



Favorin Time Server

Manual

Version 1.1

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1 Introduction

This documentation will guide you to install and use Favorin Time Server. For Favorin Time client operations, please refer to client documentation.

New users should read at least the chapter 2: Installation and quick start instructions.

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2 Installation and quick start instructions

2.1 Requirements

- Linux®, any Unix or Microsoft® Windows® NT / 2000 / XP.
 - Java™ 1.4 or newer version (either SDK or JRE).
 - 20 to 100 MB disk space depending on the number of users.
 - 20 to 60 MB memory depending on the number of users.
 - Recommended minimum processor Pentium 500 Mhz
- Java 1.4 may be downloaded freely from <http://www.javasoft.com>.

2.2 Upgrading from a previous version

If you are using a previous version of Favorin Time, you need to upgrade all you Favorin Time clients to a minimum version of 1.1.

2.3 Installation instructions for Unix systems

1. Download Favorin Time Server installation package called `favorintime-server-1.1.tar.gz` to a temporary directory.
2. From a shell prompt, type:

```
tar -xvzf favorintime-server-1.1.tar.gz
```

This will extract the installation package to `favorintime-server-1.1` directory.
3. Enter the installation directory by typing:

```
cd favorintime-server-1.1
```
4. If you wish to change default installation location, open `makefile` in a editor and edit `BININSTALL` and `DATAINSTALL` variables.

Default installation locations are:

```
/usr/local/favorintime
```

 for program files.

```
/var/favorintime
```

 for data files.
5. Make sure you are root and type:

```
make install
```

This will install Favorin Time Server to the locations specified in the `makefile`. SysV init script is installed to `/etc/rc.d/init.d`
6. If you have changed default data installation directory or Java 1.4 is not found in your path, you will need to edit the server configuration.

Go to the server bin directory by typing: (default installation directory is used in the example):

```
cd /usr/local/favorintime/bin
```

Edit `config.sh` file and set:

```
SERVERDATA = Server data directory (default installation directory is
```

already set).

JAVAPATH = Path to java executable (e.g. /usr/java/j2sdk1.4.0/bin/). The path must end with a slash.

2.3.1 Unix directory structure

Upon installation following directory structure is created.

Server Home (default /usr/local/favorintime):

README, INSTALL and LICENSE files

|----- bin directory (executable files)

|----- doc directory (documentation files)

|----- lib directory (library files)

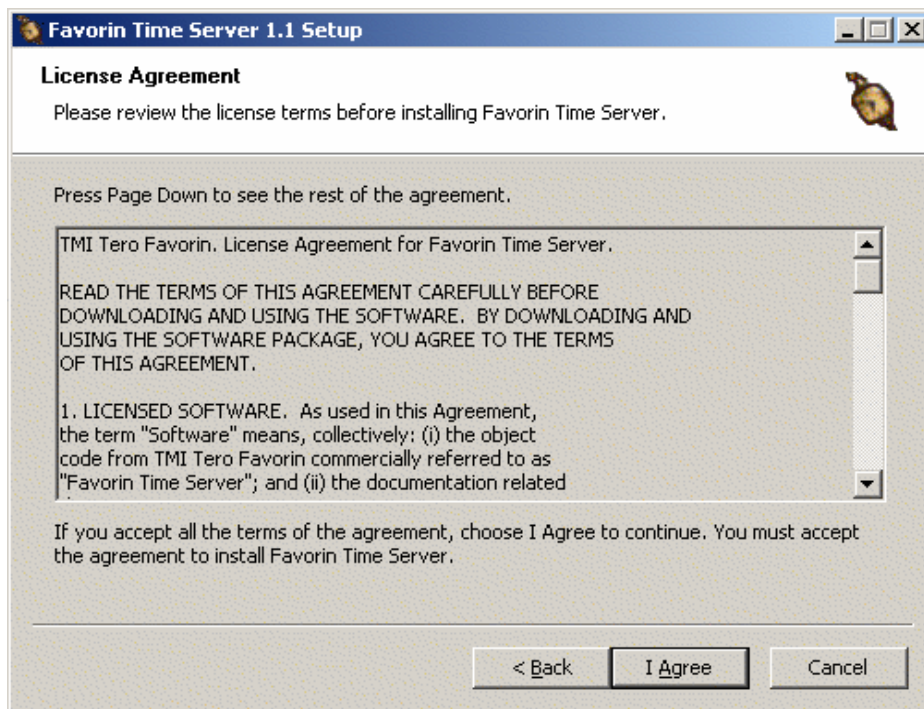
Data files directory (default /var/favorintime) contains calendar data files

