

Analyze & Decrypt Registry Data



Registry Viewer™

*Find Registry Data
Quickly & Easily*



AccessData®

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AccessData Corp.
384 South 400 West
Lindon, Utah 84042
U.S.A.
www.accessdata.com

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AccessData Registry Viewer

AccessData® Registry Viewer™ allows you to view the contents of Windows® operating system registries. Unlike the Windows Registry Editor, which displays only the current system's registry, Registry Viewer lets you view registry files from any system. Registry Viewer also provides access to a registry's protected storage, which contains passwords, usernames, and other information not accessible in Windows Registry Editor.

Registry Viewer Overview

Registry Viewer provides several tools for obtaining and reporting important registry information. The Full Registry view shows all the contents of a registry file, while the Common Areas view displays only those sections of the registry most likely to contain significant data. From either view, you can select keys and subkeys to add to a report. The Report view displays these selected keys, allowing you to print only relevant information. All views also contain two detail panes: a Key Properties viewer and a hex viewer. The Key Properties viewer displays any property values associated with a selected key, while the hex viewer displays a selected value in hexadecimal format.

Dongle Restrictions

Registry Viewer requires a dongle to access all of the program features. If a valid dongle is not installed when you start Registry Viewer, the program runs in Demo mode.

In Demo mode, the following program features are disabled:

- ◆ Common Areas view
- ◆ Report view
- ◆ Generate Report function
- ◆ Decryption and interpretation of protected storage areas

Note: The dongle is checked only at program startup; putting in or taking out a dongle during a session does not switch from Demo mode to Full mode. You must restart Registry Viewer in order to switch between Demo and Full program modes.

Windows Registry Basics

The Windows registry is a set of data files that allows the Windows operating system to control hardware, software, user information, and the overall functionality of the Windows interface. For forensic work, registry files are particularly useful because they can contain the following important information:

- ◆ Usernames and passwords for programs, e-mail, and Internet sites
- ◆ A history of Internet sites visited, including the date and time for each
- ◆ A record of Internet queries (i.e., searches performed on Internet search engines like Google™, Yahoo®, etc.)
- ◆ Lists of recently accessed files (e.g., documents, images, etc.)
- ◆ A list of all programs installed on the system

The files that make up the registry differ depending on the version of Windows. The tables below list the registry files for each version of Windows, along with their locations and the information they contain.

Version	File Name	Location	Contents
98/ME	system.dat	\Windows	Protected storage for all users on the system All installed programs, their settings, and any usernames and passwords associated with them System settings
	user.dat	\Windows \\Windows\profiles\user account	Most recently used (MRU) files
2000/XP	ntuser.dat	\Documents and Settings\user account	Protected storage for the user Most recently used (MRU) files User preference settings
	Default	\\Winnt\system32\config	System settings
	SAM	\\Winnt\system32\config	User account management and security settings
	Security	\\Winnt\system32\config	Security settings
	Software	\\Winnt\system32\config	All installed programs, their settings, and any usernames and passwords associated with them
	System	\\Winnt\system32\config	System settings

When you open one of these files in Registry Viewer, a registry tree appears in the left pane of the Full Registry view. The tree is organized in a hierarchical structure, similar in appearance to the folder and file structure of the Windows file system. Each registry entry, denoted by a folder icon, is called a key. Some keys contain subkeys, which may in turn contain other subkeys.

When you select a key, the top-right pane displays the key's values or the information associated with that key. Each value has a name and data type, followed by a representation of the value's data. The data type tells you what kind of data the value contains as well as how it is represented.

For example, values of the REG_BINARY type contain raw binary data and are displayed in hexadecimal format. The following table lists the possible data types:

Data Type	Description
REG_BINARY	Raw binary data displayed in hexadecimal format. Most hardware component information is stored as binary data.
REG_DWORD	Data represented by a number that is four bytes long (a 32-bit integer). Many parameters for device drivers and services are this type, and are displayed in binary, hexadecimal, or decimal format. Related values are: <ul style="list-style-type: none">•DWORD_LITTLE_ENDIAN (the least significant byte is at the lowest address)•REG_DWORD_BIG_ENDIAN (the least significant byte is at the highest address)
REG_EXPAND_SZ	A variable-length data string. This data type includes variables that are resolved when a program or service uses the data.
REG_MULTI_SZ	A multiple string. Entries are separated by spaces, commas, or other marks. Values that contain lists or multiple values in a format that people can read are usually this type.
REG_SZ	A fixed-length text string.

