



Linux Academy

What is Docker?

An Introduction



So what, exactly, is Docker?

According to Wikipedia (and others):

*Docker is an open-source project that automates the deployment of applications inside software containers, by providing an additional layer of abstraction and automation of operating system-level virtualization on Linux.**

So basically, it is a tool (or a set of tools depending on how you look at it) that packages up an application and all its dependencies in a “virtual container” so that it can be run on **any** Linux system or distribution.

* [http://en.wikipedia.org/wiki/Docker_\(software\)](http://en.wikipedia.org/wiki/Docker_(software))





Does it run on Linux only?

That depends on what you mean. Docker can “emulate” Linux within its container space, but the client to do so can be install on and Linux, Windows or Mac OSX compatible system you want.

For Windows, since the Docker Engine itself uses “Linux-specific” kernel features, it needs to use a lightweight virtual machine to do its work. You then use the client to control that virtualized Docker Engine to run and work with your containers.





When would I use Docker?

There are a lot of reasons to use Docker. Although you will generally hear about Docker used in conjunction with development and deployment of applications, there are a ton of examples for use:

- Configuration Simplification
- Enhance Developer Productivity
- Server Consolidation and Management
- Application Isolation
- Rapid Deployment
- Build Management

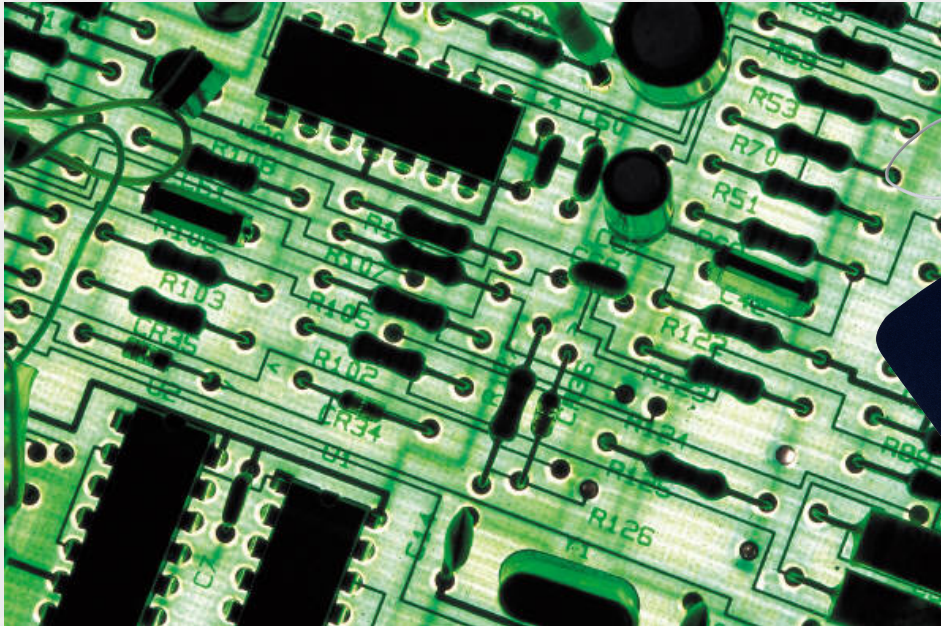
Keep in mind these are only a few use cases. We are going to explore many more during our course!





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Summary:

Docker offers you the ability to isolate your applications, standardize your build and deployment process and to create standard, repeatable processes in your software and infrastructure. We are going to take a look at Docker from the overall architecture to its use and application across all operating systems as well as exploring the use cases in Enterprise environments.

