

HP OpenView Enterprise Discovery

for the Windows operating system

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Legacy Scanners

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1 Introduction

The DOS and OS/2 scanners have been retired from the Enterprise Discovery product. These operating systems have become antiquated, so they are no longer fully supported by Enterprise Discovery.

Since these operating systems may still be in use with some of our customers, the scanners are still provided, but not as part of the regular product. The scanners are non-configurable, so they can only be used as-is. There will not be any new updates for these scanners in the future.

2 The Legacy Scanners

DOS and OS/2 Scanners are available only as pre-configured executables. It is not possible to generate custom DOS and OS/2 scanners using the Scanner Generator. The following default options are used for them:

- Local scan file is not saved. The offsite scan file name should be supplied in the `-o` command line switch.
- Delta scanning is disabled
- Combined software scanning is used. If targeted scanning is needed, the `-noclassic` switch can be used. If classic scanning is needed, the `-noenv` switch should be used.
- The Scanners are configured to identify executables and archives and store the default list of stored files.
- Automatic asset data (default questionnaire), Hardware data and Software data are all collected.

The Scanners can be found in the following default location:

C:\Program Files\HP OpenView\Enterprise Discovery\2.1.0\scanners\scanners

Supported Platforms for DOS and OS/2 Scanners

DOS and OS/2 Scanners can be generated for the following platforms:

Table 1 Supported Platforms for DOS and OS/2 Scanners

Scanner	Platform
DOS Scanner	MS-DOS or PC-DOS version 3.3 or later
OS/2 Scanner	OS/2 2.1 and OS/2 Warp

The Scanners are configured to save only offsite scan file to root of the drive C:. This should be changed by providing the complete path to save and the asset number in the `-o:offsitename` command line option.

Information Collected by the DOS and OS/2 Scanners

See the document entitled 'Data collected by the Legacy Scanners,' which is located with your Enterprise Discovery client or server installation at **Start > All Programs > HP OpenView > Enterprise Discovery 2.1 > Documentation**.

Starting the DOS-Based Scanner

To start the DOS-based Scanners:

- 1 Check that there is enough base memory to run the Scanner (a minimum of 525K bytes is needed).
If this is a problem, try removing TSR programs to release memory.
- 2 If Windows 3.1x is running, exit Windows.
- 3 Change to the directory where the Scanner directory is located and type the name of the Scanner program. For example, ScanDos, to start the Scanner.



The DOS Scanner no longer collects accurate information when executed under Windows or OS/2, native Scanners should be used instead.

Starting the OS/2 Scanner

To start the OS/2 Scanner:

- 1 Open an OS/2 window, and change to the directory containing the Scanner executable file.
- 2 Type the name of the Scanner program, for example, ScanOs2, to start the Scanner.

A console is shown while the Scanner is running. This displays the status of the scanning sequence. Any errors encountered are also shown here.

DOS and OS/2 Scanner Error Level Codes

The Scanners produce error level codes which can be used to handle situations if the Scanner terminates without producing a scan file.

These error codes can, for example, be used in a batch file so that specified actions can be carried out in the event that particular error codes are returned.

These can be used to control re-scan activities when a scan has not completed successfully.

Table 2 DOS and OS/2 Scanner Error Level Codes

Error Level	Description
5	Too Early – It is earlier than the number of days specified in the -scandays command line option or the condition specified in the –scandayofweek was not met.
4	Fatal Error – Scanner encountered a fatal error.
3	Help Screen – Command line help screen has been requested.
2	User Abort – User aborted the Scanner.
1	Exception – Scanner terminated because of an exception

See [Using Error Level codes](#) on page 14 for further information about how to use Scanner Error Level codes.

Command Line Options and Switches

The operation of the Scanner can be modified with the use of the various command line options.

Reasons for Overriding the Options in a Configured Scanner

- The Scanner may encounter a problem with a particular hardware. Using command line options, the problem hardware can be circumvented.
- Command line options can change the configured options such as save path. As the Scanner Generator cannot be used to generate custom Scanners, using command line options is the only way to change the Scanner behavior.

How to Use a Command Line Option or Switch

You can specify command line options and switches by typing the command from a command line. Make sure you supply the path to the Scanner if it is not located in the current directory.

For example:

```
C:\TEMP\scanDos -?
```

launches the DOS Scanner from the C:\TEMP directory.

