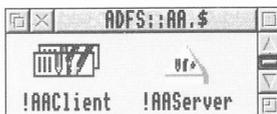

The Application Accelerator

The Application Accelerator software provides a fast and secure way of delivering applications over an Ethernet network. It is supplied on a single floppy disc. Its directory display looks like this with the NewLook 3D desktop:



There are two parts to the software:

- The **AAClient** software is used by *client* stations to load the applications from a *server* station. Clients cannot use this software to write to the server, and hence cannot alter the applications in any way.
- The **AAServer** software sets up a station as a server. Any directory or filing system you can access from the server can also be exported to clients so they can access it.

The Application Accelerator software complements the Level 4 file server software, speeding up the delivery of applications over the network.

Machine requirements

Stations must be fitted with RISC OS 3 (version 3.10) or later to use the Application Accelerator software.

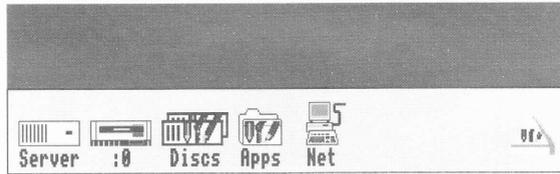
Econet networks

The Application Accelerator is designed specifically for use with Ethernet. You should not use it on an Econet.

AAServer

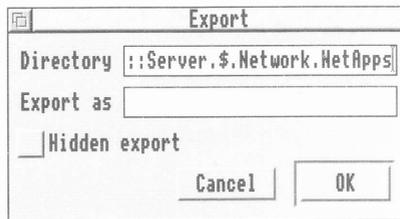
Starting AAServer

To start the AAServer application, double-click on it in the usual way. This starts both AAServer and AAClient. The AAServer icon appears on the right hand side of the icon bar, and the AAClient icon on the left hand side:



Exporting a directory

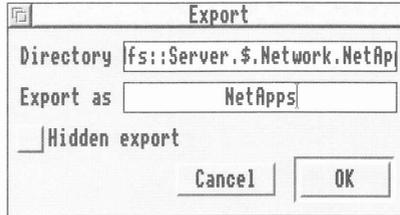
To make a directory available to clients, drag it to the AAServer icon. A dialogue box appears, with the directory's name already filled in for you:



To export a whole disc, open its root directory and choose **Select All** from the Filer menu; then drag the selected directories to the AAServer icon.

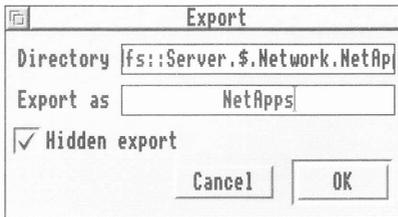
You can get the same dialogue box by clicking Select on the AAServer icon, or by choosing **Export** from the AAServer menu. To enter the pathname of the directory to export you can either drag it to the dialogue box, or fill in its full name by hand.

The name you type in the **Export as** field will be used in client stations' disc displays (see page 9), and must be unique across the network:



If any other servers are already using your export name, you'll be told, and asked to give a different name.

You can choose to make a directory a **Hidden export**:



It will not appear in clients' disc displays, but can still be accessed from programs or scripts. (For details of the syntax to use, see *Loading applications from the application server* on page 12.)

Once you've completed the dialogue box, click on **OK**. The directory can now be accessed by any clients on the same AUN network. **The directory cannot be accessed by clients on the other side of an AUN gateway** unless the gateway re-exports it (see *Gateways* on page 6).

By the way, the directory need not be on a disc attached to the server. For example, the application server could use the NFSfiler application (from Acorn's TCP/IP Protocol Suite) to mount an NFS file server, and then use AAServer to re-export it. Client stations could then access the NFS file server without needing their own copy of NFSfiler.

Removing an exported directory

To remove an exported directory – making it unavailable to clients – choose its name from the **Remove** subdirectory of the AAServer menu:



Saving the list of exported directories

You can save a list of the directories that you're exporting by choosing **Save** from the AAServer menu:



Next time you run AAServer, it will export those same directories.

