



Installing OPLE on a stand-alone Windows PC

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There are four key components in an OPLE installation: the Sun Java Development Kit, the Apache Tomcat server platform, the OPLE application and the eXist XML database package. Java and Tomcat are freely available for download from their respective websites. The OPLE application (which incorporates Orbeon Forms, another freely-available open-source package) and the eXist application are downloadable as ZIP packages from the EDItEUR website, as are these guidelines.

To install OPLE, you must be logged on to your PC with 'administrator' privileges. 'Administrator' status is also required in order to start the Tomcat service before an OPLE session¹.

The following steps should be followed exactly. If you fail to complete any step, this may indicate that your system configuration conflicts in some way with a normal installation of the OPLE components, and you should seek technical assistance.

1. Download and install the Sun Java Standard Platform JDK (Java Development Kit) version 6², update 19 or later, which is available from the Sun Java website. The correct file for download of version 6 can be found as follows:
 - 1.1 Go to the page [Java SE Downloads](#), which lists a number of download packages associated with this Java release. The detailed layout and wording of this webpage varies from time to time. The important thing is to ensure you select the correct package (step 1.2) and platform (step 1.4).
 - 1.2 Find **Java Platform Standard Edition, JDK 6 Update *nn* (JDK)** (only the latest update will be available). Do **not** choose any of the packages that contain Java EE, JavaFX or the NetBeans IDE. Also be careful **not** to choose any package labeled with the acronym **JRE**.
 - 1.3 Click the 'Download' button for the selected package.
 - 1.4 Select the correct platform – this will probably be either 'Windows' or 'Linux' for a stand-alone PC, and probably **not** 'Windows x64' or 'Linux x64'. Follow any further instructions that take you to the point of downloading.
 - 1.5 Click on the download link. The download size is in the range 75 to 80 Mbytes.
 - 1.6 Run the downloaded executable file and follow on-screen instructions. Change the install selection so that you don't install 'Source Code', 'Public JRE' or 'Java DB' unless you have other reasons for doing so – they are not needed by OPLE. You don't need to register your copy of the JDK.

¹ Users of Microsoft Windows Vista and Windows 7 should note that, to obtain 'administrator privileges' to run some programs, it may be necessary to explicitly select the option to 'Run as administrator' when running the program. This can typically be done by clicking on the program to be run, right-clicking and selecting the 'Run as administrator' option from the pop-up menu.

² Version 6 is the latest supported version (April 2010) of the Sun JDK. Sun ceased to support version 5 after October 2009. If you already have version 5 installed, it will work perfectly well as part of OPLE, and there is no necessity to upgrade it, unless you have a specific reason for wishing to do so that relates to your PC or network setup and is probably unrelated to your OPLE installation. The Sun JDK can be upgraded independently of other OPLE components – see the *OPLE Upgrade Guide* on the ['OPLE Software'](#) page for further information.

2. Download, install and configure the Apache Tomcat version 5.5 Java servlet application. The correct version of Tomcat to download is **version 5.5.nn** (where 'nn' is the number of the latest update, ie '27' or later)
 - 2.1 Go to the page [Apache – Apache Tomcat 5 Downloads](#).
 - 2.2 Find the section headed '5.5.nn', followed by the sub-heading 'Binary Distributions', and look for the bulleted list item headed 'Core'.
 - 2.3 Click on 'Windows Service Installer', to download the installer file named **apache-tomcat-5.5.nn.exe** (where 'nn' is the number of the latest update). Choose to Save rather than Open the file, and save it to a convenient location such as the Desktop.
 - 2.4 Run the downloaded executable file and follow the series of on-screen instructions. When asked to choose the components to install, leave the selection as 'Normal' unless you have good reason to change it. We recommend that you take the default option and load Apache Tomcat into the folder **C:\Program Files\Apache Software Foundation\Tomcat 5.5**. If you choose a different location, make sure you keep a note of the path. You should leave the port number as '8080' unless you have a good reason to change it³. You can choose a new administrator username and password, but this will have an impact upon step 3 below.
 - 2.5 As a final step before clicking on the 'Install' button, make sure that the 'Java Virtual Machine' path is the path to the JDK, not to any other version of Java that may be installed on your PC. The correct path on a Windows PC will be something like **C:\Program Files\Java\jdk1.6.0_nn\jre**. If this is not set correctly at this stage, the correct path can also be configured in the Apache Tomcat Monitor after Tomcat installation is completed (see step 6.3 below).
 - 2.6 Make sure that Tomcat is *not* running. You need to do this because in some environments Tomcat starts automatically on successful installation. First, activate the program 'Monitor Tomcat'. (If you are using Windows Vista, you will need to right click and 'Run as administrator') This will install an Apache Tomcat icon in the toolbar at the bottom right of your screen, showing a red dot in a white circle when Tomcat is stopped and a green triangle in a white circle when Tomcat is running. If Tomcat is running, right click on the icon, and select 'Stop service'. When the service is stopped, the icon changes to show the red dot. Tomcat *must* be stopped when you perform stage 3 below.
3. Download from the EDItEUR website the OPLE-specific Tomcat user configuration file **tomcat-users.zip**. To do this, go to the page [OPLE Software](#), and scroll down to the section 'Installing OPLE'. At the end of this section, right-click on the link for 'Download Tomcat users file (ZIP)'.

