Open Local

Opens the Registry Editor windows, each of which represents one of the predefined keys:

HKEY CURRENT USER

■ The **HKEY_CURRENT_USER** window is the root of the configuration information for the user who is currently logged on. The user's folders, screen colors, and Control Panel settings are stored here. This information is referred to as a user's profile.

HKEY USERS

■ The **HKEY_USERS** window is the root of all user profiles on the computer.

HKEY_CURRENT_USER is a subkey of **HKEY_USERS**.

HKEY_LOCAL_MACHINE

■ The **HKEY_LOCAL_MACHINE** window contains configuration information particular to the computer (for any user).

HKEY_CLASSES_ROOT

■ The **HKEY_CLASSES_ROOT** window is a subkey of **HKEY_LOCAL_MACHINE\Software**. The information stored here is used to open the correct application when a file is opened using the Windows NT Explorer and for Object Linking & Embedding (OLE).

HKEY_CURRENT_CONFIG

■ The **HKEY_CURRENT_CONFIG** window contains information about the hardware profile used by the local computer at system startup.

See Also

Opening the Local Registry

Close

Closes all windows associated with the currently active window.

HKEY CURRENT USER

■ The **HKEY_CURRENT_USER** window is the root of the configuration information for the user who is currently logged on. The user's folders, screen colors, and Control Panel settings are stored here. This information is referred to as a user's profile.

HKEY USERS

■ The **HKEY_USERS** window is the root of all user profiles on the computer.

HKEY_CURRENT_USER is a subkey of **HKEY_USERS**.

HKEY_LOCAL_MACHINE

■ The **HKEY_LOCAL_MACHINE** window contains configuration information particular to the computer (for any user).

HKEY_CLASSES_ROOT

■ The **HKEY_CLASSES_ROOT** window is a subkey of **HKEY_LOCAL_MACHINE\Software**. The information stored here is used to open the correct application when a file is opened using the Windows NT Explorer and for Object Linking & Embedding (OLE).

HKEY_CURRENT_CONFIG

■ The **HKEY_CURRENT_CONFIG** window contains information about the hardware profile used by the local computer at system startup.

See Also

Closing Registry Editor Windows

Load Hive

Temporarily loads information contained in the **HKEY_USERS** and **HKEY_LOCAL_MACHINE** $\underline{\text{keys}}$ on another computer into your registry.

See Also

Loading and Unloading Registry Hives

Unload Hive

Unloads information for **HKEY_USERS** and **HKEY_LOCAL_MACHINE** <u>predefined keys</u> that has been temporarily loaded into your registry from another computer.

See Also

Loading and Unloading Registry Editor Hives

Restore

Restores a hive that has been saved as a file. The restored hive overwrites an existing registry key. A hive restored in this way will remain part of the registry even after you restart your system.

Save Key

Saves as a file the information contained in a registry key and in all of its subkeys.

A file created using **Save Key** can be loaded into the registry (with **Load Hive**) or can be restored (with **Restore**).

See Also

Saving a Registry Key

Loading and Unloading Registry Hives

Select Computer

When you want to connect to the registry on another computer, specify that computer in **Computer**. If necessary, you can use **Select Computer** to enter the computer name. By default, the list of computers in your domain is displayed.

See Also

Accessing the Registry of a Remote Computer

Print Subtree

Prints the currently selected <u>key</u>, including all of its subkeys and value entries.

See Also

Setting Up to Print Registry Data

Printing Registry Data

Printer Setup

Specifies the printer and paper orientation for printing registry data.

See Also

Setting Up to Print Registry Data

Printing Registry Data

Save Subtree As

Saves the contents of the currently selected $\underline{\text{key}}$ as a text file, including all subkeys and $\underline{\text{value entries}}$ for that key.

See Also

Saving a Subtree as a Text File

Exit

Exits Registry Editor.

Add Key

Adds a subkey to the currently selected <u>key</u>.

Key Name

Type the name that you want to assign to your key.

Class

Type the class (or data type) of value entry that you want to assign to the key that you have added; for example, type REG_SZ for string data.

See Also

Adding Keys to the Registry

Assigning a Value Entry to a Registry Key

Add Value

Adds a value entry to the currently selected key. You can assign a value entry to a new key, or you can alter the value entry of an existing key.

Value Name

Type the name that you want to assign to the currently selected key.

- Click the data type that you want to assign the added value, as follows:
- To represent data as a string of <u>binary</u> numbers, click REG_BINARY. To represent data as a data <u>string</u>, click REG_SZ.
- To represent data as an expandable string, click REG_EXPAND_SZ.
- To represent data as a <u>DWORD</u> data string, click REG_DWORD. To represent data as a multiple string, click REG_MULTI_SZ.

See Also

Assigning a Value to a Registry Key

Adding Keys to the Registry

Delete

Deletes the currently selected item. The item can be a <u>key</u> or a <u>value entry</u>, depending on whether you clicked **Tree Only** or **Data Only** on the **View** menu. If you delete a key, all of its subkeys are also deleted. Predefined keys (such as **HKEY_CURRENT_USER**) cannot be deleted.

See Also

Deleting a Registry Key or a Value Entry

Confirming a Deletion

Binary

Opens the **Binary Editor**, in which you can change a <u>value entry</u> of any type.

If the value entry contains the type designation REG_BINARY, double-click it to open **Binary Editor**.

Data

Enter or edit a data string in **Data**.

Data Format

- Click one of the following, depending on the format in which you want your data to appear: To display data as binary numbers, click **Binary**. To display data as hexadecimal numbers, click **Hex**.

See Also

Using the Binary Editor

String

Opens the **String Editor** dialog box, in which you can edit a <u>value entry</u> of the REG_SZ or REG_EXPAND_SZ type. If the value entry contains the type designation REG_SZ or REG_EXPAND_SZ, double-click it to open **String Editor**.

String

Enter or edit a string in **String**.

See Also

Using the String Editor

DWORD

Opens the **DWORD Editor**, in which you can edit a selected value entry.

If the value entry contains the type designation REG_DWORD, double-click it to open **DWORD Editor**.

Data

Enter or edit data for the string displayed in **Data**.

Radix

- Click one of the numerical representations under **Radix**: **Binary** displays the data as a <u>binary</u> (base-2) number.

- **Decimal** displays the data as a decimal (base-10) number. **Hex** displays the data as a hexadecimal (base-16) number.

