

Interactive BIOS simulator

Z2 G4 Entry Tower Workstation

Welcome to the interactive BIOS simulator for the
Z2 G4 Entry Tower Workstation

Here's how to use it...

[BIOS Utility Menus](#): (Click the link to navigate to the individual menus)

On this page you will find thumbnail images of each of the product's BIOS utility menus. To view a specific menu in greater detail, simply click that thumbnail. Just as in the live BIOS, on each menu, you can select the tab of each of the other utility menus to navigate directly to that menu.

Menu options:

While the menu options cannot be toggled, many of them offer item specific information about that option. To view this information, use the cursor to rollover the option and the information will present in a pane on the right of the BIOS screen.

That's it!

On every page there is a link that brings you back to either this Welcome page or the BIOS Utility Menus page enabling you to navigate to whatever BIOS option you wish to review.

BIOS Utility Menus

Main

Security

Advanced

UEFI Drivers



Item Specific Help

Suppress POST Errors



BASIC SYSTEM INFORMATION

Product Name	Z2 G4 Entry Tower Workstation
Processor 1	Intel(R) Xeon(R) E-2144 CPU @ 3.60 GHz
Memory Size	16384 MB ECC DDR4 @ 2667 MHz
System BIOS	Q50 Ver. 00.31.01 02/12/2018

SERVICE -----

Serial Number	
SKU Number	2YW27AV
Universally Unique Identifier (UUID)	B9A3BE55-53C5-F275-2A25-AFFEBF2ACF63
Asset Tracking Number	

Item Specific Help

Help



ADVANCED SYSTEM INFORMATION

Product Name Z2 G4 Entry Tower Workstation
Memory Size 16384 MB ECC DDR4 @ 2667 MHz

PROCESSOR 1 -----

Processor Type Intel(R) Xeon(R) E-2144G CPU @ 3.60 GHz
Cache Size (L1/L2/L3) 256 KB / 1 MB / 8 MB
Processor Speed 3600 MGz
MicroCode Revision 84
Processor Stepping A
Memory Speed 2667 MHz
DIMM1 16 GB Hynix/Hyundai
DIMM2 Empty
DIMM3 Empty
DIMM4 Empty

Item Specific Help

Help



ADVANCED SYSTEM INFORMATION

FIRMWARE -----

System BIOS	Q50 Ver. 00.31.01 02/12/2018
ME Firmware Version	12.0.0.1059
ME Firmware Mode	Enabled
Video BIOS Version	AMD GOP Release Drive Rev. 1.62.0.15.50.Mar 27 2017.10:13:02
Reference Code Revision	7.0.1C.58
Super I/O Firmware Version	7.8.5

SERVICE -----

Serial Number	
SKU Number	2YW27AV
Universally Unique Identifier (UUID)	BBF5585E-FED7-2554-85A5-CD74C0C587DD
Asset Tracking Number	

Help

Item Specific Help



Feature Byte

Build ID

Product Family

103C_53335X HP Workstation

System Board ID

8455

System Board CT Number

PGVQTXACYAJB1Y

COMMUNICATION -----

Integrated MAC Address 1

3C-52-82-66-27-FD

Item Specific Help

Help



HP PC Hardware Diagnostics UEFI

Please select a Language.

English

Cestina

Dansk

Deutsch

Nederlands

Espanol

eesti keel

Suomi

Francais

Hrvatski

Magyar





Update System BIOS

Current System BIOS Version:	Q50 Ver. 80.35.01
Current BIOS Release Date:	02/12/2018
Installation Date of Current BIOS:	01/01/2017
Most Recent Update Check:	Never Checked



1

Lock BIOS Version 2

BIOS Rollback Policy

3

Allow BIOS Updates Using a Network 4

Help

Item Specific Help

- 1. Check HP.com for BIOS Updates**
Checks for the latest BIOS release revision on the network, and lets the user decide whether to download the BIOS image and update System.
- 2. Lock BIOS Version**
If not selected, then BIOS updates are allowed, if selected then updates to BIOS are not allowed.
- 3. Click on the field to see the options.*
- 4. Allow BIOS Updates Using a Network**
Enable/Disable automatic BIOS updates through the network in a scheduled basis.



