# Retrieving weather station data from database Client installation

### Download dbeaver from <a href="https://dbeaver.io">https://dbeaver.io</a>

Doubleclick on the downloaded file to begin installation. Then select language.



### Click "Next".

<page-header>

## Click "I Agree".

cense Agreement		1
Please review the license terms before installing DBeaver Community.		,
Press Page Down to see the rest of the agreement.		
Apache License		
Version 2.0, January 2004		. 1
http://www.apache.org/licenses/		
TERMS AND CONDITIONS FOR USE, REPRODUCTION, AND DISTRIBU	JTION	
1. Definitions.		
"License" shall mean the terms and conditions for use, reproduction	1	
and distribution as defined by Sections 1 through 9 of this documen	t.	1

	< Back	I Agree	Cancel
--	--------	---------	--------

Choose "For anyone who uses this computer (all users)" and click "Next".

😰 DBeaver Community 6.1.5 (x86_64) Setu	qu	-0		×
Choose Users				6-
Choose for which users to install DBeaver C	Community.			1 H
Select whether to install DBeaver Communit	ty for all users or fo	r current user.		
<ul> <li>For anyone who uses this con</li> </ul>	nputer (all users)			
O For me (kck)				
Version 6.1.4 is installed for all users in "C:\ Uninstall version 6.1.4 and install version 6. required.	Program Files\DBea .1.5 for all users. A	iver". dministrator crede	ntials	
Universal Database Manager				
	< Back	Next >	Can	icel

## Choose "DBeaver Community".

Check the components you want to install. Click Next to continue. Select components to install:	install and un	ncheck the co	mponents	you don'	't want to	D
Select components to install:	DBeaver C					
	Reset Settin Associate .S	igs SQL files				
Space required: 93.4MB Po	escription sition your m escription.	nouse over a	component	: to see i	its	
niversal Database Manager						

### **Choose Install Location**

Choose Install Location			
Choose the folder in which to install DBeaver Community.			
Setup will install DBeaver Community in the following folder. T click Browse and select another folder. Click Next to continue.	o install in	a differe	ent <mark>folde</mark>
Destination Folder			
Destination Folder		Brow	wse
Destination Folder C:\Program Files\DBeaver		Brov	NSe
Destination Folder C:\Program Files\DBeaver Space required: 93.4MB		Brov	wse
Destination Folder C:\Program Files\DBeaver Space required: 93.4MB Space available: 308.5GB		Brow	NSe
Destination Folder C:\Program Files\DBeaver Space required: 93.4MB Space available: 308.5GB niversal Database Manager		Brow	wse

#### **Choose Start Menu Folder**

🎲 DBeaver Community 6.1.5 (x86_64) Setup	-0	×
Choose Start Menu Folder		6.
Choose a Start Menu folder for the DBeaver Community shortcuts.		14

Select the Start Menu folder in which you would like to create the program's shortcuts. You can also enter a name to create a new folder. DBeaver Community 7-Zip ٨ Accessibility Accessories Administrative Tools Axence netTools 5 Bomgar Cisco Conference Client Crestron DBeaver Community Dolby v Do not create shortcuts Universal Database Manager -Install < Back Cancel

### Click "Finish"

😰 DBeaver Community 6.1.5 (x	«86_64) Setup			×
	Completing DBeave Setup	r Commu	inity	
DBeaver	DBeaver Community has been ins	talled on your	computer	r.
	Click Finish to close Setup.			
	Create Desktop Shortcut			
	Visit DBeaver Community web sit	e		
	< Back	Finish	Can	cel

## Connect to database

In the menu bar, choose "File -> New" to open the wizard. Select "Database Connection" and press "Next".

