or program managers but also for members of a steering committee, project members, accountants and suppliers.



This will help you to accelerate the input task by distributing it between the different stakeholders, to determine responsibilities and to support double checking.

Sigma can be used to manage projects regardless the business logic. Each company can setup Sigma to fit to its own business.

Sigma covers main functionalities to ensure successful project

### 3 Sigma supports project based businesses

Construction, manufacturing, software, project finance, etc.

**Sigma** is not a substitute for accounting, it is **a bridge between project management and accounting**, it has some details about business cost that accounting do not care about. For example accounting does not care about how many projects an employee is working on but it cares about the total salary of an employee. Accounting does not care about where the received goods have been used, but it cares about the total dues of suppliers.

### 4 Major Modules

- ◆ **Settings:** define the cost standard to be used by the system.
- ◆ **User management:** define new users and assign them to some specific projects and give them some specific roles
- ◆ **Project Initiation:** define new projects.
- ◆ **BoQ /Receipt** management
- ◆ **Payment** Schedule/ payment management
- ◆ **PO/Task** management
- ◆ **Log** management
- ◆ **Incentive/ fraud** management
- ◆ **Reporting**

### 5 Process Description

To manage a project using Sigma follow the following steps

1. **Define your project**
  - a. From setup/project management/new project you can **create your own project**. When creating a new project you be asked to select the project manager and the cost coding group that best fits to your project. If such a group does not exist you have to create a new coding group

**Process Description**

- ◆ Select your coding group
- ◆ Define new project
- ◆ Specify the budget and BoQ
- ◆ Schedule BoQ
- ◆ Schedule expected payment
- ◆ Input daily receipt
- ◆ Input payment when received
- ◆ Define tasks and orders
- ◆ Add log record when needed
- ◆ Generate reports

b. From "setup/users and roles/user project mgmt. You can select a **user** and edit his profile in order to **assign** him some **roles** in the new project.

c. Input the initial **BoQ** by adding BoQ items to the project. This can be done via "**Sigma/Operation/BoQ management/new BoQ**". You can add as much as items as you need and you will be able to modify them later if necessary.

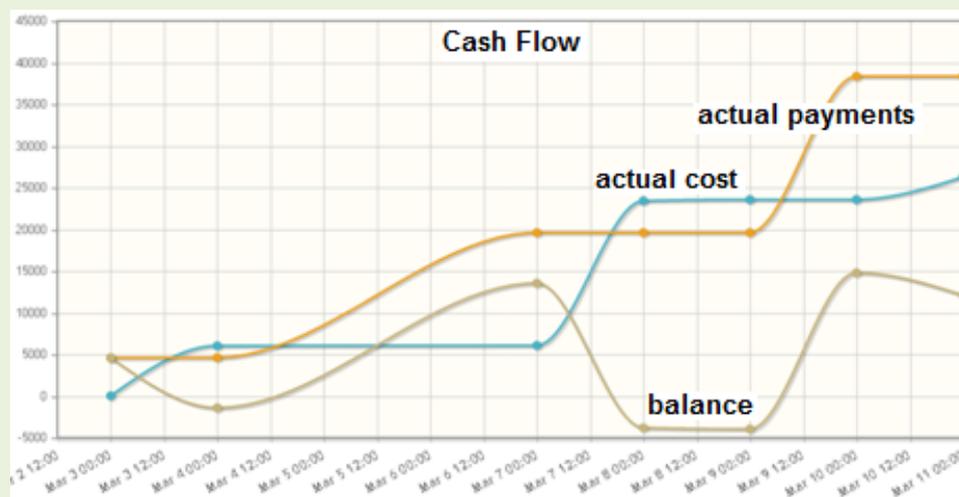


d. Input the **expected income** by adding new "payment-schedule item" to the project. This can be done via "**Sigma/Operation/BoQ management/new payment-schedule**".



These payments can also be modified later if necessary.

e. Evaluate your budget by viewing some reports. For example the "progress on different axis" report, can show you the expected cost, expected payment, cash forecasting, and expected profit. If the cash forecasting, for example, does not meet the rules of your company you can modify your payment schedule of your BoQ schedule in order to meet these rules.



