

# Applied Informatics C++ Libraries and Tools

Evaluation Guide

Version 1.6

## Purpose of This Document

This document guides developers interested in the Applied Informatics C++ Libraries and Tools through the evaluation process.

The document is targeted at developers and development/technical managers wanting to get an overview of the functionality and features offered by the Applied Informatics C++ Libraries and Tools. Familiarity with the C++ programming language is assumed.

## Validity of This Document

This document covers release 2011.1 and later releases of the Applied Informatics C++ Libraries and Tools.

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# 1 Welcome

Thank you for your interest in the Applied Informatics C++ Libraries and Tools, and welcome to our evaluation program. This document will help you in getting a smooth ride while installing the Applied Informatics C++ Libraries and Tools evaluation software, and evaluating the software for potential use in your project or company.

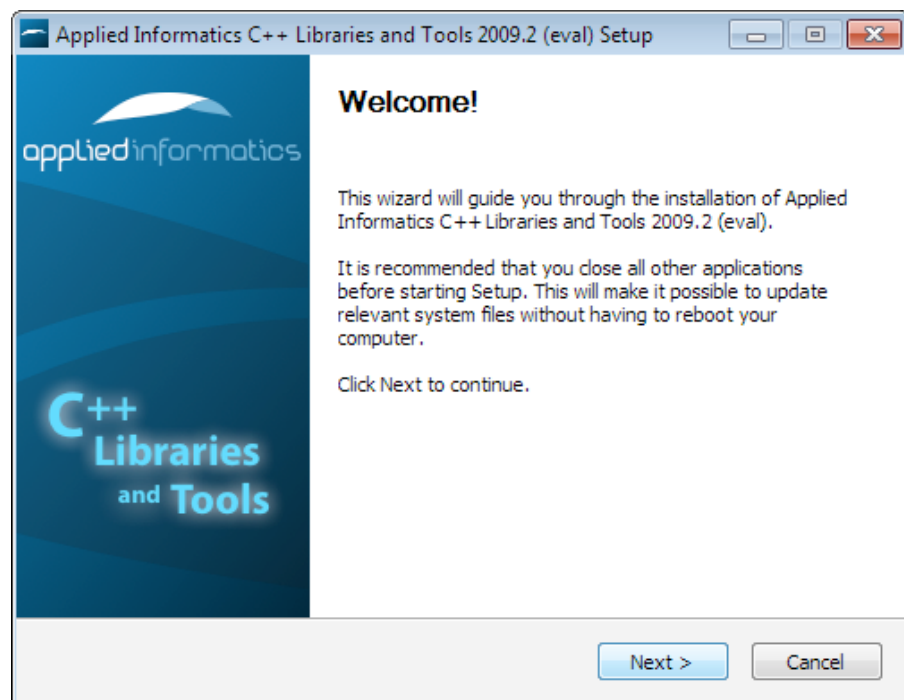
If at any point during the evaluation you have any questions or need support, please contact us via email at [support@appinf.com](mailto:support@appinf.com).