2.4 Installation instructions for Windows systems

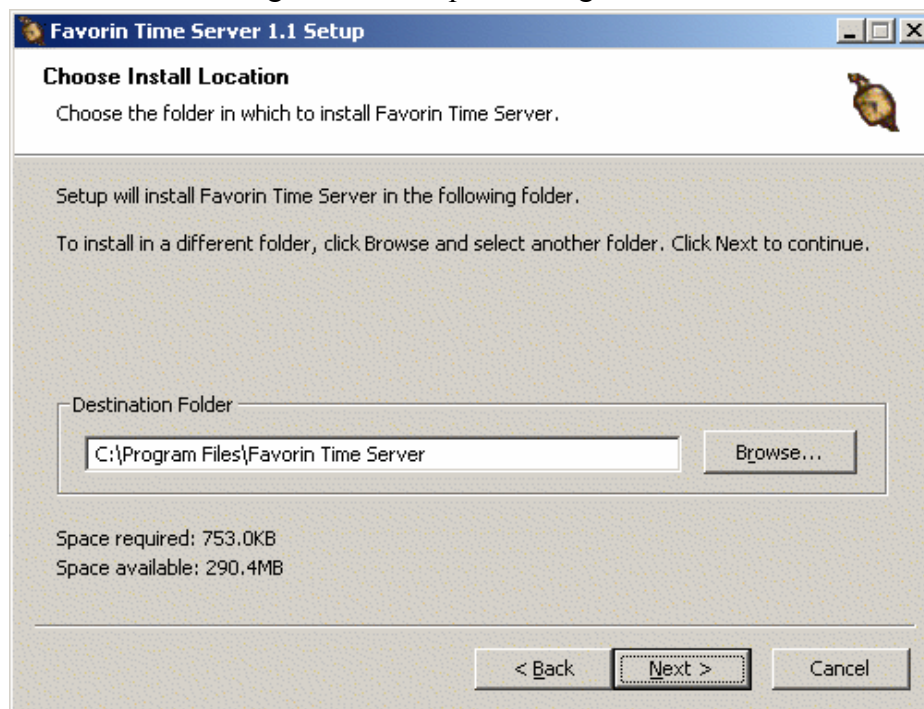
1. Download Favorin Time Server installation package called `favorintime-server-1.1.exe` to a temporary directory.
2. Execute the downloaded file. The installation wizard will guide you through the installation process.



