AirPhoto Installation - General

Hardware and Operating System Requirements:

Your machine must be running Windows Win7/Vista/XP/2000/NT4. The display must be set to 24 or 32 bits (true colour) with screen resolution of at least 800 x 600 pixels, preferably more.

Access codes:

The access code issued for use with a **stand-alone version** of AirPhoto 3 is restricted to a single machine. The data needed is created by the programme **airegister.exe** and evaluated when the encrypted text file which it makes is received as an e-mail attachment. From the data, an access code is generated for permanent use of the programme on the machine on which **airegister.exe** ran. The data is stored in encrypted form.

If you wish to install AirPhoto on more than one machine, you must register for separate access codes for each of them. If the machines are on a network, it is recommended that you acquire a **network version** registration code which is machine-independent and much more convenient, since you may install on as many machines as you wish as long as they are connected to the same network. Details are given for all options in **air_registerhelp.exe**. Please download, run and read this first before running **airegister.exe**.

Stand-Alone Installation

You must have administrative rights to <u>register</u> and to <u>install</u> the program under Window NT, 2000 XP, Vista or Win7.. If you do not have these rights, ask a person who does to conduct the installation for you. An administrator must also set read/write access rights on the AirPhoto directory and its sub-directories setup (hidden), plugins either manually or using the automatic option in the installation programme. You must reinstall to enter the registration code if you have previously installed a trial version.

Note: Codes from versions 1 and 2 of AirPhoto are not valid for version 3.

Installing:

Before you start, open the Task Manager (Ctrl, Alt, Del) and look at the processes which are currently running. If you see:

Cthelper.exe - a Soundblaster Driver

running, terminate this process before starting, or the installation programme will fail.

Then select the registration code from the e-mail letter using Notepad and copy it to the clipboard. It has 6 groups of four numbers and letters which must be entered without error. There are 8 groups if you are installing a network version. Copying to the clipboard ensures correct entry after pasting in the installation program's registration code field.

For safety, print the e-mail letter with your registration code and save it to a file on a diskette or CD as well as to your hard disk.

Run airfoto3.exe to begin to install the program. This will unpack the setup files and overwrite any existing setup files from earlier installations. The installation program will start automatically.

Next:

When the installation program starts, it presents a general information screen. Clicking on Next brings up the license agreement to which you must agree. Read this carefully, for it contains vital information concerning your update and support rights. It is also installed as a file called license which you may later print with Notepad if you wish.

Click on Next to get to an explanation of the main registration screen. Read this carefully too.

Then click on Next to get to the registration screen itself.

Your name or the name of the person who is responsible for the operating system will be shown. Do not change this in any way! It is an internal part of your registration code.

Tab to or click on the registration code field and paste in the code you received into it either by typing Ctrl-V or using a right click. Verify that all 6 groups of 4 digits and letters are present.

Registration codes contain the numbers 0 to 9 and the letters A to F. They do not contain any other letters. If you must type in these numbers and letters (not recommended) take care not to type the letter O in place of the number 0 or the lower case letter l in place of the number 1 or the registration code will be rejected. The registration code is case dependent. Do not change it.

When you enter a valid registration code, there are no time or usage limitations on the programs on the machine on which you have installed them. If all is correct, the installation program reports

that a permanent version will be installed.

If you have made a mistake, or if the machine is not the one on which you filled out the registration/activation form, or if you are installing an update and the hardware has been modified in the interval since the last installation, you may have to obtain a new registration code by re-submitting the registration-activation form via e-mail generated by the downloadable file airegister.exe.

If you enter a code incorrectly and do not correct this, the program will run only as a trial version provided you have not installed a trial version previously. If a trial has expired, the installation program will not copy the files needed to run AirPhoto and the installation will fail.

Please note that the registration code for a non-networked version is machine-specific. It will not work on any machine other than that on which the registration form using airegister.exe was filled out.

