

# The Ataman<sup>®</sup> RSHD Service User's Manual

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**Ordering information** for the Ataman RSHD Service can be found in the file `order.txt`.

**IMPORTANT:**  
**Read the *Security Considerations* section  
before you install this service.**

## 1. Overview/System Requirements

The Ataman RSHD Service (ARSHD) contains a server implementation of the Internet TCP RSH protocol. The ARSHD is distributed as shareware. It is not free! However, you may try the ARSHD before paying. If you are not familiar with the concept of shareware, see the **Shareware** section below.

The ARSHD Service implements the RSH protocol found on many Unix systems. The service itself uses little system resources and should work on any system that can handle Windows 95 with TCP/IP installed. After installation, the ARSHD allows users to remotely start programs on their Windows 95 system.

Also provided is `rsh.exe`, an rsh client program that works under Windows 95. When you purchase a license for the ARSHD, you are allowed to use the `rsh.exe` program only on the Windows 95 machine where the ARSHD is installed. If you wish to use `rsh.exe` on additional machines, inexpensive site licenses are available. See the file `order.txt` for details.

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## 2. Shareware

Ataman markets and distributes the ARSHD using a method known as **shareware**. The shareware method allows you to review and sample a software product prior to purchase for a limited amount of time. After the time limit (called the evaluation period) expires, you must either purchase the software or stop using it.

**This product has a 15 day evaluation period. See the file `license.txt` for the full terms of the software license.**

Like most shareware vendors, Ataman encourages you to copy and share our software with your friends and associates. Like you, they can decide whether the software meets their needs in a way that justifies its price. However, if the ARSHD is used after the evaluation period, you are expected to buy it. After payment, you are a **registered** user and will receive a **registration code**.

The registration code deactivates all reminder screens and other forms of reminders. Ataman has designed its registration code with an additional feature: You can use the registration code with future minor revisions of the ARSHD; only major revisions will require the purchase of a new registration code.

If you have tried the ARSHD and decided it meets your needs, please use the file `order.txt` to purchase the latest version. Contact Ataman Software if you are missing `order.txt`, since it contains all the information necessary to purchase the ARSHD. (See the **Contacting Ataman Software's Technical Support** section near the end of this document for contact information.)

## 3. Security Considerations

This manual assumes that you are familiar with the risks and benefits of the rshd services found on Unix and other operating systems. **If you are unfamiliar with the security aspects of the RSH protocol, you are advised to consult one of the many tutorials available that cover TCP/IP networking protocols.** The secure operation of such a service is a complicated matter and this manual provides only the details specific to this implementation.

### 3.1 All ARSHD Users Share the Same Security Context.

#### 3.1.1 Shared network credentials.

Windows 95 offers only one network security context. Remote users will have the same network rights and privileges as the user locally-logged onto the main system monitor.

#### 3.1.2 Windows 95 provides no security.

The programs started by remote users have full access to your entire computer.

### **3.1.3 Random message boxes and windows appearing on the main console.**

Windows 95 provides no mechanism to prevent remote users from starting up windowed apps. Moreover, some errors may cause message boxes to pop up on the main console... potentially confusing the locally logged on user.

Along the same lines, a remote user should not use the "start" command as this command will cause a new console window to be created. This console window will appear on the screen of the locally-logged on user.

### **3.1.4 Random sounding of the system bell or sound subsystem.**

Remote users may run programs which cause an action to request the system bell to ring. The system bell associated with the main monitor will sound because Windows 95 does not redirect this function. Locally logged-on users, unaware of remote users running programs, may think they have made a mistake since the bell seems to ring at random.

## **3.2 Controlling Access by Remote Users.**

Controlling what user accounts may access your system is accomplished using the Ataman RSHD Service Control Panel. You can start the Windows 95 Control Panel from the Settings menu on the Start button. See the section **Using the Ataman RSHD Service** for information on using the Ataman RSHD Service Control Panel. By default, no one is allowed to access your system. Note that user information generated by the ARSHD Control Panel is stored in the file `users.txt`. This file is located in the directory where the Ataman RSHD Service is installed. Any user with write access to this file can change who is allowed to access your system.

## **4. Installation**

You must have installed the TCP/IP Protocol into Windows 95 before this service can work.

On the system that you wish to install the Ataman RSHD Service, create a directory that is local to that system. For example:

```
mkdir c:\arshd95
```

Change your working directory to this new directory and unzip the archive into this directory.