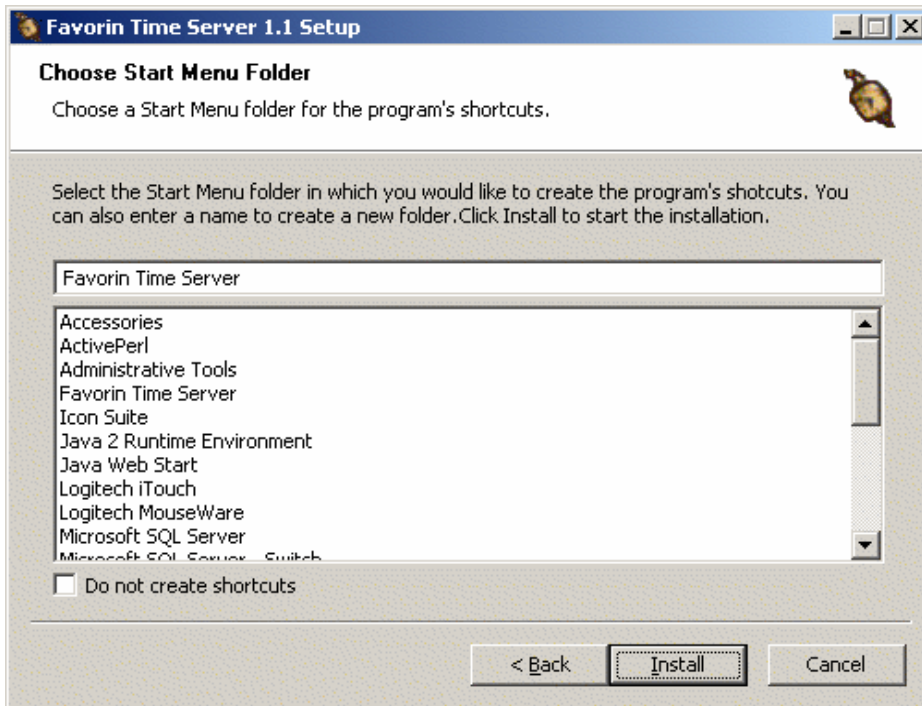
3. Press next to continue



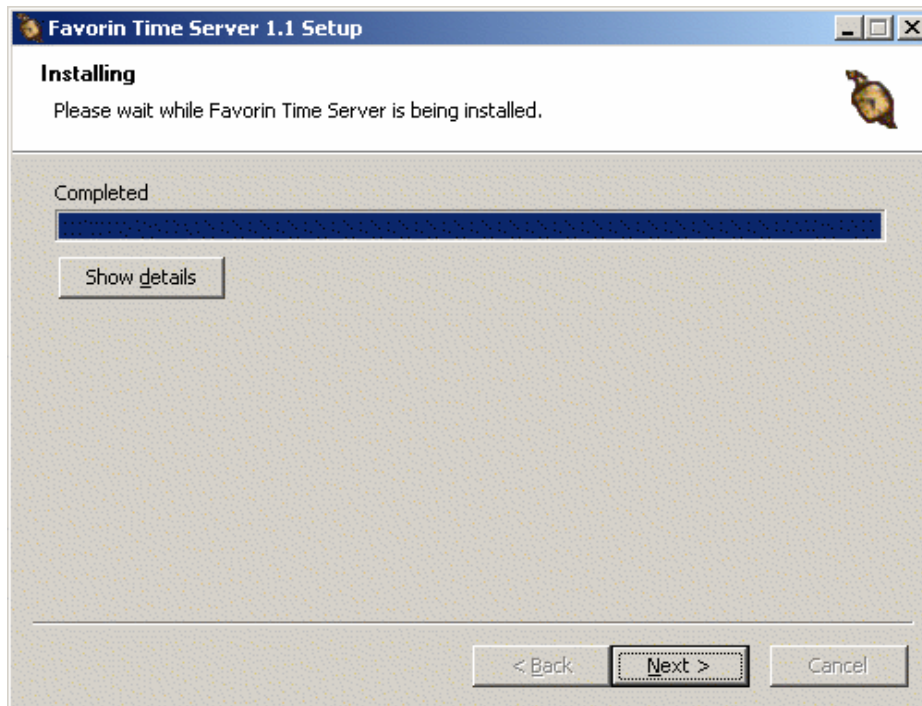
4. Review the license agreement and press "I Agree" to continue.

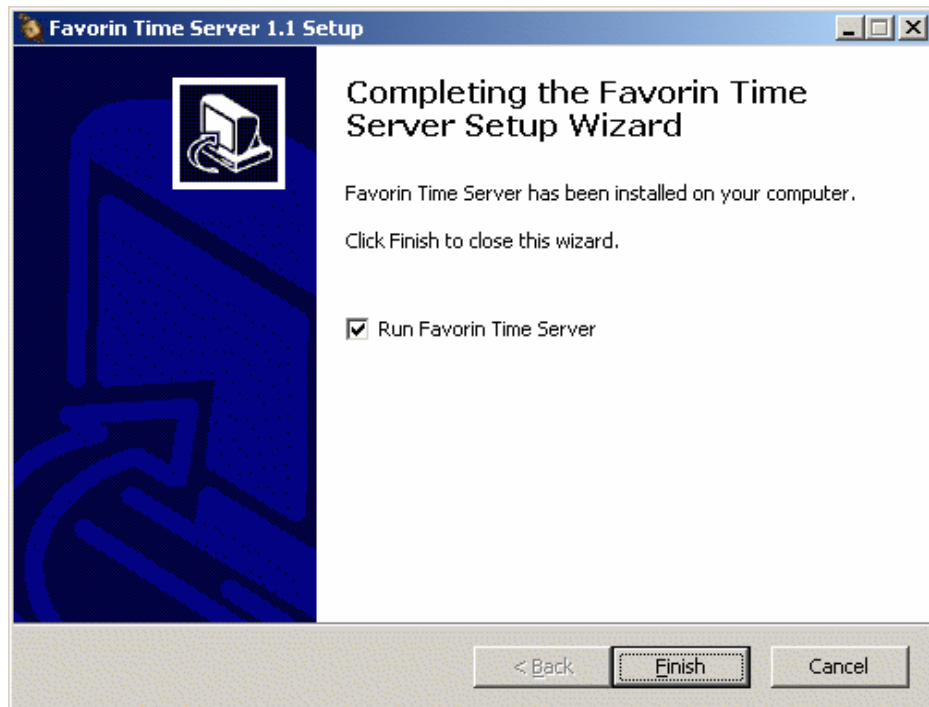


5. Choose installation location.



6. Select the Start Menu folder. Press Install to start the installation.





7. If Java 1.4 is not found in your system, you may still install the Favorin Time Server, but you will need to edit server configuration files manually.

Go to the server bin directory, type (if default installation directory is used):

```
cd c:\favorintime\bin
```

Edit `config.bat` file and set:

JAVAPATH = Path to Java executable (e.g. `C:\jdk1.4\bin\`). The path must end with a slash.

```
cd c:\favorintime\conf
```

Edit `wrapper.conf` file and set:

`wrapper.java.command=Path to Java executable (e.g. C:\jdk1.4\bin\).`

2.4.1 Windows directory structure

Upon installation following directory structure is created.

