Support Group Application Note
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Acorn

Using Access+ on A7000 Net machines

This Application Note details a way to softload Access+ during the boot sequence of an A7000 network machine.

Applicable Hardware :	A7000 Net machines running RISC OS 3.6	Related Application Notes:

Support Group
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Introduction

A7000 Net machines do not include hard discs; instead they include a 10base2/10baseT combination ethernet card. As RISC OS requires a number of resources to function correctly, A7000 Net machines cannot be used stand-alone; they must be connected to an Acorn Access network which provides suitable resources for the machines to boot correctly. The Network Resource Pack (order code AES80) needs to be purchased to provide such resources. It consists of a pack of discs that need to be installed on the machine that is acting as a server for the resources. It is a one-off purchase.

Acorn Access allows information resources to be shared across an Ethernet network. For example, a hard disc on one machine can be made available to all users of a local network. On occasions, it is necessary to restrict access to such shared information. Acorn Access was therefore extended to include an authentication mechanism in the form of a product named Access+. As part of the ongoing development and integration of Acorn networking strategies, Acorn Access (but not Access+) was included in RISC OS 3.6.

In order to give full Access+ functionality with RISC OS 3.6, a softloadable Access+ module is included in the RISC OS 3.6 hard disc build as !Boot.Resources.!System.360.Modules.Share+. On a machine fitted with a hard disc, it is loaded by the file !Boot.Choices.Boot.PreDesk.SetUpNet. Unfortunately, simply softloading the Share+ module is not possible when booting from ShareFS (the filing system provided by Access) as it will temporarily break the connection between the booting A7000 and the server. A small application along with an automatic installation system has been developed to work around this problem.

Is this appropriate to me?

If you wish to use the authentication offered by Access+, then check the table below.

Version of RISC OS	Access in ROM?	Access+ in ROM?	Fit Access+ Ethernet card?	Use this program?
3.50 or earlier	✗	✗	✓	✗
3.60 without HD	✓	✗	✗ [1]	✓
3.60 with HD	✓	✗	✗ [1]	✗
3.70 or later	✗	✓	✗ [1]	✗

The patch described here is only necessary for A7000 Net machines without Access+ Ethernet cards.

[1] Access+ cards can be used in these machines, but they are not necessary.

How do I use the patch?

The patch described here is only for use on the A7000 Net client machines, not the server. Running it on the server will work, but will not provide any extra functionality, as one of the lines in !Boot.Choices.Boot.PreDesk.SetUpNet on the server loads Share+ as standard. Each A7000 will create it's own entry in !ShareBoot.MchConfig once it has been booted up which will be a copy from the standard !ShareBoot.Choices. This means that !Install+ must be run on each A7000 so that configurations are altered for each machines. Alternatively, you could delete all the entries in MchConfig and then do a manual installation in !ShareBoot.Choices as detailed below. This would only need to be done once.

Instructions for use

Automatic install

1. Share the A7000_Disc directory unprotected instead of protected.
2. Boot your A7000
3. Run !Install+ on the A7000
4. Repeat steps 2&3 for all your A7000s.
5. Reset the A7000_Disc to protected sharing.

The Automatic install runs a few checks for previous installations. If everything is OK, then !BootShare from inside the !Install+ is copied to Boot:Utils. A Filer_Run line is then added to the very end of Choices:Desktop.

Manual install

1. Shift-double-click on !ShareBoot on the server.
2. Double-click on Utils.
3. Shift-double-click on !Install+.
4. Drag !BootShare into the Utils directory.
5. Double-click on Choices in the window opened in step 1.
6. Double click on Boot.
7. Shift-double-click on Desktop to load the file into !Edit.
8. Go to the very end of the Desktop file in !Edit and add the line: `Filer_Run Boot:Utils.!BootShare`

How does the patch work?

The patch provides a small application !BootShare which is run at the very end of the Desktop boot sequence. A temporary RAM disc is created and the relevant files are copied in and executed. The RAM disc is then destroyed.

Where do I get the patch from?

The patch is available from Xemplar Customer Services (ask for A7000 Access+ Installation disc) or from the Acorn FTP site (`ftp://ftp.acorn.co.uk/pub/documents/appnotes/290-305/296.arc`) with this Application note.