



## Installing AirServer for Windows



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## About the AirServer for Windows Installer

The AirServer for Windows installer is a Microsoft Installer .msi file. AirServer for Windows is available as a 32 bit product and a 64 bit product. In order to install the 32 bit version of AirServer use the 32 bit installer. To install the 64 bit version of AirServer use the 64 bit version of the installer. The 32 bit version of AirServer can be installed on a 64 bit machine. The 32 bit and 64 bit version of AirServer can be installed on the same machine as long as the operating system supports 32 and 64 bit applications. In other words on computers with a 64 bit Windows operating system you can install both the 32 and 64 bit version of AirServer if so desired.

If you are installing 32 and 64 bit AirServer on the same machine it is recommended to install the 32 bit version first and then the 64 bit version as the 64 bit installer will base any unspecified settings in the installer by using any present 32 bit settings.

## Installing AirServer for Windows

### *Installing AirServer on a single computer*

The installer can, of course, be installed by simply double clicking on it and following the on screen instructions. If you are installing AirServer on a small number of computers then installing it individually on each computer, by running the installer by double clicking it, is probably the simplest way of accomplishing that.

### *Installing AirServer in an organization*

If you are installing AirServer on a lot of computers, for example in a large organization, then you may want to use a Windows Installer Transform with the installer or use a batch file. With either method, the properties of the installer can be configured to allow a silent or unattended installation to take place. This can include product activation.

### Configuring AirServer

AirServer for Windows can be configured during the installation process by setting properties. Properties can be set either directly on the command line when using `msiexec.exe` or by using a transform file (MST). AirServer can also be configured by using the command line tool `AirServerConsole.exe` after AirServer has been installed.

The following is an example of specifying properties to the installer directly on the command line:

```
msiexec.exe /passive /i AirServerSetup.msi PIDKEY=user@domain.com CHECKFORUPDATES=DISABLE
ALLOWNAMING=DISABLE /L*V AirServerInstallLogFile.txt
```

The following is an example of installing AirServer for Windows using a transform file. In this scenario the transform file would include the properties to configure AirServer for Windows. For instructions on how to create a transform file see the section “Creating a Transform File”:

```
msiexec.exe /i AirServerSetup.msi /q TRANSFORMS=MyTransform.mst
```

### Installer Properties Reference Guide

The following table lists the properties that are supported by AirServer for Windows. The properties can be set either on the command line to `msiexec.exe` or in a transform file when installing AirServer.

Property	Purpose	Description
<b>PIDKEY</b>	Product Activation	Set this property to the email address or activation code associated with your license. For this to work, an internet connection to <a href="https://activation.airserver.com">https://activation.airserver.com</a> must be available from the computer where the installation is taking place.
<b>CHECKFORUPDATES</b>	Prevent AirServer from checking for software	To enable the automatic software updater, set this property to YES/TRUE/1/ENABLE. To disable the software updater, set it to NO/FALSE/0/DISABLE.

	updates, which might require Administrator privileges to install.		
<b>ALLOWNAMING</b>	Can be used to prevent users from setting a computer name. (Recommended when using roaming profiles).	To allow users to edit the Computer Name in the General tab of the Settings dialog, set this property to YES/TRUE/1/ENABLE. To prevent this and use the computer name instead, set it to NO/FALSE/0/DISABLE.	
<b>PASSWORDTYPE</b>	Allows a specific type of password to be set in order to use AirServer	<b>Value</b>	<b>Meaning</b>
		NONE	Set this property to NONE to enforce that no password is required to connect to AirServer.
		PASSWORD	Set this property to PASSWORD to require the password specified by the .msi property PASSWORD to be used (if PASSWORD is not set or is zero length then this is the equivalent of using PASSWORDTYPE=NONE)
		PASSCODE	Set this property to PASSCODE to use the onscreen passcode feature, where AirServer displays a 4 digit code on the screen for the user to enter on their iOS device in order to authenticate. This only works with iOS 6.0+ devices.
		ASKME	Set this property to ASKME to have AirServer show a Yes/No prompt on the computer screen, asking for permission to connect.
		USERCONFIGURABLE	Set this property to USERCONFIGURABLE to

