Chapter 36

# Installing Water

IN THIS CHAPTER

- Installing the Water runtime
- Understanding the layers in a Water system
- Running programs

WATER IS AN OPEN STANDARD LANGUAGE with various standard libraries, and a Water runtime engine executes programs written in Water code. A Water IDE refers to any development environment that supports the execution of Water code. Water programs can be run through a Water IDE or as a standalone program.

## Installing Water

A Water runtime engine and development environment is freely available at `www.waterlang.org`. Clear Methods sells a commercial version of a Water IDE (integrated development environment) called the Steam IDE, but the Water site has a free version of the Steam IDE for noncommercial use. The Water runtime engine and Steam IDE supports the Windows, Macintosh, and Linux platforms. The Steam IDE is a thin-client development environment that runs in a standard Java environment. The standard download at `www.waterlang.org` installs both the Water runtime engine and the development environment.

The Water Web site can lead you through the process of installing both the Java Runtime Environment and the Water runtime engine and development environment. If you try to launch the IDE and you do not have Java installed, you will be prompted to download it. The Java download is approximately 10 megabytes.

If you already have Java installed, then the entire installation process will take only a few minutes because the Water platform is less than one megabyte. You should run the Water IDE on a machine with at least 128 megabytes of memory. The Steam platform occupies around one megabyte including the documentation. Figure 36-1 shows graphical representation of the layers in a Water system.

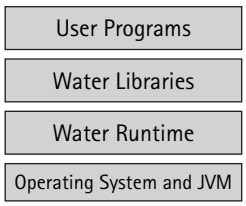


Figure 36-1: Layers in a Water system

If the version of the Steam IDE changes, the new version will automatically download. Once the installation is complete, you can launch the Steam IDE several ways. First, you can click the Start Water IDE hyperlink on the `www.waterlang.org` site. Second, Java Web Start will ask if you want icons on the desktop or Start menu. Third, you can open the Java Web Start application manager and launch it from there.

If you have any problems installing Water, you can post a question to the Water language community. The Water installation page also has a link to a small application that ensures that the Java Web Start is functioning on your machine.

The Java console is often useful to see. Water's `echo` method writes messages to the console along with any Water error messages. You can easily configure Java Web Start to always show the console. Open the Java Web Start application manager and choose File → Preferences → Advanced tab → Output Options → Show Java Console. Make sure the Show Java Console check box is checked.

# Running Your First Water Program

When you open the development environment, your screen should look like Figure 36-2.


Figure 36-2: Steam IDE from Clear Methods

The IDE contains three major panes: the Source Code pane, the Object Inspector pane, and an HTML Primitive Viewer pane. When first started, the Source Code pane contains a sample Water program. The last program edited will automatically be shown when the IDE is started again.

Water code is typed into the Source Code pane. To execute the code, click the green Execute button. The output is shown in two right panes. The upper-right pane shows the output in XML text. Clicking the upper-right pane opens the Object Inspector pane. The lower-right pane is a primitive HTML browser that shows the output as rendered in HTML. To show the output and run the program in your default HTML browser, select Options → Show Result in Browser.


Water's online help and documentation is available through the Object Inspector pane. To search the documentation and Water objects, choose Help → Index. An HTML version of Water's reference manual can be found at `www.waterlang.org`. A question can also be posted on the Water community.

Now you should be able to run all the examples in this book as well as write your own Water programs.

# Summary

This chapter described how to install and run Water on a personal computer. Once you have a working program, there are many deployment options for running Water on the client or server—see `www.waterlang.org` or `www.clearmethods.com` for more details.