



Z by HP Data Science Stack Manager

Customize and manage your data science
environment—from a single tool.

The open-source world is a fascinating playground for data scientists. Yet, the ever-evolving landscape of tools for deep learning, development, and big data manipulation can also be a jungle of lost time. No sooner have you curated and installed one set of tools than you need to jump to a new project with different requirements. The constant need to keep tools updated wastes time that could be spent uncovering new insights.

Z by HP Data Science Stack Manager¹ is designed to not only save you valuable time but also ensures you have the latest versions of the best software tools available. That way, you can instantly customize your environment. It provides fast, convenient access to the software and open-source tools available in the Z by HP Data Science Software Stack, and updates them automatically. In addition it also works on both Ubuntu and Windows.

Rather than expecting data scientists to custom build systems from a frustrating parade of moving parts, HP has done the hard work for you. With a few clicks, you're freed to build the insights your business demands, simplifying life for IT support teams.



What is the Z by HP Data Science Stack Manager?

The Z by HP Data Science Stack Manager is a one-stop destination for selecting and installing popular data science tools. [Available as a download](#) and preinstalled on select Z Workstations, it enables you to easily customize your environment as your workflow and projects change.

The Z by HP Data Science Stack Manager works in partnership with the Z by HP Data Science Software Stack. It is available on Ubuntu or

Windows, via Microsoft's Windows Subsystem for Linux (WSL 2),² and it includes open-source software like TensorFlow and PyTorch, developer tools like Git and Visual Studio Code, plus support for NVIDIA CUDA, to name a few.

These tools are configured so they work well together with no endless tweaking. In short, it means you never have to worry about not having the right application at your disposal.

Benefits of the Z by HP Data Science Stack Manager

There's a reason that many data scientists are excited about the Z by HP Data Science Stack Manager. More accurately, there are several reasons.

1 Slash configuration times

Anyone who's pored through reams of documentation for open-source software knows it's a morass where time can lose its meaning. Software configuration can take hours, days, even weeks. The HP Data Science Stack Manager saves a ton of time over hunting, configuring, and installing a forest of moving parts and getting it all to work together by resolving and managing dependency tree conflicts.

2 Customize your environment anytime

The Z by HP Data Science Stack Manager has been designed with customization in mind. It makes it easy to install or delete programs as your workflows and projects change—compare that to searching for new programs or wasting storage on tools you no longer need.



3 Curate your ideal software stack

With data science software tools like TensorFlow, Keras, and PyTorch, you'll have access to the most popular open-source, business insight-pushing libraries, languages, and applications. Here's an overview of the preloaded tools:

- RAPIDS: The go-to, CUDA-leveraging, open-source library set for GPU-accelerated data analytics and data science
- Intel® oneAPI AI Analytics Toolkit: This toolkit gives data scientists, AI developers, and researchers familiar Python tools and frameworks to accelerate end-to-end data science and analytics pipelines on Intel® architectures
- TensorFlow: This open-source machine learning (ML) platform is packed with libraries, community resources, and a flexible network of tools, with a focus on training deep neural networks
- Keras: The popular Python-based deep-learning API for the TensorFlow platform. It lets you experiment quickly so you can go from idea to reality at the speed of thought
- PyTorch: A mighty open-source machine learning framework and Python library that gets you from research and prototyping to deployment
- scikit-learn: Leverage the most useful machine learning library in Python, with tools for regression, clustering, classification, and dimensionality
- XGBoost: This algorithm dominates recent Kaggle and ML competitions for structured and tabular data, thanks to unparalleled speed and performance
- cuML: Suite of ultrafast, GPU-accelerated ML data science algorithms
- cuDF: Standout GPU DataFrame library





4 Leverage top developer tools and containers

When it comes to version control, code editing, web and cloud application debugging, and smart code inspection, open source is king. Until now, that king has lived high atop a digital mountain, in a fortress of lengthy installs and configurations. But now Z by HP brings it into easy reach. With the Data Science Stack Manager, you'll get:

- **Git:** The wildly popular open-source version control system that makes it easy to work your way up the development ladder from concept to debugging
- **Visual Studio Code:** A code editor designed specifically to let you build and debug modern cloud and web applications. It's 100% free and open-source, and perfect for everyday use
- **PyCharm:** Smart code completion and inspection, with on-the-fly error highlighting, automated code refactorings, and quick-fix suggestions that put rocket boosters on your development process
- **Docker:** The best data science software platform for developing and running applications

5 Enjoy deep cloud interoperability

Whether you work in AWS, Google Cloud, Azure, or all three, enjoy seamless cloud environment interaction with command-line access, right out of the box.

6 Work on Windows or Ubuntu

The Z by HP Data Science Stack Manager comes preloaded on select high-performance workstations on native Ubuntu or Windows via Microsoft's WSL 2.

7 Exploit the power of NVIDIA

With more cores comes the ability to train models on larger datasets, and GPUs have far more cores than CPUs have. The HP Data Science Stack Manager will let you leverage these data-busting tools on day 1:

- NVIDIA GFX Driver: NVIDIA GPUs are the gold standard for data science workflows, taking you from “I’ll go out and get a coffee while this model runs” to “Hey, it’s done already”
- NVIDIA CUDA: Tap into the NVIDIA CUDA data science solution, and use parallel computing to unlock the multi-core power of your GPU

8 Provide peace of mind

Keeping open-source software up to date is vital, not just to benefit from the latest features but also to stay ahead of security threats. It’s also a complex and time-consuming task. With HP curating the software stack and managing updates, you have peace of mind and can stay focused on the work that matters.



Where can I get the Z by HP Data Science Stack Manager?

The Z by HP Data Science Stack Manager is [available for download](#) and comes preloaded on select Z by HP Data Science Workstations.

Summary

The Z by HP Data Science Stack Manager puts the best open-source software solutions in one organized, user-friendly place. It allows you to spend more time uncovering new data-driven insights, instead of configuring your environment and keeping it up to date with each new project.



Z by HP for Data Scientists & Analysts

Get rapid results from your most demanding datasets, train models and create visualizations with Z by HP data science laptop and desktop workstations.

[LEARN MORE](#)

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Disclaimers

1. Z by HP Data Science Stack Manager requires Windows 10 version 21H2 (Build 19044) and higher or 64-bit Ubuntu 20.04 and is available on select Z workstations.
2. WSL 2 requires Windows 10 or higher, Intel Core i5 processor or higher and is available on select Z workstations. You must be running Windows 10 version 2004 and higher (Build 19041 and higher) or Windows 11.

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