

# Scaling RStudio Server Pro with Slurm

RStudio Server Pro version 1.2.5 includes (optional) Named User editions of RStudio Server Pro and related functionality to launch R sessions and jobs on external clusters and resource managers, such as Kubernetes and Slurm.

## Run R Sessions Across a Scalable Cluster

The Launcher functionality in RStudio Server Pro provides the capability to remotely spawn interactive R sessions across one or more clusters with no change in the developer's workflow or user experience. Each R session can be customized in terms of CPU/RAM resources and the Slurm job queue that will be used for each session.

## Run R Jobs on External Cluster Resources

Launcher allows developers to specify any R script in RStudio Server Pro along with the desired resources, then run the job independently from the current interactive R session. This is useful for running scripts that perform large data transformations or execute model training pipelines.

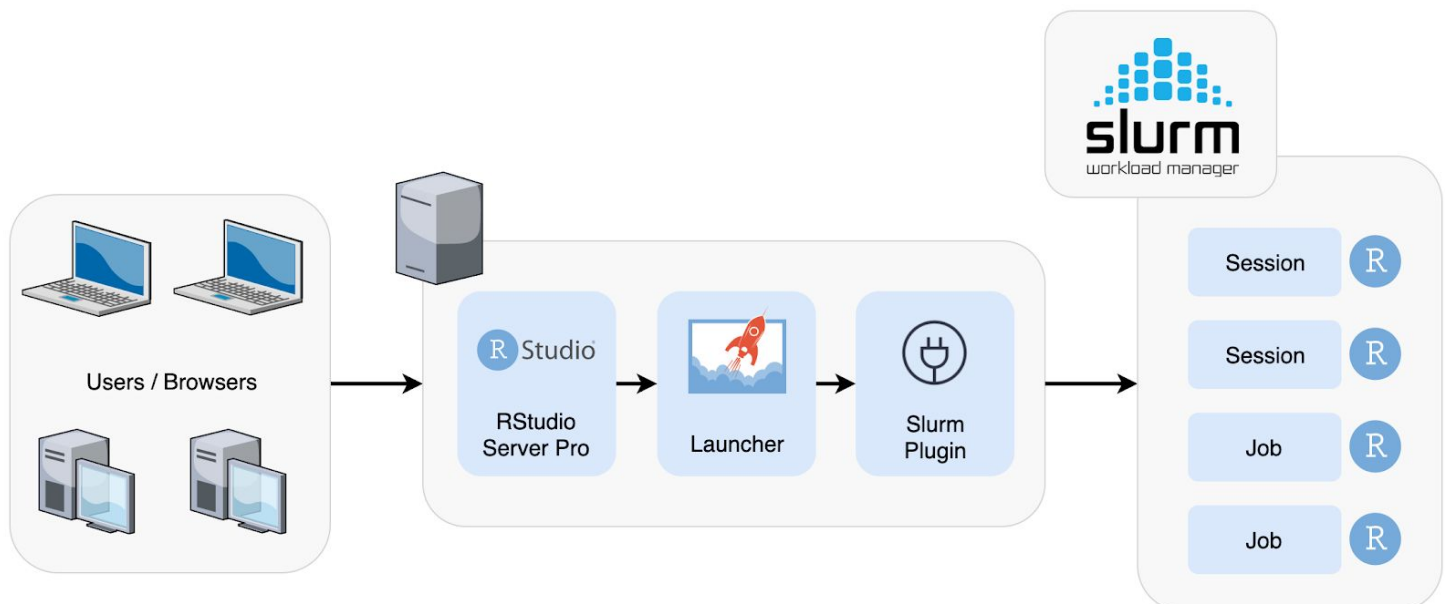
## Use RStudio with Slurm

RStudio Server Pro and Launcher combined with Slurm allows you to use your existing Slurm workload manager and cluster to help your development environment scale out as your data science team and computational needs grow.

Launcher allows RStudio Server Pro to connect to additional compute resources on the underlying cluster infrastructure without needing to maintain additional servers.

## Use with other Cluster Resource Managers

In addition to Slurm, Launcher can be configured to work with Kubernetes. Launcher can also be extended to work with other cluster resource managers using its pluggable architecture.



# FAQs

## Can users specify the Slurm queue to spawn sessions and jobs on?

Yes, users can specify a specific Slurm queue to spawn a session or job on.

## Is there a separate license for Launcher?

RStudio Server Pro version 1.2.5 is available without Launcher in existing server-based licensing. RStudio Server Pro version 1.2.5 with Launcher requires the purchase of Named User licenses. Get in touch with us at [sales@rstudio.com](mailto:sales@rstudio.com) to discuss how to get started with Launcher.

## How do users access files and projects with Launcher and Slurm?

Since the RStudio sessions and jobs are running as the logged-in user, users will have access to their home directories and project files on the cluster.

## Does Launcher and Slurm work with with HPC R packages such as batchtools, clustermq, drake, and others?

Yes. RStudio sessions and jobs run as native Slurm jobs on the cluster, and users can use standard Slurm-compatible tooling from the RStudio editor, console, or terminal to invoke other Slurm jobs.

## Can I run background jobs with Slurm?

Yes, you can run background jobs from RStudio for ETL jobs, model simulations, or other long-running batch jobs. These background jobs will be started as a Slurm job separate from the interactive session.

## If the Open Source version of RStudio IDE has a Jobs pane, why do I need Launcher?

Background jobs in the RStudio IDE are R processes that run independently from the current R session, but can only run on the same machine. Whereas Launcher allows the R process to run remotely on a cluster, outside of the machine where the R job was created.



## About RStudio

RStudio open source and enterprise-ready, professional software combines robust and reproducible data analysis with tools to effectively share data products. Our flagship professional products RStudio Server Pro, RStudio Connect, and RStudio Package Manager equip professional data science teams to develop and share their work at scale.