

Debugging MPI Application using Visual Studio 2008

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Visual Studio 2008 is very helpful in the debugging like

- 1-One can run debug Parallel job by opening screen for each process and that will make the debugging so easy.
- 2- One can change the code during debugging.

To make the VS 2008 Debug Parallel code:

Steps:

1. Right click on the project select **properties** then click on **configuration properties** then **Debugging**
2. From Debugger to launch select **MPI Cluster Debugger** as shown in figure (1)
3. In **MPIRun Command** put the path of "**mpiexec**" which is normally located in "**C:\Program Files\Microsoft HPC Pack 2008 SDK\Bin\mpiexec.exe**"
4. In **MPIRun Argument** put MPI argument like "**-machinefile, -n ,....**" Any MPI argument. We put **-np 4** to run the task on **4 processes**.
5. In **MPIRun working directory** put the path of the folder of the program that is written with **MPI**
6. In **Application Command** enter the path of the program.
7. If the program takes any arguments put them in **Application arguments**.
8. In **MPIShim location** enter that path "**C:\Program Files\Microsoft Visual Studio 9.0\Common7\IDE\Remote Debugger\x86\mpishim.exe**"
9. If you are running x64 bit application "**C:\Program Files\Microsoft Visual Studio 9.0\Common7\IDE\Remote Debugger\x64\mpishim.exe**".
10. Click **OK**

When you start debugging your program Visual studio will open 4 (because we have set it to 4, you can change it) windows one for each process as shown in figure (2).

