

## libpackedobjectsd tutorial

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# 1 Introduction

## 1.1 What is libpackedobjectsd?

libpackedobjectsd is a light-weight XML messaging library. It is created using multiple publisher and subscriber model and built using libpackedobjects and ZeroMQ in C language. It is simple to implement and is suited to embedded systems and mobile devices. The library provides simple API to send and receive XML data to and from multiple nodes. The library connects all the nodes sending/receiving XML data using the same XML schema to one group. The data is also validated by the schema during the send and receive process.

libpackedobjectsd is based on libpackedobjects, libxml2 and ZeroMQ and therefore should run on any system that libxml2 and ZeroMQ runs on.

## 1.2 Key features

- Light-weight and simple
- Validates XML data on send and receive
- Fully dynamic including the ability to change the protocol at runtime
- Simple API with two main function calls
- Highly portable - designed for embedded and mobile devices
- Simple subset of XML Schema required to create protocols

## 1.3 Limitations

todo

## 2 Installation

### 2.1 Installing packedobjectsd

To install from the latest source:

```
git clone git://gitorious.org/packedobjects/packedobjectsd.git
cd packedobjectsd
autoreconf -i
./configure
make
make check
sudo make install
```

### 2.2 Further reading

## 3 Getting started

### 3.1 Quick start

After compiling and running 'make check' you should find a binary called 'packedobjects-dtest' in your src directory. This is command-line tool built with packedobjectsd which you can use to test out sending and receiving:

```
$ ./packedobjectsdtest --help
usage: packedobjectsd --schema <file> --xml <file>
```

To send and receive run:

```
$ ./packedobjectsdtest --schema foo.xsd --xml foo.xml
```

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