

## Quick Links



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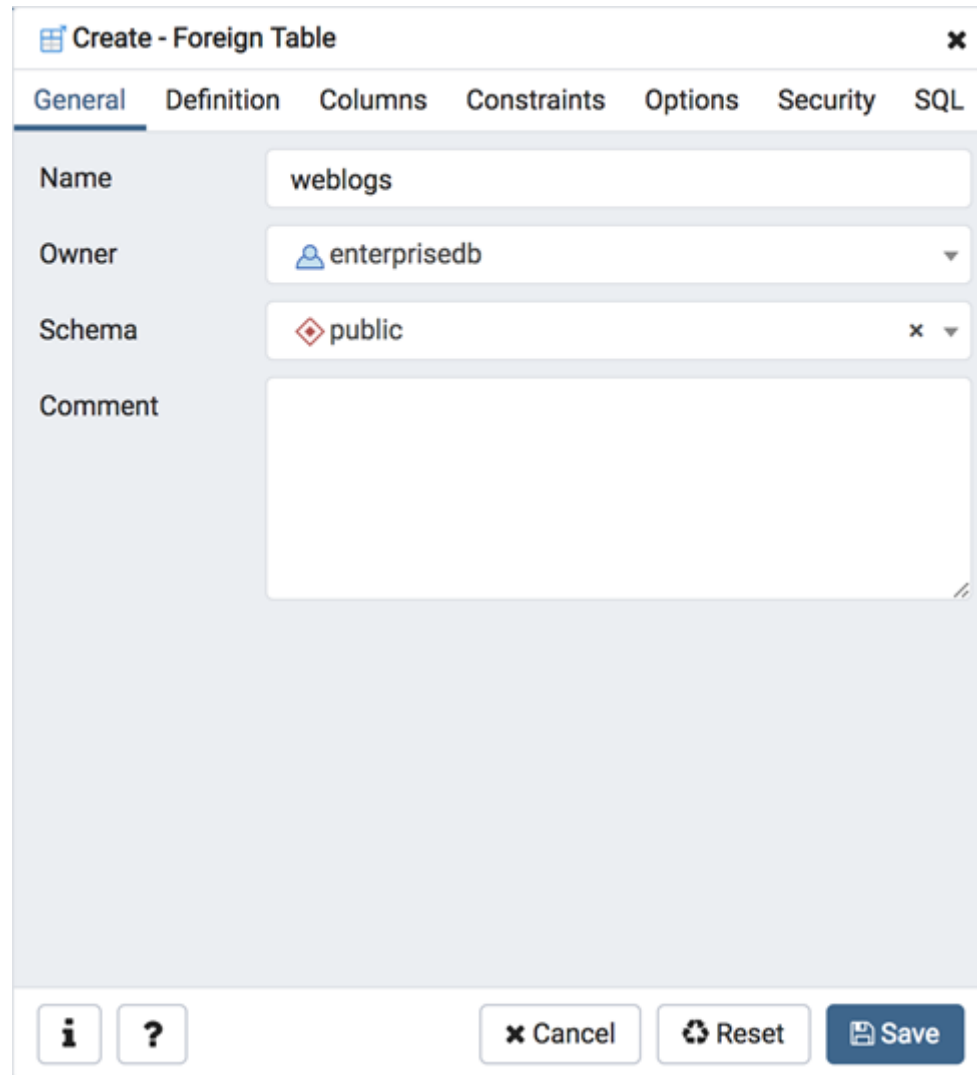
**Warning:** This documentation is for a pre-release version of pgAdmin 4

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Use the *Foreign Table* dialog to define a foreign table in the current database. Foreign tables define the structure of an external data source that resides on a foreign server.

The *Foreign Table* dialog organizes the development of a foreign table through the following dialog tabs: *General*, *Definition*, *Columns*, *Constraints*, *Options*, and *Security*. The *SQL* tab displays the SQL code generated by dialog selections.



The screenshot shows the 'Create - Foreign Table' dialog box with the 'General' tab selected. The dialog has a title bar with a close button. Below the title bar are tabs for 'General', 'Definition', 'Columns', 'Constraints', 'Options', 'Security', and 'SQL'. The 'General' tab contains the following fields:

- Name:** A text field containing 'weblogs'.
- Owner:** A dropdown menu showing 'enterprisedb' with a user icon.
- Schema:** A dropdown menu showing 'public' with a schema icon and a close button.
- Comment:** A large text area for notes.

At the bottom of the dialog are buttons for 'i' (info), '?' (help), 'x Cancel', 'Reset', and 'Save'.

Use the fields in the *General* tab to identify the foreign table:

- Use the *Name* field to add a descriptive name for the foreign table. The name of the foreign table must be distinct from the name of any other foreign table, table, sequence, index, view, existing data type, or materialized view in the same schema. The name will be displayed in the *pgAdmin* tree control.
- Use the drop-down listbox next to *Owner* to select the name of the role that will own the foreign table.
- Select the name of the schema in which the foreign table will reside from the drop-down listbox in the *Schema* field.
- Store notes about the foreign table in the *Comment* field.

Click the *Definition* tab to continue.

Create - Foreign Table

General

Definition

Columns

Constraints

Options

Security

SQL

Foreign server

hdfs\_server

Inherits

Select from the list

i

?

