Hephaistos 2010.1

User manual

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About

Hephaistos is a project management tool designed for small and medium sized companies. It is client / server application, where the client is based on the Java Swing user interface.

It is a powerful application focused on the team work. You can plan your tasks and each project member can see changes. You can add your activity (work done) to any task and everyone can see how the project is viable in given time and with given project members. And top management can see at any time without any project reports the state of each project.
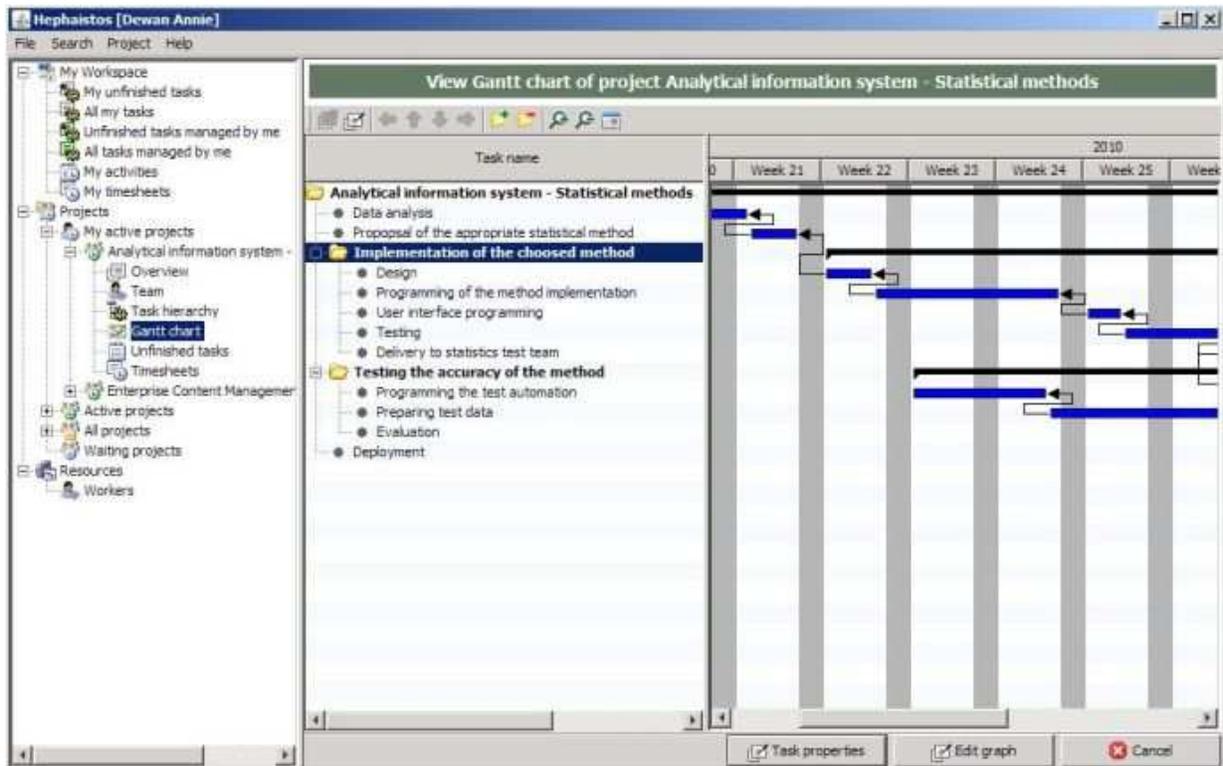
Application has clear and easy-to-use user interface, with very simple installation. It links together two different worlds: one is the project planning, second is the monitoring of the work done on the project.

One of the main advantages is organization of the projects and tasks. Our application offers not just a simple list of the tasks, as you can know it from other products. The tasks are organized in the tree hierarchy with the dependencies between. This keeps relations between tasks and you can orient yourself in the projects easier.

Version 2010.1 is an initial, not a final release. We are working on the next functionalities. We want to make a complex company information system from this product - in a few months. And the first year after buying Hephaistos you can update it freely...

