

LD_LIBRARY_PATH in Mathematica

Emanuele

[2023-02-09 Thu]

When using **Mathematica** from the command line it is not possible to get a plot in a straightforward way; the command `Plot`, for example, replies with `Graphics` instead of actually producing a figure.

```
In[1] := Plot[Sin[x], {x, 0, Pi}]
```

```
Out[1] = -Graphics-
```

One possible way to circumvent this limitation is to export the plot as a `.png` and call a viewer from the **Mathematica** session. I tried out such a solution as described for example here: <https://mathematica.stackexchange.com/questions/121526/> but it did not give the correct result in my case (Ubuntu laptop) because `display` does not work properly when called from **Mathematica** (although it works fine when called from the command line). This is due to the fact that, as I discovered after some fumbling, **Mathematica** redefines `LD_LIBRARY_PATH`, hence confusing `display`.

The solution I found is to reset `LD_LIBRARY_PATH` when launching `display`. For example

```
g = Plot[Sin[x], {x, 0, Pi}]
Export[g, "g.png"]
Run["display g.png"]
```

does not work but

```
g = Plot[Sin[x], {x, 0, Pi}]
Export[g, "g.png"]
Run["export LD_LIBRARY_PATH=''; display g.png"]
```

works as expected (and can be automatized using the code in the link above).