

# TimeStor 1.0

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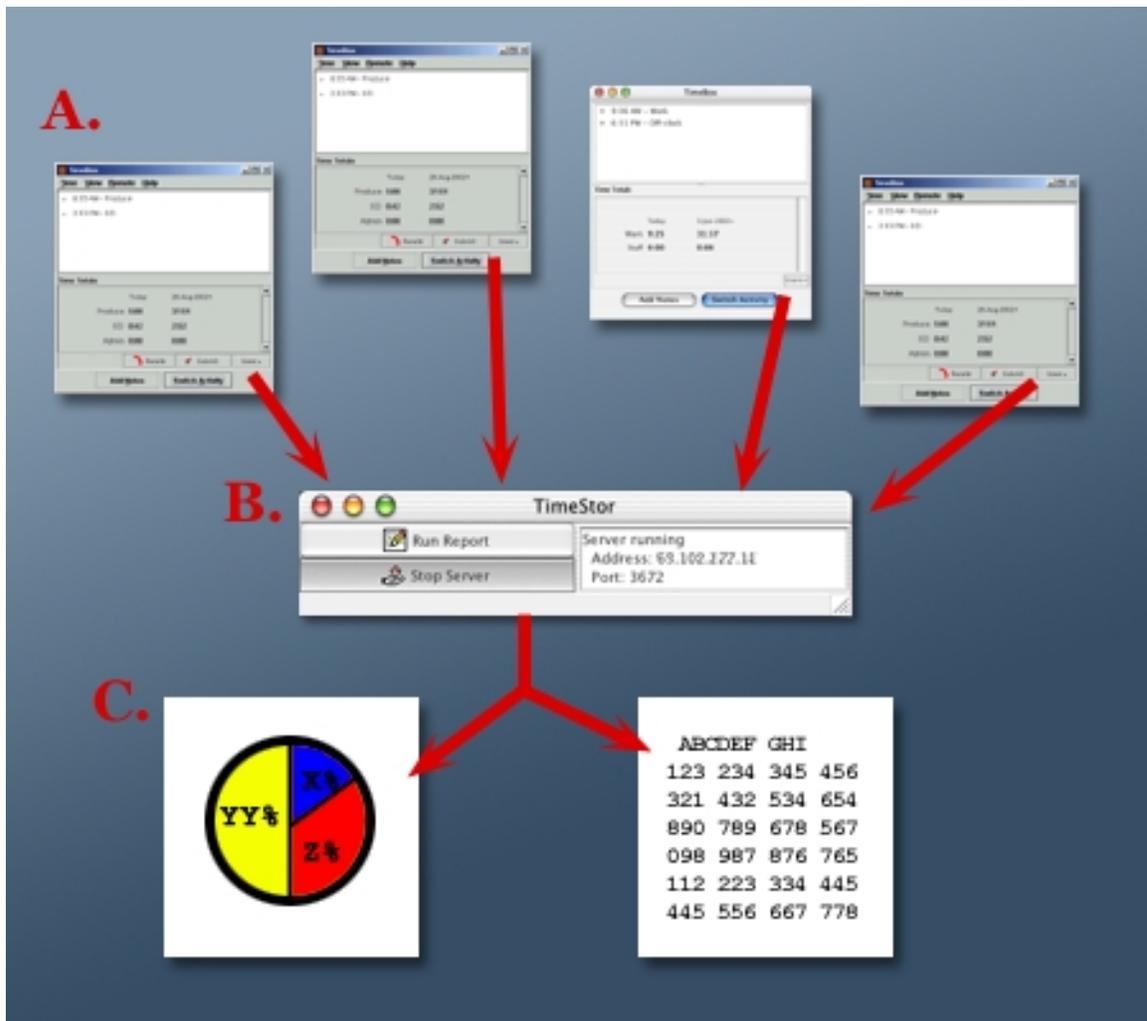
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## General Use

### About the TimeStor program

This program is designed for use by organizations that need to track the time spent working by their employees/contractors/freelancers/etc. Each individual employee/contractor/freelancer (we'll call this person a "worker") tracks his or her time with *TimeBox*, a feature-packed time-tracking application designed for individual use (see <http://www.taubler.com/timebox/> for more information.)

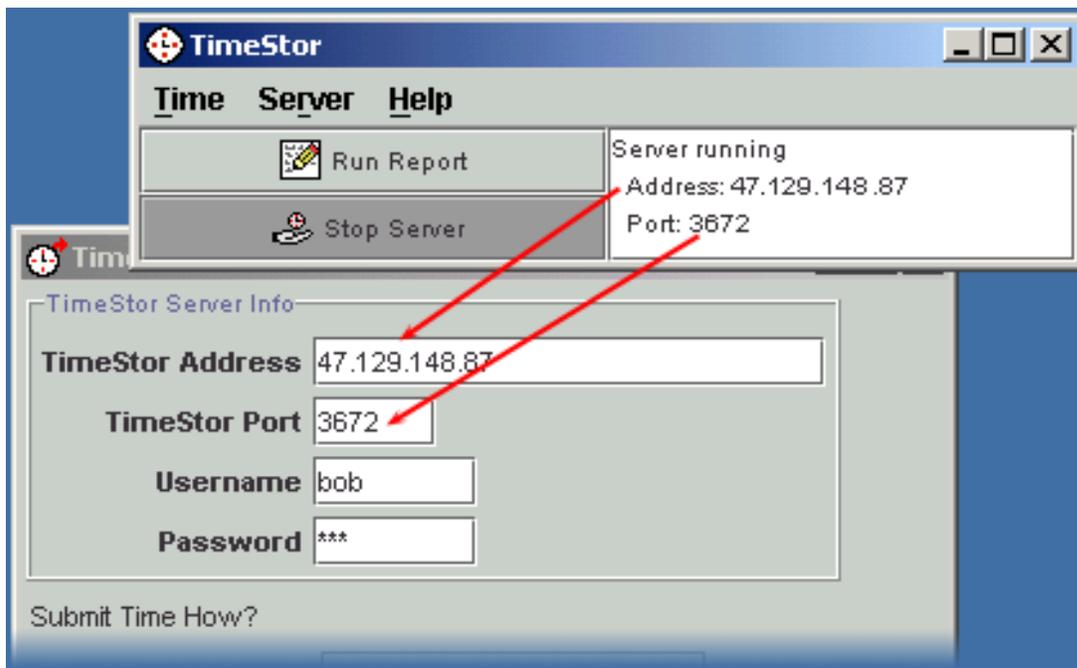
One member of the team—typically a project manager or program leader—will run an instance of the TimeStor application (we'll call this person an "administrator".) Each worker can then periodically submit his or her time to the TimeStor instance.



