Showacls.exe

ShowACLs is a 32-bit command-line tool that displays NTFS permissions for files and directories. The tool enumerates the local and global groups to which a user belongs and matches the user's security identifier (SID) and the SIDs of the groups to which the user belongs against the SIDs in each access control entry (ACE).
This tool is included in the *Microsoft® Windows® 2000 Resource Kit*.

Contents

Access Control Lists and Access Control Entries

NTFS uses access control lists (ACLs) to set permissions for users and groups on objects. ACLs contain access control entries, which control permissions for a specific user or group. The four ACE types are Access Allowed, Access Denied, System Alarm, and System Audit. Each ACE has a common ACE header and a unique data structure. The SID associated with each ACE is contained in the data following the ACE header. The following table lists the meanings of the four ACE header values, which are hexadecimal numbers.

ACE Header Value	Meaning
0x1	Object Inherit ACE
0x2	Container Inherit ACE
0x4	No Propagate Inherit ACE
0x8	Inherit Only ACE

Permissions and Alpha Keys

ACLs contain a large amount of information, and the first version of ShowACLs attempted to display all the data in the access mask. The current version, which ships with the *Windows® 2000 Resource Kit*, uses the standard permissions: Full Control, Change, and Read. If a mask does not match these predefined values, a raw dump of the mask is performed.

The following table shows the permissions for each of the predefined values, and the alpha keys for permissions that do not match one of these predefined values. For more information, see the Winnt.h file in the Microsoft® Platform Software Development Kit (SDK) or Microsoft® Visual C++®.

Permissions	Predefined values
Full Control	FILE_ALL_ACCESS
Change	DELETE | SYNCHRONIZE | FILE_READ_DATA | FILE_WRITE_DATA | FILE_APPEND_DATA | FILE_READ_EA | FILE_WRITE_EA | FILE_EXECUTE | FILE_READ_ATTRIBUTES | FILE_WRITE_ATTRIBUTES | READ_CONTROL
Read	FILE_READ_DATA | SYNCHRONIZE | FILE_READ_EA | FILE_EXECUTE | READ_CONTROL | FILE_READ_ATTRIBUTES
R	GENERIC_READ
W	GENERIC_WRITE
X	GENERIC_EXECUTE
D	DELETE
A	GENERIC_ALL
d	FILE_READ_DATA (directory)
l	FILE_READ_DATA (file)
s	SYNCHRONIZE
r	FILE_READ_DATA
w	FILE_WRITE_DATA
a	FILE_APPEND_DATA
rE	FILE_READ_EA
wE	FILE_WRITE_EA
fx	FILE_EXECUTE

Usage

Showacls /s /u:*domain\user filespec* **/?**
Where:
/s
includes sub-directories.
/u
specifies the *user* (and the user's *domain)* whose security information is displayed.
filespec
specifies the files and folders on which the user's permissions are displayed.
/?
displays a command-line syntax screen.

Feedback

For questions or feedback concerning this tool, please contact rkinput@microsoft.com.