To install the rshd service type:

```
arshd install start
```

You now need to configure user accounts that are allowed to access your system. This is accomplished using the Ataman RSHD Service Control Panel. You can start the Windows 95 Control Panel by using the Settings menu on the Start button. See the section **Using the Ataman RSHD Service** for information on using the Ataman RSHD Service Control Panel. By default, no one is allowed to access your system.

## 5. Removal

Ataman Software is committed to making the use of its software as easy as possible for the end user. Most users prefer software that removes as easily as it installed, thus we provide a procedure to uninstall the software. The uninstall procedure removes the service and all associated registry entries. It does not remove the disk files as you may simply be moving the software to a different machine.

If you need to remove the Ataman RSHD Service from your system, type:

```
arshd stop remove
```

## 6. Registration

### 6.1 What is registration.

After evaluating the Ataman RSHD Service (ARSHD) and finding it meets your needs, you need to purchase a license to continue using the product. Please use the file `order.txt` to purchase the latest version. Contact Ataman Software if you are missing `order.txt`, since it contains all the information necessary to purchase the ARSHD. (See the **Contacting Ataman Software's Technical Support** section near the end of this document for contact information.)

Once Ataman Software has processed your order, you will receive a **registration code**. This registration code acts as a key to the software. The code notifies the software that you are a registered user and disables the payment reminders and other reminder features. These reminder features insure that evaluating users do not use the software beyond the evaluation period.

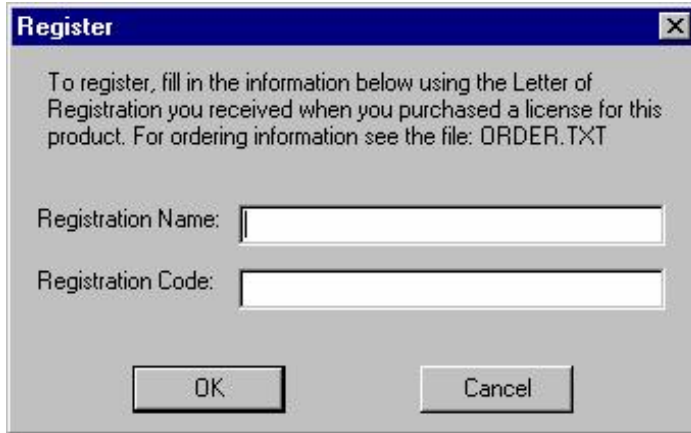
One nice feature of the ARSHD is that future minor revisions of the ARSHD use the same registration code. Only major revisions will require purchase of a new registration code. A major product revision adds significant new features to the product; a minor revision generally contains fixes and minor enhancements.

Registration codes are tied to the name of the registered user and cause the product to list that user as the proper licensee of the product. You should never share your registration code with another user as your name must appear as the licensee of that copy in order for the registration code to work.

### 6.2 How to register your copy.

You may use either the Windows 95 Control Panel or the command line program `register.exe` to apply your registration code to the ARSHD software.

To use the Windows 95 Control Panel, first install the ARSHD using the Installation section above. Then, using the Start button, invoke the Windows 95 Control Panel from the Settings menu. Click on the “Register...” button and you will see:



Fill in the information from the “Letter of Registration” you received when you purchased a license for the product, then click the “OK” button. Be sure the Registration Name is spelled as shown in the Letter of Registration. The spelling must be exact since the Registration Code is tied to the Registration Name. If a mistake in the spelling of the Registration Name has occurred, contact Ataman Software’s Technical Support and a new code will be issued.

**Be sure to save your registration information.** You will need it when you reinstall the software.

ALTERNATIVELY: you can use a command line program to do the registration. This is useful if you want to automate the registration process using .BAT files. In the directory where you installed the ARSHD, you will find a program called `register.exe`.

To use `register.exe`, start a command prompt and use the information provided in the letter of registration that arrived with your diskette to issue the following command:

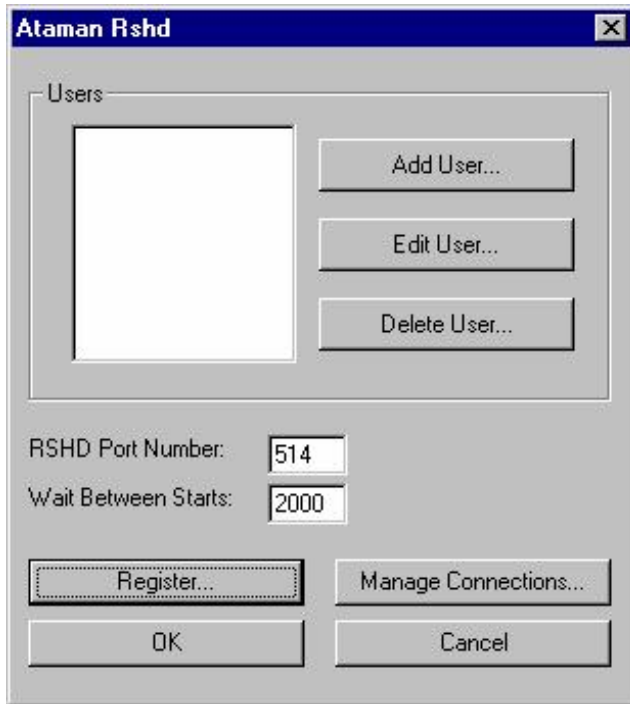
```
register Registration_Code "Registration_Name"
```

The two quotes (") above must be used if the name of the registered user is more than one word. You should replace *Registration\_Name* with the name listed beside the “Registration Name:” entry in the registration letter and replace *Registration\_Code* with the code listed beside the “Registration Code:” entry. (Typically *Registration\_Name* will be either your name or your company’s name.)

## 7. Using the Ataman RSHD Service

To use the ARSHD, you need to first configure users on the server machine then use an rsh client program of your choice to remotely start the execution of programs. To configure users,

invoke the Ataman RSHD Service Control Panel from the Windows 95 Start button's Settings menu. The various user and program settings are described below.



## 7.1 Add User... and Edit User...

To add a user, select the "Add User..." button. To edit a user, select the desired user account name, then press the "Edit User..." button (alternatively, you can double click the user account name you want to edit).



### 7.1.1 User Name

This is the user account name that the rsh client will be using. This name must match the account name used by rsh client programs' users. The Ataman RSHD Service is not case sensitive. (Account names with the same spelling but different cases will be treated as the same account.)

These account names are unrelated to account names you are using with Windows 95 networking.

### 7.1.2 Home Directory

This is the initial working directory that will be given to the commands started by this user account.

### 7.1.3 Command Processor

By default, the Ataman RSHD Service passes the command from the rsh client to the `command.com` command processor that comes with Windows 95. If you have purchased an alternate command processor that you would rather use, enter the command processor's path and any switches it needs in this field. The value of this field is environment expanded, then appended with the command that is sent in from the rsh client program.

For example, you could invoke `command.com` by entering:

```
%COMSPEC% /C
```

When a remote user uses an rsh client program to issue the `dir` command, on most systems the resulting command will be:

```
C:\WINDOWS\COMMAND.COM /C DIR
```

### 7.1.4 Host Access List

This is a comma separated list of host names or TCP/IP addresses from which this user account name is allowed to execute commands. Limited wildcards are supported. Specifically, names of the form `*.univ.edu` will allow all host names ending in `.univ.edu` execute programs under this user account name. Likewise, an address of the form: `205.238.107.*` allows execution from that TCP/IP subnet. The `*` must occur only at the beginning of host names and at the end of TCP/IP addresses. It must be immediately followed/proceeded by a period `.`.

Example:

```
205.238.107.*,m1.some.com,*.xyz.gov,128.110.163.210
```

For best security, use only fully specified TCP/IP addresses. (I.e. don't use host names and don't use wildcards.)

Additionally, you can allow a remote account with a different account name access as this user. To do this precede the host entry with `"Username@"`. If you want all accounts to access as this user from a given host, substitute a `"*"` for `"Username"`.

Example:

```
*@205.238.107.*,brian@ataman.com
```

Again, for best security, don't use wildcards.

## 7.2 Delete User...

Select the user account you want deleted, then press the “Delete User...” button. You will be asked to confirm the operation.

## 7.3 RSHD Port Number

This value is the TCP/IP Port Number. By convention this is always 514. Only advanced users in unusual circumstances will want to change this setting.

