Installing and Configuring the Hortonworks ODBC driver on Mac OS X

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Summary

This document describes how to install and configure the Hortonworks ODBC driver on Mac OS X. After you install and configure the ODBC driver, you can access Hortonworks sandbox data using Microsoft Excel.

In this procedure, we will use Microsoft Excel 2011 to access Hortonworks sandbox data. You should also be able to access sandbox data using other versions of Excel. The process may not be identical in other versions of Excel, but it should be similar.

Prerequisites:

- Mac running OS X
- Hortonworks Sandbox 1.2 (installed and running)
- Excel 2011

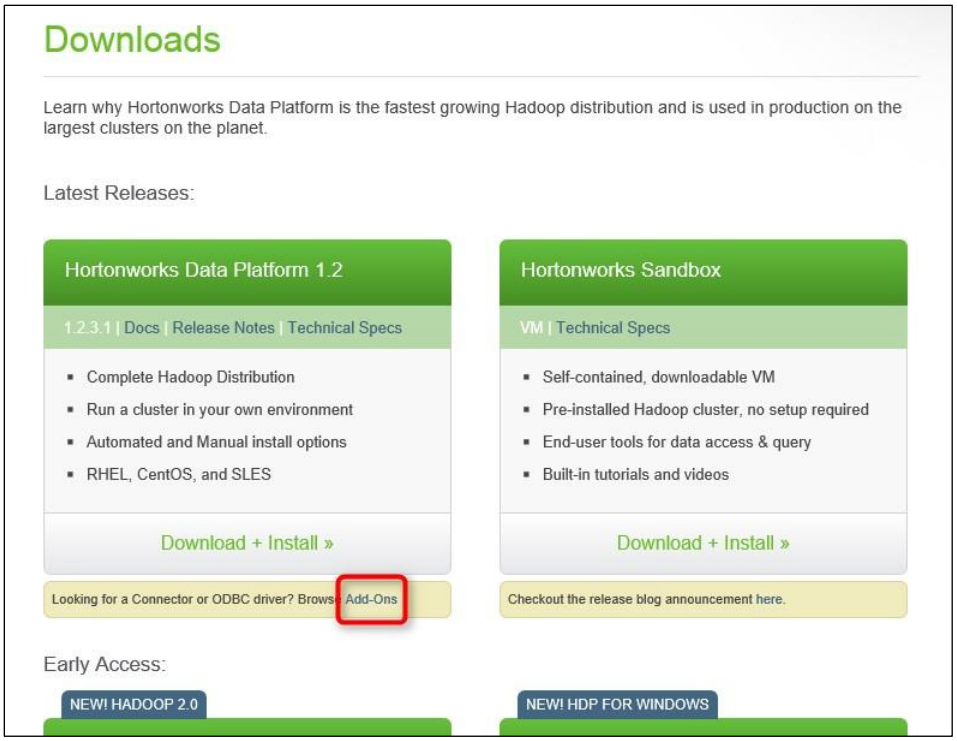
Overview

To install and configure the Hortonworks ODBC driver on Mac OS X:

1. Download and install the Hortonworks ODBC driver for Mac OS X.
2. Download and install the iODBC Driver Manager for Mac OS X.
3. Configure the Hortonworks ODBC driver
4. Open Excel and test the connection to the Hortonworks sandbox.

Step 1 – Download and Install the Hortonworks ODBC Driver for Mac OS X

1. Open a web browser and navigate to http://hortonworks.com/download/. Click the **Add-Ons** link at the bottom of the Hortonworks Data Platform 1.2 box.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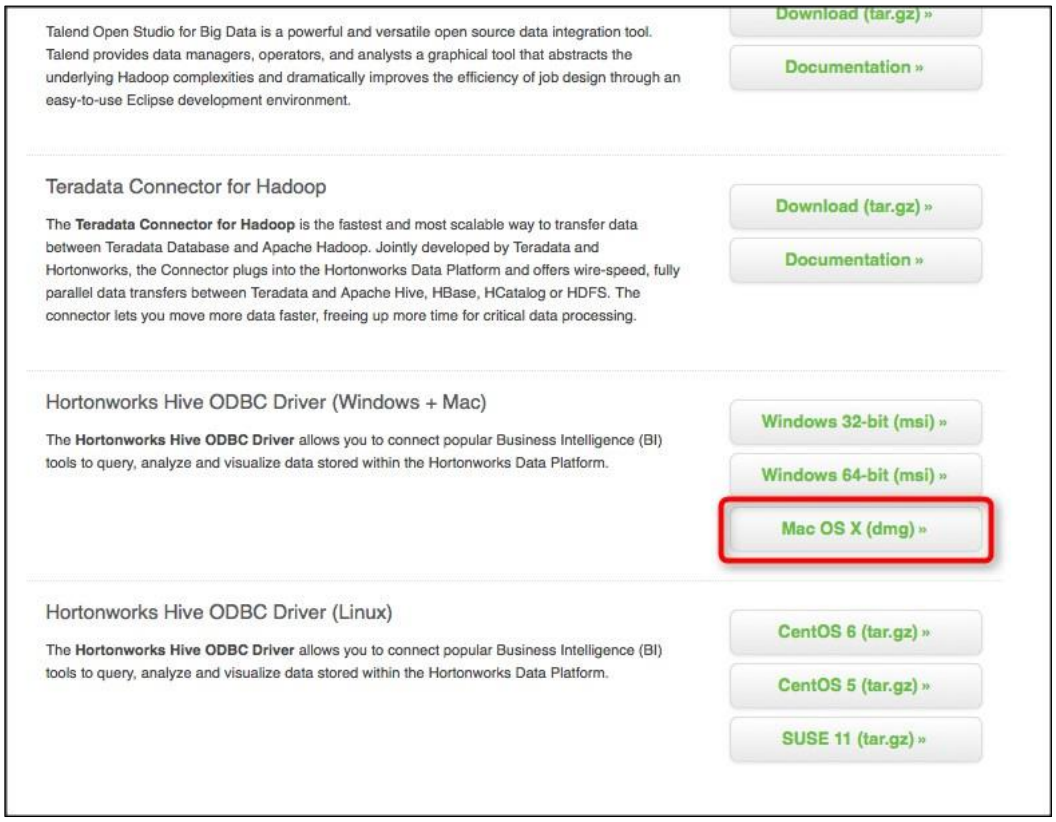
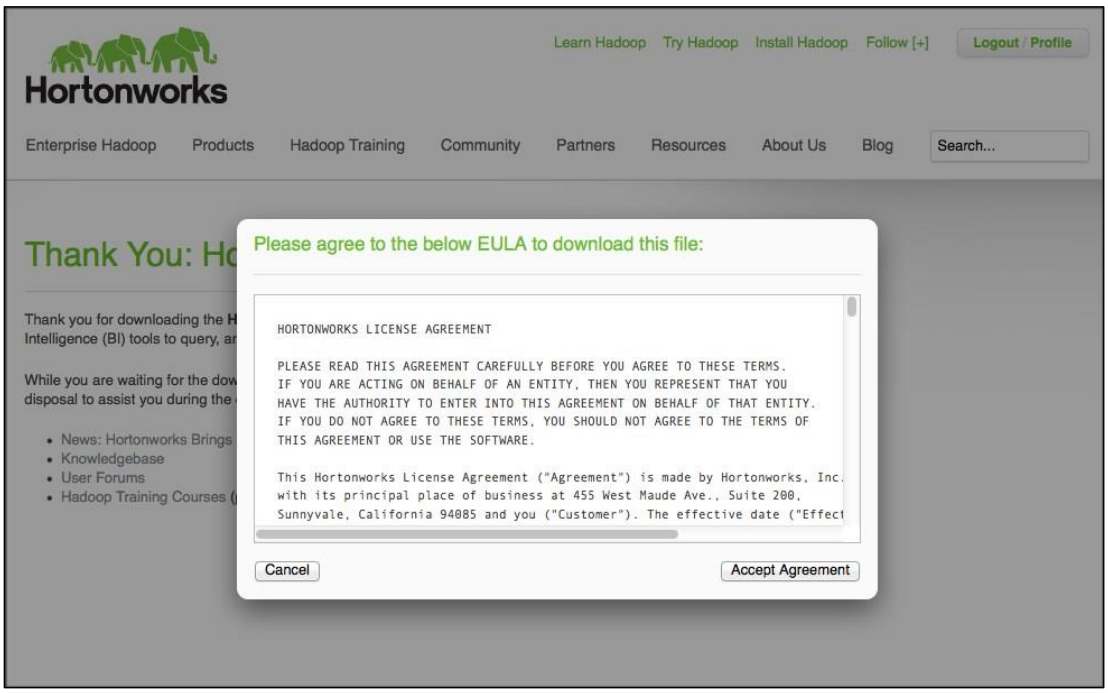
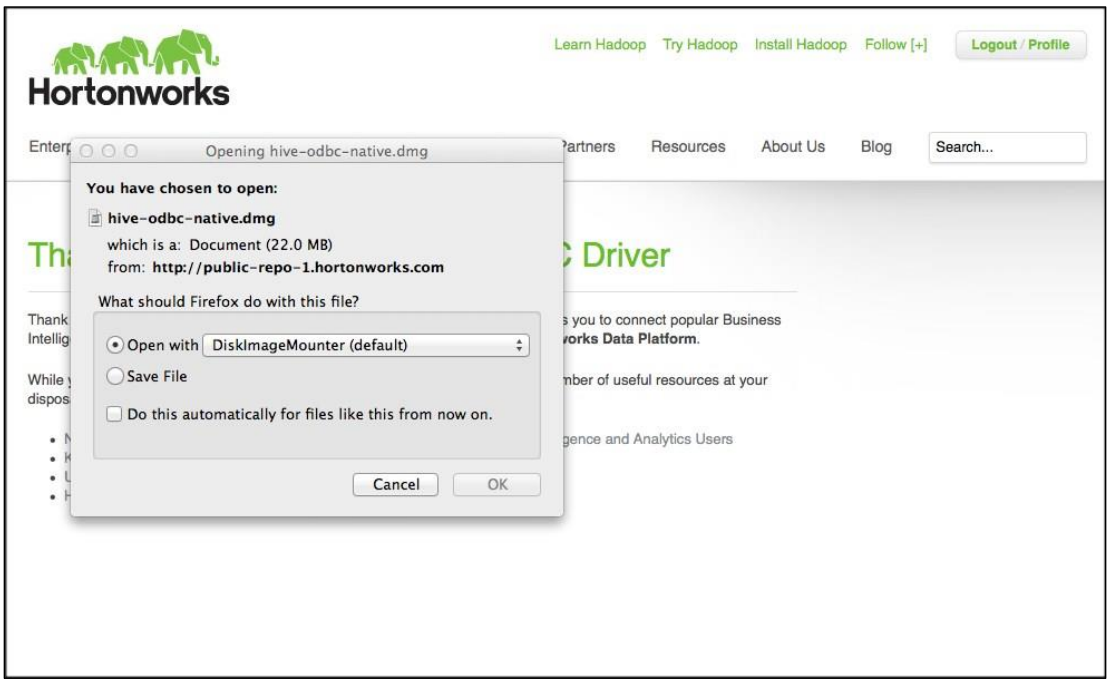
2. On the Add-Ons page, scroll down to Hortonworks Hive ODBC Driver (Windows + Mac) and select **Mac OS X (dmg)**.