REG_NONE	Data with no particular type. This data is written to the registry by the system or application, and is displayed in hexadecimal format.
REG_LINK	A Unicode string naming a symbolic link.
REG_QWORD	Data represented by 64-bit integer.
REG_RESOURCE_LIST	A series of nested arrays designed to store a resource list used by a hardware device driver or one of the physical devices it controls. This data is detected by the system and is displayed in hexadecimal format as a binary value.
REG_RESOURCE_REQUIREMENTS_LIST	A series of nested arrays designed to store a device driver's list of possible hardware resources it, or one of the physical devices it controls, can use. This data is detected by the system and is displayed in hexadecimal format as a binary value.
REG_FULL_RESOURCE_DESCRIPTOR	A series of nested arrays designed to store a resource list used by a physical hardware device. This data is displayed in hexadecimal format as a binary value.

Opening and Closing Registry Files

You can have only one registry file open at a time in Registry Viewer. If you want to open another file, you must first close the current file or open another instance of Registry Viewer.

To open a registry file:

- 1 Select **File**, and then **Open** from the menu.
- 2 In the Open dialog, locate and select the registry file you want, and click **Open**.

You can also drag-and-drop a registry file into Registry Viewer to open it, or open a recently used file by selecting **File**, and then the filename from the menu.

To close a registry file, select **File**, and then **Close** from the menu.

Opening Files from a Hard Drive Image

Computer forensics often involves work with exact, bit-by-bit copies of the contents of a device, or “image files.” To view registry files of a device without affecting the original contents, you create an image, export it from the device, and analyze it on a separate system.

If you integrate Registry Viewer with AccessData Forensic Toolkit (FTK), you can extract and open image registry files at the same time. FTK automatically identifies the registry files available within the image for selection to view. Upon selection, FTK automatically creates a temporary registry file that you can then view in Registry Viewer; when you’re finished, FTK deletes the temporary file. For more information, see *Integrating the Forensic Toolkit* or see the *Forensic Toolkit* documentation.

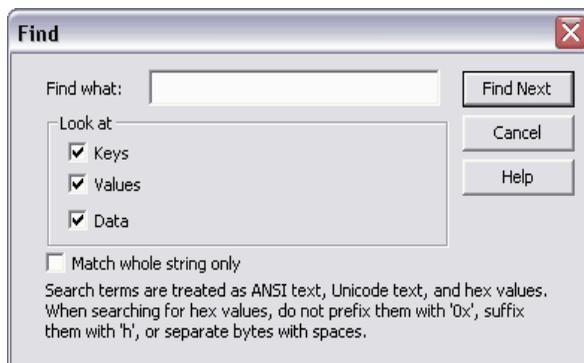
Searching

The Find option allows you to quickly search keys, values, and data for the next occurrence of a specified text string. Registry Viewer provides three ways to perform live searches for specific information in a registry file: a quick search, an advanced search, and a search by last written date.

Using the Find Option

Find searches only in the currently open view. If you want to search the entire registry file, you must search from the Full Registry view. Likewise, if you want to search only in common

areas, you must search from the Common Areas view, and so forth.



To use the Find option:

- 1 From the menu, select **Edit**, and then **Find**. The Find dialog appears.
- 2 In the Find What field, enter the text string for which you want to search.
- 3 Select the registry file areas you want to search.
 - ◆ Mark the Keys checkbox to search for the specified string in all key names.
 - ◆ Mark the Values checkbox to search for the specified string in all value names.
 - ◆ Mark the Data checkbox to search for the specified string in all value data.
 - ◆ Mark the Match Whole String Only checkbox to find only data that matches the entire specified string.
- 4 Click **Find Next** to search for the specified string. When Registry Viewer finds a match to the specified string, it expands the registry tree and highlights the key that contains the matching data.

To search for the next instance of the specified string, select **Edit**, and then **Find Next** from the menu, or press **F3**.

-
- 5 Check **Match Whole String Only** to find only data that matches the entire specified string.
 - 6 Click **Search** to look for all instances of the specified string. Registry Viewer displays all keys that contain matching data in the results list. The total number of found keys is displayed at the upper-right corner of the list.

To add keys in the Results list to the Report view:

- 1 Mark the checkbox next to the keys you want to add. To checkmark all listed keys, click the checkmark button. To uncheck all marked keys, click the empty button.
- 2 Click **Add to Report**. The marked keys are added to the Report view at the root level.
- 3 Click **Clear Results** to clear all found keys from the Results list.
- 4 When finished, click **Done**.

