

How do I get a handle to the primary monitor?

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There are various ways of getting a monitor. You can get the monitor from a point, from a rectangle, or from a window. But how do you get the primary monitor?

The primary monitor is defined to be the one which has (0, 0) as its origin. Therefore, one solution is

```
HMONITOR GetPrimaryMonitor()
{
    POINT ptZero = { 0, 0 };
    return MonitorFromPoint(ptZero,
                            MONITOR_DEFAULTTOPRIMARY);
}
```

The desktop window by convention is deemed to reside primarily on the primary monitor, so you could also use this:

```
HMONITOR GetPrimaryMonitor()
{
    return MonitorFromWindow(GetDesktopWindow(),
                            MONITOR_DEFAULTTOPRIMARY);
}
```

Or you could just pass the null window handle. This is technically an illegal parameter, but by specifying `MONITOR_DEFAULTTOPRIMARY`, you are saying, “If anything goes wrong, give me the primary monitor.”

```
HMONITOR GetPrimaryMonitor()
{
    return MonitorFromWindow(nullptr,
                            MONITOR_DEFAULTTOPRIMARY);
}
```

In this case, we are intentionally going astray because we want to kick in the `MONITOR_DEFAULTTOPRIMARY` behavior.

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