

HOW TO DETERMINE WHETHER THE OPERATING SYSTEM IS 32-BIT OR 64-BIT

Two years ago I have described three simple ways to determine whether the processor supports 64-bit instruction set. Today, I will show you how to determine whether any Debian-based operating system is 32-bit or 64-bit.

Print machine architecture using *uname* command

The most obvious way to determine the answer is to execute `uname` command to print machine architecture.

```
$ uname -m
```

Sample output on **64-bit** operating system

```
x86_64
```

Sample output on **32-bit** operating system

```
i686
```

Print machine architecture using *arch* command

`arch` utility provides exactly the same information as the above (`uname -m`) command.

```
$ arch
```

Sample output on **64-bit** operating system

```
x86_64
```

Sample output on **32-bit** operating system

```
i686
```

Query system configuration variables

This is the simplest and most straightforward solution, which is often overlooked, but it is widely supported on *Debian*-based operating systems.

```
$ getconf LONG_BIT
```

Sample output on **64-bit** operating system

```
64
```

Sample output on **32-bit** operating system

```
32
```

Print architecture of packages dpkg installs

This is more indirect way to determine the answer, but an interesting one.

```
$ dpkg --print-architecture
```

Sample output on **64-bit** operating system

```
amd64
```

Sample output on **32-bit** operating system

```
i386
```

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