# Carbon Installation and Usage Guide

In this document, you will find instructions on how to install and use Carbon for the first time.

## Installation

### Supported Operating Systems

* Windows - Windows 10, Windows 8, Windows 7, Windows Server 2016, Windows Server 2012 (64-bit), Windows Server 2012 R2 (64-bit)
* Mac – macOS Yosemite (10.10+)
* Linux - Ubuntu 16.04 and 16.10, Red Hat Enterprise Linux (RHEL) 7.3, OpenSUSE v12 SP2, SLES 12

### Download Carbon

Bits are available on the [SQL Server Management Tools Yammer group](https://www.yammer.com/bpdtechadvisors/#/groups/3903865/files)

* Linux Debian, Ubuntu - [Carbon.deb](https://github.com/Microsoft/carbon)
* Linux Red Hat, Fedora, SUSE - [Carbon.rpm](https://github.com/Microsoft/carbon)
* Mac - [Carbon.zip](https://github.com/Microsoft/carbon)

### Installation

#### Windows

* Download the [Carbon\_versionnumber-Windows.zip](https://github.com/Microsoft/carbon) file for Windows.
* Once it is downloaded, unzip the file and double click Carbon.exe to launch the application.

#### macOS

* Download the [Carbon.zip](https://github.com/Microsoft/carbon) file for macOS
* Double-click on the downloaded archive to expand the contents.
* Drag Carbon.app to the Applications folder, making it available in the Launchpad.
* Click on Carbon in the Applications folder to launch the application.

#### Linux

Ubuntu

* Download the [Carbon.deb](https://github.com/Microsoft/carbon) file and save it to your HOME folder.
* To install Carbon, execute the following command in a terminal window:
  + $ cd ~
  + $ sudo dpkg -i Carbon.deb
* HOW TO LAUNCH? ANY PATH CHANGES?

Red Hat Enterprise on Linux

* Download the Carbon.rpm file and save it to your HOME folder.
* To install Carbon, execute the following command in a terminal window:
  + $ cd ~
  + $ sudo yum localinstall Carbon.rpm
* HOW TO LAUNCH? ANY PATH CHANGES?

SUSE

* Download the Carbon.rpm file and save it to your HOME folder.
* To install Carbon, execute the following command in a terminal window:
  + $ cd ~
  + $ sudo zypper install Carbon.rpm
* HOW TO LAUNCH? ANY PATH CHANGES?

## Usage

### Prerequisites

If you do not currently have SQL Server installed, please visit the following page for installation instructions:

<https://docs.microsoft.com/en-us/sql/database-engine/install-windows/install-sql-server>

### Add Server Groups and Connections to Carbon

Once you open the Carbon app, on the “New Connection” dialog:

1. Type in your Server Name, User Name, and Password
2. Then click connect

<CONNECTION DIALOG SCREENSHOT>

1. Your connection profile will automatically be added to the “Server Groups” section in the connection viewlet

<VIEWLET SCREENSHOT>

1. Click on the “+” to add a server group
2. Enter in your Connection Group Name and Group Description in the “Add Server Group” dialog

<ADD SERVER GROUP DIALOG SCREENSHOT>

1. Take your connection and drag and drop it on top of the new group to add it to the group.

<ADD TO GROUP SCREENSHOT>

### Connect to a Database

1. Select a connection and double click it
2. Next, expand the databases folder to browse the SQL database and the object contents

<OE BROWSE SCREENSHOT>

<DASHBOARD SCREENSHOT>

### Create a New Database

1. On the management home page, click on “Create Database”
2. Type in a Database name and click “OK” to create the database

<CREATE DB SCREENSHOT>

1. After you finish with the dialog, go to the Object explorer, select the database and click “Refresh” to ensure your change has been made.