See Also

Using the DWORD Editor

Multi String

Opens the **Multi String Editor**, in which you can edit multiple data strings. If the value entry contains the type designation REG_MULTI_SZ, double-click it to open **Multi String Editor**.

Data

Add or edit a string in Value.

See Also

Using the Multi String Editor

Expand One Level

Displays the subkeys of the selected <u>key</u>.

If the selected key does not have any subkeys or is already expanded, this command is unavailable.

See Also

Expand Branch

<u>Expands</u> a <u>collapsed branch</u>, including all of the branch's subkeys. Use this command to display every key (or <u>descendent</u>) that is rooted in the selected key.

If the selected branch does not have any subkeys or is already expanded, this command is unavailable.

See Also

Expand All

Displays all of the subkeys in the $\underline{\text{active}}$ Registry Editor window.

See Also

Collapse Branch

Collapses tree levels of the selected key.

Use this command to hide the subkeys of the selected <u>key</u>.

If the selected key is already collapsed, this command is unavailable.

See Also

Tree and Data

Displays both the registry tree and the value entries of the selected $\underline{\text{key}}$.

Tree and Data view is the default setting in Registry Editor.

See Also

Switching Between the Tree and Data Views

Tree Only

Displays only the registry tree; the $\underline{\text{value entries}}$ of the $\underline{\text{keys}}$ are not displayed.

See Also

Switching Between the Tree and Data Views

Data Only

Displays only the <u>value entries</u> of the currently selected <u>key</u>; the registry tree is not displayed.

See Also

Switching Between the Tree and Data Views

Split

Splits the active window. If the window is already split, this command enables you to use the arrow keys or the mouse to move the split bar to the left or right.

When you click **Split**, a vertical bar appears in the window. Use the mouse or the arrow keys to move the bar, and then either click the bar or press ENTER. You can press ESC to cancel **Split**.

See Also

<u>Splitting a Registry Editor Window</u> <u>Switching Between the Tree and Data Views</u>

Display Binary Data

Displays the currently selected value entry as <u>binary</u> data.

Refresh All

 $\label{thm:continuous} \mbox{ Updates the windows associated with the active window to reflect any changes made to the registry.}$

This command is not available when **Auto Refresh** is selected on the **Options** menu.

See Also

Updating Registry Information

Refresh Active

Updates the <u>active</u> window to reflect any changes made to the registry.

This command is not available when **Auto Refresh** is selected on the **Options** menu.

See Also

Upadating Registry Information

Find Key

Opens the Find dialog box, which you can use to find the $\underline{\text{key}}$ name that you provide.

See Also

Finding a Registry Key

Permissions

<u>Yielding Full Control of a Registry Key</u> <u>Taking Ownership of a Registry Key</u>

Enables you to see which users have access to the selected key and the level of access that each user has
Click the following for more information about this dialog box.
Registry Key
<u>Owner</u>
Replace Permission on Existing Subkeys
<u>Name</u>
Type of Access
■ Add
Remove
See Also
Assigning Permissions on a Registry Key

Registry Key

Displays the name of the key that you have selected.

Replace Permission on Existing Subkeys

Assigns a permission to both the currently selected key and all its subkeys.

Name

Lists the groups who currently have permission to access the key that you have selected.

Type of Access

- Select one of the types of access listed in **Type of Access**.

 To enable the user to read the key but not to save any changes to the key, click **Read**.

 To enable the user to access, edit, and to take ownership of the selected key, click **Full Control**.

 To customize permissions for designated users or groups, click **Special Access**.

Add

Opens the **Add Users and Groups** dialog box.

Add Users and Groups

This dialog box enables you to add user names to the list of those currently authorized to access certain $\underline{\text{keys}}$ in the registry.

Click the following for more information about this dialog box.
List Names From
<u>Names</u>
Add Add
Show Users
<u>Members</u>
Search Search
Add Names
■ Type of Access

See Also

Assigning Permissions on a Registry Key

List Names From

Used to select the computer or domain whose users and groups you want to grant permission to access the selected key. The names are displayed in **Names**.

Names

Lists the users and groups in the domain selected in **List Names From**. To see a list of the users within any group, select the group in **Names** and click **Show Users**.

Add

Adds the user or group selected in **Names** to **Add Names**.

Show Users

Displays the user accounts of the domain or workstation in **Names**.

By default, only groups are listed in **Names**.

Members

Opens a **Group Membership** dialog box, which lists the members of the group selected in **Names**.

Search

Opens the **Find Account** dialog box, which you can use to locate a user account or group.

Add Names

Lists the groups and user accounts to be added to a permission list.

Names (separated by semicolons) of the accounts can also be typed in **Add Names**.

Type of Access

Lists the types of access that you can assign to the currently selected key.

Remove

Removes a user name or group from **Name**.

Auditing

Enables you to audit registry events. This command can be accessed only by a user who is a member of the Administrators local group or that has been specifically assigned the right to audit.

Click the following for more information about this dialog box.

- Registry Key
- Audit Permission on Existing Subkeys
- <u>■ Name</u>
- Events to Audit
- <u>■ Add</u>
- Remove

See Also

Auditing Activity on a Registry Key

Registry Key

Identifies the key on which you are auditing events.

Audit Permission on Existing Subkeys

Audits activity on all subkeys of the selected key.

Name

Displays the names of currently audited groups and users.

Events to Audit

Specifies auditing for successful and unsuccessful events that were attempted on the selected key. To select an event to audit, select either the **Success** or **Failure** check boxes or both for to the event.

The following events can be audited:

Select	То
Query Value	Audit any system activity that attempts to read a value entry from a registry key
Set Value	Audit system activity that attempts to set value entries in a registry key
Create Subkey	Audit the attempted creation of subkeys on a selected registry key
Enumerate Subkeys	Audit events that attempt to identify the subkeys of a registry key
Notify	Audit notification events from a key in the registry
Create Link	Audit events that attempt to create a symbolic link in a particular key
Delete	Audit attempts to delete a registry object
Write DAC	Audit the attempt of a user to gain access to a key for the purpose of writing a discretionary ACL (security permission) to the key
Read Control	Audit the attempt of a user to access the discretionary ACL on a key

Add

Opens the **Add Users and Groups** dialog box.

Add Users and Groups

This dialog box enables you to add names to the list of users or groups being audited.