Choosing a station to act as an application server

The application server running AAServer is an important part of your network infrastructure. We recommend that, if possible, you keep the machine in a secure location, so that users cannot get access to it and alter the applications it holds. If you already have a Level 4 file server, a printer server, or an AUN gateway station, you will probably find it best to use the same machine as an application server. However, we recommend that you don't try to combine too many functions on a single station. For example, trying to use one station as a Level 4 file server, application server and AUN gateway is likely to put too high a load on the station, and the performance of all three functions will suffer.

Level 4 file servers

You can run AAServer on the same machine as a Level 4 file server. The directory you export can either lie within the file system exported by Level 4, or on a separate part of the disc:

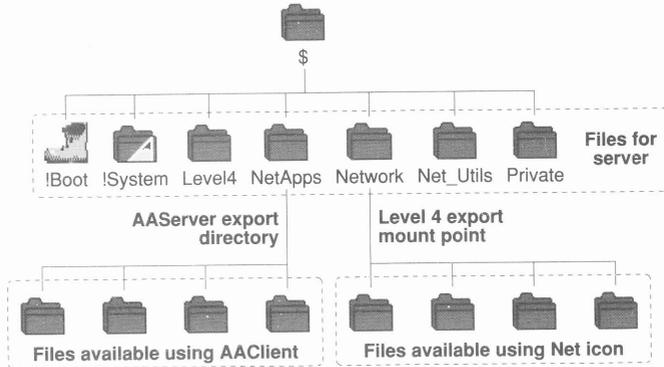


Figure 1 An exported directory that is separate to Level 4

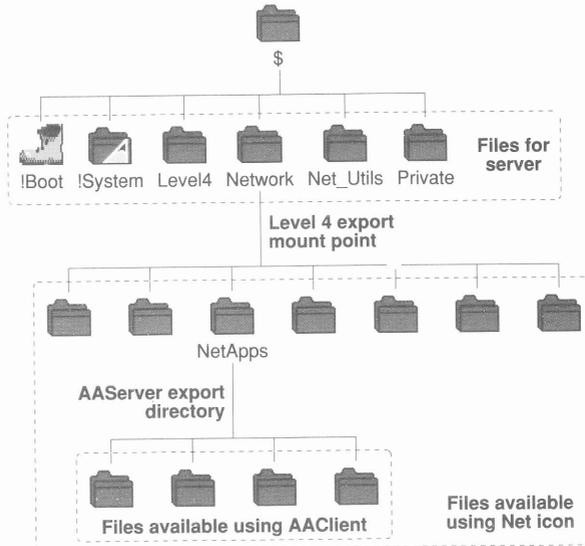


Figure 2 An exported directory that is within Level 4

Each method has its pros and cons:

- If the application directory is exported both by Level 4 and AAServer, all users can still access it through their Net icon. This allows access from a directly connected Econet. Ethernet users can access it through the AAClient application for greater speed. If network managers are sufficiently careful with access permissions, they can install and alter applications from client stations, but users can't.
- If the application directory is exported by AAServer alone, then it can only be accessed through AAClient. This means that the applications can't be accessed over Econet, and can only be altered by someone with physical access to the server. This method is easier to administrate and more secure, but at the expense of some flexibility.

Printer servers

You can run AAServer on any printer server, putting to good use a hard disc that may otherwise be largely unused. Furthermore, in a school environment pupils most often load their applications at the start of a lesson, but print at the end of a lesson. It's hence unlikely that the load placed on the server by loading applications will significantly slow down its printing.

Gateways

You can run AAServer on an AUN gateway machine. Any directories the gateway itself exports can be accessed from all directly connected Ethernet networks. However, by default the gateway does not allow other stations' exported directories to be accessed from any network other than the one to which they're connected. For example:

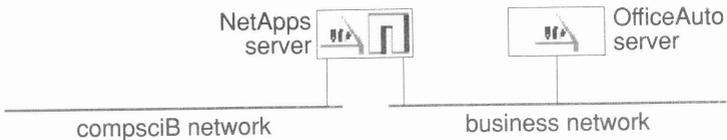


Figure 3 An example network with an AUN gateway

The NetApps server is accessible from both networks, whereas the OfficeAuto server is by default only accessible from the business network.

