

HDB++ Quick Installation Guide

1) Download source from <https://sourceforge.net/p/tango-cs/code/HEAD/tree/archiving/hdb++/>

2) Compilation

- adjust Tango, OmniORB, ZeroMQ paths in Make-hdb.in and Make-9.2.2.in
- in Make-hdb.in set one of the following:
HDB++MYSQL=1 to compile with support for Mysql HDB++ schema (libhdb++mysql)
HDB++CASSANDRA=1 to compile with support for Cassandra HDB++ schema (libhdb++cassandra)
HDBMYSQL=1 to compile with support for Mysql Legacy HDB schema (libhdbmysql)
- run make

3) Installation

- copy hdb++es/trunk/bin/hdb++es-srv and hdb++cm/trunk/bin/hdb++cm-srv in your installation directory (e.g. /usr/local/bin)
- copy HDB++ libraries in you preferred library path (e.g. /usr/local/lib):
libhdb++/trunk/lib/libhdb++.so*
and the one in the following list that has been compiled:
libhdb++mysql/trunk/lib/libhdb++mysql.so*
libhdb++cassandra/trunk/lib/libhdb++cassandra.so*
libhdbmysql/trunk/lib/libhdbmysql.so*

4) Database Setup

- create the historical database; in the following example has been named *hdbpp*:
 - if working on the same host MySQL runs:

```
mysql -uroot -p -e "CREATE DATABASE IF NOT EXISTS hdbpp;"
```
 - if accessing mysql from a remote host:

```
mysql -h mysql_host -uroot -p -e "CREATE DATABASE IF NOT EXISTS hdbpp;"
```
- create user *username* protected with *password*:
 - if hdb++ device servers are going to run on the same host as MySQL:

```
mysql -uroot -p -e "GRANT ALL ON hdbpp.* TO 'username'@'localhost' IDENTIFIED BY 'password'; FLUSH PRIVILEGES;"
```
 - if hdb++ device servers are going to run on a different host than MySQL called *hdbpp_host*:

```
mysql -uroot -p -e "GRANT ALL ON hdbpp.* TO 'username'@'hdbpp_host' IDENTIFIED BY 'password'; FLUSH PRIVILEGES;"
```


add -h mysql_host if accessing mysql from a remote host
- create HDB++ tables using create_hdb+_mysql.sql file from etc directory in the source tree:

```
mysql -uusername -ppassword < create_hdb+_mysql.sql
```


add -h mysql_host if accessing mysql from a remote host

5) Device server configuration in the TANGO database

- use Jive to create as many instances as you need of hdb++es-srv and hdb++cm-srv TANGO devices. A good pattern for the device names is to use *archiving* for the family, e.g.:
<domain>/archiving/<member>
- create the mandatory Class or Device Property, named LibConfiguration, for both hdb++es-srv and hdb++cm-srv to specify the parameters for DB access; remember that Device Properties override Class Properties.

LibConfiguration

```

host=<mysql_host>
user=<username>
password=<password>
dbname=<dbname>
port=3306

```

where <dbname>=hdbpp in the previous example and <mysql_host>, <username> and <password> are the ones defined at point 4

- add the ArchiverList device Property to hdb++cm-srv device[s]s to specify the list of the controlled hdb++es-srv devices:

```

ArchiverList
    fermi/archiving/vacuum
    fermi/archiving/timing
    fermi/archiving/power_supply
    ...

```

- possibly add any of the following Class or Device Properties to override the default values in hdb++es-srv devices:

Name	Description	Default
SubscribeRetryPeriod	subscribe event retrying period, in seconds	60
StatisticsTimeWindow	period on which statistics are computed, in seconds	60
CheckPeriodicTimeoutDelay	delay in seconds before timeout when checking periodic events	5
PollingThreadPeriod	period in seconds of the internal poller thread	3
ContextList	possible contexts in the form label:description	ALWAYS RUN SHUTDOWN SERVICE
DefaultStrategy	default archiving strategy for attributes	ALWAYS