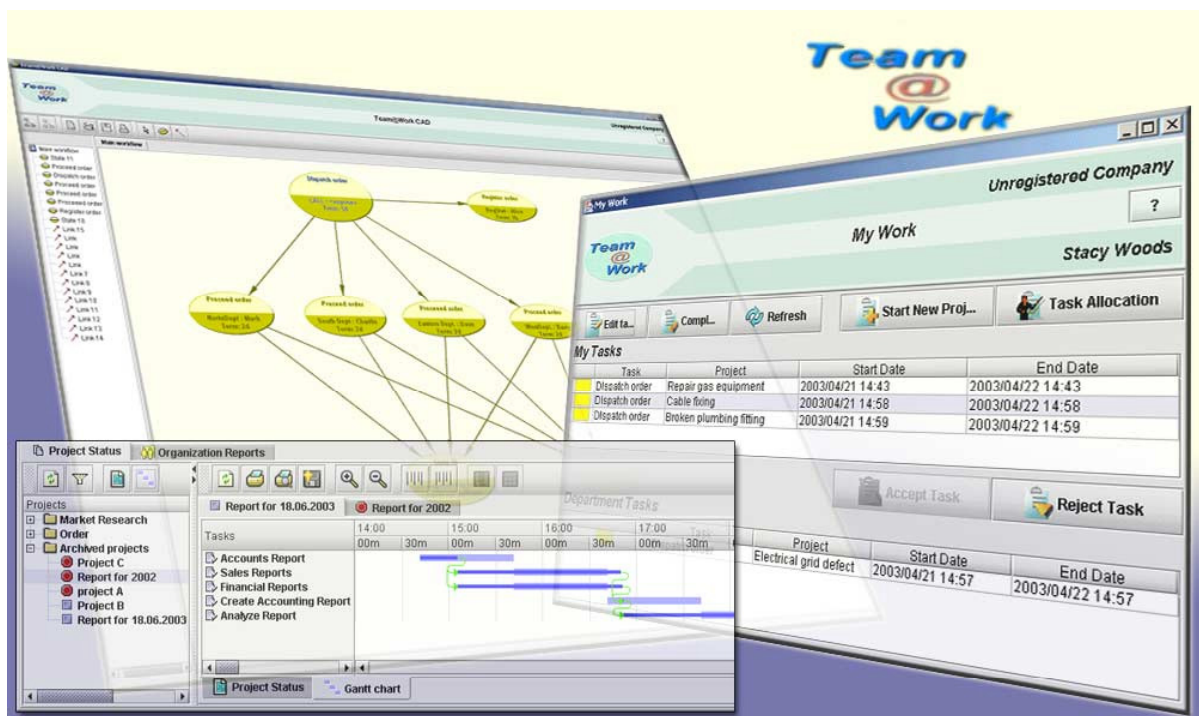


**EFFICIENT SOFTWARE SYSTEMS**

# Team @ Work

Standard Edition  
Version 1.6



Copyright © 2003 Efficient Software Systems Ltd. All rights reserved.

All product names are trademarks or registered trademarks of their respective holders.

All third-party conditions and disclaimers are included in the installation packages.

Efficient Software Systems Ltd.

1784 Sofia

Tzarigradsko shosse blvd. 7-th km IPAKT

Bulgaria

e-mail: [contact@efficient-soft.com](mailto:contact@efficient-soft.com)

Fax ++3592 778461

[www.efficient-soft.com](http://www.efficient-soft.com)

## Table of contents

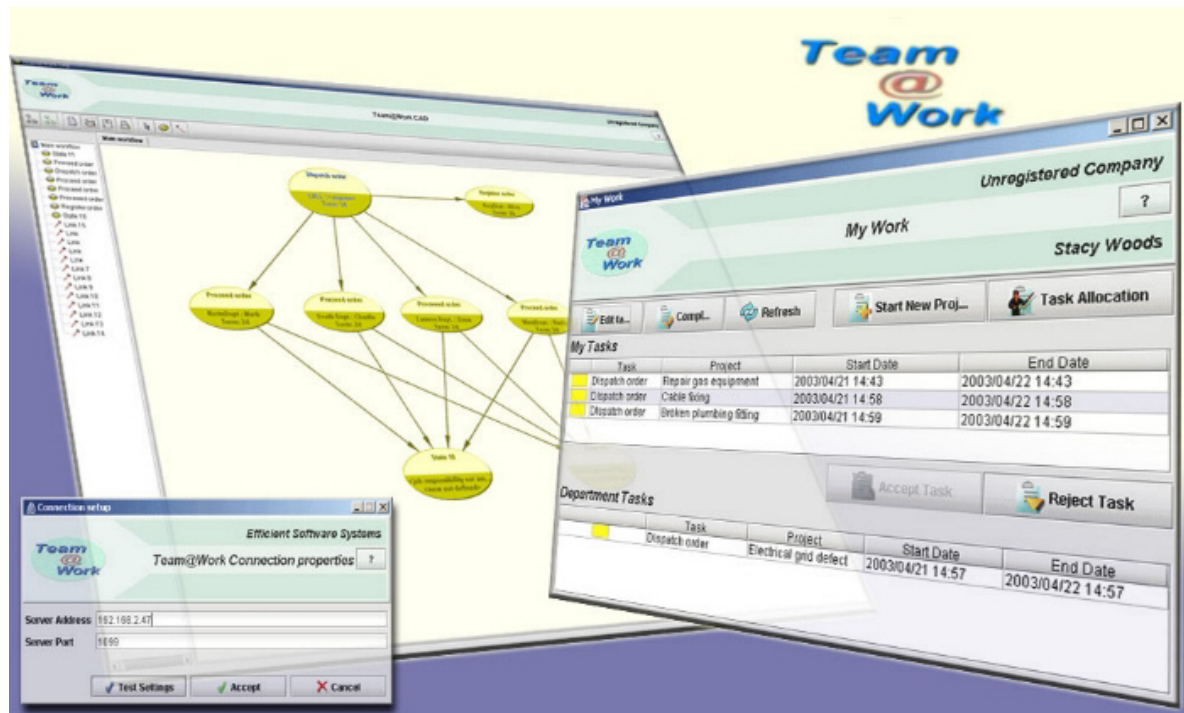
---

What is Team@Work .....	7
Understanding Team@Work .....	9
How Team@Work works .....	11
Organization .....	12
Department.....	12
Workers .....	12
Workflows and Projects.....	13
Workflow states. Tasks .....	13
Links between workflow states.....	13
Input links properties.....	14
Output links properties.....	14
Involving external partners in the workflow .....	16
Ready for changes .....	17
Team@Work and the other systems .....	18
Team@Work speaks your language .....	18
Team@Work key benefits .....	19
Typical Team@Work installation .....	20
Team@Work Server .....	21
Technical information.....	22
System requirements .....	22
Installation guide .....	23
Prerequisites .....	23
Installation Procedure.....	23
Preparation .....	23
Installation screens.....	24
Installation troubleshooting.....	28
Finishing instructions .....	28
Running Team@Work server .....	29
Installing Team@Work web application.....	30
Prerequisites .....	30
Installation Package.....	30
Third party required software.....	30
Installation Procedure.....	30
Preparation .....	31
Installation.....	31
Testing and troubleshooting .....	31
Finishing instructions .....	32
Licensing Team@Work .....	33

Team@Work Applications .....	34
System requirements .....	35
Installation of Team@Work applications .....	35
Setting up the network connection with Team@Work server.....	36
Team@Work CAD.....	37
Before you start.....	38
Network connection parameters .....	38
Language selection.....	38
User identification .....	38
Team@Work CAD Principles .....	39
The main screen.....	39
Command buttons.....	39
Choosing mode .....	39
Elements of Team@Work CAD schemes .....	40
Common commands for manipulation objects and links.....	40
Common commands for manipulating objects .....	40
Deleting objects .....	40
Common commands for manipulating links.....	40
Commands for arrangement of the objects on the workspace.....	41
Editing of the organization structure.....	42
Adding departments and external partners .....	42
Editing department's properties.....	43
Deleting a department .....	44
Editing the staff .....	44
Saving the organization .....	45
Editing workflow schemas .....	45
Create new workflow .....	46
Open workflow .....	46
Save workflow.....	46
Editing workflows .....	46
Tasks creation .....	47
Links creation.....	47
Editing the task properties .....	47
Editing the link properties .....	48
Team@Work User's guide .....	49
Overview .....	50
Working with Team@Work client applications .....	51
Before you start.....	51
Network connection parameters .....	51
Language selection .....	51
User identification.....	52

Main screen .....	52
Selecting tasks .....	52
Completing a task.....	53
Editing tasks .....	53
Starting a new project.....	53
Canceling a project.....	54
Accepting department tasks and putting own tasks to the department task lists .....	54
Distribution of tasks .....	54
Specific commands for the Web client.....	55
Team@Work User Management.....	56
User identification .....	57
The main screen .....	57
Staff .....	57
Details.....	57
Rules for user names and passwords .....	57
Roles .....	57
Workflow permissions .....	57
Enabling and disabling users .....	58
Saving changes.....	58
Team@Work Reports.....	59
User identification .....	60
Project reports.....	60
Managing Workflow/project tree.....	60
Expanding and collapsing nodes.....	60
Sorting the tree .....	60
Command toolbar .....	60
Refreshing the content .....	60
Generating Project status report .....	61
Report content .....	62
Refreshing the report.....	62
Printing the report .....	62
Generating Project's Gantt chart.....	62
Gantt charts in Team@Work framework .....	62
Gantt charts and Team@Work workflows.....	63
Generating Gantt charts in Team@Work Reports .....	63
Manipulating chart content .....	64
Organization Workload Report .....	65





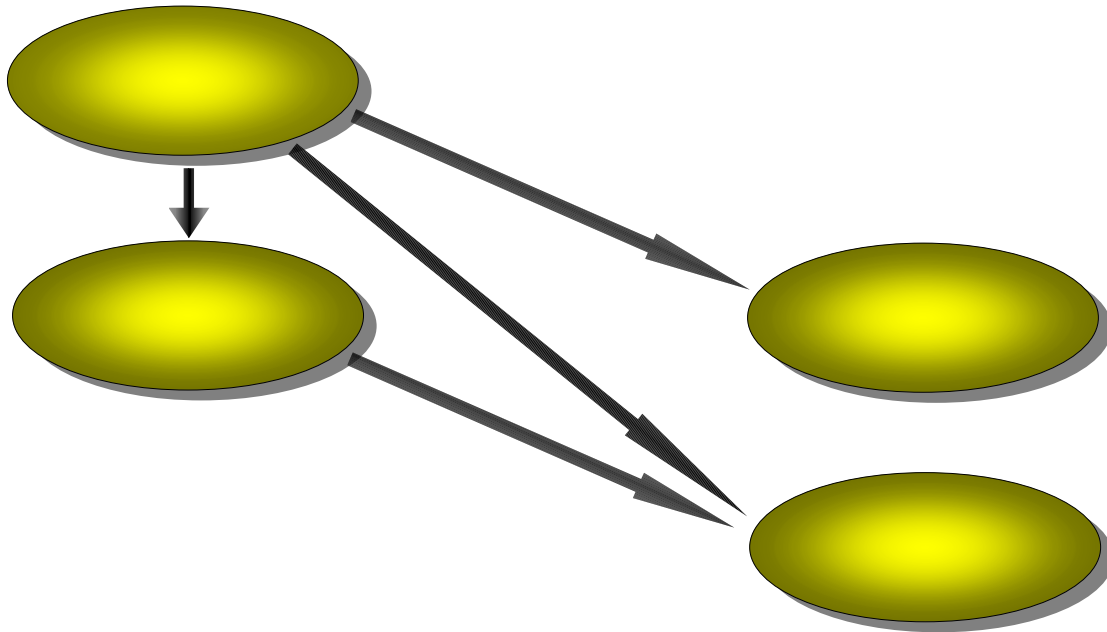
# What is Team@Work

Each organization follows some business rules. We, as participants in the business processes, in our everyday job receive tasks that should be done. We know who gives us the task requirements, who receives the results and who is the person that should be informed for the results. Sometimes the mutual connections are so many and so complex that we make mistakes. The situation goes even worse if the interaction among the colleagues is carried through different channels: telephone lines, e-mails, SMS, letters, etc. It becomes even harder when the business process continuously changes: constantly new connections emerge, new branches appear, dependencies change, etc.

The aim of Team@Work is to bring to every participant in the business process the information for his tasks and to serve as a mediator among interacting collaborators. Team@Work is designed to provide information to everybody who needs it in a unified and easy way. It also processes the changes in business workflows automatically and eliminates communication difficulties with remote organization branches or external partners. Team@Work is focused on the daily work of each participant and his performance, independently from his position, role or location. At the same time Team@Work is an important tool designed to help managers to define, control and manage organization workflow process and to reduce the gap between workflow definition and workflow implementation.







---

## Understanding Team@Work

---

Here you will learn how Team@Work works. The mechanisms and properties of the system and how they fit to the everyday work will be described. You will understand the real benefits of using Team@Work for managers and for all other users. You will learn how Team@Work relates to other information systems already used in your organization.



## **How Team@Work works**

Team@Work is a system equally important for managers who define and rule the working process and for all participants involved in the processes.

Managers get three major benefits using Team@Work.

the first benefit is the considerably reduced time between workflow definition and workflow implementation - time between taking decision for workflow changes and the real implementation of these changes in the organization. Teams start working following new workflows immediately after the new workflows are stored in Team@Work system. In most cases people do not need any additional instructions or training.

the second major benefit for managers is the possibility of operative supervision of the workload, status of the running projects and statistics for completed projects. Team@Work supplies enough information to help managers in their permanent efforts to optimise working processes, to solve temporary crises with workload and to watch critical projects.

the third benefit for managers is that they can be directly involved in decision making process on the critical points of the project.

People involved in project execution also have great benefits from Team@Work

on the first place, everybody has actual list of all tasks to be done. This is very important when one person is involved in many similar tasks, belonging to many different running projects. All tasks are collected in a single list, there is no need to seek tasks project after project.

the second benefit is that everybody is guaranteed that all pre-conditions required to start a task are completed before the task occurs in the list. This is particularly useful when a task needs many different activities to be done as pre-conditions. The user is freed from the obligation to check whether everything needed is done before starting the job. The same is true for reporting results of completed tasks: Team@Work is responsible to inform everybody who is waiting for results of the task.

the users are isolated and protected from changes of the workflow, adding new interaction links and removing others. They keep working in the usual manner leaving Team@Work to handle changes.

Team@Work needs very little time. Every user spends only few minutes per day to manage task lists.

Company managers are the first who will start Team@Work usage. They have to define the organization structure of the company and the key persons who will use Team@Work. After that the workflow schemes should be defined, their partition on tasks, the task assignments and time scheduling of each task. The task interactions and dependencies also have to be defined.

The real Team@Work usage begins after the above information is entered. The server automatically starts to trace each single project based on certain workflow (hundreds and more projects can be defined) by informing its participants for the upcoming tasks. Each participant receives on his display the current list of tasks that should be completed. Only by several mouse clicks he/she informs Team@Work for the job finished and the achievements reached. This is enough for the Team@Work server to analyze the progress and generate the new tasks for the participants.

The whole information concerning the execution progress of every project is saved in the Team@Work server. Information concerning execution of each task is kept: who exactly has finished it and when. These data are very important for the managers who using Team@Work tools can analyze the current company status (current projects, active tasks, task's status, person's charge, etc.) and to help them take operational decisions concerning concrete tasks and projects. Along with this the managers can access the information for the completed projects and the performance of every member in them. This information helps making analysis and allows managers to take strategic decisions concerning improvement of workflow processes, human resource allocation and time scheduling. The analyses usually raise corrections in the workflow schemes. After loading such corrections in Team@Work, the system automatically accepts them and enlists them for execution. So, all users of Team@Work automatically are involved in new working schemes and the whole organization fluently goes into the new working process.

This is the way the Team@Work usage cycle starts from the managers, who define the organization structure and the starting workflow schemes, moves through every workflow participant providing him the actual information for his tasks and closes the cycle again at managers providing them the needed information for work optimisation.

Now we will describe the basic terms and concepts of Team@Work. At the same time we will describe how the system works.

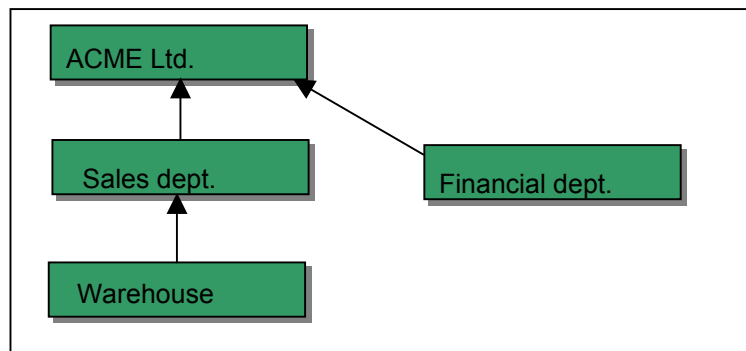
## Organization

We will use the common term “organization” to outline that Team@Work can be used in companies as well as in state organizations, consortiums, working groups and all other places, where people team work is needed to be organized. The organization is the place where people work. In the Team@Work system you can define only one organization (nevertheless how distributed it is or how many remote offices or branches it has).

## Department

The department is the basic structural unit of the organization. Each department is responsible for separate activity field. Every person in the organization works in a department. One of the workers in every department is appointed as a department leader. As we will see later the department leaders can perform additional activities in Team@Work.

The departments are organized in hierarchical pyramidal structure. Each department structurally belongs to some other. At the top of the pyramid as initial department is the organization itself. We consider it as the “biggest department” and correspondingly we assign to it the organization name. A sample organization is shown in the next figure.



## Workers

The workers are the end-users of the Team@Work system. They are executors of the specific project tasks. Every worker is counted in the staff of a single department. The main goal of Team@Work is to support the particular worker in the execution and the reporting of his daily job. This support follows three main directions:

- to generate and to provide to the user the current tasks lists allocated to him
- to collect the preliminary information, needed for each task and to inform everybody who needs task results
- to isolate the end-users from the workflow and the organization structural changes.