You can make a shared disc accessible from the other side of an AUN gateway by making the gateway re-export that shared disc. To do so:

- 1 On the gateway station, click on the AAClient **Discs** icon to open the display of shared discs.
- 2 Double click on the disc you wish to re-export, so its icon appears on the icon bar.
- 3 Click on the shared disc's icon to open its root directory.
- 4 Choose **Select All** from the Filer menu, and drag the selection to the AAServer icon.
- 5 Enter the unique name you wish to use to re-export the disc.

We recommend that the export name is made up from the shared disc's original name, plus the name of the network to which you will be re-exporting it. In the above example, the gateway might re-export OfficeAuto to the compsciB network as OAuto_CScB. Client stations on the business network would see the shared disc twice: directly from the server as OfficeAuto, and via the gateway as OAuto_CScB. Obviously the former is the most efficient way to access it; and the latter is intended for another network, and so can be ignored. Client stations on the compsciB network will only see the shared disc as OAuto_CScB.

You can use this principle to make a shared disc accessible across an entire site, with each successive gateway re-exporting the disc to the next AUN network. This is known as *daisy-chaining*. However, each time you re-export a shared disc, it becomes slower to access. Because of this, and because of limits on the number of clients each server can provide for without becoming overloaded, we recommend that:

- You have at least one server per AUN network.
- You ensure that a network's server has a copy of all applications that its clients will commonly use.

- You regularly review the contents of the server, and if you find local clients regularly loading other applications from daisy-chained servers, you should add them to the local server.

Starting AAServer from a boot file

You'll probably want to set up your application server so that it starts up automatically when it's switched on. First ensure that your copy of AAServer is already set up to export the correct directories; see *Saving the list of exported directories* on page 4. You then need to add a line to your server's boot file, as described below. (If your server doesn't already have a boot file, you should see the instructions for creating one in the *RISC OS 3 User Guide*.)

Desktop boot files

AAServer adds its own entry to any desktop boot file you create.

You should check that the line that runs AAServer comes after any lines that start the AUN BootNet application. To do so, start Edit, and drag the desktop boot file to the Edit icon. Make any changes that are necessary, and save the edited file.

Other boot files

You don't have to run AAServer under the desktop; you can instead start it from a command line boot file. You're most likely to need to do this if you need to run AAServer on a station that is already running the Level 4 file server in stand-alone mode.

To add the necessary command to your boot file, start Edit, and drag the boot file to the Edit icon. On a new line beneath any others that start the AUN BootNet application, but before the final line that starts the Level 4 software, type Run followed by a space. Then hold down the *Shift* key and drag the AAServer application to the Edit window; its pathname will be added to the line you were typing, so it appears something like:

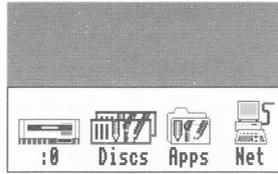
```
Run adfs::Server.$Network.!AAServer
```

Save the edited file.

AAClient

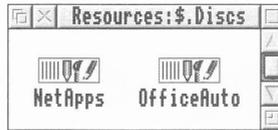
Starting AIClient

To start the AIClient application, double-click on it in the usual way. The AIClient icon appears on the left hand side of the icon bar:



Choosing an exported disc

Clicking on the AIClient icon opens a window showing which exported discs are available:

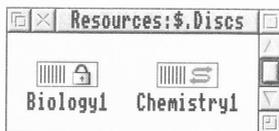


To choose one, double click on it. Its icon will then appear on the icon bar, and you can use it just like any other filing system – except, of course, you cannot write to an application server's disc.

You can get the same window by choosing **Show discs** from AIClient's icon bar menu.

Acorn Access discs

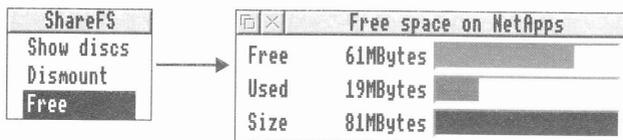
If you are using an Acorn Access network, the window may show some other disc icons:



These represent *protected* and *unprotected* discs exported by Acorn Access network stations. You can use them in the same way as you do discs exported by AAServer. Depending on how permissions are set on the discs, you may be able to write to them. For more information, see the documentation supplied with your Acorn Access network.