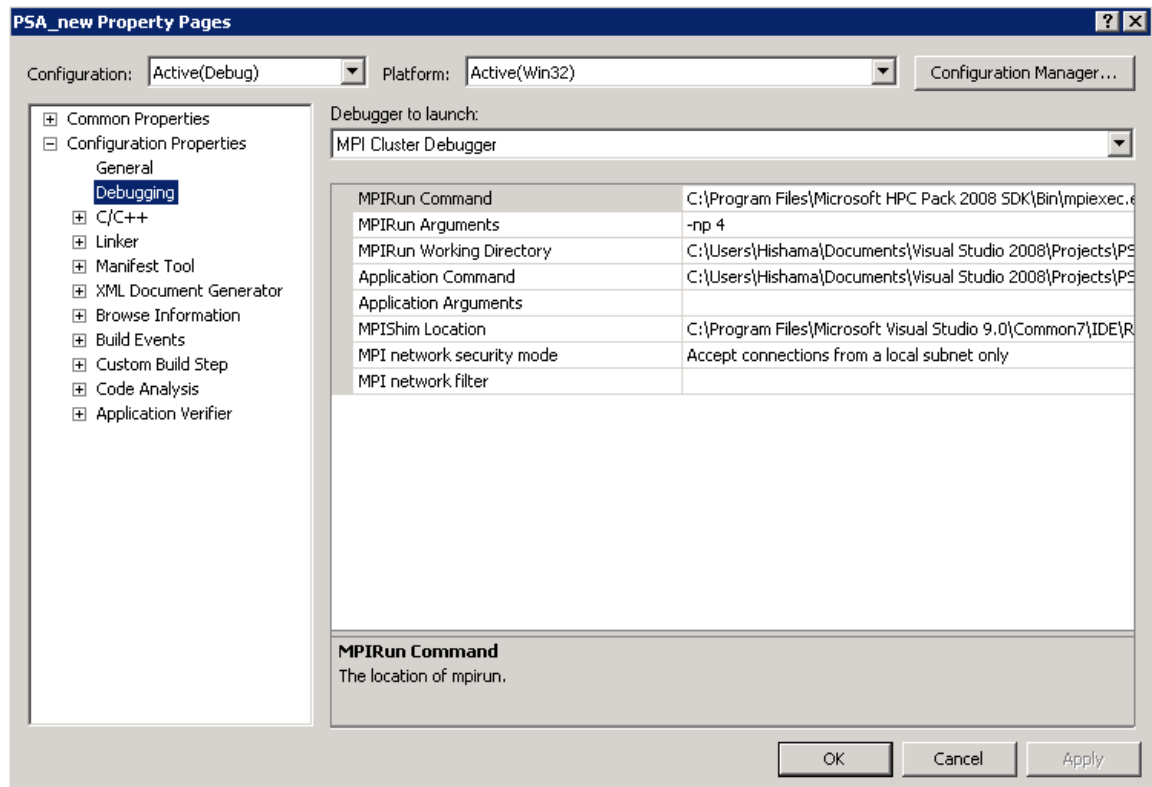


Figure 1 Debugging

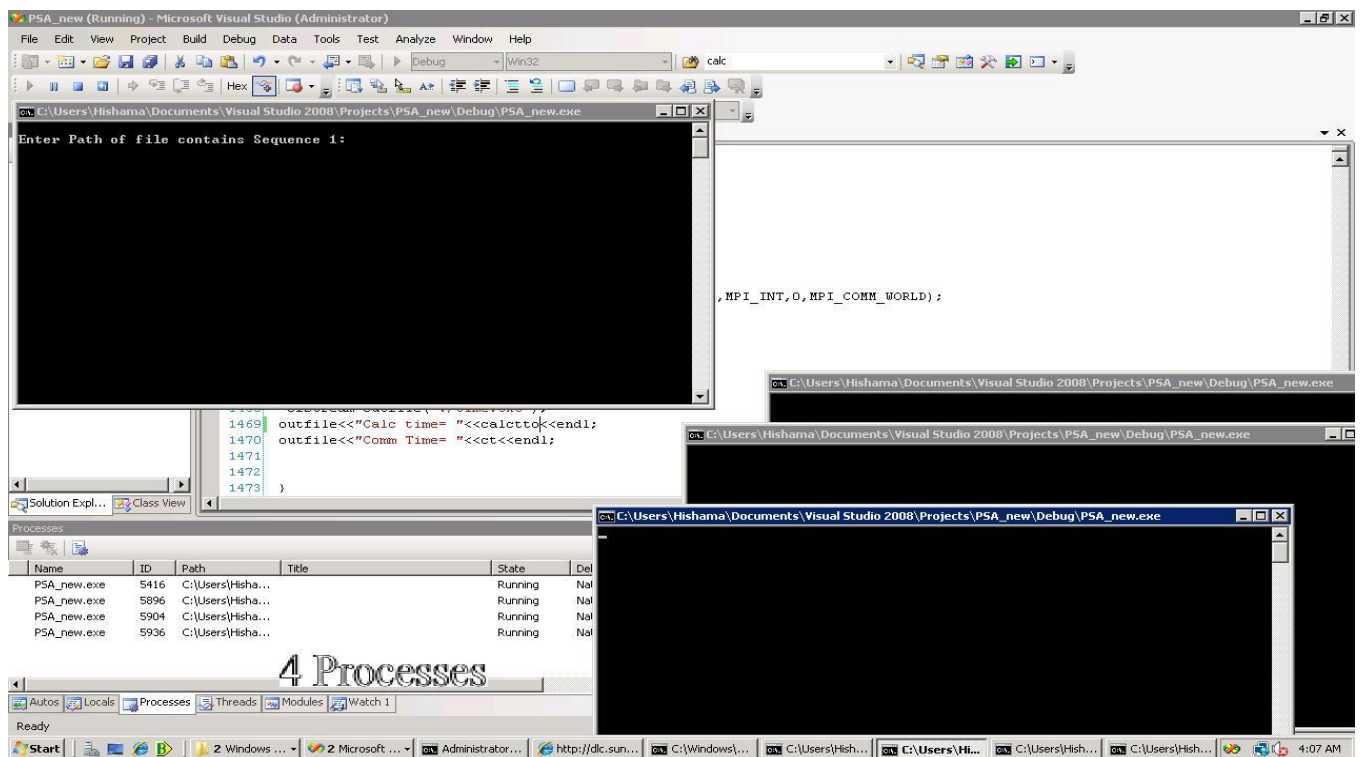


Figure 2 Debugging

