

# AquaStress

Mitigation of Water Stress through new Approaches to Integrating Management,  
Technical, Economic and Institutional Instruments

Integrated Project

## D4.4-5

### ProST: Process support for water stress mitigation

#### Users Guide

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Abstract

*This users guide describes ProST (**Process Support Tool**), which aims to support the planning, execution and monitoring of water stress mitigation projects by involving all the stakeholders.*

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The i<sup>3</sup>S Document Series

# ProST: Process support for water stress mitigation

Users Guide

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Mitigation of Water Stress through new Approaches to Integrating Management, Technical,  
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## Preface

This users guide describes ProST (**Process Support Tool**). ProST is developed within the framework of the AquaStress project. It aims to support planning, execution and monitoring of a water stress mitigation projects involving problem solving team involving researchers who come from various disciplines and stakeholders with diverse interests.

ProST is based on MoST (Modelling Support Tool) developed within the framework of HarmoniQuA project. MoST is developed to provide electronic guidance and support to multidisciplinary project teams in modelling projects for river basin management. MoST implements specifically the HarmoniQuA quality assurance guidelines for modelling studies. ProST is flexible version of MoST. It is capable of supporting other collaborative processes including modelling projects.

ProST aims to support complex participatory processes. A way of dealing with complexity is to decompose a complex process into smaller and manageable parts. Thus, within ProST the basic structure of a participatory process is split into *steps*, *steps* into *tasks* and *tasks* into *activities*. Tasks and activities include *methods* and other attributes that further describe relevant information about the tasks or activities.

ProST is used to provide:

- *Guidance*: ProST is used as a "smart" browser for information on the activities of water stress mitigation processes and for getting insights about what is going to happen in projects.
- *Sharing & monitoring*: ProST is used to record what is done and share data and information on the activities of a project, such as how an activity is done, when it is done and by whom.
- *Provide management and audit facility*: ProST enables managers to monitor the progress of a project. It leaves a comprehensive audit trail which can be used for auditing and quality control purposes.

Using ProST involves the following steps:

- *Process definition*: The project team members collaboratively define a water stress mitigation process.
- *Project set-up*: Project leader sets-up the water stress mitigation project. To set-up a project means to select the tasks to be executed, enlists users, define user roles and establish deadlines & time requirements.
- *Execute project*: Once the project is set-up members of the team can use ProST to get guidance, record what they have actually done and generate reports.

ProST is a desktop application. It can be used as a stand-alone application as well as a client-server application. To work as a stand-alone application ProST requires a process definition. Processes are defined in the AquaStress process Knowledge Base using the AquaStress Knowledge Base Editor and imported in ProST.

ProST is also a multi user client-server project support and management tool. For that purpose ProST uses a central project server to allow users to work on the same project from different locations.

### Further information

Further information on the Aquastress project can be found on the project website:  
<http://www.aquastress.net>.

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## Introduction

Planning a water stress mitigation project involves a problem solving team composed of researchers from various disciplines and stakeholders with diverse interests. In AquaStress new approaches to water stress mitigation are proposed. One of the new approaches is the development and use of open participatory processes in which stakeholders are the main driving force.

Such complex participatory processes are better supported by a process management tool. In AquaStress such a tool (called ProST) has been developed. ProST uses scientific and technical guidance defined in the AquaStress process knowledge base. The guidance specifies managed process steps on how to carry out various tasks to achieve reliable and reproducible results. Managed means that tasks within a managed process can be scheduled and monitored using ProST. ProST distinguishes different types of users, identifies their interests and information needs and allows multiple actors share their results. Using ProST involves the following three steps (Figure 1):

1. *Collaboratively defining a water stress mitigation process* – a process is a detailed stepwise description of what the team plans to do. In this phase members of the project team collaboratively make a process definition (think of it as a plan) for the water stress mitigation project. The process describes the tasks to be done and any relevant information that can be of use in executing the tasks of the project.
2. *Set-up the water stress mitigation project* – to set-up a project means to select the tasks to be done, enlists users, define user roles and establish deadlines & time requirements. This phase is done by the project leader.
3. *Start the water stress mitigation project* – once the project is launched members of the team can use ProST to get guidance on how to perform their activities, record what they actually have done and share their results with other project team members. In this way, besides enhancing collaboration among team members, ProST provides a comprehensive audit trail.