Server Home (e.g. `C:\favorintime`):

README and LICENSE files

|----- bin directory (executable files)

|----- data directory (calendar data files, server configuration)

|----- doc directory (documentation files)

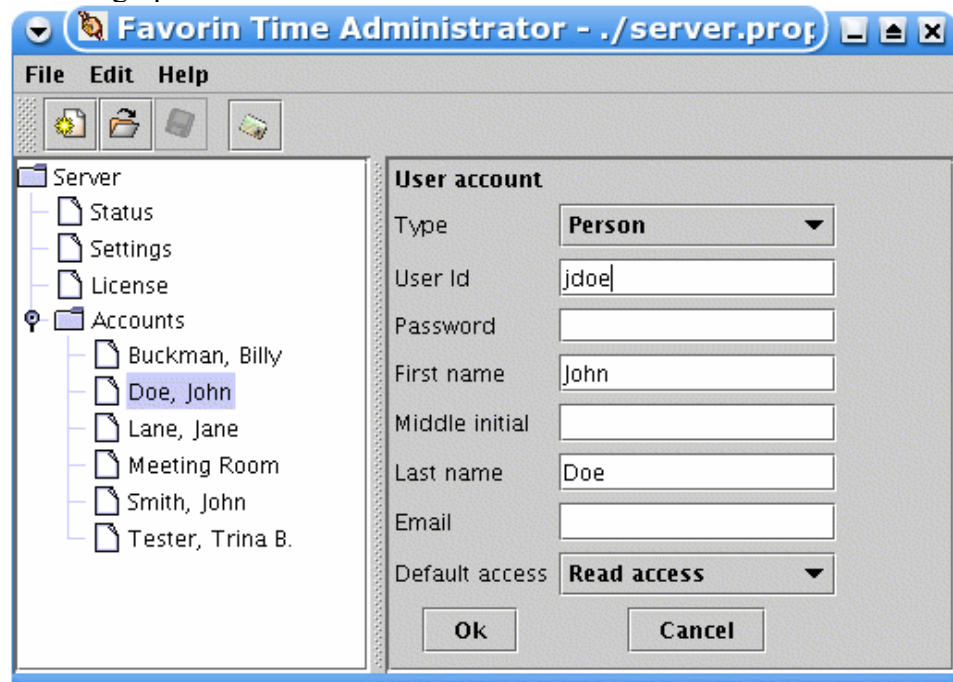
|----- lib directory (library files)

2.5 Quick start instructions

2.5.1 Create user accounts

Before starting the server, you must create one or more user accounts. Procedure

outlined below requires that the server has graphical user interface. Otherwise, please refer to Command Line Interface documentation on how to create accounts without graphical user interface.



1. Start the Administration interface by running `admin.sh` (in Unix) or `admin.bat` (in Windows) from Server bin directory.
2. Select Edit ► New Account to create a new user account.
3. Enter user id, password, first name and last name to create a new person account and press Ok. Remember the user id and password you have created.
4. Changes to accounts are store automatically. If you have changed any server settings, select File ► Save to store the changes.
5. Exit the administration interface by selecting File ► Exit.

For more information about the Administrator interface see 4.4 Using graphical Administration interface.

2.5.2 Start the server

NOTE: The server will not start without at least one user account!

1. Execute `server.sh` (in Unix) or `server.bat` (in Windows) to start the server (see 4.6 Starting the server automatically for running the server as a service). The startup script will start the server in the background.
2. You may check the server status from the Administrator interface status item.
3. In case of any errors on server startup, see 5.2 Troubleshooting.

2.5.3 Connect to the server from the client

1. Start Favorin Time client.

2. Open preferences dialog from Settings ▶ Configure Favorin Time ▶ Server.
3. Enter the user id and password for the user account you have created.
4. Press Ok to store the changes.
5. Select Calendar ▶ Synchronize to connect to the server. The connection icon in the lower right corner will indicate a successful connection.

2.6 Evaluation license

If you have not purchased a license for Favorin Time Server, an evaluation license will be created for you automatically when you start the server. The evaluation license is valid a period of 45 days, after which the server will shutdown. The evaluation license is limited to 10 users.

To purchase a license, please visit <http://www.favorin.com>.

3 Server features and concepts

3.1 Services for the clients

Favorin Time Server offers these services to the clients.

- Stores user's calendars
- Stores user's holidays and work times.
- Indexes the calendars
- Provides synchronization services to the clients
- Provides message delivery services for sending and receiving invitations
- Manages resource accounts
- Manages user rights to calendars

3.2 Server concepts

3.2.1 Person and resource accounts

There are two accounts types: person and resource accounts.

All users, who have a Favorin Time Client, should have person account. This account type is for interactive users.

Resource accounts relate to shared resources in the organization that are used in connection with meetings. Typical resources are for example, meeting rooms, video equipment, etc. Normally these resources are not handled interactively by any person. The server will automatically reserve the resource when an invitation includes the resource.

