Set Up an SAP HANA® Development Platform, Right on Your Own Desk

Install SAP HANA, express edition on Intel® NUC devices to quickly create a small but powerful platform for app development.

What Could You Do with a Simple, Affordable Development Environment for SAP HANA?

Many modern businesses rely on SAP HANA® as an in-memory platform to enable real-time analytics to support modern digital apps. But developers looking to quickly create agile apps can find it challenging to set up a development environment. SAP HANA typically requires high-end infrastructure to support production deployments of mission-critical business applications. That prerequisite can be prohibitive if you need:

- A sandbox for experimenting with SAP HANA services
- A convenient, isolated platform for more easily developing apps
- A small, affordable deployment of SAP HANA for demonstration or training purposes
- A platform for building and deploying non-mission-critical applications that don't have high resource requirements

Fortunately, there is a more flexible, affordable solution that can help you meet these needs.
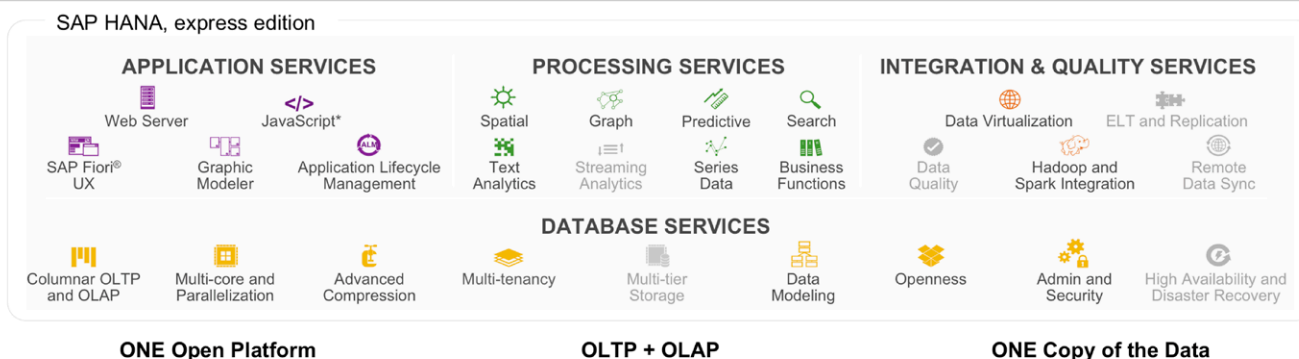
SAP HANA for Anyone

SAP HANA, express edition is built to provide optimized in-memory SAP HANA capabilities for resource-constrained environments. Despite having a smaller resource footprint, SAP HANA, express edition offers a rich set of capabilities for developers that can typically be installed in under an hour. You can use SAP HANA, express edition to experiment with new configurations, create and test new apps, explore a wealth of tools offered by the SAP HANA environment, and even deploy non-mission critical SAP HANA apps.

Download a trial version of SAP HANA, express edition.

What Is SAP HANA®, Express Edition?
Streamlined version of SAP HANA optimized for rapid application development

SAP HANA, express edition

APPLICATION SERVICES

Web Server   JavaScript*

SAP Fiori® UX   Graphic Modeler   Application Lifecycle Management

PROCESSING SERVICES

Spatial   Graph   Predictive   Search

Text Analytics   Streaming Analytics   Series Data   Business Functions

INTEGRATION & QUALITY SERVICES

Data Virtualization   ELT and Replication

Data Quality   Hadoop and Spark Integration   Remote Data Sync

DATABASE SERVICES

Columnar OLTP and OLAP   Multi-core and Parallelization   Advanced Compression   Multi-tenancy   Multi-tier Storage   Data Modeling   Openness   Admin and Security   High Availability and Disaster Recovery

ONE Open Platform   **OLTP + OLAP**   **ONE Copy of the Data**

- Fast application development and deployment with essential features
- Flexible access from laptop, personal computer, server, or cloud. No HW certification needed.
- Pre-packaged and self learning tutorials, use cases, and sample code
- Downloadable from SAP Developer Center
- Community Support via SAP Community Network (SCN)

A Complete Development Platform in the Palm of Your Hand

Now, you can pair SAP HANA, express edition with a small, affordable, and powerful device from Intel to achieve the ideal all-in-one platform for SAP HANA app development, right at your own desk. Intel® NUC mini-PCs are palm-sized devices from Intel that offer a viable alternative to large, costly test servers. Available with a range of Intel® processors, the Intel NUC delivers high performance with a smooth, immersive experience and responsive interaction that equals many larger, pricier server systems.