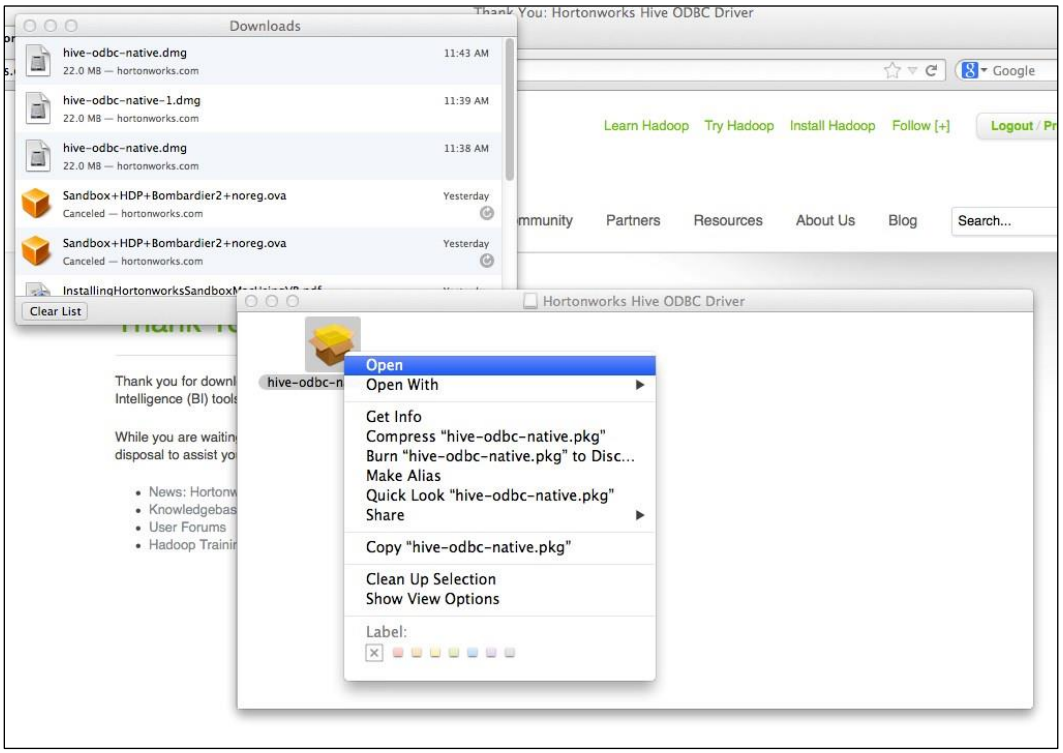
3. Review the Hortonworks license, then click **Accept Agreement**.



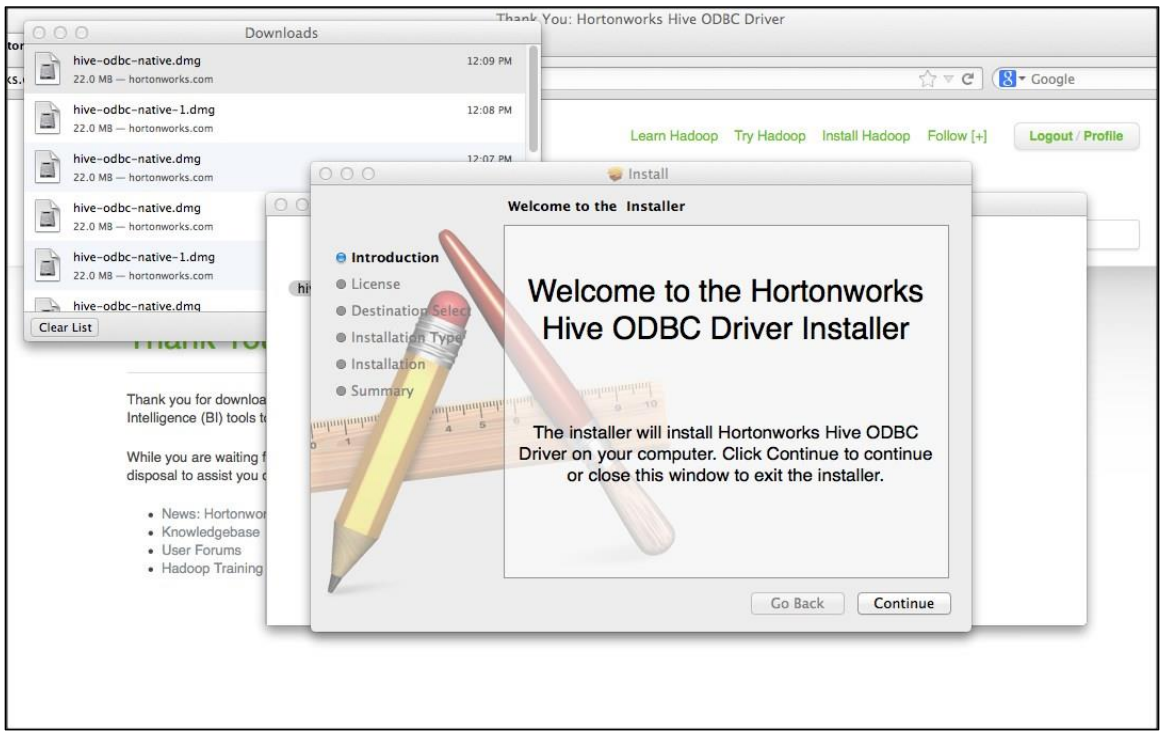
4. A confirmation message appears. Click **OK** to open the file with the Disk Image Mounter.



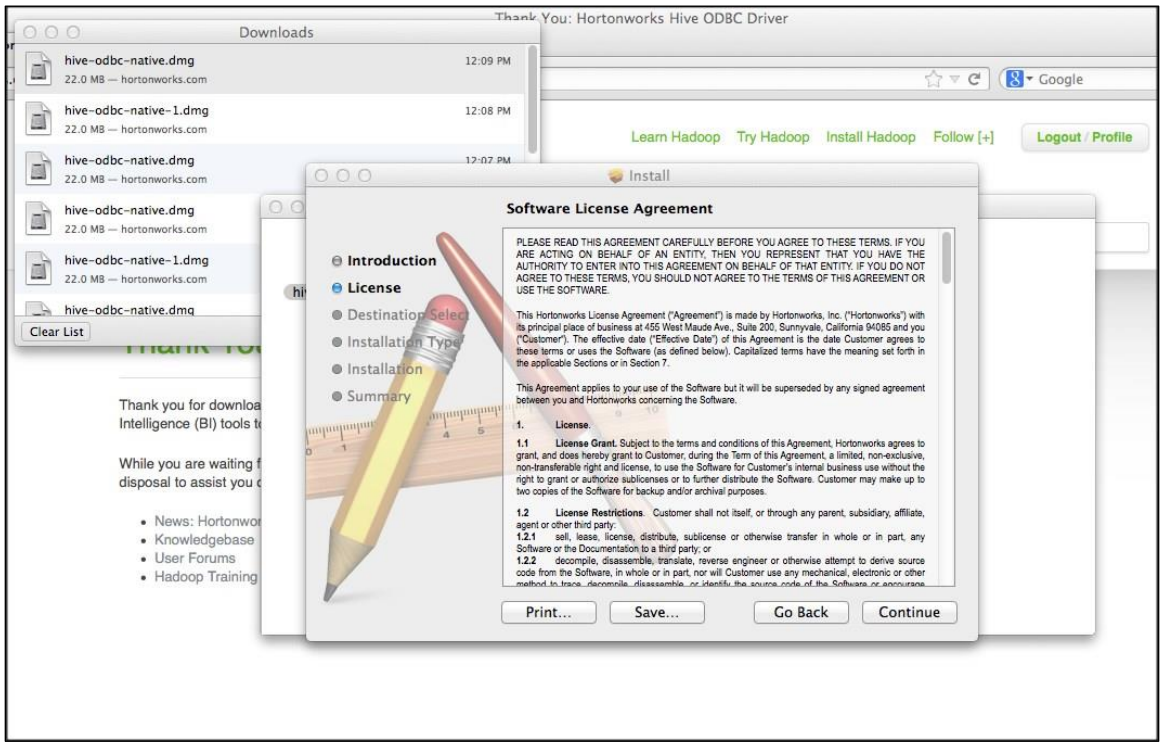
5. When the download is complete, the driver package appears in a new window. Double-click (or right-click with the mouse) the driver package, then select **Open**.



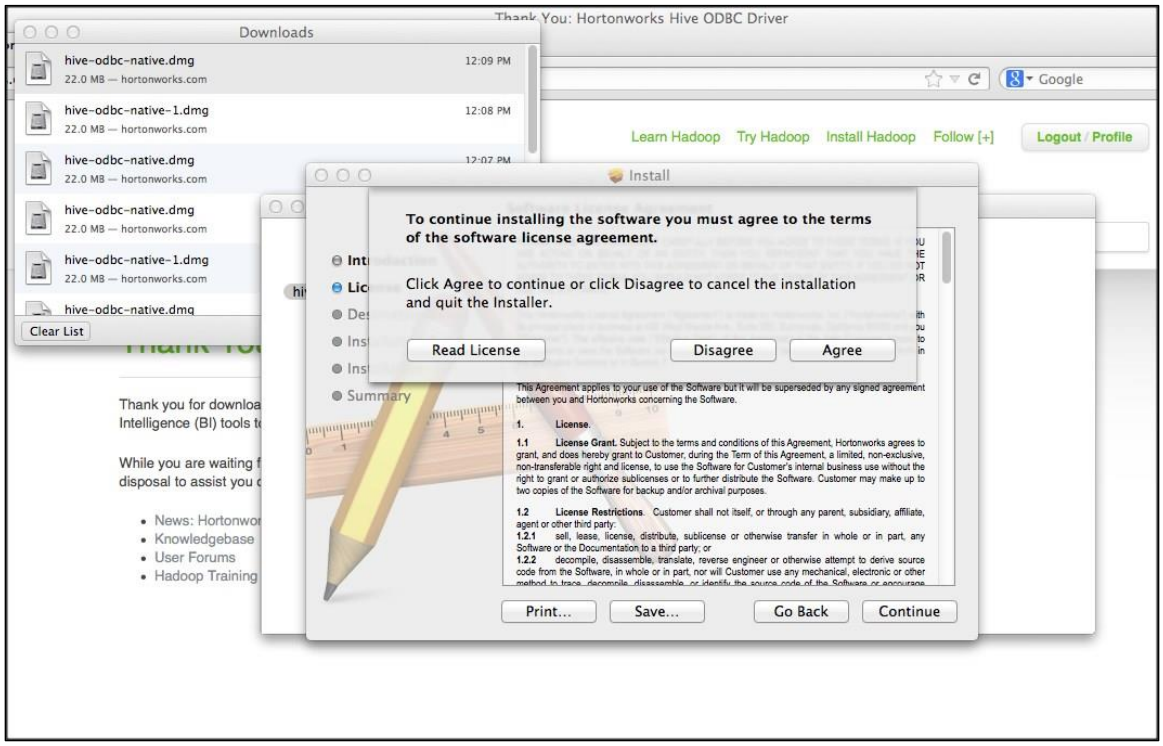
6. To start the installation, click **Continue** on the ODBC Driver Installer Welcome screen.



