

Alpaca TLDR

What is Alpaca?

- It is way for astronomy client applications to discover and communicate with astronomy devices through an ASCOM Interface over a TCP/IP network.

What is an ASCOM Interface?

- It is a written specification for a technical contract between a client application and an astronomy device and defines the set of operations that the client and device can perform.
- For each operation, it specifies:
 - The input parameters required to carry out the operation.
 - The success and failure responses that the client can expect from the device.
 - Behavioural requirements such as validity ranges.
- An ASCOM interface must be brought to life in one or more technologies in order to be useful.

Alpaca is ASCOM and ASCOM only works on Windows, so Alpaca must need Windows, right?

- No, it doesn't.
- Alpaca clients and devices “**can**” run on Windows, but Alpaca does not “**need**” Windows anywhere in order to run.

So, what technologies do Alpaca clients and devices use?

- Any hardware / operating system / development language that supports TCP/IP networking, HTTP and REST.
- For example, macOS and Linux clients can discover and use Arduino and Raspberry Pi based Alpaca devices with no dependence on Windows of any kind.

Do I need the ASCOM Platform and developer tools to develop an Alpaca device?

- No, you don't. You can develop an Alpaca client or device in whatever development tooling and on whatever OS you wish.
- You only need Windows and the ASCOM Platform if you wish to:
 - Use Windows based Conform to test your Alpaca device
 - Test discovery using the Alpaca enabled Chooser that comes with Platform 6.5.
 - Use the offline copy of the interface definition that comes with the developer tools installer. (Its available online here: https://ascom-standards.org/Help/Developer/html/N_ASCOM_DeviceInterface.htm)