

# User-Created HAWQ psql Client

You may choose to provide `psql` access to your HAWQ master node from a non-HAWQ Linux client. This section describes the procedures for creating, installing, and running a minimal HAWQ `psql` client package.

## Create the HAWQ psql Client Package

Perform the following steps to create a HAWQ Linux `psql` client package:

1. Log in to a HAWQ node and set up your HAWQ environment:

```
$ ssh gpadmin@<hawq-node>
gpadmin@hawq-node$ ./usr/local/hawq/greenplum_path.sh
```

**Note:** You can create the client package on any node on which HAWQ is installed.

2. Create working directories:

```
gpadmin@hawq-node$ mkdir hawqclient
gpadmin@hawq-node$ cd hawqclient
gpadmin@hawq-node$ export HAWQCLIENTWORKDIR=`pwd`
gpadmin@hawq-node$ mkdir bin
gpadmin@hawq-node$ mkdir lib
```

3. Copy the HAWQ `psql` client binary and libraries to the appropriate work directories:

```
gpadmin@hawq-node$ cp $GPHOME/bin/psql $HAWQCLIENTWORKDIR/bin/
gpadmin@hawq-node$ cp -d $GPHOME/lib/libpq.* $HAWQCLIENTWORKDIR/lib/
```

4. Generate a runtime environment file for the HAWQ client package:

```
gpadmin@hawq-node$ echo 'HAWQ_CLIENT=`pwd`
export PATH=$HAWQ_CLIENT/bin:$PATH
export LD_LIBRARY_PATH=$HAWQ_CLIENT/lib:$LD_LIBRARY_PATH' > ./hawq_client_env.sh
```

The `hawq_client_env.sh` file sets `$PATH` and `$LD_LIBRARY_PATH` appropriately for a HAWQ client runtime environment.

5. Tar and compress the HAWQ client package:

```
gpadmin@hawq-node$ cd $HAWQCLIENTWORKDIR/..
gpadmin@hawq-node$ tar czvf hawqclient.tar.gz ./hawqclient
```

You create a `hawqclient.tar.gz` file in the current directory.

## Install the HAWQ psql Client Package

Perform the following steps to install the HAWQ `psql` client package you created in the previous section on a like Linux-based system:

1. Log in to the client system and create or navigate to the directory in which you want to install the HAWQ client:

```
$ ssh <user>@<client>
user@client$ cd <installdir>
user@client$ export HAWQCLIENTINSTDIR=`pwd`
```

Make note of the base HAWQ client install directory, you will need this path to run the client.

2. Copy the package to the client system:

```
user@client$ scp gpadmin@hawq-node:<dir>/hawqclient.tar.gz .
```

3. Extract the package:

```
user@client$ tar xzf hawqclient.tar.gz
```

You extract the HAWQ client to `/hawqclient`.

#### 4. Clean up:

```
user@client$ rm hawqclient.tar.gz
```

## Run the HAWQ psql Client

Perform the following steps to run a previously-installed HAWQ `psql` client package:

1. Source the client environment file (recall the HAWQ client install directory you noted in the previous section):

```
user@client$ . $HAWQCLIENTINSTDIR/hawqclient/hawq_client_env.sh
```

`hawq_client_env.sh` sets up the HAWQ client runtime environment, including setting your `$PATH` and `$LD_LIBRARY_PATH` to locate the `psql` client binaries and libraries.

2. Start the `psql` client. You must identify the HAWQ master hostname. You may also be required to provide the HAWQ master port number if the process is not running on the default port. Provide these values via environment variables or on the command line:

```
user@client$ PGHOST=<master-host> PGPORT=<master-port> psql -d <database-name>
```

Or:

```
user@client$ psql -d <database-name> -h <master-host> -p <master-port>
```