You will be asked where AirPhoto's files are to be placed:
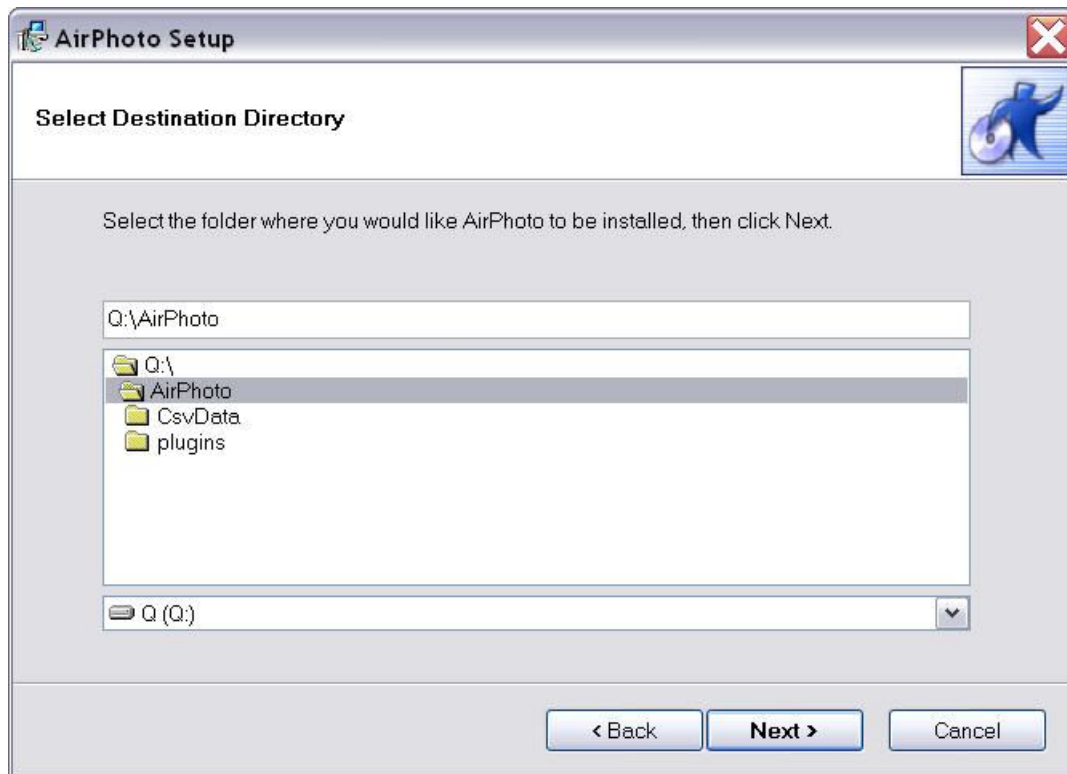
You may modify the directory or the drive letter and choose a different location. If the desired directory name does not exist, it will be created.

Important note for system administrators:

If there are to be multiple users of a given machine, the installation program includes an option to place the icons to run AirPhoto and its Help and Tutorial on all local user menus.
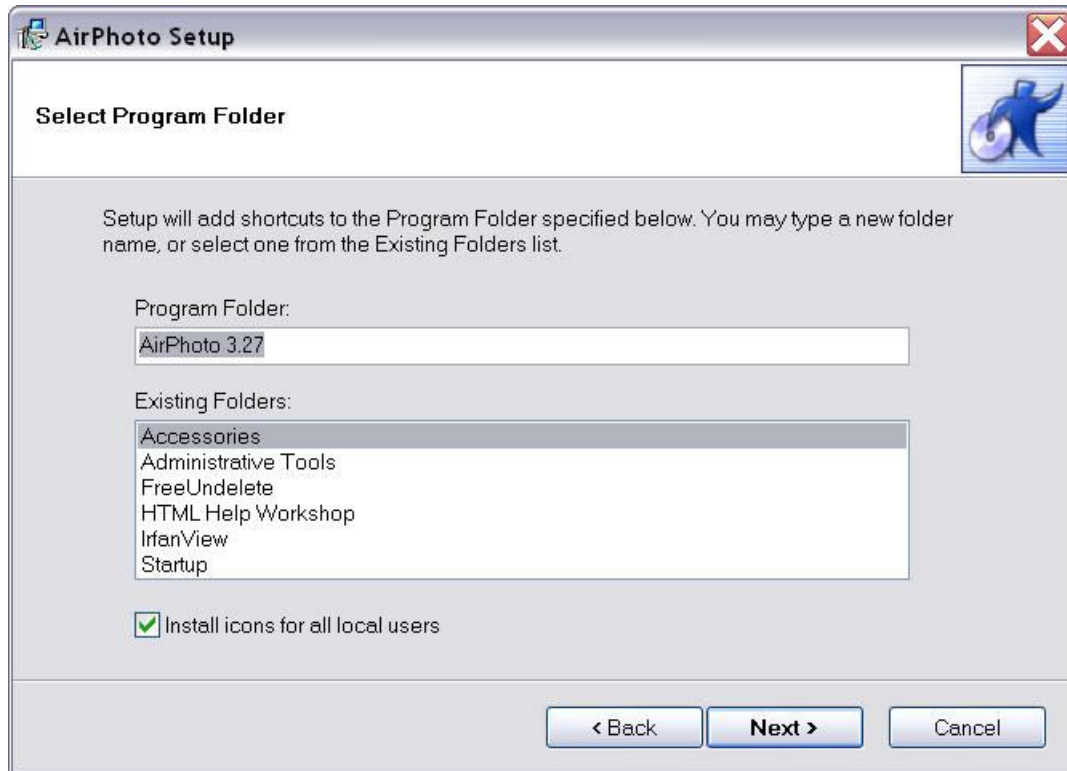
This permits installing just once for all users of a given machine. To activate this option, click and enable the check box 'Install icons for all local users' in the 'Select Program Folder' dialog box during installation. If the box is left unchecked, the icons will be placed only on the menu of the administrator installing the program and will be unavailable to other users.