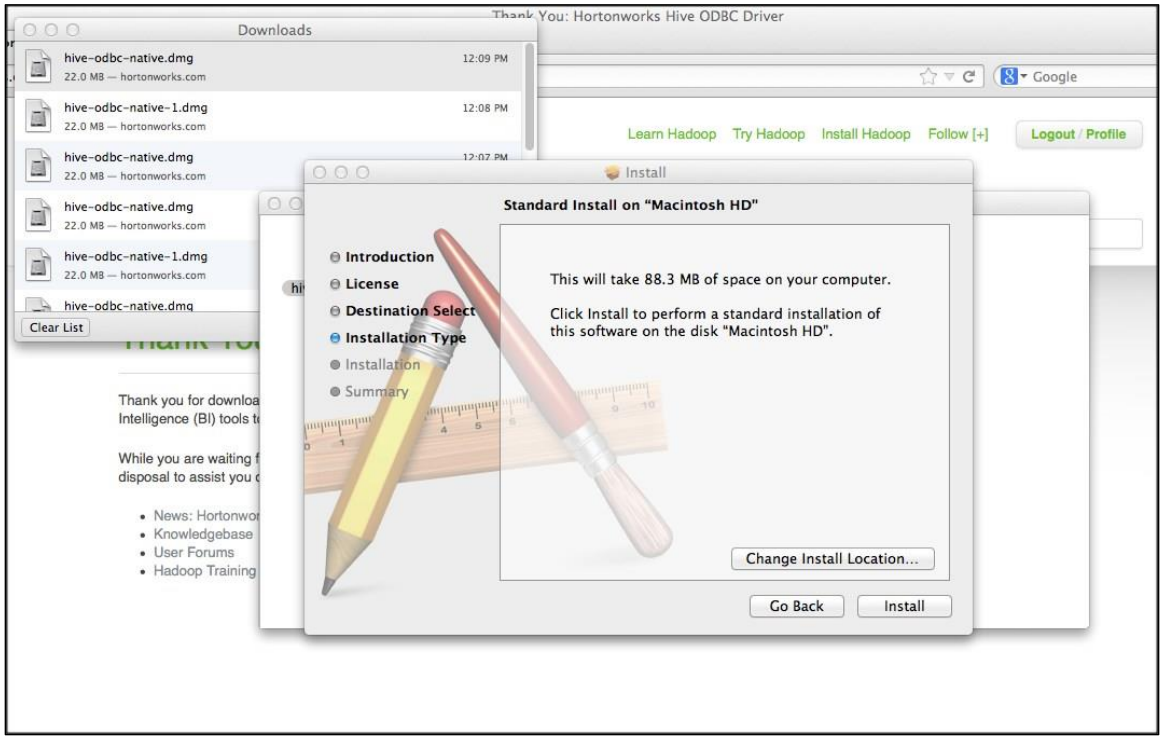
7. Review the license agreement, then click **Continue**.



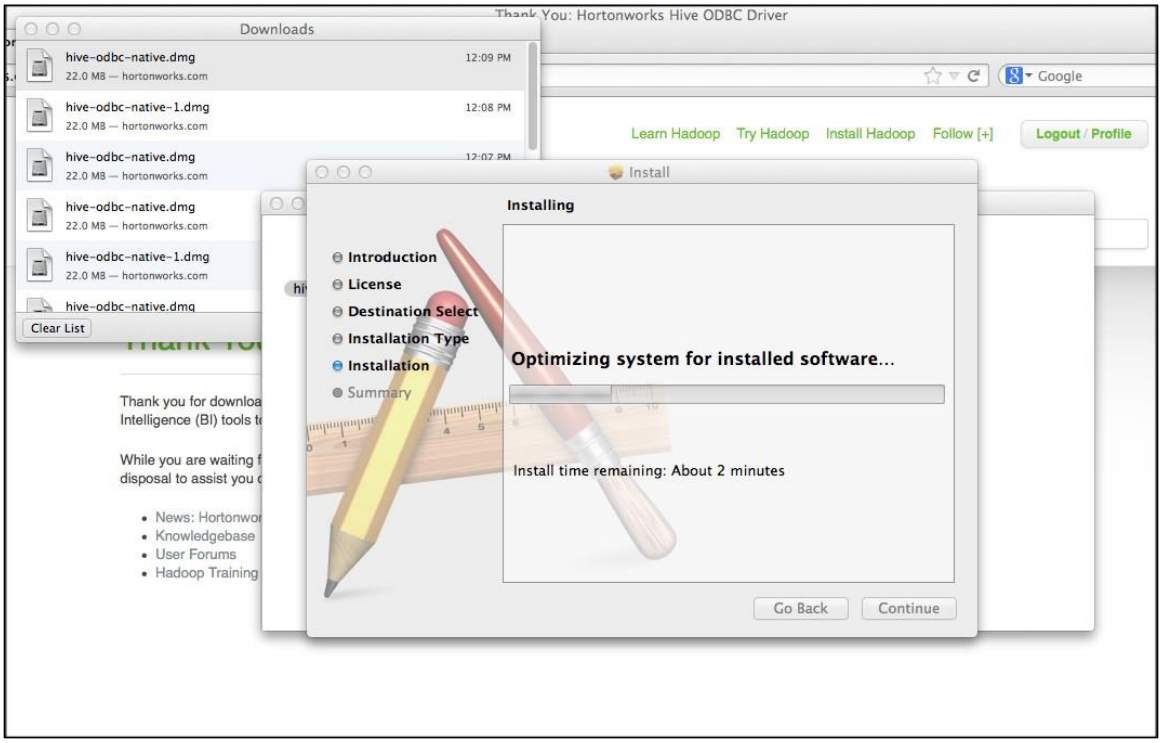
8. Click **Agree** on the pop-up message to agree to the license terms.



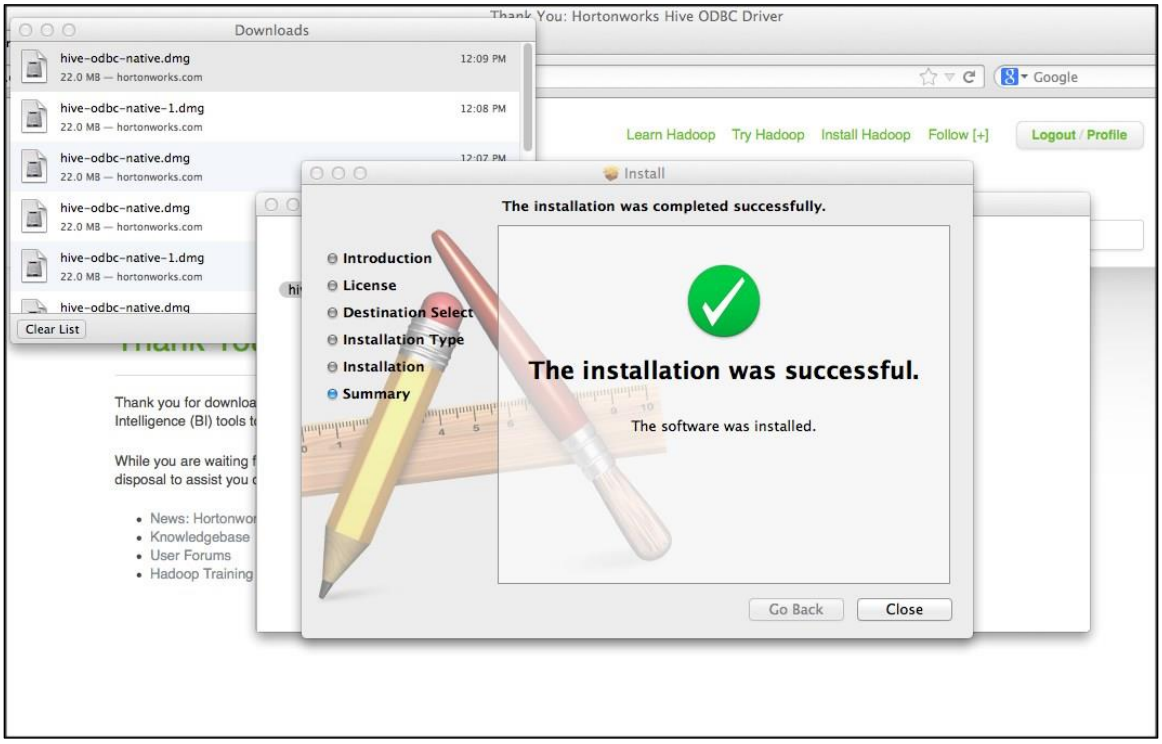
9. Click **Install** to accept the default installation folder.



10. A progress indicator appears while the driver is being installed.



11. When the installation is complete, the Driver Installer displays a confirmation message. Click **Close** to close the installer.



Now that you have installed the Hortonworks ODBC driver for Mac OS X, the next step is to install the iODBC Driver Manager for Mac OS X.

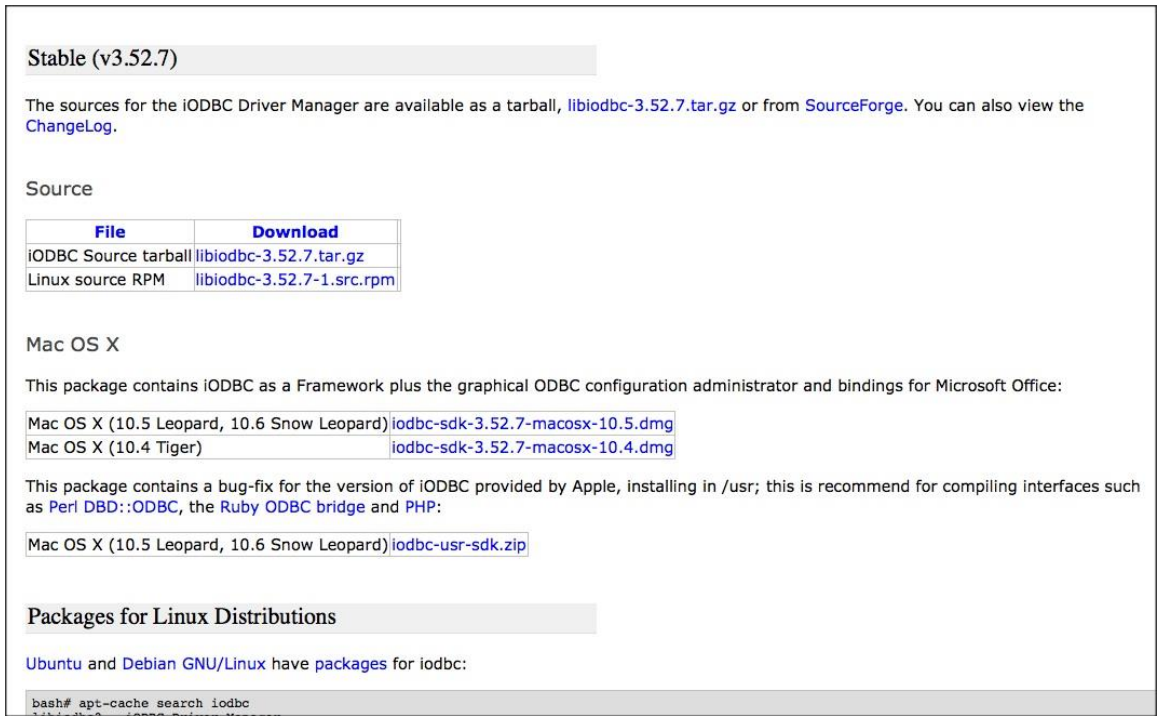
Step 2 – Download and Install the iODBC Driver Manager for Mac OS X

1. Open a web browser and navigate to:

   http://www.iodbc.org/dataspace/iodbc/wiki/iODBC/Downloads

   Scroll down to the Mac OS X section and select the applicable installer package.