This diagram demonstrates the interaction between TimeBox and TimeStor. Various TimeBox instances (A) submit their time to a single TimeStor server (B). This TimeStor server can then run various reports (C) containing all users' data at any time.

To facilitate this, the administrator creates a user account for each worker. This account consists simply of a username and password, as well as the person's full name. The administrator also creates one or more activity types, which describe projects or jobs for which time must be tracked.

At that point, any worker who has an account, and who has been tracking time for at least one of the activities created by the administrator, can begin submitting his/her time. For this purpose, TimeStor has a built-in Web server. This allows workers to very easily submit their time. Workers can simply click a button to submit their time, or they can set up a daily, weekly, or monthly schedule by which their TimeStor instances will automatically submit their time for them. If unreliable Internet connections or restrictive firewalls are a concern, workers can also export their tracked time to a file, and then email that file to the administrator; the administrator can then simply import the file into the TimeStor instance.



This image shows a TimeStor instance overlapping a TimeBox *Time Submission Settings* window. It demonstrates how the TimeStor instance's Address and Port number are used by the various TimeBox users who must submit their times.

Once workers have started submitting time, the administrator can run different types of custom reports. These reports can be viewed in a variety of formats such as pie chart, bar chart, and spreadsheet.

What if some of your users don't have the TimeBox application? They can log into TimeStor's web server and manually enter their time, thus ensuring that your projects' data is complete.

## Features

The TimeStor application allows you to create an unlimited number of user accounts with distinct passwords (after you've registered; unregistered copies are limited to a single user account for trial purposes.)

The application features a web server, so users can easily submit their time, as often as necessary, to the TimeStor server. Users are authenticated by the web server to avoid any accidental or intentional overwriting of one user's data by another.

TimeStor allows you to create and import data backups, to help guard against accidental data loss.

TimeStor has a powerful reporting engine. It allows you to create custom queries and generate reports in a variety of formats, including pie charts, bar graphs, tab-delimited, and a format designed for easy import into other database packages. TimeStor allows you to view reports, save them, and print them. You can also import your reports into other applications for further number crunching.

TimeStor also servers a central server through which users of the *TimeBox* application can send each other *QwikMessages*.

## Registration and Support

TimeStor is considered "shareware", which means that you are allowed to use the application for evaluation purposes. If you find that application to be useful, then you are expected to register to continue using it.

Registration entails paying a nominal fee to receive a registration code. Once you receive a registration code, simply access the *Help -> Register...* menu. Enter your name in the first box, and the provided code in the second box, and click *OK*.

Unregistered versions of the TimeStor are limited to the creation of a single user account, for trial purposes. Registered copies can host an unlimited number of user accounts. In addition, registration will also entitle the user to email support. Registration information can be found at <http://www.taubler.com/timestor>

Every copy of TimeBox being used within an organization is expected to be registered separately.

Instructions and FAQs can be found at <http://www.taubler.com/timestor>  
Registered users can also access email support there.

## How to Use the TimeStor Application

### Launching the application

The Windows installer should have created a shortcut or alias in your computer's main menu. Use this shortcut or alias to launch the *TimeStor* application.

Alternatively, you can open up the folder that the installed created; in there, you will find an executable called *TimeStor* or *TimeStor.exe*. You can launch the application by double clicking on this icon. However, you are encouraged to create a shortcut or alias of this executable and move it to your desktop, or to some other location away from the *TimeStor* folder.

Macintosh users will find a *TimeStor* folder on their disk after downloading the application. The application is contained within this folder. Simply drag the application to the desired location, such as to your computer's *Applications* folder. Launch *TimeStor* by double clicking. You may also want to create a shortcut for the application; e.g. by dragging the application to your dock.

Users familiar with Java who want to create their own startup scripts can do so by including the JAR file (*ts.jar*) in the classpath and invoking *com.taubler.timestor.TimeStor*. A Java Runtime Environment version 1.2 or higher is required; 1.3 or higher is recommended.