## 2 Installing The Evaluation Release

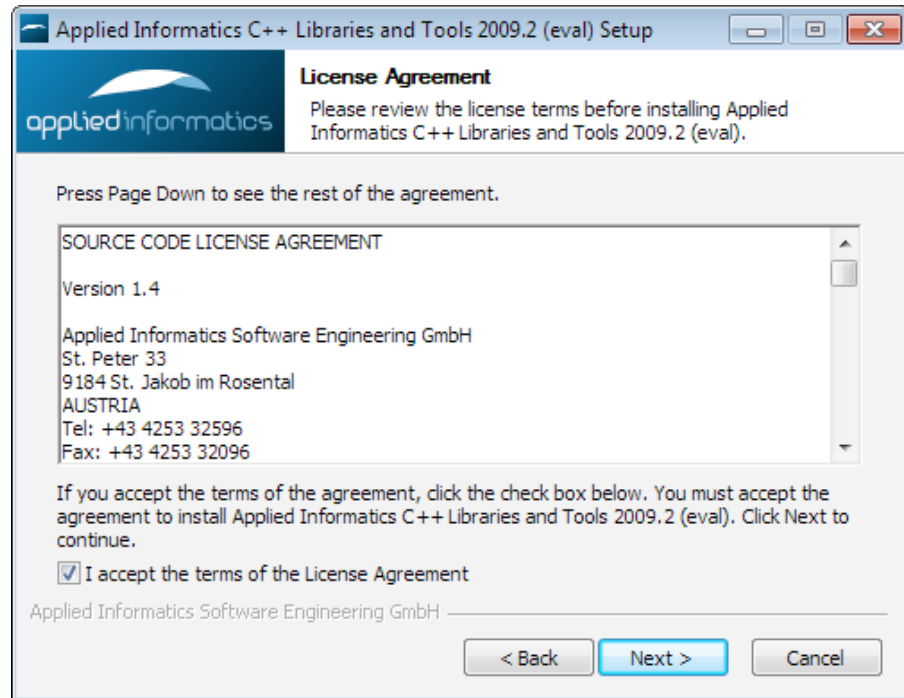
Applied Informatics offers evaluation versions of the C++ Libraries and Tools for Windows (Visual Studio), Linux and Mac OS X platforms. Installers can be downloaded from the following address: <http://www.appinf.com/en/products/evaluate.html>. Two versions of the Windows installer are available – one for use with Visual Studio 2008 and one for use with Visual Studio 2010. Installers for Linux distributions and Mac OS X are available as well.

### 2.1 Installing on Windows

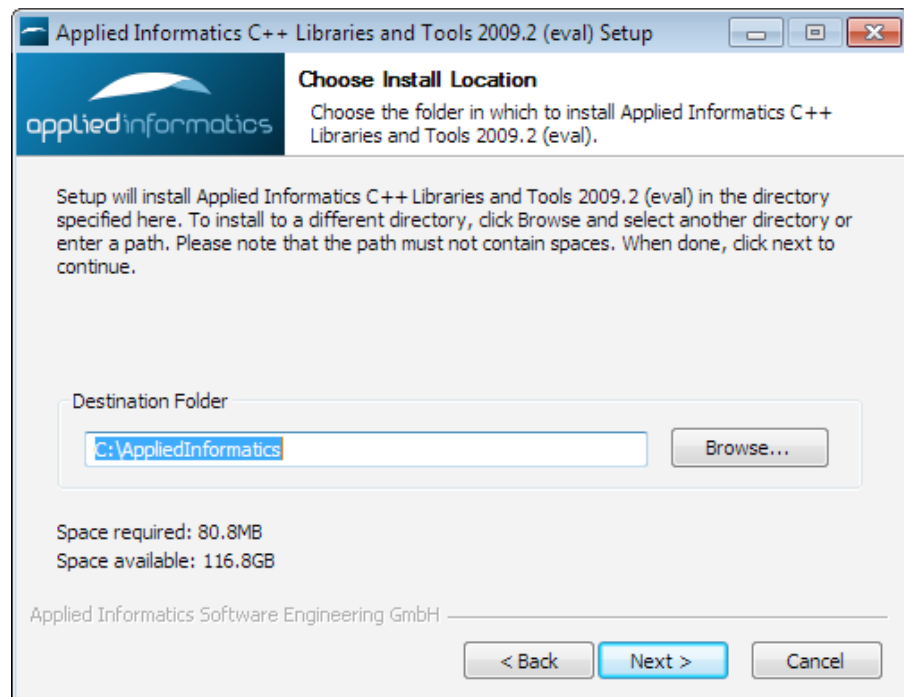
Installing the evaluation package for Windows platforms is straightforward. If you have not done so yet, please download the appropriate installer application for the version of Visual Studio you are using from <http://www.appinf.com/en/products/evaluate.html>. Both installers contain the same software, only compiled with different versions of the compiler. Also, the project and solution files for the samples are different. After downloading has completed, run the installer application.