A user with administrative rights should set the permissions on the AirPhoto directory and subdirectories appropriately for all local users after installation. This can be done automatically by the installation programme itself.

After the installation completes, you should see the following dialogue screen:
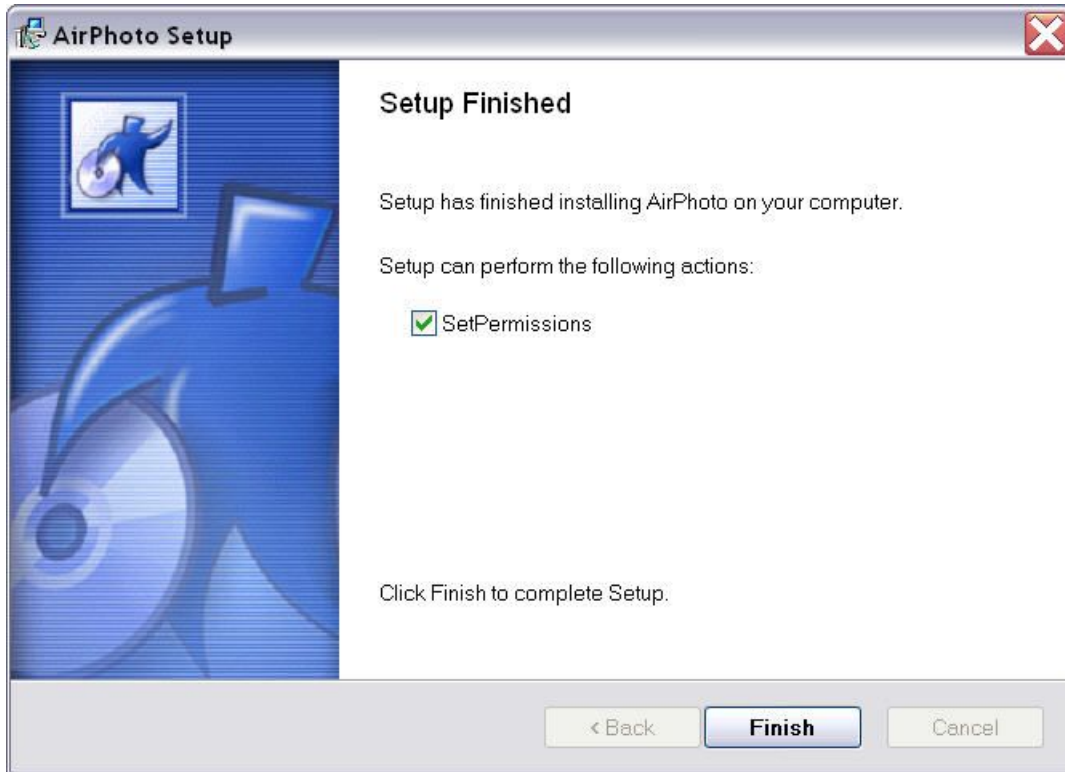
Leave the Set Permissions check box checked. The installation programme will attempt to set permissions on the AirPhoto directory and its subdirectories as well as all files to full control for administrators and to read, write and execute only for all other users.

In rare cases, depending on your local security settings, operating system version or file system, this may fail. If that happens, non-administrator users can not run the programme and will receive an error message when it starts.

Hence it may be necessary to set permissions manually. Use either the command line programme CALCS.EXE available in Windows NT/2000/XP. An extended version from the Windows Server Resource Kit, XCALC.EXE is also copied to the directory Program Files\CommonFiles on your boot disk by the AirPhoto installation programme. An administrator can modify the permissions using one of these tools if the permissions and inheritances do not meet local needs.

Under Windows XP and Vista, these operations can also be done using the Windows Explorer.