With an Intel NUC, you can add your own RAM and solid-state drive (SSD) to support a fully functional, stand-alone development environment running SAP HANA, express edition. And because Intel NUC mini-PCs are small enough to fit in a coat pocket or backpack, you can easily take one with you when working remotely.

How to Configure SAP HANA, Express Edition on an Intel® NUC Mini-PC

Follow these steps to configure an Intel NUC mini-PC with SAP HANA, express edition:

- Choose the right Intel NUC device for your needs
- Configure your Intel NUC to support SAP HANA, express edition
- Install SAP HANA, express edition

Choose the Right Intel NUC for Your Development Needs

Intel NUC mini-PCs are available in several basic configurations, each with the flexibility to tailor the RAM and storage to your needs and budget.

You should consider the following when deciding which Intel NUC to purchase:

- Decide whether you will use the Intel NUC for development work only or also for use as a test server, which typically requires more RAM and processing speed.
- While installing SAP HANA, express edition, you will be given the choice to install "Server Only" or "Server + Applications." The type of development that you want to perform will influence which environment you should select during installation. Both options provide several examples and services to explore, but the Server + Applications option includes the Node.js development environment referred to as XSA, and the Server Only option provides data modeling and SQL environments.

Development Use, "Server Only"

If you only require the data modeling and SQL environments offered by the Server Only option, you can meet your needs with either of the following two models:

- Intel NUC Kit NUC6i5SYK with 8 to 16 GB of RAM and a 120-GB drive
- Intel NUC Kit NUC6i5SYH with 8 to 16 GB of RAM and a 120-GB drive

Development Use, "Server + Apps"

If you want to explore the Node.js development environment referred to as SAP HANA XS advanced (XSA) in the Server + Applications option, these models will meet your needs:

- Intel NUC Kit NUC6i7KYK with 16 to 32 GB of RAM and a 120-GB drive
- Intel NUC Kit NUC6i5SYK with 16 to 32 GB of RAM and a 120-GB drive

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Intel® NUC Kit NUC6i7KYK
Technical specs:

- Quad-core Intel® Core™ i7 processor
- Intel® Iris™ Pro graphics
- Support for up to 32 GB of DDR4 memory at 2,133+ megatransfers per second (MT/s)
- SD Extended Capacity* (SDXC*) slot with UHS-I support
- Thunderbolt™ 3
- HDMI 2.0* port; supports 4K at 60 Hz
- Wireless 802.11ac
- Bluetooth 4.2*
- 211 x 116 x 28 mm (8.3 x 4.6 x 1.1 inches)

Intel® NUC Kit NUC6i5SYK
Technical specs:

- Intel Core i5 processor
- HDMI port and Iris graphics; supports 4K resolution
- Support for up to 32 GB of DDR4 memory
- Intel® Dual Band Wireless-AC 8260
- Bluetooth 4.2
- M.2 SSD slot
- SD card slot
- 115 x 111 x 32 mm (4.5 x 4.4 x 1.3 inches)

Intel NUC Kit NUC6i5SYH
Technical specs:

- Intel Core i5 processor
- HDMI port and Iris graphics; supports 4K resolution
- Support for up to 32 GB of DDR4 memory
- Intel Dual Band Wireless-AC 8260
- Bluetooth 4.2
- M.2 SSD slot
- 2.5-inch HDD/SSD bay
- SD card slot
- 115 x 111 x 48 mm (4.5 x 4.4 x 1.9 inches)

Test Server Use, "Server + Apps"

If you want to use an Intel NUC in a Node.js development environment and as a test server, the following model is well suited to your needs:

• Intel NUC Kit NUC6i7KYK with 32 GB of RAM and a 256-GB drive

Configure Your Intel NUC to Support SAP HANA, Express Edition

Complete the following steps on your Intel NUC before you install SAP HANA, express edition:

• Install RAM and SSD storage as needed, depending on the Intel NUC that you purchased and the deployment options that you chose
• Configure a base operating system (Windows* or Linux*)
• Decide if you would rather install using a binary installer or a pre-configured virtual-machine (VM) image
  – If your host machine is running Windows or Linux you will need to install the VM image.
  – If your host machine is running SUSE Linux Enterprise for SAP Applications version 12.1* or Red Hat Enterprise Linux 7.2*, you can install from either the binary installer or the VM image file. (**Note:** The pre-configured VM image is recommended if you want to get started quickly with SAP HANA, express edition.)
• Install Java Runtime Environment* (JRE*) version 8 or higher
• If you choose to install from the VM image, install VMware Workstation Player* version 12.5 or higher

Install SAP HANA, Express Edition on Your Intel NUC

After you have purchased and configured your Intel NUC, follow the steps below to register, and then download and install SAP HANA, express edition on your Intel NUC.

1. Navigate to the following web page: *http://go.sap.com/developer/topics/ sap-hana-express.html*
2. Fill out the online registration form:
   • Select your country.
   • Enter your email address.
   • Indicate your preferences for receiving emails and the developer newsletter.
   • Acknowledge that you accept the license agreement and have read the privacy statement.
   • Click **Register** (Figure 1).

   You will be directed to a download link for Windows, Linux, or Other.

Register below

Germany

@sap.com

Would you like to receive additional SAP communications along with information related to this inquiry?

E-mail

● Yes ○ No

Would you like to subscribe to the Global SAP Developer Newsletter?

● Yes ○ No

☑ I have read and I accept the Developer License agreement

☑ I acknowledge that I have read the SAP Privacy Statement (+) (which is based on the country/region selection above) and consent to the processing of my personal data in accordance with the terms of the Privacy Statement. This

Register

Figure 1. SAP HANA®, express edition online registration form

3. Click to select the option that corresponds to the operating system on your Intel NUC.
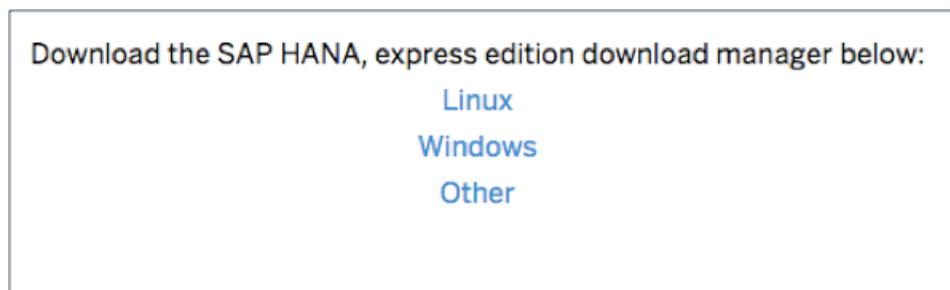

Figure 2. Select your operating system

4. In the Download Manager dialog box, from the **Image** drop-down menu, select the download option that you prefer (Binary Installer or Virtual Machine).
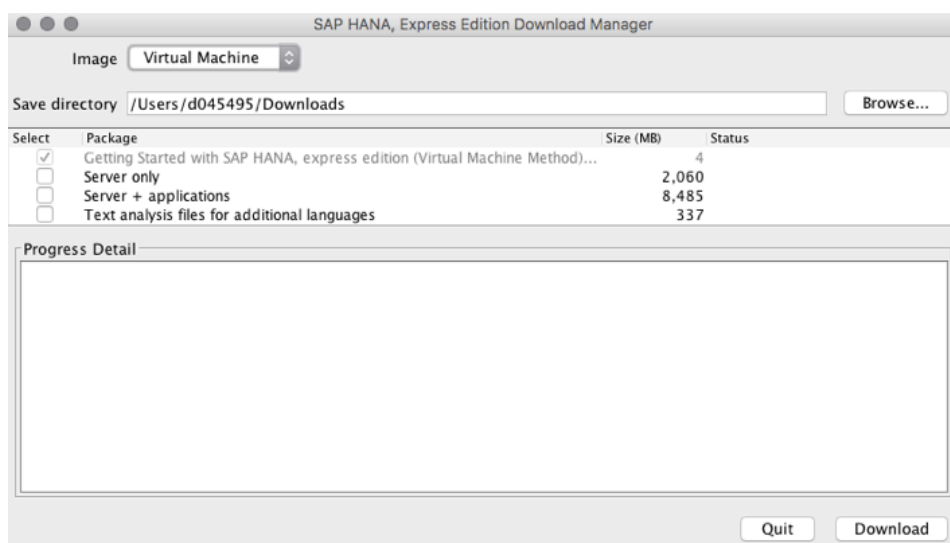