## 2. Execute your project

Now that you have defined your project, your BoQ and your payment Schedule, you will be able to manage your project. This can be done via the following actions and events:

- a. The system will alert users when it is time to start working on some BoQ. When a user executes a BoQ item or a part of a BoQ item he has to input a Receipt object. This can be done via "[Sigma/Operation/Receipt management/ new Receipt](#)".
- b. The system will alert users when it is time to require a scheduled payment. When a user receives a payment he has to input it to the system via "[Sigma/Operation/Receipt management/ new Payment](#)".
- c. Alerts are sent to all users who has the right to deal with the related event. Anyone can do the job, but if the project manager wants to assign a job to a given user he can define a task for him. This can be done via "[Sigma/Operation/PO management/ new PO](#)".
- d. Now we can evaluate the progress of our project by generating some reports. The "progress on different axis" report, for example, shows you the effective cost, effective payment, effective profits against expected values. It shows you also the cost remaining to close your project.
- e. When the system alerts users to start executing a BoQ item, requiring a payment or executing a task, it may alert the project manager also. If a user is unable, for some objective reason, to execute a task and wants to justify the delay, he can create a log record (issue, risk or communication) and join it with the corresponding task.

## 3. Control your project

There are four types of reports:

- a. **Forecasting** reports: They help us evaluating our plan. These reports include expected cost, cash forecasting, sales forecasting or profit forecasting.
- b. **Progress** reports: they help us to evaluate our progress. These reports include effective cost, cash flow, effective sales, effective profits, achievement, and cost to complete.
- c. **Evaluation** reports: that allows us to evaluate employees/suppliers performance.
- d. **Monitoring and Tracing**



*Sigma possesses all the modern requirements of web based applications.*

*Sigma is based on J2EE, and implements all modern design patterns such as 3 tiers, MVC, SOA, MDA, ORM, DAO, AOP and others.*

## 6 Key Features

- ◆ **Web based:** can be accessed via the web using most known web browsers, such as Google **chrome**, **Firefox**, **Internet Explorer** and **Safari**.
- ◆ **Collaborative:** data input is not a burden, because each user will input his own data.
- ◆ **Multi-languages:** each user can choose his own language. New languages can be added by the administrator through settings
- ◆ **Multi-user:** each stakeholder can access the system to do his own work.
- ◆ **Multi-currency:** the system can operate in several currencies
- ◆ **Flexible:** Can support different costing standard: actually we support the CSI standard (Construction Specification Institute) which provides a classification for construction costs.
- ◆ Fully **integrated:** The same input is used by the different modules (BoQ, Payments, incentives, logs, archiving, Time Waste, PO/Task) in order to produce the different reports and alerts.
- ◆ **Easy to use:** the system do not impose hard integrities on users, it allows users to specify what they are really doing and only gives them reports and alerts.
- ◆ **Multi-coding:** several coding group can be defined, so different types of projects can be managed using the same installation.
- ◆ **Scalable:** the system is built basing on SOA, it can scaled to include more functionality.
- ◆ **Monitoring and Tracing capability:** a tracing facility allows us to trace the history of a BoQ item or receipt item.

## 7 Technology

- ◆ Basing on **Elixir framework:** Sigma has all modern applications features such as SOA, MVC, 3 Tiers, MDA, and other. This increase reliability, and scalability.
- ◆ **J2EE:** Elixir framework is based on J2EE technology.
- ◆ High level of business **security:** administrator can assign different levels of security to different users.
- ◆ can receive alerts when these fields are modified.
- ◆ Platform independent: Based on J2EE technology, It runs over different operating systems such as Windows and Linux, it support different applications servers and different data bases such as Oracle, SQL Server, postgres, and MySQL.

*Sigma provides us with the tools necessary to manage business, cost, employees and suppliers.*

*To run Sigma all a user need is just an internet browser.*

## 8 Benefits

- ◆ **Control and Reduce your project cost**
- ◆ Follow up **achievement** progress, **PO/Tasks, cash flow, cash forecasting and cost to complete**
- ◆ Evaluate **supplier performance** and **employees productivities**
- ◆ **Fraud Management:** The system allows us also to deduce any abuse by comparing expected figures with actual ones.
- ◆ Record **Log**
- ◆ **Increase transparency and save physical reporting time:** thanks to a multi user access and to a clear calculation of costs

## 9 Installation Requirement

- ◆ Server side
  - Jboss application server
  - MYSQL, Oracle, SQL Server, or post Gres Data Base
- ◆ Client Side
  - Only a Web browser

***Sigma is easy to learn,  
fast to implement and  
cost effective***

## **10 Our USPs**

- ◆ Predefined coding
- ◆ Proven track record
- ◆ Fast to implement
- ◆ Low investment in money and human resources
- ◆ Easy to learn and use
- ◆ Collaborative with easy to configure access control

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