This document contains a short description of ProST. A detailed documentation is available on the HarmoniQuA website [www.harmoniqua.org/training](http://www.harmoniqua.org/training). In addition ProST contains a detailed help system.

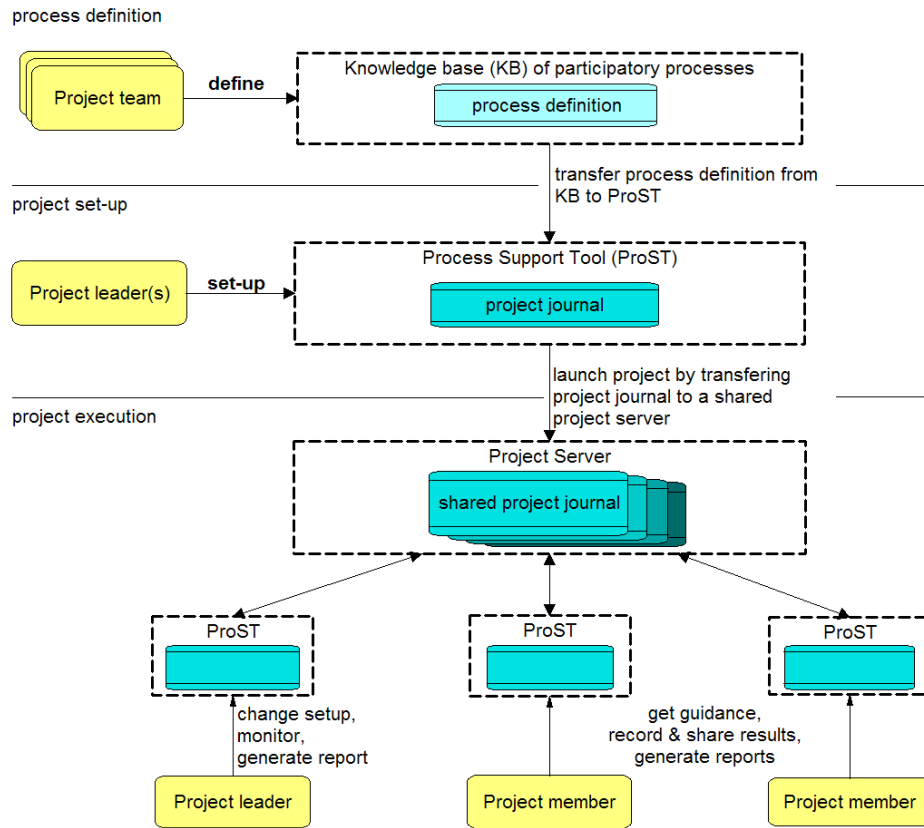


Figure 1. Supporting participatory water stress mitigation using ProST

## Defining a participatory process

The first step of using ProST, defining water stress mitigation process, is done using the AquaStress knowledge base editor (KB editor). The project team defines a water stress mitigation process by decomposing the process into *steps*, *steps* into *tasks* and *tasks* into *activities* and *methods*. Such decomposition enables users to reuse parts of other process definition at a *step*, a *task* or an *activity* level.

Activities are the smallest unit of decomposition of a process. Tasks and steps are logical and hierarchical groupings of activities. Tasks are groups of activities. To perform a task one or more activities have to be performed. A task is related to what has to be done as a unit. For instance a task can be removed, and with it all the associated activities, from a project during project set-up or skipped during project execution. Some type of tasks signify a *milestone* in which a decision or a review has to be done. They are called *decision* and *review* tasks respectively. Steps are a group of tasks. There can be a large number of tasks in a process and steps come in handy as a logical grouping of tasks. An example decomposition is shown in Figure 2.