Click the following for more information about this dialog box.

- List Names From
- Names
- Add Show Users

- MembersSearchAdd Names

List Names From

Used to select the computer or domain whose users and groups you want to audit. The user and group names are displayed in **Names**.

Names

Lists the users and groups in the domain selected in **List Names From**. To see a list of users within any group, select the group in **Names** and click **Show Users**.

Add

Adds the user or group selected in **Names** to **Add Names**.

Show Users

Displays the user accounts of the domain or workstation in **Names**.

By default, only groups are listed in **Names**.

Members

Opens a **Group Membership** dialog box, which lists members of the group selected in **Names**.

Search

Opens the **Find Account** dialog box, which you can use to locate a user account or group.

Add Names

Lists the groups and user accounts to be added to an audit list.

Names (separated by semicolons) of the accounts can also be typed in ${\bf Add\ Names}.$

Remove

Removes a user name or group from **Name**.

Owner

Identifies the user who owns the selected key. The owner of a key can permit another user to take ownership of a key. In addition, a system administrator can assign a user the right to take ownership, or a system administrator can take ownership of a registry key.

Click the following for more information about this dialog box.

- Registry Key
 Owner
- Take Ownership

See Also

Taking Ownership of a Registry Key

Yielding Full Control of a Registry Key

Registry Key

Displays the name of the currently selected key whose owner you want to identify.

Owner

Identifies the owner of the currently selected key.

Take Ownership

Used to assume ownership of the currently selected key.

Font

Changes the appearance of characters in all Registry Editor windows.

See Also

Selecting a Font

Auto Refresh

Automatically updates all Registry Editor windows to reflect changes made to the registry.

A check mark next to **Auto Refresh** means that it is in effect. If it is not checked, **Refresh All** and **Refresh Active** on the **View** menu are available.

You cannot use **Auto Refresh** while displaying a remote registry. If you click **Auto Refresh** while displaying a remote registry, the manual refresh commands (**Refresh All** and **Refresh Active**) are not available. Although **Auto Refresh** appears to be working as though a local registry window is displayed, the contents of the remote window will not be refreshed.

See Also

Updating Registry Information

Read Only Mode

Protects registry data by not allowing any changes to be made to registry keys or value entries.

A check mark appears next to this command when it is in effect.

See Also

Viewing Registry Data in the Read Only Mode

Confirm on Delete

Presents a message asking you to confirm any deletion of registry data.

A check mark appears next to this command when it is in effect.

See Also

Confirming a Deletion

Deleting a Registry Key or a Value Entry

Save Settings on Exit

Enables you to save window arrangements, window size, and <u>font</u> size when you exit Registry Editor.

Control Menu

Contains the following commands:

Restore

Restores the window to its former size after it has been maximized or minimized.

Move

Enables you to use the keyboard to move the window to another position.

Size

Enables you to use the keyboard to change the size of the window.

Maximize

Enlarges the window to its maximum size.

Minimize

Reduces the window to an icon.

Close

Quits an application, or closes a window or dialog box.

Contents

Starts Help and displays the topics in Registry Editor Help.

Search for Help on

Opens the **Index** tab for Registry Editor Help, which you can use to look up Help information by keywords.

How to Use Help

Describes how to use Help.

About Registry Editor

Displays version, mode, and copyright information about Registry Editor.

Cascade

Arranges the Registry Editor windows to overlap diagonally, from the upper left to the lower right of the screen. The title bar of each window remains visible, making it easy for you to select any window.

See Also

Tile

Arranges Registry Editor windows in a square configuration, locating one window in each corner of the screen, so that each window is visible and no windows overlap.

See Also

Arrange Icons

Arranges icons (reduced Registry Editor windows) so that they line up neatly and do not overlap.

See Also

Names of Open Windows

Lists all Registry Editor windows even if they are reduced to icons and displays a check mark by the name of the currently <u>active</u> window.

To open the local registry

• Click **Open Local** in the **Registry** menu.

The local Registry Editor windows appear, each of which bears the name of a predefined key:

HKEY CURRENT USER

■ The **HKEY_CURRENT_USER** window is the root of the configuration information for the user who is currently logged on. Information such as the user's folders, screen colors, and Control Panel settings are stored here. This information is referred to as a user's profile.

HKEY_USERS

■ The **HKEY_USERS** window is the root of all user profiles on the computer. **HKEY_CURRENT_USER** is a subkey of **HKEY_USERS**.

HKEY LOCAL MACHINE

■ The **HKEY_LOCAL_MACHINE** window contains configuration information particular to the computer (for any user).

HKEY_CLASSES_ROOT

■ The **HKEY_CLASSES_ROOT** window is a subkey of **HKEY_LOCAL_MACHINE\Software**. The information stored here is used to perform such operations as opening the correct application when a file is opened using the Windows NT Explorer and for Object Linking & Embedding (OLE).

HKEY CURRENT CONFIG

■ The **HKEY_CURRENT_CONFIG** window contains information about the hardware profile used by the local computer at system startup.

See Also

Closing Registry Editor Windows

To access the registry of a remote computer

- 1 On the **Registry** menu, click **Select Computer**.
- 2 In **Computer**, type the name of the computer which has the registry you want to access.

Note

 \blacksquare You can access two <u>predefined keys</u> (HKEY_USERS and HKEY_LOCAL_MACHINE) of a remote computer registry.

See Also

Closing Registry Editor Windows

To close the Registry Editor windows

- 1 Select a window you want to close.
- 2 On the **Registry** menu, click **Close**.

The Registry Editor windows associated with the currently $\underline{\text{active}}$ window are no longer displayed.

See Also

Opening the Local Registry

Accessing the Registry of a Remote Computer

To add a key to the registry

- 1 Select the key or subkey under which you want the new key to appear.
- 2 On the Edit menu, click Add Key.

The **Add Key** dialog box appears.

- 3 In **Key Name**, type the name that you want to assign your key.
- 4 If you want, type the class that you want to assign to your key in **Class**.

Notes

- When you want to add to the data stored in the registry, you must first add a registry key. If you own a key or have permission to access the key, you can use **Add Key** to add subkeys to that key.

 If the **HKEY_USERS** or **HKEY_LOCAL_MACHINE** window is active, **Add Key** is disabled at the root of the
- key. To add a registry key to the root of these predefined keys, you must use **Load Hive** on the **Registry** menu.