Using the Search by Date Option

The Search by Date option lets you search for keys based on the date they were last written to the registry file. You can add found keys to the Report view.

To use Search by Date to search for keys:

- 1 From the menu, select Edit, and then Search by Date. The Search by Last Written Date dialog appears.
- 2 Select the date range you want to search.
 - ♦ Select **During a Date Range** to search for keys last written between two specified dates.
 - ♦ Select **During and After a Given Date** to search for keys last written on or after a specified date.
 - ♦ Select **During and Before a Given Date** to search for keys last written on or before a specified date.
- 3 In the Search In drop-down box, select the registry area you want to search: Full Registry, Report Items, or Common Areas.

- 4 In the date fields, enter a date, or click the drop-down arrow to select a date from the popup calendar.
- 5 Click **Search** to look for all keys last written in the specified date range. Registry Viewer displays all matching keys in the Results list. The total number of found keys is displayed at the upper-right corner of the list.

To add keys in the Results list to the Report view:

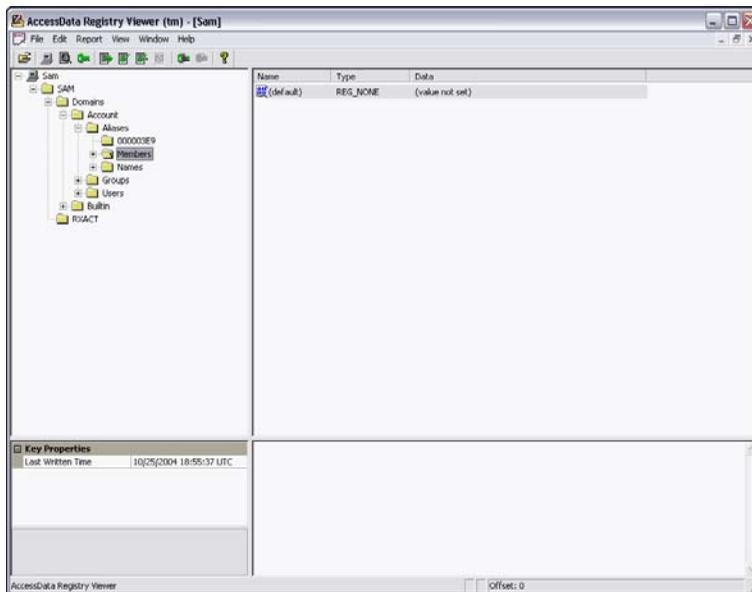
- 1 Mark the checkbox next to the keys you want to add. To checkmark all listed keys, click the checkmark button. To uncheck all marked keys, click the empty button.
- 2 Click **Add to Report**. The marked keys are added to the Report view at the root level.
- 3 Click **Clear Results** to clear all found keys from the Results list.
- 4 When finished, click **Done**.

Using the Full Registry View

The Full Registry view displays all the contents of the open registry file. A Windows registry is made up of multiple files. Because Registry Viewer opens one file at a time, it does not display the whole registry but only the information contained in the currently open file.

The Full Registry view is the default view when opening a file.

To open the Full Registry view, select **View**, and then **Full Registry** from the menu.



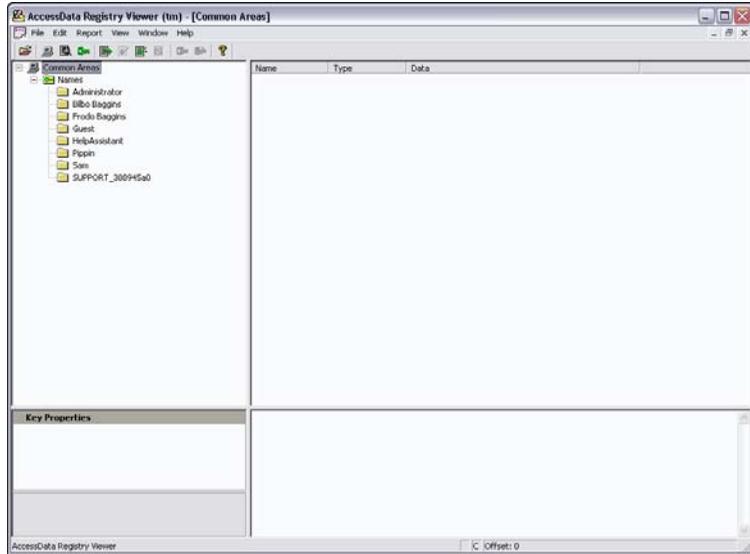
Using the Common Areas View

The Common Areas view helps you quickly access those areas of a registry file most likely to contain information important to you. Unlike the Full Registry view, which displays all the contents of a registry file, the Common Areas view shows only those keys, such as usernames, passwords, browser history, which you have marked in other registry files as forensically interesting.

