

There's more to calling a function than just getting the types to match

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Here's a classic novice error. You want to call a function, say [GetBinaryType](#).

```
void sample()
{
    if (GetBinaryType(TEXT("explorer.exe"), ???)) {
        ...
    }
}
```

What should you write for those question marks? Well, the prototype says that the second parameter is an LPDWORD, so let's pass it one.

```
void sample()
{
    if (GetBinaryType(TEXT("explorer.exe"), (LPDWORD)NULL)) {
        ...
    }
}
```

Hm, but that crashes. Well, maybe we can pass it an LPDWORD this way:

```
void sample()
{
    LPDWORD lpdw;
    if (GetBinaryType(TEXT("explorer.exe"), lpdw)) {
        ...
    }
}
```

Hm, that still crashes. Oh wait, it's because of the uninitialized variable.

```

void sample()
{
    LPDWORD lpdw = NULL;
    if (GetBinaryType(TEXT("explorer.exe"), lpdw)) {
        ...
    }
}

```

No, that still crashes. Hang on, I know where I can get an LPDWORD.

```

void sample()
{
    LPDWORD lpdw = new DWORD;
    if (GetBinaryType(TEXT("explorer.exe"), lpdw)) {
        ...
    }
}

```

This code finally works! Okay, on to the next problem...

Of course, the seasoned programmer still shakes his head. Just because the function prototype says that the parameter is an LPDWORD doesn't mean you have to have a variable whose type is LPDWORD. You merely need an **expression** whose type is LPDWORD.

```

void sample()
{
    DWORD dw;
    if (GetBinaryType(TEXT("explorer.exe"), &dw)) {
        ...
    }
}

```

Why am I telling you this?

No, I'm not trying to insult your intelligence. I'm trying to get you to think like a novice. Sometimes you'll be reading a chunk of code and find something bizarre, like the fragments above with the `new DWORD`. When you do (for example, when chasing the memory leak in that code sequence), don't tear your hair out trying to find some deep meaning for the seemingly roundabout way of accomplishing a simple task. If you can think like a novice, you will merely recognize it as a classic beginner mistake, fix it, and get on with your life.

[While Raymond was on vacation, the autopilot stopped working due to a power outage. This entry has been backdated.]

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