See Also

Assigning a Value Entry to a Registry Key

To save a registry subtree as a text file

- 1 Select the key that you want to save as a text file.
- 2 On the **Registry** menu, click **Save Subtree As**.
- 3 Complete the **Save As** dialog box, and then click **Save**.

Note

Saving the contents of a registry <u>key</u> as a text file includes all of the key's descendent keys and all of the value entries assigned to its <u>descendent</u> keys. These are saved to the server, workstation, or shared folder that you specify.

To search for a key in Registry Editor

- 1 On the View menu, click Find Key.
- 2 In the **Find what**, type the name of the <u>key</u> that you want to find.
- 3 If necessary, select the following:
- To find only those occurrences that are words by themselves and not part of a larger word, select the **Match whole word only** check box.
- To identify only those keys in the registry with the combination of uppercase and lowercase letters specified in **Find what**, select the **Match case** check box.
- 4 In **Direction**, select the direction you want the search to proceed through the registry, as follows:
- To search from the insertion point or selection to the beginning of the registry tree or the selected keys, click **Up**.
- To search from the insertion point or selection to the end of the registry tree or the selected keys, click **Down**.
- 5 As needed, click **Find Next** to see each subsequent occurrence of the specified text until the search is complete.

See Also

To use the String Editor

- 1 Select a value entry of the type REG_SZ or REG_EXPAND_SZ.
- 2 On the **Edit** menu, click **String**.
- 3 Edit the data that is shown in **String**, and then click **OK**.

The selected value entry reflects the changes that you have made.

Note

A string is a sequence of characters usually representing humanly readable text. Many <u>value entries</u> in the registry are written in a string (REG_SZ) or in an expandable string (REG_EXPAND_SZ) format. An expandable string usually consists of humanly readable text, but also contains a variable that will be replaced when it is called by an application. For example, in the value entry %SystemRoot%\System32\Bootok.exe, %SystemRoot% is the expandable portion of the variable, and will be replaced by the actual location of the directory that contains the Windows NT system files. If a value entry in Registry Editor has a REG_SZ or a REG_EXPAND_SZ prefix, you can edit the value entry using the String Editor.

See Also

Using the Binary Editor

Using the DWORD Editor

Using the Multi String Editor

To use the Binary Editor

- 1 Click the value entry that you want to edit.
- 2 On the **Edit** menu, click **Binary**.
- 3 Under **Data Format**, make a selection, as follows:
 - To represent your data as a sequence of binary digits, click **Binary**.
- To represent your data as a sequence of <u>hexadecimal</u> digits, click **Hex**.
- 4 Edit the string in **Data**, then click **OK**.

The selected value entry reflects the changes that you have made.

Notes and Tips

Many <u>value entries</u> in the registry are written as raw <u>binary</u> data. If a value entry is preceded by the prefix REG_BINARY, the value entry is written as binary data, and you must use the Binary Editor to edit this value entry. However, the Binary Editor can be used to edit any value entry, regardless of the format in which the entry is written.

See Also

Using the String Editor

Using the DWORD Editor

Using the Multi String Editor

To use the DWORD Editor

- 1 Click a value entry of the type REG_DWORD.
- 2 On the **Edit** menu, click **DWORD**.
- 3 Edit the string in **Data**.
- 4 In **Radix**, make a selection, and then click **OK**.
- To display the data as a <u>binary</u> (base-2) number, click **Binary**. To display the data as a decimal (base-10) number, click **Decimal**.
- To display the data as a <u>hexadecimal</u> (base-16) number, click **Hex**.

Note

DWORD refers to data that is represented by a number that is four bytes long. If a <u>value entry</u> contains the prefix REG_DWORD, the entry is written in the DWORD format.

Using the String Editor

Using the Binary Editor

Using the Multi String Editor

To use the Multi String Editor

- 1 Click a value entry of the type REG_MULTI_SZ.
- 2 On the **Edit** menu, click **Multi String**.
- 3 Edit the value entry, then click \mathbf{OK} .

Note

If a <u>value entry</u> contains the prefix REG_MULTI_SZ, the value entry is written as a multiple <u>string</u>.

See Also

Using the String Editor

Using the Binary Editor

Using the DWORD Editor

To delete a registry key or a value entry

- 1 Click the key or value entry that you want to delete.
- 2 On the **Edit** menu, click **Delete**.

Note

- If **Confirm on Delete** on the **Options** menu is not selected, Registry Editor automatically deletes the selected key or value entry. If **Confirm on Delete** is selected, a **Warning** dialog box appears, asking you to confirm the deletion.
- You can delete both <u>keys</u> and <u>value entries</u> from your registry. However, you cannot delete <u>predefined keys</u> (such as **HKEY_CURRENT_USER**) or change the name of a key.

See Also

Confirming a Deletion

To assign permission on a key

- 1 Select the key on which you want to assign permission.
- 2 On the Security menu, click Permissions.
 - The **Registry Key Permissions** dialog box appears. The names of users and groups with permissions to access the key and the levels of access they have appear in **Name**.
- 3 If you want the permission that you are setting on the selected key to override permissions previously set on the subkeys of the selected key, select the **Replace Permission on Existing Subkeys** check box.
- 4 Assign an access level to the selected key in **Type of Access**, as follows:
- To enable the user to read the key contents but not to save any changes made to the file, click Read.
- To enable the user to access, edit, and take ownership of the selected key, click Full Control.
- To enable the user to access and to edit registry data in the selected key, click **Special Access**.

Note

• If you own a registry <u>key</u>, you can specify the users and groups that can access that key. To determine who can access your registry keys, you need to set permissions on them. You can at any time add or remove users or groups from the list of those authorized to access your registry keys.

See Also

Auditing Activity on a Registry Key

Yielding Full Control of a Registry Key

Adding Users and Groups to Permissions List

Removing Users and Groups from the Permissions List

To add users or groups to the permissions list

- 1 In the **Registry Key Permissions** dialog box, click **Add**.
- 2 In List Names From, click the workstation or domain of the users and groups you want to view.

The groups for the selected domain or workstation appear in **Names**.

3 Click the name of the user or group, and then click **Add**.

The name now appears in **Add Names**.

4 In **Type of Access**, click the level of access that you want to grant to the users or groups that you are adding, and then click **OK**.

The **Registry Key Permissions** dialog box appears.

