



# Installing TANGO on Linux

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## Foundation tools

- decently up-to-date  
Linux  
kernel version 2.4 or 2.6



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***access to Internet***

- Java development tools

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- MySQL

full installation version 4.0.x



## CORBA libraries & tools

### omniORB / omnithread

support for distributed objects

portable object oriented wrapper of the threading libraries

### omniNotify

interoperable notification service support

used by the Tango event system





## omniORB/omnithread – easy way

- get it packaged for your distribution:

rpm packages for Mandrake, Fedora:

<http://opensource.nederland.net/omniORB/>

debian packages on the official mirrors for “sarge”

- release 4.0.5 or newer
- install all the components: libs, devel, utils, ...



## omniORB/omnithread – custom way

- get the sources:
  - <http://sourceforge.net/projects/omniorb>
- unpack the sources, configure, build & install
- use configure to customize your installation:
  - installation root or “prefix” (e.g. /usr/local/omniorb-4.0.5 )



## configuring & building omniORB

```
tar xvfz omniORB-4.0.5.tar.gz
```

```
cd omniorbORB-4.0.5
```

```
mkdir build; cd build
```

```
../configure --prefix=/usr/local/omniorb-4.0.5
```

```
make
```

```
sudo make install
```



## omniNotify – custom (only) way

- get the sources:
  - <http://sourceforge.net/projects/omninoify>
- unpack the sources, configure, build & install
- use configure to customize your installation:
  - installation root or “prefix” (e.g. /usr/local/omniorb-4.0.5 )



## configuring & building omniNotify

```
tar xvfz omniNotify-2.1.tar.gz
```

```
cd omniorbNotify
```

```
mkdir build; cd build
```

```
../configure --prefix=/usr/local/omniorb-4.0.5 \  
--with-omni=/usr/local/omniorb-4.0.5
```

```
make
```

```
sudo make install
```



## MySQL

You need a working MySQL database to  
configure Tango.

as of release 5.1

This limitation will be removed.



## MySQL

### install MySQL

- get binaries from mysql (recommended!)
- follow instructions for installation
- add the appropriate mysql/bin directory to your **PATH**



## MySQL

configure MySQL & start daemon:

- follow instructions from MySQL.
- set up your security policy for MySQL  
for building Tango you should not be paranoid:  
mysql accessible locally by user `root` with no  
password

(





## time to start dancing Tango!

All the foundations are now in place. Get the  
Tango sources:

<http://www.esrf.fr/Infrastructure/Computing/tango/download/>

<ftp://ftp.esrf.fr/pub/cs/tango/tango-5.1.0a.tar.gz>



## configure & build Tango

- unpack the sources, configure, build & install
- use configure to customize your installation:
  - installation root or “prefix” (e.g. /usr/local/tango-5.1 )
  - where omniORB is installed
  - path to your installed java
  - debug level, static or shared libraries ...



## configure & build Tango

```
tar xvfz tango-5.1.tar.gz
```

```
cd tango-5.1
```

```
./configure --prefix=/usr/local/tango-5.1 \  
--with-omni=/usr/local/omniorb-4.0.5 \  
--with-java=/usr/local/java/bin/java
```

```
make
```

```
sudo make install
```



## start & test Tango

start the database server:

```
tango start
```

define TANGO\_HOST to point to your database:

```
export TANGO_HOME=myhost:10000
```



## start & test Tango

start the database server:

```
tango start
```

define TANGO\_HOST to point to your database:

```
export TANGO_HOME=myhost.mydomain:10000
```

**\$TANGO\_HOST is the only information that must be shared among all the hosts using**



## start & test Tango

start the test Device:

```
TangoTest test
```

start Jive, the Tango database & device  
explorer:

```
jive
```



## start & test Tango

- in jive look for `sys/tg_test/1` under DEVICE
  - choose “test device” from context menu
  - test commands and reading/setting of attributes
- start `atkpanel`:

```
atkpanel sys/tg_test/1
```



## Tango from CVS

If you want the latest C++ Tango API and tools, get them from the CVS repository hosted on sourceforge:

<http://sourceforge.net/projects/tango-cs>





# Tango from CVS

As a minimum, you must checkout (download):

cppapi/server

cppapi/client

cppapi/log4tango



## Tango from CVS

build & install log4tango, use `configure` to prepare the build. You should set the “prefix”:

```
configure --prefix=/usr/local/tango-5.3
```

```
make
```

```
make check
```

```
sudo make install
```



## Tango from CVS

build the Tango library: go to `server` directory  
and

edit `Make.rules` . Set `TANGO_HOME` to the directory  
where the CVS tree has been downloaded.

Set your OS : `linux=1` `debian30=1`

Set the path of omniORB

Set the path of `log4tango` for your OS



## Tango from CVS

go to `server` directory and edit `Makefile` if you need to change the compiler options

build the Tango library:

`make`

You only need to run `make` from `server` directory, it also compiles the sources in



## Tango from CVS

Beware: there is no install target. You have to install the CVS compiled Tango library and headers by hand.

Tip: clone the structure from the official Tango distribution and then copy all the needed files from the CVS directories



## Tango online resources

<http://opensource.nederland.net/omniORB/>

<http://sourceforge.net/projects/omniorb>

<http://sourceforge.net/projects/omninootify>

<http://dev.mysql.com/downloads/mysql/4.1.html>

<http://www.esrf.fr/Infrastructure/Computing/tango/download/>

<http://www-controle.synchrotron-soleil.fr:8001/collaboration/index.htm>

<http://sourceforge.net/projects/tango-cs>

<http://www.elettra.trieste.it/~tango/index.html>