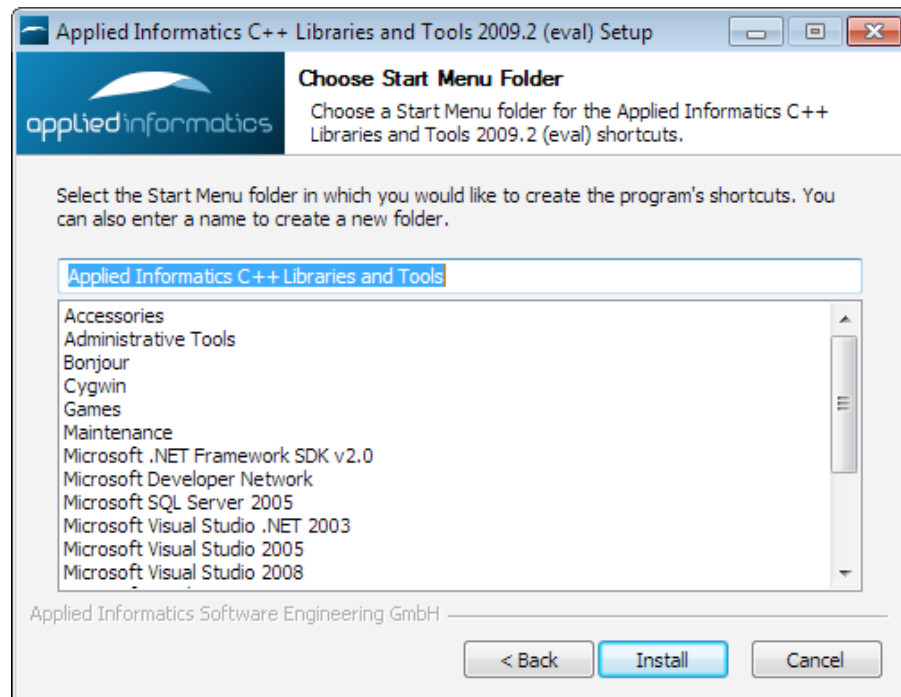
Click **Next** to begin the installation.



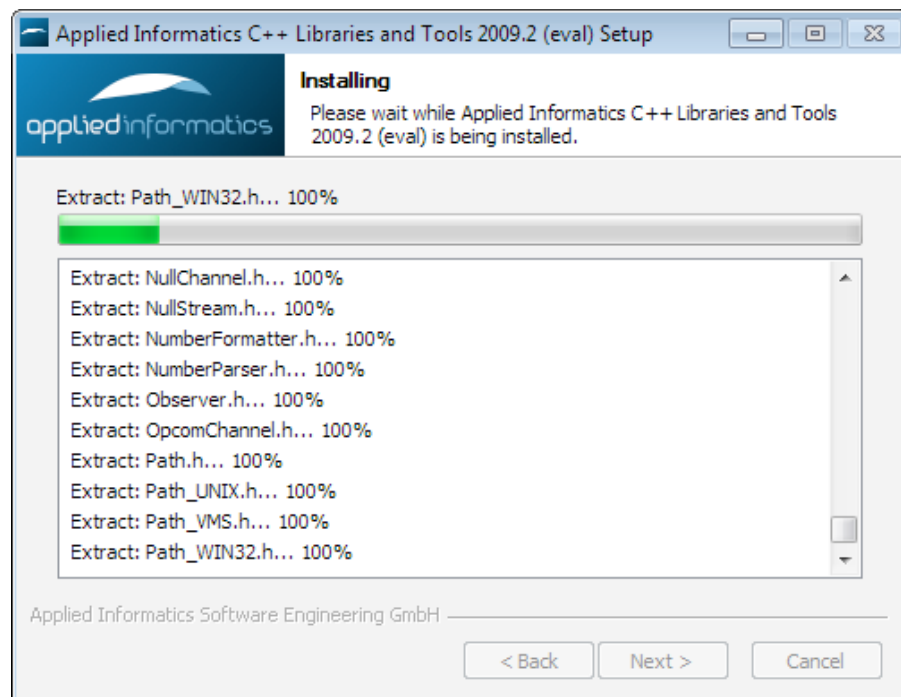
Review the license agreement and click the checkbox to accept the terms in the license agreement. Then click **Next** to continue.



