Code Composer Studio IDE and Piccolo LaunchPad – Some Basic Info

IDE = Integrated Development Environment
(based on Eclipse open s/w)

It includes:

- text editor
- compiler
- linker
- debugger[1]
- grapher
- profiler[2]
- Flash programmer
- graphical user interface designer (GUI Composer)

IDE has two main Views (Perspectives):

1. *Edit* View – views and menus used for code development

2. *Debug* View – views and menus used for executing and debugging

Emulator chip interfaces the PC USB port to the μC JTAG port.

USB

+5V, gnd, ±data

Emulator

J
T
A
G

μC

text
LaunchPad

---
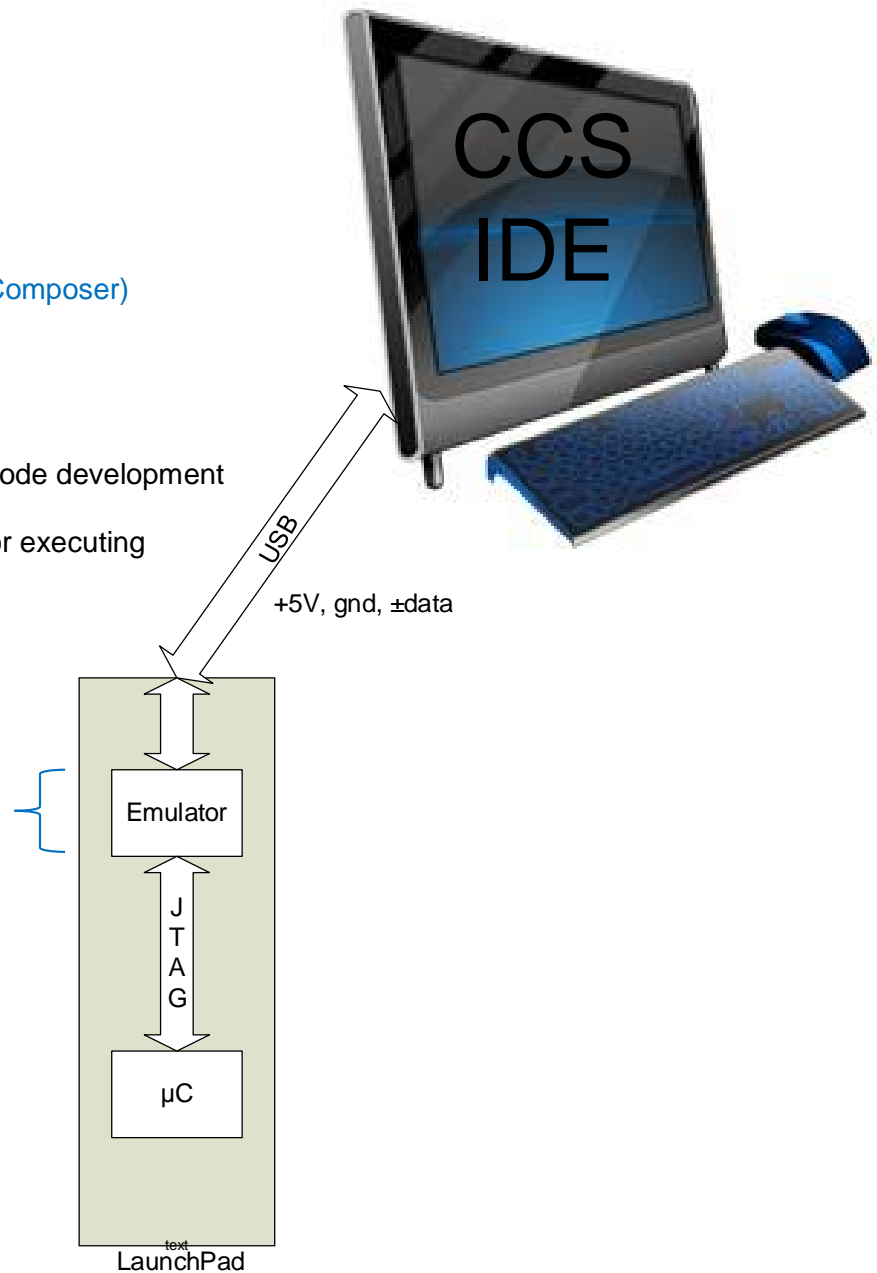
[1] Can invoke "Real-Time" mode.
[2] Can measure CPU usage, memory usage.

Processor Memory Section Allocations

(Specified by Linker Command File, e.g. 28027_RAM_lnk.cmd)

Type	Name of Section	Used For	Memory when Stand-Alone	Memory when Debugging
initialized	.text	code	Flash	RAM
	.cinit	initial values of global and static variables	Flash	RAM
uninitialized	.ebss	global variables	RAM	RAM
	.stack	local variables, context state	RAM	RAM

Example of Code and Corresponding Memory Sections

initial values of
global and static variables
(.cinit)

global variables
(.ebss)

```
int   x = 5;

int   y = 6;

void main(void)

    {

    int   z;

    z = x + y;

    }
```

code
(.text)

local variables,
context
(.stack)