5 Click **OK**.

If you selected the **Replace Permissions on Existing Subkeys** check box, a dialog box appears, asking you to confirm the permissions change.

Notes

- You must first add users and groups to Name before specifying user or group access.
- You can click Show Users to display the all the users in a selected workstation or domain.
- You can click Members to see the names of the users in a selected group.

See Also

<u>Displaying Users and Groups</u>

Selecting Members of a Group

Searching for Users and Groups

To remove a user or group from the permissions list

- 1 In the **Registry Key Permissions** dialog box, click the name of the user or group that you want to remove from the permissions list.
- 2 Click **Remove**.

To audit activity on a registry key

- 1 Select the key that you want to audit.
- 2 On the **Security** menu, click **Auditing**.
 - The Registry Key Auditing dialog box appears, listing the names of the currently audited users in Name.
- 3 To audit activity on the subkeys of the key that you have selected, select the **Audit Permission on Existing Subkeys** check box, if necessary.
 - If this check box is clear, your auditing choices affect only the selected registry key and its value entries.
- 4 In **Name**, click the name of a group or user.
- 5 In **Events to Audit**, select or clear the **Success** and **Failure** check boxes for the activities that you want to audit or to stop auditing and then click **OK**:

Select	То		
Query Value	Audit any system activity that attempts to read a value entry from a registry key		
Set Value	Audit system activity that attempts to set value entries in a registry key		
Create Subkey	Audit the attempted creation of subkeys on a selected registry key		
Enumerate Subkeys	Audit events that attempt to identify the subkeys of a registry key		
Notify	Audit notification events from a key in the registry		
Create Link	Audit events that attempt to create a symbolic link in a particular key		
Delete	Audit attempts to delete a registry object		
Write DAC	Audit the attempt of a user to gain access to a key for the purpose of writing a discretionary ACL (security permission) to the key		
Read Control	Audit the attempt of a user to access the discretionary ACL on a key		

Important

To audit a registry <u>key</u>, you must be logged on as a member of the Administrator's group. Or, you must have been specifically assigned the right to audit by the system administrator.

See Also

Searching the Audit List

Adding Users and Groups to Audit List

Removing Users and Groups from Audit List

To add users to the Audit list

- 1 In the **Registry Key Auditing** dialog box, click **Add**.
- ${\bf 2} \ \ {\bf In} \ {\bf List} \ {\bf Names} \ {\bf From}, \ {\bf click} \ the \ workstation \ or \ domain \ of \ the \ users \ and \ groups \ you \ want \ to \ view.$

The groups of the selected domain or workstation appear in **Names**.

3 Click the name of the user or group that you want to add to the audit list, click Add, and then click OK.

Notes

- You must first add users and groups to Names before specifying which events to audit.
- You can click Show Users to see the users of a selected workstation or domain.
- You can click **Members** to see the users in a selected group.

See Also

Removing Users and Groups from Audit List

To remove a user or group from the Audit list

- 1 In the **Registry Key Auditing** dialog box, click the user or group that you want to remove in **Name**.
- 2 Click **Remove**.

To take ownership of a registry key

- 1 Select the key of which you want to take ownership.
- 2 On the **Security** menu, click **Owner**.

The **Owner** dialog box appears, displaying both the name of the key and the name of the current owner.

3 Click **Take Ownership**.

Registry Editor grants you ownership of the selected key.

Note

You can assume ownership of the key if you have the permission of the owner of a registry <u>key</u>. A user who is logged on as an administrator or a user who has been specifically assigned the right to take ownership can also take ownership of a registry key.

See Also

Assigning Permissions on a Registry Key

Auditing Activity on a Registry Key

Viewing Registry Data in the Read Only Mode

Confirming a Deletion

To view data in the Read Only mode

On the Options menu, click Read Only Mode.

A check mark appears next to the command, indicating that it is in effect.

Note

Read Only Mode protects your registry data from potentially damaging, accidental changes. When you click Read Only Mode, Registry Editor does not save any changes that you make.

See Also

Confirming a Deletion

To activate Confirm on Delete

On the Options menu, click Confirm on Delete.

Note

If you are not using **Read Only** mode, you should use **Confirm on Delete** to protect your registry data from accidental deletions. When **Confirm on Delete** is selected, Registry Editor presents a dialog box asking for confirmation any time that you delete a registry <u>key</u> or a <u>value entry</u>.

See Also

Viewing Registry Data in the Read Only Mode

To select a font

- 1 On the **Options** menu, click **Font**.
- 2 In **Font**, click the font that you want.
- 3 In **Font style**, click a font style.
- 4 In **Size**, click a point size.
- 5 In **Script**, click the appropriate script language for your computer.

Note

- $\textbf{Sample} \ \text{displays your combination of selected font, font size, style, and script language.} \\$ When you select a <u>font</u>, your selection affects all Registry Editor windows.

See Also

Expanding and Collapsing a Registry Tree

Arranging Registry Editor Windows and Icons

Splitting a Registry Editor Window

To select how data appears in a Registry Editor window

- On the **View** menu, select one of the following:
 To view only the registry tree, click **Tree Only**.
 To view only the value entries of a registry tree, click **Data Only**.
 To view both the tree and the data, click **Tree and Data**.

Note

Tree and Data is the default setting.

See Also

Expanding and Collapsing a Registry Tree Arranging Registry Editor Windows and Icons Splitting a Registry Editor Window

Expanding and Collapsing a Registry Tree

Registry Editor enables you to determine how the levels of a given <u>key</u> will be displayed in the Registry Editor window. You can <u>expand</u> a key by one level, expand a branch, or expand all the levels of a registry key. You can also <u>collapse</u> a branch so that the <u>descendent keys</u> of the selected key are no longer displayed.

To expand one level of a registry key

- 1 Select a registry key.
- 2 On the **Tree** menu, click **Expand One Level**.

The subkeys of the selected key appear. If the selected key has no subkeys or is already expanded, this command is not available.

To expand a branch of a registry tree

- 1 Select a registry key.
- 2 On the **Tree** menu, click **Expand Branch**.

Every key (or descendent) whose root is in the currently selected key appears.

To expand all of the levels of a registry tree

- 1 Select a registry key.
- 2 On the **Tree** menu, click **Expand All**.
 All subkeys of the currently active key appear.