Cancel

Reset

Save

Use the fields in the *Definition* tab to define the external data source:

- Use the drop-down listbox next to *Foreign server* to select a foreign server. This list is populated with servers defined through the *Foreign Server* dialog.
- Use the drop-down listbox next to *Inherits* to specify a parent table. The foreign table will inherit all of its columns. This field is optional.

Click the *Columns* tab to continue.

Create - Foreign Table

General

Definition

Columns

Constraints





Options

Security

SQL

Columns

+

	Name	Data Type
 	id	bigint
 	C	"char[]"

i

?

Cancel

Reset

Save

Use the fields in the *Columns* tab to to add columns and their attributes to the table. Click the *Add* icon (+) to define a column:

- Use the *Name* field to add a descriptive name for the column.

- Use the drop-down listbox in the *Data Type* field to select a data type for the column. This can include array specifiers. For more information on which data types are supported by PostgreSQL, refer to Chapter 8 of the core documentation.

Click the *Add* icon (+) to specify each additional column; to discard a column, click the trash icon to the left of the row and confirm deletion in the *Delete Row* popup.

Click the *Constraints* tab to continue.

Constraints					+
	Name	Check	No Inherit	Validate?	
		myconstraint	mycheck	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Use the fields in the *Constraints* tab to apply a table constraint to the foreign table. Click the *Add* icon (+) to define a constraint:

- Use the *Name* field to add a descriptive name for the constraint. If the constraint is violated, the constraint name is present in error messages, so constraint names like *col must be positive* can be used to communicate helpful information.
- Use the *Check* field to write a check expression producing a Boolean result. Each row in the foreign table is expected to satisfy the check expression.
- Check the *No Inherit* checkbox to specify that the constraint will not propagate to child tables.
- Uncheck the *Validate* checkbox to disable validation. The database will not assume that the constraint holds for all rows in the table.

Click the *Add* icon (+) to specify each additional constraint; to discard a constraint, click the trash icon to the left of the row and confirm deletion in the *Delete Row* popup.

Click the *Options* tab to continue.



Create - Foreign Table

General

Definition

Columns

Constraints

Options

Security

SQL

Privileges

Grantee	Privileges	Grantor
<div> <div></div> <div>enterprisedb</div> </div>	a*r*w*x*	<div> <div></div> <div>enterprisedb</div> </div>

Security Labels

Provider	Security Label
----------	----------------

i

?

Cancel

Reset

Save

Use the *Security* tab to assign privileges and define security labels.

Use the *Privileges* panel to assign privileges to a role. Click the *Add* icon (+) to set privileges for database objects:

- Select the name of the role to which privileges will be assigned from the drop-down listbox in the *Grantee* field.
- Click inside the *Privileges* field. Check the boxes to the left of one or more privileges to grant the selected privilege to the specified user.
- The current user, who is the default grantor for granting the privilege, is displayed in the *Grantor* field.

Click the *Add* icon (+) to assign additional privileges; to discard a privilege, click the trash icon to the left of the row and confirm deletion in the *Delete Row* popup.

Use the *Security Labels* panel to define security labels applied to the function. Click the *Add* icon (+) to add each security label selection:

- Specify a security label provider in the *Provider* field. The named provider must be loaded and must consent to the proposed labeling operation.
- Specify a security label in the *Security Label* field. The meaning of a given label is at the discretion of the label provider. PostgreSQL places no restrictions on whether or how a label provider must interpret security labels; it merely provides a mechanism for storing them.


Click the *Add* icon (+) to assign additional security labels; to discard a security label, click the trash icon to the left of the row and confirm deletion in the *Delete Row* popup.

Click the *SQL* tab to continue.

Your entries in the *Foreign Table* dialog generate a SQL command (see an example below). Use the SQL tab for review; revisit or switch tabs to make any changes to the SQL command.

### Example ¶

The following is an example of the sql command generated by user selections in the *Foreign Table* dialog:



The screenshot shows a dialog box titled "Create - Foreign Table" with a close button (X) in the top right corner. The dialog has several tabs: "General", "Definition", "Columns", "Constraints", "Options", "Security", and "SQL". The "SQL" tab is currently selected and highlighted. The SQL tab contains a text area with the following SQL commands:

```
1 CREATE FOREIGN TABLE public.weblogs(  
2  
3 )  
4     INHERITS (public.test)  
5     SERVER hdfs_server;  
6  
7 ALTER FOREIGN TABLE public.weblogs  
8     OWNER TO enterprisedb;  
9  
10 ALTER FOREIGN TABLE public.weblogs  
11     ADD CONSTRAINT myconstraint CHECK (mycheck);  
12  
13 GRANT ALL ON TABLE public.weblogs TO enterprisedb WITH GRANT OPTION;  
14  
15
```

At the bottom of the dialog, there are four buttons: an information button (i), a help button (?), a "Cancel" button, a "Reset" button, and a "Save" button.

The example shown demonstrates creating a foreign table *weblogs* with multiple columns and two options.

- Click the *Info* button (i) to access online help.
- Click the *Save* button to save work.
- Click the *Cancel* button to exit without saving work.
- Click the *Reset* button to restore configuration parameters.