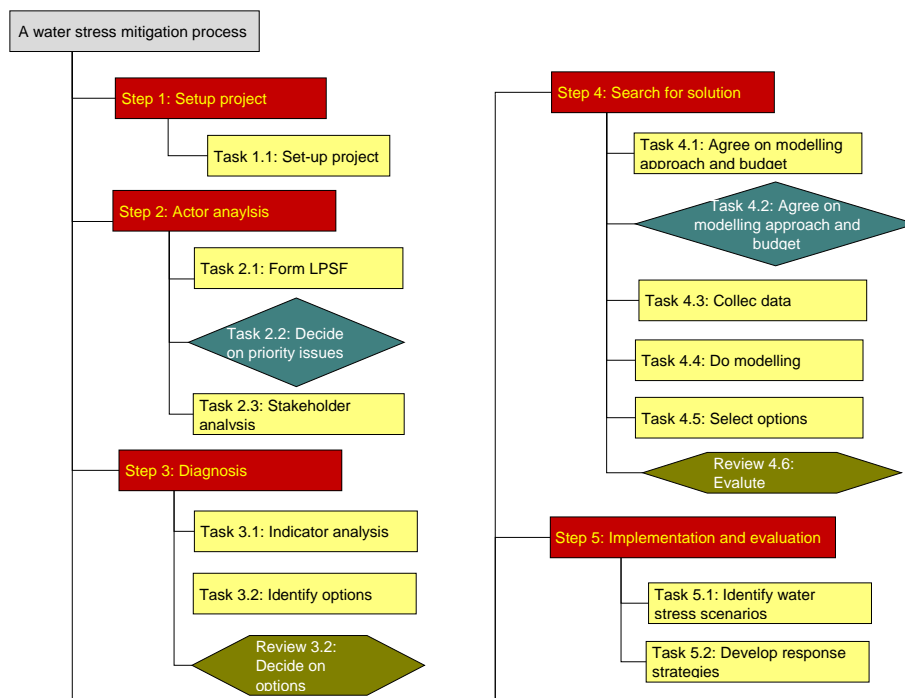


Figure 2. Decomposition of a process

## Obtaining ProST

The latest release of ProST can be obtained from [www.harmoniqua.org/ProST](http://www.harmoniqua.org/ProST). The installation software InstallAnywhere asks if you want to "trust content from Zero G Software Inc." and it can safely be trusted.

ProST is also a multi user client-server project support and management tool. For that purpose, ProST uses a central project server to allow users to work on the same project from different locations. The server software is available online. When working on projects that are hosted online, you have to setup the address of the project server. The AquaStress projects are available from: [www.harmoniqua.org/aquastress](http://www.harmoniqua.org/aquastress).

