

EE 433 Real-time Applications of Digital Signal Processing

PROJECT IMPLEMENTATION

RUNNING A C CODE IN LABVIEW

In your project, you will use a computer and prepare a program using LabVIEW and C. The main function of LabVIEW program is to call a shared library which is coded in C. The C program is the shared library that is coded using LabWindows/CVI development environment since you will need to call a DLL function in Windows environment. If the code is to be run in MyRIO, you would need to compile a shared object file, or .so file since myRIO has NI Linux Real-Time operating system. Once you have obtained the .dll file in your computer, you will call it in LabVIEW by appropriately defining the parameters, inputs, etc. The details of running a C code under LabVIEW are given in the following references.

1) An Overview of Accessing DLLs or Shared Libraries from LabVIEW-DevZone Article

2) Writing Win32 Dynamic Link Libraries (DLLs) and Calling Them from LabVIEW

<http://www.ni.com/white-paper/4877/en/>

3) <https://www.youtube.com/watch?v=RBUw4bhm01E>, Video

4) Building a DLL with LabWindows/CVI 8.5 for use with LabVIEW 8.5

<http://www.ni.com/tutorial/7251/en/>

5) LabWindow/CVI Programmer Reference Manual

6) Using LabWindows/CVI DLLs in LabVIEW Real-Time ... - LabVIEW360