File Edit Navigate Search SQL Editor Run Database Windo	w Help	
₩ -   ♥ % %   □ □ □ □ 0 10 10 10 10 - 14		
🔁 Database Navigator 🕱 🔚 Projects	🦛 🕶 📄 🖛 🗸 🖓 🖻	
Enter a part of table name here >		
	Ti New	×
	Select a wizard Database connection	
	✓ Control	Finish Cancel

# Choose "PostgreSQL"

Type part of database/driver name to filter	🕢 🗐 Galler
Name	#
PostgreSQL	4
🗸 🥭 MS SQL Server	1
🥭 SQL Server	1
SQL Server (Old driver, jTDS)	
SQL Server (Old driver, MS)	
V SQLite	1
Apache Ignite	
> 🛼 AWS	
> 🔨 Azure	
Cache	
ClickHouse	
CockroachDB	
- CrateDB	
CUBRID CUBRID	
DB2	

Fill in the following values:

Host: srv-et-esb1.srv.aau.dk

Database: measurement\_db

User: clientreader

Password: ET@6700esbjerg

Connec	t to database	- O X
Connection PostgreSQ	n <b>Settings</b> L connection settings	PostgreSQL
General Dr	iver properties SSH Proxy SSL	
Host:	srv-et-esb1.srv.aau.dk	Port: 5432
Database:	measurement_db	
User:	clientreader	
Password:	•••••	Save password locally
Local Clie Settings Show a Show t	ent: PostgreSQL 10 all databases emplate databases	~
		Connection details (name, type, )
Driver name	e: PostgreSQL	Edit Driver Settings
	< <u>B</u> ack Next >	<u>F</u> inish Cancel

Afterwards press "Finish". Your connection will be visible in the window.



To connect to the database, right click on the connection and choose "Connect". A green marker will show that you are connected. Traverse the connection to find tables (weathersensor\_81 and weathersensor\_82) with weather data.



# See and retrieve data from database

### See data from table

Go to the table you want to see data from, right click on the table and choose "View data". Data will be shown in the right side of the program.