### Edit Data Experience

1. Select a database – control + click and select a new query

<NEW QUERY SCREENSHOT>

1. Use the editor to create a table by selecting the “sqlcreateTable” code snippet:

<CREATE TABLE QUERY>

1. Go to back to the Object Explorer and select the table you just created and control + click and select “Edit Data”
2. Change a field to update directly in the table and hit “Return”
3. Select a table and control + click to “Select Top 100”
4. To save as JSON select the “Save as JSON” button and name your file “heroes.json” and click “Enter”

Change Connection

Create database with GUI

Add edit data after insert into table – (change a value in the table EX: USA to Japan)

After last section “Generate Script for Database” add a “Script As” context menu usage

<https://docs.microsoft.com/en-us/sql/linux/sql-server-linux-develop-use-vscode>

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**Add server groups**

1. Go to Servers viewlet by clicking 'Servers' icon on the action-bar.

deisng note: for developers or for Azure SQLDB/DW, the addition can be at database level. In this case the term 'server' is misleading. Can it be '**Data Source**' or something equivalent?

1. Click 'Add group' to open Add Group fly-out dialog.
   * Enter 'DocShare-Dev' as the name of group.
   * Enter the description of group in description input box.
   * Click Add to create a new group.
   * Check 'DocShare-Dev' group is created in the 'Servers' viewlet.
   * You can also click '...' on 'DocShare-Dev' group in the 'Servers' viewlet to select menu for 'Edit' or 'Delete'.
2. Repeat step 2 to add 'DocShare-Test' and 'DocShare-Prod' groups.
   * You can also open settings.json file with 'Perferences | Settings' carbon menu, copy DocShare-Dev group definition and paste in settings.json file then edit the name and description for 'DocShare-Test' and 'Docshare-Prod'.

Design note: how to handle group guid?

[todo: add mockup]

**Add servers**

1. Go to Servers viewlet and click 'Add server' in '+' menu to open up Add Server fly-out dialog.
2. Enter required values in the Add Server dialog.
   * Enter 'configdb-dev-server' as the user friendly name.

(todo: define the text label for 'user friendly name' on UI.)

* + Enter 'ds6-sqldev1.west-us.wwi.net' for the server name.
  + Select 'SQL Login' for the authentication type.
  + Enter 'your sql login name' for the user.
  + Enter 'your password'.
  + Check on 'Remember Password' if allowed.

1. Click 'Add' and check if 'config-dev-server' is added under 'DocShare-Dev' group.
   * Each server entry shows the **friendly name** or **server name**, **database** (master in this case or default) and the **user name**.
   * You can also 'Edit' or 'Delete' a server profile by running a menu by clicking '...' on each server profile in the Server viewlet.

**Adding (registering) the rest of 19 servers to Carbon**

1. Open settings.json file with 'Preference | Settings' carbon menu, copy 'config-dev-server' server profile, paste then edit following properties to add all dev servers in DocShare-Dev group.

design note: Carbon allows adding server profiles in Workspace settings.json file to make the server profiles and groups as a project specific configuration or to share it with project team members who share the workspace via source control.

* + Edit the user friendly name.
  + Edit the server name.
  + Edit username unless it is the same for all dev servers.

When carbon makes a connection first time after a server profile is added, carbon will pop-up corresponding authentication dialog to enter the password if the authentication type is SQL Login.

1. Repeat step 4 for the remaining 19 servers by copy and edit server profiles in settings.json. For small number of server profile addition, you may want to use the Add Server UI dialog.
2. If you want to work on multiple client machine, copy the settings.json file and pasted it to the following folder where Carbon is installed.
3. /Users/<yourname>/Library/Application Support/Carbon/User/settings.json

[todo: add mockup]

**Connect**

1. Double click on a server profile in Servers viewlet.

[todo: add mockup]

1. Carbon connects (or ask Password) to the server and show 'Home' page for the server.
   * see Server and Database Home page design for more detail.
   * You can **change the default landing page** in settings.json to switch between Home and T-SQL editor.

{carbon-landingPage}:"Home" | "Editor"