Next, extract the file **tomcat-users.xml** and install it so that it replaces the file of the same name that was installed with Tomcat. You should find the latter in the Tomcat \conf folder, ie

C:\Program Files\Apache Software Foundation\Tomcat 5.5\conf

if you chose the installation options recommended in step 2.4. If you changed the default Tomcat administrator username and password at step 2.4, you will need to edit the replacement file to contain your preferred administrator username and password.

³ If you change the port number to any value other than '8080' – for example, because you are already running a web server on your PC that uses this port number – you will need to use the port number you have chosen to access all Apache Tomcat applications, including OPLE. All 'localhost' URLs quoted in these guidelines will have to be modified accordingly.

4. If not started automatically at the end of the installation procedure, start the Tomcat service by activating the program 'Monitor Tomcat'. (If you are using Windows Vista, you will need to right click and 'Run as administrator'.) This will install an Apache Tomcat icon in the toolbar at the bottom right of your screen, showing a red dot in a white circle when Tomcat is stopped and a green triangle in a white circle when Tomcat is running. If Tomcat is stopped, right click on the icon, and select 'Start service'. When the service is started, the icon changes to show the green triangle. The Tomcat service can be stopped by right clicking on the icon and selecting 'Stop service'.
5. Check that Tomcat is installed and running correctly by opening <http://localhost:8080/> in a web browser. Leave Tomcat running through stages 6 to 14.
6. Configure Tomcat:
 - 6.1 Right click on the Apache Tomcat icon and select the 'Configure' option. This will open a window headed 'Apache Tomcat Properties'. Select the 'Java' pane
 - 6.2 Set both the Initial Memory Pool and the Maximum Memory Pool to 384 megabytes.
 - 6.3 Check the 'Java Virtual Machine' field to ensure that the path refers to the Sun JDK installed at Step 1 – the path should (if configured correctly at step 2.5) include the string `jdk1.6.0_nn`, where 'nn' is the number of the update that you downloaded and installed. If this is not the case, you should make a manual correction.
7. Download the eXist and OPLE web archive installation files from the EDItEUR website.
 - 7.1 Go to the page '[OPLE Software](#)', and scroll down to the section 'Installing OPLE'. In this section, right-click on the link for '**Download exist installation file (ZIP)**', and save the ZIP file to a suitable temporary location on your PC hard disc (eg on the Windows desktop).
 - 7.2 Right-click on the link for '**Download OPLE 1.0 installation file (ZIP)**', and save the ZIP file to a suitable temporary location on your PC hard disc.
 - 7.3 Next, extract the files '`exist.war`' and '`ople.war`' from the downloaded ZIP files, and move them to the Tomcat `\webapps` folder, ie `C:\Program Files\Apache Software Foundation\Tomcat 5.5\webapps` if you chose the installation option recommended in step 2.4. If Tomcat is running, the files `exist.war` and `ople.war` will install automatically. This will take only a few seconds.
8. Check that eXist is installed correctly by opening <http://localhost:8080/exist> in a web browser⁴.
9. Check that OPLE is installed correctly by opening <http://localhost:8080/ople> in a web browser. You should be presented with the OPLE login page.
10. Login to OPLE with the username `oplemanager` and password `oplemanager`.
11. On the OPLE Main menu, you will see a red box with the legend 'Click here to complete schema and code lists installation before you start using OPLE'. Click on

⁴ When adapting these installation guidelines to the installation of OPLE on a networked server, please bear in mind that, when testing or using the installation over a network, the user will need to know that the web addresses shown in Steps 8 and 10 must be adapted according to the network address of the server, eg `http://hostname.mydomain.com:8080/ople`.

the link, and you will get a response page headed 'Schema and code lists installed' with a link back to the Main menu.

IMPORTANT: This step must be completed, so that the red box is no longer displayed on the Main menu. No further use of OPLE can be made until this step is satisfactorily completed.

12. If you have reached this stage, OPLE is successfully installed. The preset username and password will allow you to use OPLE with full 'manager' privileges. See separate documentation for details of how to add other users.
13. When you have finished exploring OPLE for the first time – indeed, whenever you have finished using OPLE – remember to select 'Log out' from the Main menu.
14. When you have logged out of OPLE, you can stop Tomcat by right-clicking on the Apache Tomcat icon and selecting 'Stop service'. The service will in any case be stopped when you close down your PC.