Here are descriptions of most essential features of Hephaistos:

- **Client / Server architecture** - Hephaistos is not a WEB based application. We choosed client / server architecture for this product, because we want one control center and we plan to give to our application client some more functionalities in the future. The client is the Java Swing based application with *built-in autoupdate* functionality.
- **Security and access rights** - Each user have to login to the application. The access is password protected. The user can have assigned different roles and they restrict or enable access to some functionalities of Hephaistos.
- **Project and task planning** - Application supports the planning with the absolute start - finish dates or relative with constraints and dependencies. It is your choice what style you use.
- **Tasks tree** - The tasks of the project display in a tree. Hephaistos uses a conception of the *summary tasks*, so you can organize your tasks in a tree with virtualy unlimited depth. And you can also change this hierarchy by moving the nodes of the tree.
- **Gantt chart** - Gantt chart extends the abilities of the task tree. It appends a timeline and dependencies chart presentation for each task. Gantt chart is editable in the same way as the task tree.
- **Task dependencies** - Task dependencies are an essential part of a project management software. In most projects, certain tasks cannot begin unless another one is completed. This can be tricky to manage when the project is complex and contains several tasks that depend on the successful completion of other ones. Hephaistos supports task dependencies to make your planning easier.
- **Activities recording and time tracking** - Each project member can append to any task of the project record about the work done by he or she. This activity record impacts amount of work on the task, its summary tasks, project and also serves as an input for automatic recalculating of the user's timesheets.
- **My workspace** - All tasks you solve or manage you can find in one place - in *My Workspace*. So you always exactly know what you have to do or what do your subordinate employees. In *My workspace* you can find also your timesheets and activities.

Server installation

To run Hephaistos you need Java 1.5 or higher installed on your server. You can download the newest version from http://www.java.com/en/download/index.jsp.

The Hephaistos server is contained in file **server.zip** in our distribution file.

Simply unzip this file to appropriate directory. You will get this structure:

```
YOUR DIRECTORY
        client         - directory contains client *.launch files
        launch         - directory contains server *.launch files
        lib            - directory contains *.jar files
        server.bat     - batch file for start server on Windows
        server.sh      - batch file for start server on Linux
        server.config  - server configuration file
```

You don't need to run any installation program.

Server configuration

All server configuration is concentrated to file *server.config*. It is the java properties file, where each parameter is set as

$$propertyName=propertyValue$$

There are some explanations to each property in this file. Generally, you have to set these properties:

- **database** - full path to database file, see below
- **log** - full path to directory where you can store server log

Hephaistos uses its own object oriented database, and its setup is very easy. All you need is to set a name of the (future) database file. If this file does not exist, the server creates one when started.

Server running

You can start the Hephaistos server with one of the batch files stored in its root directory. It prints to console information about port and database it uses, and also autoupdate information, if autoupdate is enabled in configuration file.

An autoupdate is running in background thread and has no impact on the other work. Server checks the site *www.beesoft.eu* for the Hephaistos last release and if it find newer than its own, it downloads all necessary files. When new release downloaded, server notifies all clients about it, so the user can see information about new version and invitation to restart server.

How to stop the server

Currently there is no administration tool to manage Hephaistos server. So the only way to stop this server is kill the system process (e.g. CTRL-C in window where is running on MS Windows).

Important

Don't forget to backup your database file in regular intervals. The only one way to restore damaged database is to replace database file by one from the backup.

Client installation

To run Hephaistos on the client you need Java 1.5 or higher installed on your server. You can download the newest version from http://www.java.com/en/download/index.jsp.

The Hephaistos server is contained in file **client.zip** in our distribution file.

Simply unzip this file to appropriate directory. You will get this structure:

```
YOUR DIRECTORY
        doc             - directory with documentation
        launch          - directory contains *.launch files
        lib             - directory contains *.jar files
        hephaistos.bat - batch file for start client on Windows
        hephaistos.sh  - batch file for start client on Linux
        hephaistos.jar - client loader library
```

You don't need to run any installation program.

Hephaistos security

Security

Hephaistos is not an application designed for the top-secret usage. Currently the only one security feature is the access restriction to the application: it requires login and password pair from each user.

Data are currently transferred on the HTTP protocol in the open form. In the future we want compress transferred data. Of course, this will be more the performance than a security feature, but transferred data will be not so easy readable.

