aledit: An Access List Editor

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aledit is a program that runs under the window manager on the (VIRTUE-ized) SUN workstations at the ITC. It allows you to examine and edit the access lists on directories in VICE. aledit does not go through the VIRTUE file system: it deals directly with VICE via RPC calls in order to fetch and store access lists.

This brief document assumes you are familiar with the VICE protection mechanism, as described in Section 1 of "Users, Groups and Access Lists" (CMU-ITC-84-005).

To use aledit, fire up the window manager and run "/vice/virtue/bin/aledit" (typically you will have "/vice/virtue/bin" in your search path already). After a pregnant pause, a new window will pop up. This window has a number of regions:

Directory

> This contains the name of the VICE directory on which the operations you specify will be performed. To enter a name in this field, click the left mouse button, type in the name of the desired directory, and terminate with a new-line.

Untitled

> This typescript-like area contains the names of users and groups which are in the current access list. When a particular entry is selected by clicking the left mouse button, it is boldified. The selected name appears in the area entitled **Name**, and the rights for this entry appear in the fields entitled **Plus Rights** and **Minus Rights**. Scrolling through the access list is done via the scrollbar on the left.

Operations

> The buttons in this area are used to make modifications permanent. Changes to **Name**, **Plus Rights** or **Minus Rights** will not really affect the current access list until you click **Update Entry**. The current access list will become effective on the directory whose name is in **Directory** only when **Set List** is clicked. To delete an entry from the current access list, select it and click **Delete Entry**. Click **Get List** to replace the current access list by that of the directory specified in **Directory**.

Errors

> When an RPC call to a server is unsuccessful, an error code is printed in this field. A list of RPC and VICE error codes is appended to this document. This crude error reporting mechanism will be superseded in the future by something more friendly.

Name

> Displays the user or group name whose rights are to be examined or modified. Click this field and type the name in. If it is present in the current access list, the rights corresponding to that entry will be displayed in **Plus Rights** and **Minus Rights**. Alternatively, select an entry in the current access list. To add a new entry, type the name in, set the rights, and click **Update Entry**.

Plus Rights

> A bold button indicates that the user or group in **Name** possesses the corresponding positive right. Clicking the button toggles this. Remember

that you must click **Update Entry** to make the changes effective in the current access list.

Minus Rights

Similar to **Plus Rights**. Note that **Minus Rights** are intended as an emergency revocation mechanism. You will almost never wish to set one of these rights.

Typical Usage

Suppose you wish to examine the access list on "/vice/foo" and modify some of its entries. You also wish to make the access list on "/vice/bar" identical to that on "/vice/foo". A typical sequence of actions you would take are:
Start up aledit.

Click **Directory** and type in "/vice/foo".

Click **Get List**. After a brief pause, while aledit contacts VICE, a list of names will appear in the untitled area.

Scroll through the access list. To see the rights corresponding to any name, select it. To change the rights of a selected name, click the appropriate rights buttons. Remember to click **Update Entry** after altering the rights. To enter a new name, click **Name** and type the name in; set rights for this name and then click **Update Entry**. To delete an entry, select it and click **Delete Entry**.

When you are satisfied with the access list, click **Set List**. The new access list has now been set on "/vice/foo".

Click **Directory** and type in "/vice/bar". Then click **Set List**. The same access list is now set on "/vice/bar".

The directory "/vice/itc/satya/playpen" contains a toy access list. Use aledit to play with it. *Caveat: don't remove Administer rights from System:AnyUser. If you do, no guest users (like yourself) will be able to modify the access list.*

RPC Return Codes

RPC_SUCCESS	0
RPC_FAIL	–1
RPC_NOCOONNECTION	–2
RPC_TIMEOUT	–3
RPC_BULKSUCCESS	0
RPC_BULKFAILURE	–4
RPC_BULKTRAGEDY	–5
RPC_NOBINDING	–6
RPC_DUPLICATESERVER	–7
RPC_ALREADYLISTENER	–8
RPC_NOTLISTENER	–9
RPC_NOTWORKER	–10
RPC_ALREADYWORKER	–11
RPC_NOTCLIENT	–12
RPC_TOOLONG	–13
RPC_WRONGVERSION	–14
RPC_NOTAUTHENTICATED	–15

VICE File System Return Codes

FS_SUCCESS	0
FS_PARMBAD	1
FS_NOTCUST	2
FS_NOTAUTH	3
FS_READLCK	5
FS_WRITELCK	6
FS_NOPARENT	7
FS_NOCUST	8
FS_NOLOCK	9
FS_PATHBAD	10
FS_NOTFILE	11
FS_NOTDIR	12
FS_DUPPATH	13
FS_NOTEMPTY	14
FS_NOTLINK	15
FS_FAIL	16
FS_HOLDLCK	17
FS_PROMLCK	18
FS_REPL	19
FS_BADCUST	20

Rights Supported by VICE File System

READ	Read any file in the directory.
WRITE	Write any existing file in the directory.
LOCK	Place read locks on any file in the directory.
INSERT	Add new files or subdirectories into the directory
DELETE	Remove files or subdirectories in the directory.
LOOKUP	Obtain status information about files in the directory.
ADMINISTER	Modify the access list on the directory.