

CROSS-PLATFORM DEVELOPMENT AND TESTING FOR TODAY'S DIGITAL WORKSPACE

VMware Workstation and Fusion

A White Paper for Software Engineers and DevOps Professionals

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Overview

In today's world, enterprises need to move faster and be more flexible in application development, testing and QA to keep up with the competition and meet customer expectations for shorter cycle times and higher service levels. This is especially challenging in a new digital workspace that features a diverse app ecosystem with desktop, remote, mobile, SaaS and Universal apps running on a variety of personal systems and smart devices.

This white paper discusses how VMware Workstation™ and VMware Fusion™ provide the foundation for modern engineering that enables development teams move faster and more flexibly while streamlining time and cost requirements.

The New Demands of Software Development

Today's work environment creates tremendous complexity for software engineering teams and those involved with DevOps or Agile workflows related to user systems in the enterprise. You are responsible for developing and testing a growing number of applications for varied operating systems and computing platforms. And you're being asked to move faster to meet customer expectations and be more flexible to changes in the business. All while supporting a diverse app ecosystem with desktop, remote, mobile, SaaS and Universal apps running on a variety of personal systems and smart devices. You're also managing concerns about app security without disrupting workflows or end users' productivity.

Introducing VMware Workstation and Fusion

Workstation and Fusion provide a cross-platform foundation for modern software engineering and deliver the most comprehensive toolset available for software development and testing.

With the broadest OS support, and integration with today's modern agile development workflow tools like Hashicorp's 'Vagrant' and Docker, VMware products bridge the old and the new. Whether you're working with iOS, Android, or Linux; building Windows apps on a Mac; or building cloud-scale container driven web apps with workflow automation, Fusion and Workstation are an invaluable addition to any developer's toolbox and a proven way to enhance your team's **agility**, boost **productivity** and enhance application **security**.



MULTI-OPERATING SYSTEM DEVELOPMENT

Allows developers to build different applications for any OS



MULTI-OPERATING SYSTEM TEST

Efficient test processes speed app lifecycles and assure quality code



DEVOPS/AGILE DEVELOPMENT WORKFLOWS

VMware's toolset makes testing much faster and easier

Improving Organizational Agility

Things change rapidly in the business world – new opportunities open up, others close. You need to be able to add and subtract applications and run development and testing activities quickly, from any location and without disrupting workflows.

With Workstation and Fusion, developers can work anytime, anywhere from any Intel x86-based device, eliminating the need for multiple devices just to do your job. Workstation and Fusion allow you to easily plug into different workflows, using modern automation tools, so you only have to build things once and then distribute as needed.

Workstation and Fusion help developers increase team and organizational agility by:

Providing the foundation of modern development and testing

With Workstation and Fusion, your team can develop and test applications in a virtual sandbox, and rapidly create and eliminate virtual production environments. From traditional desktop applications for Windows or Mac, server applications built on Linux, or modern container-driven cloud native applications, the VMware platform is an essential foundation of a modern agile development workflow.

Automating and deploying from CLI

Use modern automation tools like Vagrant or configuration management tools like Chef to ‘codify’ the rapid and repeatable creation and elimination of virtual machines and their applications’ dependencies. Run headless VMs from the command line, or integrate into a container-based automation workflow using docker-machine and Photon OS.

Boosting Software Development Productivity

As more aspects of the business become more software-driven, and applications of all sorts become more essential to organizational success of the business, expectations of software development grow. You are simply expected to do a lot more and in less time.

Workstation and Fusion increase the productivity of software development teams with multiple templates, tools and resources that allow for increased automation, deployment and scalability.

Pre-built images

When you use Workstation and Fusion, you can leverage a comprehensive library of templates purpose built for developers. You can also leverage a wide community of contributors sharing VMware-based templates and container-based images pre-built for developer workflows of every type. As a result, you’ll spend much less time building the foundation for your development efforts; e.g., new operating systems and tool environments, and more time on development. You’ll be able to get things up and working faster.

Building, testing and debugging Windows 10 apps

With Workstation and Fusion, you can build modern 'Universal Windows Platform' applications with support for Windows 10 and the latest touch devices with accelerometer and multi-touch pass-through on Windows 8 and Windows 10 hosts. This is important for cross-platform developers that are running Windows apps or an OS on a Mac. Workstation and Fusion provide the capability build an app on a VM and move it around as needed.

Containers for building cloud native apps

With VMware, you can easily build highly scalable cloud native applications right on your desktop that are ready to migrate to production clouds. Use VMware Photon OS™ and get your apps ready for the cloud with the VMware Cloud Native Application stack. Build applications locally using PhotonOS, and then automate their lifecycle deployment into highly scalable production systems running Photon Platform, or into traditional VMware vSphere® data center environments using vSphere Integrated Containers. This makes for easy deployment and scaling and saves valuable time and resources.

Enhancing System Security

Cyber security continues to rank as one of the most important topics for any CIO.

Workstation and Fusion are built on over 15 years of virtualization excellence. Thanks to powerful security features, these products provide the most stable and secure local desktop virtualization platform in the industry. As a result, millions of software developers and organizations around the world in multiple industries rely on VMware's solutions today. Some of the key reasons they feel secure include:

Encrypted VM's for maximum security

If you're running production-level code in your test virtual machine, it's important to keep it secure. Built-in VMware encryption ensures that every virtual machine is secure and can only be accessed by authorized users.

Secure file sharing and paths from host to guest

Workstation and Fusion reduce the need to re-download source code over potentially insecure networks during deployment by leveraging shared folders. You can then re-use the same local files within your development or testing virtual machine environments without having to download them over the air or sync them into source code repositories first. For example, if you have your source code folder on the Mac, any changes you make to the folder are automatically made to VMs running on the mapped guest.

Better security in your apps

By running your code in a virtual machine you can test the 'hardness' of your application in a secure self-contained and destructible environment, isolated from your host machine. You can even take a snapshot or clone of your VM to ensure you have a safe rollback without the worry of damage or compromise.

World-class support and a global community

VMware offers world-class 24x7 support in a variety of packages to suite every software developer's needs: ranging from free to full SLA-backed phone support, coupled with an extensive and active worldwide community ready to help.

Learn More

With over 15 years of virtualization excellence, millions of satisfied customers, and a collaborative global community, Workstation and Fusion provide the modern platform of choice for software developers.

Whether they are working on multi-operating system development, multi-operating system testing or DevOps and Agile workflows, software developers in businesses of all shapes and sizes depend on these solutions to improve their organization's **agility**, boost **productivity** and enhance system **security**.

See what Workstation and Fusion can do for your development team.

Mac users can try Fusion Pro for free at www.vmware.com/products/fusion-pro

And Windows and Linux users can try Workstation Pro for free at www.vmware.com/products/workstation.

*<http://fliplet.com/blog/enterprise-mobility-statistics-infographic/>



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