To set, view, change, or remove special permissions for files and folders open the Windows Explorer, and then locate the file or folder for which you want to set special permissions. Right-click the file or folder, click Properties, and then click the Security tab if it is visible.

To display the Security tab if it is not visible:

Open Folder Options in Control Panel.

Click Start, and then click Control Panel.

Click Appearance and Themes, and then click Folder Options.

On the View tab, under Advanced settings, clear the check box "Use simple file sharing".

Turn on read/write/modify/execute access rights on the AirPhoto directory and its sub-directories setup (enable viewing hidden files) and plugins Deny all other rights.

Administrators should check this with CALC.EXE or XCALC.EXE in command line mode. If all is well you should see something like:

```
Q:\>cacls AirPhoto3

Q:\AirPhoto3 BUILTIN\Users:(OI)(IO)C
        BUILTIN\Users:(CI)(special access:)
                    READ_CONTROL
                    SYNCHRONIZE
                    FILE_GENERIC_READ
                    FILE_GENERIC_WRITE
                    FILE_GENERIC_EXECUTE
                    FILE_READ_DATA
                    FILE_WRITE_DATA
                    FILE_APPEND_DATA
                    FILE_READ_EA
                    FILE_WRITE_EA
                    FILE_EXECUTE
                    FILE_READ_ATTRIBUTES
                    FILE_WRITE_ATTRIBUTES

        BUILTIN\Administrators:(OI)(IO)F
        BUILTIN\Administrators:(CI)F
Q:\>
```

If you must install on a number of workstations and the permissions are not set properly by the installation programme, you can make a batch file with Notepad which will set the parameters needed on the AirPhoto installation directory.

Here is an example called rights.bat which you can copy and paste into Notepad, then save for use. It calls xcacls.exe with the required parameters

```
@echo off
xcacls.exe %1 /t /g users:rc;ewx administrators:f;f /y
```

In a command line window type

rights *airphotodirectoryname*

where *airphotodirectoryname* is the fully qualified name of the directory where you have installed Airphoto. If the fully qualified name contains blank spaces it must be enclosed in quotes.

If you install the stand-alone version directly on a network server (not recommended), only one instance of the program will run. The special **network version** of AirPhoto which permits a metered number of simultaneous users with separate installations on all client machines should be used instead.

Make certain that the latest service pack for your operating system has been installed regardless of which operating system you are using. If you must report an error, please open the Help-About-Diagnostics menu item and dialog box, and there create a diagnostic file which contains the information we need for diagnosis.

When the installation completes with success, the drive and directory where AirPhoto has been insalled will be shown:

Note:

Permissions need only be set on NTFS file system disks. They are not used if the installation is done on a FAT32 or FAT16 file system.

Network Installation

You must have administrative rights on all workstations and your server to install the program under Window NT, 2000, XP, Vista or Win 7. If you do not have these rights, you must ask a person who does to conduct the installation for you. You may install on one central server or on one machine on a peer-to-peer network used as a server.

Principles of installation:

The person installing AirPhoto must have the right to create and set the permissions on a directory and on a file on the server. This is necessary in order to install what is called a Net Access File (NAF) directory on that server. The Net Access File called airphoto.naf is a very small file (16 to 8000 bytes) which is keeps track of the number of users on all workstations active at any moment. It must be installed on the server directory called AirPhotoNetCode so that AirPhoto can find it.

If you are running WinXP or earlier on the first workstation, the installation program scans through all network drives looking for the AirPhotoNetCode directory and when found, it writes airphoto.naf and initialises it for the allowed maximum number of simultaneous users the first time it runs. If it cannot find the AirPhotoNetCode directory, the installation fails. If you are running Vista or Win7 on the client, the security measures in these versions of the operating system block access to an external server until the installation has finished. In this case, please ask for the programme AirNAFInit, a small stand-alone programme which will create the airphoto.naf file in a pre-existing AirPhotoNetCode directory or attempt to create that directory if you have set the permissions on the network drive to Read-Write-Create. You can create a directory on the network server with any desired name, and this will appear to the user as a virtual drive letter.

When a user opens an installed AirPhoto network version, the program searches for airphoto.naf on the AirPhotoNetCode directory, and when it is found, it is opened and AirPhoto raises the user count by one. When the user closes AirPhoto, the process is repeated, and the user count is decremented. Every user must have the capability of reading and modifying the airphoto.naf file. AirPhoto itself is always installed on the user's workstation for maximum performance. Only the NAF file is installed on the server. Do not install AirPhoto on the server.