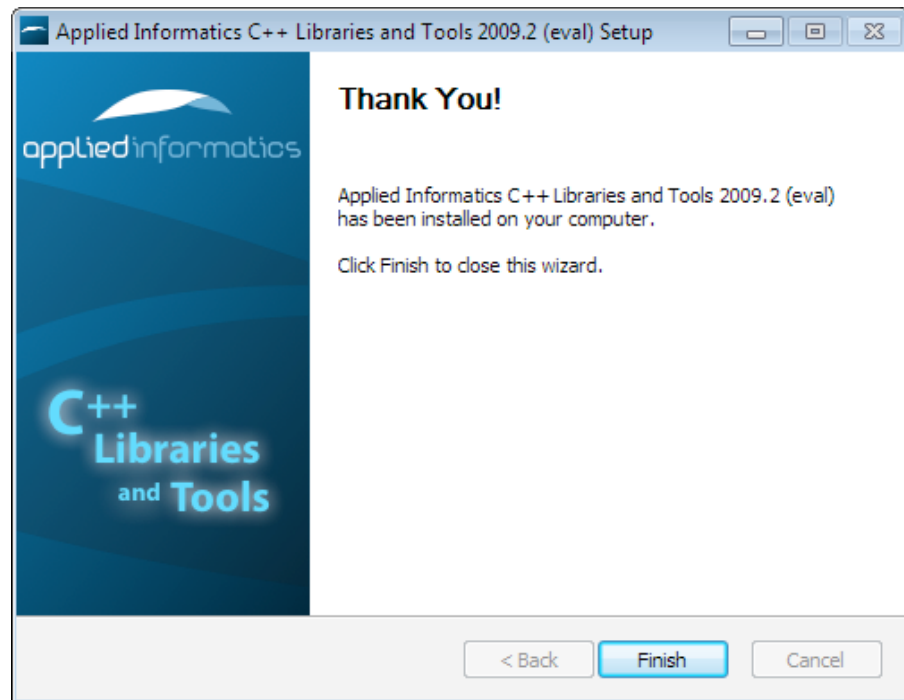
Choose a directory where to install the software (the default is `C:\AppliedInformatics`). Please note that the path to the directory must not contain any whitespace characters. Then click **Next** to continue.



Then select the Start menu folder, where you would like to have the shortcuts to the documentation, samples, and the uninstall application. The default is to create a **Applied Informatics** entry in the Programs menu. Click **Install** to finish the installation.



The installer is now copying the files to your computer. This may take a few minutes.



When the installation is completed, click **Finish** or close the window to exit the installer application. You are now almost ready to explore the Applied Informatics C++ Libraries and Tools.

As the final step, you must install the license file which you received from Applied Informatics. The file is called `poco.license`, and you must place the file either in the Windows directory (usually, `C:\WINDOWS`), or in your Windows home directory (on an English Windows XP system, this is `C:\Documents and Settings\<YourName>`, on Windows 7 this is `C:\Users\<YourName>`).

*If you have not received the license file yet, please go to <http://www.appinf.com/en/products/evaluate.html> and fill out the form. The license file will be emailed to you automatically, usually within a few minutes.*

## 2.2 Installing on Unix Platforms

Installing the Applied Informatics C++ Libraries and Tools evaluation software on a Unix or Linux system is almost as easy as running a Windows installer.

Unix or Linux installers come as a gzip'ed TAR file. The file will have a name like `appinf-2011_1-lxeval-Ubuntu-11_04-i686.tar.gz`.

### 2.2.1 Unpacking The Installer

First, uncompress the TAR file on your target system:

```
[guenter@localhost ~]$ gunzip appinf-2011_1-lxeval-Ubuntu-11_04-i686.tar.gz  
[guenter@localhost ~]$ tar -xvf appinf-2011_1-lxeval-Ubuntu-11_04-i686.tar
```

This will create a directory named like the TAR file in the current directory. Change into that directory, and run the installer script (`install.sh`) contained therein.

Note that during the installation you will be asked for a directory where to install the software. If you want to install the software outside of your home directory (e.g. in `/opt` or `/usr/local`), you must run the installer script with superuser privileges (i.e. as `root`).