Figure 3. SAP HANA®, express edition Download Manager dialog box

5. Select the option that you want to install: Server Only or Server + Applications

    As stated earlier, both options provide a wide range of examples and services to explore, so your decision should be based on whether you want to explore the Node.js development environment referred to as XSA (Server + Apps) or the data modeling and SQL environments (Server Only).

6. After you make your selection, click **Download**.

Installing a Virtual Image

If you selected the Virtual Machine option in the Download Manager (see Figure 3), complete the following steps. Otherwise, skip to Installing from the Binary Installer, below.

Learn More

For more information, visit the following:
- A step-by-step "how-to" guide by *Craig Cmehil*, developer evangelist in the in-memory, Internet of Things (IoT), and enterprise spaces: *http://go.sap.com/developer/how-tos/hxe-intel-nuc.html*
- Intel® NUC products: *intel.com/content/www/us/en/nuc/products-overview.html*
- SAP HANA®, express edition: *http://go.sap.com/developer/topics/sap-hana-express.html*
- Community support for any questions: *http://sap.com/hana-express-support*

Purchase an Intel NUC mini-PC
- *intel.com/buy/us/en/catalog/components/nuc*

1. Start VMware Player*, and then click **Open a Virtual Machine**.
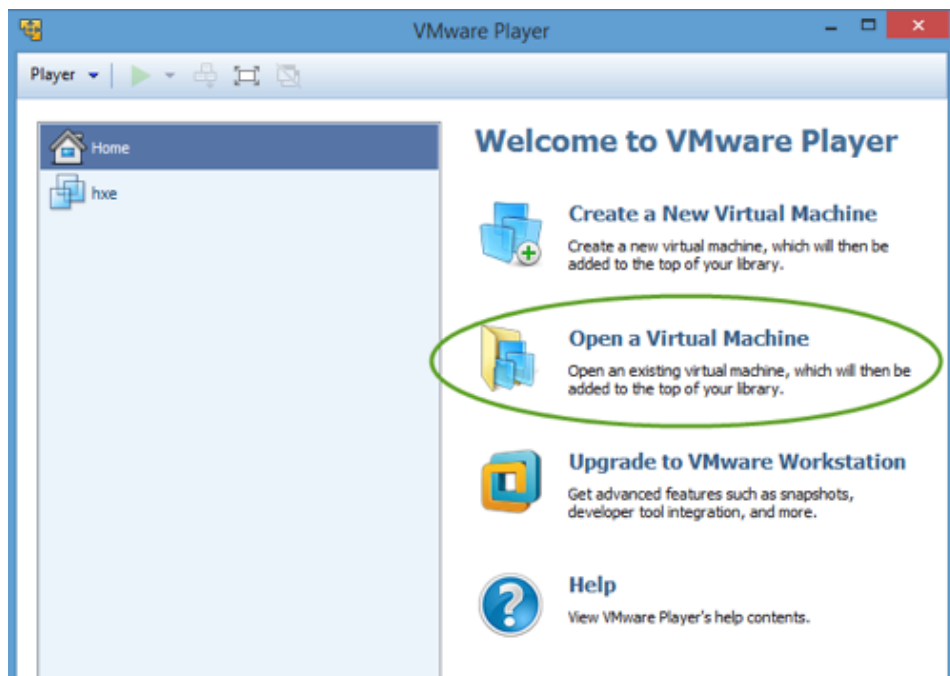
Figure 4. Opening a virtual machine in VMware Player*

2. Browse to the virtual-image file that you downloaded, and then click **Open**; the Import Virtual Machine dialog box displays.
3. Accept the defaults, and then click **Import**.
4. Power on your VM.

Installing from the Binary Installer

If you selected the Binary Installer option instead of the Virtual Machine option in the Download Manager (see Figure 3), visit the following web page for step-by-step installation instructions: *http://go.sap.com/developer/tutorials/hxe-ua-installing-binary.html*