Setting and Checking LISTSERV[®] www Interface Permissions

Microsoft Windows Server with IIS 10.x

Last Updated: 20 May 2025

These instructions apply only to Windows Server with Internet Information Server IIS 10.x. They should also work for IIS 10 on Windows 10 or Windows 11, though some illustrations may appear differently in the Workstation versions of Windows.

(Some of these illustrations are reused from Windows Server 2012, because there is no difference in the instructions to install the LISTSERV web interface between IIS 8.x and IIS 10.x., and the illustrations will not materially differ.)

To install LISTSERV and configure its WWW interface successfully, you MUST be logged in as the Local Server Administrator or use an account that is a member of the Local Server Administrators Group (could also be domain Administrators account). Even so, you may at times be confronted by Windows UAC Security warnings:

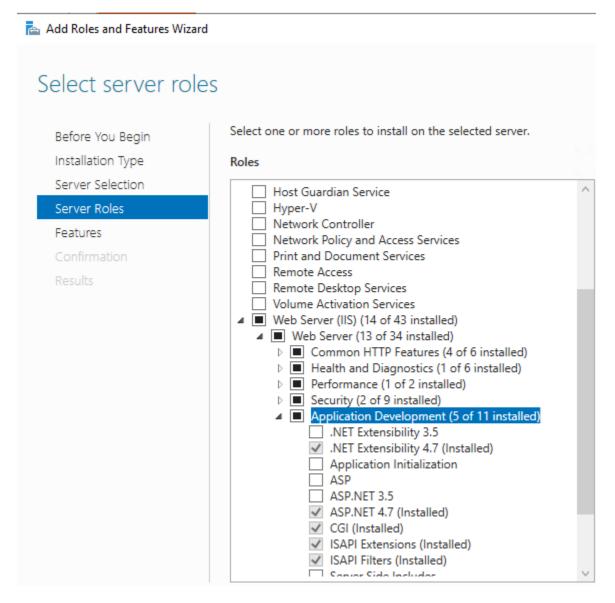
8	File Acces	ss Denied	- 0 X
	eed to provide administrator p UPLOAD.JAR Type: JAR File Size: 30.9 KB Date modified: 16/10/20		e this file
	his for all current items	Skip	Cancel
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We don't recommend turning off UAC, so simply click 'Continue' and proceed whenever you are challenged like this.

This paper assumes LISTSERV has already been installed on your machine by running the regular LISTSERV installer kit. This process includes a checkbox on whether or not to also install the LISTSERV www interface. If you check 'yes', then most of these steps (creating additional directories, adding lines to the site.cfg file, etc.) will have already been done by the installer. Nevertheless, all necessary steps are listed here and you should verify that the installer has done them correctly.

Further, you need to verify that certain necessary components or modules of IIS 10 are installed on your system in order to be able to successfully configure IIS 10 for use with LISTSERV. Please check these first and if necessary, install them before proceeding.

Verify that the 'ISAPI Extensions' and 'CGI' are installed with IIS 10. Open Windows Server Manager. Click 'Add server roles and features'. Scroll down and click the little arrows on the left to expand and display the detail of IIS 10 features installed.



If the 'CGI' and 'ISAPI Extensions' roles are not installed, click the check boxes and proceed to install them. These may not be installed in a default installation for IIS 10, but they are required for the LISTSERV WWW interface to run. You *may* need the original Windows Installation Media to add these roles, though they should be accessible and installable via the Microsoft **Server Manage/Manage/Add Roles and Features** wizard without need for the media.

1. Create Additional Required Directories

Stop LISTSERV, if it is currently running.



