Deliver Dynamic Teaching Labs with **Liquidware Labs FlexApp**

Students enrolled in a variety of curricula can now be supported by the same lab facilities. Applications are delivered on demand – even changing hourly – as students revolve through lab periods.

With Liquidware Labs FlexApp, Dynamic Teaching Labs can be set up in any room – anywhere on campus – that houses the end-point devices and related lab resources.

As student populations change, Dynamic Teaching Labs can also grow so there will always be adequate lab classrooms for the number of students needing them. Labs can even be set up off-campus.

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**Dynamic Lab A**
- Graphic Design
- CIS
- Math
- Engineering

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**Applications**
- Adobe Illustrator
- Adobe Photoshop
- Adobe InDesign
- PythonAnywhere
- WingIDE
- Microsoft Visio
- MATLAB
- SageMath
- Mathematica
- ADS
- ANSYS
- AutoCAD

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**Credits**

Liquidware Labs™
Deliver Dynamic Teaching Labs with Liquidware Labs FlexApp

Go Beyond the Limitations of Traditional Teaching Software Labs from K-12 to PostSecondary Institutions

In the past, the design and location of Teaching Labs on college campuses have been constrained by the need to size end-point devices to application requirements. Many applications used in Teaching Labs simulate real-world experiences and therefore are resource-intensive, requiring high CPU, GPU and memory. Thus the size and location of Teaching Labs have been dictated by how much budget and space can be allocated to the workstations or the desktop hardware needed to run such robust applications.

This traditional Teaching Labs model limits an academic institution's ability to support student populations as they change and grow, and diverts a disproportionate amount of college budgets to acquiring and maintaining end-point hardware devices. This model also limits the flexibility of instructors and IT administrators to add or change applications on-the-fly without requiring extensive manual work or a potential hardware refresh.

Liquidware Labs FlexApp Offers the Ability to Provide a Flexible, Dynamic Application Delivery Model for Lab-based Classroom Settings

Liquidware Labs FlexApp application layering technology ushers in a new age in sizing, designing and delivering applications in Teaching Labs. FlexApp works as follows:

- Applications for Labs are packaged by the IT staff for "Mass" delivery
- Filters are created to determine who, what, where and when an application should be delivered.
- Users log into a device, and based on the filters, applications appear on that machine in seconds.
- Applications are layered into a relatively "clean" operating system through the FlexApp service.
- The FlexApp service and a pair of innovative file system drivers keep track of where each application file should be located within the OS File System and System Registry as if the application were being natively installed.
- FlexApp applications look native to other applications and to the operating system itself.

– By using application layering rather than application isolation, a substantial number of applications can be virtualized with near 100% compatibility.

FlexApp Supports Design and Delivery of Dynamic Teaching Labs

Because of FlexApp's high compatibility rate with many of the leading applications used across academic institutions, creating Dynamic Teaching Labs is simple and straightforward. Academic institutions gain the following compelling advantages:

- Students of different disciplines can be supported by the same labs. Applications can be delivered on demand – even changing hourly – as students revolve through lab periods.
- Teaching Labs can expand or contract with the shifting size of student populations per curriculum.
- Teaching Labs can be dynamically set up in any room that can house the end-point devices and related lab resources.
- End-point devices no longer need to be sized to the applications that will be installed on them. In fact, thin clients can be utilized saving cost, because applications will reside on centralized hosts.
- Applications that need more CPU, GPU, RAM or disk can be supplied by diverting more host resources to those applications.
- As student populations by major grow or recede, former dedicated labs can be repurposed to support multiple disciplines, ensuring that there will always be adequate labs for the number of students needing them.
- Teaching Labs can be expanded to off-campus facilities as well.

If you would like more information about how FlexApp can be applied at your institution to support the design of Dynamic Teaching Labs, please contact us at sales@liquidwarelabs.com.

Additional Solutions from Liquidware Labs

User Environment Management
ProfileUnity™ delivers full-featured User Environment Management that includes superior Profile Management, and Centralized Policy Management that goes beyond Microsoft® Group Policies, as well as advanced features such as Privilege Elevation and Application Rights Management.

Application Layering
Liquidware Labs™ FlexApp™ is an integrated part of ProfileUnity, offering Administrator-assigned Application Layering with optional User Installed Application Layering features. Even complex apps can be assigned on a machine level, per user, group, or context-aware basis. The solution is compatible with virtually all desktops, including Citrix® XenApp, VMware® Horizon View and Microsoft® RD SH.

Visibility
Stratusphere™ UX provides industry-leading in-guest metrics that help you head off issues before they become mission-critical show stoppers. The solution supports all platforms and delivery approaches to provide success and minimize risk in all phases of the transformation lifecycle — from assessment and onboarding to proof-of-concept (POC) and pilot, and finally to production.