T   Y 10 1	The communic Te nonpack in .: Moro 2	· · · · · · · · · · · · · · · · · · ·	E brouce	measurement_up + 3	a 🔨 🚥 : 🖬 : 🍑 : 🛸	A			
🖢 Database Navigator 🐹 🛅 Pro	ojects	🇱 🕶 📴 📄 🖛 🗸 🖶 🗖	📰 weather	sensor_81 🐹					
nter a part of table name here			Propert	es 🖪 Data 📥 ER Dia	oram				
DBeaver Sample Database (S	SQLite)								
MS SQL Server - FusionRV			E weathe	rsensor_81  25 Enter a :	QL expression to filter result	's (use Ctrl+Space)			
PostgreSQL - measurement	_db - clientreader		.p	💮 measured_at 🛭 🕅 🕻	RDC windspeed_middle	AC irradiance_top	ROC humidity_middle	1 ADC temperature_middle 11	
V S measurement_db			5 1	2019-05-28 14:52:00	1.8	968	63	11.3	
v iii schemas			2	2019-05-28 14:55:00	1.8	1022	61	11.7	
✓ ➡ Tables			* 3	2019-05-28 14:56:00	1.9	633	60	11.9	
> 🖽 weathersense	or_81		4	2019-05-28 14:54:00	1.6	1004	62	11.5	
> 🖽 weathersense	or_82		5	2019-05-28 14:53:00	1.6	975	62	11.4	
> 🔯 Views			6	2019-05-28 14:57:00	1.8	918	62	12.0	
> 🔯 Materialized View	ews.		7	2019-05-28 15:01:00	1.9	385	60	12.3	
> Indexes			8	2019-05-28 14:59:00	1.8	354	61	12.4	
> Functions			9	2019-05-28 15:00:00	2.3	354	59	12.4	
> Sequences			10	2019-05-28 14:58:00	0.7	369	62	12.2	
> Anoregate funct	tions		11	2019-05-28 15:02:00	1.5	397	60	12.2	
> Roles			12	2019-05-28 15:05:00	1.8	950	60	12.2	
> 🔁 Administer			13	2019-05-28 15:06:00	1.7	926	60	12.2	
> 🔁 Extensions			14	2019-05-28 15:04:00	2.2	990	60	12.1	
> 🛅 Storage			15	2019-05-28 15:03:00	2.0	100/	50	12.1	
> 🛅 System Info			10	2019-03-28 15:07:00	2.7	966	50	12.3	
PostgreSQL - measurement_	_db - etdb_admin		1/	2019-03-28 13:11:00	7.0	472	60	12.4	
PostgreSQL - measurement_	_db - webreader		18	2019-03-28 13:10:00	2.9	930	50	12.0	
PostgreSQL - netxmsdba			19	2019-03-28 15:09:00	2.0	921	50	12.2	
PostgresQL - yggdrasii			20	2019-05-20 15:00:00	2.5	677	50	12.5	
			21	2019-05-28 15:14:00	27	1051	60	12.4	
			22	2019-05-28 15:15:00	14	431	61	12.4	
			24	2019-05-28 15:13:00	27	1068	50	12.4	
			25	2019-05-28 15:16:00	2.3	265	61	12.5	
			26	2019-05-28 15:17:00	1.9	248	60	12.4	
			27	2019-05-28 15:21:00	1.6	227	61	11.9	
			28	2019-05-28 15:19:00	2,1	232	62	12.0	
			29	2019-05-28 15:20:00	1.7	229	62	11.9	
			30	2019-05-28 15:18:00	2.5	236	61	12.2	
			31	2019-05-28 15:22:00	2.7	225	60	11.8	
			32	2019-05-28 15:24:00	2.9	196	61	11.4	
			33	2019-05-28 15:25:00	2.4	185	60	11.2	
			34	2019-05-28 15:26:00	1.1	182	61	11.1	
			35	2019-05-28 15:23:00	2.9	214	60	11.5	
			36	2019-05-28 15:27:00	2.1	181	61	11.1	
			37	2019-05-28 15:29:00	0.4	169	61	10.9	
			38	2019-05-28 15:30:00	0.9	166	62	10.9	
			39	2019-05-28 15:31:00	1.7	174	60	10.9	
			40	2019-05-28 15:28:00	1.9	177	61	11.0	
			41	2019-05-28 15:32:00	1.5	191	60	10.9	
		<b>.</b>	42	2019-05-28 15:35:00	1.7	229	60	10.9	
rioject - General 73		• - + + · · · ·	45	2019-05-28 15:34:00	1.2	202	61	10.9	
ne	DataSource		44	2019-05-28 15:36:00	0.8	724	61	10.9	
Bookmarks			45	2019-05-28 15:33:00	16	422	62	11.0	
EK Diagrams			40	2019-05-28 15:39:00	13	899	62	11.2	
<ul> <li>Scripts</li> </ul>			47	2019-05-28 15:40:00	12	901	62	11.4	
			49	2019-05-28 15:38:00	1.4	882	61	11.1	
			50	2019-05-28 15:41:00	1.6	616	62	11.6	
			51	2019-05-28 15:42:00	2.0	659	59	11.8	
			52	2019-05-28 15:45:00	1.4	356	60	11.9	
			53	2019-05-28 15:44:00	1.6	238	60	11.9	
			54	2019-05-28 15:46:00	1.7	207	60	11.8	
			55	2019-05-28 15:43:00	2.2	230	60	11.8	
			56	2019-05-28 15:47:00	2.5	182	60	11.8	
			57	2019-05-28 15:50:00	0.9	199	61	11.6	
			- 58	2019-05-28 15:49:00	1.6	190	61	11.6	
			59	2019-05-28 15:51:00	2.1	205	61	11.5	
			<sup>2</sup> 60	2019-05-28 15:48:00	2.1	182	60	11.7	
			61	2019-05-28 15:52:00	3.1	212	61	11.5	
			0	and the second	and the second second second second second	a station of a		and second i X second	( ) ( ) ( ) ( ) ( ) ( ) ( ) ( )

### Retrieve data from tables using SQL

It is possible to retrieve data using SQL as well. In the next section there some SQL examples and links to tutorials about SQL.