### General use

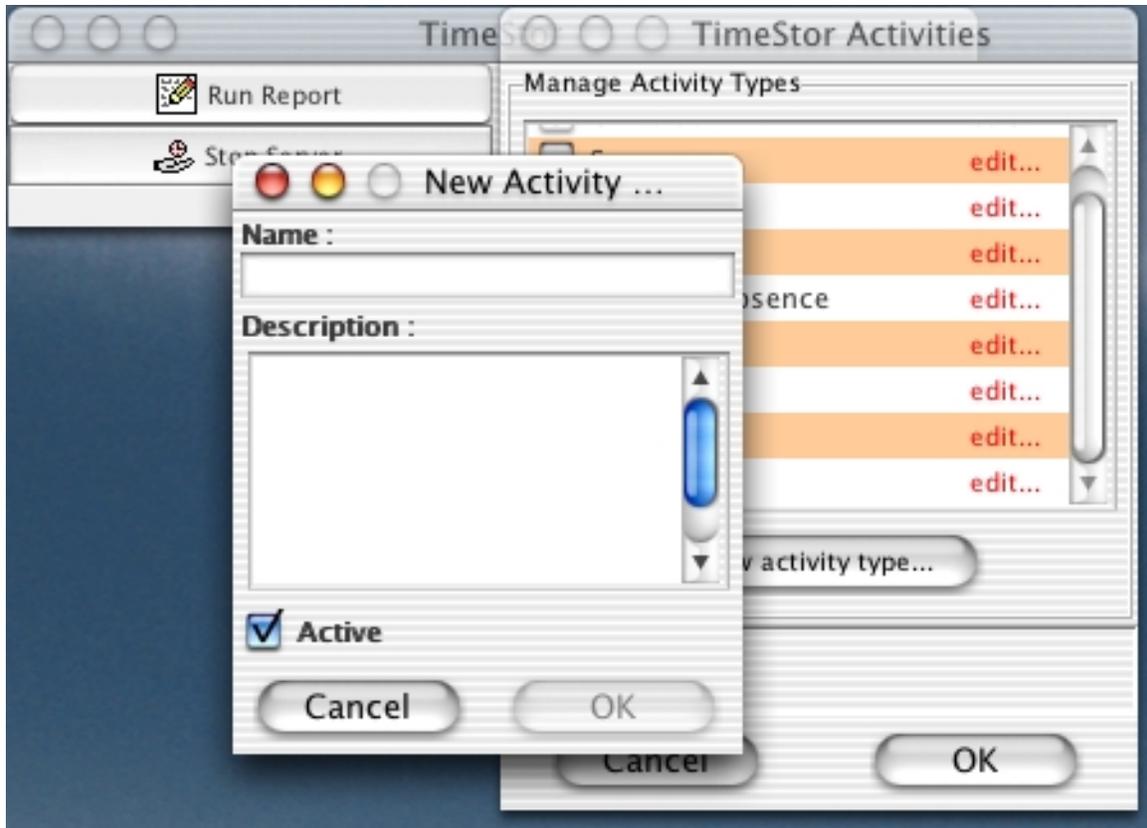
There are two things you should do as you begin using the TimeStor application. First, you will want to create one or more user accounts. Second, you will want to create one or more activity types.

A user account is simply a login name and password for a TimeBox user who will be submitted his or her time periodically. The account will represent a single worker—perhaps a co-worker, contractor, or employee—who will be working on the same projects as you, and whose recorded times you will need to combine with other similar workers.

An activity type is simply a distinct activity or project for which you must track time. It is up to you how to organize your projects. Some users prefer to organize activity types according to clients. Others use a more granular approach.

### Creating and managing activity types

Activity types are created and managed in the activity types dialog. To access this dialog, go to the *Time* menu and select *Activities*. To add a new client or project, just click the *new activity type* button. A dialog will appear, asking you for the name of the new client or project. Enter a name; this will be the name that the TimeStor application, as well as the users' TimeBox instances, use to refer to your activity. Optionally enter a description of the activity. Click *OK*.



Bring up the TimeStor Activities window, then click the *new activity type...* button to create a new activity type.

You cannot change the name that you give to an activity once you create it. Internally, TimeStor will use this name to track activities of this type. However, you can assign a *nickname* to the activity. In doing so, you are telling TimeStor to present the activity's nickname, rather than original name, to you. To do this, click the *edit...* link next to the activity to which you would like to apply a nickname. A small window appears. In the field provided, enter a nickname. You can also edit the description from this window. To accept the changes, click *OK*. To cancel the changes, click *Cancel*.

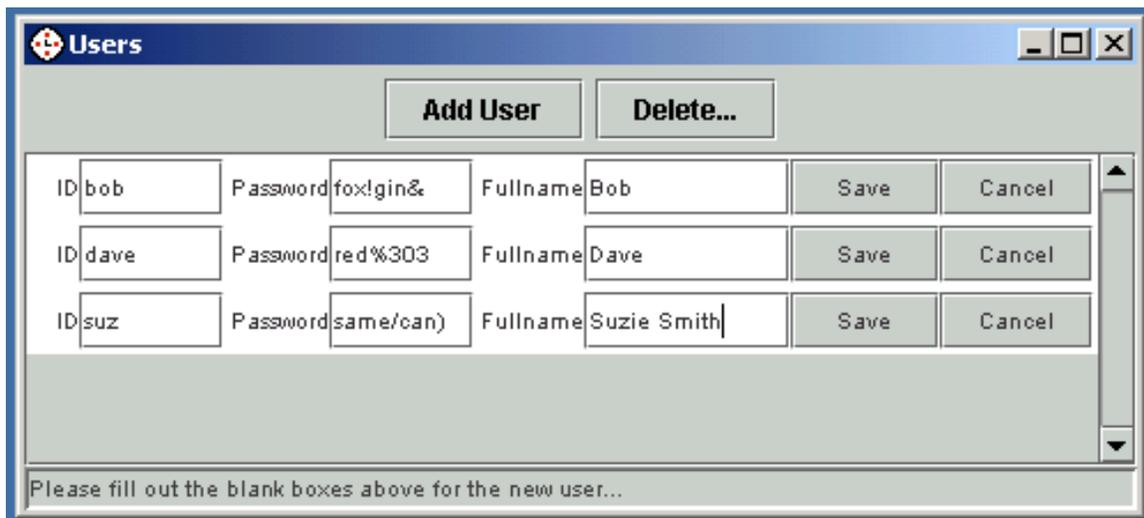
You may decide that you will no longer need to track a certain type of activity. You un-activate an activity in the *Settings* window simply by un-checking the box next to the name of the activity that you want to make inactive. Re-clicking the box will re-activate the activity.