In other times resource accounts function as person accounts. Since they have a user id and password, you may manage the resource account from the client as it were a normal account.

Note that the server will not prevent overlapping resource reservations.

3.2.2 Automatic cleanup and maintenance

The server runs weekly cleanup and maintenance routines in order to maintain good performance. During the normal operations empty space will accumulate in the data file due to users adding and changing calendar entries. During weekly maintenance the data file will be compacted by removing empty space.

Weekly maintenance also removes obsolete entries from the data file and recreates the indexes for top performance.

The server is unavailable during the maintenance and will not serve any requests.

3.2.3 Fail-safe operations

The server has built-in fail-safe routines that will automatically shutdown the server if data loss is possible due to error situation. Such situations include, for example, running out of disk space or main memory.

3.2.4 Server locks

To prevent another server process from accessing same data files, the server creates a lock file to prevent another server process from starting. The server and Administration interfaces also lock the accounts file when necessary to prevent data mismatch.

3.3 Server files

All server files are located in data directory that was created during the install procedure. All files in same data set have same file name (by default “calendar”, unless changed in server settings). The file suffix describes the type of data stored to file..

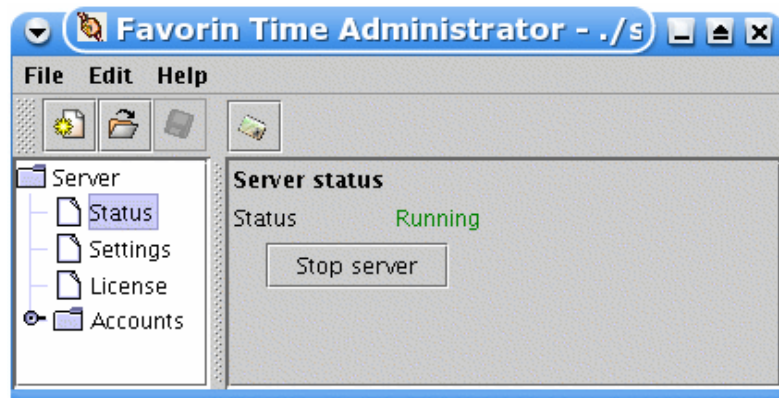
Server files:

- `calendar.xml` - Calendar data
- `calendar.acc` - User accounts
- `calendar.msg` - User messages
- `calendar.log` - Server messages log (errors and warnings)
- `calendar.runlock` - Server lock file
- `calendar.accllock` - Accounts lock file
- `server.properties` - Server properties
- `license.lic` - License file

4 Server administration

4.1 Starting and stopping the server

The server is started by running `server.sh` (in Unix) or `server.bat` (in Windows) script from the bin directory. The startup script will start the server in the background. In production environment it is recommended to run the server as a service. See 4.6 Starting the server automatically for instructions.



The server is stopped by pressing “Stop server” button in graphical Administrator interface status pane or by issuing stop command with command line interface. When the server receives a stop request, it will first wait for all user actions to finish, before initiating the shutdown procedure.

4.2 Server configuration

Server configuration variables are located in `config.sh` (in Unix) or `config.bat` (in Windows) files in the server bin directory. Following parameters are used:

SERVERHOME

Path to server home directory (e.g. `C:\favorintime`). This setting is available in `config.bat` file only.

SERVERDATA

Path to server data files (e.g. `/var/favorintime`).

JAVAPATH

Path to Java 1.4 executable files (i.e. the directory where `java` is located, e.g. `/usr/java/j2sdk1.4.0/bin/`). You must add a final slash (or backslash in Windows) to the path name.

Additionally `server.sh` and `server.bat` files have a parameter for arguments to Java runtime environment.

