DataStax Desktop 1.0.2 (Labs only)

Updated: 2020-02-15Z
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Chapter 1. About DataStax Desktop

DataStax Desktop is an experimental DataStax Labs feature. DataStax Desktop is a cross-platform application that allows developers to quickly explore DataStax products in a development environment. See DataStax Lab Terms.

Using Docker and Kubernetes, DataStax Desktop provides developers with a user interface that runs and configures DataStax developer tools without the complexities of manually setting up a database. Use DataStax Desktop to provision a stack to see how DataStax products work together.

The DataStax Enterprise 6.7 CQL Quick Start allows you to explore what DataStax Enterprise (DSE) can do by giving you access to Cassandra Query Language (CQL). This stack uses DataStax Studio notebooks to demonstrate the options available within the stack.

DataStax Desktop FAQ

What is a DataStax Desktop stack?
A stack is set of containers that enables you to explore various DataStax products. For example, the DataStax Enterprise 6.7 CQL Quick Start stack allows you to explore what DataStax Enterprise (DSE) can do by giving you access to Cassandra Query Language (CQL), DSE Graph, and Spark SQL. This stack uses DataStax Studio notebooks to demonstrate the options available within the stack.

What are the requirements to provision a stack?
Requirements vary by the stack you provision. For example, the DataStax Enterprise 6.7 CQL Quick Start stack requires Docker or Kubernetes and local Docker resources set to 1 CPU and 4 GB RAM.

If you do not have the requirements for the stack you are provisioning, an error shows the missing requirements.
Provision DataStax Enterprise 6.7 Quick Start

Please resolve the following system requirements to begin provisioning.

**Kubernetes**
- Kubernetes is installed but not running. Start it to continue.
  - [Kubernetes Documentation](#)

**Docker**
- Running: version 19.03.1
  - [Docker Documentation](#)

**Local Docker Resource Requirements**
- Minimum Requirements: 1 CPUs, 4GB RAM
- Current Settings: 1 CPUs, 1.0GB RAM

How do I adjust my local Docker resources?

1. Open [Docker Preferences](#) Advanced.
2. Adjust the Docker resources to meet the requirements for the stack you want to provision.
3. **Apply & Restart** Docker.

Limit the resources available to Docker Engine.

- **CPUs:** 4
- **Memory:** 4.0 GiB
- **Swap:** 1.0 GiB
- **Docker subnet:** 192.168.65.0/24

**Apply & Restart**

- Docker Desktop is running
- Kubernetes is running
Chapter 2. DataStax Desktop release notes

Release notes for DataStax Desktop.

**DataStax Desktop 1.0.2 release notes**
24 October 2019

DataStax Desktop 1.0.2 release notes

Changes and enhancements

• Improved consistency across transition states.
• Fixed links within the DataStax Graph - Experimental Version.

**DataStax Desktop 1.0.1 release notes**
4 October 2019

DataStax Desktop 1.0.1 release notes

Changes and enhancements

• Updated the DataStax Graph - Experimental Version.
Chapter 3. Installing DataStax Desktop

Steps for installing DataStax Desktop.

1. Near the bottom of the DataStax Labs, download DataStax Desktop for your operating system (OS).

   a. Select DataStax Desktop from the Labs Item drop-down list.
   b. Select your operating system from the Package drop-down list.
   c. Agree to the DataStax Labs Terms.
   d. Select Download.

2. Download and install Docker for your OS.
   - Mac
   - Linux
   - Windows

   It can take several minutes for Docker to start.
   You do not need to create a Docker account to use Docker and Kubernetes with DataStax Desktop.
   For Windows, you might be prompted to enable Hyper-V, which results in a system reboot.

4. For Mac and Windows installations: Enable Kubernetes with Docker.
   a. Open Docker Preferences#Kubernetes#Enable Kubernetes.
   b. Apply the updated Kubernetes selection.
   c. Install Kubernetes cluster.
   It can take several minutes for Docker to start.

5. Increase local Docker resources based on the stack you plan to use.
a. Open Docker Preferences > Advanced.

b. Adjust the Docker resources:

Limit the resources available to Docker Engine.