Once you've set up the activities that you will be performing, your users can begin submitting their time spent on one or more of the activities. Note that the activity name the user has entered in TimeBox must exactly match the name that you have entered for the same activity type in TimeStor. To help avoid errors, you can export your activity type settings into a file. Just go to the *Time* menu and select *Export Settings....* A dialog will appear asking you where to save the file and what to name the file (you can create any name here.) Once you've exported the file,

send it to your users via email, disk, etc, and they will be able to import it into their TimeBox instances. This will ensure that everyone on the project will be using the same names for the same projects. (It is worth noting here that, should a user decide to manually type in his/her activity names, and it is discovered that s/he accidentally entered the wrong name for a project, all is not lost. In his/her TimeBox submit time settings (*Remote -> Submit -> Settings...*), s/he can select the "Use data mappings" button, and then change the name of any activity type as it will appear to TimeStor when submitted. In effect, the user is saying "I know I entered *Abc* as the name of this activity, but submit it to TimeStor as *Xyz*.")

### Managing users

Before TimeStor will be of much value, user accounts must be created. Essentially, the point of TimeStor is to track the time spent by multiple workers, so this makes sense. Each worker will have his/her own account. And each account consists of a username and password, to help ensure that only the user can submit time under his/her name.



ID	Password	Fullname	Save	Cancel
bob	fox!gin&	Bob	Save	Cancel
dave	red%303	Dave	Save	Cancel
suz	same/can)	Suzie Smith	Save	Cancel

Please fill out the blank boxes above for the new user...

Click the *Add User* button to receive a new row, representing a new user, to fill out. Once you've entered the user's ID, Password, and Full name, click the *Save* button for that row to save the new user.

### Creating an account

To create an account, go to the *Time* menu and select *Users...*. The *Users* panel will open. Click the *Add User* button. At this time, a new row will be created below, with three entry fields. In the *ID* field, enter the account's username. This should be a simple, easy-to-remember name, and should not contain any spaces. Examples might be

- andy
- dpt
- bobsmith

Enter the password for this account in the *Password* field. Similar to the username, the password should not contain any spaces, and should be easy to

remember. It should not, however, be easy to guess. Good passwords are generally six to ten characters in length. Words commonly found in the dictionary generally make poor passwords, as does a password that is similar to the username. Examples of good password are

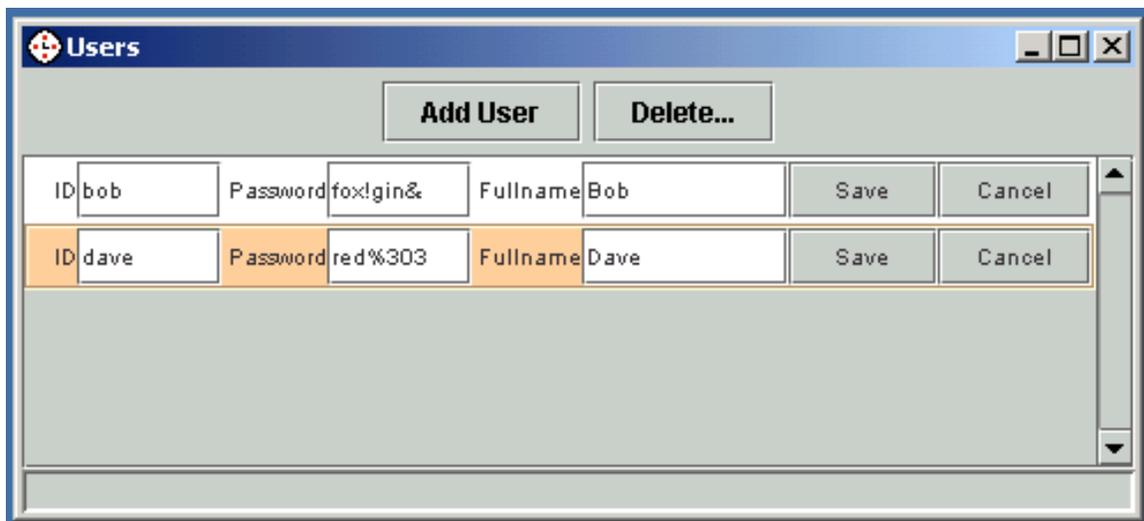
- blue3toe
- c@t&dog
- pl@y-b@\$

In the *Fullname* field, you can enter the actual name of the user. Once finished, click the *Save* button.

#### *Editing an existing account*

You can edit an account once it has been created. Simply open the Users panel as described above, and edit any fields for any accounts that need to be edited. You'll notice that, once you begin editing an account, the two buttons on the right-hand side of that account's row become enabled. If you make a mistake while editing or just want to cancel your edits, click the *Cancel* button in that row. Otherwise, to save your edits, click the *Save* button in that row.

To delete an existing account, open the Users panel as described above, and click on a label (not a textfield) in the account that you want to edit. The row containing that account will become highlighted. Click the *Delete* button at the top of the screen, and answer *Yes* to the resulting dialog. The highlighted row will be removed, and the user account will be deleted.



To delete a user account, click on the row representing the user to be deleted to highlight it (in this picture, the account for *dave* has been highlighted.) Clicking the *Delete* button will delete the highlighted row, effectively removing all of that user's data.