To collapse a branch of a registry key

- 1 Select an expanded registry key.
- 2 On the **Tree** menu, click **Collapse Branch**.

The selected branch no longer appears.

See Also

Splitting a Registry Editor Window

Switching Between the Tree and Data Views

To print a subtree

- 1 In the tree pane of a Registry Editor window, select a key.
- 2 On the **Registry** menu, click **Print Subtree**.

Note

When you print a <u>key</u>, Registry Editor prints the key, its descendent keys, and all of the <u>value entries</u> of all of its <u>descendent keys</u>.

See Also

Setting Up to Print Registry Data

To set up for printing Registry data

 $1\,$ On the **Registry** menu, click **Printer Setup**.

The **Print Setup** dialog box appears.

- 2 In **Name**, click the name of the printer that you want to use.
- 3 Click to select the **Size** and **Source** of the paper you want.
- 4 Under **Orientation**, click one of the following:
 - To orient paper vertically and print text from top to bottom, click **Portrait**.
- To orient paper horizontally and print text from side to side, click **Landscape**.

See Also

Printing Registry Data

Connecting to a Network Printer

To connect to a network printer

- 1 On the **Registry** menu, click **Printer Setup**.
- 2 In the **Print Setup** dialog box, click **Network**.

The **Connect to Printer** dialog box appears.

- 3 In **Printer**, type the name of a printer, and then click **OK**.
- 4 Set appropriate options in the **Print Setup** dialog box, and then click **OK**.

Notes and Tips

If you want the names of the printers in each listed domain or workgroup to appear every time that the **Connect to Printer** dialog box is displayed, select the **Expand by Default** check box in the **Print Setup** dialog box.

See Also

Printing Registry Data

Setting Up to Print Registry Data

To add a value entry to a registry key

- 1 Select the key to which you want to add a value entry.
- 2 On the Edit menu, click Add Value.

The **Add Value** dialog box appears.

- 3 In **Value Name**, type the name of the value entry that you want to create.
- 4 In **Data Type**, select the class that you want to assign to your value entry, and then click **OK**:
 - To assign a binary value entry to the selected key, select REG_BINARY.
 - To assign a data string to the selected key, select REG_SZ.
- To assign an expandable string to the selected key, select REG_EXPAND_SZ.
- To assign a <u>DWORD</u> value to the selected key, select REG_DWORD. To assign data as a multiple string, select REG_MULTI_SZ.

See Also

Using the String Editor

Using the Binary Editor

Using the DWORD Editor

Using the Multi String Editor

To split a Registry Editor window

- $1\,$ On the $\mbox{\sc View}$ menu, click $\mbox{\sc Split}.$
 - A vertical bar appears in the window.
- 2 Use the mouse or arrow keys to move the bar.
- 3 Click to set the dividing bar at its current location.
 Or, to cancel **Split**, press ESC.

See Also

Switching between the Tree and Data Views
Expanding and Collapsing a Registry Tree
Arranging Registry Editor Windows and Icons

To arrange Registry Editor windows and icons

- On the **View** menu, select one of the following:
- To arrange windows in a cascade, click Cascade.
- To arrange windows in a tile, click Tile.
- To arrange Registry Editor icons, click Arrange.

Notes

- Cascaded windows appear on the screen diagonally, from upper left to lower right, overlapping so that the title bar of each window remains visible.
- Tiled windows are distributed to each corner of the screen, so that each window is visible and none overlap.
- Icons (or reduced windows) appear at the bottom of the Registry Editor window. Each icon remains visible. Double-click an icon to activate that window.

See Also

Switching between the Tree and Data Views

Expanding and Collapsing a Registry Tree

Splitting a Registry Editor Window

Updating Registry Information

Registry Editor provides the following ways in which registry information can be updated:

- **Auto Refresh** (on the **Options** menu)automatically updates the registry when any change is made to registry data.
- Refresh All (on the View menu), updates all of the information in all Registry Editor windows.
- Refresh Active (on the View menu), updates only the information in the active Registry Editor window.

Notes

- When Auto Refresh is in effect, a check mark appears next to the command and both Refresh All and Refresh Active in the View menu are unavailable.
- You cannot use **Auto Refresh** while displaying a remote registry. If you click **Auto Refresh** while displaying a remote registry, the manual refresh options (**Refresh All** and **Refresh Active**) are not available. Although **Auto Refresh** appears to be working as though a local registry window is displayed, the contents of the remote window will not be automatically refreshed.

Elements of the Registry Editor Interface

The Registry Editor displays windows, each of which represents a predefined key on the local computer. When accessing the registry of a remote computer, only two predefined keys, **HKEY_USERS** and **HKEY LOCAL MACHINE**, appear.

HKEY CURRENT USER

■ The **HKEY_CURRENT_USER** window is the root of the configuration information for the user who is currently logged on. The user's folders, screen colors, and Control Panel settings are stored here. This information is referred to as a user's profile.

HKEY_USERS

■ The **HKEY_USERS** window is the root of all user profiles on the computer. **HKEY_CURRENT_USER** is a subkey of **HKEY_USERS**.

HKEY LOCAL MACHINE

■ The **HKEY_LOCAL_MACHINE** window contains configuration information particular to the computer (for any user).

HKEY CLASSES ROOT

■ The **HKEY_CLASSES_ROOT** window is a subkey of **HKEY_LOCAL_MACHINE\Software**. The information stored here is used to open the correct application when a file is opened using the Windows NT Explorer and for Object Linking & Embedding (OLE).

HKEY CURRENT CONFIG

■ The **HKEY_CURRENT_CONFIG** window contains information about the hardware profile used by the local computer at system startup.

Within Registry Editor, you can assign value entries to new keys or you can alter the value entries assigned to a currently selected key. Value entries in the registry appear as a string which consists of three components:

- At the leftmost side of the value entry pane, the name of the value appears.
- After the value name, the class or type of the value entry appears.
- After the class of the entry is the value itself.

Each value class has an editor which bears the same name as the class.

- The REG_BINARY prefix identifies a value entry as <u>binary</u>.
- The REG_SZ prefix identifies a value entry as a data <u>string</u>.
- The REG_DWORD prefix identifies a value entry as a <u>DWORD</u> entry.
- The REG MULTI SZ prefix identifies a value entry as a multiple string.
- The REG_EXPAND_SZ prefix indicates that a value entry is an expandable string.

