The Edger 0.2 Console

- The future 0.2.0 release of Edger will offer built in support for a command console that uses the ESP32 USB serial connection.

- While in the edger "ant" subdirectory and after an "idfexport" the console is accessed with the command "idf.py monitor". Use control] to escape back to the shell..

Starting the console

```
psoper@len:~/workspace/esp32/edgertest/ant$
psoper@len:~/workspace/esp32/edgertest/ant$
psoper@len:~/workspace/esp32/edgertest/ant$
psoper@len:~/workspace/esp32/edgertest/ant$ idfexport; idf.py monitor
```

Console startup

Type a space or cmd in <10 seconds

```
I (299) cpu_start: Project name:      edger
I (304) cpu_start: App version:       v0.1.0-4-g2216804-dirty
I (310) cpu_start: Compile time:      Sep 20 2023 09:50:37
I (316) cpu_start: ELF file SHA256:   3a561c3a1481019e...
I (322) cpu_start: ESP-IDF:           v4.4
I (327) heap_init: Initializing. RAM available for dynamic allocation:
I (334) heap_init: At 3FC9BCF0 len 00024310 (144 KiB): DRAM
I (340) heap_init: At 3FCC0000 len 0001F060 (124 KiB): STACK/DRAM
I (347) heap_init: At 5000002C len 00001FD4 (7 KiB): RTCRAM
I (354) spi_flash: detected chip: generic
I (358) spi_flash: flash io: dio
I (362) sleep: Configure to isolate all GPIO pins in sleep state
I (369) sleep: Enable automatic switching of GPIO sleep configuration
I (376) cpu_start: Starting scheduler.
I (380) ../main/esp_rest_main.c:   Reset due to power-on event.
I (380) example: Command history disabled
register_wifi called

This is an example of ESP-IDF console component.
Type 'help' to get the list of commands.
Use UP/DOWN arrows to navigate through command history.
Press TAB when typing command name to auto-complete.
Press Enter or Ctrl+C will terminate the console environment.
esp32c3> 
```

Help

```
esp32c3>  help
#help
  Print the list of registered commands

free
  Get the current size of free heap memory

heap
  Get minimum size of free heap memory that was available during program execu
  tion

version
  Get version of chip and SDK

restart
  Software reset of the chip

deep_sleep  [-t <t>]
  Enter deep sleep mode. Timer wakeup mode is supported. If no wakeup option i
  s specified, will sleep indefinitely.
  -t, --time=<t>  Wake up time, ms
```

More help

```
light_sleep  [-t <t>] [--io=<n>]... [--io_level=<0|1>]...
    Enter light sleep mode. Two wakeup modes are supported: timer and GPIO. Mult
    iple GPIO pins can be specified using pairs of 'io' and 'io_level' arguments
    . Will also wake up on UART input.
    -t, --time=<t>  Wake up time, ms
        --io=<n>  If specified, wakeup using GPIO with given number
    --io_level=<0|1>  GPIO level to trigger wakeup

join  [--timeout=<t>] <ssid> [<pass>]
    Join WiFi AP as a station
    --timeout=<t>  Connection timeout, ms
        <ssid>  SSID of AP
        <pass>  PSK of AP

scan
    look for ssid
```

Command Notes

- The sleep commands for debugging custom Ant firmware to use sleep states for power savings.

- The join command will be an additional way to configure WIFI parameters with version 0.2 and the timeout parameter can be used to optimize startup time.

- The scan command can confirm that the Edger system is accessible from the user's computer for assurance that Aardvark or web access scripts will work properly.

- To immediately resume system startup hit "enter" by itself.