Note: Registry viewer provides some customizable common areas by default.

Of course, the various files that make up a registry contain different information, so the keys and subkeys that appear in your Common Areas view depend upon whether they exist in the newer registry file as well.

To view the Common Areas, select **View**, and then **Common Areas** from the menu.



Adding Keys to the Common Areas View

Registry Viewer keeps track of each key you add, remembering them between registry files and sessions. Keys that have been added to the Common Areas view are identified by a folder icon overlaid by a green key .

To add a key to the Common Areas view:

- 1 Select **View**, and then the **Full Registry** from the menu.
- 2 In the registry tree, locate and select the key you want to add.
- 3 Select **Edit** from the menu, and then **Add to Common Areas**.

Removing Keys from the Common Areas View

Registry Viewer keeps track of each key you remove. The folder icon no longer appears next to the key.

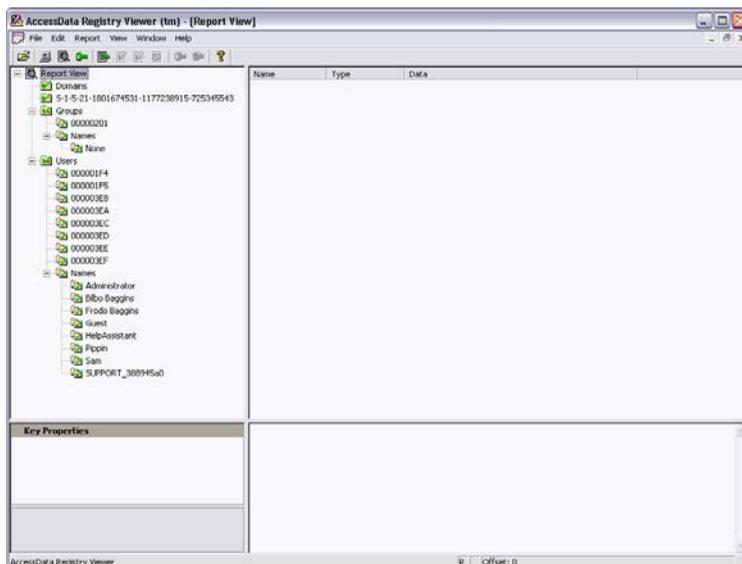
To remove a key from the Common Areas view:

- 1 In the Common Areas view, locate and select the key you want to remove.
- 2 From the menu, select **Edit**, and then **Remove from Common Areas**.

Using the Reports View

The Report view lists the keys you add to a report in the order you add them. You can reorder keys in the tree by dragging them up or down. You can also remove keys from the Report view. When you are finished, you can generate a report file containing all the selected keys and their associated information.

To view the Report view, select **View**, and then **Report Items** from the menu.



Adding Keys to the Report View

Keys added to the Report view are not saved between sessions or registry files. To save a record of this information, you must

generate a report file or a summary report before closing the registry file or exiting Registry Viewer.

Keys that have been added to the Report view are identified by special folder icons in the registry tree:

- ◆ Keys added individually are denoted by .
- ◆ Keys added with children are denoted by .
- ◆ Keys added as children of a parent key are denoted by .

To add a key to the Report view:

- 1 Open the view that contains the keys you want to add.
 - ◆ To open the Full Registry, select **View**, and then **Full Registry** from the menu.
 - ◆ To open the Common Areas, select **View**, and then **Common Areas** from the menu.
- 2 In the registry tree, locate and select the key you want to add.
- 3 Add the key to the Report view by doing one of the following:
 - ◆ From the menu, select **Report**, and then **Add to Report**.
 - ◆ From the menu, select **Report**, and then **Add to Report with Children**.

Note: In the Common Areas view, if you select the Common Areas root item in the tree, this option becomes Add Children to Report. Each child key (with its subkeys) under the Common Areas root item is added individually to the Report view. Because each key is added at the main level of the Report tree, you can also remove individual keys. For more information on removing keys, see the following section "Removing Keys from the Report View."

The selected key is added to the Report view at the root of the Report tree.