To use the editor that corresponds to these classes, either double-click the value entry or click the corresponding command on the **Edit** menu.

To run Registry Editor

- 1 Click **Start**, and then click **Run**.
- 2 Type regedt32 in Open.

To run Registry Editor from Windows NT Explorer, double-click Reget32.exe in the *%SystemRoot%*/System32 folder.

Notes

- Folders represent keys in the registry and are shown in the tree view in the left-hand pane. In the right-hand pane, the values presented in that key are displayed. Double-click a value to open an editing dialog box.
- Windows NT stores its configuration information in a database (the registry) that is organized in a tree format. Registry Editor enables you to inspect and modify the registry. Normally, you should not need to do so, and in fact, you are liable to break your system if you make incorrect changes. We expect that most administrators will not allow their users to run Registry Editor.

To grant full control of a registry key

- 1 Select the key for which you want to grant full control.
- 2 On the **Security** menu, click **Permissions**.

The **Registry Key Permissions** dialog box appears.

- 3 In Name, select the user to whom you want to grant full control of your registry key.
- 4 In Type of Access, click Full Control, and then click OK.

Note

You can permit another user to take ownership of any registry <u>key</u> only if you are the current owner. To do so, you must first grant the user full control of the key.

See Also

Assigning Permissions on a Registry Key

Taking Ownership of a Registry Key

Loading and Unloading Registry Hives

You can load a <u>hive</u> that has been saved as a file into the registry or remove a loaded hive from your system. **Load Hive** and **Unload Hive** affect only the **HKEY_USERS** and **HKEY_LOCAL_MACHINE_**predefined keys, and are active only when these predefined keys are selected. When you load a hive into the registry, the hive becomes a subkey of one of these predefined keys.

To load a hive into the registry

- 1 Select either the **HKEY USERS** or **HKEY LOCAL MACHINE** window.
- 2 On the **Registry** menu, click **Load Hive**.
 - The **Load Hive** dialog box appears.
- 3 In **Look In**, click the drive, folder, or network computer and folder that contains the hive you want to load.

 The files in the folder appear under **Look In** and the selected filename appears in **File name**.
- 4 Click Open.
 - A second **Load Hive** dialog box appears.
- 5 In this dialog box, type the **Key Name** that you want to assign to the hive, and click **OK**.
 The hives that you have chosen now appear as subkeys of the **HKEY_USERS** or **HKEY_LOCAL_MACHINE** predefined keys.

To unload a hive from the registry

- 1 Select a hive that you have previously loaded onto your system.
- 2 On the **Registry** menu, click **Unload Hive**.

The hive that you have unloaded no longer exists in the registry.

Searching the Permissions List

Registry Editor provides options by which you can locate the users or groups to whom you want to assign permissions on a registry key using the **Add Users and Groups** dialog box.

- **Show Users** enables you to see the names of all the users who have accounts in a particular domain or on your workstation.
- Members enables you to identify the members of a selected group.
- Search enables you to locate either a user account or a group.

See Also

<u>Displaying Users and Groups</u>
<u>Selecting Members of a Group</u>
<u>Searching for Users and Groups</u>

To display all users and groups in a domain or workstation

 $1\,$ On the **Security** menu, click **Permissions**.

The **Registry Key Permissions** dialog box appears.

2 Click Add.

The **Add Users and Groups** dialog box appears.

3 In **List Names From**, select the workstation or domain whose user accounts you want to identify.

The groups in the selected workstation or domain appear in **Names**.

4 Click Show Users.

The users in the selected group now appear in the **Names** box.

See Also

To identify the members of a group and add them to permissions

- 1 In the **Registry Key Permissions** dialog box, click **Add**.
 - The Add Users and Groups dialog box appears.
- 2 In List Names From, select the computer or domain whose groups you want to identify.
- 3 In **Names**, select the name of the group whose members you want to identify.
- 4 Click Members.
 - A **Group Membership** dialog box appears.
- 5 Select the name of the user or group that you want to add, and click **Add**.

 If you want to select a user who is within a group, click **Members**; then select the user, and then click **Add**.
- 6 Select any other options you want in **Add Users and Groups** dialog box, and then click **OK**.
- 7 In the **Registry Key Permissions** dialog box, click **OK**.

See Also

To search the permissions list

1 In the **Registry Key Permissions** dialog box, click **Add**.

The **Add Users and Groups** dialog box appears.

2 Click Search.

The **Find Account** dialog box appears.

- 3 In **Find User or Group**, type the name of a user or group.
- 4 Select the computers and domains to be searched, as follows:
- To search all the computers and domains listed, click **Search All**.
- To search only some of the computers or domains listed, click **Search Only In**, and hold down the SHIFT key while selecting each computer or domain.
- 5 Click **Search**.

Any names found appear in **Search Results**.

- 6 Select any names you want to add to the audit list, and then click Add.
- 7 Select any other settings you want and then click **OK** in both the **Add Users and Groups** and then the **Registry Key Permissions** dialog boxes.

See Also

Local or Global Group Membership

This dialog box displays the users who are members of the selected group. Select the name of the user and then click **Add** to add the user's name to the list of those being granted access to the key.

Find Account

Enables you to search for the groups or user accounts to which you want to assign permissions on a registry key.

Click the following for more information about this dialog box:

- Find User or Group
 Search
 Search All
 Search Only In
 Search Results

Find User or Group

Type the name of the user account or group that you want to find.

Search

Starts the search for the user or group.

Search All

Sets a search to look in all the listed domains.

Search Only In

Sets a search to look in only selected domains. You must also select one of the computer or domain names listed. Hold down the SHIFT key while selecting each computer or domain.

Search Results

Displays the results of your search.

You can click **Add** to include these names on the list of users authorized to access the key.

Add

Adds the user or group in **Search Results** to the list of those authorized to access the selected key.

Searching the Audit List

Registry Editor provides options in the **Add Users and Groups** dialog box to enable you to quickly locate the users or groups whose activity you want to audit.

- Show Users enables you to see the names of all the users who have accounts in a particular domain or on your workstation.
- Members enables you to identify the members of a selected group.
- Search enables you to locate either a user account or a group.

See Also

<u>Displaying Users and Groups</u>
<u>Selecting Users and Groups</u>
<u>Searching for Users and Groups</u>
<u>Auditing Activity on a Registry Key</u>

To see all domain or workstation users for auditing

1 On the **Security** menu, click **Auditing**.

The **Registry Key Auditing** dialog box appears.