Sample installation procedure:

Differences in server operating systems and differing treatment of user rights or permissions make it difficult to create an installation technique which is valid for all of the many different arrangements and operating systems which may be encountered.

As an example, here is a sample installation procedure tested using Windows XP on client workstations and a Windows 2003 Server and a Linux Samba server which may serve as a guide for other kinds of servers.

Phase 1, Setting up the server:

1) Log on to the server from any workstation or at the server itself as an administrator or root user, depending on what the server OS requires.

2) If you already have a directory on the server to which normal users can read and write and whose rights (permissions) can be passed on to a subsequently created directory by inheritance, and if you can see this directory at user workstations, you may go directly to step 3.

Otherwise, create a directory which you may call anything you like on any disk which can be made available to all users and give it read and write (modify) rights for all users, but not creation

rights. Make sure that this directory passes on its rights by inheritance to a newly created directory and any file it contains. Here we shall call this directory AirPhoto, but that name is of no importance.

3) Create a subdirectory of the AirPhoto directory which fulfils the requirements of 2) and name it AirPhotoNetCode. This name is binding.

4) Assign read and write (modify or change) permissions to the directory which contains AirPhotoNetCode for everyone. Do not assign creation permission except for administrators. As a subdirectory of AirPhoto, AirPhotoNetCode must inherit these rights. If this does not happen automatically on your server, you must implement this inheritance explicitly.

5) On any workstation capable of communicating with the server of your choice, open My Computer, Tools, Map Network drive as an administrator.

6) If not already assigned as above, assign a drive letter to the AirPhoto server directory, for example X: to \\server\AirPhoto. Use Browse to find this directory if need be.

7) Enable "Reconnect at Logon"

8) Test the permissions on the newly created AirPhotoNetCode directory by creating a small ascii file with Notepad on it as administrator. Set the permissions on this file to read/write for everyone. Then log off and log in as a normal user and try to edit this file with Notepad. If you can edit and save it, then the permissions on the directory and the file are correctly set. Erase the test file if all is well. If not, go back to 2) and change the rights for the directories appropriately.

This completes Phase 1 to create the AirPhotoNetCode directory and set its rights so that airphoto.naf can be read and written by all.

Phase 2, Setting up the first workstation:

1) Select the registration code from the e-mail letter using Notepad and copy it to the clipboard. It has 8 groups of four numbers and letters which must be entered without error. Copying to the clipboard ensures correct entry after pasting in the installation program's registration code field. For safety, print the e-mail letter with your registration code and save it to a file on a diskette or CD as well as to your server's hard disk.

2) Start the downloaded AirPhoto distribution file airfoto3.exe.

3) airfoto3.exe may be written later to a CD for installation on other machines. Alternatively, you may also copy it to any directory on your server on which you can read and write and create files as an administrator.

4) AirPhoto's installation programme will start for the first time. After replying to the questions on the first few screens, paste the full access code as described above into the Registration Code field when it is shown and click Next.

5) The installation programme then copies all AirPhoto files to the local machine on which you are working and creates the NAF file airphoto.naf on the \\Server\AirPhoto\AirPhotoNetCode directory. **This file will only be created once**. You must have file creation rights on the server to do this. If all goes well you should see:

If the creation process fails, the installation will not show an error message, but you must then create the network access file directory manually with AirNAFInit.

After a successful installation for whatever reason, the server directory and NAF file can not be found when AirPhoto is run from a workstation, you will see:
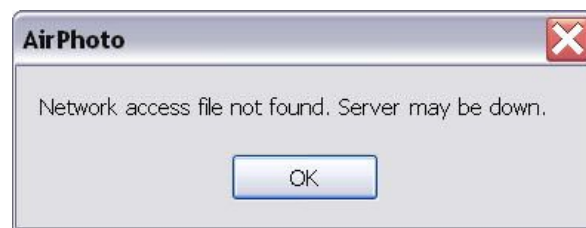
and AirPhoto will close immediately.

When you install on additional workstations, the NAF file on the server will be used and you will be notified that the existing NAF file has been accepted.

6) Check the assigned read and write permissions for all users to airphoto.naf as well as to the directory on which it resides as described above.

Warning:

This assignment of rights to server directories and airphoto.naf cannot made by the AirPhoto installation programme. You **must** do this manually in accord with the rules of your server's operating system. This is especially so if the server is running Linux or another non-Windows server operating system.

7) Airphoto is now ready to run on the local machine for the first time. Start and test it to make sure that all above has gone without error.

This completes Phase 2 to create the primary AirPhoto installation on a workstation and the metering file airphoto.naf on the server.

