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| |  |  |  |  |  | | --- | --- | --- | --- | --- | | |  |  |  | | --- | --- | --- | | **How To Verify the Word Size (32bit vs 64bit) of the Oracle Binary on MS Windows systems (Doc ID 465060.1)** | [IMG_256](https://support.oracle.com/epmos/faces/DocumentDisplay?_afrLoop=421015842584443%26id=465060.1%26_adf.ctrl-state=g2p6epaxz_249)  [To Bottom](https://support.oracle.com/epmos/faces/DocumentDisplay?_afrLoop=421015842584443&id=465060.1&_adf.ctrl-state=g2p6epaxz_249) | IMG_257 |     IMG_258   |  | | --- | | **In this Document   [Goal](https://support.oracle.com/epmos/faces/DocumentDisplay?_afrLoop=421015842584443&id=465060.1&_adf.ctrl-state=g2p6epaxz_249" \l "GOAL)    [Solution](https://support.oracle.com/epmos/faces/DocumentDisplay?_afrLoop=421015842584443&id=465060.1&_adf.ctrl-state=g2p6epaxz_249" \l "FIX)    [References](https://support.oracle.com/epmos/faces/DocumentDisplay?_afrLoop=421015842584443&id=465060.1&_adf.ctrl-state=g2p6epaxz_249" \l "REF)**   Applies to: Oracle Server - Enterprise Edition - Version: 10.2.0.1 to 11.2.0.2 - Release: 10.2 to 11.2  Microsoft Windows (32-bit)  Microsoft Windows x64 (64-bit)  \*\*\*Checked for relevance on 21-Jan-2010\*\*\* Goal This article is intended to provide several methods that can be used to determine the  word-size of Oracle Database software on Microsoft Windows systems. Solution There are several methods available to check if the Oracle software is 32-bit or 64-bit.  Three methods will be discussed.   Method 1.  =========  This is for a Server home with an active database:  Connect to the database and check the banner or v$version or v$process   On 32-bit Oracle home:  --------  C:\>sqlplus / as sysdba   Connected to:  Oracle Database 10g Enterprise Edition Release 10.2.0.1.0 - Production  With the Partitioning, OLAP and Data Mining options   SQL> select \* from v$version;  BANNER  ----------------------------------------------------------------  Oracle Database 10g Enterprise Edition Release 10.2.0.1.0 - Prod  PL/SQL Release 10.2.0.1.0 - Production  CORE 10.2.0.1.0 Production  TNS for 32-bit Windows: Version 10.2.0.1.0 - Production  NLSRTL Version 10.2.0.1.0 - Production   A select on v$process shows the wordsize of the Oracle binary in the server process:   SQL> select length(addr)\*4 || '-bits' word\_length from v$process where rownum=1;   WORD\_LENGTH  ---------------------------  32-bits    This shows the Oracle software, not the wordsize of the PL/SQL objects of the database itself.    On a 64-bit Oracle home:  --------  C:\>sqlplus / as sysdba   Connected to:  Oracle Database 10g Enterprise Edition Release 10.2.0.1.0 - 64bit Production  With the Partitioning, OLAP and Data Mining options   SQL> select \* from v$version;  BANNER  ----------------------------------------------------------------  Oracle Database 10g Enterprise Edition Release 10.2.0.1.0 - 64bi  PL/SQL Release 10.2.0.1.0 - Production  CORE 10.2.0.1.0 Production  TNS for 64-bit Windows: Version 10.2.0.1.0 - Production  NLSRTL Version 10.2.0.1.0 - Production   A select on v$process shows the wordsize of the Oracle binary in the server process:   SQL> select length(addr)\*4 || '-bits' word\_length from v$process where rownum=1;   WORD\_LENGTH  ---------------------------  64-bits    Method 2.  =========  You can find whether Oracle Client Software is 32-Bit or 64-Bit in Windows by  verifying the registry keys:   Oracle 32-bit Client on Windows 64-bit OS will be registered under  hyve key 'Wow6432Node' like:  ---------------------------------------------------------  HKEY\_LOCAL\_MACHINE\SOFTWARE\Wow6432Node\ORACLE\KEY\_<Oracle Home Name>    Windows 64-bit Client on Windows 64-bit OS will have registry key:  ---------------------------------------------------------  HKEY\_LOCAL\_MACHINE\SOFTWARE\ORACLE\KEY\_<Oracle Home Name>    Windows 32-bit Client on Windows 32-bit OS will have registry key:  ---------------------------------------------------------  HKEY\_LOCAL\_MACHINE\SOFTWARE\ORACLE\KEY\_<Oracle Home Name>    Method 3.  =========  This method can be used for both Server and Client homes against  active processes of the home.   Use the utility Process Monitor which can be downloaded from Microsoft Technet.   The Process Monitor is an advanced monitoring tool for Windows that shows real-time file system,  Registry and process/thread activity.   