			allow users to select their own authentication method from the settings dialog in AirServer.
<b>AUTOSTART</b>	Configures whether AirServer runs or not when a user logs on to the computer.	To enable AirServer to run at startup, set this property to ME or EVERYONE if you use YES/TRUE/1/ENABLE then ME is selected if the installer is not running elevated and EVERYONE is selected if the installer is running elevated. To prevent AirServer from running at startup, set it to NO/FALSE/0/DISABLE.	
<b>AIRPLAY_VIDEO_TCP_PORT</b>	Configures AirServer to use the specified TCP port for AirPlay (pictures and videos).	Set this value to a valid port (0 ... 65535). Use 0 to reset it to its default value.	
<b>AIRPLAY_AUDIO_TCP_PORT</b>	Configures AirServer to use the specified TCP port for AirPlay audio.	Set this value to a valid port (0 ... 65535). Use 0 to reset it to its default value.	
<b>AIRPLAY_AUDIO_UDP_PORT</b>	Configures AirServer to use the specified UDP port for AirPlay audio.	Set this value to a valid port (0 ... 65533). Use 0 to reset it to its default value. Three consecutive ports will be used.	
<b>ALLOW_LIST</b>	Configures AirServer to use an allow list for authentication.	<p>*** There is no UI in AirServer for editing the Allow List. ***</p> <p>Set this value to none to remove any allow list present.</p> <p>Set this value to user to create an allow list under HKLM that can be edited by a process running without elevated privileges (run by an authenticated user).</p> <p>Set this value to admin to create an allow list under HKLM that can be edited by a process running with elevated privileges (run as admin).</p> <p>The allow list is under the "HKEY_LOCAL_MACHINE\SOFTWARE\App Dynamic\AirServer\Allow List" key. You can add MAC addresses to it under the key "Machine Addresses" as keys with each octet separated by either a - or : character, for example:</p>	

		HKEY_LOCAL_MACHINE\SOFTWARE\App Dynamic\AirServer\Allow List\Machine Addresses\F4-29-01-0C-2C-FF\
<b>SINGLE_USER_MODE</b>	Restricts mirroring to one device at once (turns side-by-side mirroring off).	To turn on SingleUserMode set this property to YES/TRUE/1/ENABLE.  To turn off SingleUserMode set it to NO/FALSE/0/DISABLE.
<b>AUTO_RESTART</b>	AirServer will attempt to restart if it encounters a fatal error while running if this setting is on.	To turn on AutoRestart set this property to YES/TRUE/1/ENABLE.  To turn off AutoRestart set it to NO/FALSE/0/DISABLE.
<b>FIREWALL_CHECK</b>	AirServer will not perform the firewall check when it starts if this is set to off.	To turn on FirewallCheck set this property to YES/TRUE/1/ENABLE.  To turn off FirewallCheck set it to NO/FALSE/0/DISABLE.

## Creating a Transform file

A transform can be created using a tool, such as Orca.exe, which is part of Microsoft's Windows Installer SDK. Instructions for obtaining, installing and basic use of Orca.exe are available on Microsoft's web site at <http://support.microsoft.com/kb/255905>

The method used for creating a transform is as follows. Open the .msi file in Orca.exe and then, from the Transform menu, select New Transform. Make your changes to the installer. For example, to have the installer activate AirServer, open the Property table and add a property named PIDKEY, with the value being the transaction code or email address that you want to use for the activation. After making the changes, select Generate Transform from the Transform menu. Then, select Close Transform from the Transform menu, followed by Close from the File menu. You could then exit Orca.exe.

## Configuring AirServer via the command line

AirServer can be configured after it has been installed by using the command line program AirServerConsole.exe. AirServerConsole.exe is located in the installation directory of AirServer. Typically this will be "C:\Program Files\App Dynamic\AirServer\" unless you have installed the 32 bit version of AirServer on a 64 bit version of Windows, in which case it can be found under "C:\Program Files(x86)\App Dynamic\AirServer\"

The options supported by AirServerConsole.exe are similar to those offered by the installer. For more information about the command line options available run "AirServerConsole.exe /?"