#### *How workers use these accounts*

Once a TimeStor account is created for a worker, the username and password should be communicated to that worker. The worker will then enter that information in the Submit Time Settings panel in their TimeBox instance. S/he

can submit his/her time to TimeStor in one of two ways (see the TimeBox manual, or the TimeBox Help dialog, for more information):

- Over the Internet, to TimeStor's built-in Web server.
- By exporting his/her time to a file, and then sending that file to the TimeStor administrator via disk, email, etc.

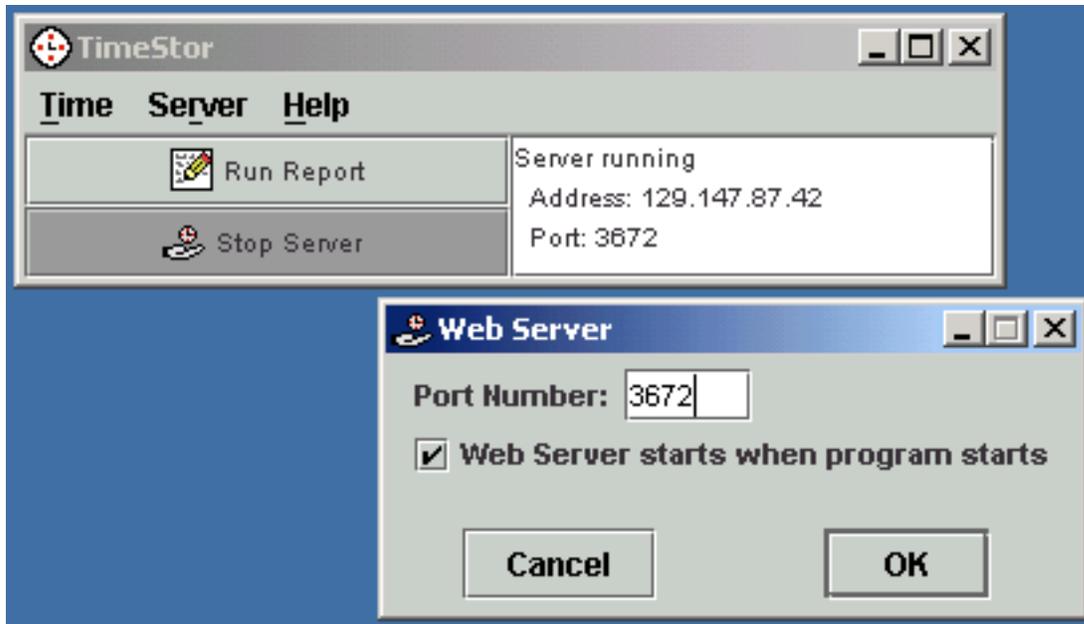
If the second option, exporting to a file, is used, the administrator need only import the file sent by the worker. TimeStor will take care of the rest. To do this, save the file that the worker sends you to a convenient location on your disk. Go to the *Time* menu and select *Import User Time File...* In the file dialog that appears, navigate to the file and click "OK". TimeStor will load the worker's times as if the worker had submitted them over the Internet.

## Server Settings

This program contains a Web server that allows workers to submit the time they track with TimeBox easily, over the Internet. In order to use this service, however, the computer on which this TimeStor instance is installed must have a dedicated Internet connection. Having a static IP address (check with your Internet Service Provider (ISP) if you don't know what this means) is helpful but not absolutely required. Also, some equipment provided by ISPs contain firewalls which might block access (again, check with your ISP regarding this.) Finally, if your computer is running on a corporate network, there is a chance that you will be able to access your TimeBox server via a computer that is also within your company's network, but not from an outside computer. Check with your company's IT staff regarding this issue.

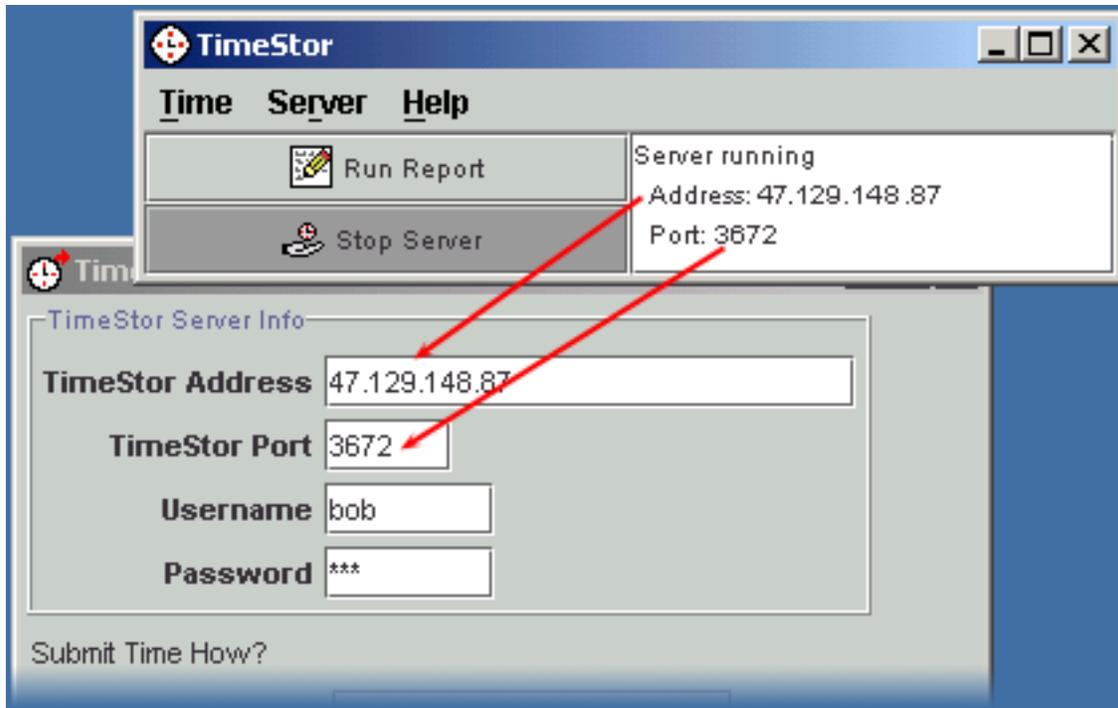
Provided your Internet access passes the tests above, you can configure and launch TimeStor's server by accessing the *Server* menu and selecting *Server Settings*.... A simple dialog will appear. In the *Port Number* field, you can change the server's port number in this window. This feature will be used primarily by advanced users. Suffice it to say that if you don't know what a port number refers to, you can safely leave it as its default value. However, if you receive an error when you try to start the server, indicating that the port is already in use, you can change the port number to another arbitrary number (you should keep it above 1000.) Also, in this window, you can use the provided checkbox to indicate whether the server should start automatically every time you launch the TimeStor application. That's all you need to do to configure the server!