If the automated setting of local workstation permissions described above for stand-alone installations was not used (Set Permissions box unchecked), then this installation can only be used by an administrator for the moment, because permissions for others have not yet been set. Should that be the case, follow the procedures for setting the security permissions manually.

Phase 3, Setting up the other workstations:

1) On all workstations on the network on which AirPhoto is to be used by normal users, repeat Phase 1 items 5 to 7 so that the workstation can find, read and write airphoto.naf.

2) Run airfoto3.exe either from CD or from the server if you have copied the file there. Paste the registration code into the registration code field as in Phase 2, step 3 for each workstation installation.

4) After the installation completes, you must now assign normal user permissions for the AirPhoto directory and its subdirectories on the workstation so that these can be read, written and modified, but not deleted if automatic permission-setting (Set Permissions box unchecked) has not been used or if the permissions are not set properly. After assignment, check this using CACLS or XCACLS as described above.

5) Test as in Phase 2 step 6.

This completes Phase 3.

Repeat Phase 3 on all workstations.

When Airphoto is running, you should see the number of current users and the maximum permitted in the lower left status bar when the programme starts.

Repairing locked access slots:

Make a copy of this initial version of the NAF file for emergencies, such as a crash at a workstation which is activiely using AirPhoto and has an open slot in the NAF file. It is advisable to write this initial version over the installed version using a cron job on a Unix server or a time scheduled operation on other servers when no users are likely to be connected to the server, especially so if users are connected to the server via a WLAN or the Internet and improper termination of AirPhoto blocks a slot. This will insure that the count is reset at least once a day.
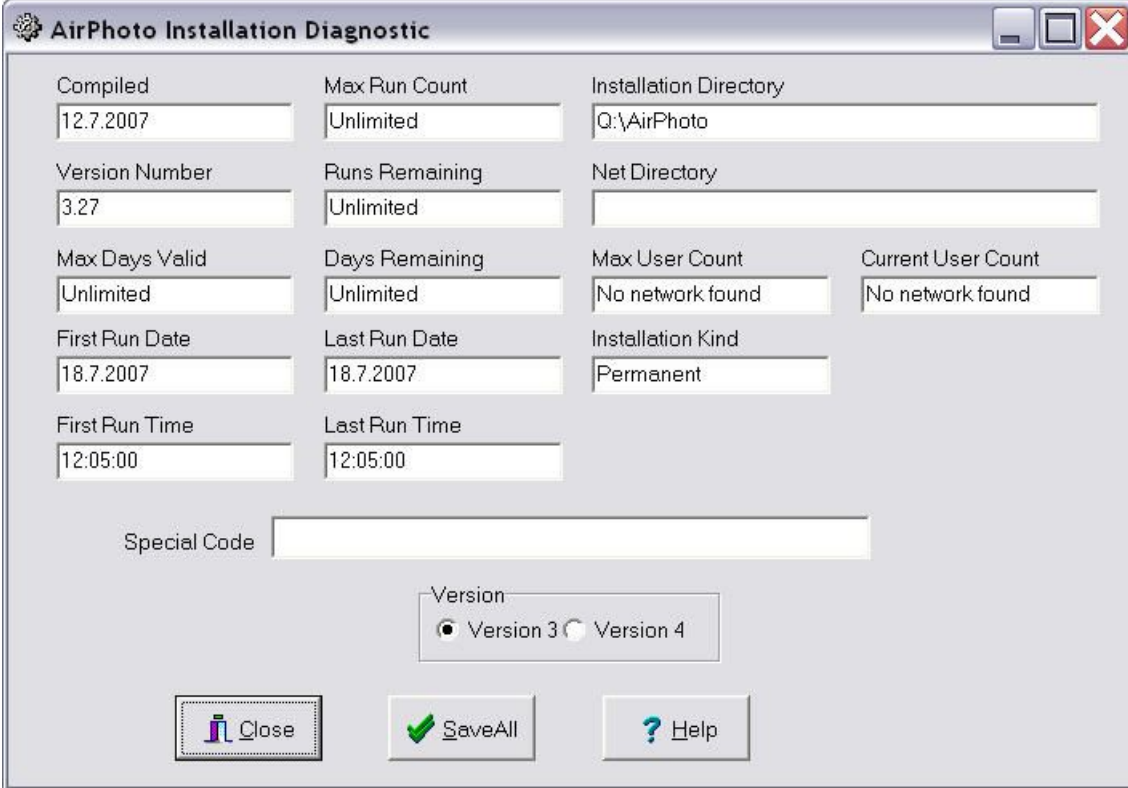
On all workstations, from the command line as administrator type:

net config server /autodisconnect:-1

if you haven't already done so for other programmes. Windows XP and Vista default to 15 minutes otherwise. This is to prevent the workstation from turning off its connection with the server while the AirPhoto NAF file is open and thus leaving a locked access slot open if the user shuts down AirPhoto and turns off the local worstation.