JAVAARGS

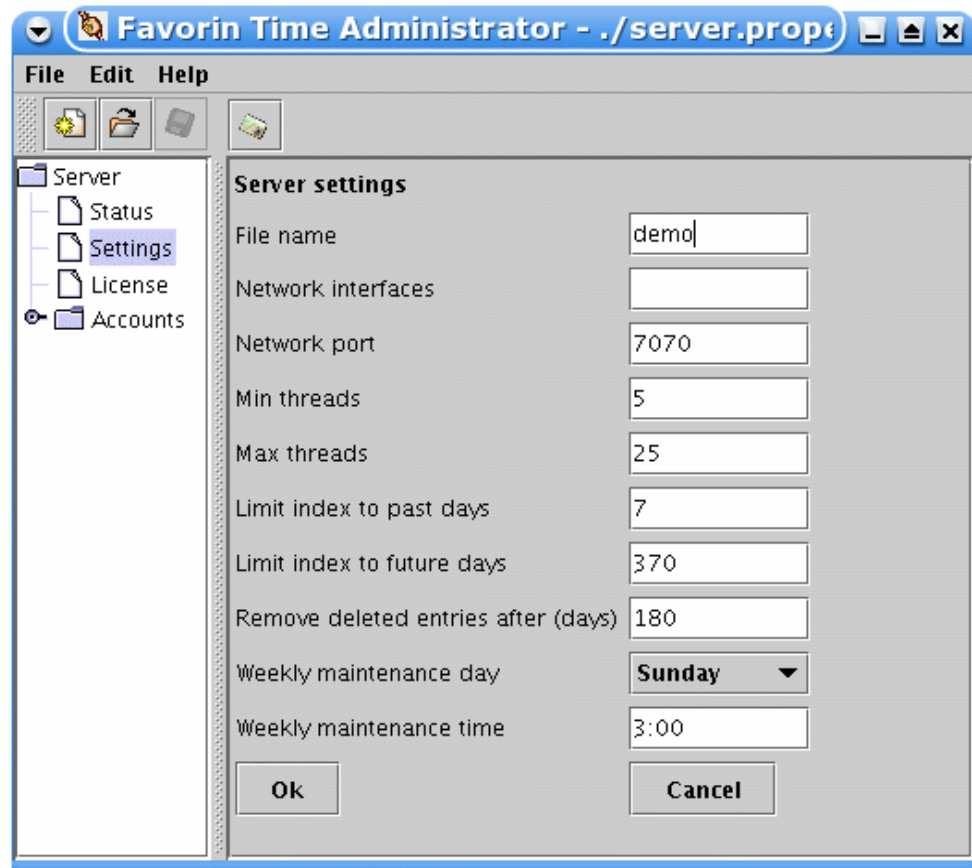
Arguments to Java runtime environment. **Any changes to these arguments take effect after the server restart.** Examples:

`-server` Select the Java HotSpot Server VM. This option increases the server performance, but uses more memory.

-Xmx??m Select the maximum amount of memory used the by server. Increase this number if the server starts running out of the memory. The default is 64 MB. Example: -Xmx128m will increase maximum memory to 128 MB.

4.3 Server settings

Server settings are stored to `server.properties` file. They can be changed via the administration interface or manually with a file editor. Properties cannot be changed from the command line interface (use a file editor instead).



All changes to `server.properties` file take effect after the server reboot.

Following server settings are available. All properties names are in lowercase in the `server.properties` file.

`filename`

Calendar file name. All files in the same data set will be named according to this setting. The default is “calendar”.

`interface`

List of network interface ip addresses or dns names separated by a comma. The server will listen to given interfaces. If the field is left empty, the server will listen to all local interfaces. By default the field is empty.

`port`

Network port the server listens to. The default is 7070.

`minthreads`

Minimum number of threads the server will start in order to serve incoming requests. The default is 5.

`maxthreads`

Maximum number of threads the server will use in order to server incoming requests. If all threads are in use and a new request is received by the server, it will be put to hold until a thread is free. The default is 25.

`indexstart`

Number of past days to include in the event index. The server will index events for the Meeting Planner starting from current day minus `indexstart` days. Increasing this number will increase the server memory use. The default is 7.

Example: `indexstart` is set to 7 days. The server will index the event if it ends later than 7 days before the current date. Therefore, users will not see events that end earlier than a week ago in the Meeting Planner.

`indexend`

Number of days in future to include in the event index. The server will index events for the Meeting Planner up to current day plus `indexend` days. Increasing this number will increase the server memory use. The default is 370.

Example: `indexend` is set to 370 days. The server will index the event if it starts earlier than 370 days from the current date. Therefore, users will not see events start start over 370 days (a bit over a year) from now in the Meeting Planner.

`removetime`

Number of days deleted entries are kept in the server. The server will keep the entries user has deleted in server for synchronization purposes. Increasing this number will increase the server memory and disk space use. The default is 180.

Example: `removetime` is set to 180 days. Then a users deletes an entry it will be kept in server for 180 days. If after this time the user synchronizes from a client that has not been synchronized for 180 days the client will reload all data from the server instead of synchronization.

`maintenanceday`

Day of week when maintenance routine is run (1=Sunday, 2=Monday, ..., 7=Saturday). This setting is used in connection with the next one.

`maintenancetime`

Time of day to run the maintenance routine in hour:minute format. The day is defined in `maintenanceday` setting. Choose a day and time when there are no users on the server, because the server is unavailable during the maintenance.

4.4 Using graphical Administration interface

Graphical Administration interface is started by executing `admin.sh` (in Unix)

or `admin.bat` (in Windows) in `server bin` directory. You must run the Administration interface in the same computer as the server.

4.4.1 Menu commands

File ▶ New

Create new `server.properties` file.

File ▶ Open

Open existing `server.properties` file.

File ▶ Save

Save current `server.properties` file.

File ▶ Save As...

Save current `server.properties` file to another file.