Roles

Hephaistos knows these roles:

- **enterprise manager** - is an *administrator* of the application
- **top manager** - role prepared for usage in the next Hephaistos releases
- **project manager** - is a manager of the project and project team
- **team leader** - can do some work like project manager
- **project member** - is a member of the project team

Permissions

Hephaistos has a built-in set of the security features. Here you can see them:

- only enterprise manager can create new user and manage his / her access to application
- an user can edit his / her contact information and change his / her password
- new project can be created by enterprise manager only
- only enterprise manager can set project manager for a project and setup project team
- project manager can create and plan tasks for his / her project and assign worker to task
- team leader can manage tasks of his / her project (change the assignee, finish task)
- project member can add activity to any task of the project, in which he / she is a member

Currently there are no visibility restrictions in the Hephaistos application. Each user can see all resource, project, task and activity records.

We want to add the monitoring costs feature to our application in the future. And then will come *top manager* role to the play.

Hephaistos basic control

Here you can see the basic look of Hephaistos application:
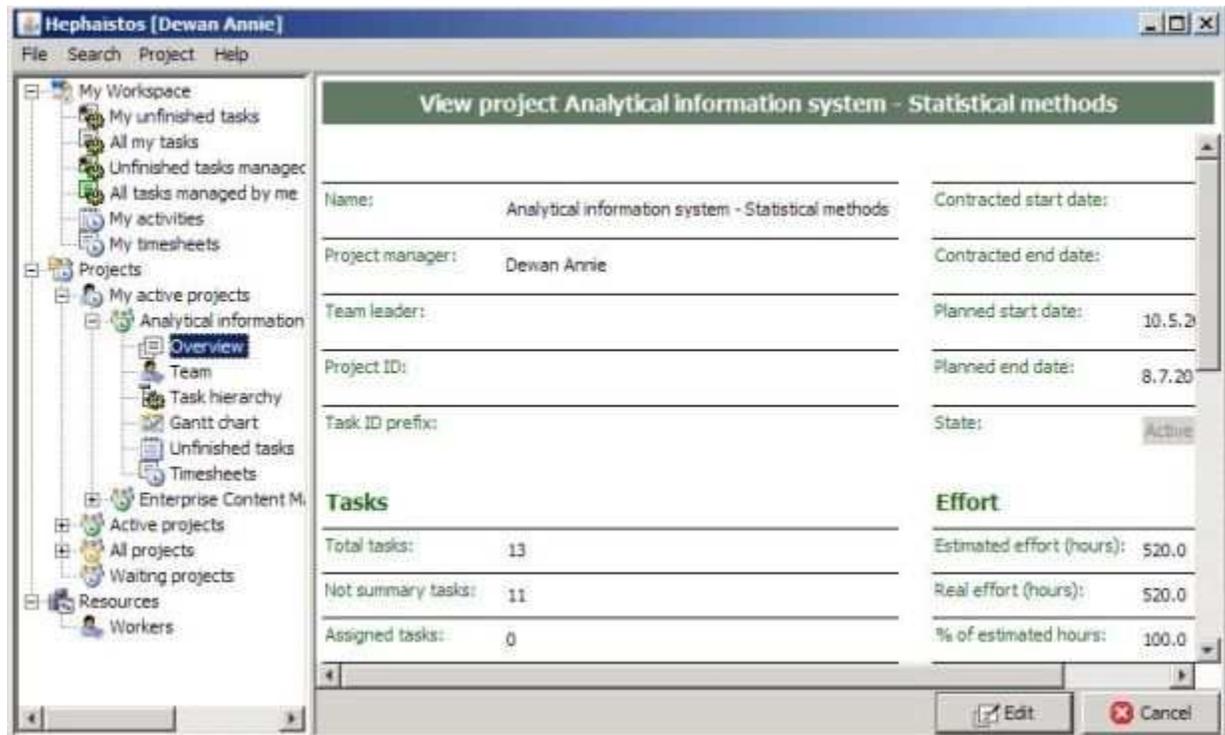
On the top side is a **menu** as you know it from the other applications. Each menu item contains popup menu which is displayed when you click on menu item.