   Note: In this tutorial, we successfully installed the latest available version of the iODBC driver for Mac OS X (10.5 Leopard, 10.6 Snow Leopard) on a MacBook Pro running OS X 10.8.3.



Stable (v3.52.7)

The sources for the iODBC Driver Manager are available as a tarball, libiodbc-3.52.7.tar.gz or from SourceForge. You can also view the ChangeLog.

Source

File	Download
iODBC Source tarball	libiodbc-3.52.7.tar.gz
Linux source RPM	libiodbc-3.52.7-1.src.rpm

Mac OS X

This package contains iODBC as a Framework plus the graphical ODBC configuration administrator and bindings for Microsoft Office:

Mac OS X (10.5 Leopard, 10.6 Snow Leopard)	iodbc-sdk-3.52.7-macosx-10.5.dmg
Mac OS X (10.4 Tiger)	iodbc-sdk-3.52.7-macosx-10.4.dmg

This package contains a bug-fix for the version of iODBC provided by Apple, installing in /usr; this is recommend for compiling interfaces such as Perl DBD::ODBC, the Ruby ODBC bridge and PHP:

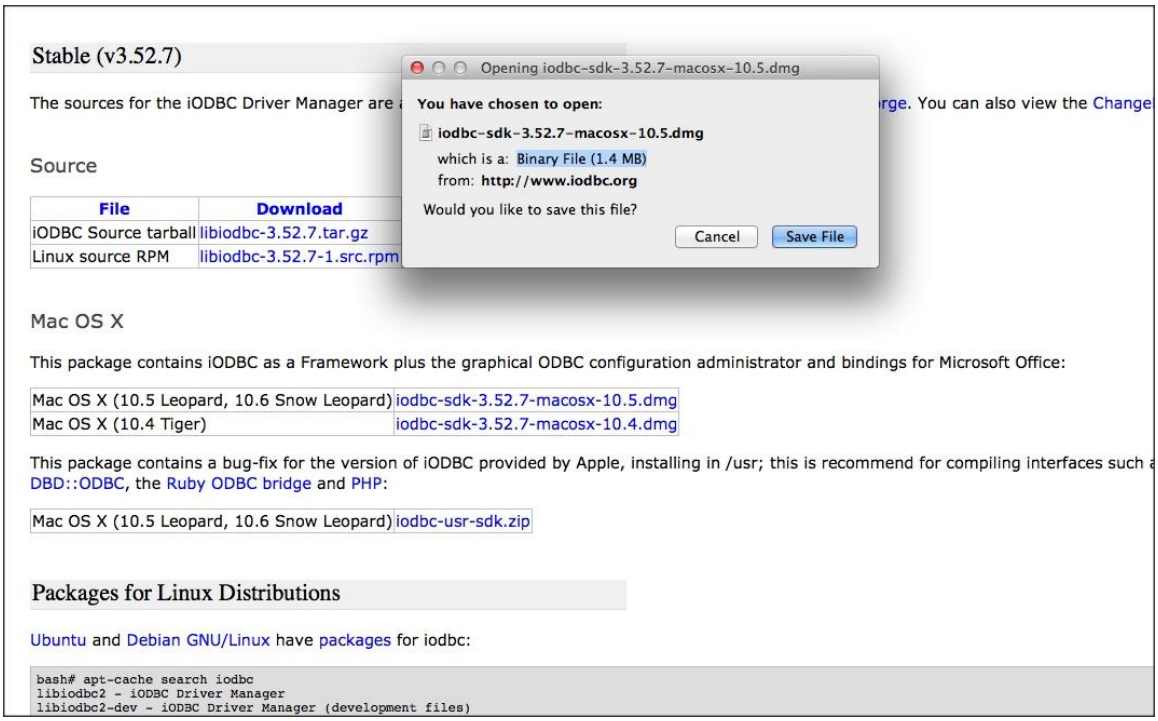
Mac OS X (10.5 Leopard, 10.6 Snow Leopard)	iodbc-usr-sdk.zip

Packages for Linux Distributions

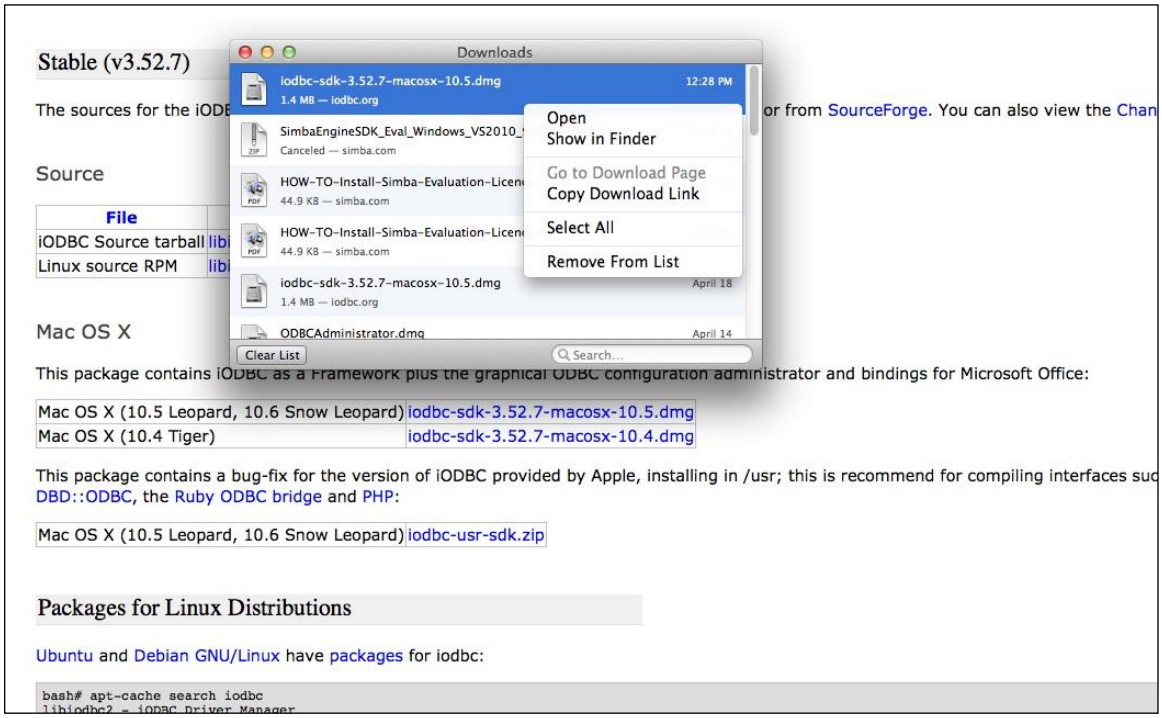
Ubuntu and Debian GNU/Linux have packages for iodbc:

```
bash# apt-cache search iodbc
```

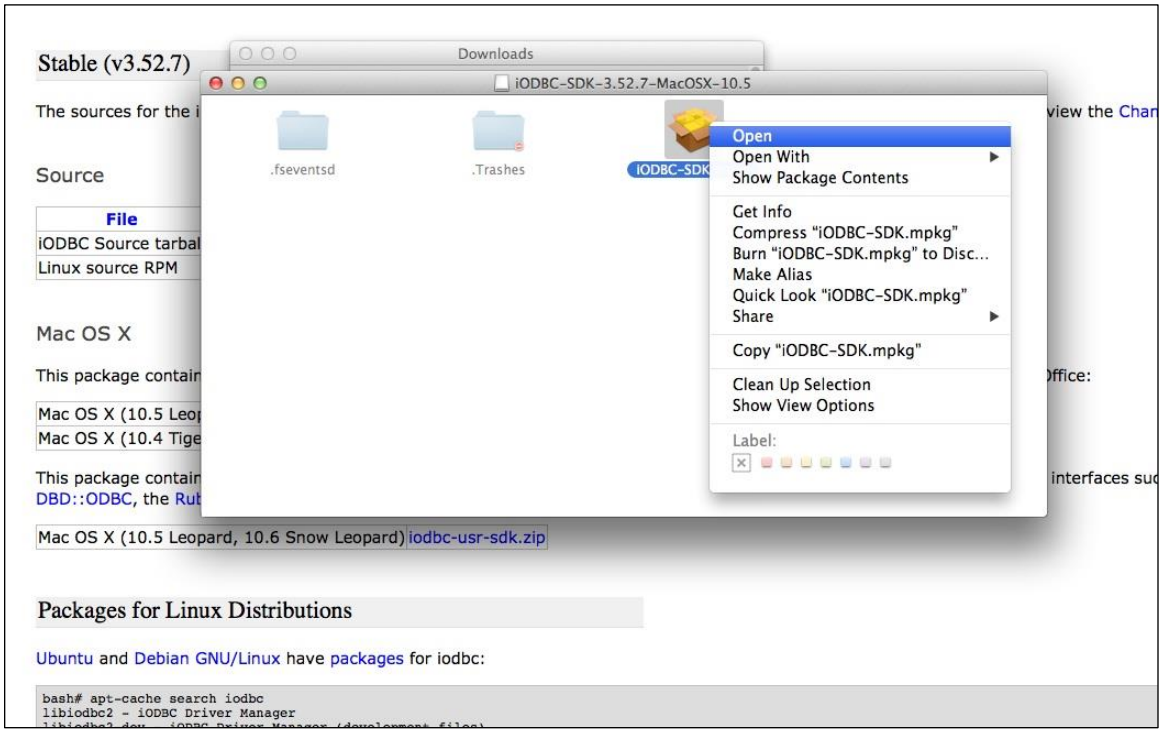
2. Click **Save File** on the confirmation pop-up message.



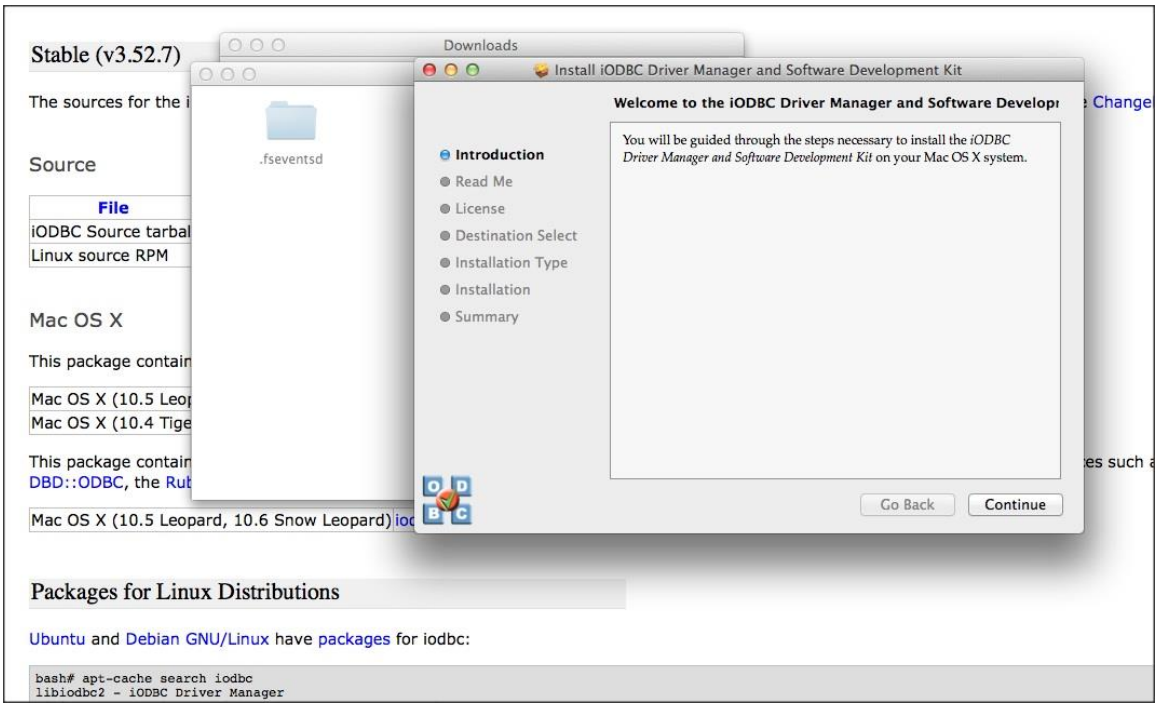
3. When the installer file download is complete, double-click the file, then select **Open**.