## Upgrading AirServer for Windows

AirServer for Windows can be upgraded by installing a version of AirServer that has a greater version number. In order for an upgrade to occur you must use the same type of installer as the presently installed version of AirServer. If you have a 32 bit version of AirServer installed then you can upgrade AirServer by using a 32 bit installer with a greater version number. If you have a 64 bit installer then you use a 64 bit installer with a greater version number to cause an upgrade to occur.

During an upgrade the settings of the previous installation are kept. Except for any settings that have been retired, such settings may be migrated by the installer to appropriately similar settings if available.

Uninstallation is detected by the installer session property REMOVE being of none or zero length and the session property UPGRADINGPRODUCTCODE being none present or of zero length. Thus, an activated installation of AirServer should not require activation after being upgraded by installing a newer version than the currently installed version.

## Uninstalling AirServer for Windows

During uninstall, AirServer will attempt to deactivate itself if there are no other installations of AirServer for Windows visible to the user account performing the uninstallation.

If you have both the 32 bit and 64 bit version of AirServer installed and activated then uninstalling one of these will not cause deactivation to occur. Under these circumstances deactivation will be attempted when the last copy of AirServer for Windows is uninstalled.

## Activation and Deactivation with a proxy server

When AirServer is attempting to activate or deactivate it will try to connect to "activation.airserver.com" using https. If a direct connection cannot be established then an attempt will be made using the current users proxy settings set for Internet Explorer. If that is not successful, for example if the installer is being run via GPO or SCCM then it will attempt to use DHCP and/or DNS A records to obtain proxy settings. If you have a PAC script make sure that the identity running the installer has enough rights to access it if it is on a network share (NTLM/Negotiate authentication).

If you are having trouble configuring proxy settings for the user that is performing the actual installation (i.e. the user context that GPO or SCCM launches msixec.exe under) then you might want to advertise the proxy server by using either DHCP option 252 or a DNS A record. An alternative is to allow activation.airserver.com to not require proxy (i.e. create a valid route for it).

If activation is going to be done using airserverconsole.exe and you want to activate all users on the machine. Then airserverconsole.exe must be run with elevated rights (As Administrator).

## Troubleshooting

If for any reason AirServer fails to install on a computer the first course of action is to reattempt installing from an elevated command line with verbose logging. The log file generated can be used to diagnose the reason for failure. You have the option of either attempting to diagnose the failure yourself, or alternatively send the log file and a description of the failure along with information about the computer such as which operating system is installed to [support@airserver.com](mailto:support@airserver.com).

In order to generate a verbose install log using the Microsoft Installer (msiexec.exe) you need to specify the following options: `/i <the msi file to install> /L*V <the name of the log file>`

For example, to run an install of AirServer-2.1.0.x64.msi from your Downloads folder, producing a log file on your Desktop folder called AirServerLog.txt you would use the following command line:

```
msiexec.exe /i "%USERPROFILE%\Downloads\AirServer-2.1.0.x64.msi" /L*V  
"%USERPROFILE%\Desktop\AirServerLog.txt"
```

### *Common Installation Issues*

If you have a log file from a failed installation you can attempt to analyze and resolve the issue yourself. Alternatively you can send the log file with a description of the issue and a description of the computer, such as the operating system version, to [support@airserver.com](mailto:support@airserver.com).

The first step in analyzing the log file is to open it with a text editor and then search for the word "Error" this should take you to the location of the error. Make a note of the error and see if it matches any of the errors below. You may also want to read the section of the log to better understand what was being done when the failure occurred. From the line containing the text "Error" search upwards to find the nearest line that starts with the text "Action <timestamp> <action name>". It is most likely that this action has failed, and quite possible that the error is described in more detail between the "Action" line and the line containing the word "Error".

The following sections are titled with error texts that can occur during installation.