On the left side is the **navigation tree**. It has a few main branches:

- *My Workspace* contains all nodes for accessing current user's tasks, activities or timesheets. Double clicking any of these nodes you can see or modify the records.
- *Projects* contains four sub-branches: My active projects, Active projects, All projects and Portfolio. Each of these branches contains any number of projects records (by their state).
- *Resources* has currently just one sub-node: Workers. Double click it to see, edit or add new workers.
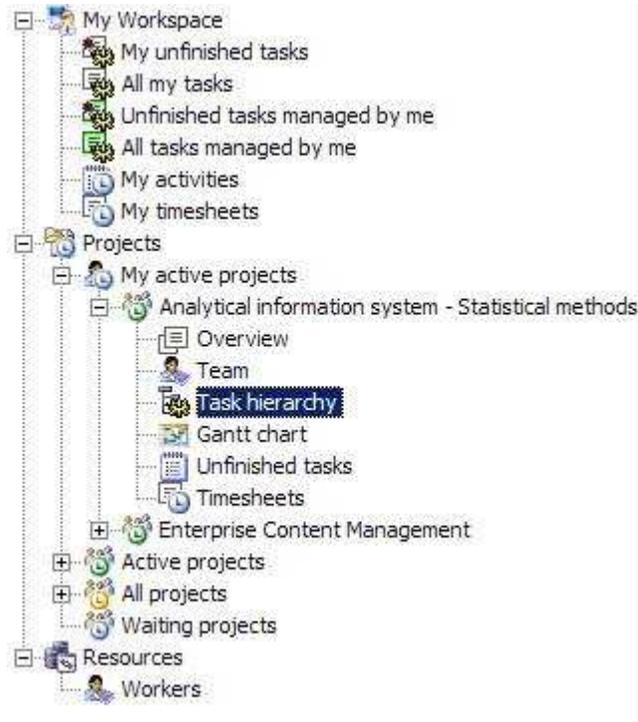
Let's take a look on the project branch in the navigation tree. Under each project node you can find these items:

- *Overview* - displays project overview with main project numeric data.
- *Team* - contains a list of the project members.
- *Task hierarchy* - displays all tasks of the project in tree hierarchy with a number of numeric columns.
- *Gantt chart* - displays all tasks of the project in tree hierarchy with tasks timelines and dependencies.
- *Unfinished tasks* - contains a list of all project's unfinished tasks.
- *Timesheets* - displays project timesheets.

By double-clicking on any of these items you will see corresponding data.

The main part of application window takes **the data area**. In this area can appear:

- *List of records* - displays an appropriate list of records (e.g. list of workers, list of tasks, etc.). Double clicking on record, or pressing button **View** when some record selected, you can see record data in its own form.
- *Record in view mode* - shows records data in non-editable form. Pressing button **Edit** (if enabled) you can switch it to edit mode.
- *Record in edit mode* - allow edit (or create) record. Press **Save** to store record changes to database or **Cancel** to throw it away.
- *Gantt chart* - can be in view or edit mode, see chapter Project planning for more information.

- *Task hierarchy* - can be in view or edit mode, see chapter <u>Project planning</u> for more information.

First client run

In the directory where the Hephaistos client is installed you can find batch files for starting the client :

- *hephaistos.bat* for MS Windows systems
- *hephaistos.sh* for Linux based systems

When you invoke appropriate batch file for the first time, application appears on the screen but it displays an error message:

<p style="text-align: center; color: red;">ERROR: Cannot connect server.</p>

This is because the Hephaistos client does not know server IP address and port.

You have to go to the menu **Help / Configuration** and to set the properties in the dialog that appears. Then restart the application.

Note: informations about server IP address, port and possible proxy server you can obtain from your network or application administrator.

Password change

When a client successfully connects to the server, two actions are invoked:

- client application is autoupdated
- user is prompted for login and password

For new user is login created by *enterprise manager* and password is exactly the same as a login. User should change this password as soon as possible. He or she can do it in menu **Help / Change password**.

Administrator access

When you have installed server and first client and you try access application for the first time, there is one user created by the system:

- login: **Administrator** (please note the upper case for the first letter)
- password: **Administrator** (exactly the same as the login)

Administrator is a common user, you can change its name, login and it is **strongly recommended** to change its password. This user has checked property *Enterprise manager*, so he / she can create new users. But any of these users can have checked the property *Enterprise manager*, and user *Administrator* need not to be used anymore.

Resource creation

Only the user with property *enterprise manager* checked can create new resources (users).

You can display all workers list by double clicking on the node **Resources / Workers** in the navigation tree.

Button **Create** invokes form for new user creation. In the form you have to enter:

- first and last name of the new user
- user login

For special users you may to check *Enterprise manager* and *Top manager* properties. All other properties have just information purposes and are not used by system.