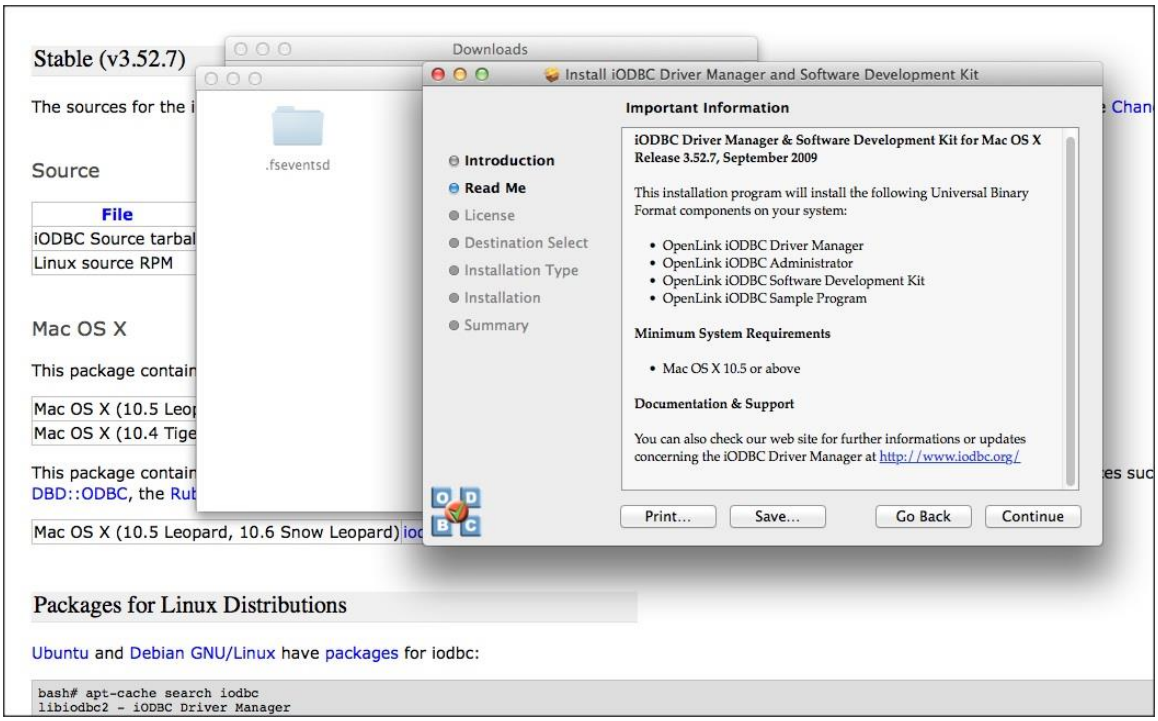
4. The driver package appears in a new window. Double-click the driver package, then select **Open**.



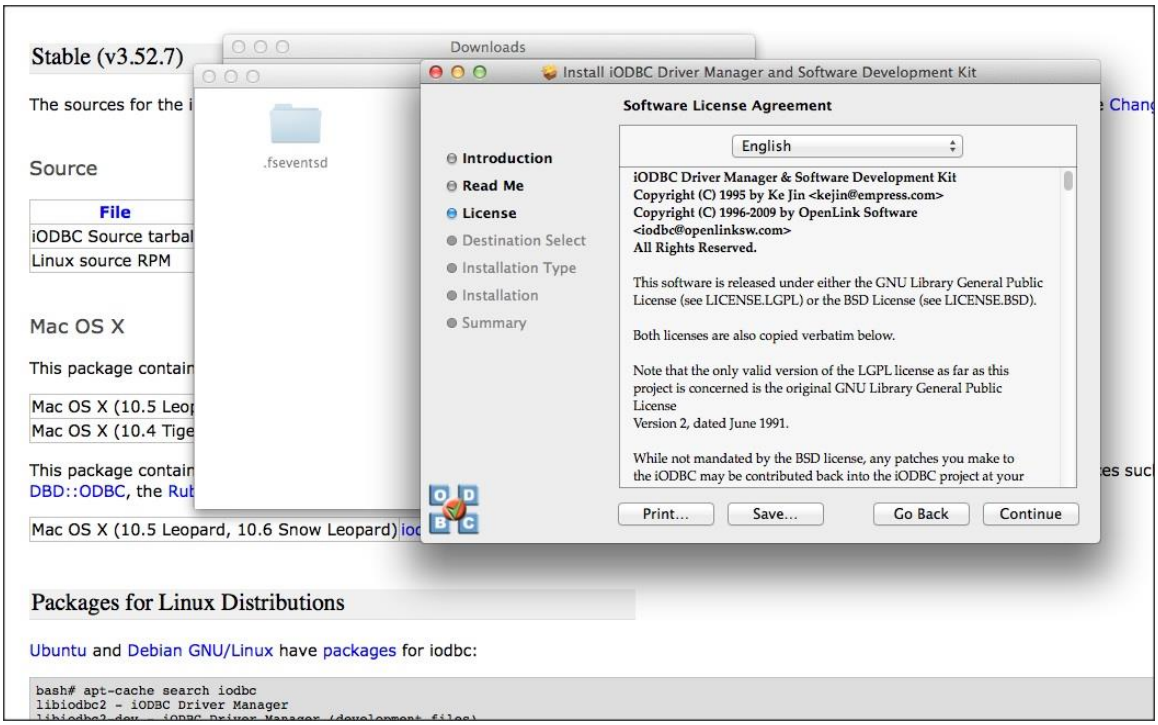
5. To start the installation, click **Continue** on the ODBC Driver Installer Welcome screen.



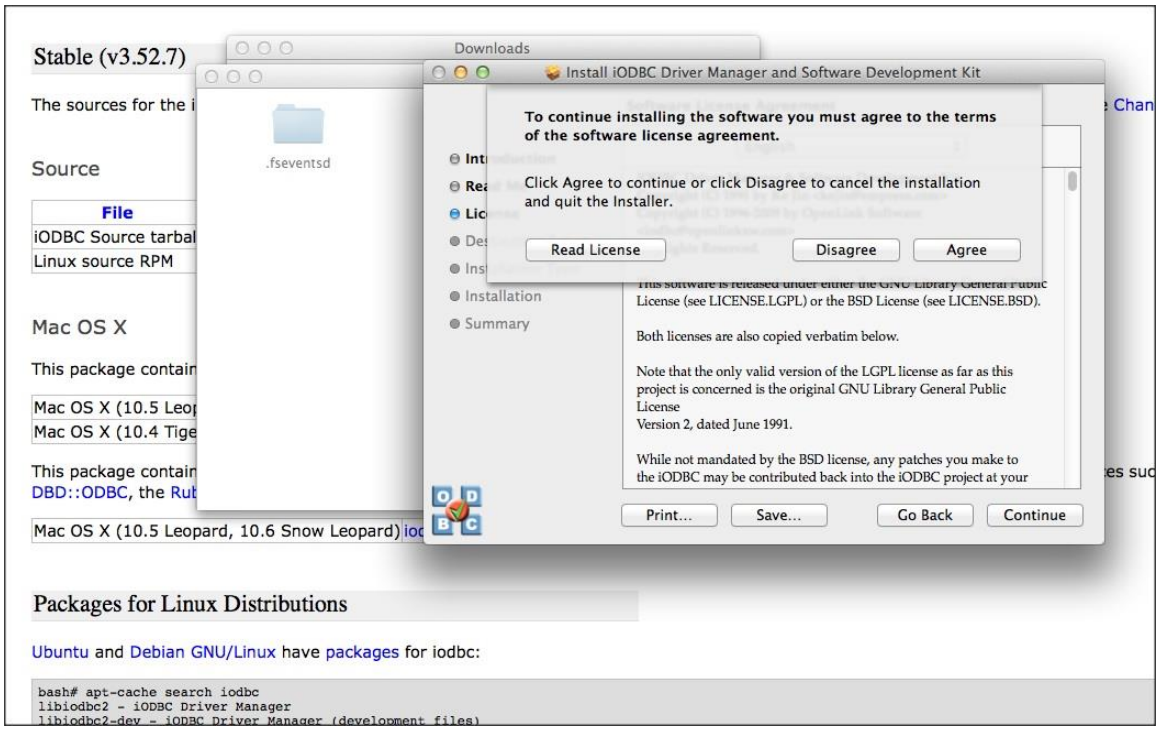
6. Review the Read Me information, then click **Continue**.



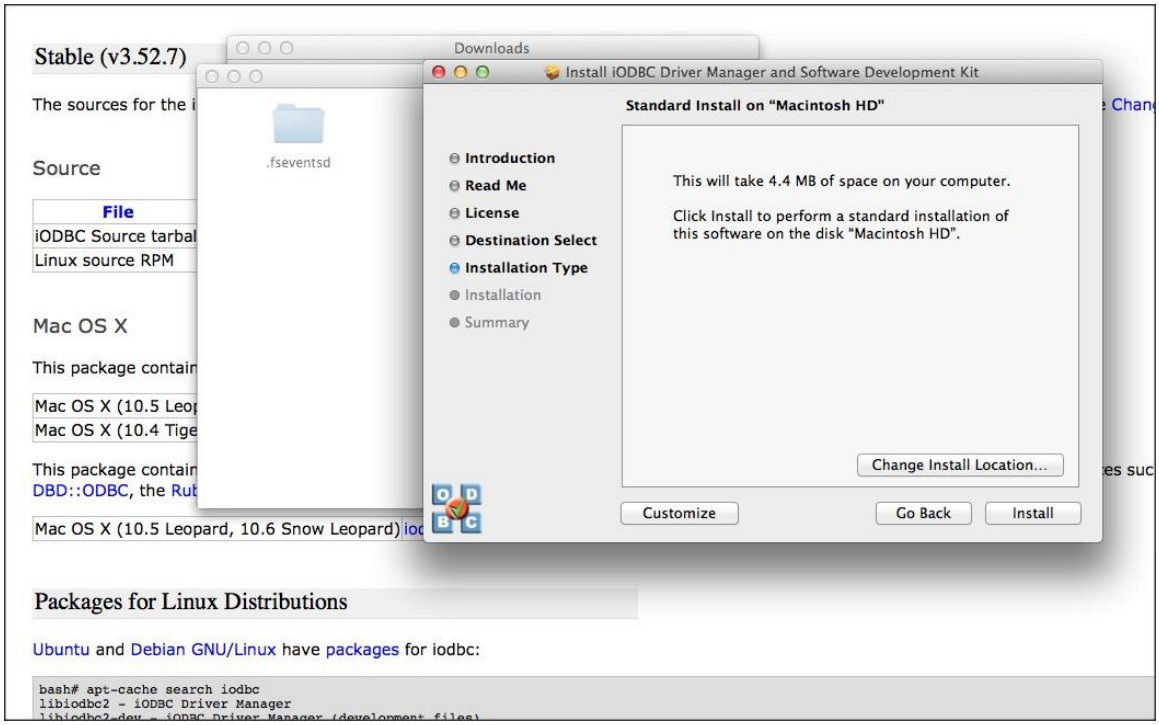
7. Review the license agreement, then click **Continue**.