Network BIOS Update

MS Windows Bitlocker Drive Encryption (BDE) may be enabled on your system. HP requires that BDE be suspended temporarily before the BIOS is flashed and that you obtain your BDE recovery password or recovery PIN before suspending BDE. After the BIOS is updated, BDE can be resumed.



Minimum BIOS Version

Current Minimum BIOS Version: 00.00.00

Minimum BIOS Version:



BIOS Update Preferences

Check for Update on Next Reboot **1**

BIOS Source **2**

3

Automatic BIOS Update Setting **4**

BIOS Update Frequency **5**

Item Specific Help

- 1. Check for Update on Next Reboot**
Enable/Disable an automatic BIOS check on next reboot.
- 2. BIOS Source**
Choose one of the available options.
Click on the field to see the options.
- 3. Edit Custom URL**
Specify a custom BIOS update address.
- 4. Automatic BIOS Update Setting**
Choose one of the available options.
Click on the field to see the options.
- 5. BIOS Update Frequency**
Choose one of the available options.

Help



Network Configuration Settings

Proxy Server **1**

2

3

IPv4 Configuration

4

→ IPv4 Subnet Mask **5**

5

→ IPv4 Gateway **6**

6

7

DNS Configuration

8

9

Data transfer timeout

Force HTTP no-cache **10**

Item Specific Help

- 1. Proxy Server**
Enable/Disable the use of a proxy server.
- 2. Edit Proxy Server**
Specify the Proxy Server Address and the Port Number through the common-use <server>:<port> notation.
- 3. Test Network Connection**
Check the network connection using current BIOS update configuration.
Click on the field to see the options.
- 4. IPv4 Configuration**
Setup for static IPv4 address.
Click on the field to see the options.
- 5. IPv4 Address**
Setup for static IPv4 address.
- 6. IPv4 Subnet Mask**
Configure a valid IPv4 address for subnet mask.
- 7. IPv4 Gateway**
Configure a valid IPv4 address for gateway.
- 8. DNS Configuration**
Configure a list of DNS addresses.
- 9. DNS Addresses**
Configure a comma separated list of DNS addresses.
- 10. Force HTTP no-cache**
Disable HTTP caching.

Help

Main



HP Computer Setup

Item Specific Help



Change Date And Time

Set Date (MM/DD/YYYY)

06 / 04 / 2018

Set Time (HH:MM):

20 : 53

Item Specific Help

Help

Main



HP Computer Setup

Item Specific Help

Help



Feature Byte

3X476J6S6b7B7M7R7U7W7m7saBaEapaqauawbVbXbhcAd6dUdpdqfXgdhK.B8



Build ID

Current Setting: 18WWZIAT6av#SABA#DABA

Press the space key followed by the enter key to clear current setting



Serial Number

Current Setting: 5CD8103G6P

Press the space key followed by the enter key to clear current setting



SKU Number

Current Setting: XW1SKU1#ABA

Press the space key followed by the enter key to clear current setting



Product Family

Current Setting: 103C_5336AN HP ZBook Studio

Press the space key followed by the enter key to clear current setting



System Board CT Number

Current Setting: PXW1AAF8JAI00Y

Press the space key followed by the enter key to clear current setting



Product Name

Current Setting: HP ZBook Studio G5

Press the space key followed by the enter key to clear current setting

Main



HP Computer Setup

System IDs

Item Specific Help

Help



Asset Tracking Number

Current Setting: 5CD8103G6P

Press the space key followed by the enter key to clear current setting



Ownership Tag

Current Setting:

Press the space key followed by the enter key to clear current setting

Main



HP Computer Setup

Replicated Setup

Item Specific Help

Help



Administrator Tools

1

Fingerprint Reset on Reboot
Security Configuration

Physical Presence Interface 2
Trusted Execution Technology (TXT)
Intel Software Guard Extension (SGX)