In other words Team@Work allows everybody to keep doing his job without troubling how it has come to him and where the results go on.

At the same time Team@Work only organizes the interaction among the separate participants into the workflow, but does not do the real work. This is the reason the system is organized in such a way, that the user needs only few minutes per day to work with it.

## Workflows and Projects

The business in the organization is usually structured on clear patterns. The common work is divided on separated individual tasks with determined execution time and responsible person. Some of the tasks can be started immediately; others need the results, received at earlier stage. In other words the beginning of some tasks needs other tasks to be completed. The workflow scheme is the structure that holds in itself the splintering of the process into separate tasks and the interactions among them. These schemes are designed by the company managers.

Let look at one simple example of a printing house, offering different printing services. The printing of an advertisement brochure goes roughly through the following stages: define the content; create several variants of graphical design; approve the design; pre-print preparation and finally the print. It can be represented with a linear workflow in which every task depends on the preceding one.

The workflow is the pattern through which the system moves the work. Following the pattern a great variety of individual processes that are in different execution stages can be started or executed in one organization at one and the same time. We call these processes “projects”.

In our example is possible that the printing house can work out at once ten orders, three of which are in phase graphical design, five are in pre-print preparation and two are in a printing phase. In this case we have ten projects, following one and the same workflow but in different execution stages.

On the other hand several workflow schemes can exist in the organization corresponding to different products or services provided by the company. For example: Our printing house can have separate workflows for printing books or magazines.

## Workflow states. Tasks

As we have already mentioned, the workflow consists of tasks (states) and the links between them. The terms “state” and “task” means one and the same (a piece of work) but seen from different points of view. From the worker’s (end-users) point of view it is a task, from the workflow’s (managers) point of view it is a state. The task is a separated part of the workflow. Usually it is performed by a single person or at least the responsibility for it is carried out by a single person. For example: in the printing house we mentioned several tasks.

Every task has a clear definition, specified execution term and responsible person. Sometimes, when the project is started, it is very difficult to point the exact executor of a task, but it is ever known that this task is an obligation of a certain department. In such cases the task can be defined as a common department task. The department staff decides itself who will be the concrete executor. In Team@Work the common tasks are treated in a special way.

So, up to now we have learned:

- Several workflows can exist in the organization. They are the patterns that move the work through. The workflows are split into separated tasks and the links between the tasks show the dependencies of some tasks from the results of the others.
- A great number of projects following different workflows and being at different execution stages can be run at one and the same time in the organization.
- One and the same person can be involved into the execution of different tasks from different projects following different workflows.

## Links between workflow states

The links between the different states show how the project moves from the beginning to its end. We can represent the links by arrows indicating the transition from one task to another. When two tasks are connected with a link, this means that the second task should be started after the first one. Thus the workflow order is set up.

Here are the terms and explanations related to the state links:

Each link binds two states – “starting” state and “ending” state. For the starting state the concrete link is “output” and for the ending state it is “input”. Each state can have several input and several output links.

The states that do not have input links are called “initial states”. The workflow starts from such initial states. States that do not have output links are ends for the process.

We can think that the links are used to transmit “signals” between connected tasks. The signal always goes from the starting to the ending state and always is only one. When a signal has been set to a link we say that a “transition” has been done and the link has been “activated”.

You can define different features and dependencies of the links at one state. This is one of the most powerful features of Team@Work that vastly distinguishes this system from all other workflow management systems. Thus the project participants are given the chance to manage its progress and to make important decisions depending on the concrete circumstances.

### ***Input links properties***

The input links are two types: notification and activation ones.

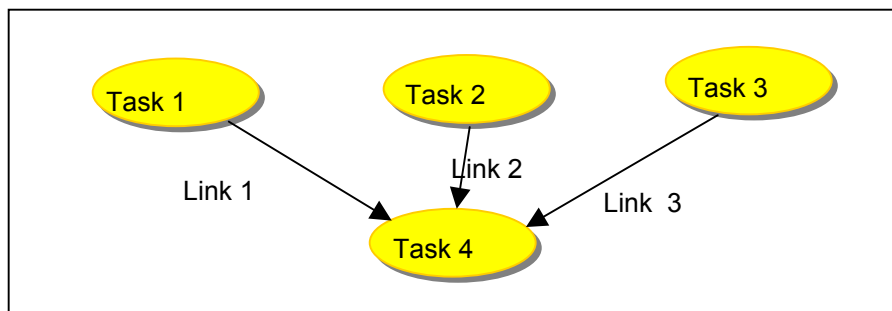
An input link is an activation link when the transition through it leads obligatory to the start up of the corresponding receiver state, i.e. the task that has received the signal is activated immediately.

The transition through notification link does not necessarily lead to starting up the receiver state – actually if all input links are of notification type, they all should be activated in order to activate the state.

In other words, to start a task we need one of the following:

- either an activation link has been activated,
- or all input links have been activated.

Let us show this with an example: A certain state has three input notification links (i.e. it has three transition states connecting our state via links)



1. At 10 o'clock "Task 1" is completed and "Link 1" is activated. "Task 4" remains passive because all notification links should be activated for its wake up.
2. At 11 o'clock the same happens with "Task 2". "Task 4" is still passive.
3. At 12 o'clock "Task 3" is completed. "Link 3" is the last necessary signal and then "Task 4" becomes active.

Let now suppose that "Link 2" is not a notification but an activation link. In this case "Task 4" will be started at 11 o'clock - immediately after the transition through the activation link without waiting the execution of the remaining notification transitions.

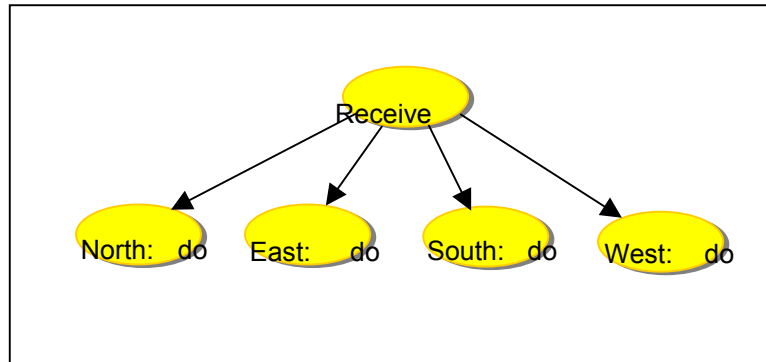
This is the difference between the notification and the activation links. Normally (by default) the input links are notification ones. This guarantees that the task will be started after all its preconditions are fulfilled.

### ***Output links properties***

The output links can participate in much more complex interactions than the input ones. This complexity corresponds to the concrete different situations the workflow has to reflect. We will point out again that the complexity is limited only on the phase of workflow definition. The concrete users are isolated from these details. They have simple and clear interface to manipulate links and can concentrate on doing the job and making the specified decisions.

The simplest situation is when the user marks off “I have completed this task” and all output links are activated. Such links are called “**automatic**”. The typical workflow management systems are limited up to such automatic links. In the real life however different situations may occur. Not always the direction in which the project should continue can be pre-defined. Sometimes variants are possible. The owner of the task can decide the exact way of the project execution depending on the concrete circumstances.

**EXAMPLE:** A small home repairing company have several offices (East, West, South and North office) that cover different parts of the town. The company receives an order by phone. Receiving a call the telephone operator decides which office to involve. Obviously, if the address is in the Eastern part, he/she will not give it to the office servicing Western regions. The workflow can have the following form:



The telephone operator can complete his/her job by choosing one of the links to the offices and the process goes on only through this link.

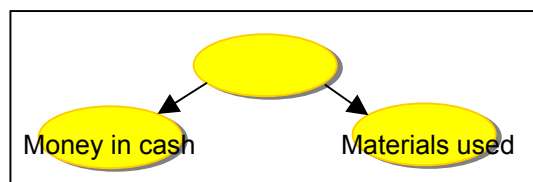
**Choose where to send the order**

- Send it to the North department
- Send it to the East department
- Send it to the South department
- Send it to the West department

Only the chosen department will receive the task. Other links are never activated hence other departments do not have any work on this concrete project.

As we have seen in this example you can define a group of output links only one of which have to be activated. Such a group is called “**selector**”. One and only one link from a selector group must be activated.

Let have another case when several links or no one from a given group can be activated. Such a group is called “**options**”. An example for such a group: After the service is completed, the client can pay in cash or not, the job may need some materials from the warehouse or not. If the client has paid in cash the pay-desk should be informed, that the money have to come in their box. If some materials were used, a notice should be placed. Here is a workflow fragment:



The two output links connect our tasks with the tasks “Paid in cash” and “Materials used”. They both depend on the concrete situation that cannot be foreseen. That is why we put them in an “options” group and the person who executes the task marks them depending on the case.

**Options**

- ☐ Paid in cash
- ☐ Materials used

To summarize:

The output links can be grouped in three kinds of groups:

- **Automatic** - all such links are activated by the task finish. No user action is needed in this case.
- **Selector** - only one link from this group will be obligatory activated. The user is obliged to chose the link that should be activated.
- **Options** - from this group an arbitrary number of links can be activated – from no one to all. The user chooses which links to activate. If he doesn't do anything, no link is activated.
- For each task you can define as many different groups as you need.

Here are some guidelines for usage of different types of links.

- Automatic links are used in cases when the new task strictly needs some previous tasks to be entirely completed.
- Selectors are used when the workflow has several different paths to be continued and the decision which way to go depends on the task owner.
- Options are used to mark possible results of a task, which require some further actions, but are not necessarily required for project's progress.

### ***Involving external partners in the workflow***

Another unique Team@Work feature is the possibility to plug in external partners in the workflow schemes as task executors. In fact there is no difference concerning the workflow performance between the organization internal users and the external ones. The external partner simply has to be defined, to give him/her user name and password and he/she immediately can join the workflow scheme. The Team@Work server interprets him as usual user but only with basic rights to manipulate tasks. The external user handles the Team@Work client part in the same way as the organization members. He/she can use web client immediately without any installation efforts, or can install Team@Work client.

There exists an interesting opportunity to define links among external partners. For example, if the work of an external partner affects the tasks of another external partner nothing can stop us to define links among their tasks. In such a way we can transfer parts of the workflow process entirely outside our organization.

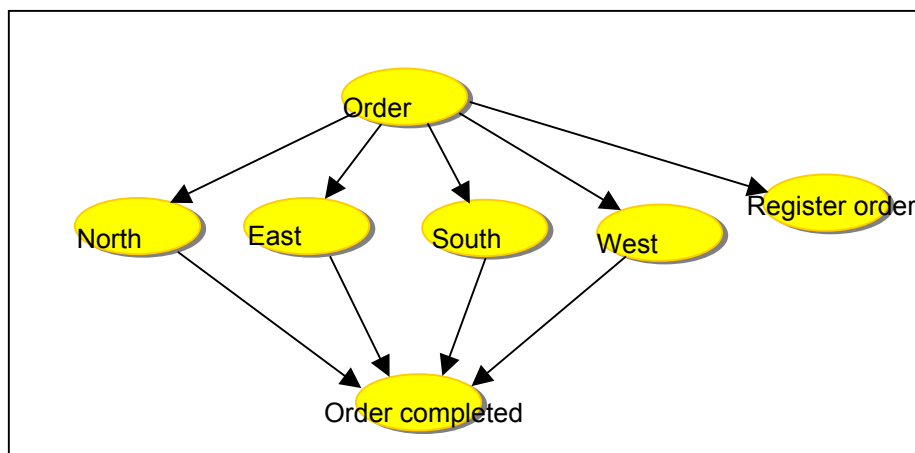


## Ready for changes

Team@Work is exclusively tolerant towards changes into organization structure and workflow schemes. The main principle in handling changes is minimum affection to end-users. Managers do the changes. They can change the organization structure, replace, add and delete departments, staff and external partners, change the structure of the workflow processes and the different workflow schemes. The moment changes are entered into Team@Work they are accepted; the system automatically adjusts itself to them and starts working with the new structures. All this happens in a real time without stopping, adapting or reinstalling any part of the system. Practically many of the changes do not influence the work process participants at all.

We will illustrate this with some expansions of the workflow scheme from the example.

Let see the following situation: the telephone operator who receives orders for repairing have to inform special Control department for orders registration. After the job is completed each (“North”, “South”, “West” or “East”) department should send information notice to this control department. With these extensions the workflow changes in the following way:



Both new tasks “Register order” and “Order completed” are assigned to the new Control department.

Company managers design these changes. The two new tasks are assigned to the Control department. All new links are automatic and informational. The new department starts receiving tasks. What is changed in former participants workflow? Nothing! They continue to operate in absolutely the same way. They even will not notice any change in their interface. Team@Work takes charge of the new tasks and links.

Let us now view another example: The company expands its activity (because it uses Team@Work!) Greater stream of orders enforces managers to set up new unit – “Central department”. It works in the same way as the other four. The manager adds the corresponding states and links in the workflow. This results in a new branch containing new task “Central” and links from “Order” to “Central” and from “Central” to “Order completed”: just like “North”, “East” etc. What does this change into the rest staff performance? Almost nothing! Only the telephone operator will have one option more in his/her menu.

### Choose where to send the order

- ☐ Send to the North department
- ☐ Send to the East department
- ☐ Send to the South department
- ☒ Send to the West department
- ☐ Send to the Central department

That is all!

During all these changes Team@Work automatically generates the new user interface! No other changes have to be made!

### ***Team@Work and the other systems***

Team@Work does not aim the replacement of other information systems used in your organization. Team@Work is only a single efficient and dynamic notification system that informs (reminds) for the upcoming tasks. Your basic job is done as before Team@Work is used. In this aspect Team@Work is an extension of your already existing information structure. Therefore our aim was to facilitate the Team@Work usage to such an extent that it should not take more than few minutes per day. Keep working as usual and let Team@Work to carry out the interactions among your team.

### ***Team@Work speaks your language***

Team@Work supports many of the most popular world languages. During the installation phase you chose among several languages. Our team works constantly on creation of new language packages that can be changed on the fly.

**Team@Work key benefits**

- strongly focused on the individual user work and performance
- unlimited number of different users working simultaneously
- low level user engagements concerning system processing
- accessed through local network or Internet (from anywhere at any time)
- multilingual support
- intuitive graphical tools for defining organization structure and workflow schemes
- fast implementation of changes in the workflows
- unlimited number of workflow schemes maintained simultaneously
- common tasks and task management options
- monitoring working process in a real time
- unlimited number of simultaneously executed processes
- workflow variant schemes, ability to redirect project's flow
- seamless evolution of workflows and organization schemes
- automatic adjustment of user interfaces to workflow changes
- access of external partners acting as normal users
- unproblematic work and integration with other informational systems
- detailed management of user's rights
- high security access level
- low hardware requirements, working on different operational platforms
- automatic installation, no need of additional administration

## Typical Team@Work installation

Herein we will describe the typical sequence of activities starting from Team@Work download to its full business usage in your organization. In the proposed scenario we presume the following:

the Team@Work server runs on a separate computer

the organization has a determined person in charge with the definition of workflow process and organizational structure. This person we be called "Organization manager" or simply "Manager"

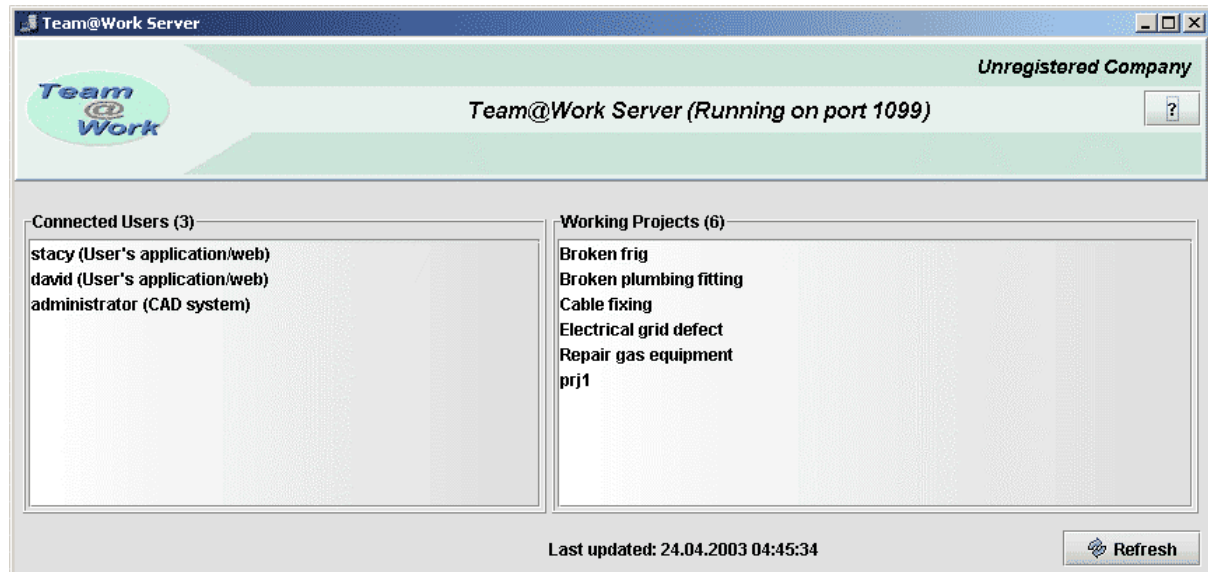
another person is occupied with the definition of with the users rights as well as their authentication data (user name and password). This person will be called "Administrator"

Neither of the above is absolutely required: Team@Work server may be run on a computer used for other activities (that is often true), the Manager can be an administrator too (although less probable).

As you can read in the "Installation guide" Team@Work consists of two installation packages: "Server" and "Applications".