## 2.2.2 Running The Install Script

```
[guenter@localhost ~]$ cd appinf-2011_1-lxeval-Ubuntu-11_04-i686
[guenter@localhost appinf-2011_1-lxeval-Ubuntu-11_04-i686]$ ls
install.sh license.txt postinstall.sh product.tar product.txt README
[guenter@localhost appinf-2011_1-lxeval-Ubuntu-11_04-i686]$ ./install.sh

***
*** Welcome to the
***
***   Applied Informatics C++ Libraries and Tools 2011.1-lxeval
***
*** installer program!
***

This program will guide you through the installation of the Applied
Informatics C++ Libraries and Tools.

Please review and accept the license terms before the installation begins.
Press RETURN to review the License Agreement.
```

Follow the instructions and press **RETURN** to review the license agreement. Use the **SPACE** bar to move through the pages. Enter **Yes** (with an uppercase Y) to begin the installation.

```
...
partnership to find an arrangement that approximates as nearly as
possible the inoperative terms.

===== END OF LICENSE AGREEMENT =====

Do you accept the terms in the License Agreement (please answer with 'Yes'
to accept)?
==> Yes
```

Next, you will be asked where to install the software. Enter the path to a directory where the software should be installed. If the directory you specify does not exist, it will be.

```
Please specify the directory where Applied Informatics C++ Libraries and
Tools 2011.1-lxeval shall be installed (default: '/opt/appinf').
==> /home/guenter/appinf

The directory '/home/guenter/appinf' does not exist and will be created.
Press RETURN to continue, or CTRL-C to cancel.
```

Press **RETURN** to begin the installation, or **CTRL-C** if you wish to cancel.

```
The software is now being installed. This may take some time.

**** IMPORTANT NOTE ****

The Applied Informatics C++ Libraries and Tools have
been installed into '/home/guenter/appinf'.

To compile the sample applications located in
'/home/guenter/appinf/samples',
you have to set the environment variable POCO_BASE to the
path given above before invoking GNU make:

> export POCO_BASE=/home/guenter/appinf

You can do that by sourcing the script
'/home/guenter/appinf/etc/poco.env'.

To build the samples for POCO Foundation:

> source /home/guenter/appinf/etc/poco.env
> cd $POCO_BASE/samples/Foundation
> gmake -s

To view the documentation, point your web browser to
'/home/guenter/appinf/doc/index.html'.

If you have received a license file ('poco.license'),
please put this file into your home directory.

The software has been successfully installed.
Thank you for installing Applied Informatics C++ Libraries and Tools
2011.1-lxeval.

[guenter@localhost appinf-2011_1-lxeval-Ubuntu-11_04-i686]$
```

You are now almost ready to explore the Applied Informatics C++ Libraries and Tools.

As the final step, you must install the license file which you received from Applied Informatics. The file is called `poco.license`, and you must place the file either in your home directory, or in the `/etc` directory.

### 2.2.3 Building The Samples

Unlike the Windows evaluation version, which comes with pre-built sample applications, you have to build the sample applications yourself on Unix platforms. Doing this is straightforward.

First, ensure that the environment is set up for developing with the Applied Informatics libraries and the Applied Informatics build system. To do this, source the `poco.env` script shell contained in the `etc` directory. The

script will set the `$POCO_BASE` environment variable and add `$POCO_BASE/bin` to the `$PATH` environment variable.

Note: In the following it is assumed that you have installed the Applied Informatics C++ Libraries and Tools into a directory named `appinf` in your home directory.

```
[guenter@localhost ~]$ cd appinf
[guenter@localhost appinf]$ source etc/poco.env
```

Then, change to the samples directory, and build the Foundation samples.

```
[guenter@localhost appinf]$ cd samples
[guenter@localhost samples]$ cd Foundation
[guenter@localhost Foundation]$ make -s
```

Note: be sure to use **GNU make** (and not BSD make) to build the samples.

Build the samples for all other libraries as required.

```
[guenter@localhost Foundation]$ cd ../XML
[guenter@localhost XML]$ make -s
```

## 2.3 Additional Prerequisites

If you want to try out the DNSSD library, you must install the Bonjour software from Apple on Windows. On Linux, the DNSSD library uses Avahi, which comes pre-installed with most distributions. Installation of the Avahi development package may be necessary to build the samples, though.

For Windows, please download the Bonjour software and SDK for Windows (Bonjour for Windows 2.0.2, as well as Bonjour SDK for Windows 2.0.4, or a newer release, if one is available) from <http://developer.apple.com/opensource/>. Both the software and the SDK comes as a Windows installer, which you should run.

On Mac OS X, Bonjour is part of the standard operating system installation.

You are now ready to build and/or try out the DNSSD samples.