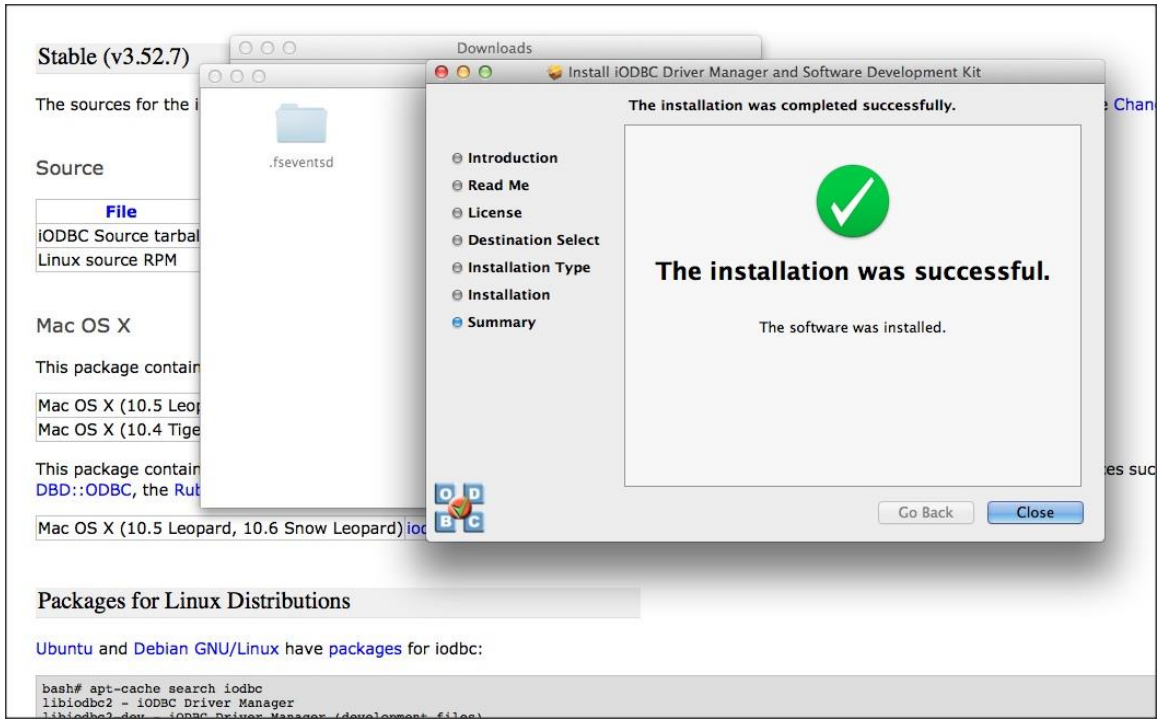
8. Click **Agree** on the pop-up message to agree to the license terms.



9. Click **Install** to accept the default installation folder.



10. When the installation is complete, the Driver Installer displays a confirmation message. Click **Close** to close the installer.



Now that you have installed the iODBC Driver Manager for Mac OS X, the next step is to configure the Hortonworks ODBC .ini files.

Step 3 – Configure the Hortonworks ODBC Driver

Overview

To configure the Hortonworks ODBC driver:

1. Enable the Finder to view hidden files.
2. Configure the Hortonworks ODBC .ini files.
3. Set the DYLD_LIBRARY_PATH environmental variable.

Procedure

In this procedure we will edit hidden files that start with a period and are not usually visible with Finder. We will run two Terminal commands to make these files visible with Finder. These commands are case-sensitive.

1. Open Finder (or click an empty portion of the desktop) to display the Finder menu at the top of the screen. Select **Go > Utilities > Terminal**, then click **Open** to open a Terminal window.

2. In the Terminal window, type in the following command, then press the Enter key:

```
defaults write com.apple.Finder AppleShowAllFiles TRUE
```

3. In order for the changes to take effect, you must restart the Finder. To restart the Finder, type the following command in the Terminal window, then press the Enter key.

   ```
   killall Finder
   ```

   You can now view hidden files using the Finder. If you would like to reset Finder later to hide hidden files, use the following Terminal commands to hide hidden files and restart the Finder:

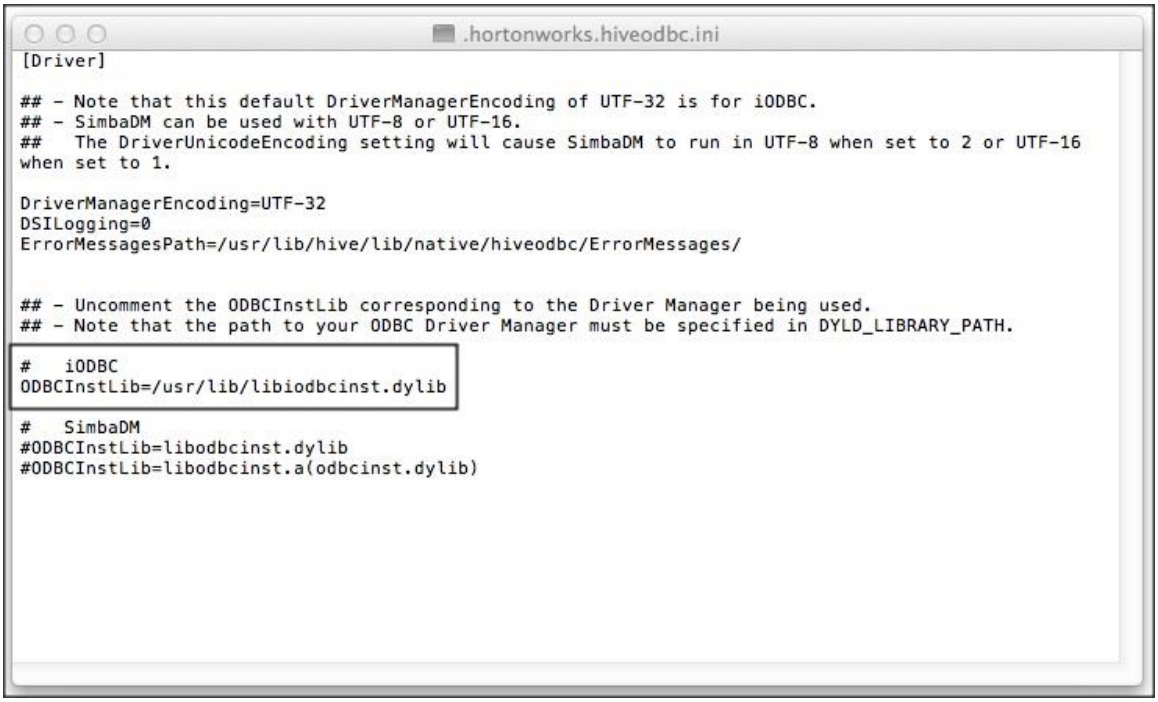
   ```
   defaults write com.apple.Finder AppleShowAllFiles FALSE
   killall Finder
   ```

4. Use **Go > Go to Folder** or the Finder to navigate to the /usr/lib/hive/lib/native/hiveodbc/Setup directory. The Setup directory contains the following sample files:

   - odbc.ini and odbcinst.ini – sample DSN setup files
   - hortonworks.hiveodbc.ini – sample Hortonworks driver configuration file

5. Copy the hortonworks.hiveodbc.ini to the Home directory and rename the file as .hortonworks.hiveodbc.ini (insert a period at the beginning of the file name).

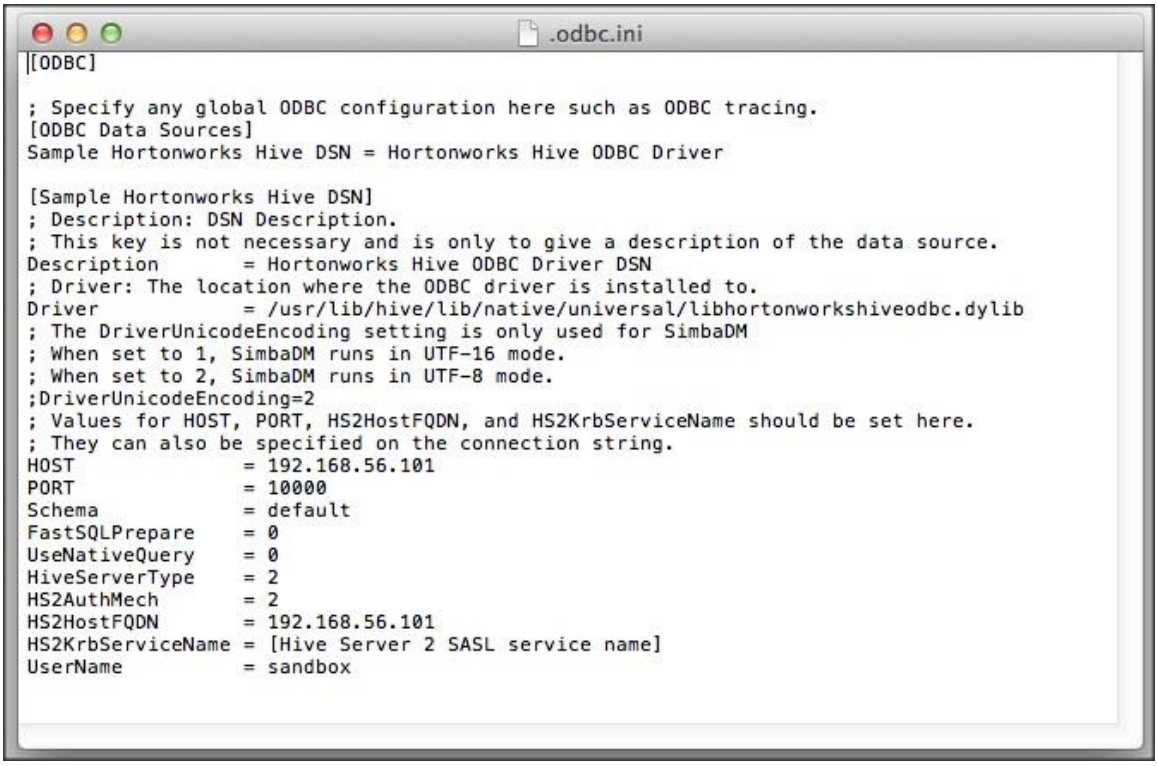
6. In the Home directory, open the .hortonworks.hiveodbc.ini file with TextEdit in plain text mode. Confirm that the line containing the ODBCInstLib setting for the iODBC driver manager is uncommented (does not have a # symbol at the beginning of the line). The path should be set to the location of the libiodbcinst.dylib file by default.