This is the actions sequence that puts in operation Team@Work:

	Action	Carried by	Described in
1	Install the server. If want to run it in Internet install the Web server and install in it the Team@Work web application	Administrator	Server Installation guide
2	Start the server	Administrator	Administration guide
3	Install the client package on the personal computers of the manager and administrator	Administrator	Client Applications Installation guide
4	Insert the organization structure	Manager	Team@Work CAD guide
5	Insert the key persons	Manager	Team@Work CAD guide
6	Insert one or several workflow schemes. Do not forget to assign each task to a department or concrete person	Manager	Team@Work CAD guide
7	Define users' data: names, passwords and rights	Administrator	Administration guide
8	Install the client application at the users' computers (skip this step if everyone works only in the Internet)	Administrator	Installation guide



## Team@Work Server

The Team@Work server is the heart of the system. It contains database with all organization structure, staff workflow schemas, running and finished projects. The server handles all concurrent connections and dispatches information between all users.

## **Technical information**

Here we will supply some technical details which may be useful for advanced users to understand better the installation and running process and to avoid some technical problems.

Team@Work is a Java application. This means it needs Java Runtime Environment for its working. Only JRE 1.4.0 and newer are suitable. Team@Work will not run correctly on JRE 1.3.x or earlier. If you have installed JRE 1.4.x you can use it, otherwise you must download and install JRE 1.4.x. You have two options:

download Team@Work package with bundled JRE (see Installation section below)

download the latest version of JRE from the Sun Microsystems web site (see below).

Team@Work is a network application. It uses Java RMI technology to perform network connections with the clients. The standard RMI port is 1099. You can run the server on other free port as well (see below about the details). Please note that Team@Work server can not run together with another application that uses Java RMI on the same computer. The only exception are other applications from Team@Work package.

Team@Work has option to work on Internet. The Team@Work web application is essentially a JSP application. It needs a web server running that supports JSP 2.3 specification. Actually the only web server Team@Work is tested with is Jakarta Tomcat ver. 4.1.24. The web application and the server use RMI network connection to communicate each with other.

## **System requirements**

Team@Work server require the following

Hardware resources:

- 800 MHz system processor or better
- about 120 MB free disk space (JVM and database required disk space included)
- minimum 64 MB RAM, better 128 MB

Operating system:

- MS Windows 98/ME/NT/2000/XP

or

- Linux (any distribution after 2002.01.01) plus running KDE graphical environment.

Network requirements:

- TCP/IP network
- Internet connection (for Web application)

## Installation guide

### Prerequisites

To install correctly Team@Work server some requirements should be met prior to installation.

#### Choosing right Installation Package

Download from the Internet the package appropriate to your setup. Basically you have to choose between different installer versions for the different operating systems (MS Windows or Linux). If you do not have the appropriate JVM you might want to download a package containing the JVM bundled in (which is a bigger download, but saves you the trouble of installing and configuring the JVM):

- win\_taw\_server.exe: Team@Work server installation for MS Windows platforms
- win\_taw\_server\_vm.exe: Team@Work server installation for MS Windows platforms with bundled Sun JVM
- lin\_taw\_server.bin: Team@Work server installation for Linux platforms

#### Third party required software

The Team@Work Server is a Java(TM) server application and requires a Java Virtual Machine (JVM) to run. The current version of the server requires Sun's Java Runtime Environment (Sun JRE) version 1.4.0 or greater.

If you have downloaded an installation package with the bundled JVM you can skip downloading/installing the JVM. Otherwise download an appropriate Sun JRE from the Sun's website at:

<http://java.sun.com/j2se/downloads.html>

Install the JVM **prior** to running the installation package.

### Installation Procedure

These notes provide information about the installation procedure itself. The images of the installation screens provided here are to be considered exemplary, for they will be different on different operating systems, windowing systems etc.

#### Preparation

Apart from the steps mentioned above there is a requirement, that any older versions, or previous installations of the Team@Work Server be Uninstalled from the system prior to continuing the installation procedure.

Note: Some files, created by the application are not uninstalled. These include files, containing the Database, and should be removed manually, or backed up before continuing with the installation procedure. If you want to have your current database run with the new installation the following files and directories should be backed up before continuing:

- file "users"
- file "users.xml"
- folder "DDS"
- folder "Archive"

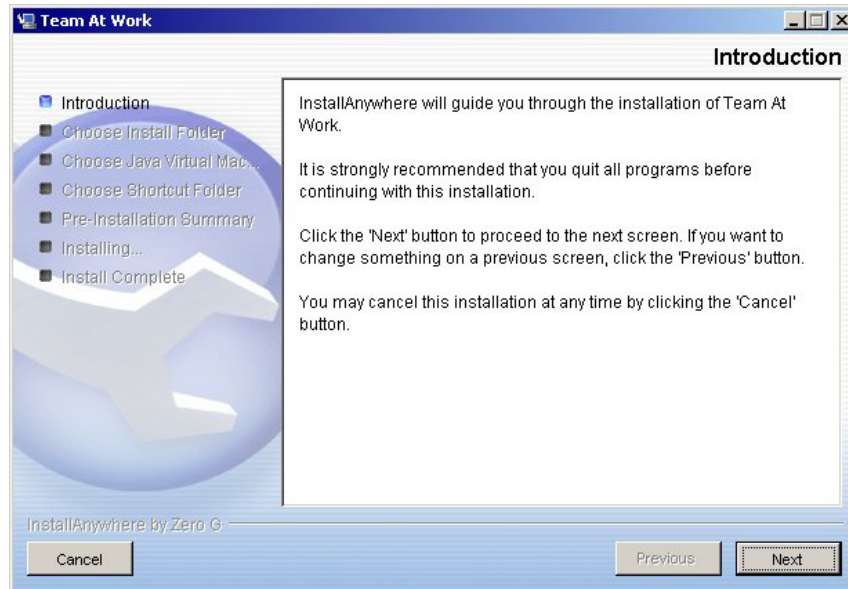
Note for Linux: This installation requires a graphical user interface (GUI) to run. Running the installation executable in a terminal will not work, unless working under XWindows. Make sure you have started your Desktop Environment (Gnome, KDE etc.) prior to running the installation executable or start the server without GUI (see "Running" section below).

After you have performed these steps start the downloaded executable installer.

## Installation screens

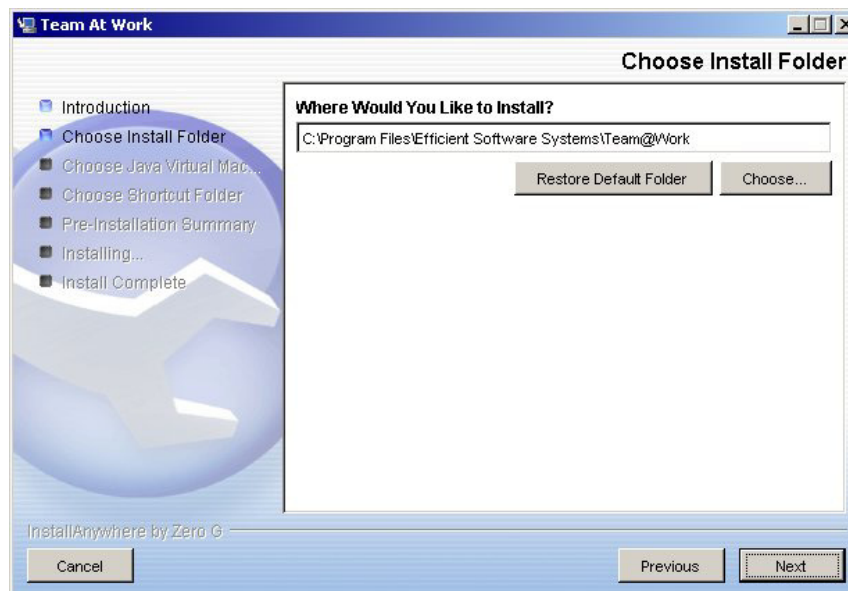
The installation process is wizard based and consists of a number of screens, where you should fill some data, required for a successful installation.

### "Introduction"



This screen shows short information about the application being currently installed. It also reminds you, that it is recommended that you exit all other applications currently running. After you read the text press 'Next' to continue.

### "Choose Install Folder"

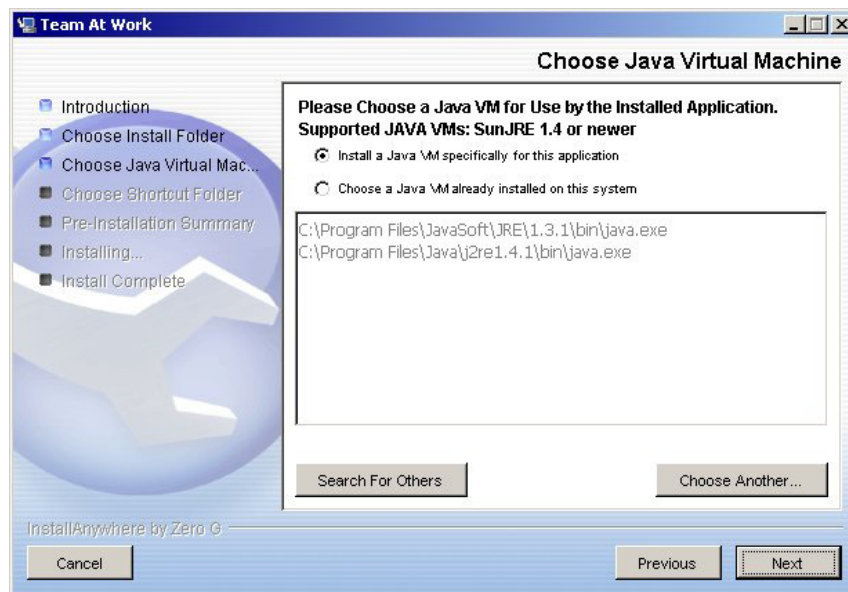


On this screen you should specify a directory, where you wish to install the Team@Work server. You may either write it by hand, or you can use the "Choose..." button to choose from the directories on your system.

Note: It is common, that operating systems prohibit usage of special symbols in directory names. For an example Windows(tm) prohibits usage of symbols like: '/', '\', ':', '?' etc. Make sure the directory you are specifying matches the required OS criteria. After you select the installation directory press 'Next' to continue.



### "Choose Java Virtual Machine"



As noted earlier Team@Work Server is a Java(tm) server application, and as such requires a JVM to run. Here you can specify the JVM you wish the server to use. This screen also remind you, that the JVMs this server currently supports are the Sun JREs version 1.4 or newer.

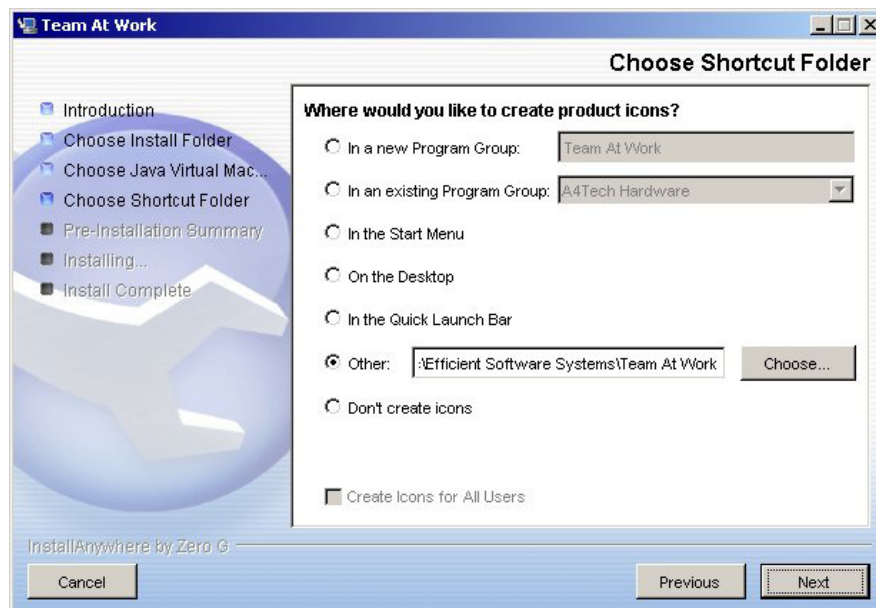
NOTE: If you have downloaded a package with a bundled JVM there will be an option to 'Install a Java VM specifically for this application'. We strongly suggest, that you use the bundled VM, except when you already have an installed JVM matching the criteria and wish to save disk space.

You are required to specify the JVM for the server. The list contains a number of installed JVMs already found on your system. It may or may not contain all the installed JVMs on your machine. If the JVM you want to use is not found in the list you can use the 'Search For Others' to force a search on the local machine for additional JVMs. You can also use the 'Choose Another...' button to specify the JVM manually.

Please note, that if the JVM is not Sun JRE 1.4 or newer the server will not run at all.

After you select the JVM to use press 'Next' button to continue.

### "Choose Shortcut Folder"



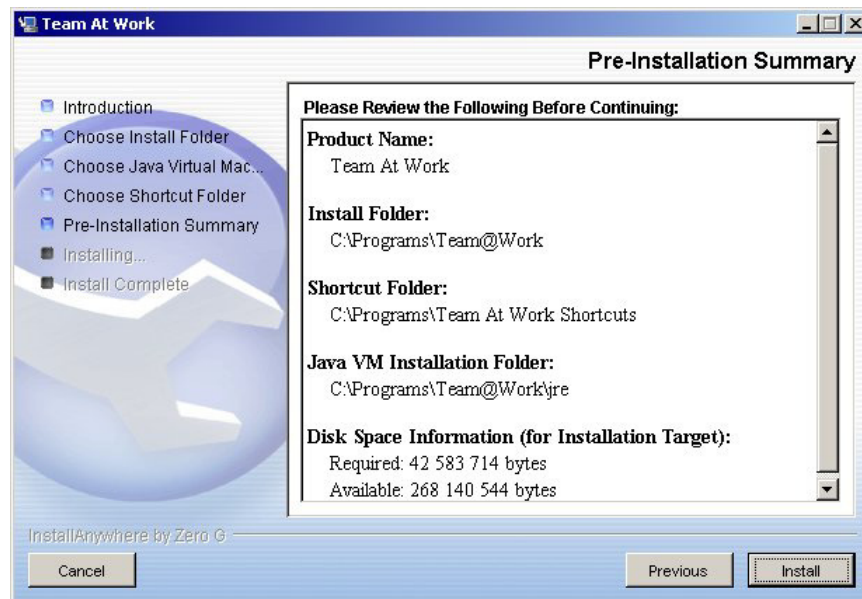
This screen is used to specify a location, where the links/shortcuts to the server executables and uninstaller should be created.

On Windows systems you will typically use one of the 'Program Group' options, or use the default, which in this case will install the shortcuts in a subgroup in your Programs Menu.

On Linux this is very dependant on your Desktop Environment, settings etc. You should consider installing the shortcuts in a directory on your path. Currently the installation does not support creating menu items in the Desktop Environment menus.

After you have selected your shortcuts/links folder/directory press 'Next' button to continue.

### "Pre-Installation Summary"

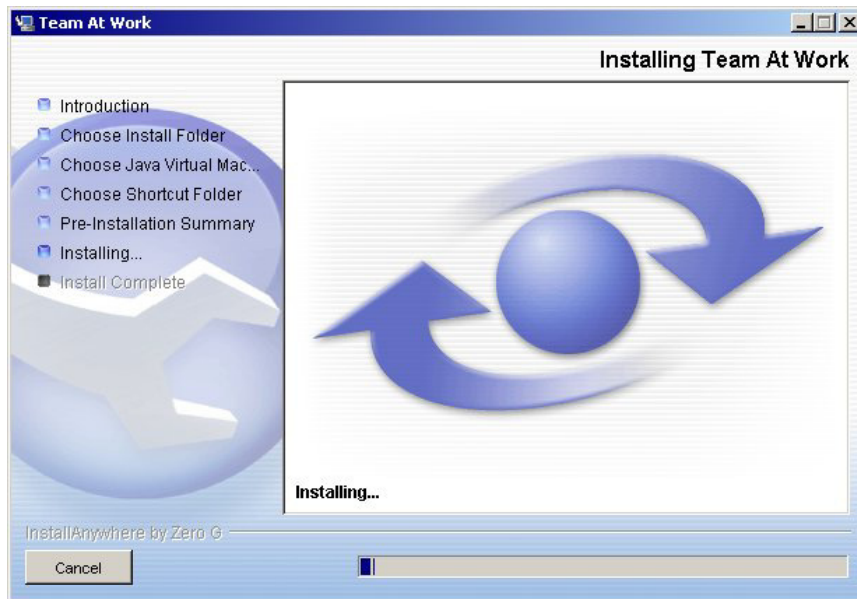


This screen shows detailed information about the installation process. This is the place, where you should review your choices, and if not content with them, use the 'Previous' button to go back and correct or modify the installation settings. This screen also shows the available disk space at the destination directory and the required space. If the available space is less than the required you have to choose a different installation directory, or free up space on the selected destination.

Note: Keep in mind, that when up and running the Team@Work server will require additional disk space to store your company's workflows, projects, user information etc. that can require considerable amount of free disk space, depending on the size of your company, the number of your workflows, their complexity, the number of active projects etc. You should consider installing to a directory where such free space can be freed when needed.

When you are content with the installation settings press 'Next' to start the installation process.

### "Installing Team At Work"



This screen does not require any user intervention, but will show information regarding the installation process.

Note: You can cancel the installation process via the 'Cancel' button, but that is strongly undesirable. Better wait for the installation process to continue, and then uninstall the server using its uninstaller program to avoid leaving stale files on your system.

When the installation process finishes you will be automatically moved to the final screen.

### "Install Complete"



This screen is shown after the installation has completed. It will show the destination, where the server has been installed.

Press the 'Done' button to quit the installation program.

