MMI 713 APPLIED PARALLEL PROGRAMMING ON GPU

NPP Assignment Guide

NppProject is created with default installations of Visual Studio Community 2017 and CUDA 9.0 . It takes the image “lena_before.pgm” and after processing, creates output image “lena_after.pgm” on the same location.

If you can’t open the Project, you can create a new one for your environment.

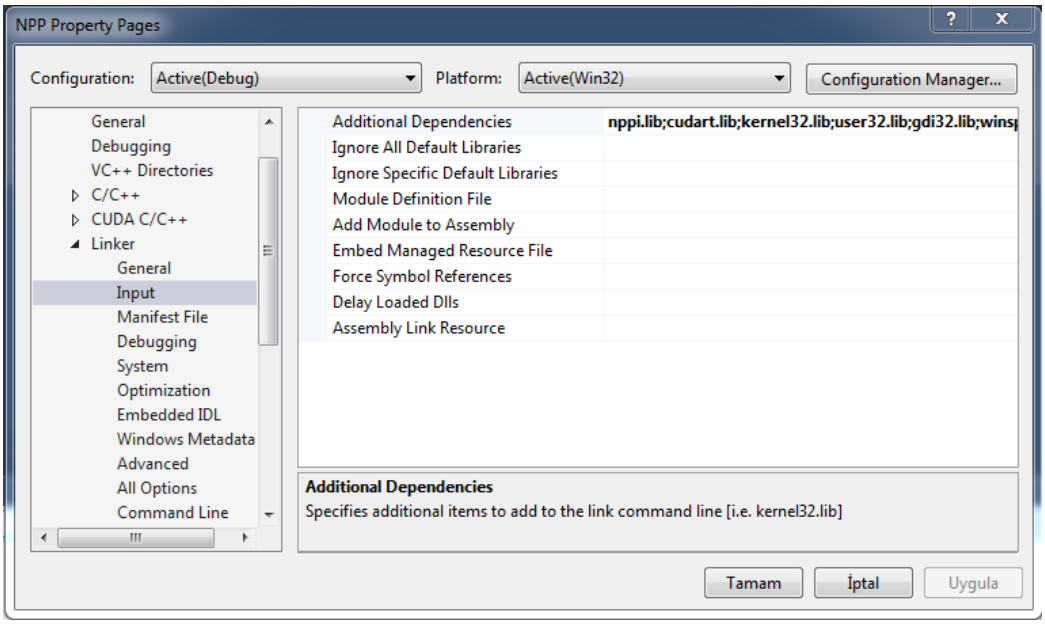
1. Create a CUDA project. (You can refer to Lab Tutorial)

2. Right click project/Properties/Linker/Input/Additional Dependencies

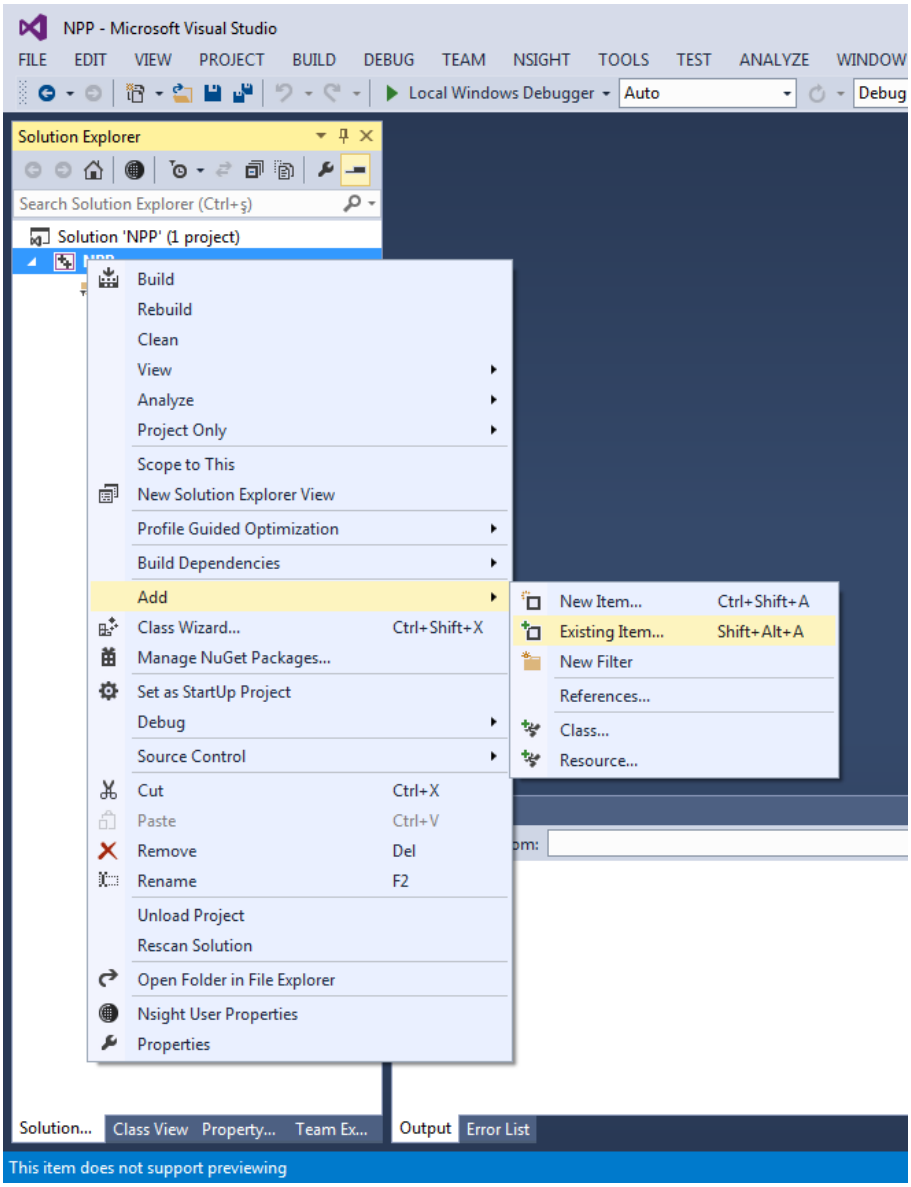
For CUDA 6.5-8.0, add “nppi.lib”

For newer versions, add “nppial.lib;nppicc.lib;nppicom.lib;nppidei.lib;nppif.lib;nppig.lib;nppim.lib;nppist.lib;nppisu.lib;nppitc.lib”

For older versions, add “npp.lib”



3. Add “main.cu” to your project (or simply create an empty “.cu” file and copy-paste the codes.)



4. When you run the code, if you see an error about missing nppi dll files, you should set the nppi dll file path. You can either manually search the dll files and copy them to your debug directory, or set the path in compiler.

In Visual Studio : Project->Properties->Debugging->Environment : “PATH=C:\Program Files\NVIDIA GPU Computing Toolkit\CUDA\v9.0\bin”