Doxygen Installation and Usage

NOTE: This document contains instructions to install **Doxygen** on (**Windows OS ONLY**), what is it about, why to use and how to use it.

The installation of Doxygen has been tested on **Windows 8** and **10**. We recommend you to use one of these versions of **Windows OS**. These software have to be installed **ONLY ON 64-bit OS**.

What is Doxygen ?

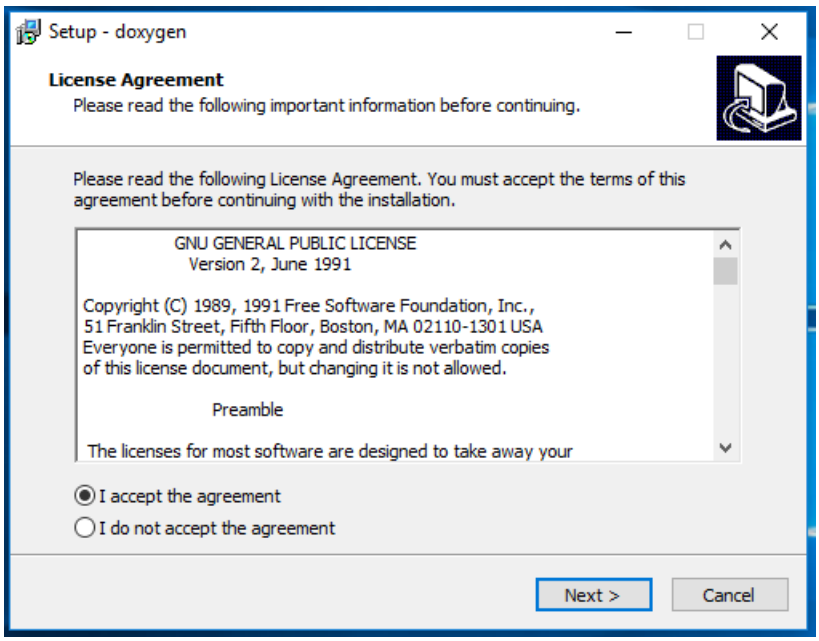
Doxygen is the de facto standard tool for generating documentation from annotated C++ sources, but it also supports other programming languages such as C, Objective-C, C#, PHP, Java, Python, etc.

Doxygen can help you in three ways:

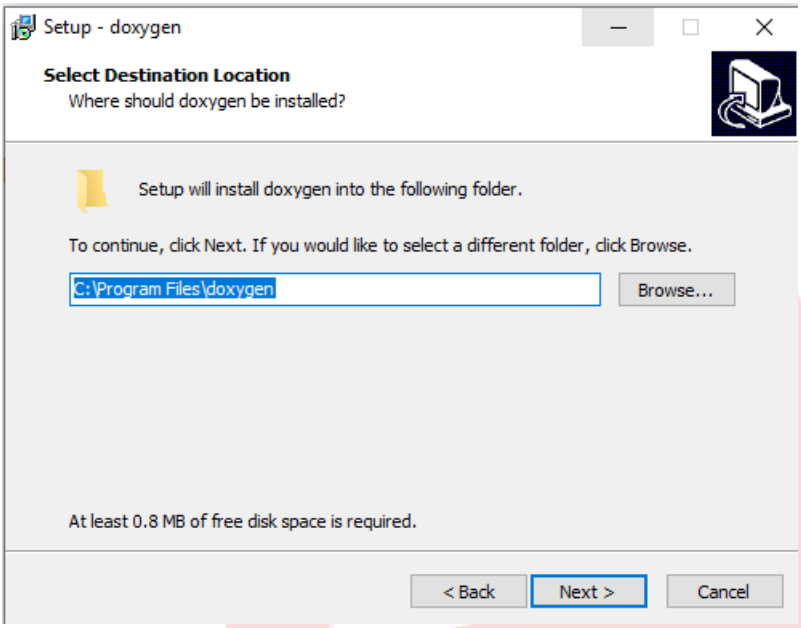
- It can generate an online documentation browser (in HTML) and/or an offline reference manual (in LaTeX) from a set of documented source files. There is also support for generating output in RTF (MS-Word), hyperlinked PDF, compressed HTML, and Unix man pages. The documentation is extracted directly from the sources, which makes it much easier to keep the documentation consistent with the source code.
- You can configure doxygen to extract the code structure from undocumented source files. This is very useful to quickly find your way in large source distributions.
- You can also use doxygen for creating normal documentation.