Created user has password exactly the same as a login. User should change it as soon as possible. Password is stored in encrypted form and it is for *enterprise manager* not accessible. But if the user will forget his / her password, *enterprise manager* can press button **Reset password** in this form and set the password from login.

Note: users with no login have no access to Hephaistos and they are not calculated to maximum number of users enabled by Hephaistos license.

Project creation

The new project can be created by *enterprise manager* only.

Go to menu **Project / New project**. Application displays this form:

Fill these fields in the form:

- **Name** - name of project
- **Project manager** - name of project manager (selected from existing users)
- **Project ID** - this is a company dependent information, maybe the project's name abbreviation
- **Task ID prefix** - this will be the first part of the task ID, should be unique across projects

The *project manager* should fill the remaining fields:

- **Team leader** - team leader of project team
- **Contracted start date** - project start date as specified in the contract
- **Contracted end date** - project finish date as specified in the contract
- **State** - can be one of the *Active*, *Waiting* or *Closed*. Selected value decides in which branch of the navigation tree will be project displayed.
- **Description** - text description of the project
- **Project activity types** - items to this field can be appended with button *Add activity type*. Activity type distinguishes between types of activity. Examples of activity types are: Programming, Analysis, Testing, etc.

Editing of project record

Both enterprise manager and / or project manager can edit project record. This record is accessible from the navigation tree. Under your project node is node **Overview**. Clicking this node you will open a non-editable form of the project view. Press button **Edit** on that form and you can edit project.

Project team setup

Enterprise manager decides which company workers will be the project members. Select the *Team* item in the navigation tree under your project. The list of current project members displays. Use **Add** button to add new project member.

There is no deletion enabled. But you can discard a project member, when you open his / her record and uncheck *Current member* checkbox.

Project planning

There are two forms in Hephaistos you can use to planning project tasks:

- Gantt chart
- Task hierarchy
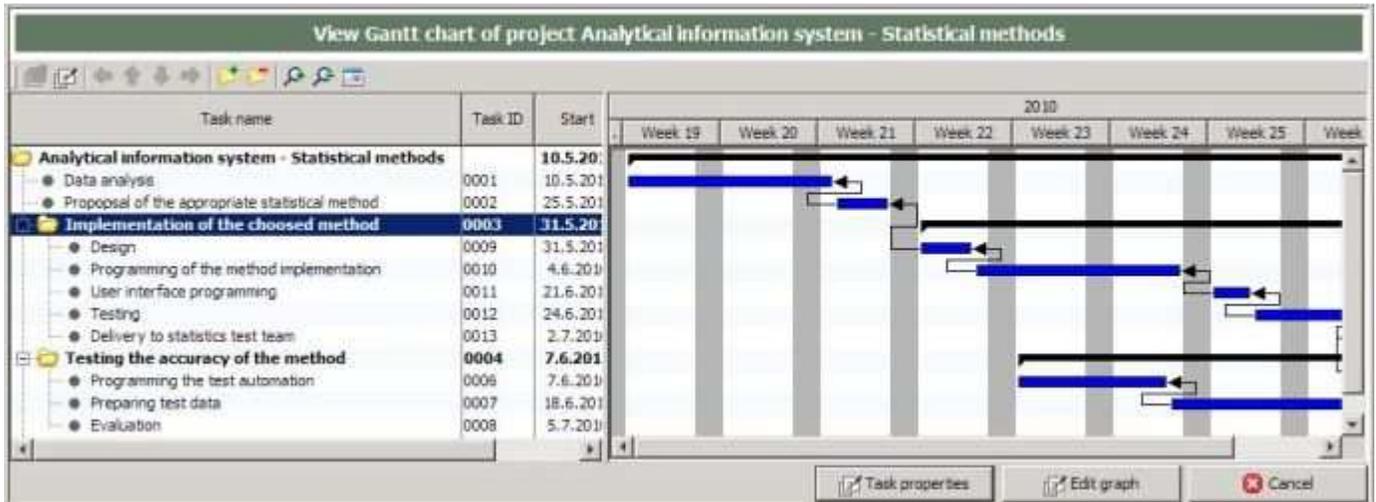
Gantt chart is focused on graphical representation of project tasks, *Task hierarchy* displays more numeric information, but they are equivalent in their functionality. They show tasks in the hierarchical tree structure and they allow to modify this structure or properties of selected task in the same way.