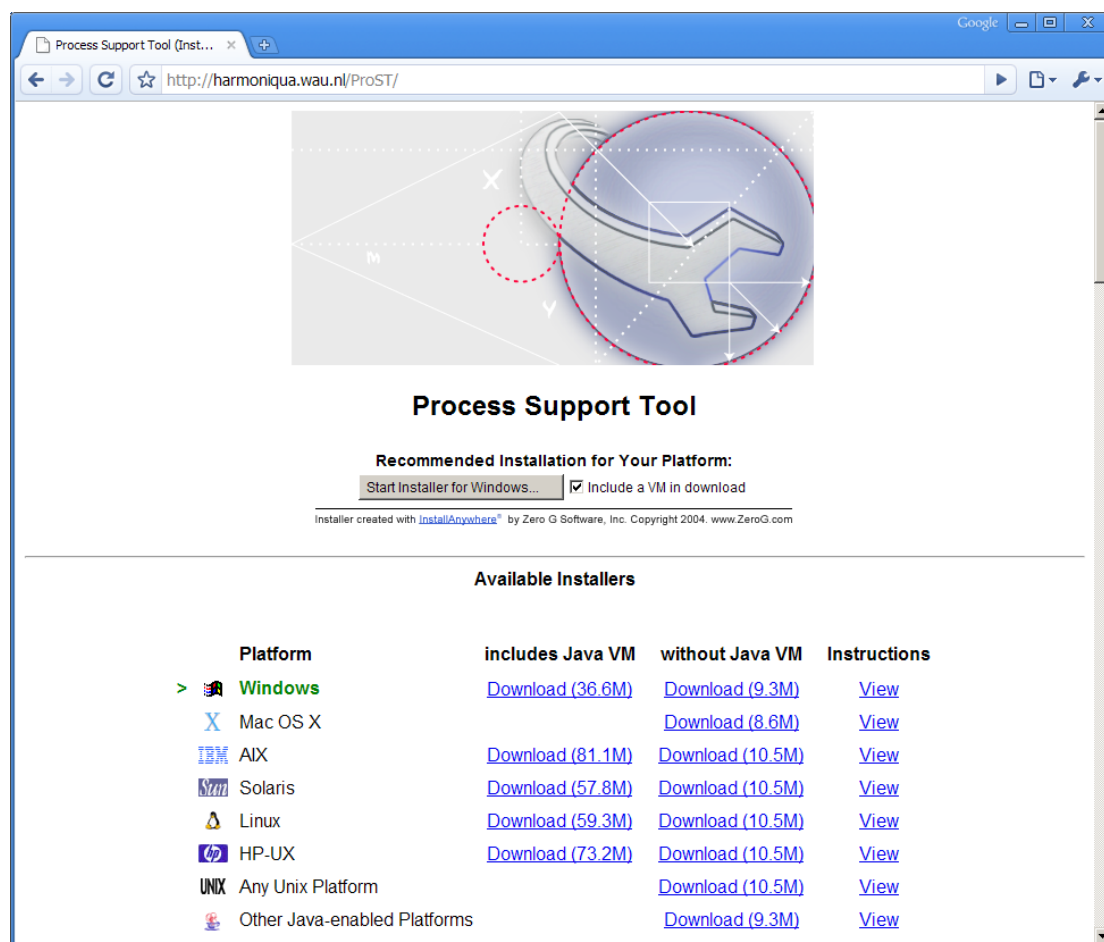


Figure 3. Downloading and installing ProST

## Setting-up water stress mitigation process

To set-up a project means to select the appropriate process from the AquaStress process knowledge base, select the tasks to be executed, enlists users, define user roles and establish deadlines & time requirements. *This phase is the responsibility of project leaders.* In ProST the project leader who is responsible for the administration of the project is called project administrator. The project administrator launches the project by uploading the initialized process (called project journal) into a shared project server from which it will be accessible by all project team members (see Figure 1). During project set-up the project administrator uses ProST as a stand-alone tool.

The project administrator's first responsibility is to decide whether to manage the project as one project or divide it into sub projects. Subsequently the project administrator selects which tasks have to be done in each of the subprojects. Next, the administrator composes the staff of persons to do the project. Users are added to the team and their roles specified. Then, the administrator will assign authorization rights, i.e. reading, writing, decision making, to all persons involved, per subproject. Finally the administrator can add and edit questions and criteria to be used by auditors. A project administrator can change all project settings of an initialization phase during the project. In a participatory setting in which stakeholders are the main driving force the project administrator is a facilitator rather than project administrator in the usual sense.

Figure 4 and Figure 5 depict the project setup step.