Removing Keys from the Report View

You can remove keys from the Report view. You can remove only keys at the main level of the Report tree. You cannot remove individual subkeys.

To remove a key from the Report view:

- 1 In the Report view, Full Registry view, or Common Areas view, locate and select the key you want to remove.
- 2 From the menu, select **Report**, and then **Remove from Report**.

To remove all keys from the Report view, select **Report**, and then **Clear All Report Entries** from the menu.

Generating a Report

After you have finished adding keys to the Report view, you can generate a printable, HTML report file containing all the selected keys and their associated information.

To generate a report file:

- 1 From the menu, select **Report**, and then **Generate Report**. The Create Report dialog appears.
- 2 In the Report Title field, enter a title for the report.
- 3 In the Report Location field, enter the location where you want to save the report file or click **Browse** to navigate to the directory location. The default location for report files is \AccessData\AccessData Registry Viewer\Report.
- 4 In the Report Filename field, enter a filename for the report file. The name of the current registry file is entered by default.
- 5 Mark the Reduce Excess Data Output checkbox to limit the data displayed for a value or string to the first 17 bytes. In the generated report, you can view the additional data for a value or string by moving your cursor over the Data field. A popup displays the complete data.
- 6 Mark the Also Show DWORD Values as Timestamps checkbox to display timestamp equivalents for all DWORD

values. Timestamps are displayed in both UTC and local time formats.

- 7 Mark the Show Key Properties Only checkbox to include the items displayed in the Key Properties pane.
- 8 Mark the View Report when Created checkbox to automatically open the newly created report file (Index.htm) in your Internet browser.
- 9 Click **OK** to generate the report file. If you integrate Registry Viewer with AccessData Forensic Toolkit (FTK), Registry Viewer uses the case report location defined in FTK as the default location for the generated report. For more information, see Integrating the Forensic Toolkit or see the Forensic Toolkit manual.

Generating a File-types Report

Registry Viewer lets you create a report that identifies all the file-type information stored in the currently open registry file. A file's type indicates what kind of information is stored in the file. Each file type is associated with one or more filename extensions (e.g., .txt, .doc, and .htm) and with the programs that can open those files.

To generate a file types report:

- 1 From the menu, select Report, and then Generate File Types Report. The Create File Types Report dialog appears.
- 2 In the Report Title field, enter a title for the report.
- 3 In the Report Location field, enter the location where you want to save the report file, or click Browse to navigate to the directory location. The default location for report files is \AccessData\AccessData Registry Viewer\Report.
- 4 In the Report Filename field, enter a filename for the report file. The name "<current registry file>-filetypes" is entered by default.

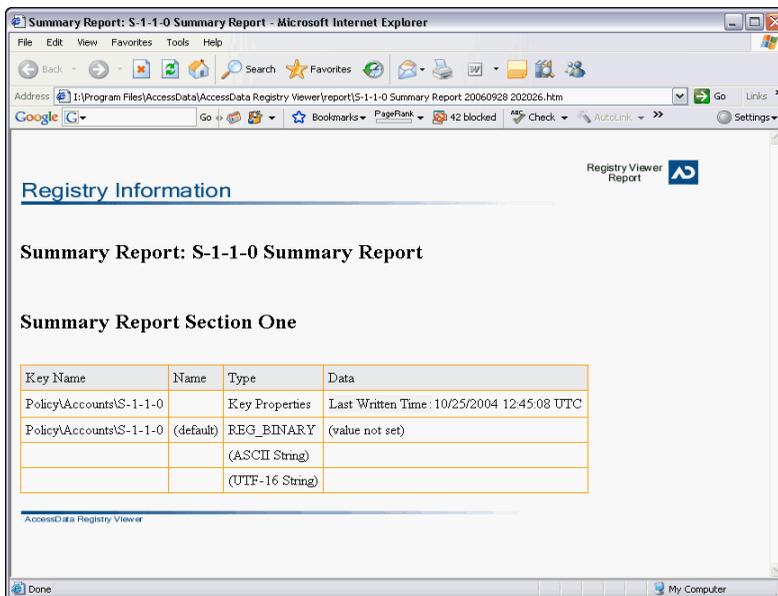
-
- 5 Mark the View Report when Created checkbox to automatically open the newly created report file (*.htm) in your Internet browser.
 - 6 Click **OK** to generate the report file.