Installation Steps

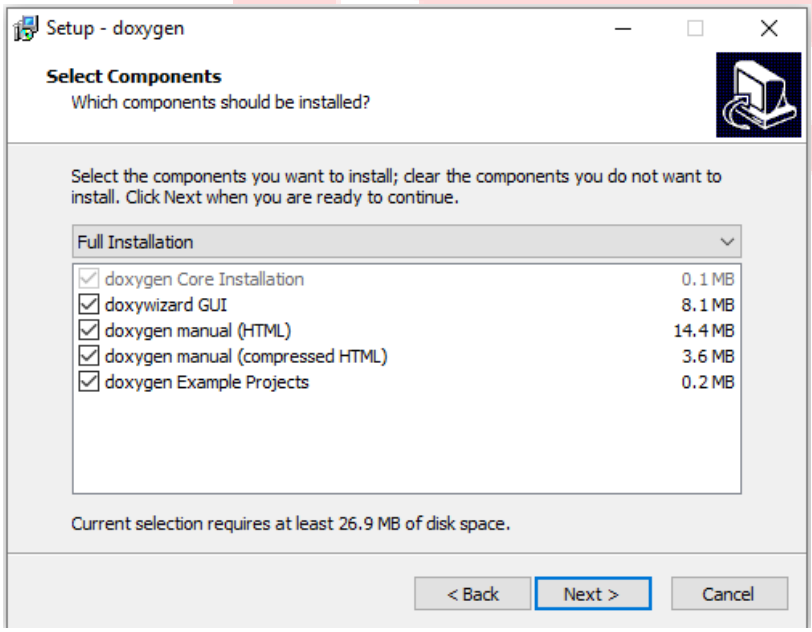
- Download **Doxygen** from this link.
- Run the executable **doxygen-1.8.17-setup.exe**.
- Accept the License Agreement and click **Next**.



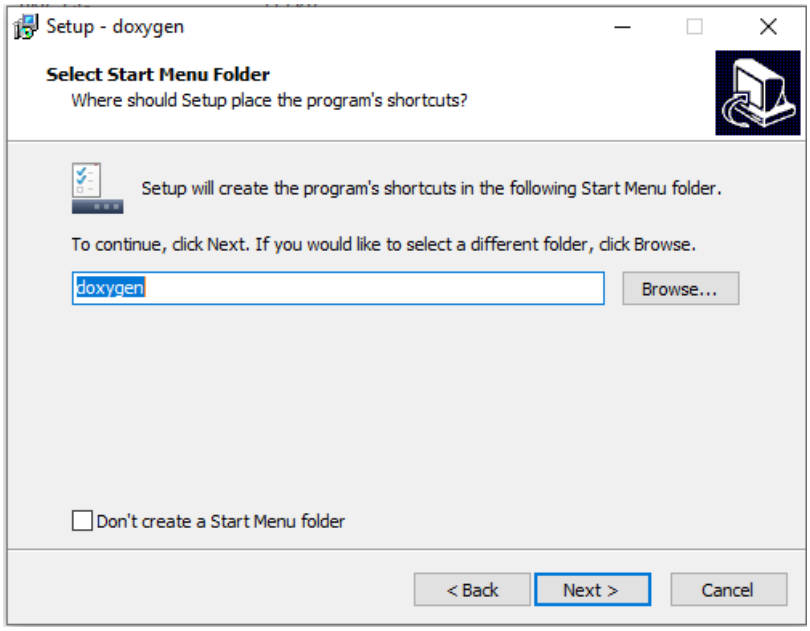
- Dialog box shown below will appear. Here, specify the path for installation. It is suggested to use the default path **C:\Program Files\doxygen** because this path will need to be typed in future steps. Click **Next**.