The normal installation of LISTSERV should make the following additional directories. Please verify and make them manually if they do not already exist. Note, the directory names below are the default names in a normal, default installation. If you have chosen not to use these defaults, then you must make any necessary transpositions. The Drive letter is shown as x:\ because we have no idea on which drive you will install LISTSERV. Please make appropriate substitutions where necessary.

x:\LISTSERV\LISTS	Parent directory for list message archive files
x:\LISTSERV\WWW	Parent directory for LISTSERV www 'root'
	directory
x:\LISTSERV\WWW\ARCHIVES	This will be LISTSERV www 'root' directory
x:\LISTSERV\WWW\ARCHIVES\UPLOAD	This directory is required
x:\LISTSERV\WWW\SCRIPTS	Directory where LISTSERV wa.exe CGI script will
	be installed and run from

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LOG		5/20/2025 12:53 PM	File folder	
MAIN				
SPOOL				
ARCHIVES				
SCRIPTS				
2 items	×			1

Edit x:\LISTSERV\MAIN\site.cfg (the LISTSERV Site Configuration File) with a plain text editor (e.g., Notepad) and create or modify the following settings:

WWW_ARCHIVE_CGI= /scripts/wa.exe WWW_ARCHIVE_DIR= x:\LISTSERV\WWW\ARCHIVES SITE CONFIG CGI DIR= x:\LISTSERV\WWW\SCRIPTS

Save the site.cfg file.

Manually copy x:\LISTSERV\MAIN\WA.exe to x:\LISTSERV\WWW\SCRIPTS if the installer has not already done this.

Do not start LISTSERV yet.

2. Set NTFS File and Directory Permissions

Security settings as below are most easily set or checked using the Windows Explorer program. First select the desired Directory, Right-Click on 'Properties', then choose the 'Security' Tab. If you do not see the security tab, you do not have Administrator level privileges and you cannot complete this setup until you do.

If the IUSR user (or Administrators group or SYSTEM user) is not present for any of these directories you will need to click the 'Edit' button to add a new user. Be sure the search location is only the Local_Machine user list, **not** a domain account list.

The IUSR user is the anonymous internet user account which will be used to access the LISTSERV web interface. (Note that login/security is handled by WA.EXE, not by IUSR.)

x:\LISTSERV\ (and all subdirectories)

Administrators	Full Control
System	Full Control

x:\LISTSERV\LISTS (and all subdirectories)

Administrators	Full Control
System	Full Control
IUSR	READ

x:\LISTSERV\WWW (and all subdirectories)

Administrators	Full Control
System	Full Control
IUSR	READ

x:\LISTSERV\WWW\SCRIPTS

Administrators	Full Control	
System	Full Control	
IUSR	READ & EXECUTE	

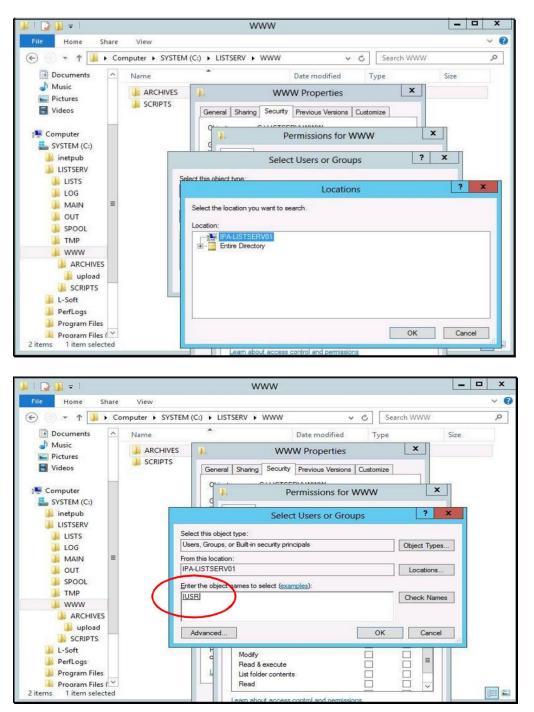
x:\LISTSERV\WWW\ARCHIVES\UPLOAD

Administrators	Full Control
System	Full Control
IUSR	READ, WRITE,
	MODIFY

(Note: The UPLOAD directory is the ONLY directory where the IUSR account needs 'MODIFY' permissions, which includes 'WRITE'. Also note, the IUSR account may also have special WRITE-DENY permissions on some directories. You may need to override this for this directory only.)