Defining a Summary Report

In addition to creating reports by adding keys to the Report view, Registry Viewer gives you the option to define summary reports. Summary reports differ from those created in the Report view in three important ways:

- ◆ You add individual key values to a summary report definition. Unlike the Report view in which adding a key automatically adds all the values contained in that key, a summary report definition allows you to select and add individual key values from any key in the registry file. Summary report definitions allow you to create reports that contain only those key values of forensic interest. You can also create multiple summary report definitions for the same registry file, each targeted to a different area of an investigation.
- ◆ You can group the added key values into user-defined sections. In a summary report definition, key values can be grouped in up to ten different sections. When the summary report is generated, grouped key values appear together under a specified section heading. You can use sections to combine information from different areas of a registry file. For example, you can group together all the key values containing information about a specific user (e.g., username, visited Internet Websites, and MRU lists).
- ◆ Summary report definitions are saved between registry files and sessions. Registry Viewer automatically saves the summary report definitions that you create. You can use these saved definitions again and again to generate summary reports from different registry files. The resulting reports contain the same key values, grouped in

the same sections, but the actual information associated with those values is, of course, specific to each registry file.



To define a summary report:

- 1 Open the view that contains the key values you want to add.
- 2 In the registry tree, locate and select the key that contains the values you want to add.
- 3 Select **Report** from the menu, and then **Define Summary Report**. You can also right-click the key and select **Define Summary Report** from the quick menu. The Define Summary Report dialog opens.
- 4 In the Summary Report Title field, enter a name for the summary report definition. The name of the selected key is entered by default. The Summary Report Title appears in the Summary Reports dialog and is also the filename for all reports generated with this definition. Be sure to choose a descriptive, easily identifiable name.
- 5 Define wildcard keys, if needed. A wildcard key allows you to add key values to the summary report definition for keys

that may exist in the current registry file. There are two types of wildcard keys: a wildcard that finds the specified key values in any of the direct subkeys of a selected parent key, and a wildcard that finds the specified key values in the selected key and any of its descendants. For more information, see *Adding Wildcard Keys to a Summary Report*.

- 6 In the Summary Key registry tree, locate and select a key that contains key values you want to add. The key's values are displayed in the Available Items list.
- 7 If you want to group added key values into sections:
 - 7a Select the appropriate section number (1–10) from the drop-down list. You must define sections sequentially (i.e., define section 1 first, then section 2, and so forth).
 - 7b In the Section Title field, enter a name for the section. This is the name that appears as the section heading in a generated report, so be sure to choose a descriptive name.
- 8 Add specific key values to the summary report definition by doing any of the following:
 - ◆ Select a key value in the Available Items list and click **Add Value**.
 - ◆ Press the **Ctrl** button and click to select multiple key values. Click **Add Value** to add all the selected values to the report definition.
 - ◆ To add all the key values in the Available Items list, click **Select All**, and then **Add Value**. The key values appear in the Included Items list.
- 9 Select **Match any item**, then click **Add Value** to add a key-value wildcard to the summary report definition. A key-value wildcard reports all values for the selected key, even if those values change in name or number between registry files.

For example, you can use a key-value wildcard to return all the values in the MUICache key, even though the number and names of those key values (program paths, links, etc.) are unique to each registry file.

- 10 Click **Add Unlisted Value** to specify a value for the selected key that is not available in the current registry file. In the Add an Unlisted Value dialog, type the name of the key value, then click **OK** to add it to the summary report definition.

For example, if you know that a software key often contains a Version value, but that value is not present in the current registry file, you can still add it to the summary report definition using the Add Unlisted Value option. If you then use the summary definition to create reports from other registry files, the Version value is reported whenever it is present.

- 11 To remove key values from the Included Items list, do one of the following:
 - ◆ Select a key value and click **Remove Value**.
 - ◆ Click **Remove All** to remove all key values in the list.
- 12 Click **Preview Report** to generate and view a printable HTML report file from the summary report definition. Preview reports are temporary: they are deleted from memory when you close the browser window. To generate a saved report, you must save the summary report definition and then generate the report from the Managing Summary Reports dialog.
- 13 When finished, click **Save** and **Close** to save the summary report definition, and to exit the dialog. After you have created a summary report definition, you can use the Manage Summary Reports feature to generate and view additional summary report files.

Adding Wildcard Keys to a Summary Report

When you define a summary report, you add values from specific keys. Because each key has a set name and registry

path, Registry Viewer can locate those keys in any registry file, and include their values in the generated report. Some keys, however, have names that change among registry files.

For example, registry files often include username keys, where the name of each key is the name of a user with an account on that system. Because a username key is unique to a specific file, Registry Viewer cannot use its name and registry path to locate similar keys in other registry files.

