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How to Create an Executable File from Eclipse

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Community of editors, researchers, and specialists

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After having completed your project in Eclipse, your next goal will be to create a runnable version of your project. The simplest and most standard process for running a Java project is to run an executable file (.exe). In this guide, we'll look at how to transform a typical .jar file to an executable file!

Part 1   Exporting from Eclipse

1   **Right click your project and click "Refresh".** Alternatively you can right click and hit F5 on your keyboard. This is to ensure all your code is up to date and won't conflict when trying to export.

2   **Right click your project and click "Export".**

3   **Expand the "Java" folder and double click the "Runnable JAR file" option.**

4   **Configure the specifications of the JAR file.** The first thing you should do is select the main class (class with the main method) from the drop down menu under "Launch configuration".

- Secondly, select the "Export destination" via the "Browse..." button or by manually typing the location.
- Lastly, ensure the "Extract required libraries into generated JAR" radio button

is selected. Do not worry about the rest of the menu. Click "Finish" when you are satisfied with your selections.

Creating an Icon

1 **Find or create an image that will look appropriate with your program as an icon.** Remember, the icon is the picture the user will click on whenever they load your program, so it will be seen often! Try to pick a memorable or descriptive image. The image size **must** by 256x256 in order to work properly as an icon.

2 **Go to convertico.com**. This is a free site that converts common image files (.png, .jpg) to a usable icon file (.ico).

3 **Either enter a URL or browse your computer's files to locate the image you previously selected.** Click the "Go" button

Create the Executable File

1 **Download launch4j.** This is a free program designed to compile all your resources into one executable file. You can download launch4j from http://sourceforge.net/projects/launch4j/files/launch4j-3/3.1.0-beta1/.

2 **In the first text field, type or select via browsing the location you want your executable file to be stored.** Make sure the filename has ".exe" at the end of it!

3 **In the second text field, type or select via browsing the .jar file previously exported from Eclipse.**

4 **In the fourth text field labelled "Icon:", type or select via browsing the ".ico" file we previously converted**. This is optional, and if left blank, your OS will revert to its default executable file icon.

5 **Under the "JRE" tab at the top, select the "Min JRE version" and type in "1.4.0".** This ensures that the users have a sufficient version of Java to use your program. This can be changed by you, but 1.4.0 is a safe version.

6 **Click the gear button called "Build wrapper" at the top of the screen.**

7 **Give the .xml file an appropriate name and click "Save".** The .xml file is standard, don't worry about it. Your executable file will now be created!

Community Q&A

Question

What should I do if the executable file doesn't open?

Community Answer

Check if you exported JAR properly, defined all the paths, and launched configuration according to your main class. The JAR export might be damaged, in which case your .exe file wouldn't work.

Question

Is it possible to wrap an appropriate version of JRE with the executable so that the end user doesn't need any JRE installed to run the program?

Community Answer

Yes. In Launch4j, under the JRE tab, it's the first field at the top.

Question

Where should I get a .ico file?

Community Answer

You can create a .ico file yourself with SIB icon editor, or download from the web.

Question

When I try to launch, it just loads without doing anything. What should I do?

Community Answer

Check your version of Eclipse. If your version has a Package Explorer folder, then export your project to the run-able JAR file from the "Package Explorer" folder, not the "Project Explorer" folder. After that, follow all other steps as outlined in this article.

Question

Does every subclass branching off from the main get included too?

Community Answer

Everything inside the project folder which you are extracting is included. Classes outside the folder only get a reference if they are linked with your content.

Question

What do I do if I have created an .exe JAR file, but it is not showing an icon image?

Community Answer

Make sure your icon dimensions are 256x256 and that the file format is .ico according to the instructions above. However, you will probably have to export JAR to .exe again.

Question

How do I save an executable file from Eclipse as a jar file?

Community Answer

> In Project Explorer, right click on the project that you want to convert. Then click on Export and look out for JAR File in the JAVA Folder.

Tips

- Ensure the image size is 256x256, and that you select the .ico file in launch4j.

- Ensure all your extensions are correct (.exe, .jar, .ico, .xml).

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