

Using madx on Windows

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This document includes some brief guidance and help on how to run `madx` on Windows for students who are unfamiliar with command-line tools (like `madx`) and programs in a Windows environment. Please note that 64-bit Windows is required; if you have 32-bit Windows, please work with a partner for these labs.

1 Installation

- Create a `madx` working folder on your desktop
- Open <https://madx.web.cern.ch/madx/releases/last-rel/> in a browser
- Download `madx-win64-gnu.exe` and move it to the desktop `madx` directory. Rename this file to `madx.exe`; it is a self-contained executable.
- You will also want to install `ghostscript` to be able to display Postscript (`.ps` extension) files if you do not already have a Postscript viewer. An open source licensed version of `ghostscript` is available at <https://ghostscript.com/releases/gsdnld.html> (`Ghostscript 10.02.1 for Windows (64 bit)`).

2 Command Prompt

- `madx` runs only on the command-line, both for portability and because its historic predecessors are older than Windows. Hence to you use it on Windows, you have to open and get used to navigating around in a Command Prompt. The command prompt has a current directory much like a file browser; it shows you the current directory as part of the prompt. Here are some useful (typed) commands in Command Prompt:
 - **dir**: list the files in the current directory.
 - **cd**: “change directory”. Just typing “`cd`” prints the current directory. Generally you will be able to type “`cd Desktop/madx`” from a new Command Prompt to get into the `madx` directory created above.
 - Running `madx` from the Command Prompt is covered in the Usage section below.
 - Everything else (opening output files, inspecting them with `TextEdit` etc) you should be able to do with the regular Windows GUI file browser.
 - When doing the lab, you should download and move `.madx` files to this `Desktop/madx` directory. This directory is called the “working directory” in the lab notes; it is the place where you run `madx` and where output files also appear.

3 Usage

- Open Command Prompt
- “cd” into the madx working directory: `cd Desktop/madx`
- run madx: `madx < inputfile.madx` where the inputfile is replaced by the name of the file from the lab, e.g. `rhicfodo.madx`
- Alternatively you can also just run `madx` and type `call file='filename';` — be careful to include the semicolon! You should see lots of typed output. If you do not get this or see errors, talk to us and we will help you.
- Optionally type `dir` in the command prompt to see if new output files have appeared.
- Navigate into the `madx` directory with a file; you can open `.ps` files with `ghostscript`, and `.madx` and other text files with a text editor.