A wildcard key allows you to select and include key values from the subkeys under a selected parent key, even though the number and names of those subkeys change from registry file to registry file. Using a wildcard key allows you to include username key values in a summary report definition.

When you add a wildcard key, you select a parent key that contains the subkeys you want to include in the report. You can then add specific key values from these subkeys (or children) to the summary report definition. Each value needs to be added only once for all the subkeys. When you generate the summary report, Registry Viewer uses the parent key's name and registry path to locate all of its subkeys, and display the selected key value information for each one.

For example, you may want to a summary report to include password and login key values for each username key in a registry file. In the current file, there are two username keys, peter1 and paul2. Both are children of Users key. To set the wildcard key, you select the Users key as the parent key. You then select the peter1 subkey and add its password and login key values to the definition. When you generate the summary report, Registry Viewer first lists the password and login key value information for peter1, then the password and login information for paul2.

Suppose you then use the summary report definition to create a report from a different registry file. In this file, the Users key contains three children: mary1, mary2 and mary3. The generated report lists the password and login information for mary1, followed by the password and login information for mary2, then mary3. If mary3 doesn't have a defined password,

”This summary report item does not exist in the current registry file” displays for that value.

To add a wildcard key to a summary report definition:

- 1 In the Summary Key registry tree, locate and select the parent key of the subkeys you want to include in the report.
- 2 In the Wildcard Key definition box, select the type of wildcard key you want to add:
 - ◆ Match All Immediate Children finds the specified key values in the direct subkeys of only the selected parent key.
 - ◆ Match the Entire Subtree finds the specified key values in the selected parent key and any of its descendants.
- 3 Click Use Currently Selected Key. The full registry path of the parent key appears in the Wildcard Key field.

Managing Summary Reports

After you have created a summary report definition, you can use the Manage Summary Reports feature to preview and generate a printable HTML report file containing the summary report’s selected key values and associated information. You can also edit or delete existing summary report definitions.

To manage summary report definitions, select Report, and then Manage Summary Reports from the menu. The Summary Reports dialog lists the available summary report definitions.

Previewing a Summary Report

When you preview a summary report, Registry Viewer generates a temporary report using the information in the currently open registry file and then displays it in Internet Explorer. Preview reports are not saved; they are deleted from memory when you close the browser window.

To preview a summary report:

- 1 In the Available Summary Reports list, select the report definition.
- 2 Mark the Reduce Excess Data Output checkbox to limit the data displayed for a value or string to the first 17 bytes. In the generated report, you can view the additional data for a value or string by moving your cursor over the Data field. A popup displays the complete data.
- 3 Mark the Also Show DWORD Values as Timestamps checkbox to display timestamp equivalents for all DWORD values. Timestamps are displayed in both UTC and local time formats.
- 4 Click Preview. Registry Viewer asks if you wish to include Empty Values in this report.
 - ◆ Click Yes to include all defined key values, even if they contain no data.
 - ◆ Click No to include only those key values that contain data.
- 5 Registry Viewer opens the summary report file in Internet Explorer.

Generating a Summary Report

When you generate a summary report, Registry Viewer uses the selected report definition to extract the specified key values from the currently open registry file. The resulting report is then saved.

To generate a summary report:

- 1 In the Available Summary Reports list, select the report definition.
- 2 Mark the Reduce Excess Data Output checkbox to limit the data displayed for a value or string to the first 17 bytes. In the generated report, you can view the additional data for a value or string by moving your cursor over the Data field. A popup displays the complete data.

- 3 Mark the Also Show DWORD Values as Timestamps checkbox to display timestamp equivalents for all DWORD values. Timestamps are displayed in both UTC and local time formats.
- 4 Click Generate to make the HTML report file. Registry Viewer asks if you wish to include Empty Values in this report.
 - ◆ Click Yes to include all defined key values, even if they contain no data.
 - ◆ Click No to include only those key values that contain data.

The generated file is automatically saved in the `\AccessData\AccessData Registry Viewer\Reports` folder. A time and date stamp is added to the filename for easy identification.

- 5 After the report generates successfully, click OK. To view a generated report, select Report, and then View Existing Reports from the menu.

Editing a Summary Report Definition

Registry Viewer allows you to edit previously created summary report definitions.

To edit a summary report definition:

- 1 In the Available Summary Reports list, select the report definition.
- 2 Click Edit. The Define Summary Report dialog opens.
- 3 Edit the summary report definition as needed.
- 4 Click Save and Close to save your changes. Changes made to a summary report definition are permanent and affect all subsequent reports generated from that definition.