File ▶ Exit

Exit the Administration interface.

Edit ▶ New Account

Create a new user account.

Help ▶ About

Display version information.

4.4.2 Working with the Administration interface

The tree menu in the left is used to select a view on the right side. Following views are available:



Status

Displays server status (running or stopped)

Running server may be stopped by pressing “Stop Server” button.

Settings

Manager `server.properties` file settings.

See 4.3 Server settings for details.

License

Displays information about the current license.

Accounts

List of accounts in the server.

See 4.4.3 User accounts for details.

4.4.3 User accounts

For a description about person and resource accounts, see 3.2.1 Person and resource accounts. Note that all changes to user accounts take effect immediately while the server is running.

Type

Account type. The display will change accordingly.

User id

User id for authentication.

Password

Password for authentication.

First name

User's first name. For person accounts only.

Middle initial

User's middle initial. For person accounts only.

Last name

User's last name. For person accounts only.

Name

Resource name. For resource accounts only.

Email

User's email address. For person accounts only.

Default access

Default access rights for other users. Please refer to Favorin Time Client documentation for description about user rights.

4.5 Using command line Administration interface

Command Line Administration interface is started by executing `command.sh` (in Unix) or `command.bat` (in Windows) in server bin directory. You must run the Command Line Administration interface in the same computer as the server.

Syntax:

```
command.[sh|bat] command [options]
```

Commands:

a	Add new account
c	Change existing account
l	List accounts

r	Remove account
status	Server status
stop	Stop server
v	View account

General options:

-h	Display usage
----	---------------

Options with add, change, remove and view commands:

-u id	User id (mandatory)
-------	---------------------

Options with add and change commands:

-e email	Email address
-f name	First name
-m init	Middle initial
-l name	Last name or resource name
-p pass	User password
-r right	Default right as NONE,READ (default),WRITE,FULL
-t type	Account type as PERSON (default),RESOURCE

Examples:**View server status**

```
command.sh status
```

Stop serve

```
command.sh stop
```

Add new person account:

```
command.sh a -u jdoe -p pass -f John -l Doe
```

Create new resource account:

```
command.sh a -u jdoe -p pass -l "Meeting room" -t
RESOURCE
```

Change account default user right to Full right:

```
command.sh c -u jdoe -r FULL
```

View account info:

```
command.sh v -u jdoe
```

For a description about person and resource accounts, see 3.2.1 Person and resource accounts. Note that all changes to user accounts take effect immediately while the server is running.

4.6 Starting the server automatically

4.6.1 Unix SysV init script

SysV init script `favorintime` is installed into `/etc/rc.d/init.d` upon installation. If you have installed server files to a non-default directory, you need to edit `favorintime` script `SERVERPATH` variable to point to the new server bin directory.

To start the service automatically on boot time, add a symbolic link to proper run level directories (e.g. `/etc/rc.d/rc3.d` and `/etc/rc.d/rc5.d`) by executing the following commands (the example will add Favorin Time Server to run level 3 boot sequence).

```
cd /etc/rc.d/rc3.d
```

```
ln -s ../init.d/favorintime S90favorintime
```

```
ln -s ../init.d/favorintime K90favorintime
```

Repeat the procedure for each necessary run level.

To start the service manually, type:

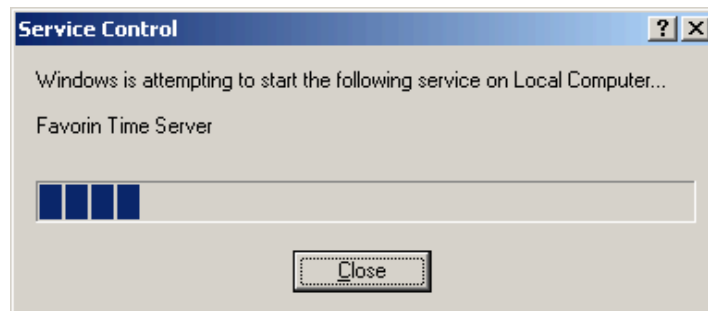
```
/etc/rc.d/init.d/favorintime start
```

The service is stopped with the command:

```
/etc/rc.d/init.d/favorintime start
```

4.6.2 Windows Service

Favorin Time Server is automatically installed as a Windows Service. The server will start automatically on system start up. You may start it manually from the Windows Control panel.



4.7 Installing licenses

Server licenses may be purchased from <http://www.favorin.com>. Purchased licenses will be delivered via email as an attachment. Simply copy the license file to the server data directory (e.g. `/var/favorintime`). Make sure that the new file is named `license.lic`. The new license will override any previous licenses (evaluation or other).

Note that the a license file may only be used on one server at a time. However, we advise you to make a backup copy of the license for archive purposes.