Command Line Switch Format

When specifying command line switches use the following command format:

`ScannerName [switch]`

In the following example, the -10 switch causes the Scanner to exclude the BIOS hardware tests and the C: parameter instructs the scanner to scan the drive C:

```
ScanDos C: -10
```

or

```
ScanDos C: /10
```

Where:

- ScanDos is the name of the DOS scanner executable
- -10 or /10 is the [switch]

Command Line Options for Scanners

Valid command line options for the DOS and OS/2 Scanners are shown in the following table:

Table 3 Command Line Options for Scanners

Command Line Option	Function
-force or /force	Do not check disk space saving offsite Scan File. This may be useful in situations where the operating system reports insufficient space, but this is actually due to access rights.
-noarc or /noarc	Disables archive processing.
-noclassic or /noclassic	Do not use classic software scanning method.
-noenv or /noenv	Do not use environment variables for software scanning.
-p:<path> or /p:<path>	Override default offsite save path. For example: ScanDos /p:r:\results The Scanner must have write permissions to the specified path.
-scandays:<Count> or /scandays:<Count>	Scan only if previous scan was more than Count days ago. Forces the Scanner to perform the scan only if the previous scan was <N> or more days ago. For example: -scandays:7 For example, if the Scanner is launched from a login script every day, it will only perform the scan every week. When the scandays:<N> parameter is specified, the Scanner attempts to check when the last scan was run. If no previous scan file is found, no messages are displayed and the scan runs. If a scan file is found, the following message is added to the log file: "Checking the age of Scan File "%s" Where %s is the full name of the scan file it uses to check it. If there is a problem determining the age of the scan file (for example, if it is a newer version or it is corrupt), it then outputs: The age of the Scan File cannot be determined. If it does manage to obtain the date, it outputs: Last scan was %d days ago Where %d is substituted for an integer number.

Table 3 Command Line Options for Scanners

Command Line Option	Function
-scandayofweek:<Number> > or / scandayofweek:<Number>	<p>Scan only on specified day of week(0-Sun,1-Mon, etc). <N> can be one of the following:</p> <p>0-Sunday 1-Monday 2-Tuesday 3-Wednesday 4-Thursday 5-Friday 6-Saturday</p> <p>For example:</p> <p>-scandayofweek:5</p> <p>This will cause the scan to be performed on Fridays only. The scandays: and scandayofweek: options can be combined. For example:</p> <p>ScanDos -scandays:14 -scandayofweek:3</p> <p>This causes the scan to be performed every other Wednesday.</p>
-noems or /noems	<p>Prevents EMS memory from being used. DOS Scanner only.</p>
-o:<filename> or /o:<filename>	<p>Takes the offsite scan file name from the command line.</p> <p>ScanDos /o:r:\results\SC002154</p> <p>Where r:\results\SC002154 is the path to the file SC002154.</p> <p>Because the legacy Scanner can no longer be configured using the Scanner Generator, the scan file name should be specified using this command line switch.</p>
-<switch> or +<switch>	<p>Disable or Enable hardware tests. See Using Command Line Switches to Enable and Disable Specific Hardware Tests on page 12.</p>
-? or /?	<p>The full list of command line options can be obtained by running the Scanners with the -? or /? command line option.</p>

Viewing Command Line Options in Viewer or Analysis Workbench

If a command line option or switch has been used, it can be viewed in Analysis Workbench or Viewer.

This can be very useful when you want to check if the scan results were obtained from a Scanner that had been run with any special command line options.

For example, if the Scanner had been run with a command line instructing the scanner or scan specific directories:

```
scanDOS C:\DOS C:\Drivers
```

This command line will be displayed in the Viewer (System Data folder in the Hardware and Configuration tab page).

Using Command Line Switches to Enable and Disable Specific Hardware Tests

Switches for disabling single hardware tests in the DOS and OS/2 Scanners are shown in the following table:

Table 4 Command Line Switches to Enable and Disable Specific Hardware Tests

Command Line Switch	Command Line Switch
-10 : BIOS Data	-11 : BIOS Extension
-12 : SMBIOS Information	-13 : Compaq Asset Tag
-14 : Plug and Play Version	-30 : Video data
-31 : Monitors	-40 : Port data
-50 : Keyboard and Mouse data	-51 : Hardware Mouse detection
-60 : Disk data	-62 : Partition Table scan
-70 : Memory Data	-71 : XMS freespace detection
-72 : Swap Files	-80 : CPU Data
-81 : Enhanced CPU identification	-82 : Fast CPU speed detection
-90 : Operating System Data	-91 : Device driver files
-92 : Cluster Data	-93 : Services
-94 : Virtual Machine Data	-95 : User profiles
-100 : Storage Data	-101 : Devices
-102 : SCSI/IDE serial numbers	-110 : Network data
-111 : TCP/IP data	-112 : IPX data
-113 : Netbios Data	-114 : Network Shares
-120 : Bus Data	-121 : PCI Cards

Table 4 Command Line Switches to Enable and Disable Specific Hardware Tests

Command Line Switch	Command Line Switch
-122 : PCMCIA Cards	-123 : MCA Cards
-124 : EISA Cards	-125 : ISA PnP Card detection
-126 : USB Data	-130 : Peripherals

Command Line Software Data Override Option

An option is available which can override the default software selection used by the preconfigured scanners by specifying a list of drives and/or directories to scan on the command line. The drive letters and/or directories are specified as command line parameters to the scanner, for example:

```
ScanDos C: D:\DOS
```

Multiple scan locations can be specified by separating them with a space. Please note that the drive letters specified in this way, either standalone or as part of a directory path must be upper case.

Troubleshooting

Using Error Level codes

The Scanners produce Error Level codes that can be used to handle situations if the Scanners terminate without producing an audit file.

These can be used to control re-scan activities when a scan has not completed for some reason.

Because the Error Level is available as an environment variable when the Scanner finishes this can be incorporated in a log file.

Hardware Scanning Errors

If a hardware scanning error occurs, note the test which is failing. This will be displayed in the console.

The Scanner provides several command line parameter switches for disabling specific hardware detection tests. Use these command line parameter switches to disable the specific test which has failed.



Typing `/?` following the Scanner file name at the command line displays a list of the available parameter switches, for example, `ScanDos /?`

To use a parameter switch to disable a specific hardware test, enter it on the command line after the Scanner file name when the Scanner is started.

For example:

```
ScanDos -60
```

Software Scanning Errors

The following errors may occur during the examination of files and collection of software information.

Out of Swap Space – Cannot Store More Files in Scan File

This message is displayed if there is not enough room on the hard disk drive or in EMS for storing a file that has been marked for collection in the Scanner Generator.

Could Not read File <file name> - File Not Saved

This message is displayed if a file marked for collection in the Scanner Generator cannot be stored. Check to see if the file is being locked (used) by another process.

Scan File Saving Errors

The following messages may be displayed when the Scanner tries to save a scan file:

Error {value} Saving Offsite Scan File

There may be insufficient space on the offsite drive (for example the floppy disk or network drive) when the Scanner is attempting to save the scan file. Check the available space on the offsite disk drive.

The Scanner Cannot Create the Scan File in A:\<filename>

This message is displayed, if there is not enough room for saving an offsite scan file, either because the disk selected to save the scan file to, cannot be accessed, or there is insufficient space available.

Additional Errors

Additional errors the user may encounter running the Scanner include:

- Large Directory Found While Memory Low. Directory Split
- Not Enough Temp Space
- Slow Scanning
- Virus Warning

Large Directory Found While Memory Low. Directory Split

This message is a notification. It is displayed when the Scanner reaches a directory that contains more than 16100 files. When this happens, the directory is “split” into two or more logical ones, although this is normally hidden from the user.

Not Enough Temp Space

Check that the TEMP variable points to a valid directory with enough disk space available. If it is missing or points to an incorrect directory, set it up accordingly (for example: SET TEMP=C:\TEMP).

Slow Scanning

This may be due to real-time antivirus software being run. Any file that is opened will be checked for virus infection. Although this can be tedious, it is not advisable to disable the antivirus software for the reasons discussed in the next section.

Virus Warning

Because the Scanner opens files on the computer, if there is real-time antivirus software in operation, it may detect a virus being present in a file. Depending on the virus product being used, they will have an action defined to deal with the virus. Some will try to deal with the problem and immediately disinfect the file. Others will try to move the infected file to a quarantine directory and rename its file extension.

In this case, the quarantine directory may be scanned by the Scanner later during its scan.

To prevent this happening, use the override.ini file with *.vir (where .vir is a typical quarantine file extension). Check the specific product to find the extension for this type of file.

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