Deleting a Summary Report Definition

Registry Viewer lets you delete previously created summary report definitions. Deleting a report definition does not

delete any summary report files generated from that definition.

To delete a summary report definition:

- 1 In the Available Summary Reports list, select the report definition.
- 2 Click Delete Registry Viewer asks if you want to permanently delete the summary report definition.
- 3 Click Yes to delete the definition.

Integrating Registry Viewer with Other AccessData Tools

AccessData forensic tools generate lists of words from the drive images taken. These word lists are then used to attack passwords and open locked files and systems. Much of the functionality of these tools overlaps, and understanding how the programs work together will help you apply them to your cases.

The AccessData Forensic Toolkit (FTK) indexes drive image files from which you can create your wordlists. This index includes all non-encrypted data in registry files such as the System Software and the unencrypted portions of the ntuser.dat file. By itself, FTK can't index encrypted portions of registry files such as the Protected Storage area of the registry files desired. FTK utilizes Registry Viewer to decrypt and obtain word lists from these files. Registry Viewer can also create an individual word list from a single registry file.

Use FTK to create your initial indexes and word lists. Use Registry Viewer to access the encrypted areas of ntuser.dat, then add Registry Viewer's word list to the larger FTK word lists. One large, comprehensive word list will be easier to manage, and more efficient to apply to your case.

Integrating Registry Viewer with the Forensic Toolkit (FTK)

Integrating Registry Viewer with FTK allows you to seamlessly view registry files and create registry reports from within FTK. Any created reports are saved by default in the current FTK case report location.

Integration also allows you to extract and open registry files on the fly from hard drive images. FTK automatically creates a temporary registry file from the image and opens it in Registry Viewer; after you're finished, FTK deletes the temporary file.

To run Registry Viewer from FTK:

- 1 In FTK, open an existing case by selecting **File**, and then **Open Case**.
- 2 If you have chosen to always display the FTK Startup screen, select **Open an Existing Case** and then click **OK**.
- 3 Select the case you want to open.
- 4 Select **File**, and then **Registry Viewer**.
- 5 Select the registry file you want to view, and then click **View File**.
- 6 If you have located registry files in the case in FTK, you can right-click on a file and then select **View** in Registry Viewer. Registry Viewer automatically launches.

Updating Index.htm

Registry Viewer generates a list of the reports named Index.htm used for reference by the Forensic Toolkit. This list is updated every time you create new report, but must be manually updated when you remove reports from the Report folder.

To manually regenerate the Index.htm:

- 1 Activate the **Report** menu by opening a file in Registry Viewer.
- 2 From the main menu, select **Report**, and then **Regenerate Index.htm** to update the list of reports currently in your Report folder.

Exporting a Word List

If you are using PRTK, you can export the case index to use as a dictionary in the password recovery process.

To export the word list:

- 1 Select **Tools**, and then **Export Word List**.
- 2 Select the file and location to which you want to write the word list. The default filename is case_name.txt.
- 3 To add registry files, click **Add Files** and then select the registry files to add to the word list.
- 4 Click **Save**.

For more information, see the AccessData Forensic Toolkit Users' Guide.

Integrating Registry Viewer with the Password Recovery Toolkit (PRTK)

Registry Viewer lets you create and export a word list containing all the strings in a registry file. The word list can then be used in AccessData® Password Recovery Toolkit™ (PRTK™) as a dictionary for decoding passwords and pass-phrases.

Exporting a Word List

When you export a word list, Registry Viewer searches the registry file for key values that are stored as strings. Each string it finds is exported into a text file as a separate line. The resulting file contains a list of every string value in the registry.

If you save or copy the word list file into the PRTK Dictionary folder (i.e., \AccessData\PRTK6\Dictionaries), PRTK can access the file as a user-defined dictionary. PRTK uses each line in the file as a possible password or pass-phrase in a password recovery operation.

To export a word list:

- 1 From the menu, select **Report**, and then **Export Word List**. The Generate Word List dialog appears.
- 2 Navigate to the directory location where you want to save the word list file. The default path for word list files is \AccessData\AccessData Registry Viewer.

3 In the Filename field, enter a name for the word list file.
The file (*.txt) is saved in plain-text format.

4 Click **Save** to export the word list.

For more information on PRTK user dictionaries or on password recovery, see the AccessData *Password Recovery Toolkit User Guide*.