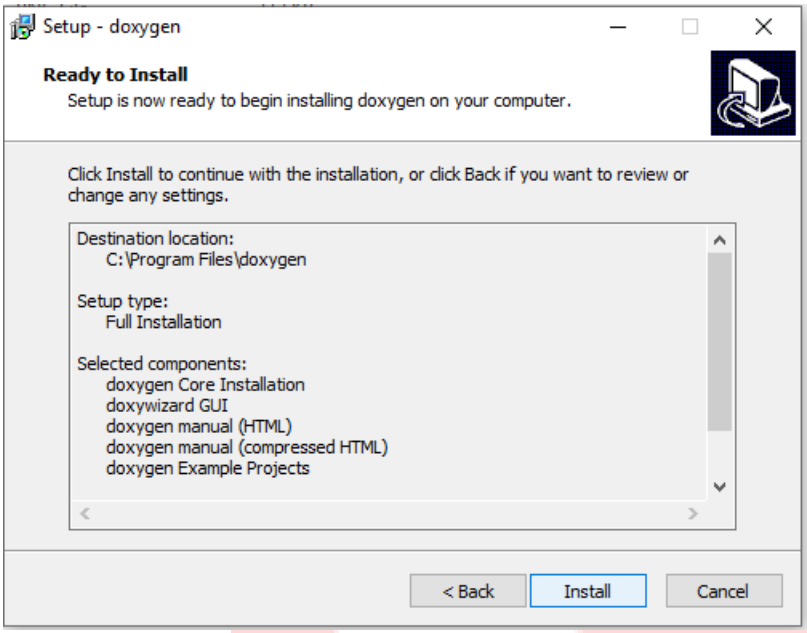
- Select **Full Installation** (default option) as shown below and click **Next**.



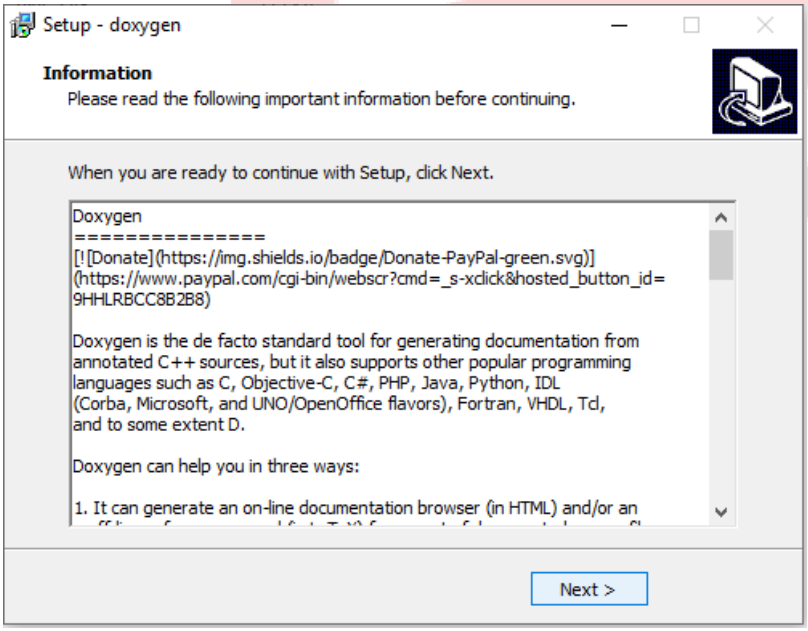
- Click **Next** when the **Select Start Menu Folder** dialog appears.