***Installation troubleshooting***

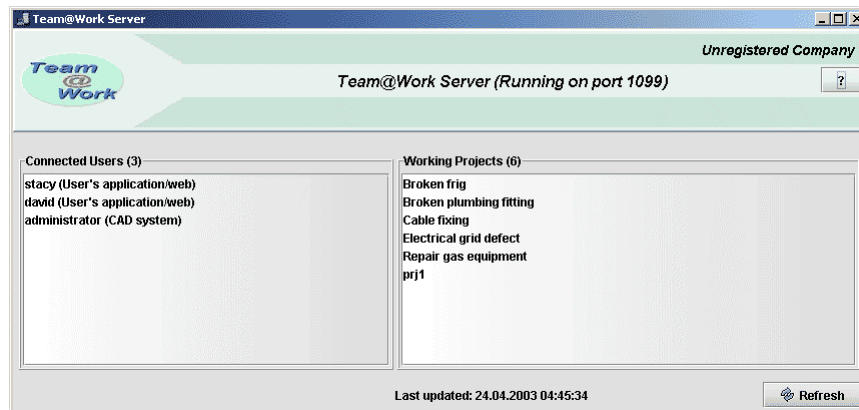
If any problems occur during the installation read carefully the messages that are displayed, explaining the error that occurred. Make sure there is enough space at the installation target, and that you have sufficient privileges to create and write to the destination directory. On some systems (like WindowsNT or Windows2000) you might need special privileges to install new software. If that is the case contact your system administrator and explain him/her the situation.

***Finishing instructions***

Currently the installation executable removes any temporary files and directories created during the installation process. You might want to place the installation executable in a safe directory, or to back it up for further installations.

## Running Team@Work server

Normally Team@Work server does not need any administration. You can just run the application. The following console appears



It indicates that the server is started and gives some addition information for the current state of the system. There are two areas: "Connected Users" and "Working Projects". The first area shows how many users are currently connected to the system and which application they are using. The second area contains all running projects. Thus you have immediate view on who is working with the system and what kind of work is doing at any time.

The console is passive and does not updates the information automatically. You have to click the "Refresh" button in order to get the actual state.

The presence of a graphical console may be a problem on some operating systems that do not run graphical user environment by default (e.g. Linux). You need to run the graphical environment before starting Team@Work server. Alternatively you can start the server in blind mode (without console) by specifying a parameter value on the command line. This parameter is a logical flag indicating the presence of the console. To avoid the console specify value "false". For example if Team@Work server is installed on "C:\Program Files\ESS\TeamAtWork", you should specify the following command in order to run Team@Work server in silent mode (without console):

```
"C:\Program Files\ESS\TeamAtWork\Team@Work.exe" false
```

Another parameter you may want to change is the port on which Team@Work server runs. As it was mentioned above the default port is 1099. You may specify another port by simply putting its number as a parameter on command line. Continuing the former example, if you want to run the server on port 1234, the command should be

```
"C:\Program Files\ESS\TeamAtWork\Team@Work.exe" false 1234.
```

The order of specifying two command line parameters is not important. We will mention again, the default values for parameters are "true" and "1099".

## ***Installing Team@Work web application***

### **Prerequisites**

To install correctly Team@Work web application some requirements should be met prior to installation.

### ***Installation Package***

When you install the Team@Work server package a subdirectory is created in the installation directory, which is called web client.

In this directory you will find a Java Web Application Archive(.war) named teamatwork.war. This application is installed into a web container (currently only Tomcat 4.1 is supported).

This guide will explain the installation procedure.

### ***Third party required software***

If you have a Jakarta Tomcat version 4.1.24 up and running with a Sun JDK 1.4 or newer you can skip this section and go directly to 2. Installation Procedure.

#### **Java Development Kit**

Prior to installing/configuring the Jakarta Tomcat you need to download, install and configure an appropriate Java Development Kit. The Team@Work web application requires a Sun JRE 1.4 or newer, so the required JDK is the Sun's JDK 1.4 or newer. If you don't have it installed already you can download it from:

<http://java.sun.com/j2se/downloads.html>

Install the JDK prior to continuing the setup process.

#### **Jakarta Tomcat**

The Team@Work Web Application is a Java Web Application and as such requires a JSP/Servlet container to run. Currently the only supported JSP/Servlet container is Jakarta Tomcat 4.1. If you do not have a running version of this container you can download it from:

<http://jakarta.apache.org/builds/jakarta-tomcat-4.0/release/v4.1.24/>

<http://jakarta.apache.org/tomcat/>

If you don't know which version to download keep in mind that you need a binary release of the container.

Also keep in mind, that due to more narrow JDK selection (Sun's JDK 1.4 is a prerequisite) you can download the \*-LE-jdk14.\* file, which is smaller because it does not contain packages, that are included in newer JDK versions.

### **Installation Procedure**

These notes provide information about the installation procedure itself. These instructions presume, that you have downloaded, installed and configured a running Jakarta Tomcat Web Container version 4.1.x according to the installation instructions of Tomcat and that the JDK version you are using is Sun JDK 1.4 or newer.

**Preparation**

Before you can install the Team@Work web application you need to find the teamatwork.war file. If you haven't copied it take a look at section "Installation package".

**Installation**

To install the Team@Work web application copy the teamatwork.war file to the webapps directory, found in the Tomcat installation directory.

Windows:

The directory would look like:

C:\Program Files\Apache Group\Tomcat 4.1\webapps

LINUX:

The directory would look like:

/usr/local/jakarta-tomcat-4.1.24/webapps

If you haven't yet started the Tomcat Web Container it is time to do that. Start the Tomcat Web Container.

After you copy the .war archive the Tomcat server should automatically pick it up, decompress it and instantiate the web application. You can check that by going to:

<http://localhost:8080/teamatwork/>

Please note, that 8080 is the default port Tomcat server is running on. If you choose to run Tomcat server on a different port, you must substitute 8080 with this port.

The port is specified when installing the Tomcat Web Container. If you want to change it consult Tomcat documentation on how to do that.

If the installation has gone well you should see the Team@Work web client index page.

**Configuring the web application**

After you have seen, that the application is up and running, you have to set up the connection between the web application and the Team@Work server.

To do that go to:

<http://localhost:8080/teamatwork/setup.jsp>

Remember to substitute the appropriate port.

For security reasons the setup page can only be accessed from the localhost, so you have to be on the same machine, on which the Tomcat is running. You can not configure the web application from a remote machine.

On the setup page fill in the host and port where Team@Work server is running.

Press the Save Data button to store the connection settings.

To check if you have set up the web application correctly go to the Team@Work web client index page at:

<http://localhost:8080/teamatwork/>

Log in with a valid username and password (you can use the built-in account: user name 'administrator' and password '123456'). If the Server temporarily down a message occurs than either you have not set up the server correctly, or the server is really down.

**Testing and troubleshooting**

If a problem emerges the first source where you should look is the Tomcat documentation.

make sure you have installed correctly the Sun JDK and the Tomcat Web Container. Make sure the JDK and the Tomcat Web Container are really the required versions (Sun JDK 1.4 or newer and Tomcat version 4.1.24 or newer).

Please note, that Tomcat 5.x may NOT be compatible with the 4.1.x family. Tomcat 5.x.y is a different Web Container family, not a newer version.

A typical mistake is made by the Tomcat Windows installer if you have an older version of the JDK installed on your computer.

In that case you will receive errors when trying to look at the server pages that state: "Invalid class version 48.0, expected 47.0" or a message resembling this one. This means, that the JDK Tomcat is running on is different than the JDK that Tomcat uses to compile the Java Server Pages (JSPs). Consult the Tomcat documentation on how to set up correctly the JSP compiler. Normally that involves setting up OS environment variables and copying files from the JDK to Tomcat.

If the web application is accessible, but error messages occur when trying to log in make sure the application is set up correctly as stated in 2.c. Configuring the web application.

### ***Finishing instructions***

The Java Server Pages are compiled on-first-run, and that can take some time on slower machines.

It is a good practice to log in as a user after installing the application and to navigate through the pages, so that they can be compiled and ready for use by the users.

Browsing through the pages will normally take a couple of minutes.



## Licensing Team@Work

Team@Work can be downloaded with 30-day free trial license. During this period you can freely use the full-featured version of the product without any limitations. After this period you should purchase a licenses for the server and for clients. Please visit our web site for detailed information about licensing.

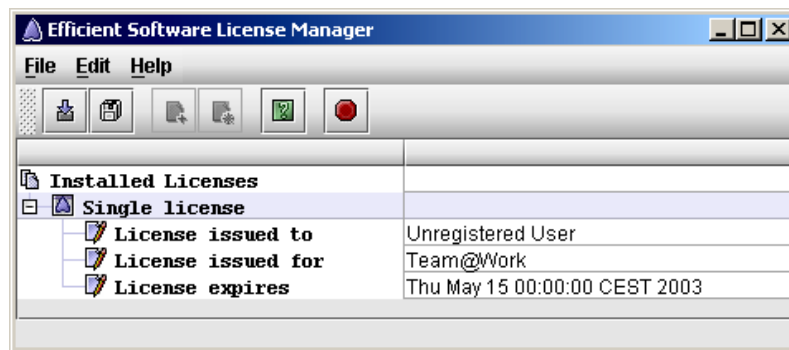
You can recognize the unlicensed version of Team@Work by the label on the top of the header of the server console or any of client applications.

On a licensed version the label “Unregistered company” is substituted by the name of your organization.

The unlicensed version is fully functional for a limited trial period. On approaching the end of the trial period the server begins informing every user who is connected to it about the days remaining. This information can be found on the header of the Team@Work applications after the user’s name. The notification period starts two weeks before the end of trial period.

You can purchase required licenses on ESS web site. Licenses are special files generated by ESS and sent to you. You must save these license files on a secure place.

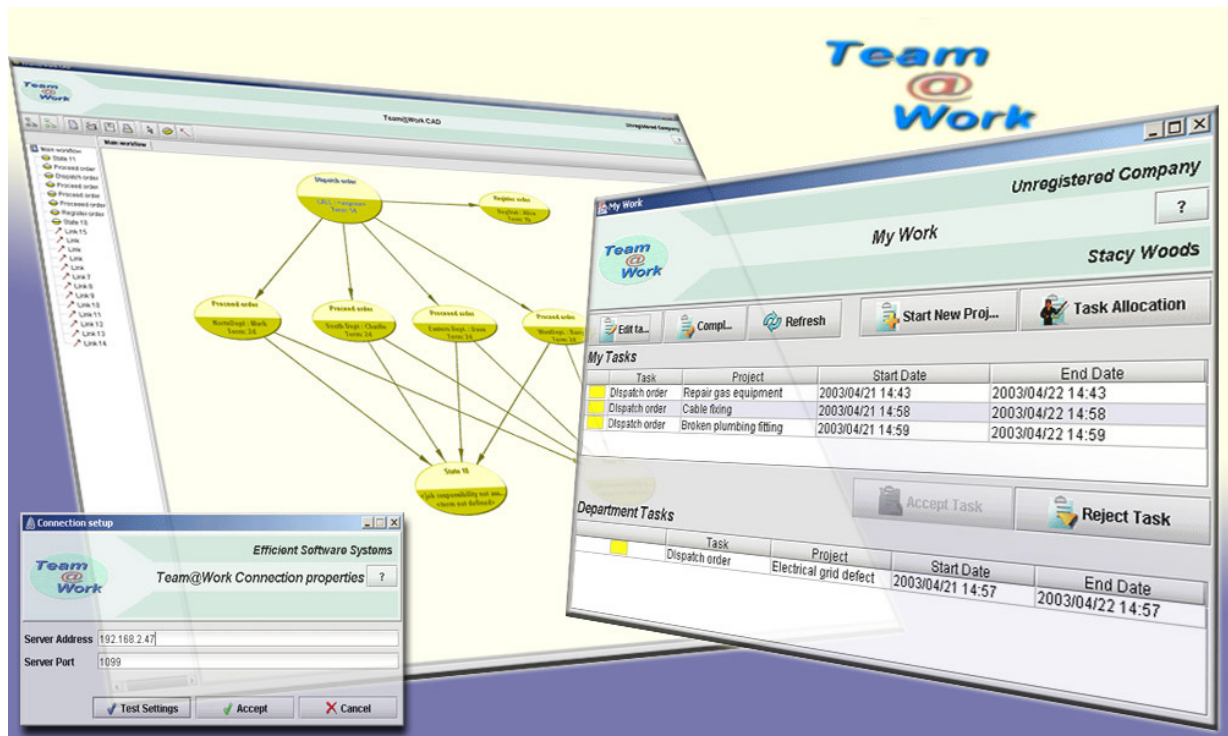
To activate the licenses you must use the ESS’s license manager, included in the Team@Work distribution.



The license manager is developed to meet different cases of licensing. Generally there are two kinds of licenses: application licenses and user licenses. In the case of Team@Work you will need only application licenses. Use the “Import” button to open the following dialog.



Enter the name (including full path) of the license file, or click on the “Open” button to choose it interactively. Then click on “Import” button. The license manager will create a copy of the license file on a special directory where it can be checked on Team@Work startup.



## Team@Work Applications

Team@Work system includes the server and several applications. All Team@Work users work with applications.

There are four Team@Work application in the package:

Team@Work CAD is used by managers to define the organization structure, the staff and the workflow schemas.

Team@Work client application is the tools that is used everyday from everybody to manage the task lists.

Team@Work User Management tool allows to define users, their accounts and their rights.

Team@Work Reports supports managers with information about the status of the running projects.

In this part you will learn how to download, install, setup and use Team@Work applications.

## **System requirements**

Team@Work client applications require the following

Hardware resources:

- 700 MHz system processor or better
- about 20 MB free disk space (space for JVM included; 5 MB if run with external JVM)
- minimum 32 MB RAM, better 64 MB

Operating system:

- MS Windows 98/ME/NT/2000/XP

or

- Linux (any distribution after 2002.01.01) plus running KDE graphical environment.

Network requirements:

- TCP/IP network
- Internet connection (for Web client application only)

## **Installation of Team@Work applications**

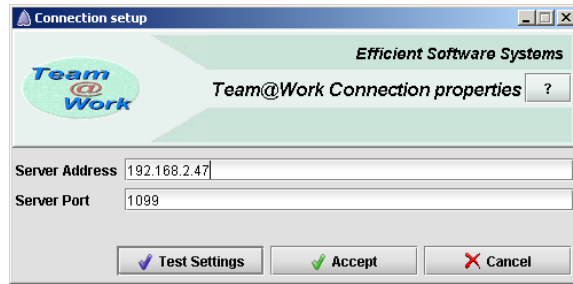
The installation procedure of Team@Work applications is absolutely the same as the procedure for installation of Team@Work server. You should only download and run another files:

- win\_taw\_clients.exe: Team@Work clients installation for MS Windows
- win\_taw\_clients\_vm.exe: Team@Work clients installation for MS Windows platforms with bundled Sun JVM
- lin\_taw\_clients.bin: Team@Work clients installation for Linux platforms.

## Setting up the network connection with Team@Work server

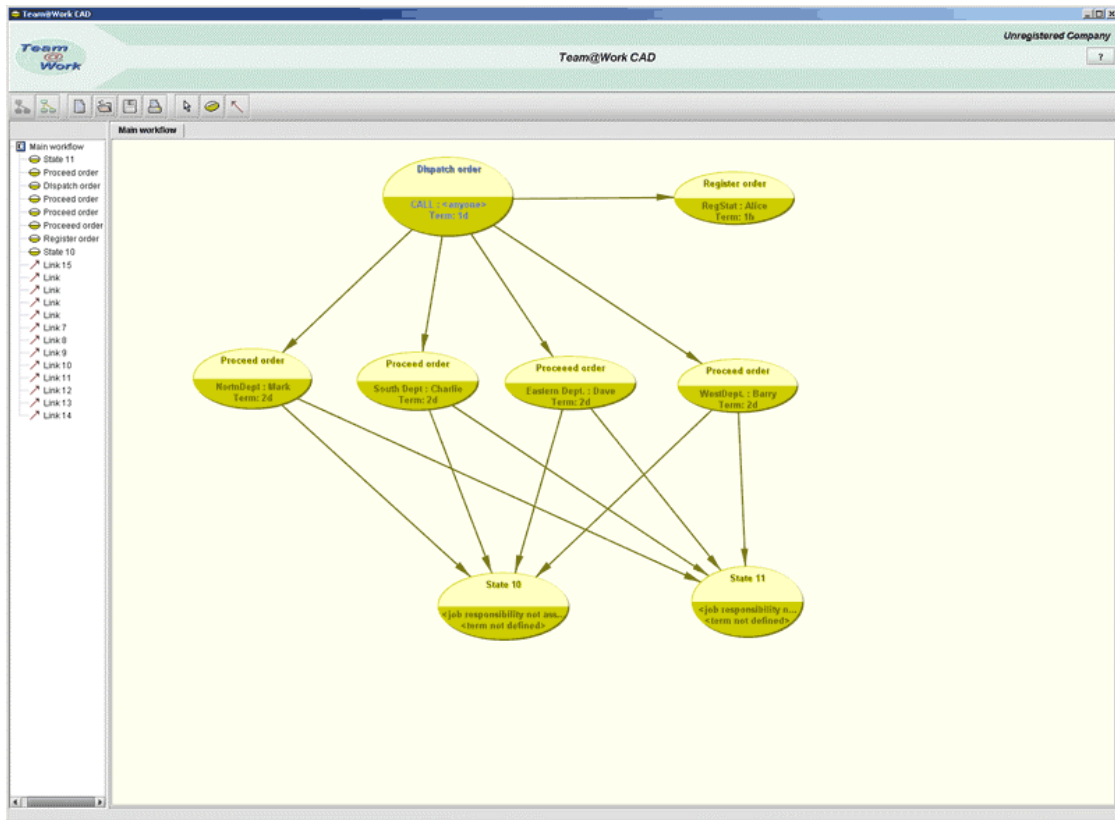
Team@Work is essentially a network system. Therefore you need to setup the connection parameters in order to allow the server and the clients to recognize each other. The procedure is very simple and does not require any technical experience, but if you feel problems, please call your administrator.

There is a special tool for setting up the connection parameters. It belongs to “Team@Work applications” installation package and is installed automatically with Team@Work applications. This tool is named “Setup Team@Work Connection”. You don’t need any user identification (user name and password) to run this application.