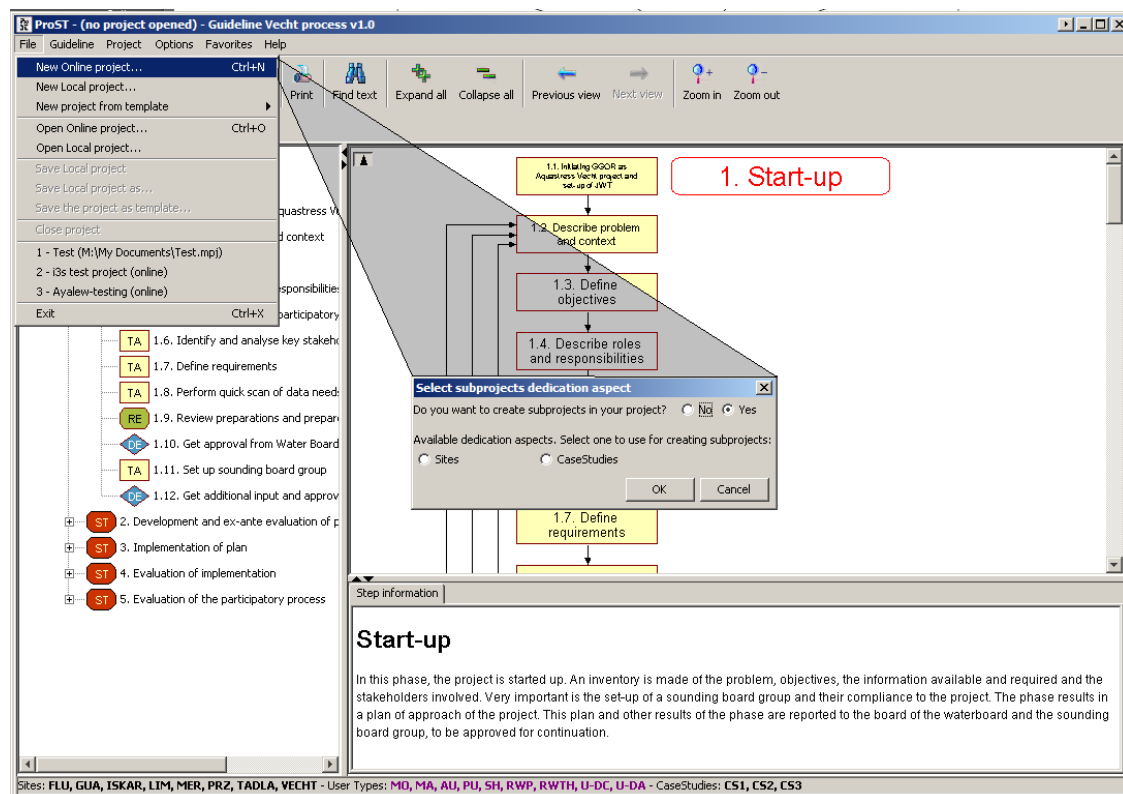


Figure 4. Starting a project

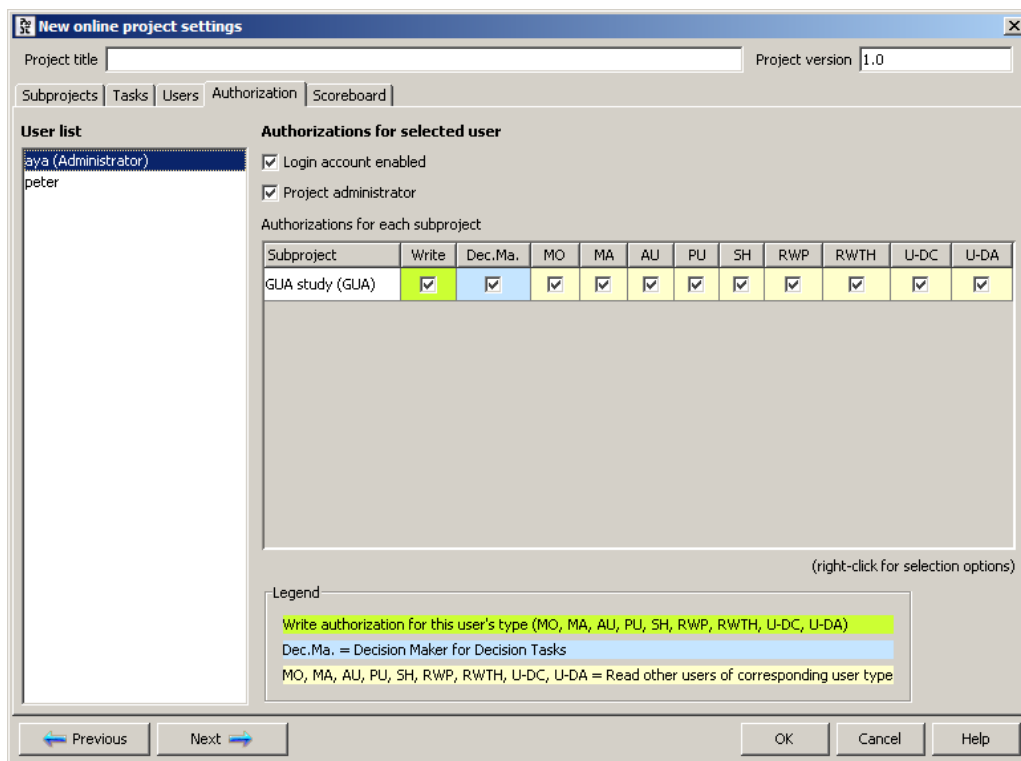


Figure 5. Setting up a new project

When the administrator is finished with project set-up ProST sends the project data from the local computer of the administrator to the project server that is specified in ProST. The project data is called project journal. At this point the project is officially launched.