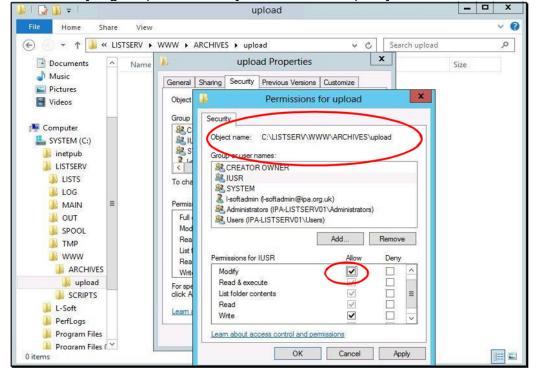
Start with the x:\LISTSERV\WWW directory:



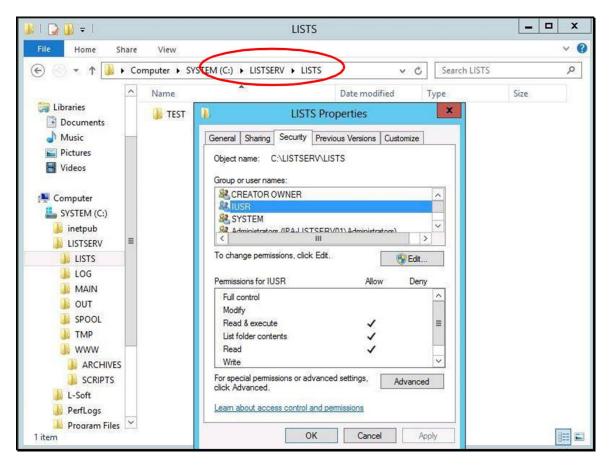


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1 Computer		Permissions for WWW	
SYSTEM (C:) inetpub LISTSERV LISTS LOG MAIN SPOOL SPOOL WWW		Security Object name: C:\LISTSERV\WWW Group or user names: CREATOR OWNER IUSR Administrators (IPA-LISTSERV01\Administrators) Users (IPA-LISTSERV01\Users)	
ARCHIVES upload SCRIPTS L-Soft Program Files Program Files (2 items 1 item selected		Add Remove Permissions for IUSR Allow Deny Full control Add Read & execute Learn about access control and permissions 	

Add 'Modify' rights (automatically includes 'Write') only on UPLOAD directory:



Also set the READ permissions for IUSR on the x:\LISTSERV\LISTS directory:



Now start LISTSERV.

Look in the x:\LISTSERV\WWW\ARCHIVES directory.

There you should see several files, including DEFAULT.WWWTPL, INDEX.HTML, and DEFAULT.HTM (More files may also be there, but at least these.) This is a good sign. It means LISTSERV recognizes the directory and can write its files there.

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Pictures	Name	Date modified	Туре	Size	
Videos	🔐 editor	19/03/2014 16:05	File folder		
	鷆 htmlmail	19/03/2014 16:05	File folder		
Computer	퉳 images	19/03/2014 16:05	File folder		
SYSTEM (C:)	鷆 TEST	19/03/2014 21:52	File folder		
Inetpub LISTSERV	퉬 upload	19/03/2014 21:52	File folder		
	🖉 calendar.js	06/10/2009 00:25	JavaScript File	49 KB	
LOG	alendar-blue.css	06/10/2009 00:25	Cascading Style S	5 KB	
MAIN	🗭 calendar-en.js	06/10/2009 00:25	JavaScript File	4 KB	
OUT E	📓 calendar-setup.js	06/10/2009 00:25	JavaScript File	9 KB	
	ST CATALIST.GIF	19/03/2014 19:16	GIF image	3 KB	
TMP	E DEFAULT.HTM	19/03/2014 19:23	HTML Document	1 KB	
A WWW	DEFAULT.WWWTPL	08/11/2011 12:23	WWWTPL File	2,939 KB	
ARCHIVES	fckconfig.js	09/12/2009 00:39	JavaScript File	14 KB	
ARCHIVES	S fckeditor.js	31/03/2008 19:14	JavaScript File	9 KB	
htmlmail	fckstyles.xml	27/03/2008 14:43	XML Document	4 KB	
images	E HEADER.HTML	19/03/2014 19:23	HTML Document	7 KB	
TEST	INDEX.HTML	19/03/2014 19:23	HTML Document	1 KB	
upload	LAVFILTER.GIF	19/03/2014 19:16	GIF image	4 KB	
UPLOAD.	EPOWERED.GIF	19/03/2014 19:23	GIF image	4 KB	
SCRIPTS	SITE.WWWTPL	19/03/2014 18:46	WWWTPL File	17 KB	
⊿ L-Soft ×	ETEST.HTML	19/03/2014 19:23	HTML Document	1 KB	