Using Diagnostics

The programme, AirDiagnostic is offered to help with installation problems. It shows essential details about an installed version of AirPhoto. For a stand-alone installation, this may look like:
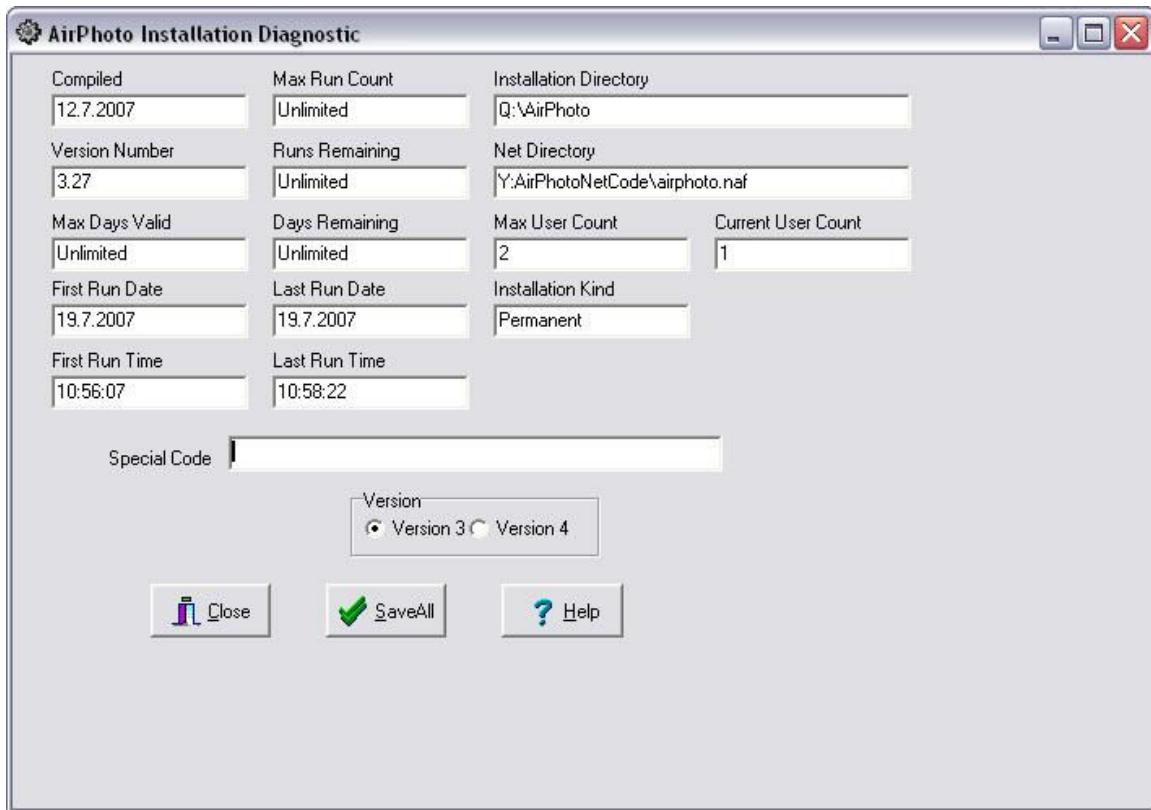

The network version has additional entries:

Most importantly, it shows the networked drive and directory where airphoto.naf has been loaded as well as the number of maximum and current users.

