P.E.S. UNIVERSITY

Department of Electronics and Communication Engineering

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PRINCIPLE OF DIGITAL SIGNAL PROCESSING

Procedure for Non-Real Time experiments

* Double click on **Code Composer Studio 6.2.0**, then click on **OK**
* Go to **View** > **Target Configuration** , click on it
* Then come to **CCS Edit** mode > right click on **User Defined >** then select **New Target Configuration**.
* Then give name as My\_Target.ccxml
* Then a window by the name **Basic** appears.
* Then in the **Connection :** **Texas Instruments XDS100v3 USB** **Debug Probe** select it.
* Then in the **Board or Device > LCDKC6748**
* Then under Save Configuration **Save**
* Now under Test Configuration **Test Connection**

At this moment, your DSP board should be turned on.

Then a window appears, in that window at the end:

**“The JTAG DR Intergrity scan-test has succeeded”** appears.

* Now make sure you are in **CCS Edit** mode. Under User Defined tap select **My\_Target.ccxml** and right click and select **Set as Default**. Then, again right click on **My\_Target.ccxml** and click on

**Launch Selected Configuration** .

* Then come to **CCS Edit** mode.
* Then click on **Project** > **New CCS Project**. A window appears. In that window:

Target: **C674x Floating-point DSP LCDKC6748**

Connection **Texas Instruments XDS100V3 USB Debug Probe** > **Verify**

Project name: **India**

Then click on **Verify**.

Then a message “The JTAG DR Integrity scan-test has succeeded” appears

Then click on **Finish**

* Now do the following settings:

New ccs project > CCS Project

Create a new CCS Project

Target: c674x Floating-point DSP LCDKC6748

Connection: Texas Instruments XDS100V3 USBDebug Probe

Project name : india

Compiler version : TI v8.2.2

Advanced settings {expand the dropdown arrow}

Output type : Executable

Output format: eabi (ELF)

Device endianness: little

Linker command file: c6748.cmd

Runtime support library: rts64plus\_elf.lib

Project templates and examples

Empty project (with main.c)

Then click on **Finish**

* Then in project browser > in main.c type

*#include<stdio.h>*

*int main(void){*

*printf(“\n HELLO INDIA”);*

*return 0*

* Go to Project > Build All
* Go to CCS Debug Mode at the right corner
* Go to RUN > Debug
* Go to Run > Resume. Then a message, HELLO INDIA appears on the console
* To stop got to Run > Terminate.
* To come to console there is an icon on the right, click on it
* To display the Graph go to

Tools > Graph > Single Time

Data Properties

|  |  |
| --- | --- |
| Acquisition Buffer Size | 10 |
| DSP Data type | 32-bit floating point |
| Index increment | 1 |
| Sampling rate(in Hz) | 1 |
| Start Address | y { As in impulse response program O/P is stored in variable “y” |
| Axius display | True |
| Data plot size | Bar |
| Display Data size | 10 |
| Grid Style | Major Grid |
| Magnitude Display Scale | Linear |
| Use Dc value for Graph | False |