3

Utilities

Absolute® Persistence Module Current State
Activation Status : Inactive
Absolute® Persistence Module Permanent Disable : No
System Management Command

Item Specific Help

1. Create BIOS Administrator Password

The Administrator password controls access to the following features:

- Setup Menu (F10)
- 3rd Party Option ROM Management (F3)
- Update System ROM
- WMI Commands that change system settings
- BIOS Configuration Utility (BCU)
- Alternative Power-On Password

2. Physical Presence Interface

When this feature is set to “Enable”, then the user is notified on system power up when changes are made to system security policy, and the user must manually agree to those changes before the change is confirmed

3. Intel Software Guard Extensions (SGX)

Enable/Disable Software Guard Extensions (SGX)



BIOS Administrator Password

Enter BIOS Administrator Password



POST Power-On Password

Enter POST Power-On Password



TPM Embedded Security

TPM Specification Version

2.0

TPM Device

1

TPM State 2

Clear TPM

TPM Activation Policy

Item Specific Help

1. TPM Device

Exposes the integrated Trusted Platform Module (TPM) for use.

2. TPM State

Enables the integrated Trusted Platform Module (TPM).



BIOS Sure Start

Verify Boot Block on every boot

BIOS Data Recovery Policy

Dynamic Runtime Scanning of Boot Block

Sure Start BIOS Settings Protection

Requires BIOS Administrator Password to be set

Sure Start Secure Boot Keys Protection

Enhanced HP Firmware Runtime Intrusion Prevention and Detection

Sure Start Security Event Policy

Sure Start Security Boot Notification

1

Item Specific Help

1. Sure Start Security Event Policy

This setting controls HP Sure Start behavior upon identifying a critical security event (any modification to HP firmware) during OS runtime.

- **Log event only:** HP Sure Start will log all critical security events in the HP Sure Start Audit log within the HP Sure Start non-volatile (flash) memory
- **Log Event and notify user:** In addition to logging all critical security events, HP Sure Start will notify the user within the operating system that a critical event has occurred.
- **Log Event and power off system:** In addition to logging all critical events, HP Sure Start will power off system upon detecting a HP Sure Start Security Event. Due to the potential for data loss, use of this setting is only recommended in situations where security integrity of the system is a higher priority than the risk of potential data loss.



Security

HP Computer Setup

Secure Platform Management (SPM)

HP Sure Run Current State: Inactivev

SPM Current State: Not Provisioned

Item Specific Help



Hard Drive Utilities

Save/Restore MBR of the system hard drive is only available with drives that have a Master Boot Record.

Save/Restore GPT of System Hard Drive **1**

Boot Sector (MBR/GPT) Recovery Policy

Allow OPAL Hard Drive SID Authentication

Item Specific Help

- 1. Save/Restore GPT of System Hard Drive**
Enabling this feature will save the GUID Partition table (GPT) of the system Hard Drive. If the GPT is subsequently changed the user will be prompted to choose whether to restore GPT.

Help



Smart Cover

Cover Removal Sensor

1

Item Specific Help

1. Cover Removal Sensor

Choose one of the available options.
Click on the field to see the options.



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Help



Security

HP Computer Setup

Select a Drive

Item Specific Help

Help



Security

HP Computer Setup

Select a Drive

Item Specific Help

Help



DriveLock Security Options

Automatic Drivelock

2

1

Help

Item Specific Help

- 1. Set DriveLock Master Password**
Sets the drive's Master password, but it does not enable DriveLock.
- 2. Enable DriveLock**
Sets the drive's User password and enables DriveLock.



Set DriveLock Master Password

Please exercise caution when using DriveLock.
Losing the passwords will render a drive permanently unusable.

Please be aware these settings take place immediately: save not necessary.

Enter DriveLock Master Password.



Set DriveLock User Password

Please exercise caution when using DriveLock.
Losing the passwords will render a drive permanently unusable.

Please be aware these settings take place immediately: save not necessary.

Enter DriveLock User Password.