This is the dialog of the application. You need only to enter the correct IP address of the Team@Work server and the port on which it is running. If you have problems, please contact your administrator or consult “Team@Work Server Installation Guide”.

You can test the correctness of the settings by clicking on “Test Settings” button. If the Team@Work server is running and can be found on the specified IP address and port, you receive a positive answer. Then you can save the settings by clicking on “Accept” button.



## Team@Work CAD

The typical way the organization structure and the workflow schemes are defined is using tables. Standard spreadsheets or custom software is used to support this functionality. However the natural structure of a single organization is the hierarchy tree. The natural look of the workflow is linked graph. Therefore this is the natural way to define and manipulate these structures.

Team@Work has simple and easy graphical tool that managers use to define the organization structure, the workflow participants and the workflows itself in their natural hierarchical view. We call this application Team@Work CAD.

In order to reach its fantastic efficiency Team@Work needs information. The initial information is entered using the Team@Work CAD. This definitely is not a simple or easy job. You can spend a lots of hours working with this application. In order to use it efficiently you should read and understand very well the Team@Work system principles described in "How Team@Work works".

The good news is that Team@Work is highly tolerant towards the incoming information. You can start to define only separate part of your organization and only specifying the key persons in it. You can define such a rough workflow scheme, include these participants and start working. When you acquire experience and understand in deep the properties of states and the links you can go back into the Team@Work CAD, detail the workflow and add new ones. Team@Work is opened for changes.

## Before you start

Several steps are necessary to be fulfilled before you start the Team@Work CAD.

Required installation:

- You should install and start the Team@Work server. The procedure is described in the Installation guide.
- You should install Team@Work CAD application on your computer (see the Installation guide).
- You should have set up network connection (see the Installation Guide).

Required information in the Team@Work server:

- you should have manager's account opened in the system. It includes user name and password and user rights as Main Manager. You can work with the built-in manager license as well. Initially the default license has user name "administrator" and password "123456".

## Network connection parameters

Team@Work CAD is essentially network application. Therefore we need to setup the connection parameters in order to allow the server and the clients to recognize each other. The procedure is very simple and does not require any technical experience, but if you feel problems, please call your administrator.

There is a special tool for setting up the connection parameters. See above for more details.

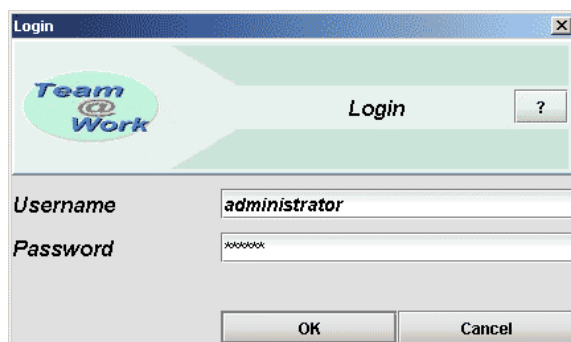
## Language selection

Team@Work uses many of the world languages. When the application is started for the first time you have the opportunity to choose its language. Once selected Team@Work speaks this language. Of course this does not limit the information entering. You can enter data on any language.

Be careful, the language choosing is only once, at the first start up. After that you can not change the language or at least not easily.

## User identification

Naturally, the first step is the user identification – by user name and password.



Attention! The user name is not case sensitive, while the password is strongly dependent.

When the user is identified and his authenticity passes successfully the main application screen automatically appears.

You may be asked to identify yourself again. This happens in case the connection with the server has temporarily failed and then again restored. An additional situation is foreseen for the web client: If you have left the application for more than 30 minutes, the system will ask for second identification. This is done for security reasons to preserve situations of non authorized access.

## Team@Work CAD Principles

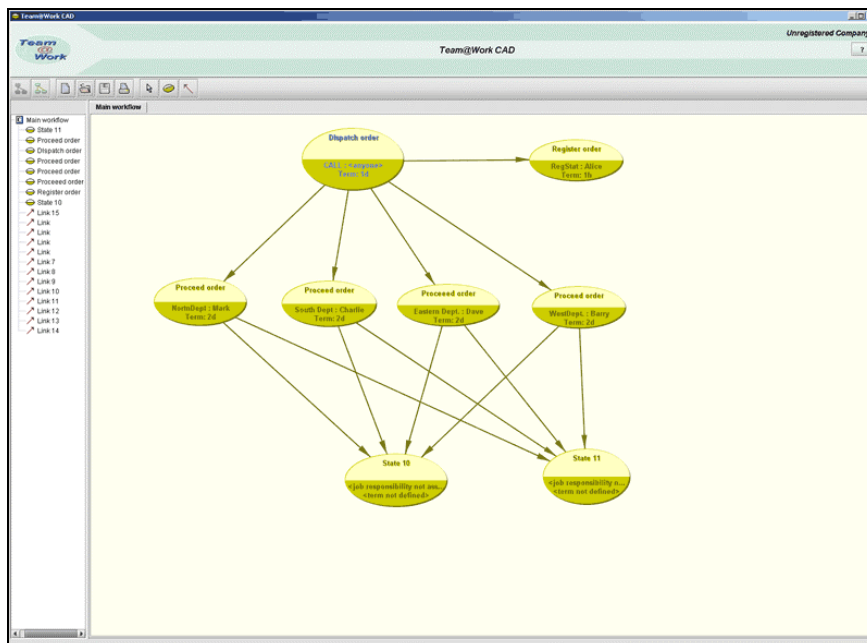
Team@Work CAD is a typical CAD system. User can create objects of different types. These objects are displayed graphically on the main window of the application by certain geometrical shapes. User can move and resize them, and edit their special properties. A list of objects is displayed in an additional window for better navigation in complex schemes.

Team@Work CAD has two working modes:

- editing of the organization structure
- editing of an workflow scheme

You can edit unlimited count of workflows, but the organization is only one. Team@Work CAD loads the organization structure immediately after startup and switches to editing organization mode.

### The main screen



The main screen is divided on four panels. Team@Work standard header is on the top. Just below is a button bar containing command buttons. The rest of the screen contains two panels that are typical for most CAD systems. We will call them CAD list and CAD panel. The edited structure is represented graphically on the CAD panel and as list on the CAD list.

### Command buttons

There are two kinds of command buttons on the button bar. Common buttons are visible in both editing modes. There are specific buttons for each mode as well.

### Choosing mode

Initially Team@Work CAD switches into organization editing mode. You can switch between editing the organization structure and the workflow scheme using the two leftmost buttons on the button bar:



use this button to switch to workflow editing. If an workflow scheme has been loaded it is displayed in the CAD panel and CAD list, otherwise both panels are empty.



use this button to switch to organization structure editing.

## Elements of Team@Work CAD schemes

There are two kinds of elements in the Team@Work CAD schemes: objects and links. Objects in the organization schemes are departments and external partners. Tasks are objects in workflow schemes. Objects are the “building blocks” of the scheme. They have their own meaning. Links always connect two objects. They are the “glue” of the scheme.

## Common commands for manipulation objects and links

Every scheme consists of objects and links between them. We will describe common commands for manipulating objects and links that are valid in both editing modes, before describing each mode in detail.

### Common commands for manipulating objects

There are several commands in Team@Work CAD that are well known in all CAD systems:

- selecting an object: you select an object by a single click of the left mouse button over it. This action marks the object as a target for the next command. A thin rectangle frame occurs around the selected object
- moving the object: click on an object and drag. The object moves to the new place. The mouse cursor is changed during the operation
- resizing: when an object is selected, a thin frame is drawn around it. There is a small dot on the right bottom corner of the frame. Use this dot to resize the object. Just click on it and drag. The object changes its size. Please note that each object has a minimum width and height that can not be decreased
- command menu: each object has several special commands. They are grouped in a hidden popup menu which can be activated by a right mouse click on the object. The concrete commands for each object will be described later
- editing properties: each object has its own properties. All they can be edited in a special property editor, which is accessible from the popup menu or by double click on the object. Concrete properties for each object will be described later.

### Deleting objects

You can delete an object in two ways:

- by selecting the “Delete” command in its popup menu
- by selecting the object and pressing the “Del” button.

In both cases the system will ask you the standard question do you really want to delete this object.

When an object is deleted all links connected with it will be deleted automatically as well.

### Common commands for manipulating links

Links are represented by straight arrows or polyline arrows. Manipulating links is very similar to manipulating objects. Here is the list of commands:

- selecting: by clicking on the link. A frame occurs around the link
- changing the shape: you can insert break point on the link. Just click on a desired point and drag it onto the desired location. The link changes its shape
- command menu: it contains the specific commands for the links. Activate it by right mouse click on the link. The commands will be described later.
- editing properties: just link the objects, the links have properties and property editor. Activate it by double click on the link or by selecting the “Properties” command from the popup menu.



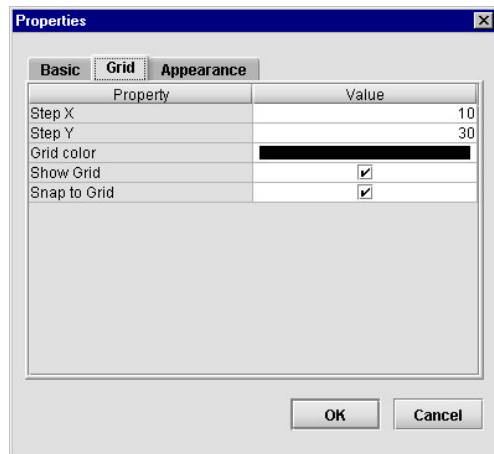
## Commands for arrangement of the objects on the workspace

There are several commands which help the user to arrange the objects on the workspace. We can divide these commands into two groups: commands for manipulation the workspace and commands for arranging objects.

### Commands for manipulating the workspace

The workspace where the drawings appear also have several parameters that can be edited.

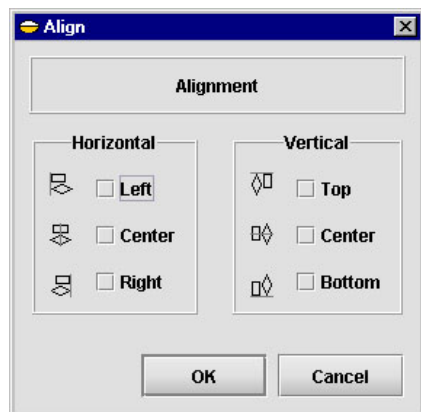
You can access the workspace edit dialog by right mouse button clicking on a free place on the workspace.



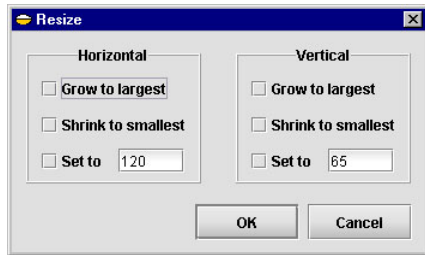
The workspace property editor is shown in the figure above. You can edit the name of the workspace (which is meaningful only for workflows), the grid layout and the appearance (color) of the workspace. The figure shows the most interesting page of the editor - the "Grid" page. Here you can define the horizontal and vertical grid sizes (in screen pixels, minimum size is 6 pixels), the color of the grid pixels (if displayed) and the visibility of the grid. The last option allows you to switch on or off the grid property. If the grid is Off, you can put the objects on any place on the workspace. Also you can resize the objects to any size. If the grid is On, the positions of the objects (left-top corner) must match to the grid points. The link break points must match to the grid as well.

### Commands for arranging objects

You can select several objects and perform common commands on them for aligning and resizing. You can align objects horizontally or vertically. Also you can adjust the width and height of the objects. These options are available on the popup menu which arises on right mouse click on the selected objects. The "Align" command opens the following dialog:

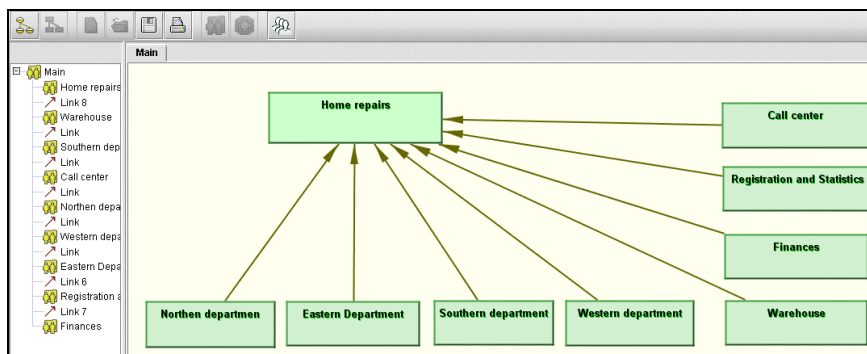


You can select the horizontal and vertical alignment of the objects. If you do not select any of the options, the corresponding alignment (vertical or horizontal) will remain unchanged. Similarly, the command “Resize” opens the following dialog:



Here you can select the width and height of the selected objects. You can choose to grow all objects to the largest of them, to shrink them to the smallest or to define the exact size in pixels.

## Editing of the organization structure



This is the typical view on Team@Work CAD in organization editing mode.

As we mentioned above, only one organization structure can be defined. Team@Work CAD automatically loads it on the start.

The organization scheme is a hierarchical tree. The organization itself forms the root of the tree. The “building blocks” of the organization are departments. Each department is subordinated to another. External partners are represented as special “departments” in the structure.


Team@Work CAD allows to create the organization structure and to insert staff of each department.

The departments are represented as rectangles with the name of the department written in it.

On the first start there is no organization defined in Team@Work yet. Team@Work CAD automatically generates the root of the tree - the organization itself. This is the basic point from which you start building your organization structure.

## Adding departments and external partners

Since the organization has a strict hierarchical structure, every new department should be defined as a subordinated to an existing one. This allows to simplify the procedure of creating a new department. Just select a department and create its subordinate using one of the following methods:

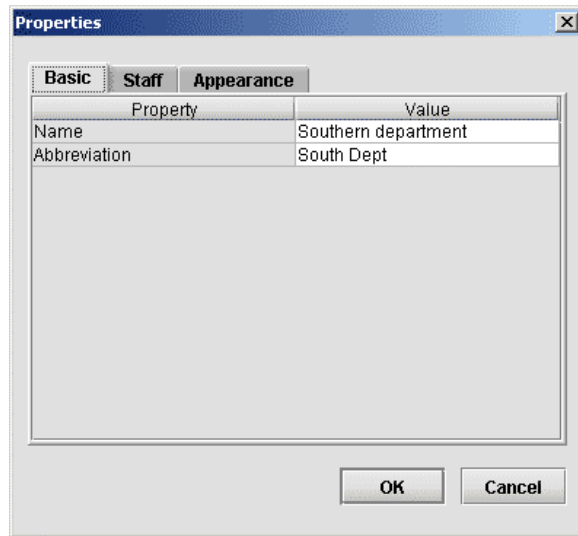
- by clicking the special button on the button bar 
- by invoking the “New department” command from the popup menu.

The result is a new department subordinated to the selected one. Team@Work CAD creates the object and the link between it and its “parent”.

You can create two kinds of departments: normal and external partners. Strictly speaking, the external partner are not departments in own organization, but we accepted this formal approach because of its convenience: partners look well in the organization scheme and it is clear which department

communicates with them. Of course, these objects do not allow further development: we cannot define sub-departments of the external partner or insert staff in them.

### Editing department's properties



This is the department's property editor. The properties are divided on three groups named "Basic", "Staff" and "Appearance". You can select a group by clicking its name on the top of the editor.

Each property has name and value. The value could be text, combo box selector or check box flag.

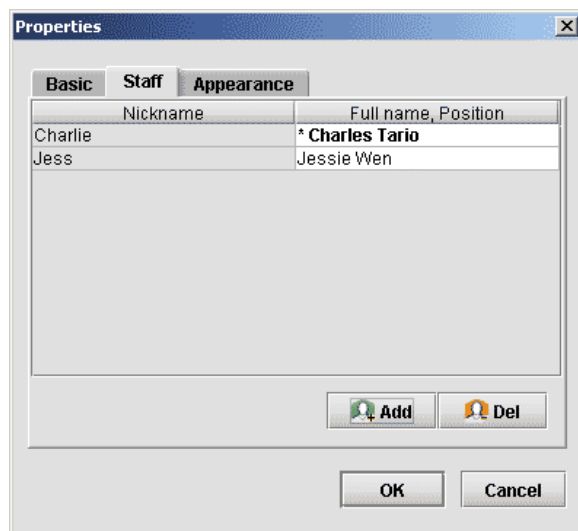
Basic properties includes:

- Name: the full name of the department
- Abbreviation: short name used in Team@Work for identification of the department.

Both fields are required (may not be left empty).

**Appearance properties** includes several fields where you can change the colors of the department. These properties concern only Team@Work CAD visualization and do not affect any other aspects of Team@Work working.

**Staff properties** is a different group. This is the place where you can insert the staff of the department. When selecting this page a list of people working in the department appears in a table. The table has two columns. The nickname of the person is written on the left and the full name and position is on the right.

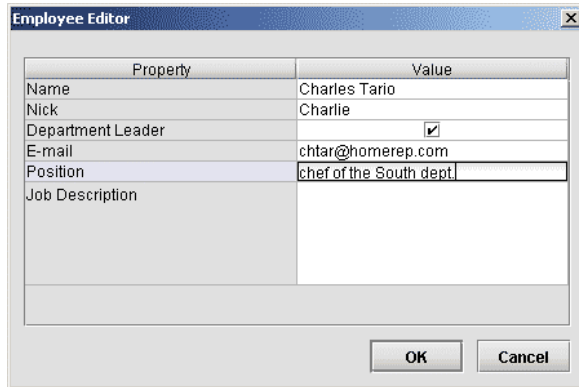


Two buttons: for adding a new person and for deleting a person are on the bottom.

You can add new persons, edit a person, or delete a person.

### **Adding new person in the department's staff**

Click on the "Add" button. A dialog appears.



The dialog box titled "Employee Editor" contains a table with two columns: "Property" and "Value".

Property	Value
Name	Charles Tario
Nick	Charlie
Department Leader	<input checked="" type="checkbox"/>
E-mail	chtar@homerep.com
Position	chef of the South dept.
Job Description	

At the bottom of the dialog are "OK" and "Cancel" buttons.