- **CPUs:** 4
- **Memory:** 4.0 GiB
- **Swap:** 1.0 GiB
- **Docker subnet:** 192.168.65.0/24

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<td>DataStax Enterprise 6.7 Kitchen Sink</td>
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<td>DataStax Graph - Experimental Version</td>
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<td></td>
<td>Open ports: 2</td>
</tr>
<tr>
<td>DataStax Distribution of Apache Cassandra (DDAC)</td>
<td>Docker CPUs: 1 Docker Memory: 2 GiB</td>
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<tr>
<td>DataStax Studio</td>
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What's next: Start DataStax Desktop and provision a stack. For more, see Provisioning a local stack and Provisioning a remote stack.
Provisioning a local stack with DataStax Desktop

To start using a DataStax Desktop, select and provision the local stack you want to use. When you provision your selected stack, DataStax Desktop downloads and starts the products included in the stack.

Prerequisites:

• Install DataStax Desktop.
• Download, install, and start Docker.
• Enable Kubernetes.

1. Start DataStax Desktop.

2. If you want to help DataStax track anonymous usage data, Allow Application Metrics.

3. Accept the DataStax Labs Terms.

4. Select a stack to provision.

   • Choose the Quick Start stack from the start screen.

   • Choose a different stack from the Stack Store.

   If the required resources are not available, an error shows the needed resources. For more, see DataStax Desktop FAQ.
Provision a stack with DataStax Desktop

Provision DataStax Enterprise 6.7 Quick Start

Please resolve the following system requirements to begin provisioning.

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Kubernetes is installed but not running. Start it to continue.
Kubernetes Documentation

Docker
Running: version 19.03.1
Docker Documentation

Local Docker Resource Requirements
Minimum Requirements: 1 CPUs, 4GB RAM
Current Settings: 1 CPUs, 1.0GB RAM

5. Name your stack.

The first time you provision your stack will take several minutes as DataStax Desktop downloads the required files.

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What's next: Use your stack to explore DataStax Enterprise. For more, see Exploring the DSE 6.7 CQL Quick Start.
Provisioning a remote stack with DataStax Desktop and Kubernetes

Start a remote DataStax Desktop stack using Kubernetes.

Prerequisites:

- Install DataStax Desktop.
- Download, install, and start Docker.
- Enable Kubernetes.
- Remote Kubernetes context:
  - Google Kubernetes Engine (GKE)
  - Amazon Elastic Kubernetes Service (Amazon EKS)
  - Azure Kubernetes Service (AKS)
  - Private Kubernetes cluster

1. Start DataStax Desktop.

2. If you want to help DataStax track anonymous usage data, Allow Application Metrics.

3. Accept the DataStax Labs Terms.

4. Select a stack to provision.
   - Choose the Quick Start stack from the start screen.

   - Choose a different stack from the Stack Store.

   If the required resources are not available, an error shows the needed resources. For more, see DataStax Desktop FAQ.
Provisioning a stack with DataStax Desktop

Provision DataStax Enterprise 6.7 Quick Start

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Docker
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Docker Documentation

Local Docker Resource Requirements
Minimum Requirements: 1 CPUs, 4GB RAM
Current Settings: 1 CPUs, 1.0GB RAM

5. Select Kubernetes from the Provision Using drop-down menu. Select your remote Kubernetes cluster from the Select Context drop-down menu.

6. Name your stack.

7. Select Provision.

The first time you provision your stack will take several minutes as DataStax Desktop downloads the required files.

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If there is an error provisioning the stack to your remote Kubernetes cluster, ensure your access is not limited by a firewall or VPN connection.
Chapter 5. Exploring the DSE 6.7 CQL Quick Start

Explore DataStax Enterprise (DSE) products with DataStax Desktop. The **DataStax Enterprise 6.7 CQL Quick Start** stack includes DSE, Cassandra Query Language (CQL), and DataStax Studio.

**Prerequisites:**
Provision the **DataStax Enterprise 6.7 CQL Quick Start** stack.

1. From **All Stacks**, select the **DataStax Enterprise 6.7 CQL Quick Start** stack.

2. From **Start Here**, select **Explore common CQL operations** to open a **Studio notebook**.

3. To see how DSE features work, explore the stack notebook.

   The Studio notebook includes markdown and CQL. The markdown explains the behavior and how to use CQL. Execute the CQL statements to see how the commands work and what results each command produces.