7. Review the contents of the Home directory. If there are no .odbc.ini or .odbcinst.ini files in the Home directory, copy the odbc.ini and .odbcinst.ini files from the /usr/lib/hive/lib/native/hiveodbc/Setup folder to the Home directory.

   Rename the files to .odbc.ini and .odbinst.ini (insert a period at the beginning of the file name).

   Use TextEdit in plain text mode to edit the configuration settings in the .odbc.ini file. The host settings should be set to the IP address of the sandbox. PORT should be set to 10000 (the default listening port). HS2AuthMech should be set to 2, and UserName should be set to the sandbox user name (in this case, the default user name “sandbox”).



8. If there is already an .odbc.ini or .odbcinst.ini file in the Home directory, copy the relevant settings from the odbc.ini and .odbcinst.ini sample files in the /usr/lib/hive/lib/native/hiveodbc/Setup folder to the files in the Home directory. Configure the settings as described in the previous step.

9. Finally, add the /usr/lib/hive/lib/native/universal directory to the DYLD_LIBRARY_PATH environment variable. Open a Terminal window and type the following command, then press the Enter key:

```
Launchctl setenv DYLD_LIBRARY_PATH /usr/lib/hive/lib/native/universal
```

   This command will set the DYLD_LIBRARY_PATH variable only for the current session – you will need to run the command again each time you log in. To permanently set the DYLD_LIBRARY_PATH environmental variable, navigate to the /etc folder and add the following line to the launchd.conf file:

   ```
   setenv DYLD_LIBRARY_PATH /usr/lib/hive/lib/native/universal
   ```

   If there is no launchd.conf file in the /etc folder, you can use TextEdit to create a launchd.txt file, then rename it to launchd.conf.

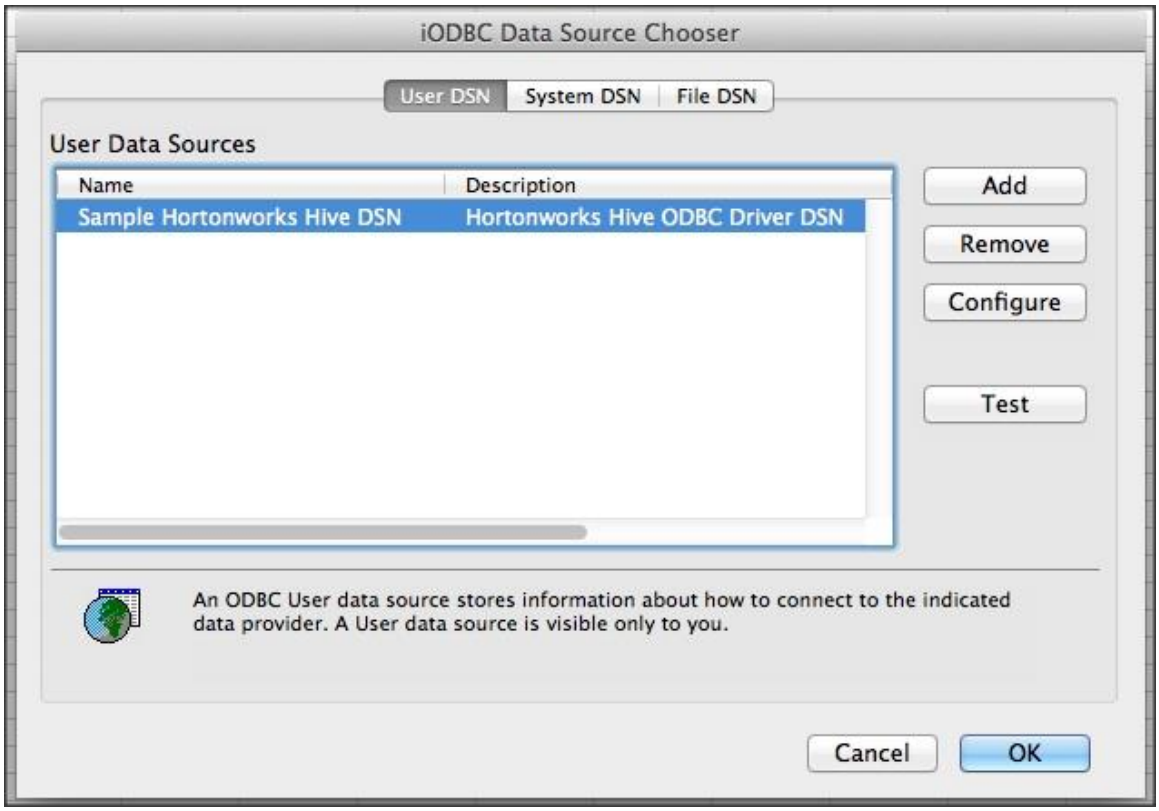
   Note: You may need to be logged in as an administrator to edit files in the /etc folder.

Now that you have configured the Hortonworks ODBC driver, the next step is to open Excel and test the connection to the Hortonworks sandbox.

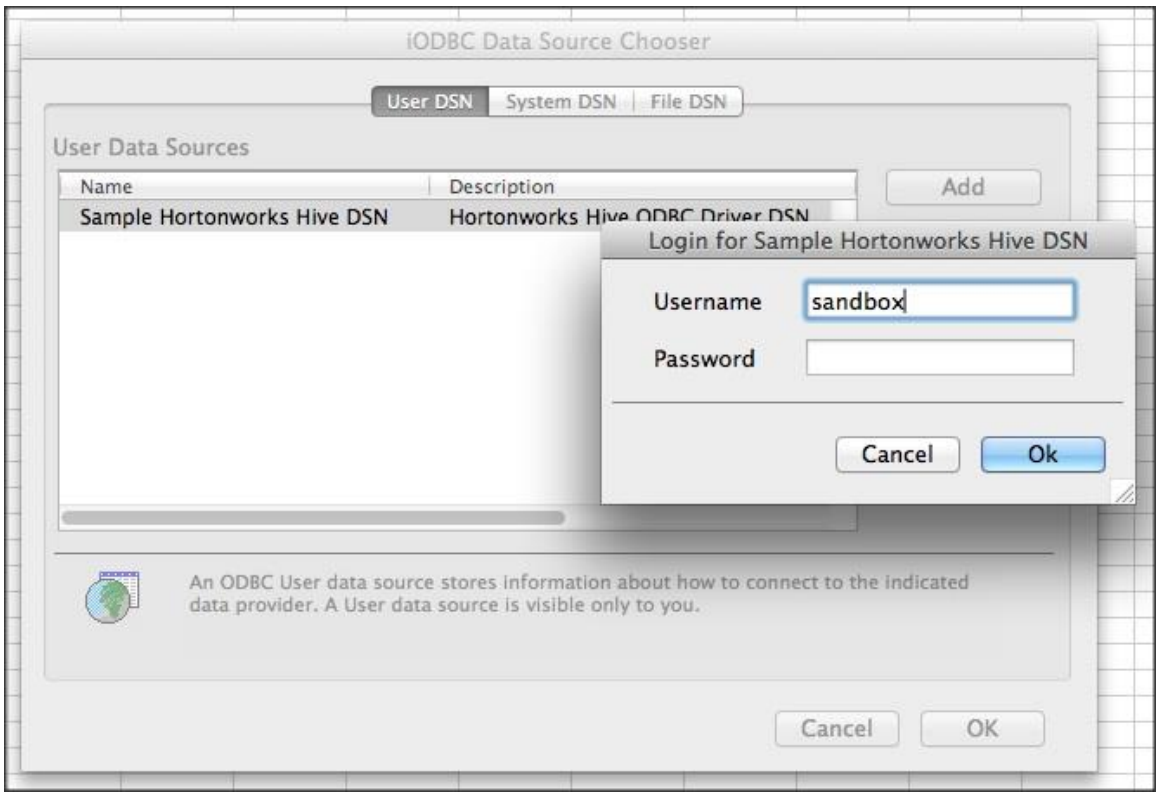
Step 4 – Open Excel and Test the Connection to the Hortonworks Sandbox

1. Open a new Excel workbook, then select **Data > Get External Data > New Database Query**.

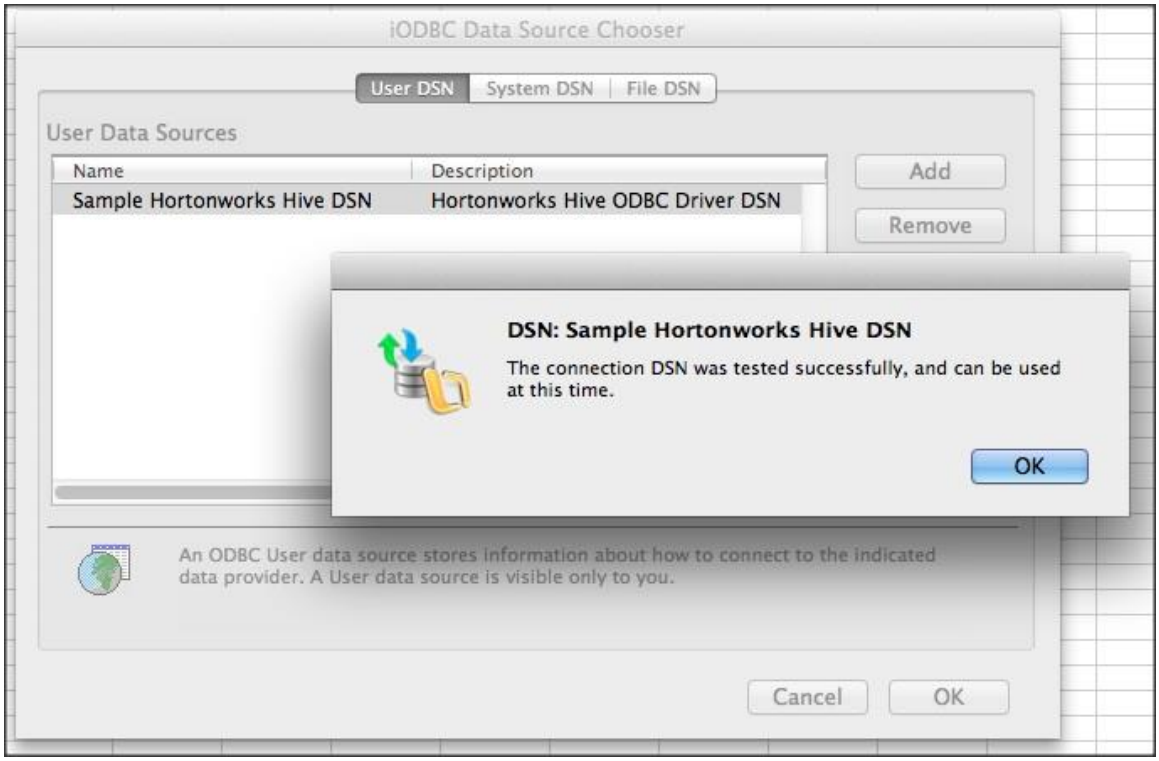
2. On the iODBC Data Source Chooser window, select the Hortonworks ODBC data source, then click **Test**.



3. On the Login pop-up, type "sandbox" in the Username box, then click **Ok**.



4. It may take several seconds for the connection to be established. After the connection is established, a confirmation message appears. Click **OK** to close the message.