4.8 Backup recommendations

You should periodically backup your server data. Following files should be backed up on regular basis: `calendar.xml`, `calendar.acc` and `calendar.msg`.

If any of these files become corrupt, your calendar data is likely to be lost.

4.9 Uninstalling the server

4.9.1 Uninstalling in Unix

In your installation directory, type:

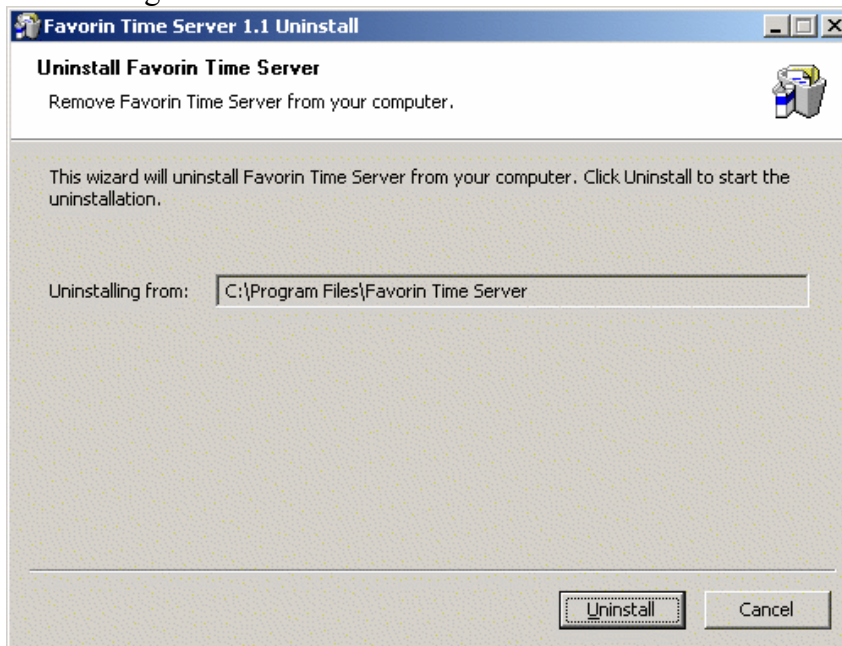
```
make uninstall
```

This will remove all executable and data files from the system. **Note that this will destroy all of your calendar data.**

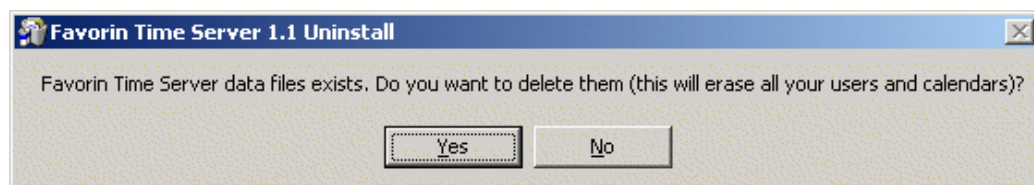
After this you may delete the installation directory with its subdirectories.

4.9.2 Uninstalling in Windows

Start uninstallation wizard from Start Menu or from Control Panel -> Add / Remove Programs.



Select Uninstall to remove the Favorin Time Server from your system.



The uninstallation wizard will ask, if you want to delete all calendar data files during the uninstallation. **Note that this will destroy all of your calendar data.**

5 Support and troubleshooting

5.1 Support options

Please visit <http://www.favorin.com> for available support options.

5.2 Troubleshooting

Please check following symptoms before contacting the support. The log file contains often information about the error condition and needed steps to be taken in order to resolve the situation.

Please refer to 2.3.1 Unix directory structure or 2.4.1 Windows directory structure for details about file locations.

5.2.1 Server fails to start

1. Check that SERVERHOME (in `config.bat` file only), SERVERDATA and JAVAPATH directories are correct in `config.sh` or `config.bat` file in server bin directory.
2. Make sure the Java runtime version is correct. Type `java -version` to view the version number.
3. If using the SysV init script, check that SERVERPATH variable is correct in `favorintime` file in `/etc/rc.d/init.d` directory. Note that the init script might not find the java executable if the JAVAPATH variable is left empty in `config.sh` file, due to PATH settings.
4. Make sure that you have created at least one user account. The server will not start if no user accounts are created.
5. Read `calendar.log` file in data directory for error messages and directions.

5.2.2 Server is running out of memory

Increase the maximum available memory in the Java runtime environment. See 4.2 Server configuration for details.

5.2.3 Server is too slow

1. Activate Java HotSpot Server VM to increase performance. See 4.2 Server configuration for details.
2. Make sure that the operating system has enough system memory to run the server without using the system swap.

5.2.4 Other problems

1. Read `calendar.log` file in data directory for error messages and directions.

6 Contact information

Web site: <http://www.favorin.com>

Email: support@favorin.com

Mailing address:

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