Process Monitor runs on:  Client: Windows XP SP2 and higher.  Server: Windows Server 2003 SP1 and higher.   <http://www.microsoft.com/technet/sysinternals/utilities/processmonitor.mspx> When using Process Monitor:   For a Database home  -------  When an Oracle instance is active.  Select/find the Oracle executable oracle.exe  (control-f -> oracle.exe)   For a Client home  ---  Start a   client tool like SQLPlus.  Select sqlplus.exe or sqlplusw.exe  (control-f -> sqlplus)   Right mouse click (ctrl-P) -> properties -> Process tab  This shows an overview of the process, including the architecture.   Example:  Architecture : 32 bit  - or  Architecture : 64 bit    Method 4.  =========   Check sqlplus.exe with utilities like file.exe which are available for windows from GNU.   Disclaimer: Please check with your System Administration team before using any third party tools.   EXAMPLES:   32-bit Installation report:   C:\Program Files\GnuWin32\bin>file.exe -s C:\oracle\product\10.2.0\client\_1\BIN\sqlplus.exe  sqlplus.exe; PE32 executable for MS Windows (console) Intel 80386 32-bit   64-bit Installation report:   C:\Program Files (x86)\GnuWin32\bin>file.exe -s C:\oracle\product\10.2.0\client\_1\BIN\sqlplus.exe  C:\oracle\product\10.2.0\client\_1\BIN\sqlplus.exe; PE32+ executable for MS Windows (console) Mono/.Net assembly   Note: option -s is mandatory to check exe files.    Method 5.  =========  This method can be used for both Server and Client homes   Use the Microsoft utility FileVer.  Filever.exe: File Version   This command-line tool examines the version resource structure of a file or  a directory of files on either a local or a remote computer.  It displays information on the versions of executable files such as .exe files and  dynamic-link libraries (DLLs).   Information on FileVer:  <http://support.microsoft.com/kb/913111> usage:  filever [[drive:][path][file\_name]]   The second section of the output contains the file header information.  However, because the 32-bit version of the Filever.exe tool does not  recognize x64-based files, the header information may appear differently  when you run the 32-bit version of the Filever.exe tool against a 64-bit file.   The following header information may appear in the second section of the output:   â¢ W32i64  This header represents a file from an Itanium-based system.  This file type appears the same way in the output of the 32-bit and 64-bit versions of the Filever.exe tool.   â¢ Wx64  This header represents an x64-based file type.  The 64-bit version of the Filever.exe tool generates this header for an x64-based file.   â¢ W32  This header represents an x64-based file type.  The 32-bit version of the Filever.exe tool generates this header for an x64-based file.   Note This header differs from the 32-bit file header because the header does  not include the letter "i."   â¢ W32i  This header represents an x86-based (32-bit) file.  This file type appears the same way in the output of the 32-bit and 64-bit versions  of the Filever.exe tool.   Example:   C:\Program Files\Support Tools>  FILEVER D:\oracle\product\10.2.0\client\_3\BIN\sqlplus.exe  --a-- W32i DLL ENU 0.0.0.0 shp 552,960 08-16-2005 sqlplus.exe   Comments: w32i means a 32 bit executable as showed by the 32-bit FILEVER    REMARK:  ------------  The provided link (<http://support.microsoft.com/kb/913111>) refers to  the MS Support tools for 32-bit Windows XP SP2.  A similar download for Windows Server 2003 32-bit/64-bit) was not found.     However, tests showed that the 32-bit XP executable of Filever also works  on 64-bit Windows 2003.  Example:  C:\>filever C:\oracle\product\10.2.0\db\_1\BIN\sqlplus.exe  --a-- W32 DLL ENU 0.0.0.0 shp 707,072 10-17-2005 sqlplus.exe     C:>filever C:\oracle\product\10.2.0\db\_1\BIN\oracle.exe  --a-- W32 APP ENU 10.2.0.1 shp 71,606,784 10-26-2005 oracle.exe     The 32-bit version of the Filever.exe tool generates this header for an x64-based file. References [NOTE:168604.1](https://support.oracle.com/epmos/faces/DocumentDisplay?parent=DOCUMENT&sourceId=465060.1&id=168604.1) - How To Verify the Word Size(32bit vs 64bit) of Oracle and UNIX Operating Systems [NOTE:403522.1](https://support.oracle.com/epmos/faces/DocumentDisplay?parent=DOCUMENT&sourceId=465060.1&id=403522.1) - How to Migrate Oracle 10.2 32bit to 10.2 64bit on Microsoft Windows | | |