## 3 Working With The Applied Informatics C++ Libraries and Tools

Now that you have successfully installed the Applied Informatics C++ Libraries and Tools evaluation version, it's time to try it out.

### 3.1 Viewing The Documentation

Extensive reference documentation in HTML format is installed along with the libraries and tools by the installer. On Windows platforms, you can view the documentation with your default Web browser by opening the **Start** menu and selecting **Programs > Applied Informatics > Documentation**. On Unix platforms, open the file **doc/index.html** using your favorite Web browser.

Alternatively, the documentation is available on the Web, under the address <http://docs.appinf.com/>.

### 3.2 Working With The Samples

On Windows platforms, Visual Studio solution and project files for all samples have been installed. To open all samples for the Foundation library in Visual Studio, open the samples directory using the Windows Explorer. You can do that using the **Start** menu, by choosing **Programs > Applied Informatics Platform > Samples**, or by navigating to the samples directory (e.g., **C:\AppliedInformatics\samples**) using the Windows Explorer. Then locate and open the **Foundation** directory, which contains a Visual Studio solution file for all Foundation library samples. For Visual Studio 2008, the solution file is named **samples\_vs90.sln** and for Visual Studio 2010, the solution file is named **samples\_vs100.sln**. Double click the solution file to open it in Visual Studio.

*Depending on your Visual Studio version, it may be necessary to add the directories containing the Applied Informatics headers and libraries to the global header file and library search paths. In Visual Studio, select **Tools > Options**, then select **Projects and Solutions > VC++ Directories**. Make sure that the directory containing the Applied Informatics header files (e.g., **C:\AppliedInformatics\include**) is in the search list for Include files, and the library directory (e.g., **C:\AppliedInformatics\lib**) is in the search list for Library files.*

*Please make sure that the **PATH** environment variable includes the directory containing the Applied Informatics shared libraries (usually **C:\AppliedInformatics\bin**). The installer normally takes care of this.*

On Unix platforms, GNU Makefiles are provided for every sample. There is also a top-level Makefile invoking all sample Makefiles in every sample subdirectory.

Look at the sample code to see what it does and run the samples. Since almost all samples output something to the console, it is best to run the samples from a command shell.

Feel free to modify the samples to try out different features of the Applied Informatics C++ Libraries and Tools.

*Do not forget to set the `LD_LIBRARY_PATH` (`DYLD_LIBRARY_PATH` on Mac OS X) environment variable accordingly (so that it includes `$POCO_BASE/lib`), before running a sample application or invoking one of the tools. Normally, this is done by sourcing the `etc/poco.env` script.*

## 3.3 Sample Notes

### 3.3.1 XML Samples

A simple XML file for use with the XML samples is located in the `samples/XML/data` directory.

### 3.3.2 Fast Infoset Samples

Sample XML files (which can be converted to Fast Infoset files) can be found in the `samples/FastInfoset/data` directory.

Use the `XML2FIS` sample application to convert XML files into their Fast Infoset equivalents. Example (Windows command line):

```
C:\>cd AppliedInformatics\samples\FastInfoset
C:\AppliedInformatics\samples\FastInfoset>XML2FIS\bin\XML2FIS data\inv1.xml
data\inv1.fis
```

### 3.3.3 Remoting Samples

The samples for Remoting come in pairs – there is always a server application and the client application. Be sure to start the server application before the client application. Example (Windows command line):

```
c:\>cd AppliedInformatics\samples\Remoting
c:\AppliedInformatics\samples\Remoting> start TimeServer\bin\TimeServer
c:\AppliedInformatics\samples\Remoting> TimeClient\bin\TimeClient
String: 14:43:18
DateTime: 2007-08-31T16:43:18Z
```

The `Pizzeria` sample is the server application for the `HungryProgrammer` client application.