What is a hierarchy of the tasks?

When you plan your project, you probably start with more complex task (e.g. Analysis, Programming module A, Programming module B, ...) and then to each of these tasks create a few concrete tasks.

Such complex tasks are called **summary tasks**. There are some constraints with these tasks - you cannot set dates for these tasks (they are computed from dates of concrete tasks), you cannot assign a worker to such task, and so on. But they allow organize your project in the clearer way.

Both Gantt chart and Task hierarchy display hierarchy of task in the same way, but they display different information.

View mode

When you open any of these forms, they are working in a *view* mode. In this mode you can see hierarchy of tasks and their timelines (in the gantt chart), but you cannot modify structure or change task dates.

You can select and open any task and see task properties if:

- you select a task (mouse click) and press the button **Task properties**
- you select a task (mouse click) and click the button for task properties in the toolbar
- you select a task (mouse click) and with right click you invoke popup menu - there is an item **Task properties**
- or you double click a task

The opened task is also in a *view mode*. But user (project team member) can add its own activity to this task (when pressing button **Add activity**). He or she can also add a note to the task - with button **Add note**. Project manager and team leader can edit the task - with button **Edit**.

That is all you can do with gantt chart or task hierarchy in the view mode.

Edit mode

To get the gantt chart or the task hierarchy form to the edit mode press **Edit graph** button when you are in a view mode.

The form in the edit mode has the same look as in a view mode but there are enabled some more buttons in the toolbar and items in popup menu for moving task in the tree hierarchy. When you open selected task, it is opened in edit mode.

In the edit mode you can create a new task. Note, you always have to select a task to which you can create a new sibling - and then use one of these options:

- press the button **Create new task**
- press the button for a new task creation in the toolbar
- invoke popup menu with right click and choose an item **Create new task**

The similar ways you can use to edit task properties.

Please, note: any change you do in gantt chart or task hierarchy in the edit mode, is done in memory only. To store it to database you have to press button **Save graph**. Otherwise your changes will be lost.

Task setup

The new task can be created by project manager only. He or she is the only one who can edit task dates and dependencies.

You can plan your tasks in two ways:

- absolute - you enter start and end date for the task
- relative - you can use dependencies on the other tasks to compute start and end date

To plan your task absolute, you have to

- set start and finish date
- or set constraint for task to *Must start on* and set constraint date
- or set constraint for task to *Must finish on* and set constraint date

Any dependencies to other tasks are in absolute planned task ignored.

Relative planning has some advantages against absolute: when you change some date in one task, dates in the remaining tasks are automatically recalculated.

To plan your task relative, you have to

- set duration of the task
- set constraint for task to *Keep duration*
- add one or more dependencies - with button **Add dependency**

In the dependency form you have to choose a predecessor task and the dependency type:

- Finish -> Start
- Finish -> Finish
- Start -> Finish
- Start -> Start

The first option is the most common type, and it means "When the predecessor task finished, start this task".

Please, note: if there are some activities to the task, you cannot change dates or constraints of this tasks. You cannot change dates and constraints of the summary tasks, too.

Task solving

Any project member can participate on the task solving.

There is the button **Add activity** in the task form. Pressing this button will open form for activity recording.

In the activity form you have to fill these fields:

- **Date** - date when activity occurred
- **Activity type** - type of activity (one of types defined in project)
- **Effort** - time (hours) you solved this task
- **Remaining effort**
- **Comment** - some explanation text to your activity

If you are assignee of this task, you can change *remaining effort* of the task. This is your estimate of the hours count remaining to the task finish. Set this field to 0, if you have this task resolved.

Value of *remaining effort* is transferred from activity form to the task. Project manager or team leader can set field *remaining effort* in the task form directly.

Task with remaining effort = 0 is resolved but not finished. Project manager or team leader can finish the task when check **Finished** checkbox in the task form.

Reports and overviews

Data collected by Hephaistos application allow to see:

- all company projects
- state of each project
- state of each planned task
- activities done on each project
- timesheets (on monthly bases) of each project
- activities of each user
- timesheets (on monthly bases) of each user

This Hephaistos release does not contain any print or export facilities. We plan to complete it in the next release.