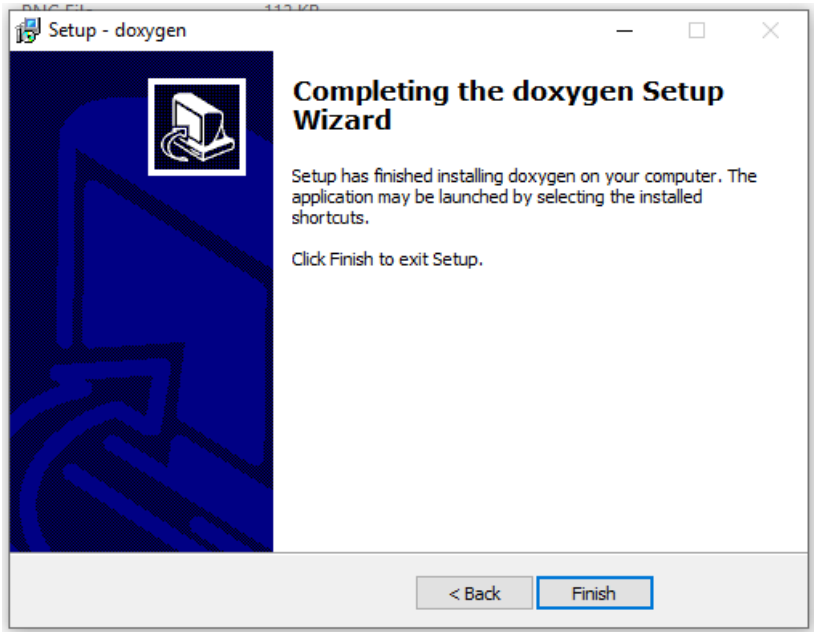
- Click **Install** when the **Ready to Install** dialog appears.



- When the installation is done, click **Next** when the **Information** dialog appears.



- Click on **Finish** to exit the setup.



- Cheers! **Doxygen** software has been successfully installed on your system.
- Once done, a program named **Doxywizard** can be found on your system.

How to use Doxygen ?

Doxygen uses a configuration file **[dconfig]** to determine all of its settings. Each project should get its own configuration file. A project can consist of a single source file, but can also be an entire source tree that is recursively scanned.

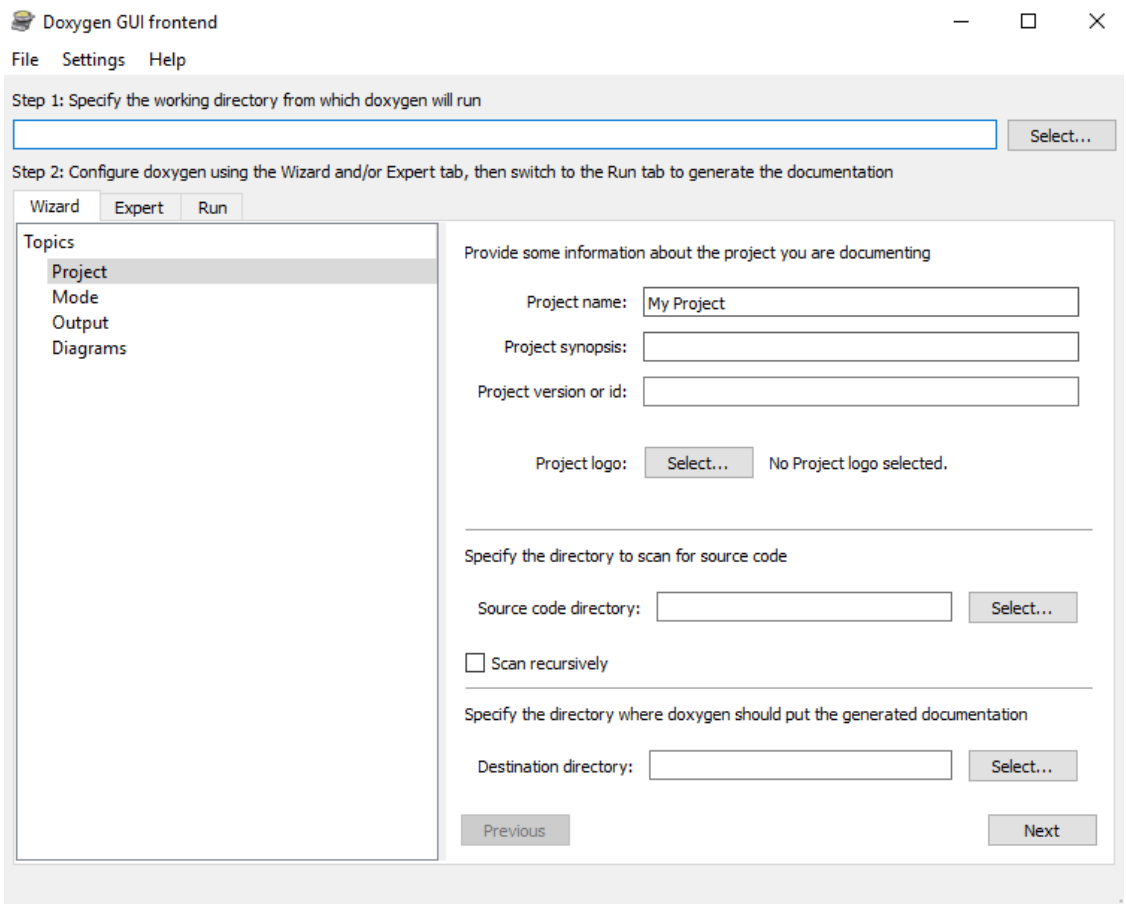
There are **two ways** to generate the documentation of your code with the help of **Doxygen**. They are as follows:

1. Using the Doxygen Extension inside Atmel Studio 7

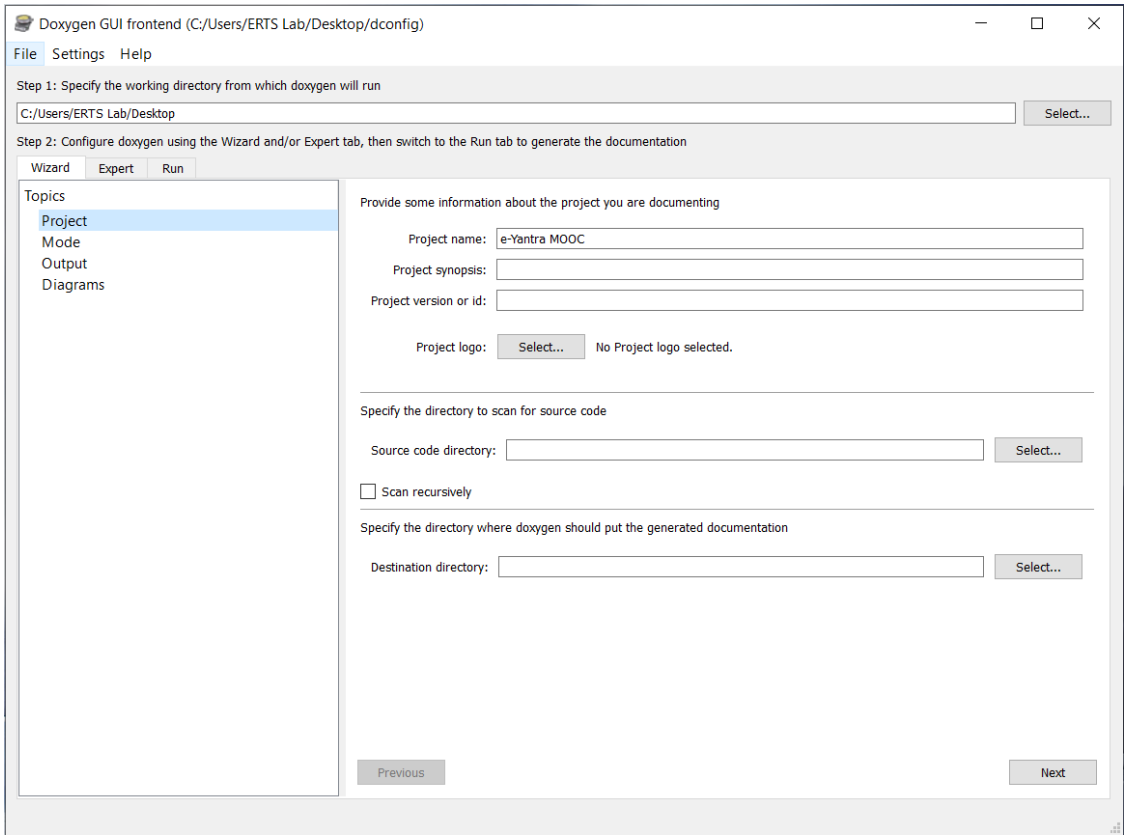
- Refer to the section: ***Generate Documentation of the Code in Project*** of the document **Getting Started with Atmel Studio 7**.

