Based on some tinkering I was doing with qemu for some ARM dev, I think I may have found a technique to allow general 32-bit support in WSL. Hat-tip to **@therealkenc** for the concept

Edit: requires "Fall Creators Update", 1709, build 16299 or newer (I think)

Presuming a fresh Ubuntu WSL instance, you'll need to install the qemu-user-static package, add the i386 binfmt, enable the i386 architecture, update your package lists, and install some i386 packages:

Install qemu and binfmt

```
sudo apt update
sudo apt install qemu-user-static
sudo update-binfmts --install i386 /usr/bin/qemu-i386-static --magic
'\x7fELF\x01\x01\x01\x03\x00\x00\x00\x00\x00\x00\x00\x00\x03\x00\x03\x00\x01\x00\x0
0\x00' --mask
'\xff\xff\xff\xff\xff\xff\xff\xfc\xff\xff\xff\xff\xff\xff\xff\xff\xf8\xff\xff\xff\x
ff\xff\xff\xff'
```
[Edit: whoops, need to update package lists, added `sudo apt update`]
This will activate i386 support by causing them to be executed through qemu-i386-static, and drop a config file into `/var/lib/binfmts/` for future reactivation.

You will need to reactivate this every time you restart WSL and want i386 support:

```
sudo service binfmt-support start
```

Enable i386 architecture and packages

```
sudo dpkg --add-architecture i386
sudo apt update
sudo apt install gcc:i386
```

Try it out

```
$ file /usr/bin/gcc-5
```

```
/usr/bin/gcc-5: ELF 32-bit LSB executable, Intel 80386, version 1 (SYSV), dynamically
linked, interpreter /lib/ld-linux.so.2, for GNU/Linux 2.6.32,
BuildID[sha1]=2637bb7cb85f8f12b40f03cd015d404930c3c790, stripped

$ /usr/bin/gcc-5 --version
gcc-5 (Ubuntu 5.4.0-6ubuntu1~16.04.9) 5.4.0 20160609
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This is free software; see the source for copying conditions.  There is NO
warranty; not even for MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE.

$ gcc helloworld.c -o helloworld

$ ./helloworld
Hello, world!

$ file helloworld
helloworld: ELF 32-bit LSB executable, Intel 80386, version 1 (SYSV), dynamically linked,
interpreter /lib/ld-linux.so.2, for GNU/Linux 2.6.32,
BuildID[sha1]=3a0c7be5c6a8d45613e4ef2b7b3474df6224a5da, not stripped
```

Proof

And to prove it really was working, disable i386 support and try again:

```
$ sudo service binfmt-support stop
 * Disabling additional executable binary formats binfmt-support [ OK ]

$ ./helloworld
-bash: ./helloworld: cannot execute binary file: Exec format error
```