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Installing a PostgreSQL Server

- How to Install PostgreSQL

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❖ How to Install PostgreSQL

These slides (and accompanying video) describe

- how to install a PostgreSQL server from source code
- on MacOS or Linux

Pre-requisites: **make** and **gcc**

- guaranteed to be available on Linux
- will need to download Xcode on Mac

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❖ How to Install PostgreSQL (cont)

Summary:

- download PostgreSQL tarball from postgresql.org
- untar it and run **configure --prefix=***YourPGDir*
- **make** (takes a few minutes)
- **make install** (relatively quick)
- set up environment (like Grieg **env** script)
- **initdb** (creates *YourPGDir*)
- edit *YourPGDir***/data/postgresql.conf**
- **pg_ctl start -l** *YourPGDir***/Log**

And off you go ...

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❖ How to Install PostgreSQL (cont)

My **env** script

```
# Set up environment for running PostgreSQL
# Must be "source"d from sh, bash, ksh, ...

# PostgreSQL needs more memory
# sudo sysctl -w kern.sysv.shmmax=1073741824
# sudo sysctl -w kern.sysv.shmall=1073741824

PGHOME=/Users/jas/pgsql
export PGDATA=$PGHOME/data
export PGHOST=$PGDATA
export PGPORT=5432
export LD_LIBRARY_PATH=$PGHOME/lib
PATH=$PGHOME/bin:$PATH
pg1() { pg_ctl start -l $PGHOME/log ; }
pg0() { pg_ctl stop ; }
```

Obviously, adjust to suit your local conditions

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❖ How to Install PostgreSQL (cont)

And now that I think of it ...

```
# PostgreSQL needs more memory
sudo sysctl -w kern.sysv.shmmax=1073741824
sudo sysctl -w kern.sysv.shmall=1073741824
```

You may need to run these commands once

But only if you have "Out of memory" (or somesuch) errors

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❖ How to Install PostgreSQL (cont)

What I edited in **postgresql.conf**

```
...
#port = 5432                 # (change requires restart)
max_connections = 8          # (change requires restart)
#superuser_reserved_connections = 3 # (change requires restart)
unix_socket_directories = '/Users/jas/pgsql/data'
                             # comma-separated list of directories
                             # (change requires restart)
...
```

The socket directory has to match the vaue of **$PGDATA**

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