Starting the server for the first time is even easier: just click the *Start Server* button on the main window. You'll notice that the screen to the right of the button displays your server status. While the server is running, it will display the Web address (URL) that workers can enter into their *Submit Settings* window in order to submit their time over the Internet. To shut the server down after it's been started, just click the button again.



Use the Server Settings window to modify the port number, if necessary. (Note that the port number under which the server is running will be reported in TimeStor's main window. This number, along with the server's Address—which is determined by your computer and Internet connection, not by you—will be required by your TimeBox users.) Also in the Server Settings window, toggle whether or not you always want web server to start whenever the TimeStor application starts.

Once you've started the server, you will see a message in the main window indicating that the server is running. It will also indicate the IP address of your server (which is set by your computer and internet connection, not by you) as well as your port number (which will have been set by you in the previous step.) You should communicate these numbers to all of your workers using TimeBox. They can enter these numbers in the Time Submission screen of the TimeBox instances.



The “Address” and “Port” numbers from the TimeStor window should be entered into the respective fields in the TimeBox *Time Submission* window.

### Server logs

The server also provides three log files:

1. *Messages*: shows informative messages about the state of the server.
2. *Warnings*: warns the user about potential problems that may have occurred.
3. *Errors*: informs the user about server errors that have occurred.

To view these files simply select Remote Server Log, then select from the three server log options provided. A log window will appear. To the average user, these log windows may not display much of interest, but those familiar with Web server activity may find them helpful.

### Can users who don't use TimeBox submit their time?

Some of the workers on your projects might not use TimeBox. Those users can still submit their time to TimeStor. They can use any standard Web browser, accessing the following URL:

`http://<TimeStor Address>:<TimeStor Port>`

where *TimeStor Address* and *TimeStor Port* are values shown in the main TimeStor window. (For example, if your TimeStor instance is the one shown in the last image, the user would enter `http://129.147.87.42:3672` ) At that URL, the user indicates a date, and enters his/her times for that particular date.

## How to Run Reports

Of course, keeping track of workers' time is only half of the battle. What good is storing data if you can't turn it into useful information? That's why TimeStor allows you to run custom reports and save them or print them in a variety of formats.

To create a report, first click on the *Run Report* button on the main screen. A window will appear, presenting you with your setting options. There are three types of information along which you can customize the report, represented by the tabs at the top of the window.