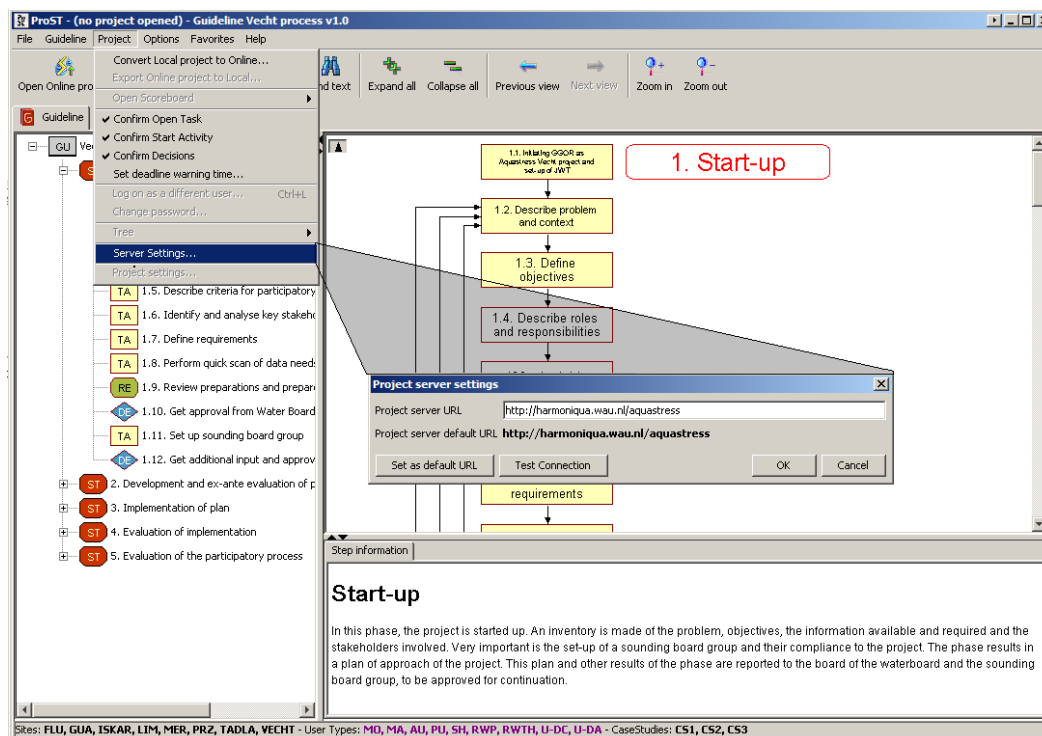


Figure 6. Setting up the address of a project server

## Start using ProST

Once the project is launched, members of the team can use ProST to get guidance on how to perform tasks for which they are responsible for, record what they actually have done and share their results with other project team members. This way, besides enhancing collaboration among team members, ProST provides a comprehensive audit trail. This users guide describes only how users can use ProST to record and share their results. For detailed information please refer to an extended documentation and training material of MoST (which is the predecessor of ProST) at [www.harmoniqua.org/training](http://www.harmoniqua.org/training).

## Opening an online project

Online projects reside on the a project server. For the AquaStress project the project server is [www.harmoniqua.org/aquastress](http://www.harmoniqua.org/aquastress). As an ordinary member of a project you should get the address of the project server, your user id and password from the project administrator. You need to specify the correct project server as shown in Figure 6 before you will be able to open an online project.

To open an online project select “Open online project” from the tool bar or from the “File” menu. ProST fetches a list of projects hosted on the project server you setup in the previous step. Select the project on which you would like to work on. ProST asks you for a user name and password. ProST will then log you on and fetches the project journal data that you are authorized to read and work on (Figure 7).