Finding the free space on a disc

You can find the free space on a disc by choosing Free from the AAclient menu:



Finishing using a disc

When you've finished using a disc, you can remove it from your icon bar by choosing Dismount from the menu:



Configuring AAClient with the !Config file

You can configure which icons appear on the icon bar when you start AAClient – including its own. To do so, you need to edit the !Config file held within the application.

Open the AAClient application directory by holding down the *Shift* key while you double click on its icon. Start Edit, and drag the !Config file to the Edit icon. Make any of the changes described below that you require, and then save the edited file.

Adding servers to the icon bar

If you wish AAClient to start with any icons already on the icon bar, you need to add lines that use the *ShareFSIcon command to create each icon. For example the line:

```
ShareFSIcon NetApps
```

would add an icon for the NetApps server, without checking that it exists or is available.

Preventing the AAClient icon from appearing

You can start AAClient so that its icon doesn't appear on the icon bar. Application servers can still be accessed by boot files and programs (see *Loading applications from the application server* on page 12), but users can't get at them from the desktop.

To do this, you need to uncomment the line:

```
| Set AAClient$NoIcon 1
```

so it reads:

```
Set AAClient$NoIcon 1
```

Changing boot files to use AAClient

Once you've installed the Application Accelerator software you should alter users' boot files so they load AAClient, and benefit from its faster loading of applications. Start Edit, and drag the boot file to the Edit icon.

Starting AAClient

First you need to add a line that starts the AAClient application. It should be after any lines that start the AUN BootNet application, but before any lines that load the applications you've put on your application server(s).

Type Run followed by a space. Then hold down the *Shift* key and drag the AAClient application to the Edit window; its pathname will be added to the line you were typing, so it appears something like:

```
Run Net::Level4.$ .Network.!AAClient
```

Loading applications from the application server

You then need to change any lines that load applications which are now available on your application server, altering their pathnames to their new location. The syntax for their new location is:

```
Share::export_name.$ .pathname
```

For example:

```
Share::NetApps.$ .App1.!Printers
```

You may find that – with care – you can use a global search and replace to make these changes. This can save you a lot of typing.

Alternatively you can use AAClient to get a directory display showing the applications – providing, of course, they're not a hidden export. Then hold down the *Shift* key and drag each application to the Edit window; its new pathname will be added for you. You can then delete any old lines that were running the same application.

Finally, save the edited file.

Errors when booting

When booting, you may get this error:



This means the client cannot immediately access the server over the net. If you wait a short while the error will usually clear itself, without your having to click on **OK** or **Cancel**. Otherwise, you should check the server is switched on and using AAServer to export the shared disc; and also check your network connections.

Application preferences

Many applications allow you to set particular options and preferences, and save these choices inside the application so they're used the next time you run it. Because clients can't write to the application server, they can't alter the preferences saved in an application. Network managers should set up suitable default preferences when they install applications; when users start the application, they will always get these defaults, which they can then alter to suit their needs for that session.

Some applications use alternative means to set preferences. For example, Draw, Paint and Edit all use system variables to set their preferences in a user's boot file. This allows individual users to have an application start in their own preferred state without affecting other users. For more information, see the relevant parts of the *RISC OS 3 User Guide*, and the manuals for any applications you are using.

* **Commands**

You may find these * Commands useful, especially if you write boot files or programs. If you need more complete documentation of the programmer's interface to the Application Accelerator and Acorn Access networking software, please contact Acorn.

***Desktop_ShareFSFiler**

*Desktop_ShareFSFiler starts the ShareFS Filer from a Wimp task. You should not need to use this command yourself.

*Desktop_ShareFSFiler

***Share**

*Share shares a local directory.

*Share *directory* [*export_name*] [-noicon] -readonly

***ShareFS**

*ShareFS selects the Shared Filing System as the current filing system.

*ShareFS

***ShareFSIcon**

*ShareFSIcon puts a ShareFS disc icon on the icon bar for a named export. No check is made that the exported file system exists, or is accessible.

*ShareFSIcon *export_name*

***Shares**

*Shares lists the directories that are currently shared.

*Shares

***UnShare**

*UnShare stops sharing a local directory.

*UnShare *export_name*

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