



# Z by HP

## Data Science Workstation

### WHY Z BY HP?

AI Practitioners spend 80-90% of their time on data processing & preparation. This labor intensive period is where Z by HP provides the greatest contribution to data science through GPU processing.

Z by HP allows for data scientists to maximize their workflow output and move from analyzing data in hours and cycles to milliseconds per click.

### OPTIMIZED PERFORMANCE FOR DATA SCIENCE

- High-level solution with the power needed to increase speed and efficiency.
- The ability to do data preparation, cleaning, exploration, visualization, modelling, training and testing all on one, local, secure device.
- Increased responsiveness when doing data exploration. Freely interact with your data and create business insights more frequently.

### BENEFITS OF Z

Z by HP data science workstation is now available as a pre-configured solution specifically to tackle data science. Fully integrated with NVIDIA Quadro RTX GPUs and accelerated CUDA-X AI data science software<sup>1</sup> providing a seamless deployment experience out of the box. Compared to mainstream CPU solutions, a Z by HP data science desktop workstation is 10x faster with huge performance gains<sup>2</sup> allowing for between 2 billion and 5 billion database row output depending on configuration<sup>3</sup>.

Z by HP data science workstations deliver a high-performance, enterprise-class solution that dramatically boosts productivity, speeds up time to insight, and helps lower the cost of data science projects. Breakeven with a Z by HP Z4 data science workstation configuration vs. cloud server implementation in as little as 8 months<sup>4</sup>. Have confidence in your data science investment with a secure, expandable solution that is ready to go where your data takes you.

### Z BY HP DATA SCIENCE RECOMMENDED CONFIGURATIONS

#### HP Z4 G4

2 to 3 billion rows in minutes vs. hours

Perfect for engineering, visualization, and machine learning.

RAPIDS Recommendations:

- NVIDIA® Quadro RTX™ 8000 GPU (48 GB)
- Intel® Xeon® 6C CPU
- 128-256 GB RAM
- 1 TB HP Z Turbo drive
- 2 TB HP Z Turbo data drive (optional)
- Ubuntu 20.04
- 1000-Watt Power Supply

#### HP Z8 G4

4 to 5 billion rows in minutes vs. hours

Ideal for running complex simulation, ML and processing huge amounts of data.

RAPIDS Recommendations:

- Dual NVIDIA® Quadro RTX™ 8000 GPU + NVLink
- Dual Intel® Xeon® 8C CPU
- 192-512 GB RAM
- 1 TB HP Z Turbo drive
- 2 TB HP Z Turbo data drive (optional)
- Ubuntu 20.04
- 1450-Watt Power Supply

#### HP ZBook Studio G7

85 million rows of data in minutes vs. hours

A light and mobile option for business intelligence managers or data analysts.

RAPIDS Recommendations:

- NVIDIA® Quadro RTX™ 5000 GPU (16 GB)
- Intel® Xeon® W Processors (up to 8 CPU cores)
- 32 GB RAM
- >512GB SSD
- Ubuntu 20.04



# Be Productive On Day One



## CURATED FOR PRODUCTIVITY RIGHT OUT OF THE BOX

We have taken the guess work out of creating the optimal data science environment by testing and preloading the most popular data science tools on select ZBooks and Z desktops. This software stack is configured to meet the demands of your workflow and now you don't have to spend multiple days downloading and configuring - be productive on day one.

## UBUNTU. CERTIFIED AND PREINSTALLED

We have partnered with Canonical to extensively test and certify the latest version of Ubuntu OS so it performs at its best. Get professional support with optimal Ubuntu Advantage including 24/7 support.

## SOFTWARE TOOLS

Get the most popular tools for analyzing data and creating powerful models, and enjoy seamless management of package updates and dependencies so your environment is always ready-to-use.



## DEVELOPER UTILITIES

Easily create and deploy your data science applications while managing your data science tools and models.



## ENHANCED CLOUD EXPERIENCE

Interact seamlessly with your main cloud environment with cloud command line access after using your workstation.



## ZBOOKS AND Z DESKTOPS AVAILABLE WITH DATA SCIENCE SOFTWARE STACK

ZBook Studio G7



ZBook Create G7



Z4 G4



Z6 G4



Z8 G4



Learn More: [HP.com/DataScience](https://hp.com/DataScience)



1. Additional software sold separately.
2. Based on NVIDIA data science testing of end-to-end test time, US Mortgage data set years 2015-2016. Using Intel Gold 6140 @ 2.3GHz, 3.7GHz turbo, 2 sockets, 72 threads, 384GB RAM, Ubuntu 16.04.4, NVIDIA Quadro RTX 8000s, driver version 410.93. Intel Gold 6140 CPU, 72 threads end-to-end task time: 528.34, dual Quadro RTX 8000 end-to-end task time: 53.56. Dual Quadro RTX 8000 completed task 9.86X.
3. Based on HP internal analysis of Intel Gold 6140 @ 2.3GHz, 3.7GHz turbo, 2 sockets, 72 threads, 384GB RAM, Ubuntu 16.04.4, NVIDIA Quadro RTX 8000s, driver version 410.93 database row output.
4. Based off of HP internal analysis of cloud on demand pricing over 7.6 months at \$3.06/hr representing 1 GPU, 24/7 use compared to a HP Z4 data science workstation with CPU W-2123, 64GB RAM, and 1 NVIDIA RTX8000 GPUs. Configuration, cloud pricing and options, and other factors are subject to change and will affect your breakeven point.

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