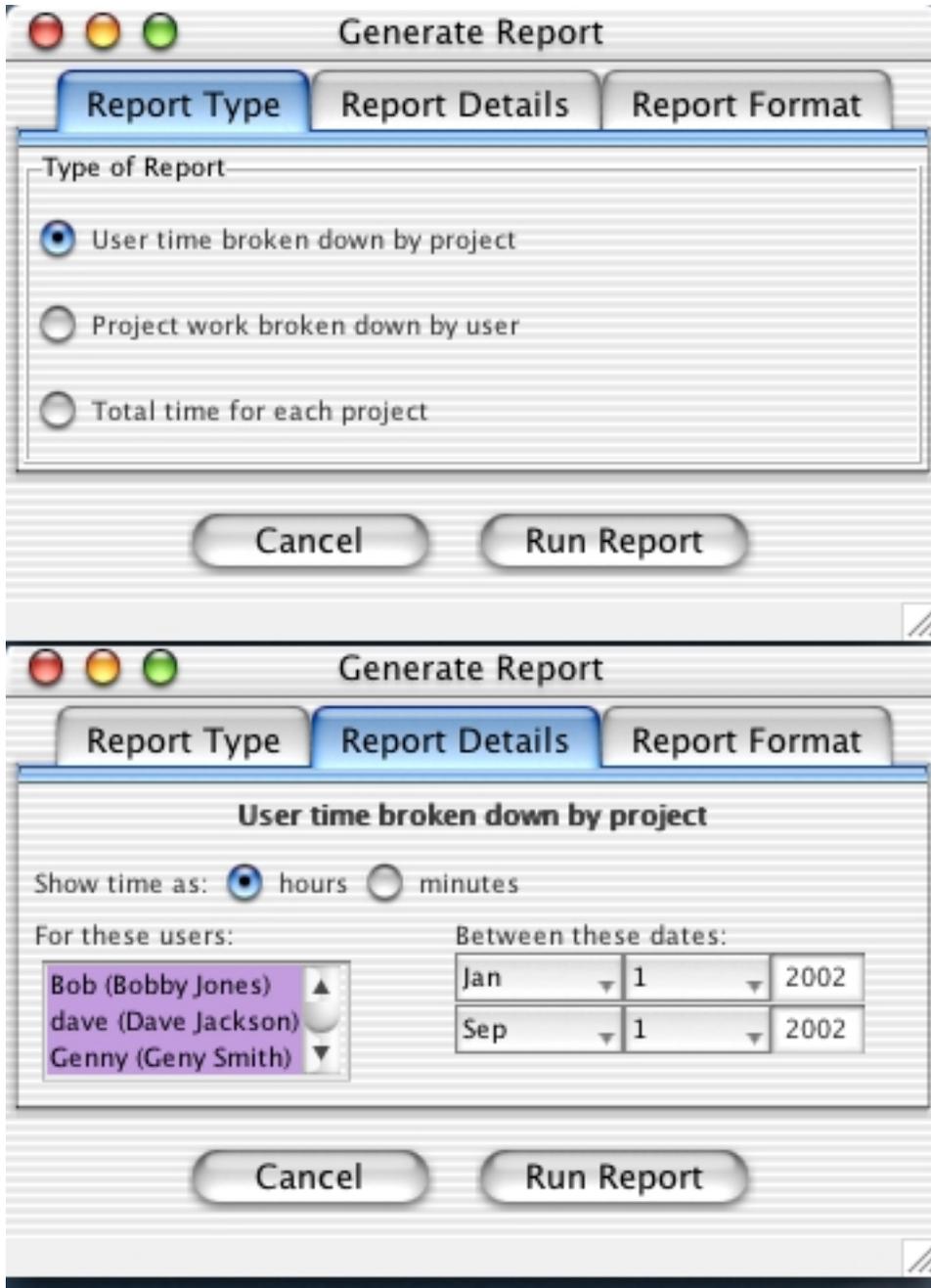
### Report type

Use the controls in the *Report Type* tab to set what type of report you want to run. TimeStor gives you the following type of reports:

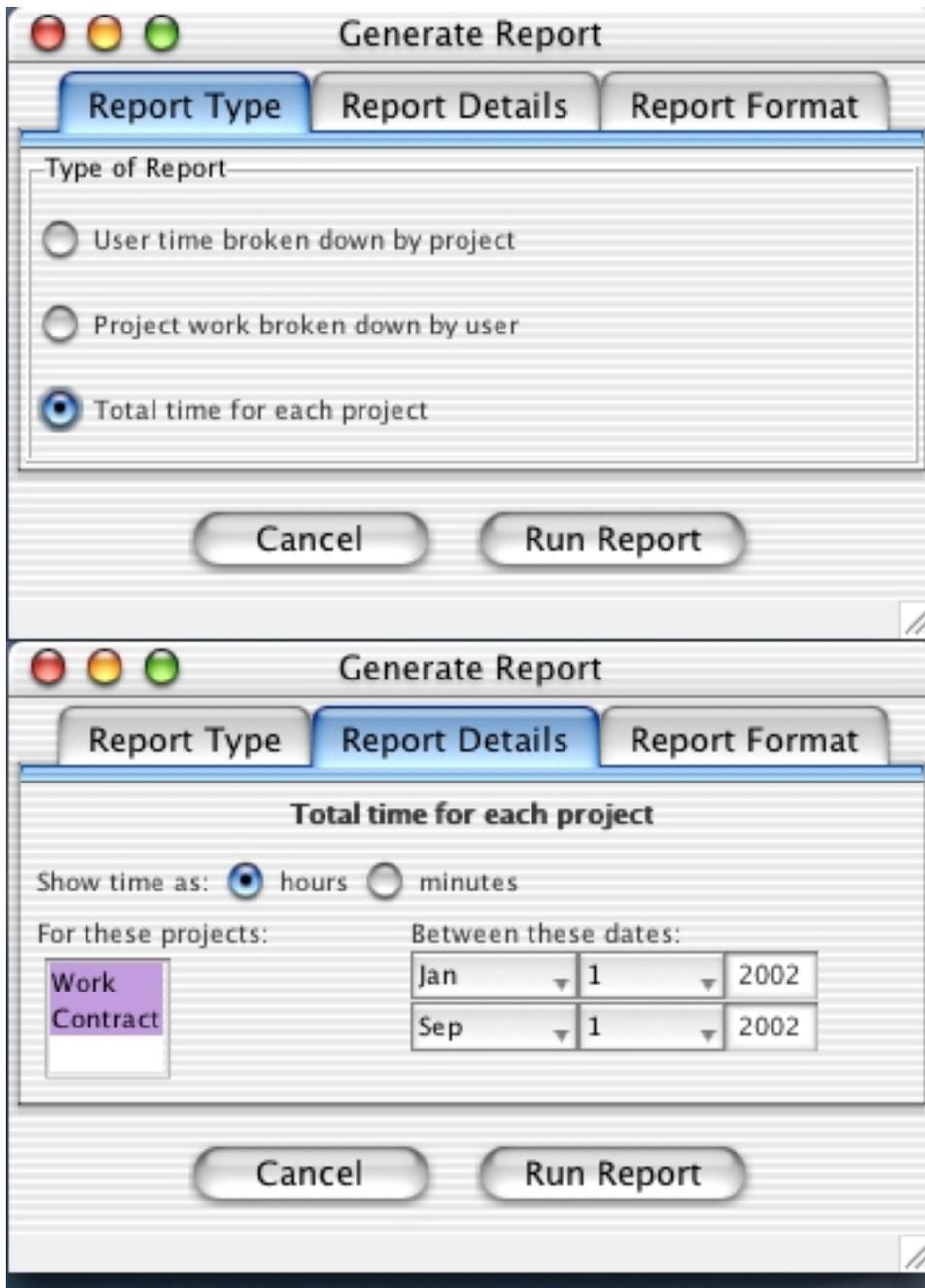
- *User time broken down by project:* This report will list out all of the users for which time is being tracked. For each user listed, the number of hours or percentage of time spent on each project will be given.
- *Project work broken down by user:* This report is the inverse of the *User time* report. It will list out all of the projects for which time is being tracked. For each project listed, the number of hours or percentage of time spent per worker will be given.
- *Total time for each project:* This report simply lists each project being tracked, and the total amount of time spent per project.