If this does not happen, then there is a problem. You should check the LISTSERV log file (x:\LISTSERV\LOG\LISTSERV-yyyymmdd.LOG) for any error messages. You may ask L-Soft Support for help interpreting the log file. Repeat the steps leading to this point to verify all settings. Do NOT pass here until this step performs OK.

3. Create Virtual Directories in IIS

Open the IIS Management console (also known as Internet Services Manager) Select the name of your machine and click on the little arrow to expand the options Select 'Sites'

Click on the little arrow to expand the options

Select 'Default Web Site' and Right Click (sometimes you may need to select the name) Select 'Add Virtual Directory'

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Set Alias: to 'ARCHIVES' (without quotes, without '/') Browse (... button) to select the directory path to x:\LISTSERV\WWW\ARCHIVES Click Ok

	Add Virtual Directory	?
Site name: Path:	Default Web Site /	
Alias:		
ARCHIVES		
Example: ima Physical path:		
C:\LISTSERV\\	VWW\ARCHIVES	
Pass-through	authentication	7.8
Connect as.	. Test Settings	
	ок	Cancel



Select 'Default Web Site' and Right Click (sometimes you may need to select the name) Select 'Add Virtual Directory'

Set Alias: to 'scripts' (without quotes, without '/') Browse (... button) to select the directory path to x:\LISTSERV\WWW\SCRIPTS Click Ok

	Add Virtual [Directory	?	×
Site name: Path:	Default Web Site /			
Alias:				
SCRIPTS				
Example: ima Physical path				
C:\LISTSERV\	WWW\SCRIPTS			
Pass-through	authentication			
Connect as.	Test Settings			
	1	ок	Cancel	
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4. Set IIS Web Extension Properties

IIS 10 implements a variety of restrictions on ASP, CGI, and other executables that are significantly stronger than previous versions of IIS, and the configuration of these restrictions is significantly different. You must now configure IIS to allow it to run the wa.exe CGI 'script'.

From the IIS 10 main screen, double-click on 'ISAPI and CGI Restrictions':



Click on the 'Add...' link in the Actions box on the right side.

For Path: click the '...' button and browse to find x:\LISTSERV\WWW\SCRIPTS\WA.exe For 'Description:' enter 'LISTSERV-CGI' (without quotes) Check the box 'Allow extension path to execute' Click OK

	Edit ISA	API or CGI R	estriction	?	x
ISAPI or (GI path:				
C:\LISTSI	RV\WWW\SCRIPTS	S\WA.exe			
Descripti	on:				
LISTSERV	CGI				
Allow	extension path to e	execute	OK	Cance	-1

To allow the execution of WA.exe in the x:\LISTSERV\WWW\SCRIPTS directory:

Click on the ~\scripts item under 'Default Web Site' (Left window) Double-click on "Handler Mappings" (Middle window)

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	► Sites ► De	efault Web Site	► SCRIPTS	5 •	
File View Help					
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Application Pools A B Sites Default Web Site ARCHIVES	Authentic	Authorizat Rules	CGI CGI	Compression	Default Document
D SCRIPTS	Failed Request Tra	Handler Mappings	HTTP	HTTP Respon	IP Address and Doma
	Modules	Output Caching	Request Filtering	SSL Settings	WebDAV Authori

Find and click on 'CGI-exe' in the (grayed out) list of Disabled extensions,

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🕞 💮 🛃 🕨 IPA-LISTSERV01	Sites Default Web Site	► SCRIPTS ►				
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Connections Connections Start Page Connection Start Page Connection Start Page Connection Start Page Connection Start Page Connection Start Page Connection Connection Start Page Connection Connection Start Page Connection Conn	Handler Mappings Use this feature to specify the resources, such as DLLs and managed code, that handle responses for specific request types. Group by: State					
	Name	Path	State	Path Type		
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	OPTIONSVerbHandler	*	Enabled	Unspecified		
	TRACEVerbHandler	*	Enabled	Unspecified		
	WebDAV	*	Enabled	Unspecified		
	StaticFile	*	Enabled	File or Folder		
	<					

click 'Edit Feature Permissions' (Right Window):