2 Click Add.

The **Add Users and Groups** dialog box appears.

3 In List Names From, select the workstation or domain whose groups you want to identify.

The groups appear in **Names**.

4 Click Show Users.

The users in the selected group also appear in **Names**.

See Also

Auditing Activity on a Registry Key

To select the members of a group for auditing

- 1 In the **Registry Key Auditing** dialog box, click **Add**.
 - The **Add Users and Groups** dialog box appears.
- 2 In **List Names From**, select the computer or domain of the groups you want to identify.
- 3 In **Names**, select the name of the group whose members you want to identify.
- 4 Click Members.
 - A **Group Membership** dialog box appears.
- 5 Select the names of the user or group that you want to add, and then click **Add**.

 If you want to select a user who is within a group, click **Members**; then select the user and click **Add**.
- 6 Select any other options you want and click **OK** in both the **Add Users and Groups** and then the **Registry Key Auditing** dialog boxes.

See Also

Auditing Activity on a Registry Key

To search the audit list

1 In the **Registry Key Auditing** dialog box, click **Add**.

The Add Users and Groups dialog box appears.

2 Click Search.

The **Find Account** dialog box appears.

- 3 In **Find User or Group**, type the name of a user or group.
- 4 Select the computers and domains to be searched as follows:
- To search all the computers and domains, click **Search All**.
- To search only some of the computers or domains, click **Search Only In**, and hold down the SHIFT key while selecting each computer or domain.
 - 5 Click **Search**.

Any names found appear in Search Results.

- 6 Select any names you want to add to the audit list, and then click Add.
- 7 Select any other settings you want and click **OK** in both the **Add Users and Groups** and then the **Registry Key Auditing** dialog boxes.

See Also

Auditing Activity on a Registry Key

Search

Starts the search for the user or group.

Local or Global Group Membership

This dialog box displays the users who are members of the selected group. Select the name of the user and then click **Add** to add the user's name to the list of those being audited.

Find Account

Enables you to search for the groups or user accounts that you want to audit.

Click the following for more information about this dialog box.

- Find User or Group
 Search
 Search All
 Search Only In
 Search Results
 Add

Find User or Group

Used to type the name of the user account or group that you want to find.

Search

Starts the search for the user or group.

Search All

Sets a search to look in all the listed domains.

Search Only In

Sets a search to look in only selected domains. You must also select one of the computer or domain names listed. Hold down the SHIFT key while selecting each computer or domain.

Search Results

Displays the results of your search.

You can click **Add** to include these names in the audit list.

Add

Adds the user or group in **Search Results** to the audit list.

To save a registry key

- 1 Select the <u>predefined</u> key that you want to save to a disk.
- 2 On the **Registry** menu, click **Save Key**.
- 3 In Save In, select the drive, folder, or network computer and folder where you want to save the hive.
- 4 In **File name**, enter a name for the hive.
- 5 In Save as type, select All files.
- 6 Click Save.

The selected key, including all of its descendant keys and value entries, is saved as a file to the server, workstation, or shared folder that you have specified. When you use **Load Hive**, select the filename that you have just saved using **Save Key**.

Note

Registry Editor provides a number of commands that are designed primarily for the maintenance of your system. For example, **Load Hive** and **Unload Hive** allow a part of your system to be temporarily downloaded onto another computer for maintenance. Before a <u>hive</u> can be loaded or restored, it must be saved as a <u>key</u>, either to a floppy disk or to your hard disk.

See Also

Restoring a Registry Key

To restore a registry key

- 1 Select the <u>predefined key</u> in which you want to restore the hive.
- 2 On the **Registry** menu, click **Restore**.
 - The **Restore Key** dialog box appears.
- 3 In **Look In**, select the drive, folder, or network computer and folder on which the hive is located.
- 4 Select the correct filename for the hive.
- 5 Click Open.

Note

A restored hive overwrites an existing registry key and becomes permanent part of your configuration. For example, to perform maintenance on part of your system, you can use **Save Key** to save a hive to a disk. When you are ready, you can then use **Restore** on the **Registry** menu to restore the saved key to your system.

Special Access

Enables you to set special access permissions for a group or user.

Click the following for more information about this dialog box.

- Registry Key
 Name
 Full Control (All)
 Other

See Also

Assigning Special Access on a Registry Key

Registry Key

Identifies the registry key on which you are assigning special access.

Name

Identifies the user or group to which you are assigning special access.

Other

Used to specify the check boxes for the access that you want to assign.

- To assign to a user or group the right to read a value entry from a registry key, select Query Value.
- To assign to a user or group the right to set value entries in a registry key, select **Set Value**.
- To assign to a user or group the right to create of subkeys on a selected registry key, select **Create Subkey**.
- To assign to a user or group the right to identify the subkeys of a registry key, select **Enumerate Subkeys**.
- To assign to a user or group the right to audit notification events from a key in the registry, select **Notify**.
- To assign to a user or group the right to create a symbolic link in a particular key, select Create Link.
- To assign to a user or group the right to delete the selected key, select **Delete**.
- To assign to a user or group the right to gain access to a key for the purpose of writing to the key a discretionary ACL, select **Write DAC**.
- To assign to a user or group the right to gain access to a key for the purpose of taking ownership of it, select **Write Owner**.
- To assign to a user or group the right to gain access to the security information on the selected key, select Read Control.

Full Control (All)

Assigns full control of the selected registry key to the selected user or group.

To assign Special Access

- 1 Select the key on which you want to assign special access.
- 2 On the Security menu, click Permissions.

The **Registry Key Permissions** dialog box appears.

- 3 In **Name**, select the user or group that you want to assign special access.
- 4 In Type of Access list, click Special Access.
- 5 Select the type of control you want to assign to the selected user or group:
- To assign full control, click Full Control (All).
- To assign special access, click <u>Other</u>, and then select the types of access that you want to assign.
- 6 Click OK
- 7 In the **Registry Key Permissions** dialog box, click **OK**.

Note

• Assigning special access is useful for situations in which you need to assign permissions to a <u>key</u> that are not defined by either **Read** or **Full Control**.

See Also

Assigning Permissions on a Registry Key

Searching the Permissions List

Load Hive

Enter the name that you want to assign to the <u>hive</u> that you are loading.