2. Using the Doxywizard Tool

- Open the **Doxywizard** tool that gets installed along with **Doxygen**.

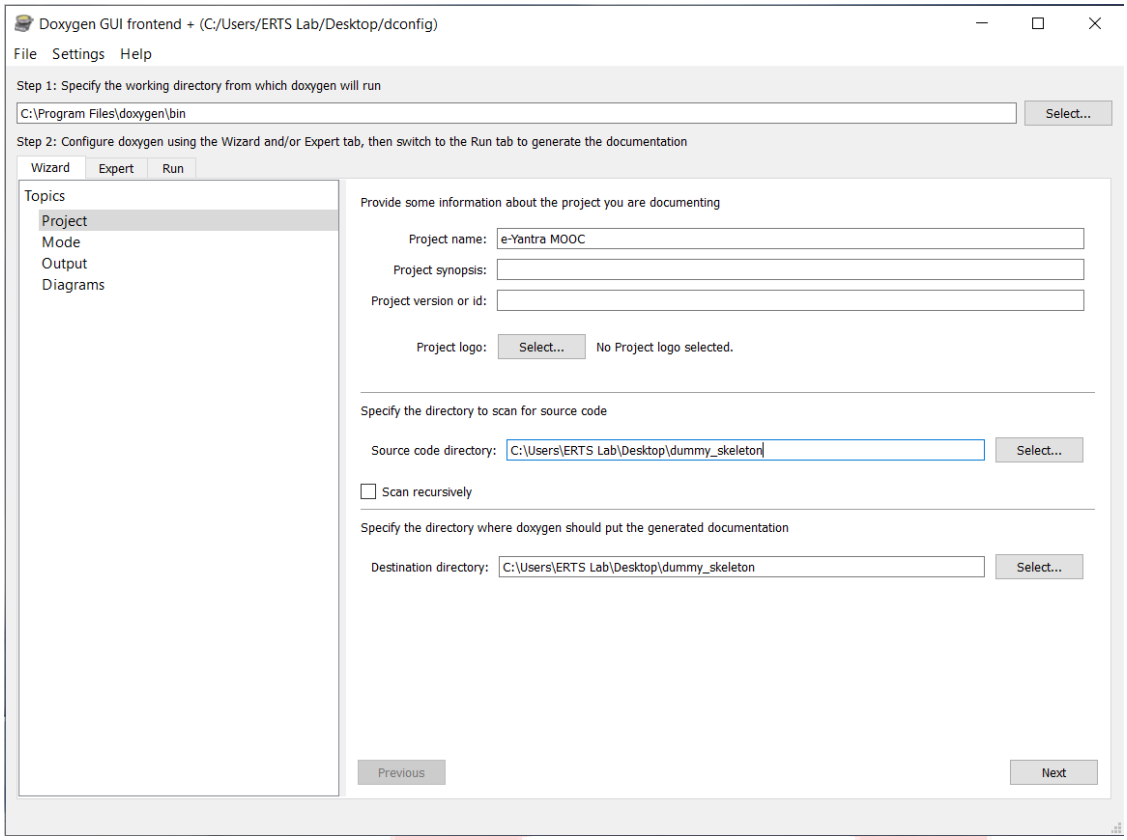


- Go to **File > Open**. A dialog box for selecting the **dconfig** file will appear (this file is provided in **Week4_Resources** under the **MOOC_resources** drive folder).
- Browse to locate this file and click **Open**.

