edikt

BinX 1.2

Installation Guide

edikt::BinX 1.2 Installation Guide

edikt::BinX 1.2 Installation Guide
Edition 1.3

edikt
Old College, University of Edinburgh
Edinburgh, Scotland, EH8 9YL
www.edikt.org support@edikt.org

Contents

Introduction

BinX is an XML Schema-based language with which to describe the layout of binary data files. The BinX library is supplied as a free to download product that provides basic reading and writing operations for a BinX data source. A BinX data source is composed of a data file, usually a binary data file, and a separate text file describing the data schema using the BinX language. For a detailed introduction to BinX, see the *BinX v1.2 Developer's Guide*.

The library can be used as a general-purpose tool to extract, convert, and merge data from different files, and to create new data files in a user-defined layout. Examples of tasks facilitated by BinX include:

- using a subset of fields from a large dataset;
- using data stored as little-endian on big-endian machine;
- combining data produced by different collaborators, stored in different files.

The library can also be used as a data transportation device, as it can save the data in binary form and attach the metadata to a BinX document. This saves a lot of space by comparison with storing the data in pure XML.

Using this Guide

This guide is intended to be easy to follow and use. To aid reading, several icons are used to help you quickly identify key features of the documentation.

Information/downloads from the World Wide Web

Commands to type in at a Systems Prompt

Points to Note or Remember

Information contained on your file system

System Requirements

Important

BinX 1.2 is **only supported** on **Linux** and **Solaris** platforms.

BinX 1.2 has been compiled using the Gnu Compiler Collection (GCC) version 3.2.2 on Linux and the Sun Forte Developer CC compiler version 6.0 on Solaris.

Getting and Installing the BinX Binary

Version 1.2 of the BinX library is delivered as a C++ library. To use the binary distribution, download and save the compressed archive to a directory.

Download and unpack BinX to a local directory

Downloads

1. Download BinX from http://www.edikt.org/binx/.
2. You should have a file

   `binx1.2.tar.gz`

   saved to the directory you chose.

Command

3. Unpack the file to a local directory; using

   `gunzip binx1.2.tar.gz`

   and

   `tar -xvf binx1.2.tar`

Check Directory

4. You should now have a directory called

   `binx1.2`

5. This should contain five directories,

   `binx1.2/bin, binx1.2/docs, binx1.2/lib`

   `binx1.2/include and binx1.2/samples`

Installing Third-Party Software

In addition, BinX uses the Apache Xerces XML parser (version 2.6.0) to parse the XML document. Thus a Xerces C++ library must be installed separately and included in the appropriate path.

Important

- BinX 1.2 **is only supported** with **Xerces C++ version 2.6.0**
- **You may encounter problems if Xerces is compiled with a version of GCC other than 3.2.2**

Download and unpack Xerces to a local directory

Downloads

1. Download Xerces from http://xml.apache.org/xerces-c/, saving to a local (possibly temporary) directory.

Command

2. Following the instructions that come with Xerces:
   - unpack the file to an appropriate local directory;
   - compile the source code if necessary.
3. You **must** set the following paths for the library:

```
export LD_LIBRARY_PATH=<xerces location>/lib
export XERCES_HOME=<xerces location>
```

BinX 1.2 Library

The BinX 1.2 library is supplied as a static Unix-like archive. It can be found in the following location in your BinX 1.2 distribution:

BinX Library

```
binx1.2/lib/libBinX.a
```

WWW

For full instructions, Developer's Guide and API Reference, please see

http://www.edikt.org/binx/

BinX 1.2 Utilities and Samples

Also included in your BinX 1.2 distribution are utilities (in the bin directory) and samples to help you use the BinX 1.2 Library. Full instructions for use can be found in the *BinX v1.2 Developer's Guide*.

BinX Extras

`binx1.2/bin`

`binx1.2/samples`

The following samples are provided:

- BinXConverter
- DataBinx
- DataBinxParser
- GenSchemaBinx
- MergeArray
- ParseBinx
- ReadHeader

Compiling

To use the BinX samples, they will need compiling.

To compile, use the **`Makefile`** provided with each sample:

```
cd binx1.2/samples

cd <sample>

make
```

The binary executable associated with each sample will be compiled into the **`<sample>`** directory.

Future Releases

News of future releases of BinX can be found on our website, http://www.edikt.org/binx/

Further Help

WWW

See http://www.edikt.org/binx/ for further help.

E-mail

support@edikt.org can be e-mailed with questions regarding supported BinX platforms.