

Domino for Statistical Computing and Data Science

The Modern SCE for Digital Transformation



Overview

Domino is an innovative Statistical Computing Environment (SCE) that offers language, IDE, and workflow flexibility and tracking, ensures full traceability and reproducibility, and includes a robust data sharing framework for more efficient delivery of statistical analyses for regulatory submissions and other post-hoc analyses and AI/ML workloads.

Domino helps data scientists and statistical programmers at the world's largest health and life sciences organizations:

- **Expedite quality regulatory submissions** by embedding evidence of QC, traceability, and reproducibility into the workflow
- **Simplify the unblinding process**
- **Quickly respond to post-hoc analysis requests**
- **Easily combine clinical study data with other types of data** from various sources, such as biomarker data, omics data, and more, for research analytics and model development

Why Health and Life Sciences Organizations Depend on Domino

Domino provides a fresh and extensible approach to delivering an SCE. It makes optimal use of cloud-native technologies in order to orchestrate the control and governance required for GxP while maintaining the flexibility critical to driving innovation. It allows R&D organizations to standardize where it makes sense and effectively unleash the power of data science and advanced analytics across all stages of R&D, ultimately accelerating the discovery and delivery of novel medicines and vaccines to patients. With Domino you get:



Flexibility without sacrificing governance

Domino's unique governance framework and integration capabilities give teams the flexibility to design their own workflows around their purpose rather than worrying about or feeling constrained by compliance.



Easy access to data, without compromising security

Domino allows data to be shared with authorized individuals without making copies. The platform simplifies the unblinding process, and clinical study data can be easily used in other analytics and data science workflows.



Full breadth of analytic infrastructure and tools

Domino supports a wide variety of open-source and commercial tools and languages, including Python, R, and SAS. Your team can keep pace with the ever-expanding set of tools and infrastructure and easily configure and manage access to validated as well as non-validated environments.



Accuracy, Traceability, and Reproducibility

Domino provides granular governance without compromising flexibility. It offers out-of-the-box traceability and reproducibility of statistical results in fully audited and versioned job executions, including QC.

The Benefits of Using Domino



Flexible Workflows

Domino's unique governance framework and integration capabilities give teams the flexibility to design their workflows around their purpose. Organizations can standardize workflows on preconfigured GxP and non-GxP environments, without compromising the ability to collaborate effectively. Teams of data scientists and/or statistical programmers can work together on projects/studies, while senior leaders can track results and progress toward key milestones using either integrated project management capabilities or automatic synchronization with Jira. Domino's robust API interface provides additional capabilities for integration and customization without impacting any workflows.

Various hardware tiers can be configured and made available on an as-needed basis to lower costs and minimize waste. Usage can be easily monitored based on the business benefit, workflow, and organization. IT support costs in building, delivering, and maintaining infrastructure are minimized, and data scientists and statistical programmers don't have to wait for IT in order to get their computing needs met. In addition to giving users the ability to select the right computing infrastructure for a job, Domino is able to handle any volume of data and code seamlessly with autoscaling.



Governed Access to Data

Domino provides granular access control to data within the platform, as well as out-of-the-box connectivity to a wide variety of external data sources. This allows Domino to be easily incorporated into an end-to-end clinical trials solution and incorporate a variety of data into projects. Data within Domino can also be shared between projects, without compromising control or having to make copies. Domino takes the complexity out of the unblinding process and allows data to be easily shared for use in post-hoc analyses and other data science workflows. Domino can also integrate with company SSO and LDAP solutions to abstract the access management process.

"Domino has been one of the underpinnings of being able to scale. We went from 10 to probably 150 plus projects, and you can't do that unless you have a standardized way of having all the data, models, applications in one place."

DR. NAJAT KHAN
Chief Data Science Officer



Multilingual Infrastructure

Domino runs all types of code, including Python, R, SAS, and other open-source technologies, on-premise or in the cloud, and supports seamless integration with various types of data and data sources. It allows data scientists and statistical programmers to collaborate on a project, each using their preferred tools and IDEs. This flexibility allows organizations to onboard new users faster, attract and retain talent, and upskill their teams in an effective manner. It also allows statistical programmers and data scientists to make use of and collaborate on open-source assets, in addition to proprietary code. As new open-source tools and libraries become available, data scientists and statistical programmers can take immediate advantage of their benefits, and keep at the forefront of industry progress.



Embedded GxP Compliance

Domino provides granular governance without compromising flexibility. Evidence of traceability is provided in an immutable audit record that includes the version of the input data, code, environment, and output data related to a job execution. Domino can reproduce all statistical results on demand, including all artifacts and dependencies. This not only enables studies to be audit-ready, but also allows statistical programmers and data scientists to collaborate with peers by easily comparing and iterating on results and providing a review and comment trail.

Domino is the SCE of choice for leading health and life sciences organizations worldwide and over 20% of the Fortune 100.



[LEARN MORE](#)