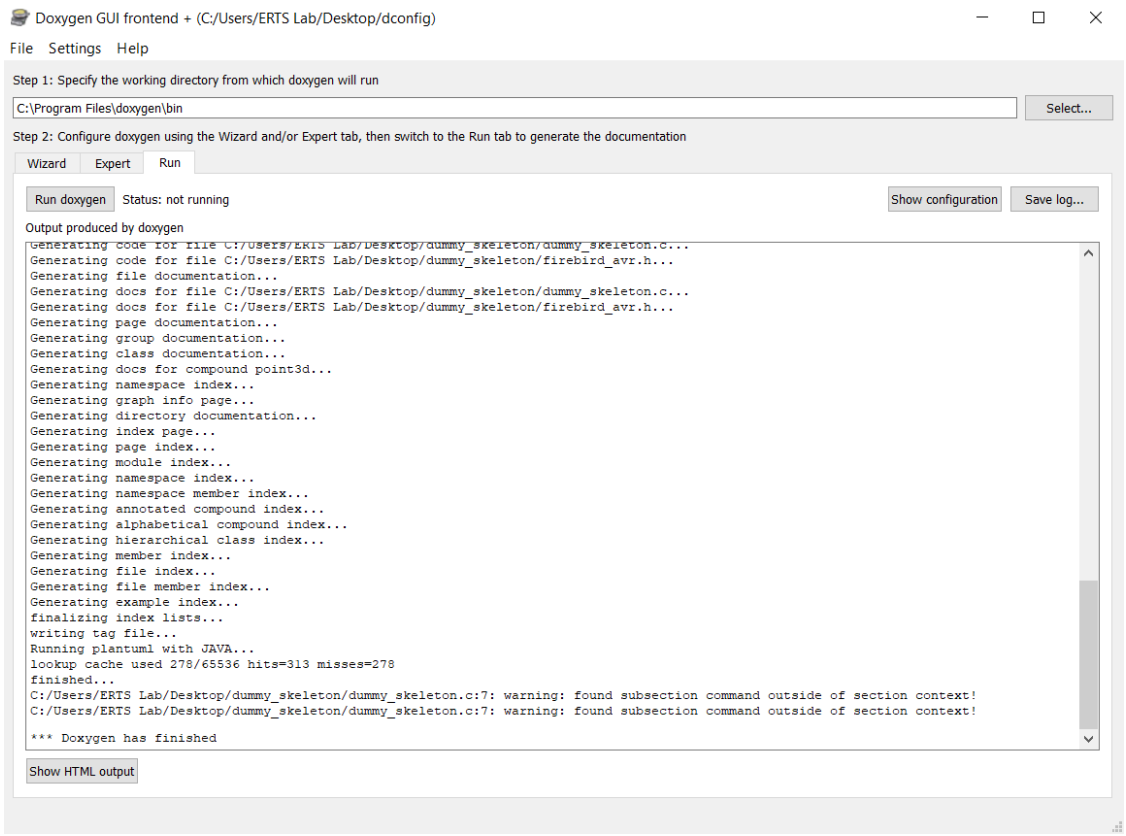


- Click on the **Select..** button below the **Step 1** where we have to specify the path of Doxygen installation. It will be like this: "**C:\Program Files\doxygen\bin**".

- Click on the **Select..** button to specify the directory to scan for the **Source Code**, i.e. **dummy_skeleton.c**. Copy-paste just the **dummy_skeleton.c** and **firebird_avr.h** files to some new directory where only these two files are present. Browse to this directory to select the folder.
- Click on the **Select..** button to specify the directory where Doxygen should put the generated documentation. Select the same folder as you did for the above step.
- After this, you will something like this on the **Doxywizard**:



- Go to the **Run** tab and click **Run doxygen**. Once the documentation is generated, you will see the following logs which says: "**Doxygen has finished**".



- A folder **html** will be generated inside the **Source Code** directory which consists of the documentation in **HTML** format. You can open the **index.html** file to view the documentation.