Debugging

Useful commands for GDB

1)

```
eu-srcfiles -e /mnt/c/Users/FranciscoMerinoAdmin/Downloads/RTOSDemo1.elf
```

Shows the source files in the elf. GDB expects the source files in those locations.

2)

```
set substitute-path /root/FreeRTOS/FreeRTOS/Demo/ThirdParty/Partner-Supported-Demos/RISC-V_cva6 /tmp/FreeRTOS/FreeRTOS/Demo/ThirdParty/Partner-Supported-Demos/RISC-V_cva6
```

Replaces the first path in the elf (where .c files have been compiled from), with the second path (actual location of the .c files in the machine where debugging is done.

https://sourceware.org/gdb/current/onlinedocs/gdb.html/Source-Path.html

Also useful command may be “directory dirname”

3)

```
info registers
```

Shows the value of all registers

```
set $pc += 4
```

Add 4 to the PC

Useful commands for GCC

1)

```
gcc -x c -v -E /dev/null
```

Prints the options and configuration that was used to build that gcc

Useful commands for Serial

1)

```
minicom -b 115200 -D /dev/ttyUSB0
```

Connects to uart at 115200bps

2)

```
lsusb
```

Lists the current usb devices that are available

3) In PowerShell

```
winget install usbipd
```

Installs usbipd

```
usbipd list
```

Lists all the usb devices available

```
usbipd bind --busid 4-1

usbipd bind --busid 4-2
```

Binds these usb devices

```
usbipd attach --wsl --busid 4-1

usbipd attach --wsl --busid 4-2
```

Attach the usb devices to WSL, so they can be used from WSL. These devices will not be available anymore from Windows.

Maybe you need to shutdown WSL before running these commands (

```
wsl --shutdown
```

).