### Details

Use the controls in the *Details* tab to set the scope of the data that is presented. First, indicate whether you want time presented as minutes (for example, 120) or hours (for example, 2.) You can also limit the projects reported upon by using the *Show user breakdown for projects* list. Just select the projects that you want included in the report; leave those de-selected that you want excluded. Finally, you can limit the time scope of the reports by using the *Between these dates* pulldown menus; in the first menu, set the earliest date that should appear in the report; in the second, set the latest date that should appear.



This pair of screen shots and the following pair demonstrate that as the user selects a different Type of Report, the Report Details panel will change accordingly. The pair above shows the *User time broken down by project* report type and the corresponding Report Details panel.



This pair of screen shots shows the *Total time for each project* report type, and its associated Report Details screen.

### Format

Use the controls in the *Format* tab to set the presentation of the data. TimeStor can present data in four different ways:

- *Pie-chart*: Display a color pie-chart report that is ideal for comparison purposes, or showing percentages.
- *Bar graph*: Display a color bar graph that is ideal for showing absolute amounts.

- **Spreadsheet:** Display the results in an easy-to-read spreadsheet format. This format typically displays main categories (e.g. "users") in the first column, and then creates one additional column for each element in the subcategory (e.g. "projects").

A sample output might look like this:

Numbers shown indicate time worked in hours.			
	User A	User B	User C
Project 1	145	342	321
Project 2	402	350	374

- **Importable:** Display the results in a format that is easy for external applications, such as databases or spreadsheet packages, to import. This format typically displays main categories in the first column, subcategories in the second column, and values in the third column.

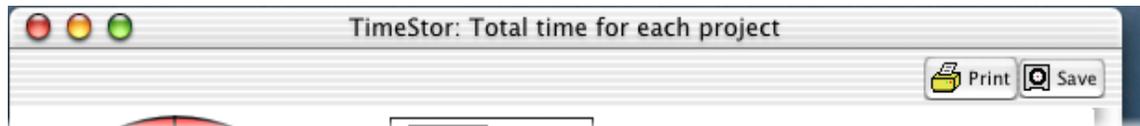
A sample output might look like this:

Numbers shown indicate time worked in hours.		
Project 1	User A	145
Project 1	User B	342
Project 1	User C	321
Project 2	User A	402
Project 2	User B	350
Project 2	User C	374

Once you are satisfied with your settings, click *Run Report*. A window will appear displaying your report in the format that you chose.

## Printing and saving

Depending on what format you chose, you can output your report in different ways. If you chose either a *Pie-chart* format or *Bar graph* format, you can print your file to any printer you are connected to, or save it to disk. To print, just click the *Print* button at the top of the results window, and follow your computer's resulting print dialog. To save the results to disk, just click the *Save* button at the top of the results window. Select a location, as well as an image file format from the provide list, in the file dialog that appears.



Use the buttons at the top, right-hand side of the chart view to print or save the chart.

If you chose either a *Spreadsheet* format or *Importable* format, you can save your results to disk as a tab-delimited file. Just click the *Save as tab-delimited* button at the top of the *results* window and select a location in the file dialog that appears.



Use the buttons at the top, right-hand side of the spreadsheet view to save the data in tab-delimited format.

## APPENDICES

### Appendix A – What is a Port Number?

Most home computer users are accustomed to browsing the Internet with their home computers. In this sense, the home computer is a client; it contacts a computer called a server (which contains information that the user wishes to access), requests the information, and receives it.

Nearly all Internet-capable home computers are also capable of acting as servers as well. For a computer to act as a server, it must first (of course) be connected to the Internet. It must also have a constant address that other clients can use to access it. Finally, it must have special server software running on it. This job of this software is to "listen" for clients that are contacting the server, and send back the requested information.

Many servers run multiple types of this sort of software at the same time. For example, a server might be running Web server software in order to serve out Web pages. It might also be running email server software, FTP server software, telnet server software, database server software, or software for any other type of server. For this reason, a simple Internet address is not enough. If I am trying to access the machine called `www.somecompany.com`, I need to further specify whether I am trying to access the machine's Web server, its FTP server, etc.

That's where the concepts of ports come in. Ports can be thought of as internal addresses that route requests from clients to the appropriate software. They are not physical connections, but rather numbers that correspond to server software running on the machine. For example, most Web servers run on port # 80. Web browsers such as Netscape Navigator know this, and therefore when you request a URL through Netscape, behind the scenes it adds the port number 80 to the request. Have you ever had to request a URL that looks like this:

`http://www.somename.com:8080`? If so, you were requesting a Web server running on `www.somename.com` under port # 8080.

The TimeBox software contains a mini-Web server designed exclusively for allowing remote access to the TimeBox instance running on your personal computer. When installed, the software's server defaults to a fairly uncommon port number, which is unlikely to interfere with any server software that might happen to be running on your computer. There is always a chance, however, of such interference, so the software allows you to change the port number that the software uses. The rest of this help file tells you how to use the port number to access the software remotely, but the basic idea is to use a Web browser and type in `http://your-computer's-web-address:port-number`.