## “CAQuietExec: Error 0x80070005: Command line returned an error.” during action RegisterEventManifest

This error typically presents itself in the log file as follows:

Action 10:43:52: RegisterEventManifest.

MSI (s) (64:38) [10:43:52:082]: Executing op: CustomActionSchedule(Action=RegisterEventManifest, ActionType=3073, Source=BinaryData, Target=CAQuietExec, CustomActionData="wevtutil.exe" im "C:\Program Files\App Dynamic\AirServer\AirServerEvents.man")

MSI (s) (64:0C) [10:43:52:097]: Invoking remote custom action. DLL: C:\windows\Installer\MSID711.tmp, Entrypoint: CAQuietExec

CAQuietExec: The publishers and channels are installed successfully. However, we can't enable one or more publishers and channels. Access is denied.

CAQuietExec: Error 0x80070005: Command line returned an error.

CAQuietExec: Error 0x80070005: CAQuietExec Failed

CustomAction RegisterEventManifest returned actual error code 1603 (note this may not be 100% accurate if translation happened inside sandbox)

Action ended 10:43:52: InstallFinalize. Return value 3.

This error occurs when the installer is attempting to install a message file for the Windows Event Viewer, and it is disallowed access from doing so.

This issue can occur because permissions have been incorrectly set on the folder:

“%WINDIR%\System32\winevt\Logs”.

Permissions can be reset with an elevated command prompt using lines similar to the following:

```
%windir%\system32\icacls.exe %windir%\system32\winevt\ /grant "nt service\trustedinstaller":F /grant "nt service\local service":F /grant administrators:F /grant system:F /T >%temp%\icacls.log
```

```
%windir%\system32\icacls.exe %windir%\system32\winevt\logs /grant "Authenticated Users":M /T >%temp%\icacls.log
```

**“CustomAction InstallDirectX9c returned actual error code 1 (note this may not be 100% accurate if translation happened inside sandbox)” during action InstallDirectX9c**

This error typically presents itself in the log file as follows:

Action 12:05:39: InstallDirectX9c.

MSI (s) (F8:A0) [12:05:39:334]: Executing op: CustomActionSchedule(Action=InstallDirectX9c, ActionType=3090, Source=C:\Program Files\App Dynamic\AirServer\DirectX 9.0c Minimal Setup\DXSETUP.exe, Target=/silent,)

CustomAction InstallDirectX9c returned actual error code 1 (note this may not be 100% accurate if translation happened inside sandbox)

MSI (s) (F8:A0) [12:05:42:969]: Note: 1: 1722 2: InstallDirectX9c 3: C:\Program Files\App Dynamic\AirServer\DirectX 9.0c Minimal Setup\DXSETUP.exe 4: /silent

Error 1722. There is a problem with this windows Installer package. A program run as part of the setup did not finish as expected. Contact your support personnel or package vendor. Action InstallDirectX9c, location: C:\Program Files\App Dynamic\AirServer\DirectX 9.0c Minimal Setup\DXSETUP.exe, command: /silent

MSI (s) (F8:A0) [12:05:47:438]: Product: AirServer (64-bit) -- Error 1722. There is a problem with this windows Installer package. A program run as part of the setup did not finish as expected. Contact your support personnel or package vendor. Action InstallDirectX9c, location: C:\Program Files\App Dynamic\AirServer\DirectX 9.0c Minimal Setup\DXSETUP.exe, command: /silent

Action ended 12:05:47: InstallFinalize. Return value 3.

This error occurs when the installer is attempting to install Direct X 9.0c. The error is from the DirectX installer. The normal cause of failure for this installer is that the user's TEMP directory has incorrect permissions. To diagnose this further you can look for a file called directx.log in “%WINDIR%\Logs” or “%WINDIR%”

The normal resolution for this is to grant the required permissions on the user's Temp directory as follows using an elevated command prompt:

```
icacls "%TEMP%" /grant "%USERNAME%":(OI)(CI)F
```

```
icacls "%TMP%" /grant "%USERNAME%":(OI)(CI)F
```