

Safe and Scalable Build Automation through Virtualization

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Abstract: Hardware virtualization is often used to achieve isolation of one application from another, while still allowing to run the applications on the same physical hardware for better utilization; using separate machines might have been an alternative. Often, people associate this scenario with long-running tasks, such as web servers or other services offered in the network. In this paper, we discuss a use case of virtualization that is quite different, where virtual machines are created and destroyed so quickly that using physical hardware would have been feasible at all. The specific application that we consider is build automation in the Python Package Index, as implemented in the HPI Future SOC Lab.