Security

HP Computer Setup

Select a Drive

SATA1: ST2000LX001-1RG174-SSHD (Drive is Locked)

Item Specific Help

Help



Secure Erase

This operation will erase all data on the hard drive. Please make sure the computer is connected to AC power during this process.



Security

HP Computer Setup

Are you sure you want to restore security settings to default?

Item Specific Help



1

Remote HP PC Hardware Diagnostics

2

3

Item Specific Help

1. Port Options

Enable/Disable Port Settings

2. Settings

Set the configuration for Remote HP PC Hardware Diagnostics, including the URLs used for download and upload, the scheduled execution frequency, etc.

3. Execute Remote HP PC Hardware Diagnostics

Immediate execution of Remote HP PC Hardware Diagnostics based on the configurations in Settings option. Note that any unsaved BIOS settings are lost.



Advanced

HP Computer Setup

Display Language

Select Language

Select Keyboard Layout

Item Specific Help



Advanced

HP Computer Setup

Scheduled Power-On

Sunday

Monday

Tuesday

Wednesday

Thursday

Friday

Saturday

Hour 0

Minute 0

Item Specific Help



Advanced

Boot Options

Startup Delay (sec.)

- Fast Boot
- USB Storage Boot
- Network (PXE) Boot
- Power On When AC Detected
- Power On When Lid is Opened
- Prompt on Battery Errors
- Prompt on Memory Size Change
- Prompt on Fixed Storage Change
- Audio Alerts During Boot
- NumLock on at Boot
- UEFI Boot Order

M.2 SSD 1: Windows Boot Manager

USB:

SATA1: ST2000LX001-1RG174-SSHD

Legacy Boot Order

USB:

SATA1: ST2000LX001-1RG174-SSHD

M.2 SSD 1: KXG50ZNV1T02 TOSHIBA-Z7NS10LJTP8T

Item Specific Help



Advanced

HP Sure Recover

- HP Sure Recover **1**
- Recover from Network **2**
- Recover after Boot Failure **3**

Recover Agent

URL: ftp://ftp.hp.com/pub/pcbios/CPR
Username:
Provisioning Version: 0

Recovery Image

URL:
Username:
Provisioning Version: 0

Item Specific Help

1. HP Sure Recover

If this setting is enabled, the system firmware will honor local and remote requests to reinstall the OS. If it is disabled, all requests to reinstall the OS will be ignored.

2. Recover from Network

If this setting is enabled, the system firmware will obtain the recovery agent from the network. Otherwise, the system firmware will obtain the recovery agent from a local drive.

3. Recover after Boot Failure

If this setting is enabled and no bootable UEFI OS is found, the system firmware will launch HP Sure Recover.



Advanced

HP Computer Setup

Secure Boot Configuration

Configure Legacy Support and Secure Boot

Secure Boot Key Management

- Import Custom Secure Boot keys

- Clear Secure Boot keys

- Reset Secure Boot keys to factory defaults

- Enable MS UEFI CA key

Access to the above settings requires Sure Start Secure Boot Keys Protection to be disabled

Ready BIOS for Device Guard Use

Requires BIOS Administrator Password to be configured and Secure Boot to be enabled.

Item Specific Help



Advanced

System Options

Startup Delay (sec.)

- Configure Storage Controller for RAID
- Configure Storage Controller for Intel Optane
- Turbo-boost
- Hyperthreading **1**
- Multi-processor

Hyperthreading and Multi-processor has been enabled and grayed out because Deep sleep is set to On.