Only the name and the nickname are required fields (must be filled in). The rest are only for information and may be left empty. Please note that the person is represented by the nickname in the workflow schemes. It is done only for convenience - sometimes the full names are very long. Please take into account, that the system accepts same nick names for different persons and works correctly in such cases, but this is a bad practice, because the Team@Work users can be confused. One more warning: the "Department leader" check box is only informative. It does not give more user rights for the person (for delegating user rights please consult "Team@Work user administration guide").

### **Editing information for a person**

Click on the right table column and the well known dialog will appear with personal data filled in it. You can change every piece of data and save it back.

### **Deleting a person**

Click on the left table column (over the nick name) of the person and then click the "Del" button. The person is deleted from the staff list.

### **Deleting a department**

You can delete a department using one of the already mentioned above methods: by selecting it and pressing the "Del" key or by selecting and choosing the "Delete" command from its popup menu. Deleting an department has the following additional results:

when deleting a department all its sub-departments are deleted recursively as well (the whole sub-tree is cut)

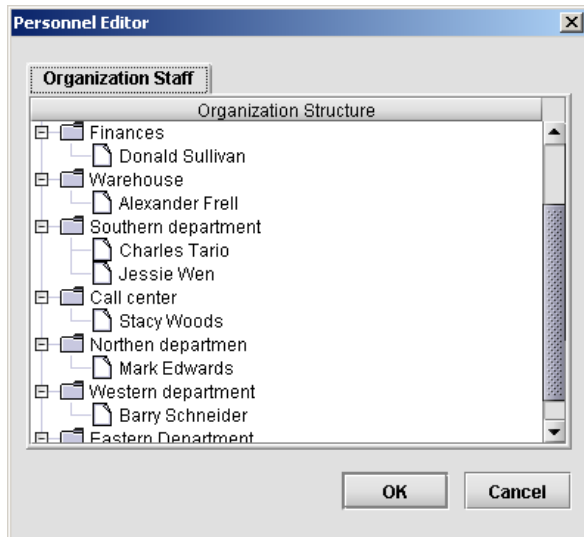
the whole staff of the deleted department (and sub-departments) moves to the upper department (staff is not deleted)

the root department (the organization) can not be deleted.

### **Editing the staff**


Sometimes people in the organization move from one department to another. Team@Work CAD has a special tool for fast manipulating of these changes. It is accessible from a special button on the button

bar .

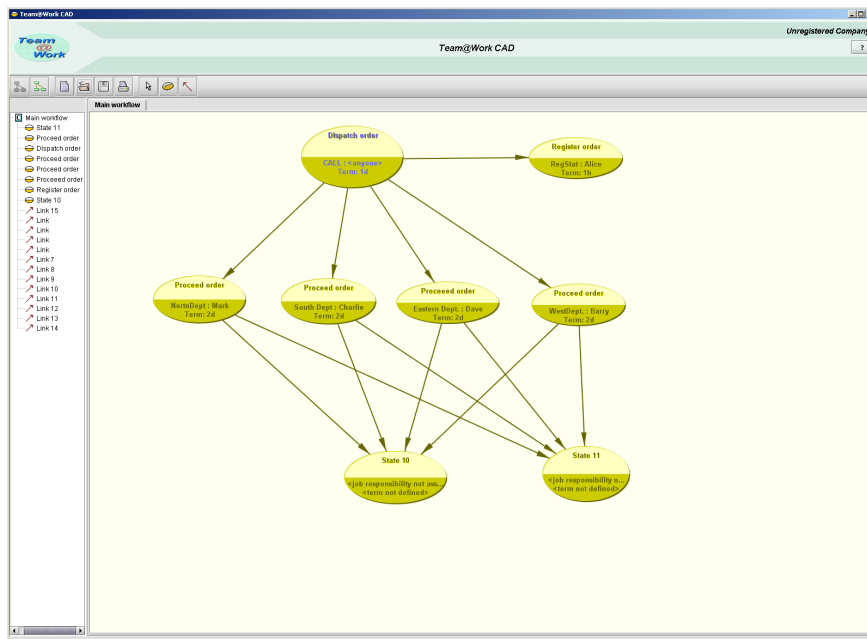


The organization is presented as a list of departments and people in them. You can select a person and then open a popup menu by clicking the right mouse button. All commands in the popup menu are of type "Move to...". Choose the department where the person should move. The result is that the person changes his/her place. All tasks currently assigned to the person remain to the his/her old department.

### Saving the organization

You must explicitly save the changes by pressing the "Save" button  on the button bar. After this Team@Work server accepts the new organization structure and staff. If you try to exit from Team@Work CAD without saving the system will ask you the standard question "Do you want to save changes before exit?".

### Editing workflow schemas



This is the typical view in workflow editing mode.

You can create many workflow schemes in Team@Work CAD. They are distinguished by their names. Team@Work CAD offers standard functionality for creating, loading and saving workflows. There are three buttons on the button bar.

### Create new workflow

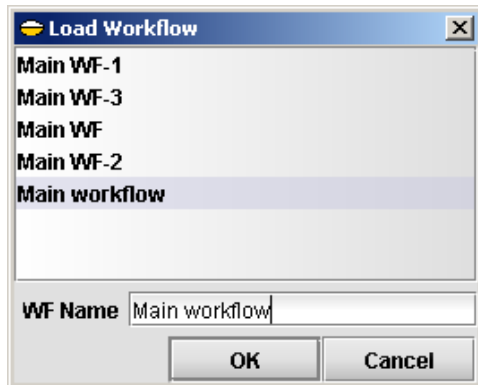


Creates a new workflow.

### Open workflow



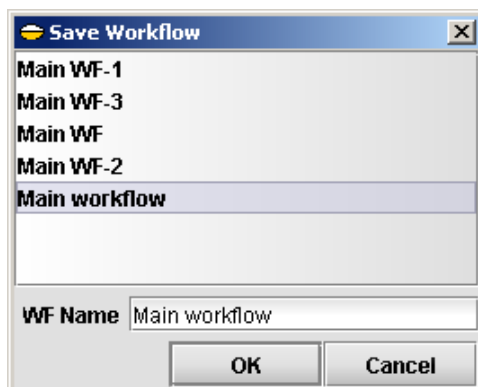
A dialog appears. You select the workflow by its name.



### Save workflow

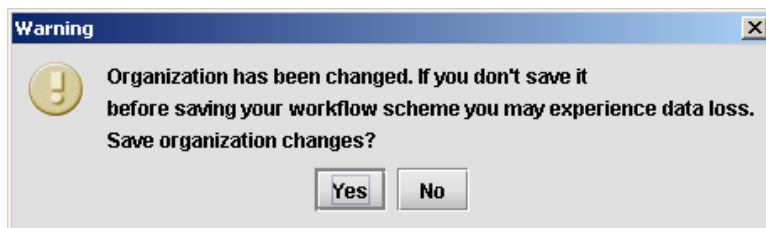


Creates a new empty workflow. The same dialog appears.



If you select an existing name the workflow will be overwritten, if you enter a new name new workflow will be saved.


Note: there is a specific issue in saving workflows. The workflow schema depends on the organization structure and the staff. This is the reason the system tries to save changes in the correct order: at first the changes into the organization, then the changes in the workflows. Usually it is automatic and not recognized by the user. In other cases the system asks for confirmation. In such cases the following dialog appears:



### Editing workflows


You can enter new tasks in the workflow schemes and to create links among them.

## Tasks creation

A new task can be created using the special button . On click the mouse cursor changes (small oval at the right corner). You can chose its location on the panel and the new task will appear by clicking the left mouse button.

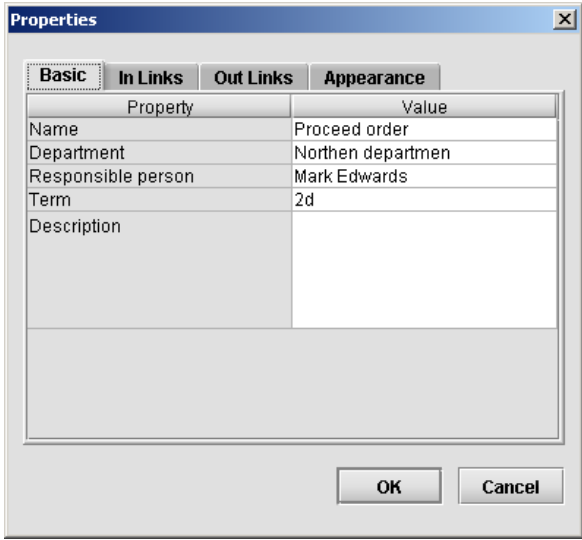
The graphical form of the tasks is oval. It is divided in two halves. In the upper part is written the task name. In the lower part is indicated the department, the responsible for the execution department and the concrete executor, if such has been determined. At the bottom is written the term for the task completeness. Thus with a single glance you can see all characteristics of the tasks: name, executor and term.

## Links creation

You can create links using the special button . By a clicking the button the cursor changes (a small arrow at the right angle appears). You should click on the first task and drag the mouse to the second task where you can release the button. An arrow pointing from the first to the second task appears.

## Editing the task properties

The editor of the task properties is similar to the department editor.



Property	Value
Name	Proceed order
Department	Northern departmen
Responsible person	Mark Edwards
Term	2d
Description	

The editor has four sections.

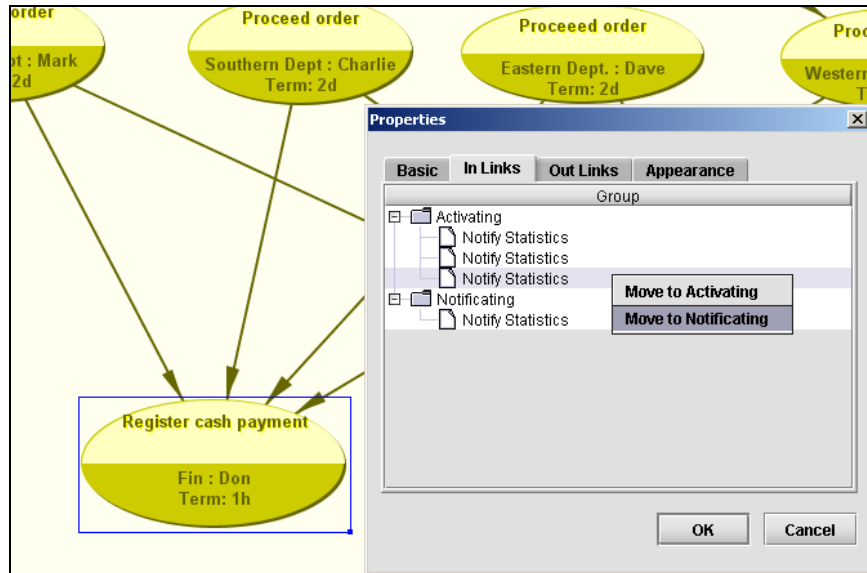
### Section "Basic parameters"

- Name: The task mane is an obligatory parameter. This name appears in the task lists of the users and in the reports.
- Department: You should chose the department responsible for the execution. The department data are taken from the organization structure.
- Person: You should chose the person responsible for the execution. If you do not want one and the same task to be given to a concrete person you should chose the option "common".
- Term: Here you indicate the standard term for the task execution. The term is indicated by a number and a measurement unit. The measurement unit can be "h" for hours, "d" for days, "w" for weeks and "m" for months. For example: If a task can be executed for 2 hours you should indicate "2h", if it should be executed for 3 days, you indicate "3d". This parameter is not obligatory. If you leave it empty or enter a wrong data, Team@Work will simply consider that this task should be completed immediately (for zero time). This will not interrupt the system processing.

- Description: In this field you can write a short description of the task. This text is only informative and does not concern the Team@Work processing.

### Section “In links”

In this section the types of the input links are defined. As we have already mentioned the input links are two types: activating and informative. These two groups appear in the editor too. You can move a link from one group to another by marking it and clicking the right mouse button. A menu appears that has two commands “Move into the activation links” or “Move in the informative links”.



Now you can choose the link type.

### Section “Out links”

As we have already written the output links are grouped in three groups: automatic, selector and optional. Random number of groups of each type can be defined.

The editor is like the editor of the input links with the only difference that if you click the right mouse button on the group name the command “Add new group” appears.

At its activation a dialog appears. You should enter the new group.

Each new group has type “Auto” by default. You can change the group type by clicking the column “Constraints” along the group name. A list will be displayed where you can choose the new group type. You can change also the name of a certain group by double click on its name. A dialog appears where you can enter the new name.

### Section “Appearance”

This section contains visual properties of the task

### Editing the link properties

There are a few link properties: the name, the description and view. The link names appear in the link editor of the applications used by the Team@Work customers (see the User's manual). This is the reason the link names should be reasonable. If we have a link that connects a completed task with a task “Invoice Issue” in the accounting department it is good to name the link “Issue an invoice” or “Invoice issuing” depending on the accepted style.





## Team@Work User's guide

The full power of Team@Work reveals in its everyday use. Hundreds of people work together in a perfect synchrony. All these people use Team@Work client applications - either in the local network or in Internet.

## Overview

The Team@Work aim is to provide to every user the needed information for his/her tasks and serve as a mediator among the interacting team members.

Entering the system the user receives a full and actual list with his/her current tasks. For every task it is indicated the project in which it has occurred, the task priority and the final term for its completeness.

How the user can manipulate the tasks list?

First of all he/she can mark the task as completed. Then it automatically vanishes from the list and the Team@Work server starts notifying other workflow participants for this action (this can cause new tasks generation in the lists of other users).

The user can fulfill a task not entirely, but only partly. In this case he/she can mark only these parts that are already completed in order to inform the server for the work done.

Along with the list of his tasks, the user has on his display another similar lists with the tasks, that are devoted to his department, not appointed personally. These are the so called common tasks or department's tasks. They appear on the screens of the colleagues from the whole department. Everybody can chose one or several tasks from this common list and accept them as his "own". This means that from that moment he becomes responsible for the completion of these tasks. The tasks move to his list and disappear from the "common" lists of all colleagues from the department.

Everyone can make the opposite action – if he estimates that he can not fulfill already taken or handed "task" he can waive it, i.e. pull it out from his list and place it into the list of common tasks. Of course it is not good fellowship, but sometimes is very useful.

What then happens with a task nobody wants to take? The department leader should interfere and hand it to someone. The department leader has special rights to move each task (common or personal) within his department.

Some of the workflow participants have another special rights – to start new projects, based on a certain workflow or to stop already running ones.

So, the actions a Team@Work user can perform are:

- Complete task
- Update task
- Accept task from the common list
- Reject task (shift task to the common list)
- Task reallocation (if such right is granted)
- Start new project (if such right is granted)
- Stop project (if such right is granted)

Only seven functions, but true enough for Team@Work server to organize the whole organization workflow process.

## **Working with Team@Work client applications**

Team@Work users can access the system in two ways: by a special client application or via Internet (only if the Team@Work web application is installed). The two methods have same functionality but the client application has some additional auxiliary functions.

In order to use the client application you should install it on your personal computer. (See the Installation guide). To access the system via Internet you need only browser like Internet Explorer or Netscape Navigator.

### **Before you start**

Several steps must be done before you start using with Team@Work in your everyday work. These steps include both installations and data definitions in Team@Work server.

Installations needed (all procedures are described in the "Installation guide"):

- the Team@Work server must be installed and running.
- to work with Team@Work client application, it must be installed on your computer and network connection parameters should be set. This step is not required if you prefer to work only via Internet
- to allow access from Internet, an Web server must be installed and running and the Team@Work Web application must be installed in it. You need to know the web address of Team@Work web application.
- Initial data, needed to be inserted in the Team@Work server before you start working:
- the Organization structure must be defined
- your job data must be inserted: name, nick name, department
- your user's data must be defined: user name, password, user rights
- at least one workflow scheme must be defined in which you or your department is involved.

After all these long preparations (in which only the managers and administrators are involved) you can start working with Team@Work.

Note: we will illustrate the work with Team@Work client with screenshots from the application. The user interface of the web-client is almost the same. The minor differences will be denoted separately.

### **Network connection parameters**

Team@Work is essentially a network application. Therefore we need to setup the connection parameters in order to allow the server and the clients to recognize each other. The procedure is very simple and does not require any technical experience, but if you feel problems, please call your administrator.

There is a special tool for setting up the connection parameters. See the Installation notes for more details.

### **Language selection**

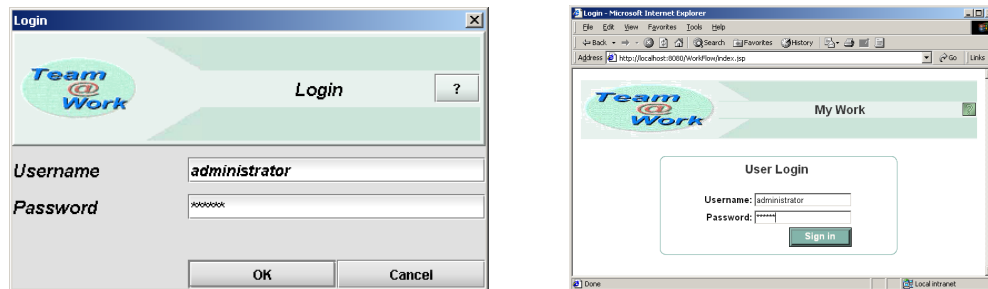
Team@Work uses many of the world languages. When the application is started for the first time you have the opportunity to choose its language. Once selected Team@Work speaks this language. Of course this does not limit the information entering. You can enter data on any language.

Be careful, the language choosing is only once, at the first start up. After that you can not change the language or at least not easily.

The Web application does not pass this phase. It adjusts itself automatically depending on the local computer settings.

## User identification

Naturally, the first step is the user identification – by user name and password.