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Connections	Handler Ma Use this feature to specify t responses for specific requ Group by: State	he resources, such as DL	Ls and manag <mark>e</mark> d coo	de, that handle
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▷ 💭 ARCHIVES ▷ 📆 SCRIPTS	Disabled CGI-exe ISAPI-dII Enabled OPTIONSVerbHandler TRACEVerbHandler WebDAV StaticFile	*.exe Edit Fe Permissions: Read Script Execute	Disabled eature Permission	File
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Check the box for 'Execute'. The background will suddenly change and the grayed-out disabled options will be enabled. Then click OK.

9	Internet Information Services (IIS) Manager					
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File View Help						
Connections	Handler Mappings Use this feature to specify the resources, such as DLLs and managed code, that handle responses for specific request types. Group by: State					
	Name A	Path	State	Path Type		
	CGI-exe ISAPI-dll OPTIONSVerbHandler TRACEVerbHandler WebDAV	*.exe Edi Permissions:	Enabled t Feature Permis	File		
	StaticFile	ReadScriptExecute				
			ОК	Cancel		



5. Final Steps

Windows Server implements a software firewall in Windows. By default, this firewall, if enabled, will prevent IIS from serving any web pages. The same is true of SMTP services (receiving email). You must configure the Windows Firewall to permit HTTP/HTTPS services and SMTP services to work. We do not recommend disabling the Firewall unless you are fully aware of the risks or if you have external means of providing similar protection for the server.

Sometimes it is necessary to stop/restart the Default Web Site in the IIS Manager at this point. It does not hurt to do so now.

Now try to access <u>http://your_server_name/scripts/wa.exe</u> from a local web browser (preferably not the browser on the LISTSERV machine itself).

LISTSERV \bigcirc LISTSERV Archives Browse and search the archives of lists on this server Access Unlisted Lists: Search TRAINING.LSOFT.COM ≡ V $\overline{\nabla}$ $\overline{\nabla}$ ALEX-NO-INTERFACE 2 No interface list ALEX-SAMPLE-LIST 4 Alex's sample list **ANDREW-RDAY2** 2 Andrews test list Day 2 ASHRAE-TEST 1 ASHRAE Committee Announcements JEFF_TEST 4 Jeff's Test List LOGIN_BEST_PRACTICES 1 How to log into applications with the right email address WALID-KH 7 **TEST** Training ② Lists per Page: Update 50 S 🕅 TRAINING.LSOFT.COM

You should see a page titled 'LISTSERV Archives':

If you get the 'LISTSERV Archives' page, similar to that shown above, then click on 'Log In'. You should be presented with a 'Login Required' page, requesting your email address and Personal LISTSERV Password to login.

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⑦ ■ LISTSERV Login Required	
Email Address:	
LOC IN Register Password Forgot Password?	
	A CONTRACT

If you don't have a Personal LISTSERV Password (different from the CREATEPW stored in site.cfg) now would be a good time to create one. Click on the link above the login boxes to "Register Password"

Troubleshooting

If the URL to the LISTSERV Archives page doesn't work, then check network access permissions between your desktop machine and the LISTSERV machine. Your network rules may prevent access to that machine. Also, be sure the Fully Qualified Domain Name of your server has been entered in local/internal DNS and points to the correct IP address.

If either URL presents you with a Windows login screen asking for Windows User account login and Password, then your NTFS file/directory permissions as set above are not correct. Revisit Section 2, above, on these settings.

If you can get this far then you should be OK. If not, go work back to the last successful checkpoint, then work forward again verifying settings. If you encounter problems you should reference the IIS log file. This is typically located at C:\inetpub\logs\LogFiles. For help interpreting IIS Status Codes see <u>http://support.microsoft.com/kb/318380</u>.