- Virtualization Technology (VTx)
- Virtualization Technology for Directed I/O (VTd)
- POST Prompt for RAID Configuration
- Fast Charge
- USB Type-C Connector System Software Interface (UCSI)
- Swap Fn and Ctrl (Keys)
- Launch Hotkeys without Fn Keypress
- Dynamic Platform and Thermal Framework (DPTF)

Item Specific Help

1. Hyperthreading

Permits the user to control the processor capability



Advanced

HP Computer Setup

Built-In Device Options

Graphics

- Audio Device
- Microphone
- Internal Speakers
- Headphone Output
- Lock Wireless Output
- Wireless Network Device (WLAN)
- Bluetooth

HP LAN-Wireless Protection

- LAN/WLAN Auto Switching
- Wake On LAN
- Fan Always on while on AC Power
- Boost Converter

Backlit keyboard timeout

- Integrated Camera
- Fingerprint Device
- Touch Device

Disable battery on next shutdown

Item Specific Help



Advanced

Port Options

Media Card Reader

Left USB Ports

Left USB Port 1

Left USB Port 2

USB Legacy Port Charging

Disable Charging Port

in sleep/of if battery below (%):

10

Thunderbolt Type-C Ports

Thunderbolt Mode

Require BIOS PW to change Thunderbolt Security

Level

Thunderbolt Security Level

Native PCIe Hot Plug

Thunderbolt S4 Boot is disable due to Native PCIe Hot plug enabled

M.2 SSD 1

M.2 SSD 2

SATA 1

Restrict USB Devices

Item Specific Help



Advanced

HP Computer Setup

Option ROM Launch Policy

Configure Option ROM Launch Policy

1

Item Specific Help

- 1. Configure Option ROM Launch Policy**
Configure the launching of the EFI versus Legacy Option ROMs



Advanced

HP Computer Setup

Power Management Options

Runtime Power Management

Extended Idle Power States

Wake when Lid is Opened

Wake when AC is Detected

Wake on USB

Power Control

Item Specific Help



Advanced

Remote Management Options

Active Management (AMT)

USB Key Provisioning Support

USB Redirection Support

Unconfigure AMT on next boot

SOL Terminal Emulation Mode

Show Unconfigure ME Confirmation Prompt

Verbose Boot Messages

Watchdog Timer

2

OS Watchdog Timer (min.)

3

BIOS Watchdog Timer (min.)

4

CIRA Timeout (min.)

Item Specific Help

- 1. Unconfigure AMT on next boot**
Perform AMT/ME unconfigure without password operation.
- 2. Watchdog Timer**
Enable/Disable watchDog Timer.
- 3. OS Watchdog Timer (min.)**
Set OS Watchdog timer (min.)
- 4. BIOS Watchdog Timer (min.)**
Set BIOS Watchdog timer (min.)



Advanced

HP Computer Setup

Settings

Diagnostics Download URL

➔ Custom Download Address **2**

Diagnostics Logs Upload URL

4
5
3

Scheduled Execution

Frequency

Execute On Next Boot

9

1

6

7

8

Item Specific Help

1. Diagnostics Download URL

Select between HP server URL and a custom server URL.

2. Custom Download Address

Configure a URL for HP PC Hardware Diagnostics download.

3. Custom Upload Address

Configure a URL for diagnostics logs upload.

4. Username

Configure the username for uploading diagnostics logs to the server, if authentication is required.

5. Password

Configure the password for uploading diagnostics logs to the server, if authentication is required.

6. Scheduled Execution

Enable/disable the scheduled execution of Remote HP PC Hardware Diagnostics.

7. Frequency

Select the frequency for scheduled execution of Remote HP PC Hardware Diagnostics.

8. Execute On Next Boot

Enable/disable the execution on next boot. The flag will be disabled after the diagnostics have run.

9. Last Execution Result

Display the results of the last Remote HP PC Hardware Diagnostics execution.



Advanced

HP Computer Setup

Item Specific Help



Custom Upload URL

There is no Custom Upload URL configured.
Type a new Custom Upload URL and press ENTER to save.
Press ESC to CANCEL



Upload Server Username

There is no Username configured.
Type a new Username and press ENTER to save.
Press ESC to CANCEL



Upload Server Password

There is no Upload Server Password configured.
Type a new Upload Server Password and press ENTER to save.
Press ESC to CANCEL



UEFI Drivers

HP Computer Setup

This will restart the system into the 3rd Party Option ROM Management application.
You can get to this application directly by pressing F3 during startup.

Item Specific Help