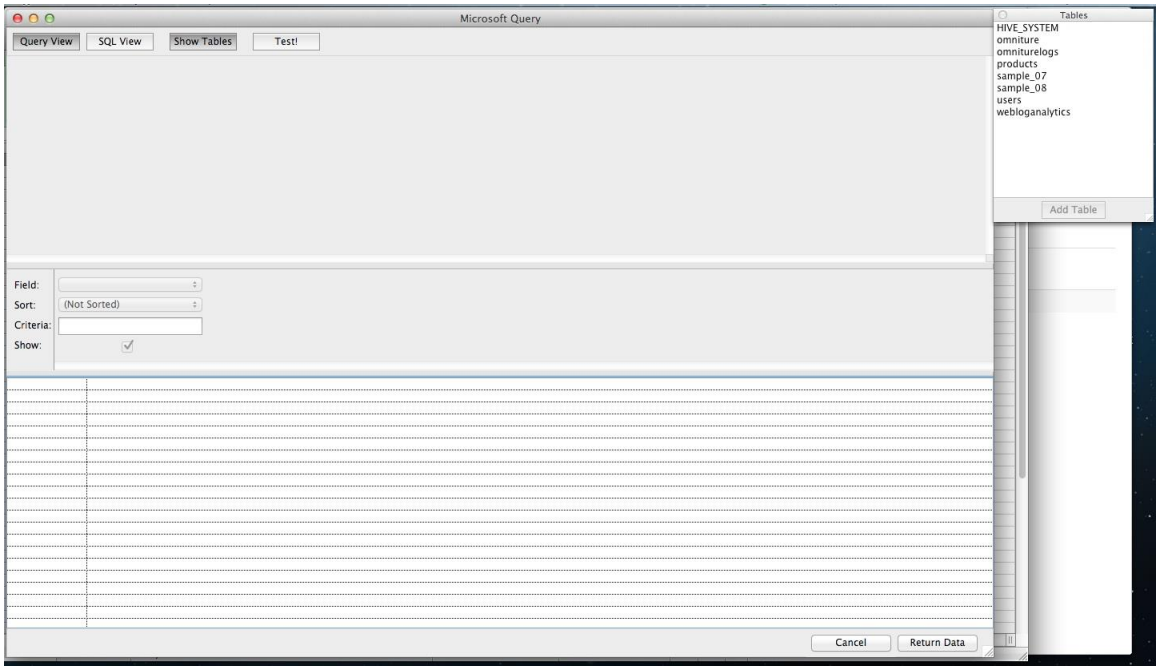


Now that you have configured the Hortonworks ODBC driver, you can use Excel to access data in the Hortonworks sandbox.

5. Open a new Excel workbook, then select **Data > Get External Data > New Database Query**.

6. On the iODBC Data Source Chooser window, select the Hortonworks ODBC data source, then click **OK**.

7. On the Login pop-up, type "sandbox" in the Username box, then click **Ok**. The Microsoft Query window and the Tables pop-up box appear.

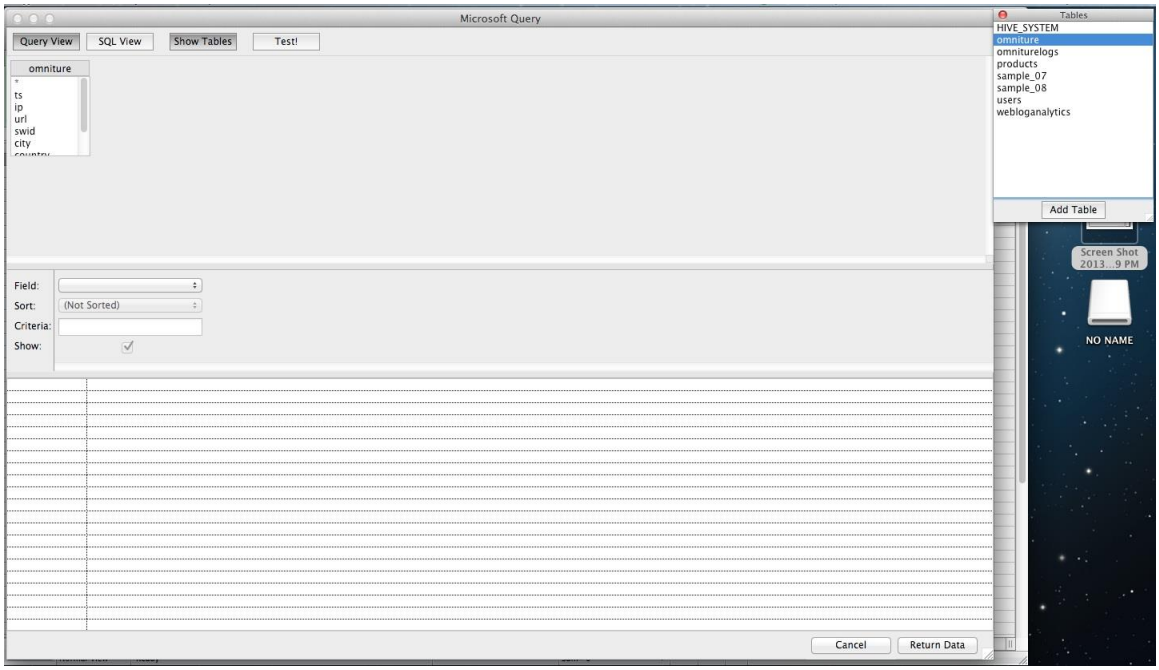


8. In the Tables pop-up box, select a table, then click **Add Table**. The table will appear in the top section of the Microsoft Query window. It may take several seconds for the table to appear.

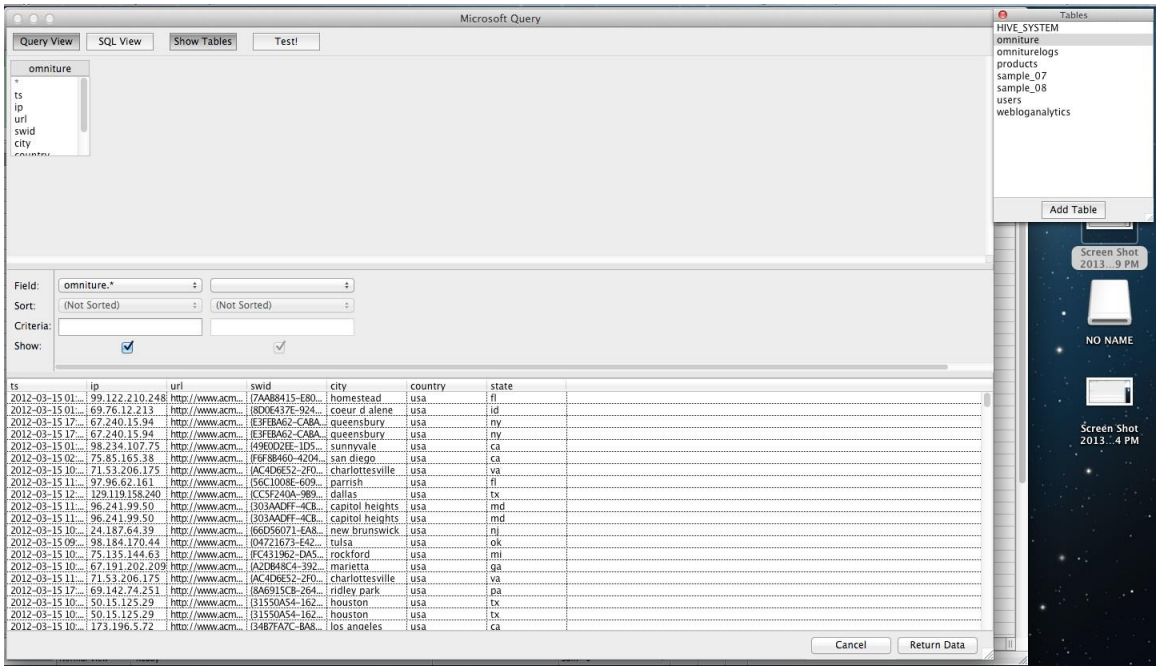
   Notes

   - The tables listed in the pop-up have been previously created in the Sandbox with a **Create new table** command using either HCatalog or Beeswax (**Beeswax >Tables**).

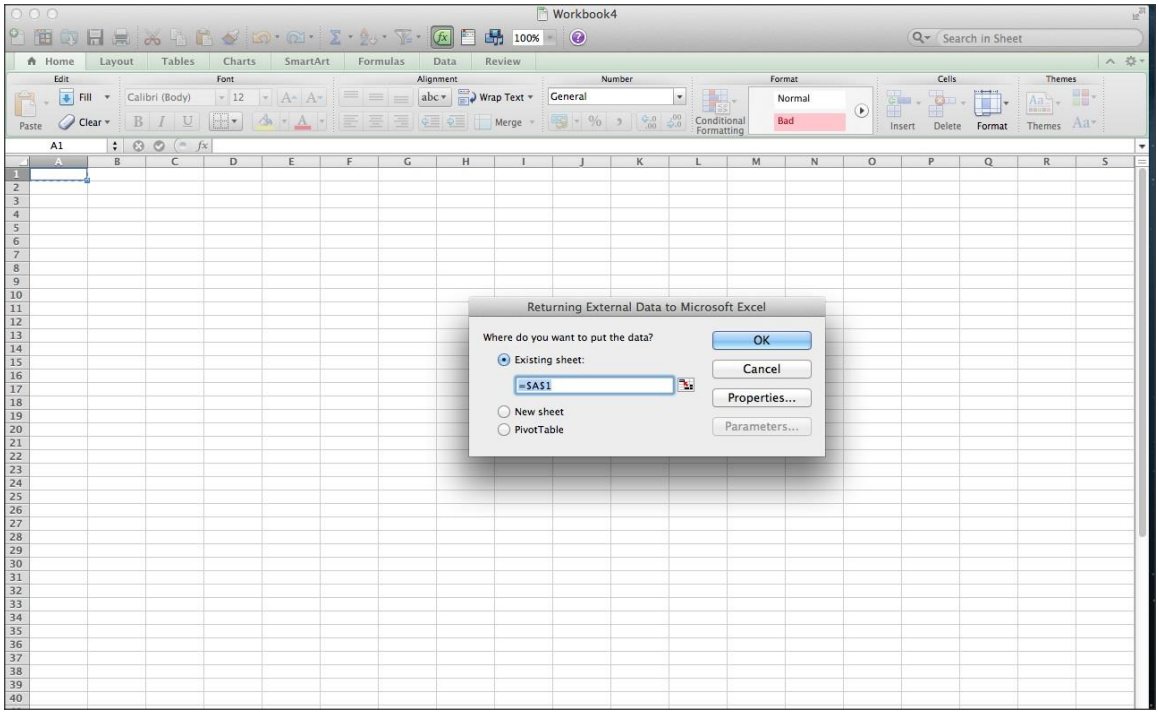
   - In this tutorial, we selected the omniture table previously created in the "Loading Data into the Hortonworks Sandbox" tutorial, but you can select any available table.



9. To preview the table data, select the table in the Field drop-down, then click **Test**. The data will appear in the lower section of the Microsoft Query window. It may take several seconds for the data to appear.



10. To import the data into Excel, click **Return Data** at the bottom right of the Microsoft Query Window, then click **OK** on the Returning Data to Microsoft Excel pop-up box.



11. The table data appears in the Excel workbook.