Registered users of the network version may request a special code which when pasted into the field of that name to enables complete deletion of AirPhoto registry entries, files and directories:
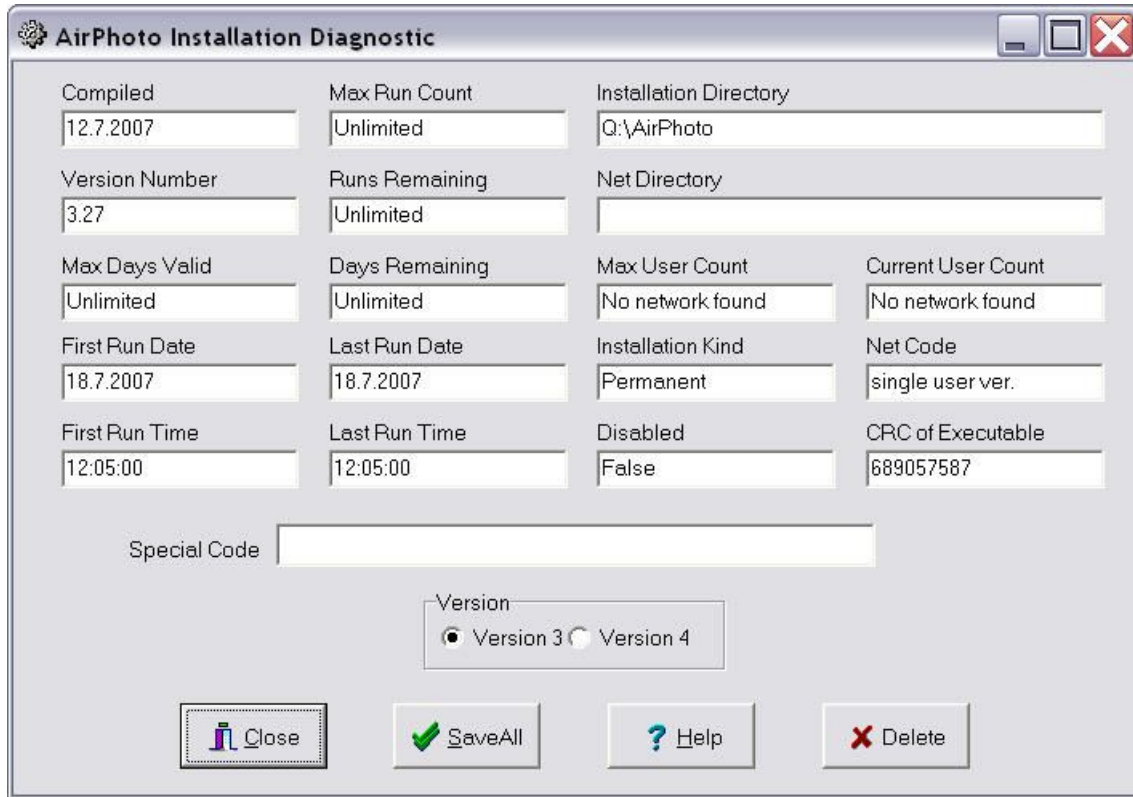
To use this feature, you must be logged in as a member of the administrator group or an error message is shown:

This may be helpful if a change is made at the network server regarding the location of the network access file thus requiring re-installation of all network clients. It can not repair a locked access slot. That must be done on the server itself as described in Network Installation.

Clicking on the SaveAll button creates data which can be saved to an ascii text file which may be sent as e-mail to help in diagnosing installation problems.

Typical output from the programme on a network installation after using the SaveAll option button looks like:

```
Compiled: 12.7.2007
First Run Date: 19.7.2007
First Run Time: 10:56:07
Last Run Date: 19.7.2007

Last Run Time: 10:58:22
```

```
Max Run Count: Unlimited
Installation Kind: Permanent
Max Days Valid: Unlimited
Max User Count: 2
Current User Count: 1
Version Number: 3.27
Installation Directory: Q:\AirPhoto
Net Directory: Y:AirPhotoNetCode\airphoto.naf
Runs Remaining: Unlimited
Days Remaining: Unlimited
Y:\AirPhotoNetCode Everyone:F
                   Everyone:(OI)(CI)(IO)F
                   Everyone:(OI)(CI)(IO)C

Y:\AirPhotoNetCode\airphoto.naf Everyone:F

Operating System Windows XP Service Pack 2
Physical Memory 2046 mb   Available 1544 mb
Number of Processor(s) 4  Type 586  Level 15  Revision 519
Display: Color Depth 32 bits.  Screen: 1024 x 768 pixels
Multiple monitors present: 2

Hard Disk          Capacity      Free Space  GB
C:\ NTFS                6.0             1.0
D:\ NTFS               19.5             8.0
G:\ NTFS              232.9           156.8
O:\ NTFS                1.0             0.6
P:\ NTFS                7.0             3.1
Q:\ NTFS                6.0             4.1
R:\ NTFS                6.0             2.1
S:\ NTFS                7.3             3.4
W:\ NTFS               68.4             5.7
```

In addition to all hardware details, it shows all important information about the network access file and the user rights for the directory on which it has been installed. Setting these rights correctly is usually the major problem when working with a network version. The results above are shown for a Windows server. Other servers such as Novell Netware or one of the many different Linux/Unix servers may not permit the programme to display these.