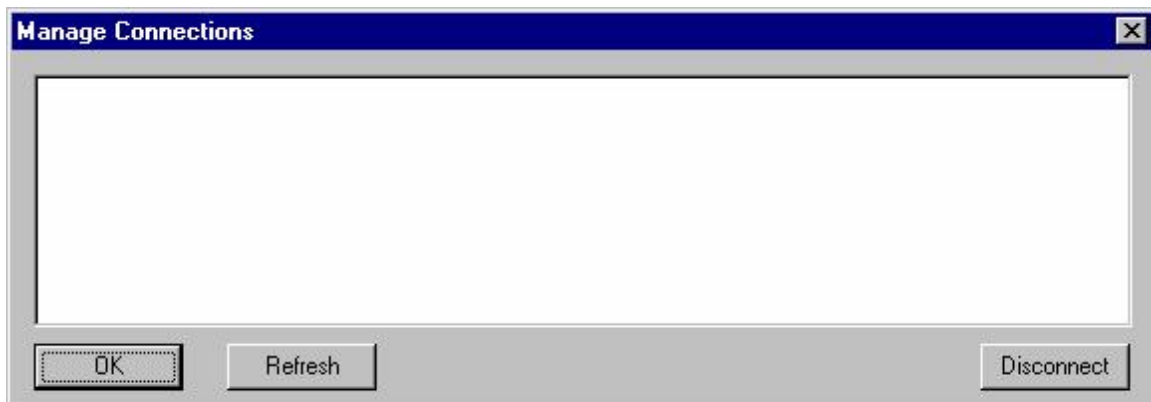
## 7.4 Wait Between Starts

The multitasking capability of Windows 95 is somewhat less than optimal. The “Wait Between Starts” value specifies the number of milliseconds the ARSHD will wait before allowing another remote execution to start. Essentially this is a simple mechanism to balance load on systems where numerous short tasks start asynchronously.

## 7.5 Register...

See the Registration section for information on using the “Register...” button.

## 7.6 Manage Connections...



This button show a list of the commands that are actively executing through the Ataman RSHD Service. The “Refresh” button is used to update the list of active connections. The “Disconnect” button causes the TCP/IP connection between the rsh client and the ARSHD Service to be disconnected. It does NOT terminate the command that was remotely started. To do that, use the Ctrl-Alt-Delete mechanism built into Windows 95. A button for command termination turned out to be technically infeasible.

## 8. Using the RSH.EXE Client Program

The `rsh.exe` program is a command-line based rsh client program. Its syntax can be described as follows:

```
rsh host -l useraccount command arg1 arg2 ...
```

Where *host* is the name of the host where you want to run *command* and *useraccount* is the name of the account under which you want the execution to occur.

Example:

```
rsh ataman.com -l brian dir /s c:\
```

When you license the Ataman RSHD Service, you get the right to use `rsh.exe` only on the system where you have installed the ARSHD. Inexpensive site licenses for `rsh.exe` are available for other Windows 95 machines you want to have act as clients. See the file `order.txt` for ordering information.

## 9. Troubleshooting / Technical Support

### 9.1 Where to begin.

The Ataman RSHD Service reports error messages to the LOGFILE.TXT, located in the directory in which the Ataman RSHD Service was installed.

### 9.2 List of known problems.

#### 9.2.1 Programs started through ARSHD execute slowly.

Some fancier screen savers (for example some that came with the Windows 95 Plus Pack) use a large amount of CPU time. This CPU usage directly impacts the amount of time available for commands started by the Ataman RSHD Service. For optimal performance, these screen savers must either be disabled, or (if possible) tuned to use less time.

### 9.3 Contacting Ataman Software's Technical Support.

Free technical support is provided exclusively via electronic mail. From the Internet use:  
`support@ataman.com`.

**IMPORTANT:** Our biggest problem in providing technical via electronic mail is receiving invalid return addresses. If your local mailing system does not automatically provide it, please give a standard return address as part of your message. In all cases, please list your telephone number so we can still reach you in the event of electronic mail failure.

Ataman Software takes its technical support by electronic mail very seriously. Under normal circumstances, we check for mail several times each day. While the turnaround time will of

course vary due to the speed of your local mailing handling, Ataman's Internet provider is well placed on the Internet. It should be a very rare event for us not to respond to your mail within 1 business day. If you have not received a response within this time period, please tell us by calling us at (970) 225-9131.

Contact Information:

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(970) 225-9131  
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Bug fixes are worked into minor releases that are distributed on our world-wide web site:

<http://www.ataman.com>

You may also obtain the latest version from Ataman Software for a distribution fee. You only need to obtain one copy to upgrade all the copies for which you have a license. You may share the upgrade with other registered users. Your registration code will work with all minor version releases that have the same major version number as the software you originally licensed.

Only the latest major release version is eligible for full technical support. When a new major version is released, support for the old version will be phased out over a 6 month period.

We reserve the right to charge for technical support for copies purchased 1 year or more earlier.

## **9.4 Ataman's World Wide Web Site.**

Not sure if you have the latest version? Want to know about useful freebies?

Check out our World-Wide-Web site:

<http://www.ataman.com>