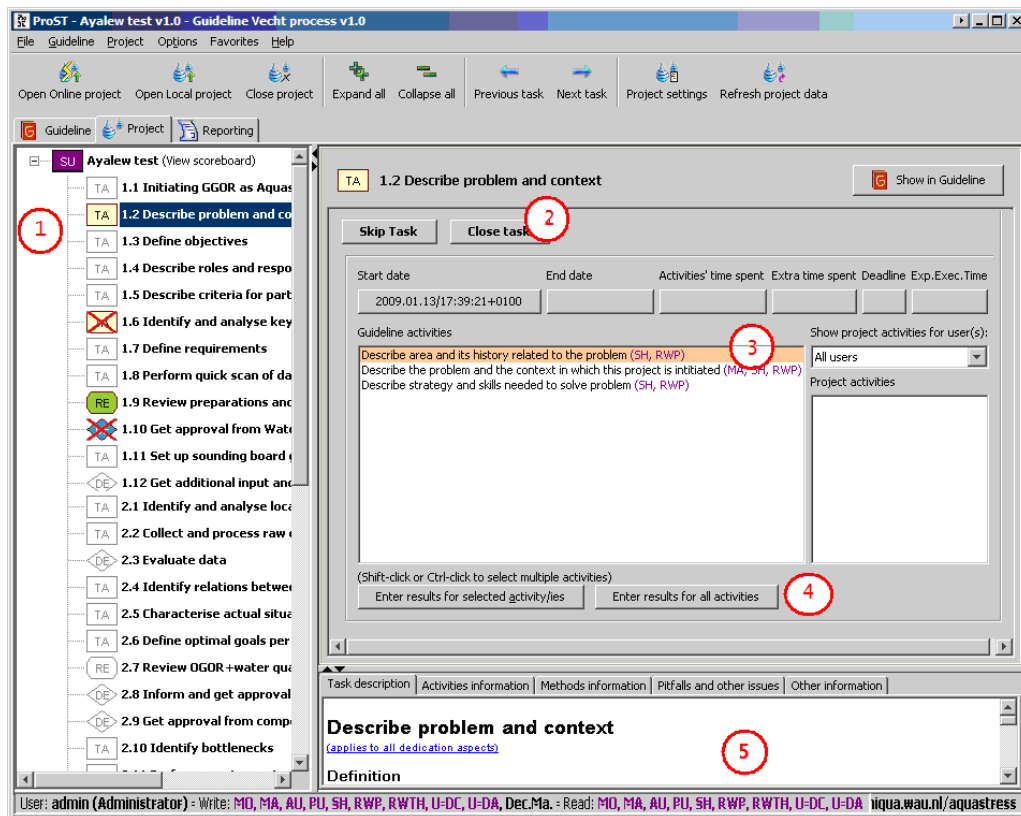






Figure 7. Working on a project

## Recording what you have done

The fact that a project journal is created and members of the project team can see each others work indicates that the project team has decided to use an open and transparent process. That requires you and others to record what you have done. ProST not only allows you to record what you did, but it also guides you in doing so. Recording what you have done requires 4 steps: identify your task, start that task, start activity or activity group, record what you have done. Not all of the 4 steps are necessarily done by you. Remember, ProST is a multi-user environment and the task you would like to start, for instance, may already have been launched by another user. A task is launched to enter the results of one or more activities you have done in the context of that task. We describe these steps using Figure 7.

1. *Identify your task.* As a member of a team you will be responsible for performing some activities that belong to certain tasks. ProST helps you in many ways to guide you when and how you have to do your activities. If the activity at hand depends on previous tasks, for instance for input data, ProST enables you to see which tasks are already done (or skipped) at a glance in the tree view (indicated by ). If prerequisite tasks and activities are done, the outputs of those activities are already made available through ProST. You can then browse to those prerequisite activities and get the necessary information and data.
2. *Start the task.* Before you can record what you have done, the task to which the activities you are going to perform needs to be launched. Because you are working in a multiuser environment, the task may have already been started. If not, click on the button “Start task” in the activity view (located to the right of the tree view). Once the task is started, you can launch activities and record what you have done. Unlike tasks, activities are private, which means another user can start another instance of the same activity. The reason for this anomaly is due to the fact that the same activity may have to be done by more than one user. For instance, different members of the project team may have to collect data from different sources. Once all activities are closed (or flagged skipped) you have an option to close the task the task(). When closing the task you need to provide some administrative information such as start and finish date of the task, and the time required to perform the task. If your responsibility is to do only one or some of the activities, leave the responsibility of filling in task level information to the person who has launched the task or to the project administrator.
3. *Start activity:* Activities need to be started before any information can be recorded. The purpose of launching and closing an activity is to enable the system to record start and finish times. You can start individual activities or if you are responsible for a number of or all of the activities of the task, you may select them as a group and launch them as a group. Other users however may do the activities individually (see  and  in Figure 7).
4. *Record what you have done:* Once you start an activity or activity group you are able to record what you have done and attach relevant outputs data and documents (not shown in figure).

## Extra information

ProST has a large set of options and functionalities. Most of those options and functionalities are the same with MoST (the predecessor ProST). Please refer to [www.harmoniqua.org/training](http://www.harmoniqua.org/training) for an extended training material and documentation.