

ReadMe for Introduction to DSP56800E Family

Code

In the **Section3_DAN_Lab2** folder, there are folders corresponding to each example in Lab2. Select the corresponding folder example you want to see.

Information of Folder-names in **Lab2** folder in **Section3_DAN_Lab2**, that aren't clear

- **Example3_1** :Code to store Decimal Value of 100000 in A
- **Example8_1** :Code to access 2,3,4,5 using MOVE.BP and @lb(value)
- **Example12_1** :Code to calculate Fractional Multiplication b/w $\frac{5}{2^{13}}$ and $\frac{5}{2^{13}}$
- **Example15_1** :Code which has TEST_VAR initialized as 5
- **Example15_2** :Code which uses BNE to calculate the following statement:

```
if(x==3)
x++;
else
x--;
```
- The Rest of the Folders are in-accordance with the examples mentioned in the lab_2 manual

Procedure to Open the File : (Say of Example 5)

- Download the **Section3_DAN_Lab2** zip folder and unzip it in whichever location you prefer. (Say in **Documents**)
- Go to **VMware Workstation 14 Player>Windows>Start>Freescale CodeWarrior IDE**
- Once Freescale CodeWarrior IDE opens, go to **File>Open-** Select **Documents>Section3_DAN_Lab2>Lab2>Example5>Example5** and click Open.
- In the right-hand side, under the 'Files' tab, you can see a '**code**' folder, click on the 'plus' button, and then double-click **main.asm**, and your program should open.

Procedure to Run the File :

- Go to the **Project** tab, and click **Make**. There shouldn't be any errors.
- Apply **Breakpoint** at **two** points- Usually just after Fmain and at rst.
- Go to **Edit>Idm Settings..** Then under Target Setting Panels, go to **Debugger> Remote Debugging**. Then in Connections Settings, in Connection, in the drop-down menu, select **56800E Simulator**. This is so that we can enable Instruction count/cycle for our program, and so that you can debug your program. ***Do this every-time you open a new program.***
- Again go to the **Project** tab, click **Debug**. You will enter an **Idm.elf thread window**.

- *(If you want to check Cycle/Instruction count)* Go to the **DSP 56800E tab**, which becomes visible only after you debug, and click on **Display Cycle/Instruction count**, and hit **Reset**, so that both become 0.
- Click the **green triangle** in the Idm.elf thread debug window (**Run**). You will see a blue arrow shift through the code. Keep clicking on the run button till the arrow reaches the last breakpoint (at return 0).
- *(If you want to check Cycle/Instruction count)* Check the Instruction count/cycle by going again to the DSP 56800E tab and clicking on **Display Cycle/Instruction count** as before. You will see the Machine cycles and Machine Instructions simulated in the tab.
- To check the values out for the variables, go to the **Data** tab, and click on **View Memory**. Type in the variable name whose values' you would want to see, and you will witness the values in hexadecimal.
- To check out the **Register** values, go to **View>Registers** or **View>Register Details**
- Click on **Debug-Kill** or the **Red cross** in the Idm.elf thread debug window to kill the process. You have to do this every-time you finish debugging.