In the menu bar, choose "SQL Editor -> SQL Editor". A new window will show up in the right side of the program. Type your SQL statement in top window and run it by clicking on the orange arrow near the top of the left side of the new window. The result of the SQL request will be shown in the window below the window for the SQL statement.



#### Exporting data

The data retrieved in the program can be exported into different file formats. To do so, left click in the window containing the retrieved data, then right click and choose "Export data". Choose the file format you want to export data to , click "Next" and follow the instructions.



### SQL - examples and resources

#### Examples

The examples below can be copied to the SQL editor and executed. You may need to adjust dates to be within the last 6 months.

Select all fields and rows from a table (in this case weathersonsor\_81):

select \* from public.weathersensor\_81;

Select specific fields (in this case the fields measured\_at, windspeed\_middle, irradiance\_top, humidity\_middle, temperature\_middle) and all rows from a table:

```
SELECT measured_at, windspeed_middle, irradiance_top, humidity_middle,
temperature_middle FROM public.weathersensor_81;
```

Select all fields and specific rows from a table after a specific date and time:

SELECT \* FROM public.weathersensor\_81 where measured\_at > '2019-06-01 12:00:00';

Select all fields and specific rows from a table before a specific date and time:

SELECT \* FROM public.weathersensor\_81 where measured\_at < '2019-06-01 12:00:00';</pre>

#### Select all fields and specific rows from a table between two specific dates and times:

SELECT measured\_at, windspeed\_middle, irradiance\_top, humidity\_middle, temperature\_middle FROM public.weathersensor\_81 where measured\_at between '2019-06-01 12:00:00' and '2019-06-02 12:00:00';

Select specific fields and all rows from two tables (weathersensor\_81 and weathersensor\_82) where date and time are equal and order them by measured\_at from weathersensor\_81:

SELECT public.weathersensor\_81.measured\_at, public.weathersensor\_81.windspeed\_middle, public.weathersensor\_81.irradiance\_top, public.weathersensor\_81.humidity\_middle, public.weathersensor\_81.temperature\_middle, public.weathersensor\_82.measured\_at, public.weathersensor\_82.windspeed\_top, public.weathersensor\_82.winddirection\_top, public.weathersensor\_82.irradiance\_pw, public.weathersensor\_82.temperature\_pw FROM public.weathersensor\_81 full outer join public.weathersensor\_82 on public.weathersensor\_81.measured\_at=public.weathersensor\_82.measured\_at

order by public.weathersensor\_81.measured\_at;

Select specific fields and specific rows from two tables (weathersensor\_81 and weathersensor\_82) after a specific date and time where date and time are equal and order them by measured\_at from weathersensor\_81:

SELECT public.weathersensor\_81.measured\_at, public.weathersensor\_81.windspeed\_middle, public.weathersensor\_81.irradiance\_top, public.weathersensor\_81.humidity\_middle, public.weathersensor\_81.temperature\_middle, public.weathersensor\_82.measured\_at, public.weathersensor\_82.windspeed\_top, public.weathersensor\_82.winddirection\_top, public.weathersensor\_82.irradiance\_pw, public.weathersensor\_82.temperature\_pw FROM public.weathersensor\_81 full outer join public.weathersensor\_82 on public.weathersensor\_81.measured\_at=public.weathersensor\_82.measured\_at where public.weathersensor\_81.measured\_at > '2019-09-04 12:00:00' order by public.weathersensor\_81.measured\_at;

Resources

#### SQL tutorials:

https://www.w3schools.com/sql/default.asp

http://www.postgresqltutorial.com/

https://w3resource.com/PostgreSQL/tutorial.php

https://beginner-sql-tutorial.com/sql.htm