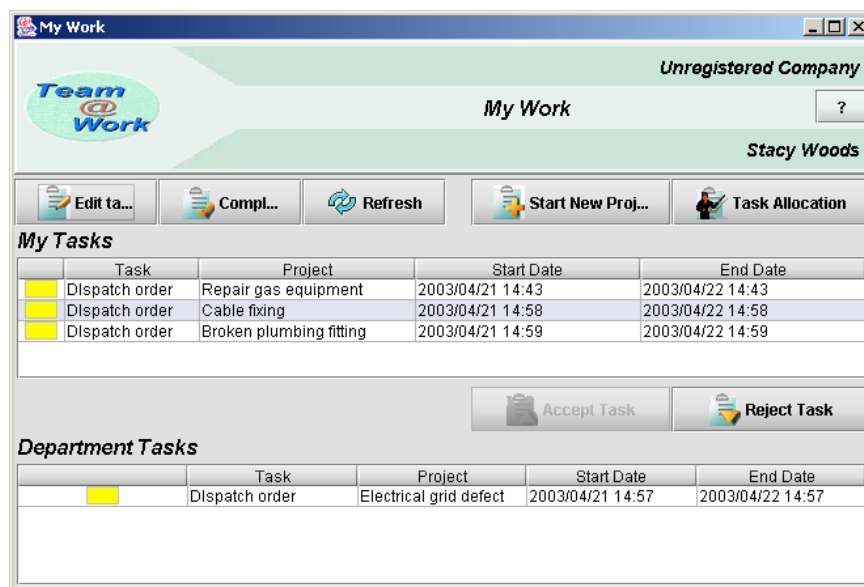


Attention! The user name is not case sensitive, while the password is strongly dependent.

When the user is identified and his authenticity passes successfully the main application screen automatically appears.

You may be asked to identify yourself again. This happens in case the connection with the server has temporary failed and then again restored. An additional situation is foreseen for the web client: If you have left the application for more than 30 (thirty) minutes, the system will ask for second identification. This is done for security reasons to preserve situations of non authorized access.

## Main screen



Two task lists appear on the screen: the personal tasks and the common tasks of the department. Each task is described with its name, the name of the project it belongs to, the start date it is activated and the final day it should be completed. The task has also color indicator for its state. If the task term has expired, the indicator is red, if the final date is still not reached it is yellow. The user can arrange the lists by mouse click on the column title that has to be sorted. The user can also rearrange the columns by moving their titles and also to change their width.

## Selecting tasks

In order to start the application commands the tasks from the list that will be manipulated have to be selected. Therefore our first task is to select one or several tasks from the corresponding list. The selection is fast, easy and well known:

For the client application: a mouse click anywhere on the task row – the color of the row changes

For the Web client: a mouse click on the check box at the left side of the task row.

## Completing a task

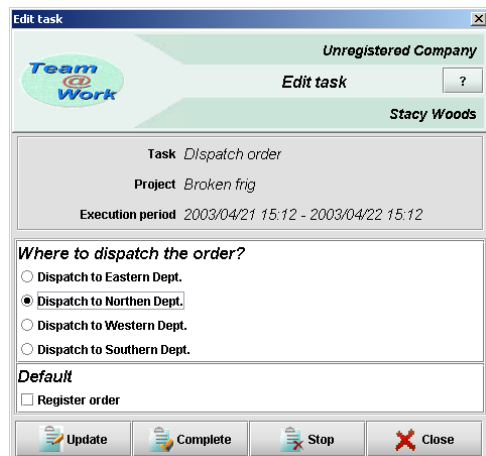
The most easy is when we complete a task at once. This happens when we mark it in the list and click the button “Complete task”. With this command we inform the Team@Work server that we have completed this task. The result for us is that this task disappears from our list. The server itself starts all automatic output links that can cause the start of new workflow tasks. Thus the work moves on.

What does happen with the output links of the completed task that are not automatic? Links of type “optional” remain inactivated. But in case there are links of type “Selector” the server gets problem, because in its definition one of these links always should be activated. In such a case the server will reject the completeness of the task and will hold it in our list. In order to finally complete our task in which we have “selector” type output links we should use the command “Edit task”.

## Editing tasks

Sometimes we cannot carry out a certain task at once. At the same time several our colleagues depend on our progress and wait for our task completeness. If we have reached some intermediate results with some work left, but want to inform the others for already achieved we cannot mark the task as completed. In such cases we use the command “Edit task”.

Roughly speaking the editing means activation of some output links. The task editing is done by the marking task followed by single mouse click on button “Edit task”.



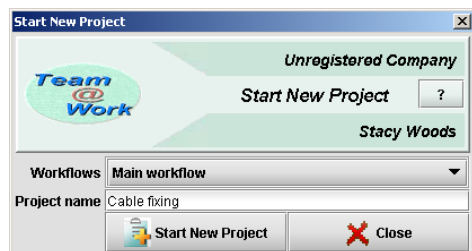
Groups of output links are displayed on separate panels with group name displayed on the top. Groups of type “selector” are presented as radio buttons - you can select only one of them. Other groups are presented by check boxes.

You can check some of links and click on the “Update” button. In this case the selected links will be activated but the task itself will stay in your task list. This allows you to handle the task again after some time. On the contrary, if you click on the “Complete” button the task will be completed and will disappear from your task list.

## Starting a new project

Starting a new project means creation of a new process ruled by a certain workflow scheme. This is the only way you can generate new projects in Team@Work. Not every user can start new projects. These rights are delegated to users by the administrator (see Team@Work User Administration section). Team@Work has a very comprehensive scheme for distribution of rights to start projects. Every user may have rights to start projects under some workflow schemes but other schemes may be forbidden for him.

If you have rights to start new projects a special button “New project” will appear on your user interface (this button is missing for the not authorized users). On starting this command the following dialog appears:



Here you have to enter the name of the new project and the workflow under which it will run. Note that only the workflows allowed to you will be displayed in the combo box. For example, if there are five workflows defined in the organization, but you have right to start only three of them, then only these three workflow names will be displayed in the combo box.

After entering the project name and choosing the workflow scheme, you can actually start the project by clicking the “Start project” button. On this command Team@Work server will create the new project and will send the initial tasks to the corresponding users.

## Canceling a project

Canceling a project means that all activities, connected with this project stop, all tasks are deleted and the project moves to the archive.

This right is delegated only to certain users (rights are managed by the Administrator). If the user has no such rights this option does not appear in the user interface.

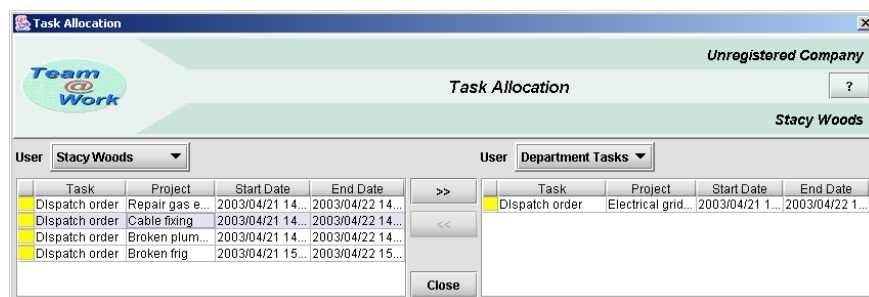
To stop a project you must select a task from it and start editing. A button named “Stop” (“Cancel project” in the web application) appears in the editing dialog. Click on this button and you will get the standard question “Do you really want to cancel the project?”. Click “Yes” and the project will be stopped.

## Accepting department tasks and putting own tasks to the department task lists

Two buttons allowing the tasks transfer between the two tasks lists panels are situated into the middle among them, i.e. the user can accept a task from the common tasks list and join it to his own or to reject a task from his own and transfer it to the common list. These commands act directly: you select a task from the list and push the corresponding button. As a result the task vanishes from the first list and appears into the other one. When you accept a task from the common list, this task is removed from the common lists of all you colleagues from the department and vice versa - putting a task in the common list puts it in the all common lists. You can move a task several times between both lists.

## Distribution of tasks

Some users (we will call them department chiefs) have rights to manipulate not only own task lists, but lists of all department members as well. This function can be activated by clicking on the button named “Task Distribution”. This button is available only if the user has corresponding rights.



The working field is divided on two areas. Each area holds a well known task list and a combo box above it. The combo box serves as a filter for the corresponding task list. It contains names of all department members plus additional option "Common tasks". When you select a name from the combo box, his/her task list is loaded in the task list. There are two buttons with arrows between the lists.

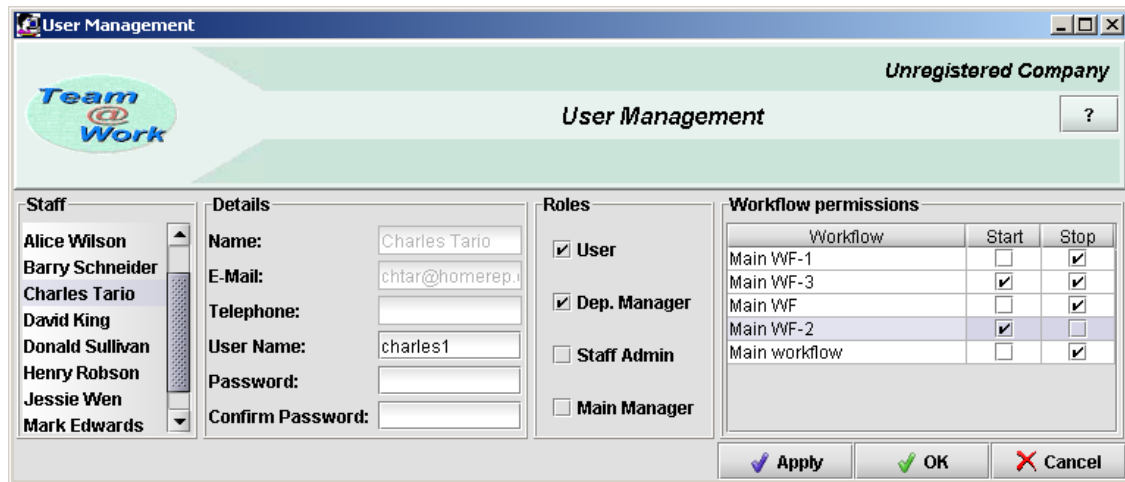
How task distribution works? If you want to move a task from one person to another just select both persons in order to display their task lists (the manipulation of common task list is absolutely the same). Then select the task and click the corresponding arrow button. The task moves from one list to another. That is all.

### **Specific commands for the Web client**

The Web client uses Internet for communication with the Team@Work server. It has some specific commands.

There are two buttons on the bottom of the most pages: "To task list" and "Logout".

- The "To task list " button returns you to the main page. Sometimes you can return to this page using the "Back" navigation button of the browser. We recommend to use the "To task list" button, because it automatically forces refreshing of the task list.
- The "Logout" button is used to stop working with the current Team@Work user. It redirects you to the login page. You can login again, or close the browser. Of course you can close the browser at any moment without using "Logout" button. However because of the Internet links specifics Team@Work server will still consider you linked for some time. In any case the server will continue doing its job correctly.



## Team@Work User Management

Every user has own user name and password for registering in Team@Work. Every user has different access rights to the system resources and functionality. Here are the main groups of user rights:

**Normal user** is granted the right to receive and manipulate the lists with his own tasks and the list with the common department tasks. He/she is allowed to work only with Team@Work client application (both on normal and web variants)

**Department leader** is granted the right to manipulate tasks of his department colleagues. He/she also may work only with the client application, but with additional functionality of distributing tasks (see Team@Work client section).

**Manager** is responsible to define the organizational structure and the business workflow schemes, to examine the workflow process and the organization status using different references and reports generated by Team@Work. He/she may work with Team@Work CAD and Team@Work Reports.

**Staff administrator** has granted right to define user names and passwords as well as to define the different user rights needed for Team@Work operation. He/she may work with this application.

The user rights can be combined. For example the manager may be also a normal user and department leader which will allow him/her to be involved in the workflows and to receive tasks. The built-in account 'administrator' has all rights by default.

Team@Work user management application is used for managing user names, passwords and rights in the Team@Work system.



## User identification

The first step is to login. You need “*Staff Administrator*” rights in order to use this application. The built-in user ‘administrator’ identified by password ‘123456’ has this privileges.

## The main screen

After a successful login the application appears:

Workflow	Start	Stop
Main WF-1	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Main WF-3	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Main WF	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Main WF-2	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Main workflow	<input type="checkbox"/>	<input checked="" type="checkbox"/>

There are four panels on the main screen.

### Staff

The leftmost panel contains names of all staff members. It works as filter for the next three panels. When you select one of the names in this panel, the corresponding data is filled in the panels.

### Details

This panel contains six fields. The top three are only informative. They display information taken from Team@Work CAD and are used only for identification of the person (there could be problems if some people have the same or even similar names...). The bottom three fields are the most important - they hold the user name and password, and the password confirmation. Every user must know his/her own user name and password in order to login any Team@Work application.

### Rules for user names and passwords

There are several special rules connected with the user name and password:

- the user name **is not** case-sensitive. This means that you can enter the user name with upper or lower case letters freely: user names ‘administrator’ and ‘Administrator’ are the same
- the user name must be unique (taking into account the above freedom for letter cases)
- the password **must** be at least 6 characters long. The system will not accept shorter passwords
- the password **is** case sensitive: you must strictly follow the letter case when typing the password
- the password is not displayed by default - the corresponding fields are empty. If you change the user name you **must** enter the password and its confirmation as well.

### Roles

This panel holds four check boxes identifying the four groups of rights mentioned above. The built-in account (‘administrator’/‘123456’) has all rights by default.

### Workflow permissions

The last panel allows to define user permissions to start and stop projects. It contains a table with names of all workflows defined in Team@Work and two check boxes ‘Start’ and ‘Stop’. According to check box

setting the user will receive options to start projects based on the workflow or to stop already working projects (these options are described in “Team@Work User’s Guide”).

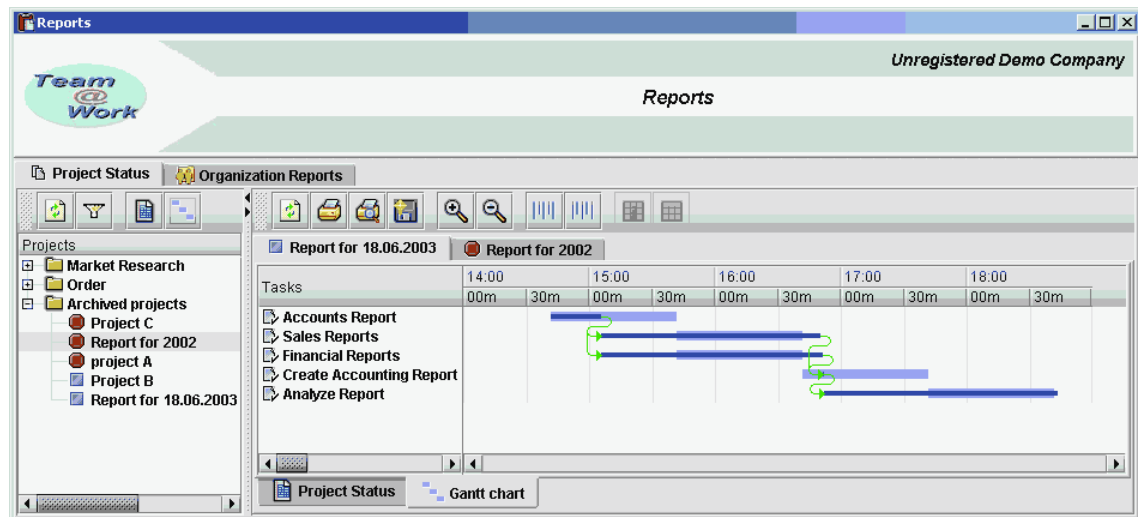
### **Enabling and disabling users**

You can temporary disable an user account. Click with the right mouse button on the name. A popup menu appears. Select “Disable user” command. The user account is disabled. The user cannot login in Team@Work. All his/her personal tasks are moved to the department. This option is useful if you want to stop for a time some user without deleting the account (for example if he/she is in holidays).

You can re-activate the user in the same way: click with right mouse button on the name and select “Enable user” command.

### **Saving changes**

You can save changes by clicking on “Apply” button. This allow you to save and continue working. Clicking on the “OK” button will save the changes but will exit from the application as well.



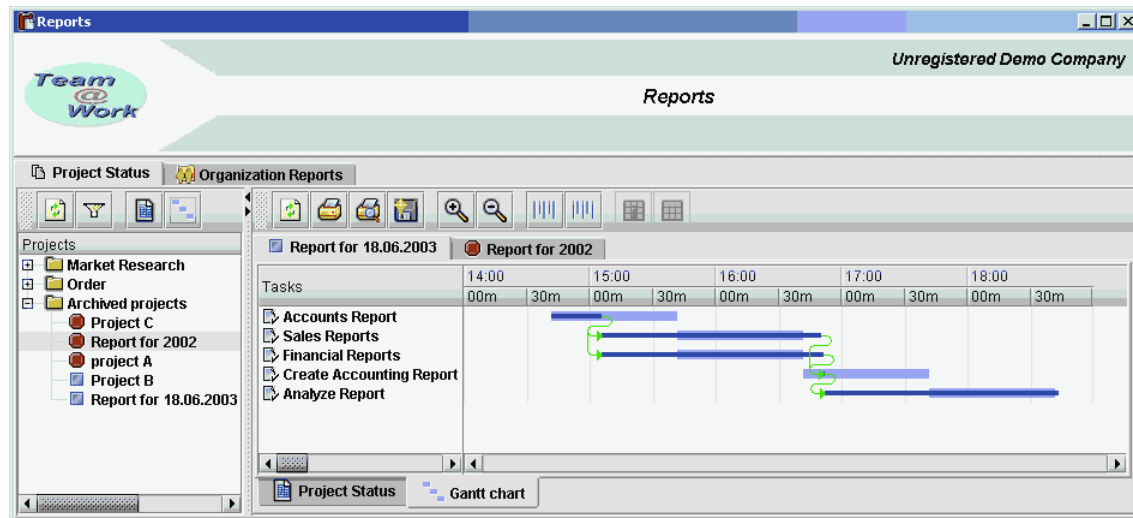
## Team@Work Reports

All people in your organization use Team@Work every day. Every day Team@Work server handles thousands of task modifications, hundreds of projects shifting from one state to another. How managers can overview all these changes? How they can keep informed what is going on? By using the Team@Work Reports. This application supports managers with the two most important dynamic characteristics of the running processes: the status of projects and the workload of every part of the organization. There are two report groups: project reports and organization reports.