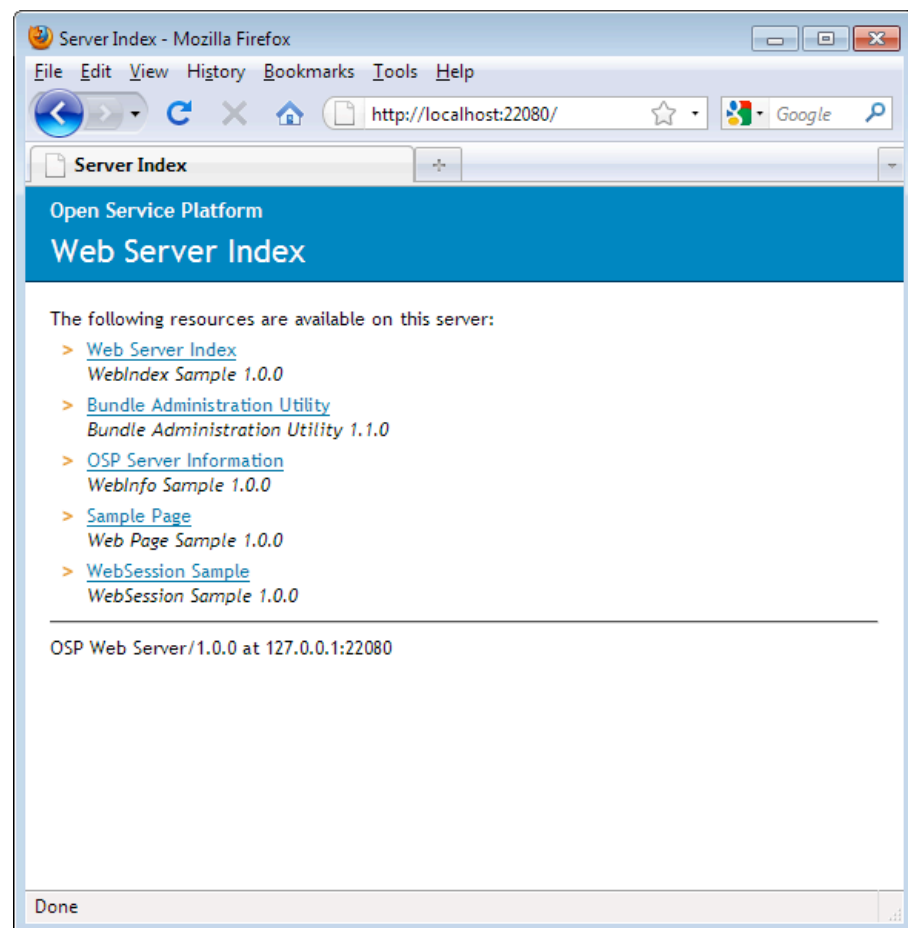
### 3.3.4 Open Service Platform Samples

The best way to try out the Open Service Platform is to run the **BundleServer** sample. This server application includes a Web server running on port 22080.

Start the **BundleServer** application:

```
c:\>cd AppliedInformatics\samples\OSP
c:\AppliedInformatics\samples\OSP> BundleServer\bin\BundleServer
osp.core.ServiceRegistry: [Information] Service registered: osp.core.xp
...
Application: [Information] Startup complete.
```

Wait until the “Startup complete” message appears, then direct your favorite Web browser to *http://localhost:22080*.



Click through the various Web pages to try out the different sample bundles. The user name and password for the Bundle Administration Utility is *admin* and *admin*, respectively.

You can also start the OSP Shell client to try out the command line administration facilities of OSP. To do so, start the *ospsh* executable. The user name and password for the shell is *admin* and *admin*, respectively. After starting the shell, enter *help* for a list of commands, or enter the *ls* command to see all installed bundles.

Please be sure to read the Open Service Platform introduction, tutorial and reference pages that are part of the online documentation.

## 4 Support, Licensing and Contact

If you need any support during the evaluation period, please contact us via email at [support@appinf.com](mailto:support@appinf.com).

The Foundation, XML, Net, Util and Zip libraries are available under the Boost open source license, which makes them free for both open source and commercial use. The complete source code for these libraries can be downloaded for free from <http://pocoproject.org>.

For a complete description of the license regulations and support options for the other libraries, please visit <http://www.appinf.com>.

Applied Informatics can be reached at one of the following addresses:

Applied Informatics Software Engineering GmbH

Maria Elend 96/4  
9182 Maria Elend  
Austria

Phone: +43 4253 32596  
Fax: +43 4253 32096  
E-Mail: [info@appinf.com](mailto:info@appinf.com)  
Web: [www.appinf.com](http://www.appinf.com)