TI C6x DSP Getting Started – Links and References

C6000 Training Videos

Topic	Chapter/Lab	Wiki Videos	Download
Intro to C6000 Architecture	Overview (0:13)	Link	Download
	Chapter (1:43)	Link	Download
C6000 Optimizations - Using the C Compiler/Optimizer	Overview (0:29)	Link	Download
	Part 1 (1:10)	Link	Download
	Part 2 (1:01)	Link	Download
	LAB (1:23)	Link	Download
C6000 Cache	Overview (0:15)	Link	Download
	Part 1 (0:22)	Link	Download
	Part 2 (0:33)	Link	Download
	Part 3 (0:47)	Link	Download
	LAB (0:30)	Link	Download
Using EDMA3	Overview (0:21)	Link	Download
	Part 1 (1:05)	Link	Download
	Part 2 (0:29)	Link	Download
	Part 3 (0:32)	Link	Download

Slide set of above training material is available here

If there is any issue in accessing above links – please refer below link

https://training.ti.com/c6000-embedded-design-workshop

Key C6000 Manuals

	C64x/C64x+	C674	C66x
CPU Instruction Set Ref Guide	SPRU732	SPRUFE8	SPRUGH7
Megamodule/Corepac Ref Guide	SPRU871	SPRUFK5	SPRUGW0
Peripherals Overview Ref Guide	SPRUE52	SPRUFK9	N/A
Cache User's Guide	SPRU862	SPRUG82	SPRUGY8
Programmers Guide	SPRU198		SPRA198 SPRAB27

DSP/BIOS Real-Time Operating System

SPRU423 - DSP/BIOS (v5) User's Guide

SPRU403 - DSP/BIOS (v5) C6000 API Guide

SPRUEX3 - SYS/BIOS (v6) User's Guide

Code Generation Tools

SPRU186 - Assembly Language Tools User's Guide

SPRU187 - Optimizing C Compiler User's Guide

To find a manual, at www.ti.com and enter the document number in the Keyword field:

or…

www.ti.com/lit/<litnum>

New beginners – Guidelines/Steps

- Listen to C6000 architecture and optimization video (you can avoid Cache and EDMA3 to understand in-depth as a first step)
- Read following documents
  - Optimizing C Compiler User's Guide - SPRU187
  - Optimizing Loops on the C66x DSP app note – sprabg7
  - C6000 optimization app note - sprabf2
  - A Tutorial on Optimizing Vision Algorithms on TI DSPs – spna165
- Start practicing this knowledge in your work – at this stage if you can utilize the knowledge properly, the compute part of your work should be optimal enough
- Now you can understand advanced concepts such as Cache/EDMA3 in-depth
- Practice EDMA3/Cache to avoid system overhead of your algorithms