## User identification

The first step is logging as usual. To use Team@Work Reports however, you need managers rights (see Team@Work User Management).

## Project reports



## Managing Workflow/project tree

Active projects are displayed on the left panel. They are grouped by workflow. Each workflow is displayed as a folder (or tree node) which contains active projects ruled by it.

You can perform several operations over the workflow/project tree.

### Expanding and collapsing nodes

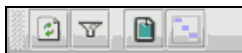
Click on the small icon to the left of the workflow folder to expand or collapse its content.

### Sorting the tree

Click on the "projects" title of the panel to sort the content. Consequent clicks switches the sorting order between ascending, descending and "original" (the order received from the Team@Work server).


### Command toolbar

There is a toolbar above the Workflow/Project tree.




It consists of two parts. First two buttons relate to the workflow/project tree itself. The next buttons generate different reports.

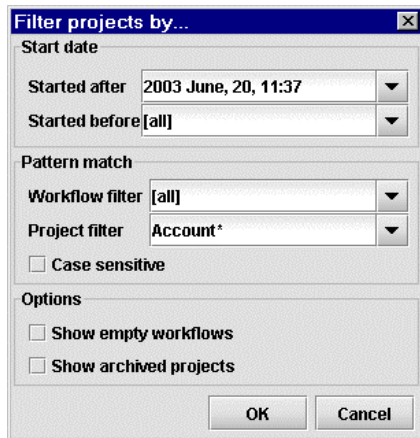
### Refreshing the content

Every time when somebody in the organization finishes a task, every time when a new project is started, the content of the reports is changed. You can update the view by clicking the "Refresh" button . This command retrieves the actual status of running projects from Team@Work server.

### Filtering the content

You may want to reduce the number of supervised projects. Team@Work supports project filtering.

Clicking on the filter icon () opens a dialog where you can define several filtering rules. The top section of the dialog is a time filter. You can enter two dates which define a time interval that embraces the project start.



**Filter projects by...**

Start date

Started after: 2003 June, 20, 11:37

Started before: [all]

Pattern match

Workflow filter: [all]

Project filter: Account\*

☐ Case sensitive

Options

☐ Show empty workflows

☐ Show archived projects

OK Cancel

The next section is a filter of workflow and project names. You can use wildcards '\*' and '?' for selecting group of names. For example: by entering "Bro\*" in the "Project filter" field you tell the server to retrieve all projects which names start with "Bro"; entering "TAW???Pro" will filter names of type "TAW100Pro", "TAW150Pro" etc.

The last filter section consists of two check boxes. The first one gives you the option to include in the report the workflows that don't have any running projects. If you check this flag you may receive some nodes in the workflow tree with empty content (only a workflow name without projects). Use this option to receive the full list of workflow schemes defined in Team@Work server.

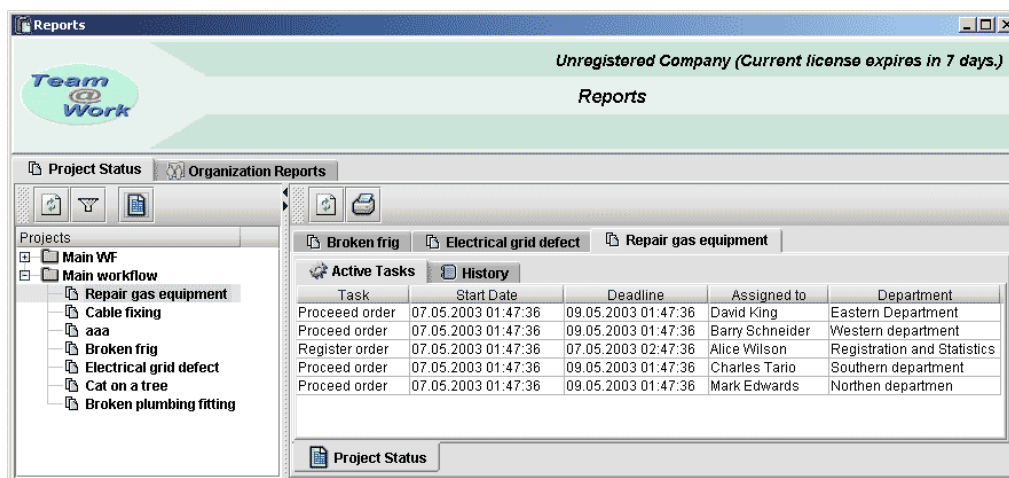
The second check box allows you to include the archived (finished) projects in the report. Please note, they are listed in a separated node of the project tree named "Archived projects", not in the corresponding workflow nodes.

The next buttons on the button bar are the command buttons for different report generators. Currently only two kind of reports are available: "Project Status" and "Gantt Chart".

To generate a report select a project name in the Workflow/Project tree and the click the corresponding report button on the button bar. The report is generated and displayed on the right panel. You can generate reports for several projects by repeating the procedure. Every new selected project appears as a tab page on the right panel. In the figure below there are three projects for which reports have been generated: "Broken frig", "Electrical grid defect" and "Repair gas equipment". Their names are visible on the tab titles.

You can generate more than one report for a single project and the corresponding reports will be displayed again as tab pages, but the tab names will appear on the bottom edge of the panel. In general: the project names are on the top, the report names are on the bottom.

## Generating Project status report



**Team@Work** Unregistered Company (Current license expires in 7 days.)

**Reports**

Project Status Organization Reports

Projects


- Main WF
- Main workflow
  - Repair gas equipment
  - Cable fixing
  - aaa
  - Broken frig
  - Electrical grid defect
  - Cat on a tree
  - Broken plumbing fitting

Broken frig Electrical grid defect Repair gas equipment

Active Tasks History

Task	Start Date	Deadline	Assigned to	Department
Proceed order	07.05.2003 01:47:36	09.05.2003 01:47:36	David King	Eastern Department
Proceed order	07.05.2003 01:47:36	09.05.2003 01:47:36	Barry Schneider	Western department
Register order	07.05.2003 01:47:36	07.05.2003 02:47:36	Alice Willson	Registration and Statistics
Proceed order	07.05.2003 01:47:36	09.05.2003 01:47:36	Charles Tario	Southern department
Proceed order	07.05.2003 01:47:36	09.05.2003 01:47:36	Mark Edwards	Northern departmen

Project Status

You can generate the status report for a project by selecting its name in the left panel and clicking on the "Project status" button .

The system generates status report and displays it on the right panel. You can generate reports for several projects consequently and all they will appear on different pages on the right panel. You can close the report for a project by clicking with right mouse button on its page name and selecting the "Close" command.

### **Report content**

Each report contains two pages: "Active tasks" and "History".

**The "Active tasks" page** contains table of all project's tasks that are currently active (these tasks are in the task lists of Team@Work users). Several fields are displayed for each task:

- task name,
- start date (when the task has been activated)
- deadline (when the task should be finished according to the workflow schedule)
- department to which the task is dispatched
- the owner of the task (who is responsible for it). If the task is not assigned to a concrete user, this field is empty (this means that this task is still in the "Common tasks" list of the department).

**The "History" page** contains information about the finished tasks. The content is almost the same as in "Active tasks" page with one addition: the "Final date" column, which contains the actual date and time when the task was completed.

### **Refreshing the report**

As it was mentioned above Team@Work Reports is a tool for real-time project supervision. Running projects may change every minute. Therefore you need to refresh the information. By pressing the "Refresh" button on the right panel you ask the server to update the current report.

### **Printing the report**

You can print the report for current status of a project. It is formatted as a single table with the history on the top and active tasks on the bottom. When pressing the "Print" button, a print preview is generated. You still can change the column sizes and the column order in the preview. Then you can print the actual report.

## **Generating Project's Gantt chart**

Gantt chart is a very popular tool for displaying the project progress. It is a two-dimensional diagram. There is a time scale on the horizontal axis and a list of tasks on the vertical. The time planned/used for each task is represented as a bar on the time axis. Dependencies between tasks are displayed as arrows linking the corresponding bar ends.

The specific workflow engine implemented in Team@Work causes many specific details in generating Gantt charts. We will discuss these details now before looking to the generating Gantt charts in Team@Work Reports application.

### **Gantt charts in Team@Work framework**

It is easy to see, that the information needed for creation of project Gantt chart is contained entirely into its workflow scheme: these are tasks, dependency links and time schedule. Indeed, Team@Work generates the Gantt charts automatically from the project workflow scheme. Thus Gantt charting is not a separated "decoration" but it is fully integrated into Team@Work project management suite.

In the simplest case Gantt chart is aimed only for project planning - to display the project plan on the time line. One of the most important enhancements is to use it for tracking the project progress. In this case additional bars are displayed. These bars represent the actual starting and finishing time of each task. In this case we have visual comparison between planned schedule of the project and its actual development history.

In some other applications the information about the actual project progress is inserted in the Gantt chart manually. It is not our case. Team@Work is a system for real-time project management. So it retrieves the information for the project development directly from the database and generates this part of the

Gantt chart automatically. You don't need to enter any additional information. The project tracking automation is the main advantage of Team@Work Gantt charting. It allows visual comparison between the planned time schedule and the real progress at any moment.

### **Gantt charts and Team@Work workflows**

In theory it is very easy to convert a fixed workflow scheme into a Gantt chart: just take all tasks, order them by starting date, draw bars with length equal to the task duration and finally draw arrows between bar ends to represent the dependencies. This works perfectly for simple automatic workflows.


Things become more complex when the workflow contains variants and optional links. In these cases we should have visual recognition between automatic, optional and selector links. Also when the workflow contains alternative paths which have not been passed, these paths should have been deleted from the Gantt chart as they are not a part of the actual project history. For example, let's consider that the workflow contains a state with alternative output links ("selector" group of output links). When a project moves through this state, only one of the alternative paths will be activated and all the other will be cancelled. Therefore, cancelled paths should be cleared from the Gantt chart as they are not a part of this concrete project. In some another project maybe another way will be chosen and the Gantt chart will look different (although both projects are ruled by one and the same workflow). These are the specifics when using variant workflows.

In general, when the workflow contains variant paths the chart should:

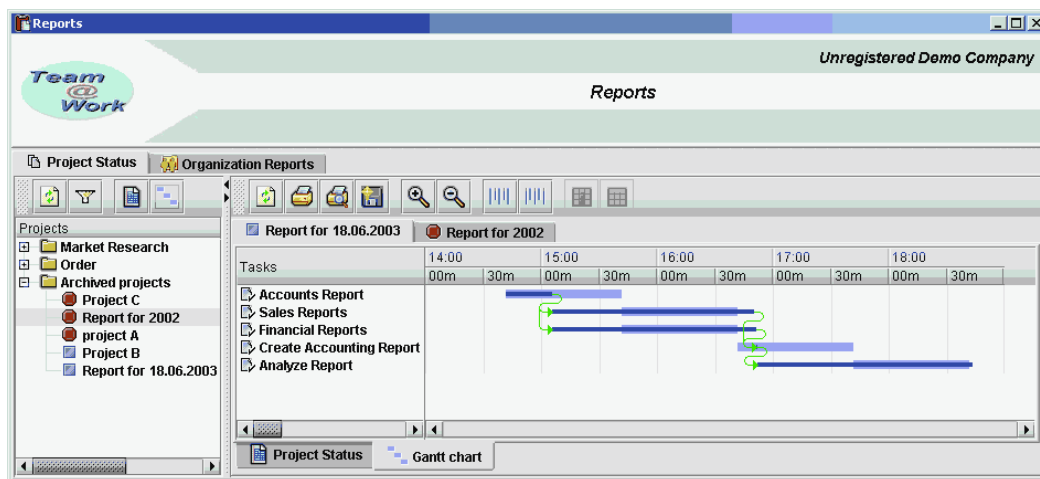
- for the past part of the project: keep only these paths which actually have been passed
- for the part of the project which is not completed yet: keep all links as we don't know which way will the user choose to go. The variant links are graphically distinguished from the fixed (automatic) links.

This is the way Team@Work generates the Gantt chart of the project. Starting from the full workflow scheme, the chart is refined during the project development finishing with the exact project chart at the end.

### **Generating Gantt charts in Team@Work Reports**

We can generate the Gantt chart of a project by selecting the project name in the workflow/project tree and clicking on the "Gantt chart" button (  ). The Gantt chart is generated on the right panel.

The Gantt chart is divided on two parts: a table containing tasks and a bar graph.



### **The Gantt table**

The table contains several columns:

- Task name: contains the task name and an icon. Different icons are shown for the finished, the running and the planned tasks
- Planned start: contains the date/time when the task is planned to start according to the workflow
- Planned duration: how much time is planned for this task according to the workflow

- Duration: the actual duration of the task. This column is filled in only for tasks that have been already finished. It contains the difference between the time when the task has been activated and the time when it has been finished.
- Actual start: the time when the task has been activated (valid only for running and finished tasks)
- Actual finish: the time when the task has been completed (valid only for finished tasks)
- Description: this column contains the task description as it has been inserted in the workflow scheme.

As usual, this table allows the standard manipulations:

- sorting on each column by clicking on the column name (it is three-state sorting: ascending, descending and "original" - as it was received from the server)
- changing the column order by dragging the column name
- resizing the column width by right mouse dragging on the border between columns.

### The Gantt graph








The Gantt graph contains time bars and dependency links. There are two kinds of time bars: planned and actual. The planned bars are wider and are colored in light-blue. The actual bars are thinner and appear in the middle of the planned bars. They are blue (darker). Looking on both bars we can track how strictly the project plan has been followed.


*Example:* lets look on the figure above. The first task has started with the start of the project, but is has finished much earlier than planned (the thin bar is shorter than the thick one). As a result the two following tasks linked with the first have started earlier than it has been planned (the starting edge of the thin line is on the left compared to the thick one). Nevertheless these tasks have finished later than the planed term.

There are two time scales on the top of the graph. They are formally named "Major scale" and "Minor scale". Actually they are absolutely independent - you can set any time scale factor to them. There is some functionality connected with the major scale, which will be described below.

### Manipulating chart content

There are several functions connected with the Gantt chart. Thy can be activated using the toolbar buttons above the chart.

-  the "Refresh" button requires information from the Team@Work server and displays the latest status of the project
-  the "Print" button prints the Gantt chart
-  the "Print preview" button also allows to print the Gantt chart, but a preview picture is generated and displayed before printing
-  the "Save Picture" button generates a JPEG image from the Gantt chart. You can save this image for further manipulations or for inserting it into other documents
-  the "Zoom In" and "Zoom Out" buttons allow to change the scale of the graph for better visualization
-  the "Major scale" button allows to set time scale on the major scale. A dialog appears clicking this button. Here you can set the value and the measurement unit of the scale. Measurement units can be minutes, hours .... up to years.
-  the "Minor scale" button obeys the same functionality as the "Major scale". It is not necessary to set the minor scale to be more fine than the major one.

You can select a part of the Gantt chart limited by one division of the major scale. Just click on the corresponding section header on the Major scale and this time interval becomes selected. You can select more sections by holding down the Shift button and continue clicking on the neighbor sections of the major scale. When a section is selected the "Show selection" button () becomes active. By clicking

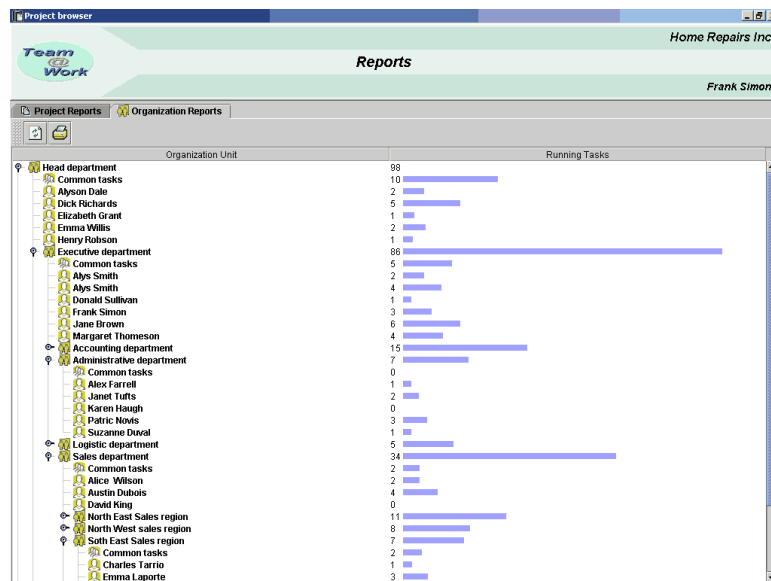


on it, you can view only the selected part of the chart. On the same time the next button, "Show all" (📊) becomes active. Clicking on it restores the view of the whole chart.

## Organization Workload Report

This report shows the organization workload at different levels. The organization structure is displayed as a hierarchical tree. Each department is presented as a node in the tree. Each node contains the following items:

- one row for common tasks of the department
- one row for every staff member
- one row for every sub-department.



Active task count is displayed on the right side of each row. For the rows containing departments the accumulated count of tasks is displayed. The accumulated count is the sum of the department common tasks plus all personal tasks of its staff members plus accumulated tasks of all its sub-departments. Thus when you select a department row you can see the count of all running tasks in it and in all its sub-departments. In particular, on the top row, which represents the whole organization you can see the total count of all active tasks everywhere in the organization.

For a better view the departments workload is displayed graphically as well. A bar diagram is displayed on the rightmost side of the panel. Looking on it you can visually estimate and compare the relative workload of different parts of the organization.

You can sort both sides of the report: the tree and the workload. Sorting has three states: ascending, descending and "original" - by organization hierarchy.

As usual, you can refresh and print the report.